

## รายการอ้างอิง

1. ดร.ชำนาญ น้อยเกียรติ. เทคนิคการส่องสว่าง. กรุงเทพมหานคร : มหาวิทยาลัยเกษตรศาสตร์, 2540
2. กรมพัฒนาและส่งเสริมพลังงาน กระทรวงวิทยาศาสตร์ เทคโนโลยีและสิ่งแวดล้อม. คู่มือการอนุรักษ์พลังงานในอาคารครั้งที่ 1. กองอนุรักษ์พลังงาน, 2536
3. ดร.สุรพงศ์ จิระรัตนานนท์. การถ่ายเทความร้อนและการส่งผ่านกระจกในภูมิอากาศของไทย. กรุงเทพมหานคร : แผนกวิศวกรรมพลังงาน สถาบันเทคโนโลยีแห่งเอเชีย. 2539. (อัดสำเนา)
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ภาคผนวก



สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย



ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดที่ คอ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่วันที่ 14 ถึง 16 มกราคม 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation           |                          |                          |                          | Exterior Illumination |                  |                  |                  | สภาพท้องฟ้า        |
|--------|-------|---------------------------|--------------------------|--------------------------|--------------------------|-----------------------|------------------|------------------|------------------|--------------------|
|        |       | Horizontal<br>วัตต์/ตร.ม. | Hor-Shade<br>วัตต์/ตร.ม. | Ver-North<br>วัตต์/ตร.ม. | Ver-South<br>วัตต์/ตร.ม. | Horizontal<br>lux     | Hor-Shade<br>lux | Ver-North<br>lux | Ver-South<br>lux |                    |
| 14-Jan | 6:30  | 0.64738                   | 0.50678                  | 0.43794                  | 0.65413                  | 33                    | 33               | 24               | 35               | เมฆฝนต้ง, ฟ้าโปร่ง |
|        | 6:40  | 3.8843                    | 3.5472                   | 2.1899                   | 1.9625                   | 210                   | 210              | 184              | 215              |                    |
|        | 6:50  | 8.4153                    | 7.6018                   | 5.6937                   | 5.0876                   | 945                   | 945              | 605              | 735              | เมฆไปทึบ, ฟ้าสว่าง |
|        | 7:00  | 22.982                    | 19.763                   | 14.453                   | 11.774                   | 2200                  | 2050             | 1470             | 1010             |                    |
|        | 7:10  | 48.897                    | 34.461                   | 25.401                   | 25.513                   | 3600                  | 3250             | 2500             | 2200             |                    |
|        | 7:20  | 70.558                    | 40.076                   | 31.973                   | 37.288                   | 4600                  | 4100             | 3050             | 3600             |                    |
|        | 7:30  | 104.22                    | 46.624                   | 40.732                   | 54.591                   | 7400                  | 4950             | 4700             | 5000             |                    |
|        | 7:40  | 135.61                    | 54.221                   | 48.676                   | 62.796                   | 11100                 | 6150             | 5050             | 6300             |                    |
|        | 7:50  | 174.45                    | 63.844                   | 57.813                   | 75.552                   | 14600                 | 6700             | 5750             | 8250             |                    |
|        | 8:00  | 213.62                    | 62.831                   | 63.064                   | 89.616                   | 17000                 | 6500             | 6750             | 9350             |                    |
|        | 8:10  | 226.52                    | 65.871                   | 67.005                   | 100.07                   | 16100                 | 6550             | 6900             | 10700            | มีเมฆเล็กน้อย      |
|        | 8:20  | 283.86                    | 68.399                   | 74.451                   | 107.26                   | 21500                 | 7000             | 7310             | 10600            |                    |
|        | 8:30  | 322.64                    | 70.927                   | 78.83                    | 112.49                   | 17000                 | 7450             | 7900             | 12600            |                    |
|        | 8:40  | 354.97                    | 75.991                   | 83.209                   | 115.11                   | 31000                 | 8200             | 8400             | 13400            |                    |
|        | 8:50  | 392.83                    | 77.506                   | 86.706                   | 120.65                   | 35000                 | 8750             | 8700             | 14800            |                    |
|        | 9:00  | 432.24                    | 83.387                   | 89.333                   | 128.14                   | 36500                 | 9000             | 9000             | 15000            |                    |
|        | 9:10  | 481.41                    | 91.176                   | 95.894                   | 137.28                   | 45500                 | 9350             | 9300             | 15800            | เมฆใกล้หมด         |
|        | 9:20  | 515.99                    | 95.229                   | 98.6959                  | 138.57                   | 44000                 | 9500             | 9900             | 15600            |                    |
|        | 9:30  | 557.03                    | 97.241                   | 110.33                   | 138.55                   | 51000                 | 10100            | 10600            | 16200            |                    |
|        | 9:40  | 581.93                    | 92.174                   | 106.82                   | 143.77                   | 53000                 | 9450             | 10200            | 16800            |                    |
|        | 9:50  | 609.06                    | 101.32                   | 111.2                    | 151.6                    | 60000                 | 11200            | 10800            | 16900            | กลุ่มเมฆกระจาย     |
|        | 10:00 | 634.56                    | 91.154                   | 81.424                   | 115.02                   | 57500                 | 9650             | 10600            | 15600            | เมฆในภาคใต้        |
|        | 10:10 | 652.33                    | 92.666                   | 112.94                   | 137.26                   | 66000                 | 9900             | 11100            | 16000            |                    |
|        | 10:20 | 686.95                    | 99.249                   | 116.87                   | 142.41                   | 64000                 | 10500            | 11300            | 16900            |                    |
|        | 10:30 | 723.76                    | 101.27                   | 118.31                   | 149.61                   | 70500                 | 10300            | 12000            | 16900            |                    |
|        | 10:40 | 746.34                    | 108.35                   | 127.38                   | 156.79                   | 76000                 | 11400            | 12000            | 17200            |                    |
|        | 10:50 | 816.51                    | 144.29                   | 115.99                   | 116.28                   | 78000                 | 13500            | 9300             | 15700            |                    |
|        | 11:00 | 804.16                    | 128.56                   | 140.93                   | 156.12                   | 78000                 | 12700            | 13500            | 17500            | เมฆในภาคใต้        |
|        | 11:10 | 799.57                    | 118.97                   | 134.8                    | 151.2                    | 79500                 | 12600            | 12900            | 18200            |                    |
|        | 11:20 | 801.06                    | 108.33                   | 130.41                   | 142.37                   | 76500                 | 11400            | 12300            | 16600            |                    |
|        | 11:30 | 854.83                    | 145.79                   | 105.02                   | 106.14                   | 75500                 | 13300            | 8350             | 12300            | เมฆในภาคใต้        |
|        | 11:40 | 865.78                    | 156.91                   | 136.15                   | 133.09                   | 76000                 | 13900            | 11300            | 13900            | เมฆในภาคใต้        |
|        | 11:50 | 794.72                    | 138.18                   | 134.79                   | 144.71                   | 67500                 | 14800            | 13500            | 15300            | เมฆในภาคใต้        |
|        | 12:00 | 917.83                    | 156.78                   | 156.21                   | 133.56                   | 85000                 | 14900            | 17000            | 17100            |                    |
|        | 12:10 | 162.28                    | 120.47                   | 94.447                   | 103.19                   | 19100                 | 12900            | 9750             | 16200            | เมฆในภาคใต้หมด     |
|        | 12:20 | 891.57                    | 129.58                   | 159.28                   | 154.12                   | 83500                 | 13300            | 14600            | 17900            |                    |
|        | 12:30 | 191.07                    | 140.7                    | 88.383                   | 136.49                   | 21500                 | 14500            | 12100            | 16700            | เมฆในภาคใต้หมด     |
|        | 12:40 | 192.99                    | 125.52                   | 87.073                   | 104.16                   | 20000                 | 14100            | 9250             | 13400            | เมฆในภาคใต้หมด     |
|        | 12:50 | 890.6                     | 125.53                   | 157.52                   | 108.41                   | 84000                 | 13100            | 14300            | 17000            |                    |
|        | 13:00 | 894.8                     | 145.76                   | 150.52                   | 149.55                   | 88000                 | 14900            | 12600            | 16000            |                    |
|        | 13:10 | 832.08                    | 110.33                   | 139.14                   | 140.41                   | 82000                 | 12900            | 12600            | 15500            |                    |
|        | 13:20 | 427.03                    | 80.98                    | 104.14                   | 138.45                   | 42000                 | 9900             | 12000            | 15000            | เมฆในภาคใต้หมด     |
|        | 13:30 | 807.52                    | 96.163                   | 133.02                   | 138.45                   | 76500                 | 10600            | 12300            | 15100            |                    |
|        | 13:40 | 813.66                    | 91.608                   | 102.82                   | 94.694                   | 80000                 | 8900             | 7650             | 12300            | เมฆในภาคใต้        |
|        | 13:50 | 711.63                    | 85.022                   | 121.63                   | 151.18                   | 64500                 | 9100             | 10800            | 15300            | เมฆในภาคใต้        |
|        | 14:00 | 733.49                    | 82.029                   | 122.08                   | 204.63                   | 69500                 | 9150             | 11200            | 14300            |                    |
|        | 14:10 | 722.82                    | 83.064                   | 121.63                   | 140.73                   | 67500                 | 9300             | 10900            | 14500            |                    |
|        | 14:20 | 716.03                    | 76.931                   | 119.89                   | 140.41                   | 68500                 | 8600             | 11300            | 14200            |                    |
|        | 14:30 | 671.75                    | 61.747                   | 112                      | 138.45                   | 62500                 | 8150             | 10800            | 14200            |                    |
|        | 14:40 | 639.42                    | 73.894                   | 106.75                   | 137.8                    | 55000                 | 8400             | 10400            | 14300            |                    |
|        | 14:50 | 622.9                     | 70.851                   | 112.02                   | 138.45                   | 54000                 | 7950             | 10200            | 14100            |                    |
|        | 15:00 | 553.11                    | 66.808                   | 112.88                   | 139.1                    | 54000                 | 7350             | 9900             | 14200            |                    |
|        | 15:10 | 565.71                    | 63.771                   | 109.39                   | 134.53                   | 48000                 | 7200             | 9650             | 13500            |                    |
|        | 15:20 | 549.23                    | 61.747                   | 106.76                   | 131.27                   | 46500                 | 6750             | 9650             | 12700            |                    |
|        | 15:30 | 504.29                    | 59.71                    | 103.26                   | 123.43                   | 46500                 | 6700             | 9150             | 12400            |                    |
|        | 15:40 | 468.09                    | 55.678                   | 99.762                   | 99.265                   | 40500                 | 6200             | 8900             | 11900            |                    |
|        | 15:50 | 440.91                    | 55.628                   | 85.76                    | 104.49                   | 29000                 | 6650             | 8700             | 11300            |                    |
|        | 16:00 | 404.08                    | 52.641                   | 78.759                   | 87.517                   | 27000                 | 6300             | 7700             | 9900             |                    |
|        | 16:10 | 360.41                    | 43.53                    | 68.264                   | 58.132                   | 26000                 | 6550             | 7100             | 7200             |                    |
|        | 16:20 | 329.11                    | 46.061                   | 60.387                   | 55.519                   | 26000                 | 6250             | 6750             | 6750             |                    |
|        | 16:30 | 286.14                    | 46.567                   | 63.016                   | 52.907                   | 17200                 | 5900             | 6550             | 6350             |                    |
|        | 16:40 | 241.52                    | 42.418                   | 57.761                   | 48.334                   | 14300                 | 5650             | 5950             | 6200             |                    |
|        | 16:50 | 206.6                     | 40.493                   | 43.762                   | 44.415                   | 10600                 | 5400             | 5850             | 5750             |                    |
|        | 17:00 | 167.16                    | 36.447                   | 28.835                   | 39.19                    | 6950                  | 4650             | 5030             | 5000             |                    |
|        | 17:10 | 134.82                    | 33.412                   | 42.887                   | 34.618                   | 7550                  | 4200             | 4450             | 4500             |                    |
|        | 17:20 | 86.033                    | 27.844                   | 32.387                   | 27.435                   | 5050                  | 3550             | 3350             | 3150             |                    |
|        | 17:30 | 39.271                    | 18.731                   | 19.257                   | 18.294                   | 3000                  | 2400             | 2200             | 2250             |                    |
|        | 17:40 | 21.341                    | 13.162                   | 12.234                   | 12.086                   | 2050                  | 1680             | 1460             | 1370             |                    |
|        | 17:50 | 11.641                    | 8.1013                   | 7.8791                   | 7.1972                   | 1170                  | 915              | 835              | 780              |                    |
|        | 18:00 | 5.4978                    | 4.0506                   | 3.9306                   | 3.3269                   | 650                   | 520              | 415              | 370              |                    |

ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดที่ คอ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่ วันที่ 14 ถึง 16 มกราคม 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation         |                        |                        |                        | Exterior Illumination |                 |                 |                 | สภาพท้องฟ้า               |
|--------|-------|-------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------|-----------------|-----------------|---------------------------|
|        |       | Horizontal<br>วัดที่คาน | Hor-Shade<br>วัดที่คาน | Ver-North<br>วัดที่คาน | Ver-South<br>วัดที่คาน | Horizontal<br>lx      | Hor-Shade<br>lx | Ver-North<br>lx | Ver-South<br>lx |                           |
| 14-Jun | 6:30  | 0.97106                 | 1.0135                 | 0.43812                | 0.65392                | 40                    | 40              | 24              | 33              | มีกลุ่มเมฆชั้นต่ำท้องฟ้า  |
|        | 6:40  | 0.97106                 | 1.0136                 | 0.43812                | 0.65392                | 151                   | 151             | 90              | 116             | ดวงอาทิตย์ขึ้นและมีเมฆบาง |
|        | 6:50  | 4.85533                 | 4.5611                 | 2.6287                 | 2.6159                 | 540                   | 510             | 315             | 415             | หมอกหนา                   |
|        | 7:00  | 20.392                  | 18.753                 | 10.954                 | 10.464                 | 1840                  | 1680            | 990             | 765             |                           |
|        | 7:10  | 36.584                  | 34.464                 | 20.157                 | 18.313                 | 3450                  | 3250            | 1840            | 1470            |                           |
|        | 7:20  | 57.95                   | 53.217                 | 30.674                 | 26.161                 | 5400                  | 5050            | 2950            | 2250            | เมฆบางดวงอาทิตย์          |
|        | 7:30  | 112.34                  | 78.058                 | 47.325                 | 47.744                 | 8500                  | 6850            | 4450            | 4550            | ท้องฟ้าโปร่ง              |
|        | 7:40  | 147.94                  | 75.01                  | 54.336                 | 67.364                 | 10400                 | 7050            | 4800            | 6630            |                           |
|        | 7:50  | 119.45                  | 29.572                 | 55.208                 | 50.36                  | 10800                 | 7600            | 4950            | 6050            |                           |
|        | 8:00  | 173.83                  | 95.283                 | 70.105                 | 80.445                 | 14400                 | 9150            | 6350            | 7550            |                           |
|        | 8:10  | 219.17                  | 113.53                 | 81.498                 | 90.255                 | 20500                 | 10500           | 7500            | 8600            |                           |
|        | 8:20  | 233.4                   | 115.56                 | 87.632                 | 102.02                 | 21000                 | 10900           | 8100            | 9300            |                           |
|        | 8:30  | 298.12                  | 131.27                 | 101.21                 | 121.97                 | 24500                 | 12400           | 8900            | 11800           |                           |
|        | 8:40  | 358.32                  | 147.97                 | 109.53                 | 132.09                 | 31500                 | 14100           | 10100           | 12800           |                           |
|        | 8:50  | 373.83                  | 160.64                 | 109.52                 | 134.7                  | 33500                 | 14400           | 9800            | 13800           |                           |
|        | 9:00  | 392.28                  | 175.84                 | 110.4                  | 139.27                 | 33500                 | 16500           | 9950            | 13800           |                           |
|        | 9:10  | 355.03                  | 161.24                 | 102.51                 | 138.93                 | 32500                 | 14900           | 9350            | 13900           | เมฆบางกระจายทั่วท้องฟ้า   |
|        | 9:20  | 317.81                  | 155.03                 | 77.097                 | 136.66                 | 29000                 | 13900           | 8500            | 14200           |                           |
|        | 9:30  | 375.06                  | 157.06                 | 101.62                 | 153.32                 | 34000                 | 14700           | 9150            | 15200           |                           |
|        | 9:40  | 418.43                  | 151.49                 | 100.74                 | 160.51                 | 38500                 | 13400           | 8300            | 16600           |                           |
|        | 9:50  | 482.5                   | 141.36                 | 104.69                 | 173.9                  | 43500                 | 13500           | 9750            | 18500           |                           |
|        | 10:00 | 562.71                  | 138.82                 | 114.75                 | 185.67                 | 54000                 | 13400           | 10700           | 19300           |                           |
|        | 10:10 | 524.2                   | 127.16                 | 106.87                 | 168.98                 | 45500                 | 11400           | 9950            | 17300           |                           |
|        | 10:20 | 564.65                  | 120.07                 | 109.5                  | 175.19                 | 53500                 | 10800           | 10400           | 17800           |                           |
|        | 10:30 | 696.35                  | 125.13                 | 125.26                 | 188.92                 | 65000                 | 12400           | 11800           | 18900           |                           |
|        | 10:40 | 749.36                  | 139.31                 | 134.01                 | 188.58                 | 68500                 | 13500           | 12400           | 19200           |                           |
|        | 10:50 | 706.26                  | 142.85                 | 126.99                 | 175.82                 | 66000                 | 13600           | 11900           | 17900           | มีเมฆบางมีดวงอาทิตย์      |
|        | 11:00 | 714.68                  | 139.3                  | 131.31                 | 177.12                 | 70500                 | 13600           | 12300           | 17600           |                           |
|        | 11:10 | 778.41                  | 135.23                 | 138.37                 | 177.11                 | 76500                 | 12900           | 12800           | 17500           |                           |
|        | 11:20 | 783.85                  | 136.76                 | 139.24                 | 176.46                 | 72000                 | 13500           | 13000           | 18000           |                           |
|        | 11:30 | 765.41                  | 143.33                 | 133.98                 | 168.6                  | 71000                 | 14400           | 12600           | 17300           |                           |
|        | 11:40 | 760.45                  | 144.85                 | 136.59                 | 171.2                  | 74000                 | 14800           | 12500           | 17200           |                           |
|        | 11:50 | 783.26                  | 149.89                 | 140.1                  | 174.49                 | 73000                 | 14900           | 12500           | 17500           |                           |
|        | 12:00 | 753.52                  | 160.01                 | 140.51                 | 165.29                 | 71000                 | 16000           | 13000           | 16900           |                           |
|        | 12:10 | 755.78                  | 156.96                 | 141.82                 | 180.32                 | 73500                 | 17900           | 12700           | 17900           |                           |
|        | 12:20 | 720.53                  | 165.96                 | 124.32                 | 169.87                 | 70000                 | 15800           | 11300           | 17600           | มีเมฆบางมีดวงอาทิตย์      |
|        | 12:30 | 749.9                   | 151.38                 | 132.18                 | 182.28                 | 70000                 | 14600           | 12000           | 18200           |                           |
|        | 12:40 | 757.66                  | 145.81                 | 106.8                  | 173.44                 | 72000                 | 14200           | 12000           | 18400           |                           |
|        | 12:50 | 713.3                   | 139.74                 | 123.43                 | 179.65                 | 65000                 | 13400           | 11400           | 17300           |                           |
|        | 13:00 | 811.49                  | 125.75                 | 134.12                 | 176.04                 | 71500                 | 13800           | 12500           | 18100           |                           |
|        | 13:10 | 819.35                  | 147.33                 | 136.55                 | 177.68                 | 75000                 | 14500           | 12600           | 18200           |                           |
|        | 13:20 | 742.98                  | 118.97                 | 130.43                 | 172.44                 | 68000                 | 13600           | 12100           | 17500           | มีเมฆบางมีดวงอาทิตย์      |
|        | 13:30 | 807.33                  | 138.7                  | 137.41                 | 178.97                 | 71500                 | 13700           | 12700           | 18200           |                           |
|        | 13:40 | 752.04                  | 126.55                 | 134.19                 | 169.82                 | 67000                 | 12700           | 12500           | 17000           | มีเมฆบางมีดวงอาทิตย์      |
|        | 13:50 | 740.72                  | 120.98                 | 133.91                 | 165.25                 | 67500                 | 12700           | 12300           | 16800           |                           |
|        | 14:00 | 765.62                  | 115.41                 | 135.65                 | 161.33                 | 67000                 | 11600           | 12600           | 16000           |                           |
|        | 14:10 | 674.01                  | 105.21                 | 126.9                  | 154.46                 | 61500                 | 10500           | 11500           | 13800           |                           |
|        | 14:20 | 695.67                  | 99.2                   | 129.52                 | 161.96                 | 62000                 | 10200           | 11500           | 16000           |                           |
|        | 14:30 | 655.38                  | 95.151                 | 122.51                 | 158.69                 | 63500                 | 10100           | 11300           | 15500           |                           |
|        | 14:40 | 653.32                  | 87.053                 | 120.76                 | 154.12                 | 58500                 | 9250            | 11200           | 15200           |                           |
|        | 14:50 | 618.73                  | 78.449                 | 117.7                  | 146.29                 | 50500                 | 8800            | 10800           | 14800           |                           |
|        | 15:00 | 611.62                  | 76.93                  | 117.26                 | 143.67                 | 47500                 | 8350            | 10600           | 14400           |                           |
|        | 15:10 | 558.6                   | 75.918                 | 112.89                 | 141.71                 | 46500                 | 8450            | 10700           | 13800           |                           |
|        | 15:20 | 514.03                  | 78.955                 | 110.26                 | 138.45                 | 41000                 | 8500            | 10100           | 13700           |                           |
|        | 15:30 | 492.66                  | 85.029                 | 108.59                 | 124.73                 | 40500                 | 9350            | 9750            | 12800           |                           |
|        | 15:40 | 422.51                  | 76.931                 | 101.07                 | 111.67                 | 36000                 | 9750            | 9150            | 11100           |                           |
|        | 15:50 | 378.51                  | 77.437                 | 95.824                 | 105.8                  | 30000                 | 9250            | 8800            | 10700           |                           |
|        | 16:00 | 360.76                  | 78.949                 | 91.04                  | 97.306                 | 30500                 | 8500            | 8450            | 9750            |                           |
|        | 16:10 | 288.01                  | 71.864                 | 75.254                 | 62.367                 | 23000                 | 7800            | 7500            | 7200            |                           |
|        | 16:20 | 319.71                  | 69.339                 | 81.822                 | 63.02                  | 22000                 | 7650            | 7500            | 7000            | เมฆกระจายทั่วท้องฟ้า      |
|        | 16:30 | 238.57                  | 63.771                 | 71.758                 | 56.163                 | 19900                 | 6400            | 6750            | 6200            | เมฆบางมีดวงอาทิตย์        |
|        | 16:40 | 222.73                  | 62.759                 | 70.008                 | 54.508                 | 20000                 | 6630            | 6650            | 5850            |                           |
|        | 16:50 | 167.77                  | 54.661                 | 61.695                 | 49.637                 | 14500                 | 5500            | 6050            | 5000            |                           |
|        | 17:00 | 75.65                   | 45.551                 | 44.634                 | 36.574                 | 7250                  | 4450            | 4350            | 3900            |                           |
|        | 17:10 | 118                     | 38.978                 | 49.01                  | 35.268                 | 6750                  | 4300            | 4050            | 3350            |                           |
|        | 17:20 | 66.275                  | 40.495                 | 38.511                 | 28.78                  | 3600                  | 3600            | 3800            | 2700            | เมฆบางมีดวงอาทิตย์        |
|        | 17:30 | 49.791                  | 37.459                 | 29.748                 | 22.536                 | 4150                  | 3350            | 2800            | 2150            |                           |
|        | 17:40 | 57.879                  | 35.434                 | 28.885                 | 22.21                  | 4200                  | 3150            | 2500            | 1980            |                           |
|        | 17:50 | 25.868                  | 21.77                  | 14.005                 | 11.105                 | 2300                  | 1890            | 1210            | 965             |                           |
|        | 18:00 | 12.289                  | 10.126                 | 7.0037                 | 5.88                   | 1000                  | 760             | 520             | 405             |                           |

ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดที่ ต่อ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่ วันที่ 14 ถึง 16 มกราคม 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation          |                         |                         |                         | Sky Illumination  |                  |                  |                  | สภาพท้องฟ้า                             |
|--------|-------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------|------------------|------------------|------------------|---|
|        |       | Horizontal<br>วัดที่กรม. | Hor-Shade<br>วัดที่กรม. | Ver-North<br>วัดที่กรม. | Ver-South<br>วัดที่กรม. | Horizontal<br>lux | Hor-Shade<br>lux | Ver-North<br>lux | Ver-South<br>lux |   |
| 16-Jan | 6:40  | 2,914.6                  | 2,533.4                 | 1,315.1                 | 1,063                   | 180               | 180              | 99               | 142              | เมฆบางฟ้าโปร่ง<br>ดวงอาทิตย์เห็นเด่นชัด |
|        | 6:50  | 6,801.9                  | 6,084.9                 | 3,945.7                 | 4,580.4                 | 640               | 590              | 370              | 350              |   |
|        | 7:00  | 22,351                   | 20,286                  | 12,276                  | 12,433                  | 1880              | 1750             | 1080             | 915              | เมฆบางฟ้าโปร่ง                          |
|        | 7:10  | 46,321                   | 36,515                  | 22,801                  | 24,869                  | 3400              | 2850             | 2000             | 1820             |   |
|        | 7:20  | 61,546                   | 46,151                  | 30,694                  | 33,868                  | 4750              | 3750             | 2600             | 2800             |   |
|        | 7:30  | 111.12                   | 62,893                  | 45,602                  | 56,937                  | 7650              | 5400             | 3850             | 4350             |   |
|        | 7:40  | 120.19                   | 65,936                  | 49,114                  | 67,414                  | 8600              | 5950             | 4350             | 5400             |   |
|        | 7:50  | 105.94                   | 47,677                  | 47,356                  | 58,246                  | 8800              | 5950             | 4600             | 5400             |   |
|        | 8:00  | 166.79                   | 60,869                  | 56,654                  | 69,732                  | 11400             | 6950             | 5200             | 6350             |   |
|        | 8:10  | 177.85                   | 87,745                  | 64,018                  | 75,916                  | 14900             | 7650             | 6100             | 7450             |   |
|        | 8:20  | 286.7                    | 101.43                  | 87,258                  | 111.91                  | 21500             | 9750             | 7850             | 10500            |   |
|        | 8:30  | 356                      | 116.65                  | 100,85                  | 126.31                  | 27000             | 10900            | 9150             | 12300            |   |
|        | 8:40  | 364.42                   | 123.23                  | 103.47                  | 129.57                  | 28500             | 11400            | 9150             | 11800            |   |
|        | 8:50  | 404.87                   | 134.89                  | 110.14                  | 140.68                  | 33500             | 12800            | 9900             | 13400            |   |
|        | 9:00  | 455.04                   | 132.86                  | 113.99                  | 146.9                   | 36500             | 15600            | 10100            | 13800            |   |
|        | 9:10  | 462.82                   | 128.81                  | 111.36                  | 147.23                  | 38000             | 12200            | 9950             | 14400            |   |
|        | 9:20  | 497.49                   | 126.77                  | 115.74                  | 153.77                  | 41000             | 12000            | 10400            | 14900            |   |
|        | 9:30  | 540.82                   | 121.69                  | 120.11                  | 162.25                  | 41500             | 12000            | 11000            | 16000            |   |
|        | 9:40  | 610.45                   | 121.69                  | 131.5                   | 168.41                  | 50500             | 11800            | 11700            | 16200            |   |
|        | 9:50  | 646.29                   | 125.73                  | 141.58                  | 170.76                  | 56000             | 12400            | 12700            | 16600            |   |
|        | 10:00 | 717.26                   | 142.96                  | 156.02                  | 175.96                  | 61000             | 14300            | 14000            | 17600            |   |
|        | 10:10 | 706.84                   | 160.18                  | 152.52                  | 174                     | 62000             | 15800            | 13300            | 16900            |   |
|        | 10:20 | 717.73                   | 170.81                  | 148.99                  | 169.39                  | 62500             | 16100            | 13200            | 16700            |   |
|        | 10:30 | 741.25                   | 175.87                  | 149.84                  | 175.58                  | 63000             | 16700            | 13000            | 15700            |   |
|        | 10:40 | 705.64                   | 169.25                  | 141.08                  | 176.67                  | 63000             | 15600            | 12200            | 15600            | มีเมฆบางที่ดวงอาทิตย์                   |
|        | 10:50 | 704.88                   | 160.64                  | 137.56                  | 175.84                  | 61000             | 14500            | 12000            | 15800            |   |
|        | 11:00 | 707.19                   | 145.41                  | 127.91                  | 158.88                  | 64000             | 12700            | 10400            | 14800            | มีเมฆบางที่ดวงอาทิตย์                   |
|        | 11:10 | 724.56                   | 138.32                  | 143.68                  | 175.21                  | 67000             | 13400            | 13200            | 16100            |   |
|        | 11:20 | 856.21                   | 143.38                  | 162.94                  | 189.26                  | 76000             | 14100            | 14500            | 17900            |   |
|        | 11:30 | 780.16                   | 149.93                  | 153.29                  | 169.64                  | 66500             | 14600            | 13500            | 16700            |   |
|        | 11:40 | 879.12                   | 160.08                  | 166.42                  | 179.75                  | 80000             | 15800            | 14000            | 17900            | มีเมฆบางที่ดวงอาทิตย์                   |
|        | 11:50 | 655.42                   | 155.51                  | 136.63                  | 159.48                  | 62000             | 15000            | 11500            | 14600            |   |
|        | 12:00 | 920.69                   | 175.25                  | 162.46                  | 189.54                  | 85600             | 17900            | 13700            | 17900            |   |
|        | 12:10 | 918.03                   | 170.17                  | 154.99                  | 180.36                  | 86000             | 17500            | 13700            | 17500            |   |
|        | 12:20 | 815.42                   | 172.19                  | 143.61                  | 164.68                  | 78000             | 17800            | 13500            | 17800            |   |
|        | 12:30 | 900.09                   | 198.52                  | 146.23                  | 177.08                  | 85000             | 19100            | 13200            | 17300            |   |
|        | 12:40 | 829.88                   | 206.6                   | 136.58                  | 135.59                  | 80000             | 19000            | 11800            | 18000            | มีเมฆบางที่ดวงอาทิตย์                   |
|        | 12:50 | 377.44                   | 164.06                  | 84.051                  | 137.21                  | 37000             | 14400            | 7950             | 13800            |   |
|        | 13:00 | 274.53                   | 142.8                   | 70.48                   | 120.22                  | 27000             | 13200            | 6700             | 11800            |   |
|        | 13:10 | 565.34                   | 140.26                  | 114.69                  | 178.31                  | 55000             | 14100            | 10600            | 18400            |   |
|        | 13:20 | 744.52                   | 133.18                  | 133.08                  | 203.85                  | 72000             | 13900            | 11600            | 18900            |   |
|        | 13:30 | 755.19                   | 123.05                  | 126.95                  | 197.32                  | 75000             | 13200            | 11300            | 19400            |   |
|        | 13:40 | 841.41                   | 126.08                  | 131.33                  | 209.08                  | 81000             | 13000            | 11400            | 21000            |   |
|        | 13:50 | 771.89                   | 116.46                  | 133.07                  | 197.94                  | 72000             | 12000            | 11400            | 21000            |   |
|        | 14:00 | 746.66                   | 117.46                  | 125.62                  | 187.49                  | 67500             | 12500            | 11400            | 18500            |   |
|        | 14:10 | 760.89                   | 116.95                  | 125.06                  | 186.84                  | 74500             | 12700            | 11600            | 18400            |   |
|        | 14:20 | 758.52                   | 115.42                  | 124.74                  | 189.29                  | 70000             | 12500            | 11300            | 17200            |   |
|        | 14:30 | 631.44                   | 106.81                  | 122.99                  | 161.99                  | 60500             | 11400            | 10000            | 15600            |   |
|        | 14:40 | 708.71                   | 110.86                  | 134.79                  | 180.23                  | 65500             | 12000            | 11300            | 17500            |   |
|        | 14:50 | 703.22                   | 113.39                  | 130.41                  | 187.46                  | 61000             | 11900            | 11100            | 14000            |   |
|        | 15:00 | 524.42                   | 107.32                  | 110.28                  | 166.56                  | 47500             | 10600            | 9250             | 16600            |   |
|        | 15:10 | 433.89                   | 111.37                  | 100.65                  | 142.06                  | 70500             | 11200            | 6800             | 13500            |   |
|        | 15:20 | 482.67                   | 119.46                  | 104.15                  | 152.84                  | 73000             | 12000            | 9600             | 13800            |   |
|        | 15:30 | 403.08                   | 110.35                  | 98.027                  | 130.46                  | 39000             | 11100            | 8350             | 14400            |   |
|        | 15:40 | 430.98                   | 109.34                  | 90.15                   | 157.09                  | 40000             | 10800            | 8400             | 14000            |   |
|        | 15:50 | 281.26                   | 108.32                  | 76.146                  | 88.178                  | 25000             | 10900            | 6900             | 7950             |   |
|        | 16:00 | 391.21                   | 119.45                  | 90.402                  | 101.89                  | 33000             | 12000            | 8150             | 9500             |   |
|        | 16:10 | 390.54                   | 126.55                  | 88.4                    | 86.871                  | 31000             | 12800            | 7900             | 8900             |   |
|        | 16:20 | 334.31                   | 127.06                  | 84.899                  | 77.727                  | 28000             | 12600            | 7650             | 7900             |   |
|        | 16:30 | 301.89                   | 124.01                  | 80.523                  | 71.195                  | 25500             | 12700            | 7300             | 7100             |   |
|        | 16:40 | 174.58                   | 100.73                  | 59.517                  | 53.56                   | 15200             | 10200            | 5700             | 5000             |   |
|        | 16:50 | 170.7                    | 92.628                  | 57.766                  | 52.902                  | 14300             | 9750             | 5450             | 5150             |   |
|        | 17:00 | 146.77                   | 79.468                  | 53.39                   | 46.048                  | 11700             | 8600             | 4950             | 4350             |   |
|        | 17:10 | 129.32                   | 71.873                  | 50.764                  | 43.762                  | 9250              | 7100             | 4350             | 4500             |   |
|        | 17:20 | 136.11                   | 65.801                  | 52.515                  | 45.722                  | 8950              | 6800             | 4500             | 4150             |   |
|        | 17:30 | 98.935                   | 51.123                  | 42.887                  | 36.251                  | 4800              | 5100             | 3650             | 3350             |   |
|        | 17:40 | 57.374                   | 34.928                  | 28.881                  | 24.827                  | 4340              | 3400             | 2400             | 2250             |   |
|        | 17:50 | 28.129                   | 20.754                  | 17.064                  | 13.718                  | 2450              | 2000             | 1430             | 1190             |   |
| 16-Jan | 18:00 | 9.6995                   | 8.6067                  | 6.5654                  | 4.5724                  | 3040              | 370              | 655              | 480              |   |

ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดคู่ ต่อ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่ วันที่ 25 ถึง 27 กุมภาพันธ์ 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation           |                          |                          |                          | Exterior Illumination |                  |                  |                  | สภาพท้องฟ้า             |
|--------|-------|---------------------------|--------------------------|--------------------------|--------------------------|-----------------------|------------------|------------------|------------------|-------------------------|
|        |       | Horizontal<br>วัตต์/ตร.ม. | Hor-Shade<br>วัตต์/ตร.ม. | Ver-North<br>วัตต์/ตร.ม. | Ver-South<br>วัตต์/ตร.ม. | Horizontal<br>lux     | Hor-Shade<br>lux | Ver-North<br>lux | Ver-South<br>lux |                         |
| 25-Feb | 6:30  | 2.5653                    | 0                        | 0.43794                  | 0.63413                  | 335                   | 335              | 220              | 245              | เมฆน้อย, โปร่ง          |
|        | 6:40  | 7.2666                    | 0                        | 2.1899                   | 1.9623                   | 845                   | 845              | 535              | 540              |                         |
|        | 6:50  | 17.151                    | 0                        | 5.6937                   | 5.8976                   | 1750                  | 1550             | 1020             | 910              | เมฆน้อย, ฟ้าสว่าง       |
|        | 7:00  | 35.591                    | 25.339                   | 14.453                   | 11.774                   | 2950                  | 2100             | 1950             | 1920             |                         |
|        | 7:10  | 56.882                    | 36.999                   | 25.401                   | 25.513                   | 4400                  | 3300             | 2700             | 2700             |                         |
|        | 7:20  | 103.21                    | 49.158                   | 31.979                   | 37.288                   | 8750                  | 4950             | 4100             | 5050             |                         |
|        | 7:30  | 137.41                    | 61.321                   | 40.732                   | 54.591                   | 9650                  | 6200             | 5950             | 6750             |                         |
|        | 7:40  | 169.85                    | 70.95                    | 48.676                   | 62.796                   | 14500                 | 7150             | 7650             | 8250             |                         |
|        | 7:50  | 213.19                    | 77.075                   | 57.813                   | 75.552                   | 14500                 | 8100             | 7800             | 9150             |                         |
|        | 8:00  | 251.04                    | 84.119                   | 63.064                   | 89.616                   | 17600                 | 9100             | 8100             | 10300            |                         |
|        | 8:10  | 290.51                    | 92.212                   | 67.009                   | 100.07                   | 22000                 | 9900             | 9450             | 11700            | มีเมฆเล็กน้อย           |
|        | 8:20  | 328.3                     | 98.284                   | 74.451                   | 107.26                   | 23500                 | 10600            | 9800             | 12700            |                         |
|        | 8:30  | 381.02                    | 105.37                   | 78.83                    | 112.49                   | 30500                 | 12000            | 10300            | 14400            |                         |
|        | 8:40  | 420.13                    | 107.38                   | 83.209                   | 115.11                   | 34000                 | 12400            | 11100            | 14300            |                         |
|        | 8:50  | 460.23                    | 111.42                   | 86.706                   | 120.65                   | 37500                 | 12900            | 11500            | 16300            |                         |
|        | 9:00  | 493.5                     | 113.43                   | 89.333                   | 128.14                   | 43000                 | 13100            | 12200            | 15800            |                         |
|        | 9:10  | 523.21                    | 115.45                   | 95.894                   | 137.28                   | 42000                 | 13100            | 12100            | 16900            | เมฆโปร่ง                |
|        | 9:20  | 543.54                    | 118.48                   | 98.699                   | 138.57                   | 48500                 | 14200            | 12500            | 16900            |                         |
|        | 9:30  | 581.37                    | 122.52                   | 110.33                   | 138.55                   | 49500                 | 14500            | 12900            | 16700            |                         |
|        | 9:40  | 629.18                    | 125.55                   | 106.82                   | 143.77                   | 53500                 | 15000            | 13000            | 17500            |                         |
|        | 9:50  | 636.94                    | 130.6                    | 111.7                    | 151.6                    | 56500                 | 15700            | 13200            | 17900            | กลุ่มเมฆหนา<br>เมฆโปร่ง |
|        | 10:00 | 671.48                    | 135.66                   | 81.424                   | 115.02                   | 62000                 | 16600            | 14000            | 18100            |                         |
|        | 10:10 | 685.32                    | 135.13                   | 112.94                   | 137.26                   | 59000                 | 16600            | 13700            | 19100            |                         |
|        | 10:20 | 724.38                    | 140.7                    | 116.87                   | 142.43                   | 63500                 | 16900            | 14500            | 18700            |                         |
|        | 10:30 | 750.5                     | 142.71                   | 118.31                   | 149.61                   | 66500                 | 17500            | 14000            | 19500            |                         |
|        | 10:40 | 775.39                    | 147.76                   | 127.38                   | 156.79                   | 70500                 | 18700            | 14300            | 19800            |                         |
|        | 10:50 | 802.73                    | 149.78                   | 115.99                   | 216.28                   | 72000                 | 19200            | 14400            | 19200            |                         |
|        | 11:00 | 791.74                    | 153.82                   | 140.93                   | 156.12                   | 72500                 | 19200            | 14600            | 20000            | เมฆโปร่ง                |
|        | 11:10 | 811.78                    | 153.81                   | 134.8                    | 151.2                    | 75500                 | 19500            | 14400            | 19200            |                         |
|        | 11:20 | 818.17                    | 154.32                   | 130.41                   | 142.37                   | 76500                 | 19100            | 14400            | 19800            |                         |
|        | 11:30 | 843.7                     | 153.81                   | 105.02                   | 106.14                   | 81000                 | 20000            | 14700            | 19800            | เมฆโปร่ง<br>เมฆโปร่ง    |
|        | 11:40 | 844.02                    | 155.82                   | 139.15                   | 133.09                   | 80000                 | 20500            | 14800            | 19500            | เมฆโปร่ง                |
|        | 11:50 | 842.99                    | 156.82                   | 134.79                   | 144.71                   | 81000                 | 20000            | 13900            | 20000            |                         |
|        | 12:00 | 862.95                    | 154.8                    | 156.21                   | 133.56                   | 85000                 | 20000            | 14300            | 21000            |                         |
|        | 12:10 | 861.66                    | 155.29                   | 94.447                   | 103.39                   | 85000                 | 20500            | 14300            | 20000            | เมฆโปร่ง                |
|        | 12:20 | 844.86                    | 154.8                    | 159.28                   | 154.12                   | 82500                 | 20500            | 14400            | 19900            |                         |
|        | 12:30 | 863.59                    | 154.78                   | 88.385                   | 136.49                   | 87000                 | 20500            | 14600            | 20500            | เมฆโปร่ง                |
|        | 12:40 | 865.86                    | 152.76                   | 87.073                   | 104.16                   | 87500                 | 20500            | 14500            | 20000            | เมฆโปร่ง                |
|        | 12:50 | 862.95                    | 149.73                   | 137.47                   | 108.41                   | 84000                 | 20500            | 14400            | 20000            |                         |
|        | 13:00 | 855.84                    | 148.71                   | 150.52                   | 149.55                   | 87000                 | 20000            | 14300            | 20000            |                         |
|        | 13:10 | 845.5                     | 145.68                   | 139.14                   | 140.41                   | 83500                 | 19900            | 14400            | 21000            |                         |
|        | 13:20 | 844.86                    | 144.67                   | 104.14                   | 138.45                   | 87000                 | 19500            | 14300            | 25500            | เมฆโปร่ง                |
|        | 13:30 | 826.05                    | 144.61                   | 133.02                   | 138.45                   | 80000                 | 19000            | 14100            | 20000            |                         |
|        | 13:40 | 811.84                    | 145.64                   | 102.82                   | 94.894                   | 78000                 | 19400            | 14000            | 20000            | เมฆโปร่ง                |
|        | 13:50 | 800.14                    | 140.61                   | 121.63                   | 151.18                   | 78000                 | 19100            | 14300            | 20000            | เมฆโปร่ง                |
|        | 14:00 | 777.59                    | 139.6                    | 122.08                   | 204.63                   | 74000                 | 19100            | 14000            | 19800            |                         |
|        | 14:10 | 763.64                    | 136.56                   | 121.63                   | 140.73                   | 78000                 | 18400            | 13800            | 19900            |                         |
|        | 14:20 | 746.84                    | 133.53                   | 119.89                   | 140.41                   | 75500                 | 18000            | 13500            | 19300            |                         |
|        | 14:30 | 721.44                    | 128.47                   | 112                      | 158.45                   | 74500                 | 17000            | 13600            | 19100            |                         |
|        | 14:40 | 690.04                    | 125.44                   | 106.75                   | 137.8                    | 70500                 | 16600            | 13400            | 18400            |                         |
|        | 14:50 | 668.13                    | 122.4                    | 112.02                   | 138.45                   | 66000                 | 16500            | 13100            | 18000            |                         |
|        | 15:00 | 640.35                    | 117.88                   | 112.89                   | 139.1                    | 56500                 | 15400            | 12500            | 17300            |                         |
|        | 15:10 | 612.88                    | 115.33                   | 109.39                   | 134.53                   | 54000                 | 14800            | 12000            | 16400            |                         |
|        | 15:20 | 572.18                    | 113.32                   | 106.76                   | 131.27                   | 53000                 | 14700            | 12300            | 16500            |                         |
|        | 15:30 | 534.42                    | 113.32                   | 103.26                   | 123.43                   | 51500                 | 14600            | 12000            | 15000            |                         |
|        | 15:40 | 505.02                    | 110.28                   | 99.762                   | 99.265                   | 52500                 | 14200            | 11800            | 14400            |                         |
|        | 15:50 | 466.24                    | 103.7                    | 85.76                    | 104.49                   | 46500                 | 13000            | 11100            | 13500            |                         |
|        | 16:00 | 437.85                    | 98.148                   | 78.759                   | 87.517                   | 40500                 | 13200            | 10600            | 12000            |                         |
|        | 16:10 | 400.69                    | 91.065                   | 68.264                   | 58.152                   | 37500                 | 11800            | 9750             | 11100            |                         |
|        | 16:20 | 361.59                    | 82.97                    | 60.387                   | 55.519                   | 33000                 | 10700            | 8600             | 9100             |                         |
|        | 16:30 | 315.06                    | 76.4                     | 63.016                   | 52.907                   | 29000                 | 9900             | 8250             | 8600             |                         |
|        | 16:40 | 265.64                    | 70.328                   | 57.761                   | 48.534                   | 22500                 | 9150             | 7550             | 7650             |                         |
|        | 16:50 | 81.436                    | 65.78                    | 43.762                   | 44.415                   | 12200                 | 8450             | 7550             | 7100             |                         |
|        | 17:00 | 74.333                    | 60.72                    | 78.835                   | 39.19                    | 11200                 | 7800             | 6400             | 6600             |                         |
|        | 17:10 | 68.521                    | 56.166                   | 42.887                   | 34.618                   | 9900                  | 7000             | 5750             | 5800             |                         |
|        | 17:20 | 59.794                    | 49.592                   | 32.387                   | 27.435                   | 8150                  | 5900             | 5500             | 5050             |                         |
|        | 17:30 | 51.068                    | 13.519                   | 19.257                   | 18.29                    | 7050                  | 5200             | 4850             | 4200             |                         |
|        | 17:40 | 42.018                    | 11.423                   | 12.254                   | 12.086                   | 5450                  | 3800             | 3700             | 3500             |                         |
|        | 17:50 | 32.97                     | 28.341                   | 7.8791                   | 7.1822                   | 4800                  | 3050             | 2750             | 2500             |                         |
|        | 18:00 | 5.4978                    | 4.0506                   | 3.9396                   | 3.3269                   | 650                   | 520              | 415              | 370              |                         |

ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดค่าต่อ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่ วันที่ 25 ถึง 27 กุมภาพันธ์ 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation |           |           |           | Exterior Illumination |           |           |           | สภาพท้องฟ้า                 |
|--------|-------|-----------------|-----------|-----------|-----------|-----------------------|-----------|-----------|-----------|-----------------------------|
|        |       | Horizontal      | Hor-Shade | Ver-North | Ver-South | Horizontal            | Hor-Shade | Ver-North | Ver-South |                             |
|        |       | วัดค่ารวม       | วัดค่ารวม | วัดค่ารวม | วัดค่ารวม | lux                   | lux       | lux       | lux       |                             |
| 26-Feb | 6:30  | 2.912           | 2.0273    | 0.43812   | 0.65192   | 330                   | 330       | 215       | 195       | มีเมฆบางส่วนแสงท้องฟ้า      |
|        | 6:40  | 4.3062          | 4.0546    | 0.43812   | 0.65192   | 550                   | 550       | 395       | 325       | ดวงอาทิตย์ขึ้นบนตึกมีเมฆบัง |
|        | 6:50  | 15.531          | 13.177    | 2.6287    | 2.6159    | 1720                  | 1290      | 1010      | 895       | หมอกหนา                     |
|        | 7:00  | 25.559          | 21.287    | 10.914    | 10.464    | 3000                  | 2100      | 1810      | 1690      |                             |
|        | 7:10  | 37.526          | 32.437    | 20.157    | 18.313    | 4550                  | 3600      | 2750      | 2850      |                             |
|        | 7:20  | 58.878          | 41.08     | 30.674    | 26.161    | 6550                  | 4950      | 3400      | 3500      | เมฆใสดวงอาทิตย์             |
|        | 7:30  | 133.93          | 62.34     | 47.325    | 47.744    | 9950                  | 6250      | 4050      | 5000      | ท้องฟ้าโปร่ง                |
|        | 7:40  | 99.639          | 54.226    | 54.336    | 67.364    | 10100                 | 7850      | 6750      | 5450      |                             |
|        | 7:50  | 234.86          | 106.42    | 55.208    | 50.36     | 16700                 | 10100     | 8200      | 7850      |                             |
|        | 8:00  | 298.84          | 123.65    | 70.105    | 80.445    | 21500                 | 12000     | 10000     | 10200     |                             |
|        | 8:10  | 323.8           | 119.58    | 83.498    | 90.255    | 23500                 | 12400     | 10500     | 11300     |                             |
|        | 8:20  | 348.06          | 132.82    | 87.632    | 102.02    | 25500                 | 13800     | 10700     | 13500     |                             |
|        | 8:30  | 424.69          | 152       | 101.21    | 121.97    | 33500                 | 14700     | 11600     | 14900     |                             |
|        | 8:40  | 436.03          | 129.18    | 109.53    | 132.09    | 34500                 | 13900     | 9250      | 9100      |                             |
|        | 8:50  | 130.07          | 105.35    | 109.52    | 134.7     | 13400                 | 11900     | 9850      | 10300     |                             |
|        | 9:00  | 128.08          | 113.45    | 110.4     | 139.27    | 16600                 | 13300     | 11200     | 13700     |                             |
|        | 9:10  | 626.1           | 191.44    | 102.51    | 138.95    | 53500                 | 20500     | 13500     | 16900     | เมฆบางแสงอาทิตย์            |
|        | 9:20  | 566.87          | 128.11    | 77.097    | 136.66    | 48500                 | 14700     | 12100     | 18100     |                             |
|        | 9:30  | 620.66          | 142.8     | 101.62    | 153.12    | 50500                 | 16000     | 13500     | 17100     |                             |
|        | 9:40  | 755.93          | 208.59    | 100.74    | 160.51    | 67000                 | 22500     | 15800     | 19100     |                             |
|        | 9:50  | 206.6           | 146.82    | 104.69    | 171.9     | 23000                 | 17100     | 12100     | 13400     |                             |
|        | 10:00 | 755.92          | 153.9     | 114.75    | 185.67    | 68500                 | 17200     | 14300     | 18500     |                             |
|        | 10:10 | 807.17          | 169.07    | 106.87    | 168.98    | 73000                 | 18900     | 15300     | 19200     |                             |
|        | 10:20 | 629.35          | 254.11    | 109.5     | 173.19    | 45500                 | 26500     | 17500     | 20500     |                             |
|        | 10:30 | 814.02          | 180.69    | 125.26    | 188.92    | 75500                 | 21500     | 16200     | 19800     |                             |
|        | 10:40 | 880.57          | 184.23    | 134.01    | 188.58    | 81000                 | 21000     | 15800     | 23000     |                             |
|        | 10:50 | 907.9           | 169.03    | 126.99    | 175.82    | 82500                 | 20000     | 14600     | 26000     | มีเมฆบางใสดวงอาทิตย์        |
|        | 11:00 | 351.33          | 227.21    | 133.31    | 177.12    | 89500                 | 26000     | 17200     | 21000     |                             |
|        | 11:10 | 900             | 187.22    | 138.37    | 177.11    | 81500                 | 21500     | 13300     | 17900     |                             |
|        | 11:20 | 957.52          | 186.21    | 139.24    | 176.46    | 94500                 | 22000     | 16800     | 26500     |                             |
|        | 11:30 | 953.57          | 232.23    | 133.98    | 168.6     | 89500                 | 22500     | 14500     | 18200     |                             |
|        | 11:40 | 1016.3          | 226.42    | 136.59    | 171.2     | 99500                 | 25000     | 17000     | 18000     |                             |
|        | 11:50 | 1191.93         | 148.73    | 140.1     | 174.49    | 21000                 | 18800     | 10900     | 16800     |                             |
|        | 12:00 | 1000            | 193.26    | 140.51    | 165.29    | 99500                 | 23500     | 15200     | 44500     |                             |
|        | 12:10 | 1067.9          | 205.89    | 141.82    | 180.32    | 105000                | 24000     | 11700     | 17200     |                             |
|        | 12:20 | 265.92          | 202.33    | 124.32    | 169.87    | 29000                 | 23000     | 13100     | 22000     | มีเมฆบางใสดวงอาทิตย์        |
|        | 12:30 | 319.55          | 176.03    | 132.18    | 182.28    | 36500                 | 20000     | 15200     | 34500     |                             |
|        | 12:40 | 959.63          | 126.47    | 108.8     | 173.44    | 96500                 | 16300     | 14100     | 40500     |                             |
|        | 12:50 | 972.23          | 132.34    | 123.43    | 179.63    | 99000                 | 17200     | 14200     | 47000     |                             |
|        | 13:00 | 377.21          | 126.48    | 134.12    | 176.04    | 50500                 | 16200     | 9900      | 17200     |                             |
|        | 13:10 | 792.58          | 194.76    | 136.55    | 172.68    | 82500                 | 21000     | 11300     | 19600     |                             |
|        | 13:20 | 952.2           | 152.77    | 130.43    | 172.44    | 96500                 | 19100     | 14000     | 45000     | มีเมฆบางใสดวงอาทิตย์        |
|        | 13:30 | 950.5           | 138.1     | 137.41    | 178.97    | 98000                 | 17900     | 13600     | 54000     |                             |
|        | 13:40 | 904.63          | 127.47    | 134.19    | 169.82    | 93500                 | 16900     | 11300     | 50500     | มีเมฆบางใสดวงอาทิตย์        |
|        | 13:50 | 897.19          | 132.53    | 133.83    | 165.25    | 91000                 | 17500     | 13400     | 51500     |                             |
|        | 14:00 | 856.42          | 120.39    | 135.65    | 161.33    | 84000                 | 15500     | 12700     | 30500     |                             |
|        | 14:10 | 812.48          | 100.66    | 126.9     | 154.46    | 82000                 | 14000     | 11600     | 49000     |                             |
|        | 14:20 | 795.75          | 100.16    | 129.32    | 161.96    | 76500                 | 14100     | 11300     | 49500     |                             |
|        | 14:30 | 788.7           | 103.7     | 127.51    | 156.69    | 81000                 | 14200     | 11400     | 54000     |                             |
|        | 14:40 | 738.95          | 87.101    | 120.76    | 154.12    | 76500                 | 12600     | 10800     | 49500     |                             |
|        | 14:50 | 723.5           | 77.911    | 117.7     | 146.29    | 72500                 | 11500     | 10600     | 49500     |                             |
|        | 15:00 | 681.49          | 76.805    | 117.26    | 143.67    | 69500                 | 11100     | 10300     | 48500     |                             |
|        | 15:10 | 650.47          | 73.864    | 112.89    | 141.71    | 73000                 | 10200     | 10000     | 75000     |                             |
|        | 15:20 | 609.13          | 72.852    | 110.26    | 138.45    | 65000                 | 9900      | 9500      | 57000     |                             |
|        | 15:30 | 587.46          | 71.84     | 108.50    | 124.71    | 58500                 | 10100     | 9350      | 46500     |                             |
|        | 15:40 | 547.13          | 70.828    | 101.07    | 111.67    | 58000                 | 9650      | 9250      | 22000     |                             |
|        | 15:50 | 504.78          | 68.81     | 95.824    | 105.8     | 45000                 | 9900      | 9950      | 33500     |                             |
|        | 16:00 | 469.23          | 67.798    | 91.04     | 97.306    | 43500                 | 9350      | 9800      | 33500     |                             |
|        | 16:10 | 431.74          | 66.786    | 75.254    | 62.367    | 41000                 | 9150      | 8550      | 24500     |                             |
|        | 16:20 | 387.82          | 64.763    | 81.822    | 63.02     | 38000                 | 8750      | 7950      | 8600      | เมฆประปรายฟ้าเปิด           |
|        | 16:30 | 348.72          | 60.72     | 71.758    | 56.163    | 33500                 | 8450      | 7900      | 8000      | เมฆบางแสงอาทิตย์            |
|        | 16:40 | 312.52          | 56.672    | 70.008    | 54.508    | 27000                 | 7900      | 7200      | 7200      |                             |



ภาคผนวก ข. ตารางข้อมูลรังสีตรง รังสีกระจาย (วัดต่อ ตารางเมตร) และความส่องสว่างของท้องฟ้า (ลักซ์)

ตั้งแต่ วันที่ 25 ถึง 27 กุมภาพันธ์ 2541 เวลา 6:30 น. ถึง 18:00 น.

| วันที่ | เวลา  | Solar Radiation |             |                   |                   | Exterior Illumination |           |           |                 | สภาพท้องฟ้า                              |
|--------|-------|-----------------|-------------|-------------------|-------------------|-----------------------|-----------|-----------|-----------------|--|
|        |       | Horizontal      | Hor-Shade   | Ver-North         | Ver-South         | Horizontal            | Hor-Shade | Ver-North | Ver-South       |  |
|        |       | วัดต่อตร.ม.     | วัดต่อตร.ม. | วัดต่อตร.ม.ทิศใต้ | วัดต่อตร.ม.ทิศใต้ | lux                   | lux       | lux       | lux             |  |
| 27-Feb | 6:40  | 0               | 0           | 1.3151            | 1.963             | 180                   | 180       | 99        | 142             | เมฆบางส่วนโปร่ง<br>ดวงอาทิตย์เห็นเด่นชัด |
| 6:50   | 0     | 0               | 3.9457      | 4.3804            | 640               | 590                   | 370       | 350       |                 |  |
| 7:00   | 0     | 0               | 12.276      | 12.433            | 1880              | 1750                  | 1080      | 915       | เมฆบางส่วนโปร่ง |  |
| 7:10   | 0     | 0               | 22.801      | 24.869            | 3400              | 2850                  | 2000      | 1820      |                 |  |
| 7:20   | 0     | 0               | 30.694      | 35.668            | 4750              | 3750                  | 2600      | 2800      | เมฆบางส่วนโปร่ง |  |
| 7:30   | 0     | 0               | 45.602      | 56.917            | 7650              | 5400                  | 3850      | 4350      |                 |  |
| 7:40   | 0     | 0               | 49.114      | 67.414            | 8600              | 5950                  | 4350      | 5400      | เมฆบางส่วนโปร่ง |  |
| 7:50   | 0     | 0               | 47.356      | 58.246            | 8800              | 5950                  | 4600      | 5400      |                 |  |
| 8:00   | 0     | 0               | 56.654      | 69.732            | 11400             | 6950                  | 5200      | 6350      | เมฆบางส่วนโปร่ง |  |
| 8:10   | 0     | 0               | 64.018      | 75.916            | 14900             | 7650                  | 6100      | 7450      |                 |  |
| 8:20   | 0     | 0               | 87.258      | 111.91            | 21500             | 9750                  | 7850      | 10600     | เมฆบางส่วนโปร่ง |  |
| 8:30   | 0     | 0               | 100.85      | 126.31            | 27000             | 10900                 | 9150      | 12200     |                 |  |
| 8:40   | 0     | 0               | 101.47      | 129.57            | 28500             | 11400                 | 9150      | 11800     | เมฆบางส่วนโปร่ง |  |
| 8:50   | 0     | 0               | 110.14      | 140.68            | 33500             | 12800                 | 9900      | 13400     |                 |  |
| 9:00   | 0     | 0               | 113.99      | 146.9             | 36500             | 15600                 | 10100     | 13800     | เมฆบางส่วนโปร่ง |  |
| 9:10   | 0     | 0               | 111.36      | 147.23            | 38000             | 12200                 | 9950      | 14400     |                 |  |
| 9:20   | 0     | 0               | 115.74      | 157.77            | 41000             | 12600                 | 10400     | 14900     | เมฆบางส่วนโปร่ง |  |
| 9:30   | 0     | 0               | 120.11      | 162.25            | 41500             | 12000                 | 11000     | 16000     |                 |  |
| 9:40   | 0     | 0               | 131.5       | 168.41            | 50500             | 11800                 | 11700     | 16200     | เมฆบางส่วนโปร่ง |  |
| 9:50   | 0     | 0               | 141.58      | 170.76            | 56000             | 12400                 | 12700     | 16600     |                 |  |
| 10:00  | 0     | 0               | 156.02      | 175.96            | 61000             | 14300                 | 14000     | 17600     | เมฆบางส่วนโปร่ง |  |
| 10:10  | 0     | 0               | 152.52      | 174               | 62000             | 15800                 | 13300     | 16900     |                 |  |
| 10:20  | 0     | 0               | 148.99      | 169.39            | 62500             | 16100                 | 13200     | 16700     | เมฆบางส่วนโปร่ง |  |
| 10:30  | 0     | 0               | 149.84      | 175.58            | 63000             | 16700                 | 13000     | 15700     |                 |  |
| 10:40  | 0     | 0               | 141.08      | 136.67            | 63000             | 15600                 | 12200     | 15000     | เมฆบางส่วนโปร่ง |  |
| 10:50  | 0     | 0               | 137.56      | 175.84            | 61000             | 14500                 | 12000     | 15800     |                 |  |
| 11:00  | 0     | 0               | 127.91      | 158.88            | 64000             | 12700                 | 10400     | 14800     | เมฆบางส่วนโปร่ง |  |
| 11:10  | 0     | 0               | 143.68      | 175.21            | 67000             | 13400                 | 13200     | 16300     |                 |  |
| 11:20  | 0     | 0               | 162.94      | 189.26            | 76000             | 14100                 | 14300     | 17900     | เมฆบางส่วนโปร่ง |  |
| 11:30  | 0     | 0               | 153.29      | 169.64            | 64500             | 14600                 | 13500     | 16700     |                 |  |
| 11:40  | 0     | 0               | 164.42      | 179.75            | 80000             | 15800                 | 14000     | 17900     | เมฆบางส่วนโปร่ง |  |
| 11:50  | 0     | 0               | 136.63      | 159.48            | 62000             | 15000                 | 11500     | 14600     |                 |  |
| 12:00  | 0     | 0               | 162.46      | 189.54            | 85600             | 17900                 | 13700     | 17900     | เมฆบางส่วนโปร่ง |  |
| 12:10  | 0     | 0               | 154.99      | 180.36            | 86000             | 17300                 | 13700     | 17300     |                 |  |
| 12:20  | 0     | 0               | 143.61      | 164.68            | 78000             | 17800                 | 13500     | 17800     | เมฆบางส่วนโปร่ง |  |
| 12:30  | 0     | 0               | 146.23      | 177.68            | 85000             | 19100                 | 13200     | 17300     |                 |  |
| 12:40  | 0     | 0               | 136.58      | 135.59            | 80000             | 19000                 | 11800     | 18000     | เมฆบางส่วนโปร่ง |  |
| 12:50  | 0     | 0               | 84.051      | 137.21            | 37000             | 14400                 | 7950      | 13800     |                 |  |
| 13:00  | 0     | 0               | 70.48       | 120.22            | 27000             | 13200                 | 6700      | 11800     | เมฆบางส่วนโปร่ง |  |
| 13:10  | 0     | 0               | 114.69      | 178.31            | 55000             | 14100                 | 10600     | 18400     |                 |  |
| 13:20  | 0     | 0               | 133.08      | 203.85            | 72000             | 13900                 | 11600     | 18900     | เมฆบางส่วนโปร่ง |  |
| 13:30  | 0     | 0               | 126.95      | 197.32            | 75000             | 13200                 | 11300     | 19800     |                 |  |
| 13:40  | 0     | 0               | 131.33      | 209.08            | 81000             | 13000                 | 11400     | 21000     | เมฆบางส่วนโปร่ง |  |
| 13:50  | 0     | 0               | 133.07      | 197.94            | 72000             | 12600                 | 11400     | 21000     |                 |  |
| 14:00  | 0     | 0               | 125.62      | 187.49            | 67500             | 12500                 | 11400     | 18500     | เมฆบางส่วนโปร่ง |  |
| 14:10  | 0     | 0               | 126.06      | 186.84            | 74500             | 12700                 | 11600     | 18400     |                 |  |
| 14:20  | 0     | 0               | 124.74      | 180.29            | 70000             | 12500                 | 11300     | 17200     | เมฆบางส่วนโปร่ง |  |
| 14:30  | 0     | 0               | 122.99      | 161.99            | 60500             | 11400                 | 10000     | 15600     |                 |  |
| 14:40  | 0     | 0               | 134.29      | 180.23            | 65500             | 12000                 | 11300     | 17300     | เมฆบางส่วนโปร่ง |  |
| 14:50  | 0     | 0               | 130.41      | 187.46            | 61000             | 11900                 | 11100     | 14600     |                 |  |
| 15:00  | 0     | 0               | 110.28      | 166.56            | 47500             | 10600                 | 9250      | 16600     | เมฆบางส่วนโปร่ง |  |
| 15:10  | 0     | 0               | 100.65      | 142.06            | 70500             | 11200                 | 6800      | 13500     |                 |  |
| 15:20  | 0     | 0               | 104.15      | 152.84            | 73000             | 12000                 | 9600      | 13800     | เมฆบางส่วนโปร่ง |  |
| 15:30  | 0     | 0               | 98.027      | 130.96            | 39000             | 11100                 | 8350      | 14400     |                 |  |
| 15:40  | 0     | 0               | 90.15       | 157.09            | 40000             | 10800                 | 8400      | 14000     | เมฆบางส่วนโปร่ง |  |
| 15:50  | 0     | 0               | 76.146      | 88.178            | 25000             | 10900                 | 6800      | 7950      |                 |  |
| 16:00  | 0     | 0               | 90.402      | 101.89            | 33000             | 12000                 | 8150      | 9500      | เมฆบางส่วนโปร่ง |  |
| 16:10  | 0     | 0               | 88.4        | 86.871            | 31000             | 12800                 | 7900      | 8900      |                 |  |
| 16:20  | 0     | 0               | 84.899      | 77.727            | 28000             | 12800                 | 7650      | 7900      | เมฆบางส่วนโปร่ง |  |
| 16:30  | 0     | 0               | 80.523      | 71.195            | 25500             | 12700                 | 7300      | 7100      |                 |  |
| 16:40  | 0     | 0               | 59.517      | 53.56             | 15200             | 10200                 | 5700      | 8000      | เมฆบางส่วนโปร่ง |  |
| 16:50  | 0     | 0               | 57.766      | 52.902            | 14300             | 9750                  | 5450      | 5350      |                 |  |
| 17:00  | 0     | 0               | 53.29       | 46.648            | 11700             | 8600                  | 4950      | 4350      | เมฆบางส่วนโปร่ง |  |
| 17:10  | 0     | 0               | 50.764      | 43.762            | 9250              | 7300                  | 4550      | 4500      |                 |  |
| 17:20  | 0     | 0               | 52.515      | 45.722            | 8950              | 6600                  | 4500      | 4150      | เมฆบางส่วนโปร่ง |  |
| 17:30  | 0     | 0               | 42.887      | 36.251            | 4880              | 5100                  | 3650      | 3350      |                 |  |
| 17:40  | 0     | 0               | 28.883      | 24.82             | 4340              | 3400                  | 2400      | 2250      | เมฆบางส่วนโปร่ง |  |
| 17:50  | 0     | 0               | 17.064      | 13.716            | 2450              | 2000                  | 1430      | 1190      |                 |  |
| 27-Feb | 18:00 | 0               | 6.5654      | 4.9724            | 1040              | 870                   | 635       | 480       | เมฆบางส่วนโปร่ง |  |

ตารางภาคผนวก ค. แสดงเปอร์เซ็นต์ค่าการสะท้อนและการส่องผ่านของวัสดุที่ใช้ในอาคารกรณีศึกษา

| วัสดุ                    | จุดที่ 1 |         |       | จุดที่ 2 |         |       | จุดที่ 3 |         |       | จุดที่ 4 |         |       | จุดที่ 5 |         |       | %เฉลี่ย |
|--------------------------|----------|---------|-------|----------|---------|-------|----------|---------|-------|----------|---------|-------|----------|---------|-------|---------|
|                          | ส่องผ่าน | ตกกระทบ | %     | ส่องผ่าน | ตกกระทบ | %     | ส่องผ่าน | ตกกระทบ | %     | ส่องผ่าน | ตกกระทบ | %     | ส่องผ่าน | ตกกระทบ | %     |         |
| กระจกใส หน้า 4 มม.       | 111      | 125     | 88.8% | 2915.96  | 3600    | 81.0% | 168      | 227     | 74.0% | 2862.16  | 3400    | 84.2% |          |         |       | 82.0%   |
| กระจกสีชา หน้า 4 มม.     | 2421     | 4200    | 57.6% | 312.04   | 575     | 54.3% | 1495.64  | 2650    | 56.4% | 1323.48  | 2400    | 55.1% | 155      | 355     | 43.7% | 53.4%   |
|                          |          |         |       |          |         |       |          |         |       |          |         |       |          |         |       |         |
|                          |          |         |       |          |         |       |          |         |       |          |         |       |          |         |       |         |
| วัสดุ                    | จุดที่ 1 |         |       | จุดที่ 2 |         |       | จุดที่ 3 |         |       | จุดที่ 4 |         |       | จุดที่ 5 |         |       | %เฉลี่ย |
|                          | สะท้อน   | ตกกระทบ | %     | สะท้อน   | ตกกระทบ | %     | สะท้อน   | ตกกระทบ | %     | สะท้อน   | ตกกระทบ | %     | สะท้อน   | ตกกระทบ | %     |         |
| พื้นหินขัด               | 16       | 43      | 37.2% | 305      | 965     | 31.6% | 24       | 100     | 24.0% | 25       | 84      | 29.8% | 720      | 2100    | 34.3% | 31.4%   |
| พื้นกระเบื้องยาง         | 9        | 33      | 27.3% | 23       | 57      | 40.4% | 15       | 37      | 40.5% | 28       | 64      | 43.8% | 14       | 36      | 38.9% | 38.2%   |
| พื้นกันสาดภายนอก(มีคราบ) | 1020     | 5050    | 20.2% | 765      | 4550    | 16.8% | 621      | 3620    | 17.2% | 997      | 4780    | 20.9% |          |         |       | 18.8%   |
|                          |          |         |       |          |         |       |          |         |       |          |         |       |          |         |       |         |
| ผนังทาสีเนื้ออ่อน        | 44       | 118     | 37.3% | 15       | 45      | 33.3% | 43       | 120     | 35.8% | 12       | 37      | 32.4% | 27       | 99      | 27.3% | 33.2%   |
| ผนังไม้ฉลิมุข            | 12       | 102     | 11.8% | 18       | 200     | 9.0%  | 10       | 73      | 13.7% | 19       | 196     | 9.7%  | 11       | 116     | 9.5%  | 10.7%   |
|                          |          |         |       |          |         |       |          |         |       |          |         |       |          |         |       |         |
| ฝ้าเพดานรวงผึ้ง          | 59       | 92      | 64.1% | 22       | 67      | 32.8% | 16       | 51      | 31.4% |          |         |       |          |         |       | 42.8%   |
| ฝ้าเพดานยิปซัม ทึบขาว    | 71       | 99      | 71.7% | 69       | 95      | 72.6% | 78       | 101     | 77.2% | 117      | 220     | 53.2% |          |         |       | 68.7%   |

สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย

Station : BANGKOK METROPOLIS

December 1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0     | 13.89 | 113.9 | 319.4 | 533.3 | 686   | 711   | 677.7 | 674.9 | 555.5 | 383.3 | 208.3 | 47.21 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 205.3 | 711    |
| 2    | 0   | 0   | 0   | 0   | 0     | 11.11 | 116.6 | 333.3 | 513.8 | 669.3 | 749.9 | 777.7 | 738.8 | 580.5 | 405.5 | 197.2 | 49.99 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 214.6 | 777.66 |
| 3    | 0   | 0   | 0   | 0   | 0     | 8.332 | 113.9 | 330.5 | 538.8 | 633.2 | 716.6 | 719.3 | 613.8 | 499.9 | 366.6 | 180.5 | 41.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 198.7 | 719.33 |
| 4    | 0   | 0   | 0   | 0   | 0     | 8.332 | 105.5 | 313.8 | 486   | 630.5 | 741.6 | 752.7 | 636   | 555.5 | 391.6 | 200   | 52.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 203.3 | 752.66 |
| 5    | 0   | 0   | 0   | 0   | 0     | 8.332 | 111.1 | 305.5 | 505.5 | 641.6 | 744.3 | 824.9 | 741.6 | 591.6 | 411   | 194.4 | 49.99 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 214   | 824.87 |
| 6    | 0   | 0   | 0   | 0   | 0     | 11.11 | 105.5 | 300   | 491.6 | 672.1 | 766.5 | 747.1 | 636   | 486   | 349.9 | 163.9 | 47.21 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 199.3 | 766.55 |
| 7    | 0   | 0   | 0   | 0   | 0     | 8.332 | 108.3 | 327.7 | 533.3 | 672.1 | 741.6 | 744.3 | 630.5 | 519.4 | 344.4 | 191.6 | 44.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 203   | 744.33 |
| 8    | 0   | 0   | 0   | 0   | 0     | 8.332 | 102.8 | 308.3 | 505.5 | 636   | 727.7 | 691.6 | 652.7 | 541.6 | 394.4 | 175   | 30.55 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 198.9 | 727.67 |
| 9    | 0   | 0   | 0   | 0   | 0     | 11.11 | 105.5 | 305.5 | 519.4 | 674.9 | 769.3 | 766.5 | 655.5 | 538.8 | 397.2 | 219.4 | 58.32 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 209.5 | 769.33 |
| 10   | 0   | 0   | 0   | 0   | 0     | 5.555 | 80.54 | 275   | 472.1 | 624.9 | 741.6 | 708.2 | 608.2 | 480.5 | 405.5 | 216.6 | 58.32 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 195.1 | 741.55 |
| 11   | 0   | 0   | 0   | 0   | 0     | 5.555 | 99.98 | 294.4 | 480.5 | 611   | 705.4 | 741.6 | 686   | 505.5 | 366.6 | 161.1 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 195.8 | 741.55 |
| 12   | 0   | 0   | 0   | 0   | 0     | 5.555 | 94.43 | 286.1 | 458.3 | 622.1 | 724.9 | 755.4 | 613.8 | 502.7 | 402.7 | 194.4 | 41.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 196   | 755.44 |
| 13   | 0   | 0   | 0   | 0   | 0     | 5.555 | 94.43 | 294.4 | 505.5 | 641.6 | 741.6 | 752.7 | 605.5 | 524.9 | 380.5 | 188.9 | 41.66 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 199   | 752.66 |
| 14   | 0   | 0   | 0   | 0   | 0     | 8.332 | 88.88 | 291.6 | 505.5 | 641.6 | 727.7 | 786   | 641.6 | 611   | 438.8 | 213.9 | 55.55 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 209   | 785.99 |
| 15   | 0   | 0   | 0   | 0   | 0     | 5.555 | 91.65 | 291.6 | 491.6 | 663.8 | 774.9 | 780.4 | 722.1 | 611   | 419.4 | 225   | 58.32 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 214.2 | 780.44 |
| 16   | 0   | 0   | 0   | 0   | 0     | 5.555 | 97.21 | 294.4 | 505.5 | 711   | 799.9 | 822.1 | 755.4 | 611   | 419.4 | 238.9 | 66.66 | 8.332 | 0    | 0    | 0    | 0    | 0    | 0    | 222.3 | 822.1  |
| 17   | 0   | 0   | 0   | 0   | 0     | 8.332 | 99.98 | 297.2 | 486   | 694.3 | 752.7 | 808.2 | 702.7 | 574.9 | 413.8 | 244.4 | 69.43 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 214.8 | 808.21 |
| 18   | 0   | 0   | 0   | 0   | 0     | 5.555 | 99.98 | 319.4 | 524.9 | 680.5 | 783.2 | 811   | 724.9 | 569.4 | 441.6 | 216.6 | 66.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 218.7 | 810.99 |
| 19   | 0   | 0   | 0   | 0   | 0     | 8.332 | 99.98 | 305.5 | 530.5 | 669.3 | 766.5 | 794.3 | 727.7 | 547.1 | 402.7 | 222.2 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 213.4 | 794.32 |
| 20   | 0   | 0   | 0   | 0   | 0     | 8.332 | 99.98 | 319.4 | 516.6 | 680.5 | 786   | 811   | 733.2 | 580.5 | 438.8 | 225   | 52.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 219.1 | 810.99 |
| 21   | 0   | 0   | 0   | 0   | 0     | 8.332 | 113.9 | 330.5 | 499.9 | 636   | 755.4 | 758.2 | 647.1 | 536   | 361.1 | 200   | 47.21 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 204.1 | 758.22 |
| 22   | 0   | 0   | 0   | 0   | 0     | 8.332 | 94.43 | 291.6 | 477.7 | 641.6 | 758.2 | 797.1 | 674.9 | 533.3 | 383.3 | 216.6 | 58.32 | 8.332 | 0    | 0    | 0    | 0    | 0    | 0    | 206   | 797.1  |
| 23   | 0   | 0   | 0   | 0   | 0     | 5.555 | 91.65 | 311.1 | 511   | 658.2 | 761   | 719.3 | 680.5 | 583.2 | 386.1 | 211.1 | 55.55 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 207.5 | 760.99 |
| 24   | 0   | 0   | 0   | 0   | 0     | 5.555 | 97.21 | 311.1 | 524.9 | 680.5 | 783.2 | 797.1 | 655.5 | 530.5 | 411   | 205.5 | 55.55 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 211   | 797.1  |
| 25   | 0   | 0   | 0   | 0   | 0     | 5.555 | 86.1  | 280.5 | 472.1 | 602.7 | 686   | 733.2 | 644.3 | 544.4 | 394.4 | 194.4 | 52.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 195.9 | 733.22 |
| 26   | 0   | 0   | 0   | 0   | 0     | 5.555 | 88.88 | 300   | 505.5 | 641.6 | 749.9 | 774.9 | 666.6 | 541.6 | 391.6 | 227.7 | 63.88 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 206.8 | 774.88 |
| 27   | 0   | 0   | 0   | 0   | 0     | 5.555 | 69.43 | 213.9 | 388.8 | 561   | 652.7 | 711   | 647.1 | 477.7 | 338.8 | 208.3 | 61.1  | 8.332 | 0    | 0    | 0    | 0    | 0    | 0    | 181   | 711    |
| 28   | 0   | 0   | 0   | 0   | 0     | 5.555 | 83.32 | 280.5 | 488.8 | 653.8 | 766.5 | 766.5 | 661   | 569.4 | 397.2 | 225   | 63.88 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 207.4 | 766.55 |
| 29   | 0   | 0   | 0   | 0   | 0     | 5.555 | 77.77 | 280.5 | 474.9 | 594.4 | 683.2 | 711   | 638.8 | 574.9 | 352.7 | 211.1 | 61.1  | 8.332 | 0    | 0    | 0    | 0    | 0    | 0    | 194.8 | 711    |
| 30   | 0   | 0   | 0   | 0   | 2.777 | 2.777 | 66.66 | 241.6 | 422.2 | 597.1 | 711   | 724.9 | 619.3 | 527.7 | 380.5 | 216.6 | 49.99 | 8.332 | 0    | 0    | 0    | 0    | 0    | 0    | 190.5 | 724.99 |
| 31   | 0   | 0   | 0   | 0   | 0     | 2.777 | 66.66 | 244.4 | 435   | 613.8 | 736   | 738.8 | 697.1 | 569.4 | 419.4 | 227.7 | 58.32 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 200.7 | 738.78 |
| Mean | 0   | 0   | 0   | 0   | 0.09  | 7.167 | 95.68 | 296.7 | 493.7 | 646.7 | 742.4 | 758.2 | 668.8 | 547.6 | 393.2 | 207.1 | 53.04 | 5.196 | 0    | 0    | 0    | 0    | 0    | 0    | 204.8 | 763.59 |

Station : BANGKOK METROPOLIS

November

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/Sqm

| Day  | 100 | 200 | 300 | 400 | 500 | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | Mean | Max   |        |
|------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0   | 27.77 | 158.3 | 313.8 | 552.7 | 724.9 | 833.2 | 861   | 699.9 | 591.6 | 413.8 | 191.6 | 36.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 225.3 | 860.98 |
| 2    | 0   | 0   | 0   | 0   | 0   | 30.55 | 169.4 | 327.7 | 580.5 | 713.8 | 713.8 | 802.7 | 730.4 | 605.5 | 444.4 | 194.4 | 55.55 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 223.9 | 802.65 |
| 3    | 0   | 0   | 0   | 0   | 0   | 27.77 | 172.2 | 324.9 | 555.5 | 780.4 | 755.4 | 741.6 | 658.2 | 558.2 | 411   | 211.1 | 52.77 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 218.8 | 780.44 |
| 4    | 0   | 0   | 0   | 0   | 0   | 27.77 | 175   | 330.5 | 544.4 | 677.7 | 747.1 | 791.5 | 630.5 | 541.6 | 341.6 | 175   | 47.21 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 211.9 | 791.54 |
| 5    | 0   | 0   | 0   | 0   | 0   | 27.77 | 166.6 | 336.1 | 591.6 | 733.2 | 816.5 | 786   | 677.7 | 519.4 | 341.6 | 155.5 | 33.33 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 216.3 | 816.54 |
| 6    | 0   | 0   | 0   | 0   | 0   | 27.77 | 152.8 | 322.2 | 583.8 | 736   | 811   | 769.3 | 636   | 541.6 | 380.5 | 152.8 | 33.33 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 214.8 | 810.99 |
| 7    | 0   | 0   | 0   | 0   | 0   | 25    | 155.5 | 324.9 | 574.9 | 730.4 | 805.4 | 755.4 | 649.9 | 497.1 | 377.7 | 158.3 | 33.33 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 212.1 | 805.43 |
| 8    | 0   | 0   | 0   | 0   | 0   | 22.22 | 133.3 | 302.7 | 486   | 691.6 | 749.9 | 780.4 | 613.8 | 513.8 | 355.5 | 163.9 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 202.5 | 780.44 |
| 9    | 0   | 0   | 0   | 0   | 0   | 16.66 | 116.6 | 247.2 | 422.2 | 552.7 | 658.2 | 663.8 | 597.1 | 452.7 | 280.5 | 133.3 | 22.22 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 173.5 | 663.79 |
| 10   | 0   | 0   | 0   | 0   | 0   | 22.22 | 136.1 | 330.5 | 505.5 | 666.6 | 730.4 | 766.5 | 683.2 | 549.9 | 388.8 | 169.4 | 25    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 207.3 | 766.55 |
| 11   | 0   | 0   | 0   | 0   | 0   | 25    | 175   | 344.4 | 577.7 | 758.2 | 858.2 | 774.9 | 619.3 | 519.4 | 369.4 | 169.4 | 22.22 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 217.2 | 858.2  |
| 12   | 0   | 0   | 0   | 0   | 0   | 22.22 | 138.9 | 330.5 | 569.4 | 736   | 777.7 | 747.1 | 674.9 | 530.5 | 394.4 | 172.2 | 27.77 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 213.4 | 777.66 |
| 13   | 0   | 0   | 0   | 0   | 0   | 19.44 | 144.4 | 316.6 | 502.7 | 658.2 | 733.2 | 719.3 | 574.9 | 524.9 | 369.4 | 163.9 | 27.77 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 198.1 | 733.22 |
| 14   | 0   | 0   | 0   | 0   | 0   | 19.44 | 130.5 | 305.5 | 461   | 605.5 | 644.3 | 583.2 | 513.8 | 397.2 | 297.2 | 172.2 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 174   | 644.35 |
| 15   | 0   | 0   | 0   | 0   | 0   | 16.66 | 119.4 | 319.4 | 527.7 | 644.3 | 683.2 | 744.3 | 616.6 | 513.8 | 338.8 | 186.1 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 198   | 744.33 |
| 16   | 0   | 0   | 0   | 0   | 0   | 22.22 | 133.3 | 294.4 | 469.4 | 627.7 | 663.8 | 719.3 | 644.3 | 538.8 | 386.1 | 183.3 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 197.1 | 719.33 |
| 17   | 0   | 0   | 0   | 0   | 0   | 19.44 | 136.1 | 324.9 | 483.3 | 613.8 | 677.7 | 599.9 | 549.9 | 458.3 | 302.7 | 138.9 | 30.55 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 180.8 | 677.67 |
| 18   | 0   | 0   | 0   | 0   | 0   | 16.66 | 136.1 | 344.4 | 586   | 711   | 727.7 | 738.8 | 486   | 413.8 | 311.1 | 136.1 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 193.7 | 738.78 |
| 19   | 0   | 0   | 0   | 0   | 0   | 13.89 | 136.1 | 324.9 | 558.2 | 663.8 | 769.3 | 777.7 | 636   | 491.6 | 383.3 | 152.8 | 27.77 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 205.6 | 777.66 |
| 20   | 0   | 0   | 0   | 0   | 0   | 19.44 | 144.4 | 363.8 | 594.4 | 741.6 | 824.9 | 858.2 | 708.2 | 561   | 369.4 | 188.9 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 225.7 | 858.2  |
| 21   | 0   | 0   | 0   | 0   | 0   | 19.44 | 141.6 | 338.8 | 549.9 | 730.4 | 797.1 | 802.7 | 697.1 | 527.7 | 363.8 | 163.9 | 27.77 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 215.1 | 802.65 |
| 22   | 0   | 0   | 0   | 0   | 0   | 16.66 | 152.8 | 355.5 | 538.8 | 672.1 | 763.8 | 722.1 | 669.3 | 519.4 | 369.4 | 180.5 | 41.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 208.5 | 763.77 |
| 23   | 0   | 0   | 0   | 0   | 0   | 13.89 | 133.3 | 374.9 | 577.7 | 724.9 | 783.2 | 805.4 | 688.8 | 555.5 | 408.3 | 194.4 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 221.1 | 805.43 |
| 24   | 0   | 0   | 0   | 0   | 0   | 13.89 | 138.9 | 363.8 | 502.7 | 644.3 | 680.5 | 713.8 | 536   | 452.7 | 352.7 | 186.1 | 47.21 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 193.1 | 713.78 |
| 25   | 0   | 0   | 0   | 0   | 0   | 16.66 | 122.2 | 322.2 | 513.8 | 672.1 | 763.8 | 749.9 | 605.5 | 505.5 | 366.6 | 166.6 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 201.9 | 763.77 |
| 26   | 0   | 0   | 0   | 0   | 0   | 11.11 | 113.9 | 311.1 | 488.8 | 677.7 | 758.2 | 772.1 | 688.8 | 555.5 | 383.3 | 197.2 | 44.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 208.5 | 772.1  |
| 27   | 0   | 0   | 0   | 0   | 0   | 13.89 | 133.3 | 344.4 | 519.4 | 713.8 | 769.3 | 749.9 | 652.7 | 516.6 | 322.2 | 155.5 | 33.33 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 205.3 | 769.33 |
| 28   | 0   | 0   | 0   | 0   | 0   | 13.89 | 111.1 | 311.1 | 480.5 | 624.9 | 638.8 | 655.5 | 522.1 | 399.9 | 283.3 | 147.2 | 27.77 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 175.8 | 655.45 |
| 29   | 0   | 0   | 0   | 0   | 0   | 11.11 | 111.1 | 308.3 | 499.9 | 658.2 | 688.8 | 680.5 | 616.6 | 569.4 | 344.4 | 127.8 | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 194.1 | 688.78 |
| 30   | 0   | 0   | 0   | 0   | 0   | 8.332 | 99.98 | 269.4 | 466.6 | 611   | 674.9 | 697.1 | 613.8 | 527.7 | 413.8 | 225   | 72.21 | 5.555 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 195.2 | 697.11 |
| Mean | 0   | 0   | 0   | 0   | 0   | 19.63 | 139.6 | 324.3 | 529   | 683.2 | 743.3 | 744.3 | 631.4 | 515   | 362.2 | 170.4 | 38.05 | 2.592 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 204.3 | 761.36 |

Station : BANGKOK METROPOLIS

October

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/Sqm

| Day  | 100 | 200 | 300 | 400 | 500 | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | Mean | Max   |        |
|------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0   | 38.88 | 216.6 | 349.9 | 444.4 | 441.6 | 508.3 | 466.6 | 488.8 | 405.5 | 275   | 127.8 | 38.88 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 158.4 | 508.26 |
| 2    | 0   | 0   | 0   | 0   | 0   | 63.88 | 152.8 | 338.8 | 511   | 666.6 | 724.9 | 572.1 | 466   | 488.8 | 344.4 | 163.9 | 41.66 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 189.8 | 724.89 |
| 3    | 0   | 0   | 0   | 0   | 0   | 38.88 | 169.4 | 347.2 | 402.7 | 508.3 | 616.6 | 655.5 | 574.9 | 519.4 | 313.8 | 130.5 | 36.11 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 179.7 | 655.45 |
| 4    | 0   | 0   | 0   | 0   | 0   | 36.11 | 161.1 | 291.6 | 405.5 | 427.7 | 347.2 | 416.6 | 355.5 | 399.9 | 313.8 | 158.3 | 38.88 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 139.7 | 427.71 |
| 5    | 0   | 0   | 0   | 0   | 0   | 38.88 | 191.6 | 369.4 | 427.7 | 561   | 605.5 | 511   | 463.8 | 380.5 | 244.4 | 141.6 | 66.66 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 166.8 | 605.46 |
| 6    | 0   | 0   | 0   | 0   | 0   | 36.11 | 188.9 | 430.5 | 549.9 | 547.1 | 652.7 | 591.6 | 552.7 | 466.6 | 369.4 | 200   | 33.33 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 192.4 | 652.68 |
| 7    | 0   | 0   | 0   | 0   | 0   | 27.77 | 180.5 | 424.9 | 599.9 | 663.8 | 722.1 | 686   | 544.4 | 433.3 | 233.3 | 133.3 | 38.88 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 195.3 | 722.11 |
| 8    | 0   | 0   | 0   | 0   | 0   | 41.66 | 191.6 | 372.2 | 569.4 | 633.2 | 608.2 | 633.2 | 661   | 558.2 | 447.2 | 186.1 | 25    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 205.3 | 661.01 |
| 9    | 0   | 0   | 0   | 0   | 0   | 27.77 | 122.2 | 266.6 | 352.7 | 483.3 | 561   | 572.1 | 499.9 | 430.5 | 233.3 | 122.2 | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 154.1 | 572.13 |
| 10   | 0   | 0   | 0   | 0   | 0   | 36.11 | 175   | 358.3 | 494.4 | 611   | 544.4 | 536   | 480.5 | 441.6 | 313.8 | 155.5 | 30.55 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 174   | 611.02 |
| 11   | 0   | 0   | 0   | 0   | 0   | 33.33 | 205.5 | 388.8 | 502.7 | 619.3 | 638.8 | 547.1 | 513.8 | 502.7 | 349.9 | 161.1 | 30.55 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 187.2 | 638.79 |
| 12   | 0   | 0   | 0   | 0   | 0   | 30.55 | 166.6 | 390.5 | 558.2 | 624.9 | 649.9 | 613.8 | 633.2 | 461   | 291.6 | 108.3 | 25    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 191.4 | 683.23 |
| 13   | 0   | 0   | 0   | 0   | 0   | 41.66 | 194.4 | 424.9 | 544.4 | 694.3 | 763.8 | 605.5 | 608.2 | 497.1 | 297.2 | 150   | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 202.1 | 763.77 |
| 14   | 0   | 0   | 0   | 0   | 0   | 38.88 | 175   | 380.5 | 511   | 633.2 | 797.1 | 744.3 | 633.2 | 519.4 | 341.6 | 150   | 22.22 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 206.1 | 797.1  |
| 15   | 0   | 0   | 0   | 0   | 0   | 36.11 | 202.7 | 399.9 | 516.6 | 649.9 | 594.4 | 486   | 508.3 | 466.6 | 333.3 | 158.3 | 30.55 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 182.6 | 649.9  |
| 16   | 0   | 0   | 0   | 0   | 0   | 27.77 | 166.6 | 358.3 | 441.6 | 558.2 | 552.7 | 513.8 | 574.9 | 444.4 | 311.1 | 144.4 | 33.33 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 172   | 574.91 |
| 17   | 0   | 0   | 0   | 0   | 0   | 33.33 | 163.9 | 369.4 | 499.9 | 641.6 | 555.5 | 447.2 | 463.8 | 419.4 | 244.4 | 94.43 | 16.66 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 164.6 | 641.57 |
| 18   | 0   | 0   | 0   | 0   | 0   | 36.11 | 169.4 | 316.6 | 474.9 | 549.9 | 647.1 | 602.7 | 483.3 | 472.1 | 266.6 | 163.9 | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 175.4 | 647.12 |
| 19   | 0   | 0   | 0   | 0   | 0   | 30.55 | 158.3 | 336.1 | 511   | 627.7 | 747.1 | 597.1 | 455.5 | 377.7 | 333.3 | 138.9 | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 180.9 | 747.11 |
| 20   | 0   | 0   | 0   | 0   | 0   | 22.22 | 155.5 | 322.2 | 488.8 | 544.4 | 622.1 | 605.5 | 494.4 | 472.1 | 319.4 | 155.5 | 30.55 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 176.4 | 622.13 |
| 21   | 0   | 0   | 0   | 0   | 0   | 33.33 | 180.5 | 349.9 | 527.7 | 652.7 | 730.4 | 749.9 | 755.4 | 586   | 383.3 | 202.7 | 36.11 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 216.2 | 755.44 |
| 22   | 0   | 0   | 0   | 0   | 0   | 33.33 | 197.2 | 386.1 | 591.6 | 724.9 | 636   | 586   | 549.9 | 391.6 | 330.5 | 186.1 | 36.11 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 193.7 | 724.89 |
| 23   | 0   | 0   | 0   | 0   | 0   | 30.55 | 191.6 | 372.2 | 555.5 | 716.6 | 786   | 727.7 | 597.1 | 491.6 | 383.3 | 205.5 | 41.66 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 212.5 | 785.99 |
| 24   | 0   | 0   | 0   | 0   | 0   | 33.33 | 177.8 | 352.7 | 591.6 | 677.7 | 699.9 | 713.8 | 594.4 | 374.9 | 311.1 | 138.9 | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 195.6 | 713.78 |
| 25   | 0   | 0   | 0   | 0   | 0   | 33.33 | 172.2 | 363.8 | 549.9 | 672.1 | 738.8 | 761   | 638.8 | 427.7 | 388.8 | 127.8 | 22.22 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 204   | 760.99 |
| 26   | 0   | 0   | 0   | 0   | 0   | 30.55 | 188.9 | 355.5 | 594.4 | 694.3 | 702.7 | 736   | 572.1 | 461   | 338.8 | 150   | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 202.2 | 736    |
| 27   | 0   | 0   | 0   | 0   | 0   | 27.77 | 177.8 | 338.8 | 536   | 699.9 | 763.8 | 752.7 | 633.2 | 433.3 | 294.4 | 136.1 | 19.44 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 200.5 | 763.77 |
| 28   | 0   | 0   | 0   | 0   | 0   | 25    | 152.8 | 347.2 | 580.5 | 711   | 730.4 | 744.3 | 572.1 | 436   | 275   | 144.4 | 22.22 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 197.5 | 744.33 |
| 29   | 0   | 0   | 0   | 0   | 0   | 25    | 136.1 | 261.1 | 491.6 | 677.7 | 708.2 | 658.2 | 613.8 | 433.3 | 272.2 | 119.4 | 19.44 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 184   | 708.22 |
| 30   | 0   | 0   | 0   | 0   | 0   | 27.77 | 169.4 | 316.6 | 458.3 | 719.3 | 802.7 | 761   | 580.5 | 497.1 | 341.6 | 169.4 | 27.77 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 203   | 802.65 |
| 31   | 0   | 0   | 0   | 0   | 0   | 25    | 161.1 | 291.6 | 524.9 | 658.2 | 802.7 | 830.4 | 697.1 | 599.9 | 374.9 | 161.1 | 25    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 214.7 | 830.43 |
| Mean | 0   | 0   | 0   | 0   | 0   | 33.6  | 174.6 | 353.6 | 510   | 622.3 | 663.2 | 626.6 | 559.1 | 461   | 318.4 | 151.1 | 30.82 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 187.7 | 684.93 |

Station : BANGKOK METROPOLIS

September

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 8.332 | 38.88 | 161.1 | 336.1 | 508.3 | 630.5 | 594.4 | 633.2 | 477.7 | 372.2 | 391.6 | 280.5 | 63.88 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 189.2 | 633.24 |
| 2    | 0   | 0   | 0   | 0   | 11.11 | 41.66 | 155.5 | 380.5 | 541.6 | 649.9 | 633.2 | 602.7 | 591.6 | 544.4 | 438.8 | 277.7 | 113.9 | 16.66 | 11.11 | 0    | 0    | 0    | 0    | 0    | 208.8 | 649.9  |
| 3    | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 177.8 | 383.3 | 555.5 | 686   | 716.6 | 749.9 | 547.1 | 416.6 | 361.1 | 175   | 69.43 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 204.3 | 749.88 |
| 4    | 0   | 0   | 0   | 0   | 8.332 | 44.44 | 175   | 358.3 | 541.6 | 672.1 | 694.3 | 666.6 | 574.9 | 522.1 | 327.7 | 158.3 | 80.54 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 201.8 | 694.34 |
| 5    | 0   | 0   | 0   | 0   | 8.332 | 38.88 | 169.4 | 263.8 | 461   | 569.4 | 619.3 | 666.6 | 683.2 | 544.4 | 383.3 | 191.6 | 77.77 | 13.89 | 8.332 | 0    | 0    | 0    | 0    | 0    | 195.8 | 683.23 |
| 6    | 0   | 0   | 0   | 0   | 8.332 | 49.99 | 191.6 | 397.2 | 516.6 | 561   | 524.9 | 519.4 | 469.4 | 469.4 | 288.8 | 194.4 | 80.54 | 13.89 | 8.332 | 0    | 0    | 0    | 0    | 0    | 178.9 | 561.02 |
| 7    | 0   | 0   | 0   | 0   | 8.332 | 63.88 | 250   | 402.7 | 569.4 | 683.2 | 663.8 | 713.8 | 658.2 | 590.5 | 455.5 | 233.3 | 86.1  | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 224.5 | 713.78 |
| 8    | 0   | 0   | 0   | 0   | 11.11 | 61.1  | 200   | 363.8 | 538.8 | 661   | 622.1 | 633.2 | 647.1 | 602.7 | 408.3 | 205.5 | 69.43 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 210.2 | 661.01 |
| 9    | 0   | 0   | 0   | 0   | 11.11 | 52.77 | 183.3 | 300   | 441.6 | 524.9 | 605.5 | 566.6 | 522.1 | 355.5 | 258.3 | 147.2 | 52.77 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 168.4 | 605.46 |
| 10   | 0   | 0   | 0   | 0   | 11.11 | 47.21 | 172.2 | 352.7 | 511   | 583.2 | 580.5 | 636   | 480.5 | 383.3 | 275   | 172.2 | 55.55 | 8.332 | 5.555 | 0    | 0    | 0    | 0    | 0    | 178.1 | 636.01 |
| 11   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 177.8 | 374.9 | 463.8 | 511   | 641.6 | 549.9 | 536   | 422.2 | 272.2 | 177.8 | 69.43 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 178   | 641.57 |
| 12   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 175   | 458.3 | 547.1 | 572.1 | 594.4 | 588.8 | 574.9 | 413.8 | 313.8 | 222.2 | 66.66 | 8.332 | 5.555 | 0    | 0    | 0    | 0    | 0    | 191.3 | 594.35 |
| 13   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 197.2 | 408.3 | 552.7 | 663.8 | 802.7 | 694.3 | 469.4 | 294.4 | 208.3 | 150   | 72.21 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 190.8 | 802.65 |
| 14   | 0   | 0   | 0   | 0   | 8.332 | 44.44 | 208.3 | 438.8 | 549.9 | 661   | 649.9 | 449.9 | 427.7 | 411   | 349.9 | 208.3 | 83.32 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 187.9 | 661.01 |
| 15   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 180.5 | 316.6 | 408.3 | 469.4 | 647.1 | 449.9 | 419.4 | 461   | 383.3 | 219.4 | 72.21 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 170.7 | 647.12 |
| 16   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 155.5 | 324.9 | 469.4 | 488.8 | 449.9 | 505.5 | 502.7 | 469.4 | 347.2 | 213.9 | 80.54 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 169.6 | 505.48 |
| 17   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 138.9 | 322.2 | 447.2 | 511   | 511   | 463.8 | 538.8 | 488.8 | 283.3 | 144.4 | 38.88 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 164.4 | 538.81 |
| 18   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 155.5 | 280.5 | 363.8 | 549.9 | 702.7 | 649.9 | 533.3 | 419.4 | 238.9 | 105.5 | 41.66 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 170.9 | 702.67 |
| 19   | 0   | 0   | 0   | 0   | 8.332 | 38.88 | 172.2 | 305.5 | 474.9 | 569.4 | 611   | 524.9 | 427.7 | 336.1 | 302.7 | 152.8 | 58.32 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 166.6 | 611.02 |
| 20   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 158.3 | 377.7 | 474.9 | 494.4 | 438.8 | 397.2 | 324.9 | 330.5 | 311.1 | 186.1 | 55.55 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 150.4 | 494.37 |
| 21   | 0   | 0   | 0   | 0   | 5.555 | 41.66 | 186.1 | 338.8 | 461   | 513.8 | 738.8 | 738.8 | 652.7 | 544.4 | 352.7 | 213.9 | 72.21 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 203.2 | 738.78 |
| 22   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 222.2 | 366.6 | 538.8 | 630.5 | 747.1 | 638.8 | 649.9 | 516.6 | 413.8 | 244.4 | 74.99 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 213.2 | 747.11 |
| 23   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 177.8 | 386.1 | 552.7 | 708.2 | 636   | 624.9 | 574.9 | 444.4 | 250   | 150   | 66.66 | 11.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 193.6 | 708.22 |
| 24   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 125   | 250   | 424.9 | 474.9 | 586   | 508.3 | 355.5 | 297.2 | 247.2 | 163.9 | 52.77 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 147.7 | 586.02 |
| 25   | 0   | 0   | 0   | 0   | 5.555 | 36.11 | 180.5 | 313.8 | 461   | 597.1 | 591.6 | 430.5 | 433.3 | 394.4 | 283.3 | 127.8 | 36.11 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 162.8 | 597.13 |
| 26   | 0   | 0   | 0   | 0   | 8.332 | 44.44 | 191.6 | 322.2 | 524.9 | 480.5 | 561   | 486   | 411   | 388.8 | 291.6 | 133.3 | 47.21 | 8.332 | 5.555 | 0    | 0    | 0    | 0    | 0    | 162.7 | 561.02 |
| 27   | 0   | 0   | 0   | 0   | 2.777 | 47.21 | 211.1 | 394.4 | 519.4 | 613.8 | 574.9 | 483.3 | 541.6 | 422.2 | 300   | 122.2 | 44.44 | 8.332 | 8.332 | 0    | 0    | 0    | 0    | 0    | 178.9 | 613.79 |
| 28   | 0   | 0   | 0   | 0   | 0     | 44.44 | 202.7 | 419.4 | 583.2 | 663.8 | 586   | 572.1 | 447.2 | 333.3 | 247.2 | 155.5 | 44.44 | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 179.1 | 663.79 |
| 29   | 0   | 0   | 0   | 0   | 0     | 36.11 | 147.2 | 286.1 | 394.4 | 461   | 569.4 | 680.5 | 616.6 | 397.2 | 230.5 | 127.8 | 33.33 | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 165.8 | 680.45 |
| 30   | 0   | 0   | 0   | 0   | 0     | 38.88 | 175   | 322.2 | 402.7 | 552.7 | 633.2 | 608.2 | 619.3 | 527.7 | 261.1 | 133.3 | 38.88 | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 179.7 | 633.24 |
| Mean | 0   | 0   | 0   | 0   | 7.499 | 43.14 | 179.1 | 351.5 | 493.3 | 580.3 | 617.6 | 581.1 | 523.6 | 436.8 | 315.9 | 179.6 | 64.16 | 9.165 | 7.129 | 0    | 0    | 0    | 0    | 0    | 182.9 | 643.88 |

Station : BANGKOK METROPOLIS

August

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 8.332 | 30.55 | 136.1 | 272.2 | 424.9 | 527.7 | 572.1 | 599.9 | 536   | 549.9 | 516.6 | 394.4 | 175   | 52.77 | 22.22 | 0    | 0    | 0    | 0    | 0    | 200.8 | 599.91 |
| 2    | 0   | 0   | 0   | 0   | 8.332 | 25    | 116.6 | 252.7 | 394.4 | 469.4 | 591.6 | 672.1 | 697.1 | 505.5 | 427.7 | 319.4 | 166.6 | 47.21 | 11.11 | 0    | 0    | 0    | 0    | 0    | 196   | 697.11 |
| 3    | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 144.4 | 263.8 | 419.4 | 486   | 586   | 586   | 544.4 | 388.8 | 330.5 | 269.4 | 141.6 | 41.66 | 11.11 | 0    | 0    | 0    | 0    | 0    | 204.9 | 677.67 |
| 4    | 0   | 0   | 0   | 0   | 5.555 | 30.55 | 144.4 | 291.6 | 444.4 | 538.8 | 647.1 | 677.7 | 558.2 | 577.7 | 438.8 | 302.7 | 172.2 | 77.77 | 11.11 | 0    | 0    | 0    | 0    | 0    | 208.3 | 630.46 |
| 5    | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 155.5 | 305.5 | 458.3 | 511   | 572.1 | 630.5 | 619.3 | 630.5 | 452.7 | 394.4 | 175   | 36.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 208.3 | 630.46 |
| 6    | 0   | 0   | 0   | 0   | 8.332 | 25    | 136.1 | 280.5 | 402.7 | 577.7 | 669.3 | 724.9 | 641.6 | 586   | 527.7 | 388.8 | 200   | 55.55 | 13.89 | 0    | 0    | 0    | 0    | 0    | 218.3 | 724.89 |
| 7    | 0   | 0   | 0   | 0   | 8.332 | 25    | 122.2 | 266.6 | 483.3 | 616.6 | 708.2 | 724.9 | 686   | 588.8 | 491.6 | 313.8 | 163.9 | 49.99 | 13.89 | 0    | 0    | 0    | 0    | 0    | 219.3 | 724.89 |
| 8    | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 158.3 | 341.6 | 502.7 | 583.2 | 622.1 | 649.9 | 655.5 | 541.6 | 499.9 | 252.7 | 94.43 | 38.88 | 11.11 | 0    | 0    | 0    | 0    | 0    | 208.2 | 655.45 |
| 9    | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 141.6 | 280.5 | 513.8 | 641.6 | 733.2 | 802.7 | 711   | 561   | 491.6 | 305.5 | 158.3 | 58.32 | 13.89 | 0    | 0    | 0    | 0    | 0    | 227.3 | 802.65 |
| 10   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 138.9 | 269.4 | 391.6 | 536   | 572.1 | 605.5 | 505.5 | 577.7 | 474.9 | 247.2 | 86.1  | 30.55 | 11.11 | 0    | 0    | 0    | 0    | 0    | 187.1 | 605.46 |
| 11   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 138.9 | 272.2 | 424.9 | 524.9 | 605.5 | 555.5 | 569.4 | 416.6 | 380.5 | 280.5 | 133.3 | 41.66 | 11.11 | 0    | 0    | 0    | 0    | 0    | 183.5 | 605.46 |
| 12   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 127.8 | 294.4 | 463.8 | 566.6 | 649.9 | 627.7 | 636   | 538.8 | 416.6 | 294.4 | 130.5 | 38.88 | 11.11 | 0    | 0    | 0    | 0    | 0    | 201.6 | 649.9  |
| 13   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 161.1 | 349.9 | 480.5 | 611   | 633.2 | 702.7 | 583.2 | 549.9 | 405.5 | 211.1 | 125   | 33.33 | 8.332 | 0    | 0    | 0    | 0    | 0    | 204.1 | 702.67 |
| 14   | 0   | 0   | 0   | 0   | 8.332 | 27.77 | 119.4 | 286.1 | 441.6 | 597.1 | 652.7 | 663.8 | 627.7 | 558.2 | 469.4 | 266.6 | 111.1 | 30.55 | 11.11 | 0    | 0    | 0    | 0    | 0    | 203   | 663.79 |
| 15   | 0   | 0   | 0   | 0   | 8.332 | 27.77 | 122.2 | 272.2 | 441.6 | 583.2 | 663.8 | 644.3 | 683.2 | 547.1 | 386.1 | 294.4 | 152.8 | 44.44 | 8.332 | 0    | 0    | 0    | 0    | 0    | 203.3 | 683.23 |
| 16   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 116.6 | 266.6 | 399.9 | 505.5 | 558.2 | 649.9 | 502.7 | 480.5 | 474.9 | 319.4 | 153.3 | 44.44 | 11.11 | 0    | 0    | 0    | 0    | 0    | 188.7 | 649.9  |
| 17   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 122.2 | 255.5 | 380.5 | 513.8 | 624.9 | 611   | 624.9 | 522.1 | 391.6 | 241.6 | 125   | 33.33 | 11.11 | 0    | 0    | 0    | 0    | 0    | 187.5 | 624.9  |
| 18   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 147.2 | 286.1 | 511   | 577.7 | 566.6 | 594.4 | 463.8 | 383.3 | 313.8 | 261.1 | 125   | 27.77 | 11.11 | 0    | 0    | 0    | 0    | 0    | 179.9 | 594.35 |
| 19   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 125   | 280.5 | 461   | 608.2 | 636   | 644.3 | 597.1 | 561   | 455.5 | 225   | 127.8 | 41.66 | 8.332 | 0    | 0    | 0    | 0    | 0    | 200.5 | 644.35 |
| 20   | 0   | 0   | 0   | 0   | 0     | 22.22 | 133.3 | 338.8 | 477.7 | 544.4 | 602.7 | 655.5 | 638.8 | 511   | 394.4 | 247.2 | 113.9 | 25    | 0     | 0    | 0    | 0    | 0    | 0    | 196   | 655.45 |
| 21   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 152.8 | 349.9 | 480.5 | 597.1 | 644.3 | 624.9 | 616.6 | 497.1 | 408.3 | 286.1 | 141.6 | 33.33 | 11.11 | 0    | 0    | 0    | 0    | 0    | 203.7 | 644.35 |
| 22   | 0   | 0   | 0   | 0   | 8.332 | 27.77 | 119.4 | 283.3 | 452.7 | 616.6 | 597.1 | 611   | 636   | 519.4 | 397.2 | 211.1 | 116.6 | 36.11 | 11.11 | 0    | 0    | 0    | 0    | 0    | 193.5 | 636.01 |
| 23   | 0   | 0   | 0   | 0   | 8.332 | 25    | 108.3 | 222.2 | 324.9 | 491.6 | 541.6 | 616.6 | 611   | 502.7 | 311.1 | 233.3 | 144.4 | 36.11 | 11.11 | 0    | 0    | 0    | 0    | 0    | 174.5 | 616.57 |
| 24   | 0   | 0   | 0   | 0   | 8.332 | 30.55 | 125   | 272.2 | 377.7 | 524.9 | 569.4 | 566.6 | 613.8 | 602.7 | 499.9 | 291.6 | 116.6 | 27.77 | 8.332 | 0    | 0    | 0    | 0    | 0    | 193.1 | 613.79 |
| 25   | 0   | 0   | 0   | 0   | 8.332 | 27.77 | 122.2 | 236.1 | 408.3 | 466.6 | 488.8 | 655.5 | 547.1 | 483.3 | 391.6 | 252.7 | 105.5 | 19.44 | 11.11 | 0    | 0    | 0    | 0    | 0    | 176   | 655.45 |
| 26   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 127.8 | 297.2 | 372.2 | 433.3 | 452.7 | 572.1 | 558.2 | 461   | 388.8 | 277.7 | 116.6 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 172.1 | 572.13 |
| 27   | 0   | 0   | 0   | 0   | 11.11 | 44.44 | 177.8 | 344.4 | 530.5 | 547.1 | 619.3 | 688.8 | 530.5 | 511   | 388.8 | 300   | 111.1 | 19.44 | 11.11 | 0    | 0    | 0    | 0    | 0    | 201.5 | 688.78 |
| 28   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 152.8 | 308.3 | 413.8 | 655.5 | 594.4 | 541.6 | 613.8 | 499.9 | 388.8 | 280.5 | 105.5 | 19.44 | 11.11 | 0    | 0    | 0    | 0    | 0    | 192.9 | 655.45 |
| 29   | 0   | 0   | 0   | 0   | 8.332 | 36.11 | 130.5 | 272.2 | 397.2 | 591.6 | 611   | 638.8 | 572.1 | 505.5 | 408.3 | 261.1 | 97.21 | 15.66 | 8.332 | 0    | 0    | 0    | 0    | 0    | 189.8 | 638.79 |
| 30   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 166.6 | 277.7 | 413.8 | 472.1 | 505.5 | 511   | 486   | 383.3 | 355.5 | 283.3 | 130.5 | 27.77 | 11.11 | 0    | 0    | 0    | 0    | 0    | 169.4 | 511.03 |
| 31   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 183.3 | 383.3 | 497.1 | 644.3 | 705.4 | 674.9 | 563.8 | 474.9 | 424.9 | 286.1 | 147.2 | 55.55 | 11.11 | 0    | 0    | 0    | 0    | 0    | 212.6 | 705.45 |
| Mean | 0   | 0   | 0   | 0   | 8.063 | 32.97 | 137.9 | 289.5 | 438.3 | 553.6 | 606.4 | 636.3 | 594.5 | 516.7 | 422.7 | 283.6 | 134.5 | 37.54 | 10.75 | 0    | 0    | 0    | 0    | 0    | 196   | 648.91 |

Station : BANGKOK METROPOLIS

July

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 5.555 | 49.99 | 211.1 | 399.9 | 519.4 | 622.1 | 641.6 | 588.8 | 472.1 | 474.9 | 455.5 | 258.3 | 105.5 | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 201.2 | 641.57 |
| 2    | 0   | 0   | 0   | 0   | 5.555 | 44.44 | 186.1 | 408.3 | 455.5 | 647.1 | 649.9 | 769.3 | 674.9 | 622.1 | 394.4 | 255.5 | 172.2 | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 217.4 | 769.33 |
| 3    | 0   | 0   | 0   | 0   | 8.332 | 61.1  | 194.4 | 391.5 | 483.3 | 653.8 | 666.6 | 747.1 | 724.9 | 644.3 | 455.5 | 266.6 | 119.4 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 227.3 | 747.11 |
| 4    | 0   | 0   | 0   | 0   | 5.555 | 44.44 | 180.5 | 333.3 | 502.7 | 699.9 | 744.3 | 711   | 647.1 | 513.8 | 377.7 | 211.1 | 108.3 | 25    | 8.332 | 0    | 0    | 0    | 0    | 0    | 213   | 744.33 |
| 5    | 0   | 0   | 0   | 0   | 5.555 | 49.99 | 177.8 | 294.4 | 436   | 547.1 | 583.2 | 624.9 | 505.5 | 447.2 | 349.9 | 186.1 | 86.1  | 19.44 | 8.332 | 0    | 0    | 0    | 0    | 0    | 180.1 | 624.9  |
| 6    | 0   | 0   | 0   | 0   | 5.555 | 47.21 | 202.7 | 333.3 | 486   | 669.3 | 624.9 | 566.6 | 483.3 | 461   | 374.9 | 291.6 | 125   | 25    | 2.777 | 0    | 0    | 0    | 0    | 0    | 195.8 | 669.34 |
| 7    | 0   | 0   | 0   | 0   | 5.555 | 66.66 | 230.5 | 461   | 555.5 | 622.1 | 733.2 | 711   | 691.6 | 605.5 | 436   | 316.6 | 150   | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 238.3 | 733.22 |
| 8    | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 238.9 | 441.6 | 597.1 | 633.8 | 713.8 | 691.6 | 677.7 | 508.3 | 480.5 | 336.1 | 150   | 25    | 5.555 | 0    | 0    | 0    | 0    | 0    | 232.3 | 713.78 |
| 9    | 0   | 0   | 0   | 0   | 5.555 | 49.99 | 211.1 | 402.7 | 569.4 | 636   | 711   | 703.2 | 477.7 | 444.4 | 358.3 | 222.2 | 108.3 | 27.77 | 8.332 | 0    | 0    | 0    | 0    | 0    | 205.9 | 711    |
| 10   | 0   | 0   | 0   | 0   | 8.332 | 61.1  | 250   | 444.4 | 577.7 | 663.8 | 733.2 | 788.8 | 602.7 | 452.7 | 383.3 | 236.1 | 108.3 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 222.5 | 788.77 |
| 11   | 0   | 0   | 0   | 0   | 8.332 | 49.99 | 183.3 | 336.1 | 513.8 | 663.8 | 677.7 | 624.9 | 549.9 | 491.6 | 358.3 | 233.3 | 99.99 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 200.8 | 677.67 |
| 12   | 0   | 0   | 0   | 0   | 5.555 | 38.88 | 177.8 | 344.4 | 527.7 | 672.1 | 659.3 | 672.1 | 538.8 | 461   | 330.5 | 266.6 | 133.9 | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 203.2 | 672.12 |
| 13   | 0   | 0   | 0   | 0   | 8.332 | 55.55 | 163.9 | 322.2 | 497.1 | 594.4 | 605.5 | 627.7 | 602.7 | 522.1 | 388.8 | 294.4 | 133.3 | 25    | 5.555 | 0    | 0    | 0    | 0    | 0    | 201.9 | 627.68 |
| 14   | 0   | 0   | 0   | 0   | 5.555 | 44.44 | 158.3 | 330.5 | 455.5 | 566.6 | 741.6 | 677.7 | 569.4 | 491.6 | 363.8 | 280.5 | 105.5 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 200.8 | 741.55 |
| 15   | 0   | 0   | 0   | 0   | 5.555 | 38.88 | 152.8 | 316.6 | 461   | 508.3 | 608.2 | 605.5 | 463.8 | 502.7 | 441.6 | 263.8 | 111.1 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 187.9 | 608.24 |
| 16   | 0   | 0   | 0   | 0   | 5.555 | 47.21 | 197.2 | 372.2 | 555.5 | 638.8 | 627.7 | 697.1 | 627.7 | 491.6 | 363.8 | 202.7 | 105.5 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 205.8 | 697.11 |
| 17   | 0   | 0   | 0   | 0   | 5.555 | 44.44 | 180.5 | 355.5 | 452.7 | 524.9 | 680.5 | 691.6 | 713.8 | 613.8 | 461   | 241.6 | 97.21 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 212.2 | 713.78 |
| 18   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 180.5 | 355.5 | 544.4 | 680.5 | 769.3 | 680.5 | 563.8 | 463.8 | 336.1 | 194.4 | 99.98 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 206.3 | 769.33 |
| 19   | 0   | 0   | 0   | 0   | 8.332 | 49.99 | 211.1 | 424.9 | 558.2 | 647.1 | 755.4 | 733.2 | 738.8 | 583.2 | 505.5 | 261.1 | 113.9 | 27.77 | 8.332 | 0    | 0    | 0    | 0    | 0    | 234.5 | 755.44 |
| 20   | 0   | 0   | 0   | 0   | 8.332 | 38.88 | 130.5 | 241.6 | 441.6 | 630.5 | 608.2 | 633.2 | 536   | 447.2 | 372.2 | 227.7 | 138.9 | 30.55 | 5.555 | 0    | 0    | 0    | 0    | 0    | 187.1 | 633.24 |
| 21   | 0   | 0   | 0   | 0   | 5.555 | 41.66 | 188.9 | 336.1 | 505.5 | 513.8 | 516.6 | 591.6 | 597.1 | 505.5 | 427.7 | 238.9 | 127.8 | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 192.9 | 597.13 |
| 22   | 0   | 0   | 0   | 0   | 5.555 | 38.88 | 163.9 | 333.3 | 508.3 | 605.5 | 638.8 | 674.9 | 705.4 | 630.5 | 469.4 | 225   | 122.2 | 22.22 | 5.655 | 0    | 0    | 0    | 0    | 0    | 214.6 | 705.45 |
| 23   | 0   | 0   | 0   | 0   | 5.555 | 33.33 | 163.9 | 316.6 | 488.8 | 627.7 | 647.1 | 630.5 | 719.3 | 561   | 433.3 | 252.7 | 111.1 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 209.1 | 719.33 |
| 24   | 0   | 0   | 0   | 0   | 8.332 | 47.21 | 197.2 | 366.6 | 561   | 688.8 | 663.8 | 669.3 | 630.5 | 508.3 | 399.9 | 233.3 | 97.21 | 19.44 | 8.332 | 0    | 0    | 0    | 0    | 0    | 212.5 | 688.78 |
| 25   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 163.9 | 344.4 | 472.1 | 547.1 | 561   | 622.1 | 547.1 | 488.8 | 436   | 311.1 | 136.1 | 30.55 | 8.332 | 0    | 0    | 0    | 0    | 0    | 196.6 | 622.13 |
| 26   | 0   | 0   | 0   | 0   | 0     | 30.55 | 152.8 | 355.5 | 569.4 | 647.1 | 647.1 | 669.3 | 619.3 | 466.6 | 377.7 | 286.1 | 138.9 | 27.77 | 8.332 | 0    | 0    | 0    | 0    | 0    | 208.2 | 669.34 |
| 27   | 0   | 0   | 0   | 0   | 8.332 | 49.99 | 200   | 388.8 | 549.9 | 669.3 | 777.7 | 769.3 | 633.2 | 555.5 | 497.1 | 336.1 | 144.4 | 30.55 | 8.332 | 0    | 0    | 0    | 0    | 0    | 234.1 | 777.66 |
| 28   | 0   | 0   | 0   | 0   | 5.555 | 41.66 | 177.8 | 349.9 | 516.6 | 602.7 | 758.2 | 752.7 | 755.4 | 647.1 | 486   | 333.3 | 138.9 | 27.77 | 8.332 | 0    | 0    | 0    | 0    | 0    | 233.4 | 758.22 |
| 29   | 0   | 0   | 0   | 0   | 8.332 | 41.66 | 163.9 | 352.7 | 505.5 | 563.8 | 633.2 | 627.7 | 616.6 | 544.4 | 436   | 285.1 | 163.9 | 36.11 | 8.332 | 0    | 0    | 0    | 0    | 0    | 207.8 | 633.24 |
| 30   | 0   | 0   | 0   | 0   | 5.555 | 36.11 | 163.9 | 333.3 | 447.2 | 566.6 | 716.6 | 641.6 | 586   | 494.4 | 463.8 | 280.5 | 125   | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 203.8 | 716.56 |
| 31   | 0   | 0   | 0   | 0   | 8.332 | 33.33 | 152.8 | 308.3 | 411   | 477.7 | 555.5 | 547.1 | 538.8 | 508.3 | 430.5 | 283.3 | 130.5 | 25    | 8.332 | 0    | 0    | 0    | 0    | 0    | 184.1 | 555.47 |
| Mean | 0   | 0   | 0   | 0   | 6.451 | 46.14 | 184.1 | 357.9 | 510.5 | 614.4 | 666.5 | 669.3 | 606.8 | 517.8 | 414.4 | 261.7 | 123   | 25.09 | 6.899 | 0    | 0    | 0    | 0    | 0    | 208.8 | 692.99 |



Station : BANGKOK METROPOLIS

June

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 2.777 | 72.21 | 230.5 | 413.8 | 586   | 697.1 | 788.8 | 808.2 | 711   | 616.6 | 465.6 | 275   | 111.1 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 241.7 | 808.21 |
| 2    | 0   | 0   | 0   | 0   | 5.555 | 74.99 | 211.1 | 361.1 | 477.7 | 672.1 | 786   | 705.4 | 627.7 | 563.8 | 486   | 330.5 | 113.9 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 226.6 | 785.99 |
| 3    | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 194.4 | 386.1 | 616.6 | 719.3 | 752.7 | 719.3 | 683.2 | 558.2 | 397.2 | 225   | 102.8 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 226.8 | 752.66 |
| 4    | 0   | 0   | 0   | 0   | 5.555 | 72.21 | 272.2 | 436   | 591.6 | 794.3 | 813.8 | 841.5 | 802.7 | 669.3 | 522.1 | 258.3 | 99.98 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 258.3 | 841.54 |
| 5    | 0   | 0   | 0   | 0   | 5.555 | 74.99 | 208.3 | 369.4 | 613.8 | 702.7 | 536   | 588.8 | 638.8 | 633.2 | 447.2 | 194.4 | 80.54 | 13.89 | 8.332 | 0    | 0    | 0    | 0    | 0    | 213.2 | 702.67 |
| 6    | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 191.6 | 344.4 | 544.4 | 663.6 | 719.3 | 769.3 | 694.3 | 608.2 | 397.2 | 238.9 | 94.43 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 223.2 | 769.33 |
| 7    | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 175   | 319.4 | 433.3 | 549.9 | 722.1 | 691.6 | 611   | 536   | 374.9 | 250   | 111.1 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 202.2 | 722.11 |
| 8    | 0   | 0   | 0   | 0   | 2.777 | 61.1  | 230.5 | 399.9 | 563.8 | 633.2 | 686   | 722.1 | 659.2 | 569.4 | 405.5 | 288.8 | 108.3 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 223.2 | 722.11 |
| 9    | 0   | 0   | 0   | 0   | 8.332 | 55.55 | 183.3 | 338.8 | 480.5 | 561   | 544.4 | 569.4 | 666.6 | 561   | 394.4 | 261.1 | 127.8 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 199.3 | 666.56 |
| 10   | 0   | 0   | 0   | 0   | 5.555 | 44.44 | 161.1 | 336.1 | 466.6 | 652.7 | 680.5 | 697.1 | 661   | 577.7 | 388.8 | 236.1 | 99.98 | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 209.7 | 697.11 |
| 11.  | 0   | 0   | 0   | 0   | 5.555 | 52.77 | 191.6 | 341.6 | 519.4 | 652.7 | 683   | 688.8 | 611   | 447.2 | 399.9 | 311.1 | 150   | 25    | 5.555 | 0    | 0    | 0    | 0    | 0    | 212   | 688.78 |
| 12   | 0   | 0   | 0   | 0   | 8.332 | 55.55 | 188.9 | 330.5 | 505.5 | 577.7 | 683.2 | 616.6 | 588.8 | 488.8 | 380.5 | 286.1 | 130.5 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 202.9 | 683.23 |
| 13   | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 230.5 | 386.1 | 519.4 | 666.6 | 708.2 | 705.4 | 558.2 | 499.9 | 372.2 | 175   | 74.99 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 207.7 | 708.22 |
| 14   | 0   | 0   | 0   | 0   | 2.777 | 49.99 | 166.6 | 313.8 | 461   | 583.2 | 591.6 | 516.6 | 583.2 | 541.6 | 441.6 | 336.1 | 130.5 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 197.9 | 591.58 |
| 15   | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 233.3 | 355.5 | 599.9 | 711   | 641.6 | 616.6 | 638.8 | 513.8 | 408.3 | 300   | 122.2 | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 218.1 | 711    |
| 16   | 0   | 0   | 0   | 0   | 5.555 | 55.55 | 202.7 | 349.9 | 547.1 | 691.6 | 772.1 | 638.8 | 597.1 | 533.3 | 411   | 316.6 | 113.9 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 218.9 | 772.1  |
| 17   | 0   | 0   | 0   | 0   | 5.555 | 66.66 | 230.5 | 413.8 | 511   | 680.5 | 636   | 658.2 | 580.5 | 558.2 | 522.1 | 294.4 | 108.3 | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 220.5 | 680.45 |
| 18   | 0   | 0   | 0   | 0   | 5.555 | 55.55 | 238.9 | 380.5 | 594.4 | 724.9 | 747.1 | 708.2 | 655.5 | 566.6 | 413.8 | 227.7 | 74.99 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 225.7 | 747.11 |
| 19   | 0   | 0   | 0   | 0   | 5.555 | 52.77 | 163.9 | 313.8 | 433.3 | 594.4 | 549.9 | 524.9 | 483.3 | 413.8 | 288.8 | 155.5 | 86.1  | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 170.6 | 594.35 |
| 20   | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 227.7 | 408.3 | 558.2 | 588.8 | 594.4 | 655.5 | 641.6 | 574.9 | 447.2 | 238.9 | 99.98 | 19.44 | 8.332 | 0    | 0    | 0    | 0    | 0    | 213.6 | 655.45 |
| 21   | 0   | 0   | 0   | 0   | 5.555 | 66.66 | 247.2 | 386.1 | 511   | 644.3 | 613.8 | 638.8 | 524.9 | 483.3 | 427.7 | 252.7 | 141.6 | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 207.4 | 644.35 |
| 22   | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 225   | 391.6 | 549.9 | 674.9 | 680.5 | 697.1 | 624.9 | 580.5 | 466.6 | 338.8 | 177.8 | 27.77 | 2.777 | 0    | 0    | 0    | 0    | 0    | 229.4 | 697.11 |
| 23   | 0   | 0   | 0   | 0   | 5.555 | 55.55 | 191.6 | 372.2 | 591.6 | 705.4 | 722.1 | 658.2 | 633.2 | 583.2 | 455.5 | 266.6 | 125   | 38.88 | 2.777 | 0    | 0    | 0    | 0    | 0    | 225.3 | 722.11 |
| 24   | 0   | 0   | 0   | 0   | 5.555 | 49.99 | 183.3 | 355.5 | 488.8 | 663.8 | 686   | 669.3 | 636   | 558.2 | 436   | 324.9 | 130.5 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 216.9 | 666.01 |
| 25   | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 227.7 | 452.7 | 605.5 | 605.5 | 691.6 | 677.7 | 588.8 | 511   | 433.3 | 283.3 | 139.9 | 22.22 | 5.555 | 0    | 0    | 0    | 0    | 0    | 220.9 | 691.56 |
| 26   | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 180.5 | 338.8 | 508.3 | 686   | 694.3 | 702.7 | 611   | 552.7 | 444.4 | 297.2 | 125   | 25    | 8.332 | 0    | 0    | 0    | 0    | 0    | 218.4 | 702.67 |
| 27   | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 216.6 | 399.9 | 566.6 | 611   | 677.7 | 691.6 | 644.3 | 613.8 | 491.6 | 313.8 | 133.3 | 25    | 8.332 | 0    | 0    | 0    | 0    | 0    | 227.5 | 691.56 |
| 28   | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 197.2 | 377.7 | 513.8 | 611   | 674.9 | 613.8 | 616.6 | 569.4 | 411   | 255.5 | 119.4 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 210.6 | 674.9  |
| 29   | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 222.2 | 358.3 | 552.7 | 647.1 | 724.9 | 738.8 | 697.1 | 669.3 | 583.2 | 355.5 | 150   | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 241.4 | 738.78 |
| 30   | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 205.5 | 405.5 | 547.1 | 636   | 716.6 | 722.1 | 624.9 | 536   | 472.1 | 261.1 | 105.5 | 16.66 | 8.332 | 0    | 0    | 0    | 0    | 0    | 221.7 | 722.11 |
| Mean | 0   | 0   | 0   | 0   | 5.277 | 59.99 | 207.7 | 371.2 | 535.3 | 653.5 | 684.1 | 675.1 | 629.8 | 556.3 | 432.9 | 271.6 | 116.3 | 20.46 | 5.74  | 0    | 0    | 0    | 0    | 0    | 217.7 | 709.06 |

Station : BANGKOK METROPOLIS

May

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 2.777 | 66.66 | 263.8 | 424.9 | 597.1 | 713.8 | 916.5 | 880.4 | 858.2 | 783.2 | 566.6 | 399.9 | 161.1 | 19.44 | 2.777 | 0    | 0    | 0    | 0    | 0    | 277.4 | 916.53 |
| 2    | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 230.5 | 402.7 | 555.5 | 713.8 | 941.5 | 913.7 | 824.9 | 669.3 | 558.2 | 383.3 | 141.6 | 13.69 | 2.777 | 0    | 0    | 0    | 0    | 0    | 267.1 | 941.52 |
| 3    | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 205.5 | 405.5 | 558.2 | 708.2 | 774.9 | 863.8 | 838.8 | 716.6 | 536   | 372.2 | 138.9 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 257.9 | 863.76 |
| 4    | 0   | 0   | 0   | 0   | 2.777 | 63.88 | 236.1 | 427.7 | 502.7 | 613.8 | 708.2 | 780.4 | 747.1 | 669.3 | 474.9 | 291.6 | 122.2 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 235.8 | 780.44 |
| 5    | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 227.7 | 366.6 | 474.9 | 599.9 | 694.3 | 658.2 | 716.6 | 605.5 | 490.5 | 297.2 | 108.3 | 11.11 | 5.555 | 0    | 0    | 0    | 0    | 0    | 221.3 | 716.56 |
| 6    | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 188.9 | 372.2 | 524.9 | 683.2 | 722.1 | 680.5 | 605.5 | 577.7 | 408.3 | 261.1 | 108.3 | 8.332 | 5.555 | 0    | 0    | 0    | 0    | 0    | 216.9 | 722.11 |
| 7    | 0   | 0   | 0   | 0   | 2.777 | 52.77 | 180.5 | 338.8 | 424.9 | 580.5 | 738.8 | 783.2 | 644.3 | 561   | 422.2 | 294.4 | 116.6 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 214.8 | 783.21 |
| 8    | 0   | 0   | 0   | 0   | 2.777 | 61.1  | 211.1 | 402.7 | 452.7 | 547.1 | 613.8 | 708.2 | 747.1 | 611   | 458.3 | 255.5 | 116.6 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 216.9 | 747.11 |
| 9    | 0   | 0   | 0   | 0   | 2.777 | 47.21 | 177.8 | 322.2 | 472.1 | 436   | 508.3 | 444.4 | 511   | 413.8 | 349.9 | 230.5 | 88.88 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 167.6 | 511.03 |
| 10   | 0   | 0   | 0   | 0   | 5.555 | 52.77 | 183.3 | 283.3 | 449.9 | 611   | 699.9 | 744.3 | 647.1 | 563.8 | 427.7 | 255.5 | 102.8 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 210   | 744.33 |
| 11   | 0   | 0   | 0   | 0   | 2.777 | 52.77 | 194.4 | 352.7 | 558.2 | 708.2 | 769.3 | 830.4 | 797.1 | 586   | 419.4 | 261.1 | 105.5 | 27.77 | 5.555 | 0    | 0    | 0    | 0    | 0    | 236.3 | 830.43 |
| 12   | 0   | 0   | 0   | 0   | 2.777 | 61.1  | 227.7 | 408.3 | 547.1 | 758.2 | 858.2 | 830.4 | 866.5 | 711   | 538.8 | 363.8 | 122.2 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 262.9 | 866.53 |
| 13   | 0   | 0   | 0   | 0   | 2.777 | 55.55 | 213.9 | 380.5 | 527.7 | 649.9 | 769.3 | 877.6 | 819.3 | 741.6 | 577.7 | 336.1 | 155.5 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 255.3 | 877.64 |
| 14   | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 247.2 | 486   | 549.9 | 566.6 | 536   | 538.8 | 636   | 549.9 | 427.7 | 258.3 | 119.4 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 208.5 | 636.01 |
| 15   | 0   | 0   | 0   | 0   | 5.555 | 61.1  | 216.6 | 419.4 | 655.5 | 747.1 | 844.3 | 799.9 | 647.1 | 547.1 | 458.3 | 313.8 | 127.8 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 244.3 | 844.31 |
| 16   | 0   | 0   | 0   | 0   | 2.777 | 74.99 | 269.4 | 466.6 | 647.1 | 763.8 | 938.7 | 902.6 | 855.4 | 758.2 | 580.5 | 363.8 | 136.1 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 282.2 | 938.74 |
| 17   | 0   | 0   | 0   | 0   | 5.555 | 74.99 | 244.4 | 419.4 | 519.4 | 644.3 | 627.7 | 638.8 | 644.3 | 549.9 | 511   | 319.4 | 127.8 | 19.44 | 5.555 | 0    | 0    | 0    | 0    | 0    | 223   | 644.35 |
| 18   | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 191.6 | 355.5 | 477.7 | 547.1 | 580.5 | 674.9 | 574.9 | 497.1 | 444.4 | 311.1 | 133.3 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 203.1 | 674.9  |
| 19   | 0   | 0   | 0   | 0   | 5.555 | 77.77 | 225   | 349.9 | 474.9 | 541.6 | 649.9 | 672.1 | 666.6 | 599.9 | 466.6 | 308.3 | 119.4 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 215.8 | 672.12 |
| 20   | 0   | 0   | 0   | 0   | 5.555 | 69.43 | 222.2 | 405.5 | 527.7 | 561   | 558.2 | 611   | 580.5 | 436   | 361.1 | 244.4 | 105.5 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 196.2 | 611.02 |
| 21   | 0   | 0   | 0   | 0   | 8.332 | 72.21 | 219.4 | 424.9 | 580.5 | 694.3 | 758.2 | 766.5 | 677.7 | 491.6 | 391.6 | 236.1 | 97.21 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 226.4 | 766.55 |
| 22   | 0   | 0   | 0   | 0   | 2.777 | 58.32 | 233.3 | 402.7 | 516.6 | 608.2 | 761   | 733.2 | 669.3 | 544.4 | 427.7 | 241.6 | 80.54 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 220.8 | 760.99 |
| 23   | 0   | 0   | 0   | 0   | 2.777 | 66.66 | 247.2 | 413.8 | 572.1 | 686   | 688.8 | 630.5 | 674.9 | 658.2 | 466.6 | 283.3 | 130.5 | 22.22 | 8.332 | 0    | 0    | 0    | 0    | 0    | 231.3 | 688.78 |
| 24   | 0   | 0   | 0   | 0   | 2.777 | 69.43 | 230.5 | 413.8 | 630.5 | 663.8 | 744.3 | 711   | 663.8 | 602.7 | 561   | 347.2 | 138.9 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 241.6 | 744.33 |
| 25   | 0   | 0   | 0   | 0   | 2.777 | 69.43 | 200   | 377.7 | 530.5 | 602.7 | 711   | 741.6 | 611   | 494.4 | 452.7 | 261.1 | 108.3 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 216.1 | 741.55 |
| 26   | 0   | 0   | 0   | 0   | 2.777 | 63.88 | 219.4 | 497.1 | 599.9 | 744.3 | 819.3 | 699.9 | 638.8 | 630.5 | 427.7 | 297.2 | 97.21 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 239.8 | 819.32 |
| 27   | 0   | 0   | 0   | 0   | 2.777 | 61.1  | 200   | 383.3 | 597.1 | 763.8 | 788.8 | 752.7 | 736   | 633.2 | 474.9 | 305.5 | 116.6 | 16.66 | 8.332 | 0    | 0    | 0    | 0    | 0    | 243.4 | 788.77 |
| 28   | 0   | 0   | 0   | 0   | 5.555 | 58.32 | 222.2 | 424.9 | 563.8 | 616.6 | 641.6 | 736   | 608.2 | 536   | 405.5 | 252.7 | 113.9 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 216.9 | 736    |
| 29   | 0   | 0   | 0   | 0   | 5.555 | 63.88 | 180.5 | 338.8 | 505.5 | 638.8 | 677.7 | 644.3 | 597.1 | 549.9 | 455.5 | 244.4 | 105.5 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 209.5 | 677.67 |
| 30   | 0   | 0   | 0   | 0   | 5.555 | 69.43 | 227.7 | 372.2 | 602.7 | 711   | 827.7 | 844.3 | 711   | 541.6 | 391.6 | 241.6 | 97.21 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 236.1 | 844.31 |
| 31   | 0   | 0   | 0   | 0   | 2.777 | 74.99 | 258.3 | 441.6 | 519.4 | 686   | 791.5 | 711   | 713.8 | 661   | 449.9 | 322.2 | 141.6 | 16.66 | 2.777 | 0    | 0    | 0    | 0    | 0    | 241.4 | 791.54 |
| Mean | 0   | 0   | 0   | 0   | 3.942 | 62.8  | 219.2 | 396.2 | 539.3 | 648.7 | 731   | 735.6 | 694.5 | 596.5 | 463.6 | 295.3 | 118.9 | 14.96 | 4.39  | 0    | 0    | 0    | 0    | 0    | 230.2 | 763.95 |

Station : BANGKOK METROPOLIS

April

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500 | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0   | 25    | 161.1 | 327.7 | 508.3 | 724.9 | 838.8 | 869.3 | 891.5 | 747.1 | 552.7 | 338.8 | 130.5 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 255.3 | 891.53 |
| 2    | 0   | 0   | 0   | 0   | 0   | 30.55 | 200   | 416.6 | 633.2 | 783.2 | 865.5 | 983.2 | 905.4 | 772.1 | 605.5 | 361.1 | 125   | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 278.9 | 983.18 |
| 3    | 0   | 0   | 0   | 0   | 0   | 25    | 166.6 | 374.9 | 572.1 | 786   | 838.8 | 916.5 | 869.3 | 783.2 | 602.7 | 347.2 | 116.6 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 267   | 916.53 |
| 4    | 0   | 0   | 0   | 0   | 0   | 30.55 | 191.6 | 369.4 | 594.4 | 766.5 | 822.1 | 852.6 | 852.6 | 738.8 | 572.1 | 341.6 | 125   | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 261.3 | 852.65 |
| 5    | 0   | 0   | 0   | 0   | 0   | 33.33 | 194.4 | 372.2 | 522.1 | 699.9 | 769.3 | 888.8 | 919.3 | 772.1 | 594.4 | 366.6 | 127.8 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 261.3 | 919.3  |
| 6    | 0   | 0   | 0   | 0   | 0   | 33.33 | 183.3 | 380.5 | 552.7 | 724.9 | 799.9 | 827.7 | 838.8 | 705.4 | 480.5 | 252.7 | 99.98 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 245.4 | 838.76 |
| 7    | 0   | 0   | 0   | 0   | 0   | 27.77 | 175   | 300   | 591.6 | 722.1 | 827.7 | 830.4 | 830.4 | 708.2 | 558.2 | 338.8 | 125   | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 252   | 830.43 |
| 8    | 0   | 0   | 0   | 0   | 0   | 30.55 | 161.1 | 341.6 | 472.1 | 630.5 | 708.2 | 813.8 | 769.3 | 686   | 555.5 | 352.7 | 139.9 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 236.3 | 813.76 |
| 9    | 0   | 0   | 0   | 0   | 0   | 30.55 | 188.9 | 419.4 | 591.6 | 733.2 | 780.4 | 852.6 | 863.8 | 744.3 | 563.8 | 349.9 | 130.5 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 261   | 863.76 |
| 10   | 0   | 0   | 0   | 0   | 0   | 33.33 | 186.1 | 330.5 | 533.3 | 711   | 897.1 | 902.6 | 849.9 | 708.2 | 569.4 | 347.2 | 133.3 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 259   | 902.64 |
| 11   | 0   | 0   | 0   | 0   | 0   | 33.33 | 208.3 | 416.6 | 627.7 | 730.4 | 844.3 | 938.7 | 947.1 | 816.5 | 608.2 | 377.7 | 130.5 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 280.9 | 988.74 |
| 12   | 0   | 0   | 0   | 0   | 0   | 38.88 | 202.7 | 366.6 | 552.7 | 686   | 836   | 933.2 | 902.6 | 830.4 | 608.2 | 363.8 | 125   | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 269.1 | 933.19 |
| 13   | 0   | 0   | 0   | 0   | 0   | 36.11 | 158.3 | 319.4 | 469.4 | 644.3 | 747.1 | 891.5 | 861   | 674.9 | 519.4 | 324.9 | 105.5 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 240.1 | 891.53 |
| 14   | 0   | 0   | 0   | 0   | 0   | 49.99 | 219.4 | 405.5 | 574.9 | 733.2 | 783.2 | 880.4 | 691.6 | 719.3 | 558.2 | 344.4 | 105.5 | 11.11 | 5.555 | 0    | 0    | 0    | 0    | 0    | 253.4 | 880.42 |
| 15   | 0   | 0   | 0   | 0   | 0   | 36.11 | 191.6 | 369.4 | 569.4 | 658.2 | 758.2 | 780.4 | 833.2 | 744.3 | 516.6 | 305.5 | 119.4 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 245.7 | 833.21 |
| 16   | 0   | 0   | 0   | 0   | 0   | 44.44 | 202.7 | 372.2 | 524.9 | 738.8 | 830.4 | 836   | 841.5 | 808.2 | 588.8 | 358.3 | 133.3 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 262.2 | 841.54 |
| 17   | 0   | 0   | 0   | 0   | 0   | 44.44 | 222.2 | 444.4 | 616.6 | 786   | 830.4 | 794.3 | 713.8 | 702.7 | 594.4 | 386.1 | 119.4 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 261.1 | 830.43 |
| 18   | 0   | 0   | 0   | 0   | 0   | 47.21 | 230.5 | 480.5 | 627.7 | 772.1 | 836   | 874.9 | 830.4 | 722.1 | 588.8 | 366.6 | 113.9 | 8.332 | 5.555 | 0    | 0    | 0    | 0    | 0    | 271   | 874.87 |
| 19   | 0   | 0   | 0   | 0   | 0   | 49.99 | 230.5 | 469.4 | 619.3 | 799.9 | 863.8 | 991.5 | 941.5 | 808.2 | 636   | 380.5 | 158.3 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 290.1 | 991.51 |
| 20   | 0   | 0   | 0   | 0   | 0   | 49.99 | 205.5 | 316.6 | 580.5 | 808.2 | 897.1 | 936   | 883.2 | 774.9 | 588.8 | 372.2 | 127.8 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 273   | 935.97 |
| 21   | 0   | 0   | 0   | 0   | 0   | 49.99 | 222.2 | 424.9 | 605.5 | 691.6 | 769.3 | 844.3 | 869.3 | 661   | 516.6 | 300   | 97.21 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 252.5 | 869.31 |
| 22   | 0   | 0   | 0   | 0   | 0   | 47.21 | 177.8 | 344.4 | 527.7 | 652.7 | 830.4 | 899.9 | 855.4 | 747.1 | 527.7 | 324.9 | 119.4 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 252.7 | 899.86 |
| 23   | 0   | 0   | 0   | 0   | 0   | 49.99 | 180.5 | 422.2 | 622.1 | 730.4 | 813.8 | 841.5 | 897.1 | 797.1 | 577.7 | 327.7 | 136.1 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 267   | 897.08 |
| 24   | 0   | 0   | 0   | 0   | 0   | 41.66 | 186.1 | 374.9 | 591.6 | 691.6 | 802.7 | 827.7 | 797.1 | 741.6 | 505.5 | 319.4 | 127.8 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 250.8 | 827.65 |
| 25   | 0   | 0   | 0   | 0   | 0   | 47.21 | 169.4 | 394.4 | 541.6 | 677.7 | 811   | 824.9 | 738.8 | 644.3 | 488.8 | 341.6 | 136.1 | 16.66 | 5.555 | 0    | 0    | 0    | 0    | 0    | 243.2 | 824.87 |
| 26   | 0   | 0   | 0   | 0   | 0   | 58.32 | 233.3 | 491.6 | 636   | 694.3 | 805.4 | 783.2 | 769.3 | 688.8 | 513.8 | 338.8 | 127.8 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 256.6 | 805.43 |
| 27   | 0   | 0   | 0   | 0   | 0   | 47.21 | 211.1 | 380.5 | 561   | 744.3 | 794.3 | 824.9 | 758.2 | 638.8 | 474.9 | 291.6 | 133.3 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 245   | 824.87 |
| 28   | 0   | 0   | 0   | 0   | 0   | 61.1  | 252.7 | 458.3 | 608.2 | 694.3 | 763.8 | 791.5 | 758.2 | 652.7 | 558.2 | 313.8 | 122.2 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 252   | 791.54 |
| 29   | 0   | 0   | 0   | 0   | 0   | 55.55 | 216.6 | 413.8 | 622.1 | 777.7 | 808.2 | 811   | 749.9 | 649.9 | 558.2 | 361.1 | 147.2 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 257.8 | 810.99 |
| 30   | 0   | 0   | 0   | 0   | 0   | 55.55 | 230.5 | 413.8 | 608.2 | 730.4 | 813.8 | 808.2 | 824.9 | 677.7 | 572.1 | 324.9 | 133.3 | 13.89 | 5.555 | 0    | 0    | 0    | 0    | 0    | 258.9 | 824.87 |
| Mean | 0   | 0   | 0   | 0   | 0   | 41.48 | 198.7 | 390.4 | 575.3 | 724.1 | 812.9 | 863.4 | 835.1 | 728.9 | 558.5 | 340.7 | 125.7 | 10.09 | 3.148 | 0    | 0    | 0    | 0    | 0    | 258.7 | 873.01 |

Station : BANGKOK METROPOLIS

March

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500 | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean  | Max    |
|------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0   | 11.11 | 133.3 | 330.5 | 441.6 | 597.1 | 711   | 897.1 | 844.3 | 766.5 | 488.8 | 277.7 | 94.43 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 233.4 | 897.08 |
| 2    | 0   | 0   | 0   | 0   | 0   | 8.332 | 130.5 | 322.2 | 491.6 | 638.8 | 763.8 | 755.4 | 722.1 | 669.3 | 505.5 | 300   | 102.8 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 225.7 | 763.77 |
| 3    | 0   | 0   | 0   | 0   | 0   | 8.332 | 108.3 | 305.5 | 469.4 | 619.3 | 772.1 | 772.1 | 738.8 | 674.9 | 516.6 | 313.8 | 116.6 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 225.9 | 772.1  |
| 4    | 0   | 0   | 0   | 0   | 0   | 8.332 | 102.8 | 277.7 | 499.9 | 647.1 | 811   | 819.3 | 749.9 | 674.9 | 511   | 330.5 | 119.4 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 231.7 | 819.32 |
| 5    | 0   | 0   | 0   | 0   | 0   | 11.11 | 108.3 | 294.4 | 497.1 | 633.2 | 761   | 836   | 786   | 686   | 536   | 319.4 | 108.3 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 232.6 | 835.98 |
| 6    | 0   | 0   | 0   | 0   | 0   | 8.332 | 105.5 | 258.3 | 466.6 | 649.9 | 749.9 | 816.5 | 749.9 | 705.4 | 538.8 | 333.3 | 116.6 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 229.4 | 816.54 |
| 7    | 0   | 0   | 0   | 0   | 0   | 8.332 | 108.3 | 258.3 | 449.9 | 533.3 | 674.9 | 780.4 | 741.6 | 716.6 | 544.4 | 344.4 | 113.9 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 220.1 | 780.44 |
| 8    | 0   | 0   | 0   | 0   | 0   | 8.332 | 119.4 | 308.3 | 530.5 | 658.2 | 880.4 | 866.5 | 833.2 | 711   | 549.9 | 324.9 | 136.1 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 247.3 | 880.42 |
| 9    | 0   | 0   | 0   | 0   | 0   | 16.66 | 133.3 | 324.9 | 574.9 | 713.8 | 855.4 | 941.5 | 844.3 | 774.9 | 549.9 | 322.2 | 116.6 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 257.3 | 941.52 |
| 10   | 0   | 0   | 0   | 0   | 0   | 11.11 | 116.6 | 338.8 | 588.8 | 716.6 | 836   | 899.9 | 811   | 699.9 | 536   | 308.3 | 97.21 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 248.8 | 899.86 |
| 11   | 0   | 0   | 0   | 0   | 0   | 11.11 | 144.4 | 355.5 | 533.3 | 722.1 | 794.3 | 844.3 | 733.2 | 708.2 | 538.8 | 319.4 | 111.1 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 242.7 | 844.31 |
| 12   | 0   | 0   | 0   | 0   | 0   | 13.89 | 169.4 | 349.9 | 552.7 | 661   | 883.2 | 922.1 | 858.2 | 786   | 583.2 | 327.7 | 111.1 | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 259.2 | 922.08 |
| 13   | 0   | 0   | 0   | 0   | 0   | 13.89 | 130.5 | 302.7 | 491.6 | 624.9 | 819.3 | 852.6 | 761   | 705.4 | 516.6 | 280.5 | 94.43 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 233.4 | 852.65 |
| 14   | 0   | 0   | 0   | 0   | 0   | 16.66 | 147.2 | 316.6 | 511   | 641.6 | 838.8 | 866.5 | 794.3 | 744.3 | 549.9 | 322.2 | 111.1 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 244.5 | 866.53 |
| 15   | 0   | 0   | 0   | 0   | 0   | 11.11 | 122.2 | 305.5 | 533.3 | 647.1 | 769.3 | 772.1 | 722.1 | 661   | 522.1 | 313.8 | 108.3 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 228.9 | 772.1  |
| 16   | 0   | 0   | 0   | 0   | 0   | 13.89 | 180.5 | 374.9 | 616.6 | 661   | 844.3 | 880.4 | 799.9 | 683.2 | 530.5 | 347.2 | 113.9 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 252.2 | 880.42 |
| 17   | 0   | 0   | 0   | 0   | 0   | 16.66 | 150   | 349.9 | 586   | 605.5 | 741.6 | 869.3 | 855.4 | 786   | 558.2 | 361.1 | 119.4 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 250.2 | 869.31 |
| 18   | 0   | 0   | 0   | 0   | 0   | 16.66 | 138.9 | 333.3 | 547.1 | 683.2 | 891.5 | 936   | 836   | 733.2 | 538.8 | 322.2 | 105.5 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 253.7 | 935.97 |
| 19   | 0   | 0   | 0   | 0   | 0   | 16.66 | 155.5 | 336.1 | 544.4 | 608.2 | 769.3 | 858.2 | 880.4 | 694.3 | 533.3 | 341.6 | 127.8 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 244.9 | 880.42 |
| 20   | 0   | 0   | 0   | 0   | 0   | 16.66 | 147.2 | 336.1 | 533.3 | 597.1 | 838.8 | 872.1 | 844.3 | 661   | 483.3 | 288.8 | 108.3 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 239   | 872.09 |
| 21   | 0   | 0   | 0   | 0   | 0   | 19.44 | 155.5 | 391.6 | 558.2 | 686   | 830.4 | 838.8 | 780.4 | 705.4 | 538.8 | 352.7 | 119.4 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 249.5 | 838.76 |
| 22   | 0   | 0   | 0   | 0   | 0   | 19.44 | 152.8 | 366.6 | 563.8 | 674.9 | 827.7 | 886   | 872.1 | 813.8 | 605.5 | 388.8 | 138.9 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 263.4 | 885.97 |
| 23   | 0   | 0   | 0   | 0   | 0   | 22.22 | 150   | 363.8 | 541.6 | 683.2 | 808.2 | 861   | 813.8 | 752.7 | 561   | 333.3 | 130.5 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 251.4 | 860.98 |
| 24   | 0   | 0   | 0   | 0   | 0   | 16.66 | 172.2 | 349.9 | 524.9 | 680.5 | 836   | 869.3 | 863.8 | 774.9 | 594.4 | 352.7 | 116.6 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 255.6 | 869.31 |
| 25   | 0   | 0   | 0   | 0   | 0   | 22.22 | 172.2 | 377.7 | 508.3 | 655.5 | 799.9 | 866.5 | 816.5 | 711   | 522.1 | 330.5 | 125   | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 246.6 | 866.53 |
| 26   | 0   | 0   | 0   | 0   | 0   | 30.55 | 200   | 413.8 | 652.7 | 763.8 | 894.3 | 897.1 | 944.3 | 813.8 | 613.8 | 363.8 | 138.9 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 280.7 | 944.3  |
| 27   | 0   | 0   | 0   | 0   | 0   | 27.77 | 155.5 | 283.3 | 477.7 | 583.2 | 758.2 | 783.2 | 811   | 716.6 | 566.6 | 338.8 | 127.8 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 235   | 810.99 |
| 28   | 0   | 0   | 0   | 0   | 0   | 22.22 | 161.1 | 341.6 | 566.6 | 702.7 | 847.1 | 905.4 | 902.6 | 752.7 | 563.8 | 338.8 | 119.4 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 259.8 | 905.42 |
| 29   | 0   | 0   | 0   | 0   | 0   | 25    | 163.9 | 358.3 | 577.7 | 716.6 | 913.7 | 963.7 | 922.1 | 749.9 | 619.3 | 327.7 | 122.2 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 269.4 | 963.74 |
| 30   | 0   | 0   | 0   | 0   | 0   | 22.22 | 175   | 397.2 | 616.6 | 708.2 | 841.5 | 836   | 836   | 786   | 613.8 | 349.9 | 127.8 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 263.4 | 841.54 |
| 31   | 0   | 0   | 0   | 0   | 0   | 25    | 188.9 | 419.4 | 561   | 699.9 | 838.8 | 922.1 | 886   | 749.9 | 599.9 | 366.6 | 138.9 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 266.9 | 922.08 |
| Mean | 0   | 0   | 0   | 0   | 0   | 16.13 | 145.1 | 336.9 | 535.8 | 658.5 | 813   | 860.9 | 817.9 | 728   | 549.4 | 330.4 | 117.4 | 6.63  | 1.433 | 0    | 0    | 0    | 0    | 0    | 245.6 | 864.92 |

Station : BANGKOK METROPOLIS

February

1986-1996

Solar Radiation (WATT/Sqm)

1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500 | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean | Max   |        |
|------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0   | 2.777 | 74.99 | 247.2 | 469.4 | 633.2 | 722.1 | 769.3 | 636   | 583.2 | 461   | 263.8 | 83.32 | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 206.2 | 769.33 |
| 2    | 0   | 0   | 0   | 0   | 0   | 2.777 | 80.54 | 233.3 | 419.4 | 588.8 | 738.8 | 744.3 | 722.1 | 608.2 | 483.3 | 283.3 | 88.88 | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 208.3 | 744.33 |
| 3    | 0   | 0   | 0   | 0   | 0   | 2.777 | 86.1  | 272.2 | 444.4 | 580.5 | 736   | 808.2 | 724.9 | 577.7 | 391.6 | 241.6 | 69.43 | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 205.9 | 808.21 |
| 4    | 0   | 0   | 0   | 0   | 0   | 2.777 | 72.21 | 255.5 | 436   | 633.2 | 727.7 | 738.8 | 697.1 | 597.1 | 461   | 266.6 | 91.65 | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 207.7 | 738.78 |
| 5    | 0   | 0   | 0   | 0   | 0   | 2.777 | 91.65 | 255.5 | 436   | 552.7 | 727.7 | 780.4 | 758.2 | 644.3 | 486   | 269.4 | 83.32 | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 212.2 | 780.44 |
| 6    | 0   | 0   | 0   | 0   | 0   | 5.555 | 86.1  | 258.3 | 424.9 | 649.9 | 805.4 | 799.9 | 797.1 | 658.2 | 497.1 | 275   | 80.54 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 222.8 | 805.43 |
| 7    | 0   | 0   | 0   | 0   | 0   | 5.555 | 77.77 | 250   | 419.4 | 619.3 | 708.2 | 749.9 | 694.3 | 605.5 | 463.8 | 263.8 | 83.32 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 206.2 | 749.88 |
| 8    | 0   | 0   | 0   | 0   | 0   | 2.777 | 88.88 | 233.3 | 455.5 | 599.9 | 758.2 | 808.2 | 763.8 | 649.9 | 486   | 277.7 | 86.1  | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 217.3 | 808.21 |
| 9    | 0   | 0   | 0   | 0   | 0   | 2.777 | 77.77 | 244.4 | 411   | 605.5 | 733.2 | 811   | 741.6 | 663.8 | 469.4 | 294.4 | 94.43 | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 214.7 | 810.99 |
| 10   | 0   | 0   | 0   | 0   | 0   | 2.777 | 72.21 | 244.4 | 424.9 | 572.1 | 641.6 | 688.8 | 719.3 | 647.1 | 519.4 | 288.8 | 88.88 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 204.9 | 719.33 |
| 11   | 0   | 0   | 0   | 0   | 0   | 5.555 | 88.88 | 247.2 | 399.9 | 561   | 677.7 | 758.2 | 708.2 | 605.5 | 463.8 | 263.8 | 83.32 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 203   | 758.22 |
| 12   | 0   | 0   | 0   | 0   | 0   | 5.555 | 80.54 | 252.7 | 374.9 | 544.4 | 663.8 | 786   | 694.3 | 597.1 | 469.4 | 280.5 | 91.65 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 202.1 | 785.99 |
| 13   | 0   | 0   | 0   | 0   | 0   | 2.777 | 88.88 | 269.4 | 422.2 | 580.5 | 741.6 | 811   | 763.8 | 677.7 | 511   | 283.3 | 97.21 | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 218.8 | 810.99 |
| 14   | 0   | 0   | 0   | 0   | 0   | 2.777 | 83.32 | 269.4 | 444.4 | 599.9 | 769.3 | 830.4 | 774.9 | 694.3 | 536   | 358.3 | 105.5 | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 228   | 830.43 |
| 15   | 0   | 0   | 0   | 0   | 0   | 5.555 | 83.32 | 238.9 | 419.4 | 611   | 713.8 | 797.1 | 727.7 | 658.2 | 511   | 297.2 | 105.5 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 215.6 | 797.1  |
| 16   | 0   | 0   | 0   | 0   | 0   | 5.555 | 94.43 | 244.4 | 399.9 | 661   | 769.3 | 841.5 | 819.3 | 688.8 | 555.5 | 344.4 | 122.2 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 231.3 | 841.54 |
| 17   | 0   | 0   | 0   | 0   | 0   | 5.555 | 97.21 | 247.2 | 436   | 586   | 663.8 | 724.9 | 672.1 | 597.1 | 516.6 | 316.6 | 111.1 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 207.6 | 724.89 |
| 18   | 0   | 0   | 0   | 0   | 0   | 5.555 | 99.98 | 272.2 | 458.3 | 672.1 | 736   | 780.4 | 802.7 | 722.1 | 580.5 | 355.5 | 127.8 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 234.2 | 802.65 |
| 19   | 0   | 0   | 0   | 0   | 0   | 5.555 | 127.8 | 283.3 | 488.8 | 644.3 | 719.3 | 788.8 | 755.4 | 669.3 | 519.4 | 302.7 | 97.21 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 225.4 | 788.77 |
| 20   | 0   | 0   | 0   | 0   | 0   | 8.332 | 99.98 | 308.3 | 483.3 | 711   | 808.2 | 874.9 | 797.1 | 694.3 | 558.2 | 347.2 | 119.4 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 242.6 | 874.87 |
| 21   | 0   | 0   | 0   | 0   | 0   | 8.332 | 105.5 | 286.1 | 408.3 | 544.4 | 652.7 | 763.8 | 686   | 583.2 | 486   | 313.8 | 99.98 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 206.1 | 763.77 |
| 22   | 0   | 0   | 0   | 0   | 0   | 8.332 | 111.1 | 366.6 | 502.7 | 683.2 | 788.8 | 886   | 802.7 | 699.9 | 538.8 | 311.1 | 105.5 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 242.2 | 885.97 |
| 23   | 0   | 0   | 0   | 0   | 0   | 5.555 | 99.98 | 300   | 480.5 | 599.9 | 752.7 | 766.5 | 799.9 | 661   | 480.5 | 266.6 | 86.1  | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 221.1 | 799.88 |
| 24   | 0   | 0   | 0   | 0   | 0   | 8.332 | 111.1 | 316.6 | 491.5 | 686   | 799.9 | 855.4 | 780.4 | 691.6 | 536   | 327.7 | 105.5 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 238.2 | 855.42 |
| 25   | 0   | 0   | 0   | 0   | 0   | 8.332 | 105.5 | 255.5 | 436   | 605.5 | 669.3 | 811   | 716.6 | 655.5 | 483.3 | 280.5 | 94.43 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 213.6 | 810.99 |
| 26   | 0   | 0   | 0   | 0   | 0   | 8.332 | 125   | 327.7 | 497.1 | 666.6 | 786   | 874.9 | 841.5 | 722.1 | 524.9 | 319.4 | 108.3 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 242.1 | 874.87 |
| 27   | 0   | 0   | 0   | 0   | 0   | 8.332 | 119.4 | 286.1 | 461   | 677.7 | 752.7 | 811   | 786   | 699.9 | 541.6 | 316.6 | 108.3 | 5.555 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 232.4 | 810.99 |
| 28   | 0   | 0   | 0   | 0   | 0   | 8.332 | 116.6 | 283.3 | 516.6 | 611   | 763.8 | 766.5 | 627.7 | 649.9 | 497.1 | 302.7 | 105.5 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 218.9 | 766.55 |
| 29   | 0   | 0   | 0   | 0   | 0   | 11.11 | 155.5 | 524.9 | 569.4 | 872.1 | 1019  | 977.6 | 1003  | 844.3 | 630.5 | 374.9 | 125   | 2.777 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 296.3 | 1019.3 |
| Mean | 0   | 0   | 0   | 0   | 0   | 5.555 | 96.63 | 278.4 | 449.4 | 626   | 743   | 800.2 | 752.2 | 656.8 | 505.5 | 299.6 | 98.26 | 4.693 | 1.82  | 0    | 0    | 0    | 0    | 0    | 0    | 221.6 | 804.76 |

Station : BANGKOK METROPOLIS

January

1986-1996

Solar Radiation (WATT/Sqm)

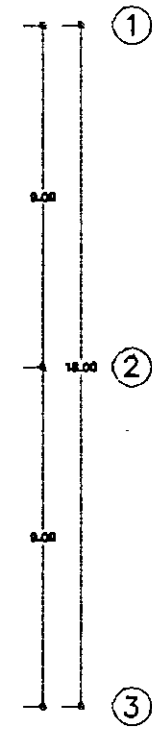
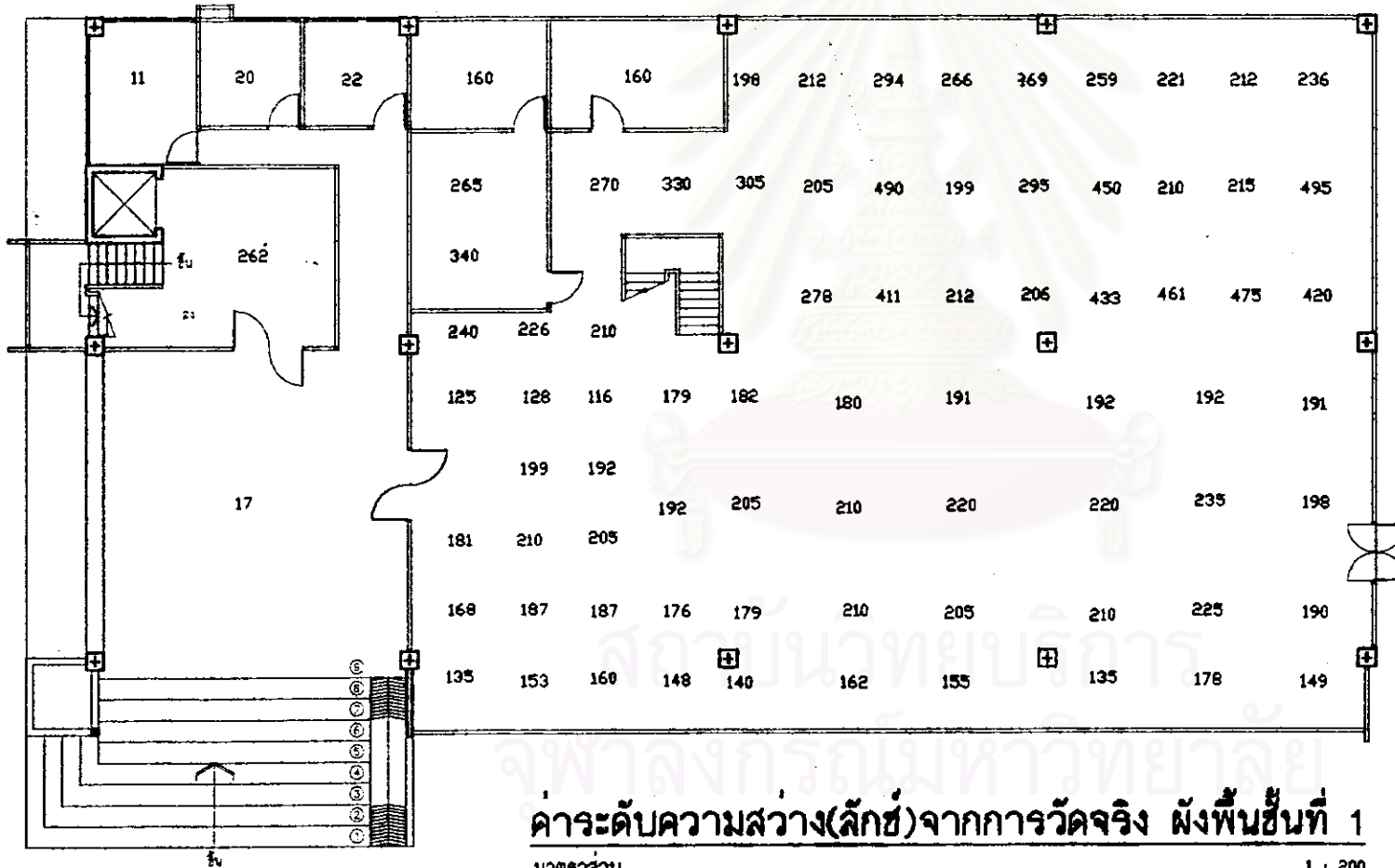
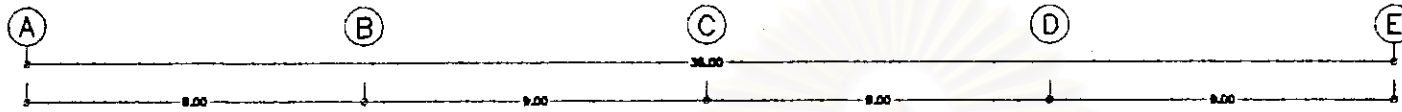
1MJ/HR.Sqm = 277.7 WATT/ Sqm

| Day  | 100 | 200 | 300 | 400 | 500   | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000 | 2100 | 2200 | 2300 | 2400 | Mean | Max   |        |
|------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|--------|
| 1    | 0   | 0   | 0   | 0   | 0     | 2.777 | 72.21 | 272.2 | 483.3 | 636   | 733.2 | 759.3 | 716.6 | 624.9 | 452.7 | 277.7 | 83.32 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 213.9 | 769.33 |
| 2    | 0   | 0   | 0   | 0   | 0     | 2.777 | 58.32 | 238.9 | 422.2 | 586   | 699.9 | 761   | 719.3 | 597.1 | 455.5 | 258.3 | 69.43 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 203.2 | 760.99 |
| 3    | 0   | 0   | 0   | 0   | 0     | 2.777 | 66.66 | 244.4 | 438.8 | 549.9 | 638.8 | 680.5 | 594.4 | 524.9 | 374.9 | 205.5 | 66.66 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 183.2 | 680.45 |
| 4    | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 233.3 | 455.5 | 622.1 | 711   | 755.4 | 719.3 | 613.8 | 405.5 | 216.6 | 61.1  | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 202.7 | 755.44 |
| 5    | 0   | 0   | 0   | 0   | 0     | 2.777 | 66.66 | 244.4 | 438.8 | 577.7 | 727.7 | 733.2 | 727.7 | 563.8 | 355.5 | 219.4 | 63.88 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 197   | 733.22 |
| 6    | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 222.2 | 452.7 | 611   | 586   | 694.3 | 666.6 | 608.2 | 438.8 | 236.1 | 66.66 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 194.1 | 694.34 |
| 7    | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 252.7 | 449.9 | 588.8 | 674.9 | 713.8 | 611   | 561   | 427.7 | 236.1 | 74.99 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 194.4 | 713.78 |
| 8    | 0   | 0   | 0   | 0   | 2.777 | 2.777 | 72.21 | 258.3 | 455.5 | 622.1 | 724.9 | 752.7 | 694.3 | 552.7 | 433.3 | 222.2 | 58.32 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 202.4 | 752.66 |
| 9    | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 72.21 | 252.7 | 455.5 | 566.6 | 661   | 669.3 | 633.2 | 563.8 | 411   | 230.5 | 63.88 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 191.4 | 669.34 |
| 10   | 0   | 0   | 0   | 0   | 0     | 5.555 | 63.68 | 238.9 | 424.9 | 599.9 | 680.5 | 688.8 | 558.2 | 538.8 | 396.1 | 222.2 | 58.32 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 186.4 | 688.78 |
| 11   | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 227.7 | 424.9 | 583.2 | 699.9 | 752.7 | 705.4 | 549.9 | 355.5 | 211.1 | 66.66 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 193.7 | 752.66 |
| 12   | 0   | 0   | 0   | 0   | 0     | 2.777 | 83.32 | 241.6 | 411   | 549.9 | 638.8 | 663.8 | 616.6 | 544.4 | 386.1 | 219.4 | 63.88 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 184.5 | 663.79 |
| 13   | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 88.89 | 250   | 411   | 594.4 | 688.8 | 697.1 | 622.1 | 574.9 | 422.2 | 213.9 | 52.77 | 2.777 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 192.9 | 697.11 |
| 14   | 0   | 0   | 0   | 0   | 0     | 5.555 | 77.77 | 233.3 | 422.2 | 563.8 | 683.2 | 772.1 | 686   | 586   | 449.9 | 250   | 77.77 | 5.555 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 200.5 | 772.1  |
| 15   | 0   | 0   | 0   | 0   | 0     | 5.555 | 72.21 | 238.9 | 449.9 | 619.3 | 758.2 | 822.1 | 766.5 | 647.1 | 499.9 | 283.3 | 88.88 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 219.3 | 822.1  |
| 16   | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 69.43 | 230.5 | 444.4 | 608.2 | 705.4 | 758.2 | 691.6 | 597.1 | 474.9 | 258.3 | 88.88 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 206   | 758.22 |
| 17   | 0   | 0   | 0   | 0   | 0     | 2.777 | 69.43 | 238.9 | 430.5 | 605.5 | 711   | 799.9 | 758.2 | 649.9 | 502.7 | 285.1 | 94.43 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 215   | 799.88 |
| 18   | 0   | 0   | 0   | 0   | 2.777 | 2.777 | 63.68 | 230.5 | 447.2 | 630.5 | 736   | 788.8 | 719.3 | 649.9 | 477.7 | 263.8 | 88.88 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 212.9 | 788.77 |
| 19   | 0   | 0   | 0   | 0   | 0     | 2.777 | 69.43 | 244.4 | 430.5 | 583.2 | 694.3 | 669.3 | 661   | 602.7 | 441.6 | 252.7 | 83.32 | 8.332 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 197.7 | 694.34 |
| 20   | 0   | 0   | 0   | 0   | 0     | 2.777 | 55.55 | 191.6 | 388.8 | 552.7 | 680.5 | 736   | 708.2 | 611   | 505.5 | 266.6 | 83.32 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 199.7 | 736    |
| 21   | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 205.5 | 369.4 | 513.8 | 624.9 | 688.8 | 669.3 | 538.8 | 424.9 | 241.6 | 86.1  | 13.89 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 185.2 | 688.78 |
| 22   | 0   | 0   | 0   | 0   | 0     | 2.777 | 69.43 | 225   | 405.5 | 561   | 688.8 | 763.8 | 713.8 | 583.2 | 430.5 | 247.2 | 86.1  | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 199.7 | 763.77 |
| 23   | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 66.66 | 200   | 377.7 | 499.9 | 597.1 | 661   | 708.2 | 574.9 | 430.5 | 238.9 | 86.1  | 13.89 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 186   | 708.22 |
| 24   | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 66.66 | 191.6 | 399.9 | 511   | 611   | 605.5 | 641.6 | 572.1 | 422.2 | 244.4 | 74.99 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 181.7 | 641.57 |
| 25   | 0   | 0   | 0   | 0   | 2.777 | 2.777 | 58.32 | 205.5 | 416.6 | 547.1 | 674.9 | 658.2 | 702.7 | 649.9 | 480.5 | 288.8 | 97.21 | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 199.9 | 702.67 |
| 26   | 0   | 0   | 0   | 0   | 2.777 | 5.555 | 66.66 | 177.8 | 358.3 | 530.5 | 636   | 608.2 | 555.5 | 511   | 399.9 | 233.3 | 94.43 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 174.9 | 636.01 |
| 27   | 0   | 0   | 0   | 0   | 0     | 5.555 | 61.1  | 213.9 | 447.2 | 608.2 | 761   | 722.1 | 677.7 | 602.7 | 466.6 | 272.2 | 94.43 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 206.1 | 760.99 |
| 28   | 0   | 0   | 0   | 0   | 0     | 2.777 | 55.55 | 188.9 | 369.4 | 497.1 | 663.8 | 688.8 | 694.3 | 605.5 | 444.4 | 250   | 86.1  | 8.332 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 189.9 | 694.34 |
| 29   | 0   | 0   | 0   | 0   | 0     | 2.777 | 47.21 | 186.1 | 405.5 | 561   | 705.4 | 736   | 780.4 | 649.9 | 466.6 | 272.2 | 83.32 | 11.11 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 204.6 | 780.44 |
| 30   | 0   | 0   | 0   | 0   | 2.777 | 2.777 | 58.32 | 211.1 | 430.5 | 599.9 | 722.1 | 722.1 | 661   | 619.3 | 436   | 261.1 | 91.65 | 11.11 | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 201.2 | 722.11 |
| 31   | 0   | 0   | 0   | 0   | 0     | 2.777 | 63.68 | 211.1 | 424.9 | 594.4 | 716.6 | 816.5 | 766.5 | 663.8 | 486   | 291.6 | 111.1 | 13.89 | 2.777 | 0    | 0    | 0    | 0    | 0    | 0    | 215.2 | 816.54 |
| Mean | 0   | 0   | 0   | 0   | 0.896 | 3.673 | 66.3  | 225.9 | 423.9 | 576.6 | 685   | 720.9 | 682.2 | 591.4 | 436.9 | 247.5 | 78.93 | 9.049 | 0.717 | 0    | 0    | 0    | 0    | 0    | 0    | 197.9 | 720.95 |





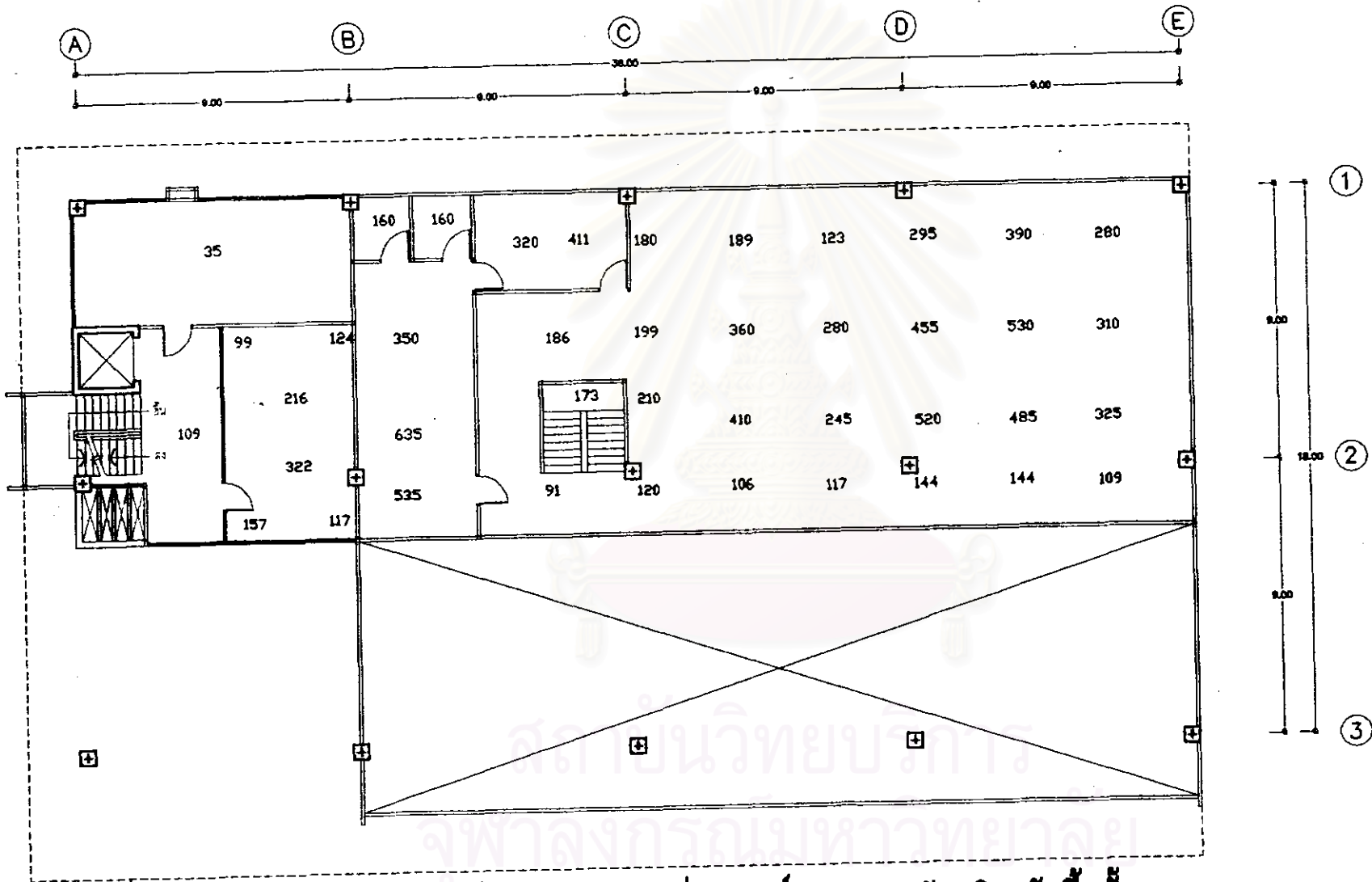




**ค่าระดับความสว่าง(ลักซ์)จากการวัดจริง ผังพื้นที่ที่ 1**

มาตรฐาน

1 : 200

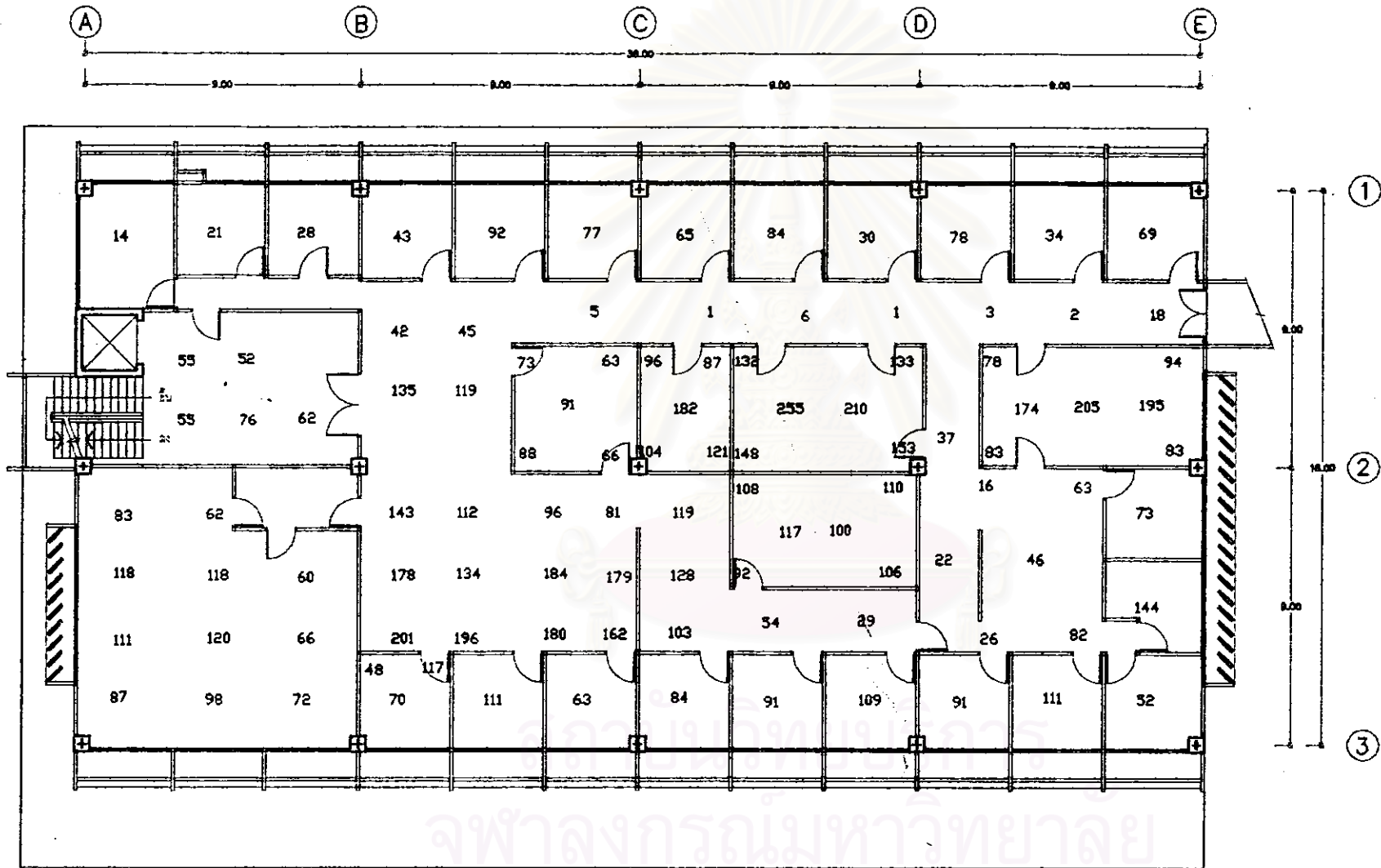


ค่าระดับความสว่าง(ลักซ์)จากการวัดจริง ผังพื้นที่นอกรอบ

มาตราส่วน

1 : 200

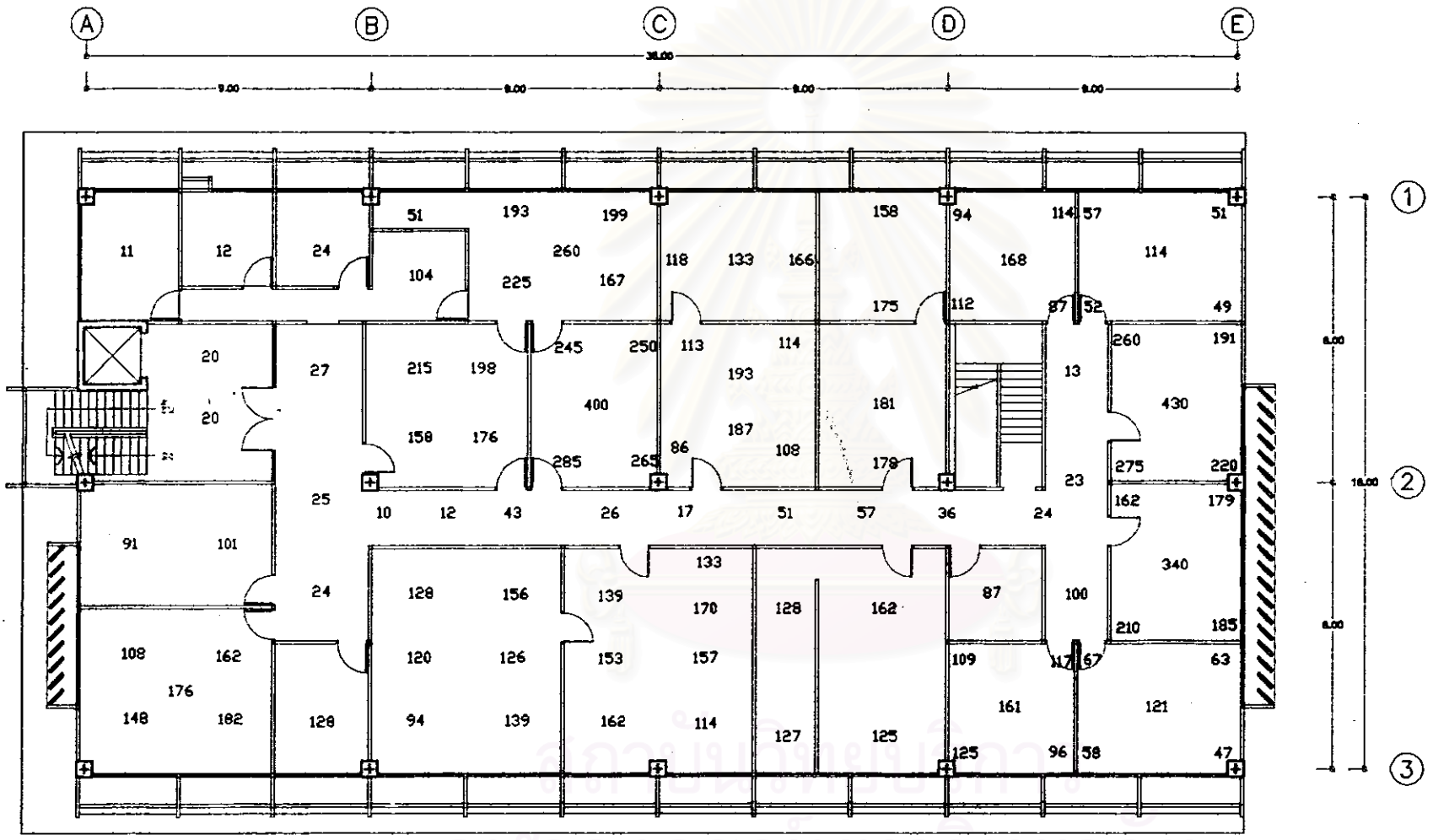
เส้นขอบแสดงขอบเขตอาคารชั้น 2



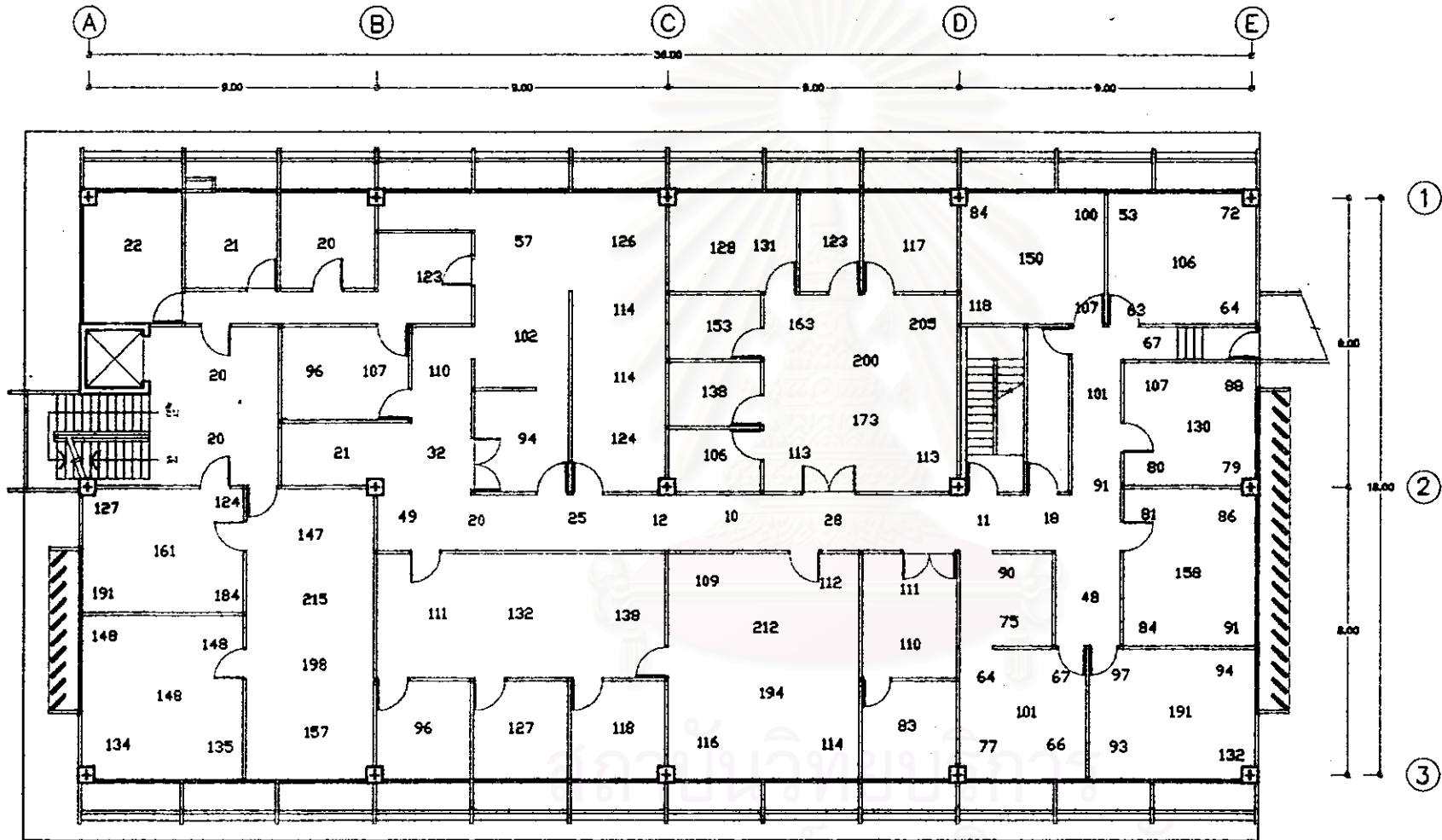
**ค่าระดับความสว่าง(ลักซ์)จากการวัดจริง ฝั่งพื้นที่ 2**

มาตราส่วน

1 : 200



ค่าระดับความสว่าง(ลักซ์)จากการวัดจริง ผังพื้นที่ 4  
 มาตราส่วน 1 : 200



ค่าระดับความสว่าง(ลักซ์)จากการวัดจริง ผังพื้นที่ 3

มาตราส่วน

1 : 200

## ประวัติผู้เขียน

นายคมกฤช ชูเกียรติมัน เกิดเมื่อวันที่ 12 กรกฎาคม 2508 โรงพยาบาลราชวิถี กรุงเทพมหานคร เข้า  
 รับการศึกษที่โรงเรียนจุฬาภรณ โรงเรียนจ่านองศึกษา และโรงเรียนสวนกุหลาบวิทยาลัย พระนครฯ ตาม  
 ลำดับ สำเร็จการศึกษาสถาปัตยกรรมศาสตรบัณฑิต จากจุฬาลงกรณ์มหาวิทยาลัย ปีการศึกษา 2531 และ  
 เข้ารับการศึกษต่อหลักสูตรสถาปัตยกรรมศาสตรมหาบัณฑิต จุฬาลงกรณ์มหาวิทยาลัย ในภาควิชา  
 สถาปัตยกรรมศาสตร์ สาขาวิชาเทคโนโลยีอาคาร ในปีการศึกษา 2539 ปัจจุบันเป็นอาจารย์พิเศษ คณะ  
 สถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ผู้บรรยายพิเศษโรงเรียนนวมินราชินูทิศ สวนกุหลาบ  
 วิทยาลัย สมุทรปราการ และสถาปนิกโครงการบริษัท อินเทอร์เน็ต จำกัด



สถาบันวิทยบริการ  
 จุฬาลงกรณ์มหาวิทยาลัย