

## Indoor Luminaire Photometric Data

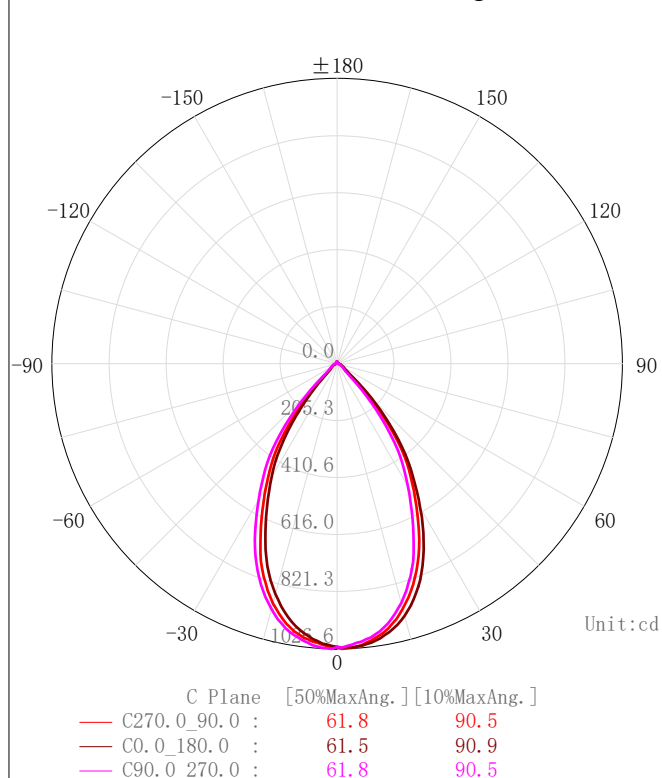
### Description Information

|                                          |                         |                        |
|------------------------------------------|-------------------------|------------------------|
| Luminary Name: HCP-817024-4000K RA90 60D | Lum. Catalog:           | Test ID: 01            |
| Lamp Name:                               | Lamp Catalog: LED       | Test Date: 2020/10/13  |
| Manufacture: Havit Commercial            | Shld. Ang(°):           | Test Machine: GON-2000 |
| Test Lab: Quality Department             | Frequency (Hz):         | Lamp CCT (K): Ra:      |
| Lum. Size (W*L*H): 0.050m*0.000m*0.080m  | Lum. Area (m2): 0.016   | Lum. W (kg): 0.000     |
| Test System: C, γ                        | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25         |
|                                          |                         | Humidity (%): 50.0     |

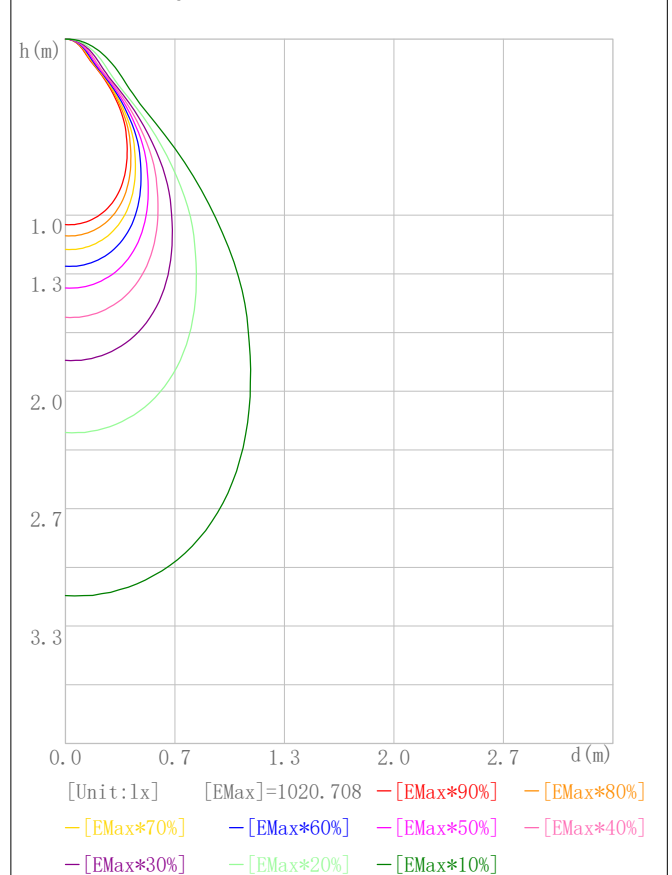
### Character Parameter

| Lamp Speciality Parameter                        | Luminaire Speciality Parameter   |                                        |
|--------------------------------------------------|----------------------------------|----------------------------------------|
| Rated Flux(lm): 1075.060                         | Luminary Flux(lm): 1075.061      | Field Angle(10%Imax): 90.5(°)          |
| Rated Power(W):                                  | Luminary Efficiency: 100.00%     | Down Lumens&Percent: 1057.096lm 98.33% |
| Rated Voltage(V):                                | Luminary EER(lm/W): 67.024       | Up Lumens&Percent: 17.965lm 1.67%      |
| Tested Power(W): 16.040                          | Max. Candela(cd): 1026.607       | S/MH: C0_a180=0.920 C90_270=0.922      |
| Lamps' Inside: 1                                 | Max Cand@Ang. (°): C=270.0 γ=1.0 | CIE Type: Semi-Direct                  |
| Tested Electrics (V, A, pf): 240.2, 0.069, 0.968 | Beam Angle(50%Imax): 61.8(°)     | ErP Φ use(90°): 941.277lm              |
| Lamp Size (W*L*H): 0.050m*0.000m*0.080m          | Left=-29.8°, Right=31.9°         | IRF (%): 201.050                       |

#### C Plane Distribution Diagram



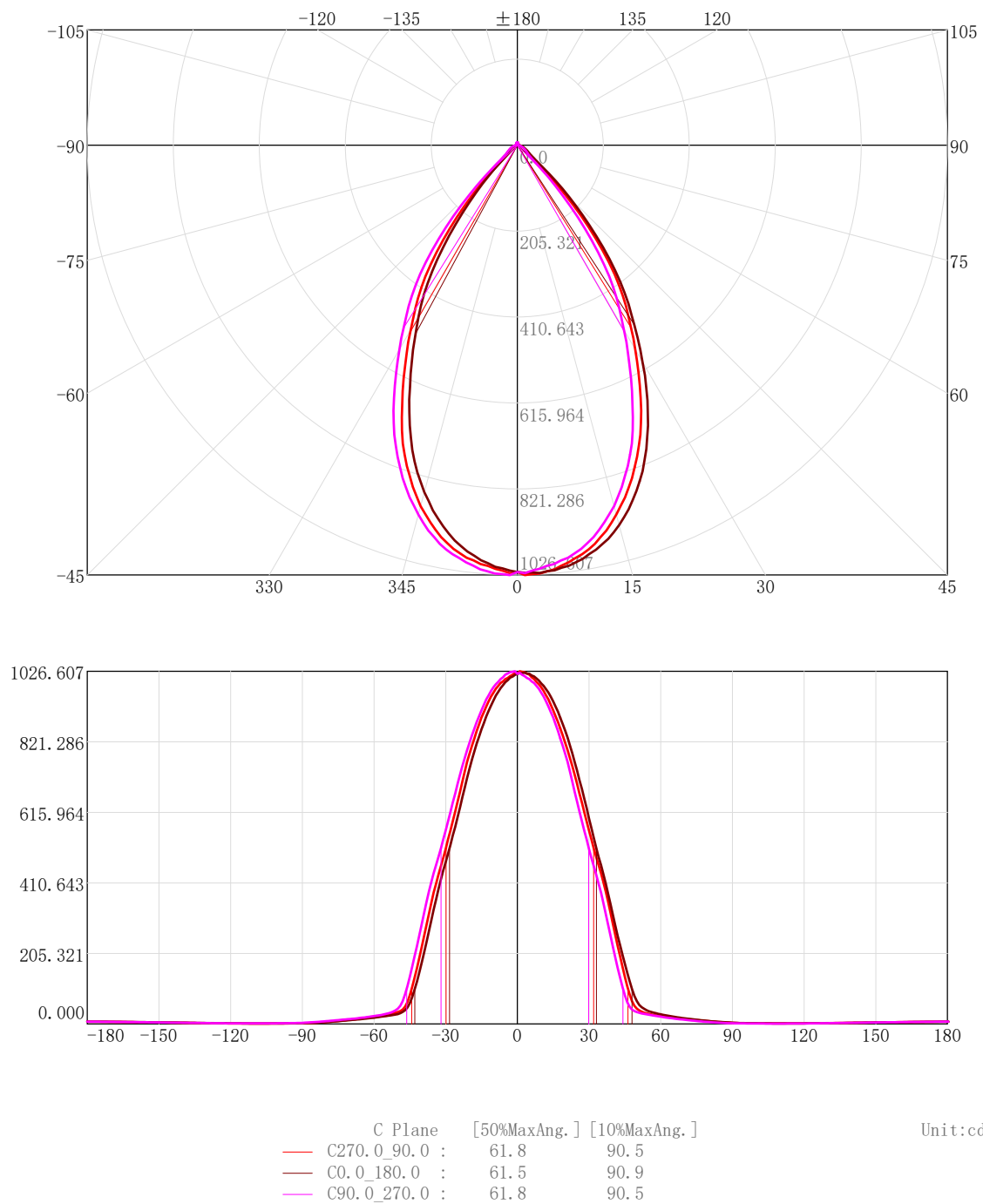
#### C0 Space ISO Illuminance Curve



## 2D Plane Light Intensity Distribution Curve

|                                      |                       |                              |
|--------------------------------------|-----------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine:GON-2000 | Test Date: 2020/10/13        |

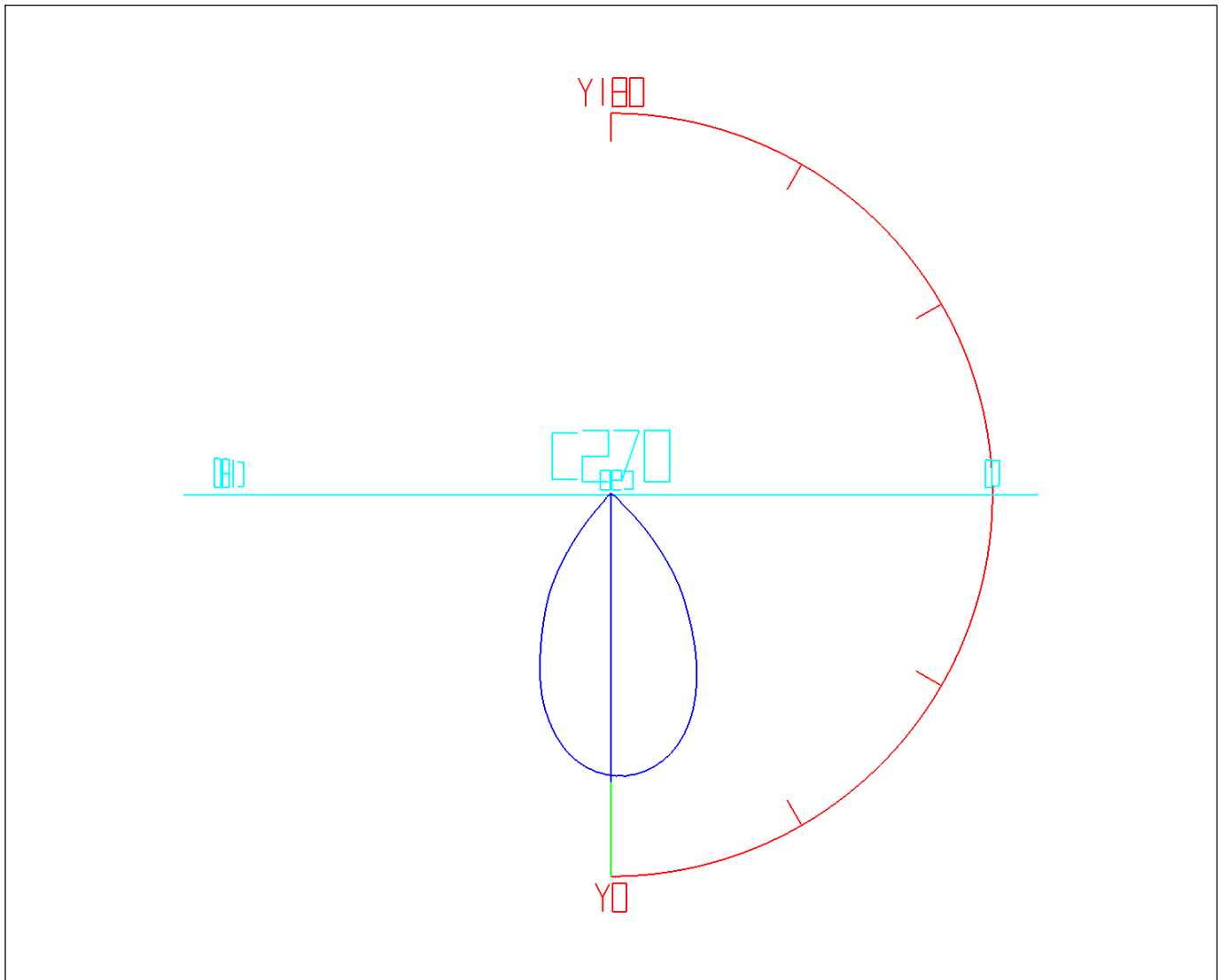
C Plane Distribution Diagram



### 3D Light Intensity Distribution Modal

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

### 3D Light Intensity Distribution Modal



Curves: 3D Model — Fixture — Vert. HUD — Hori. HUD —  
View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

## Zonal Flux Tabulation

| Zone (γ)  | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone (γ)  | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0   | 0.98              | 0.98              | 0.09      | 0.09      | 47.0-48.0 | 5.54              | 987.25            | 0.52      | 91.83     |
| 1.0-2.0   | 2.93              | 3.90              | 0.27      | 0.36      | 48.0-49.0 | 4.63              | 991.89            | 0.43      | 92.26     |
| 2.0-3.0   | 4.87              | 8.77              | 0.45      | 0.82      | 49.0-50.0 | 3.96              | 995.85            | 0.37      | 92.63     |
| 3.0-4.0   | 6.79              | 15.56             | 0.63      | 1.45      | 50.0-51.0 | 3.50              | 999.34            | 0.33      | 92.96     |
| 4.0-5.0   | 8.69              | 24.26             | 0.81      | 2.26      | 51.0-52.0 | 3.20              | 1002.54           | 0.30      | 93.25     |
| 5.0-6.0   | 10.57             | 34.82             | 0.98      | 3.24      | 52.0-53.0 | 2.99              | 1005.54           | 0.28      | 93.53     |
| 6.0-7.0   | 12.40             | 47.22             | 1.15      | 4.39      | 53.0-54.0 | 2.83              | 1008.37           | 0.26      | 93.80     |
| 7.0-8.0   | 14.20             | 61.43             | 1.32      | 5.71      | 54.0-55.0 | 2.70              | 1011.06           | 0.25      | 94.05     |
| 8.0-9.0   | 15.95             | 77.38             | 1.48      | 7.20      | 55.0-56.0 | 2.59              | 1013.65           | 0.24      | 94.29     |
| 9.0-10.0  | 17.64             | 95.02             | 1.64      | 8.84      | 56.0-57.0 | 2.49              | 1016.14           | 0.23      | 94.52     |
| 10.0-11.0 | 19.27             | 114.29            | 1.79      | 10.63     | 57.0-58.0 | 2.39              | 1018.53           | 0.22      | 94.74     |
| 11.0-12.0 | 20.81             | 135.10            | 1.94      | 12.57     | 58.0-59.0 | 2.30              | 1020.83           | 0.21      | 94.96     |
| 12.0-13.0 | 22.28             | 157.38            | 2.07      | 14.64     | 59.0-60.0 | 2.21              | 1023.05           | 0.21      | 95.16     |
| 13.0-14.0 | 23.66             | 181.04            | 2.20      | 16.84     | 60.0-61.0 | 2.13              | 1025.17           | 0.20      | 95.36     |
| 14.0-15.0 | 24.94             | 205.98            | 2.32      | 19.16     | 61.0-62.0 | 2.05              | 1027.22           | 0.19      | 95.55     |
| 15.0-16.0 | 26.12             | 232.11            | 2.43      | 21.59     | 62.0-63.0 | 1.97              | 1029.19           | 0.18      | 95.73     |
| 16.0-17.0 | 27.21             | 259.31            | 2.53      | 24.12     | 63.0-64.0 | 1.89              | 1031.08           | 0.18      | 95.91     |
| 17.0-18.0 | 28.17             | 287.48            | 2.62      | 26.74     | 64.0-65.0 | 1.81              | 1032.89           | 0.17      | 96.08     |
| 18.0-19.0 | 29.01             | 316.49            | 2.70      | 29.44     | 65.0-66.0 | 1.74              | 1034.63           | 0.16      | 96.24     |
| 19.0-20.0 | 29.72             | 346.22            | 2.76      | 32.20     | 66.0-67.0 | 1.67              | 1036.30           | 0.15      | 96.39     |
| 20.0-21.0 | 30.30             | 376.52            | 2.82      | 35.02     | 67.0-68.0 | 1.59              | 1037.89           | 0.15      | 96.54     |
| 21.0-22.0 | 30.74             | 407.26            | 2.86      | 37.88     | 68.0-69.0 | 1.53              | 1039.42           | 0.14      | 96.68     |
| 22.0-23.0 | 31.01             | 438.27            | 2.88      | 40.77     | 69.0-70.0 | 1.46              | 1040.88           | 0.14      | 96.82     |
| 23.0-24.0 | 31.15             | 469.42            | 2.90      | 43.66     | 70.0-71.0 | 1.39              | 1042.27           | 0.13      | 96.95     |
| 24.0-25.0 | 31.16             | 500.58            | 2.90      | 46.56     | 71.0-72.0 | 1.33              | 1043.59           | 0.12      | 97.07     |
| 25.0-26.0 | 31.05             | 531.63            | 2.89      | 49.45     | 72.0-73.0 | 1.26              | 1044.86           | 0.12      | 97.19     |
| 26.0-27.0 | 30.83             | 562.47            | 2.87      | 52.32     | 73.0-74.0 | 1.19              | 1046.05           | 0.11      | 97.30     |
| 27.0-28.0 | 30.52             | 592.99            | 2.84      | 55.16     | 74.0-75.0 | 1.13              | 1047.18           | 0.10      | 97.41     |
| 28.0-29.0 | 30.12             | 623.11            | 2.80      | 57.96     | 75.0-76.0 | 1.06              | 1048.24           | 0.10      | 97.50     |
| 29.0-30.0 | 29.64             | 652.75            | 2.76      | 60.72     | 76.0-77.0 | 1.00              | 1049.23           | 0.09      | 97.60     |
| 30.0-31.0 | 29.07             | 681.82            | 2.70      | 63.42     | 77.0-78.0 | 0.93              | 1050.17           | 0.09      | 97.68     |
| 31.0-32.0 | 28.44             | 710.26            | 2.65      | 66.07     | 78.0-79.0 | 0.87              | 1051.04           | 0.08      | 97.77     |
| 32.0-33.0 | 27.71             | 737.98            | 2.58      | 68.65     | 79.0-80.0 | 0.81              | 1051.85           | 0.08      | 97.84     |
| 33.0-34.0 | 26.87             | 764.85            | 2.50      | 71.14     | 80.0-81.0 | 0.75              | 1052.59           | 0.07      | 97.91     |
| 34.0-35.0 | 25.93             | 790.78            | 2.41      | 73.56     | 81.0-82.0 | 0.69              | 1053.28           | 0.06      | 97.97     |
| 35.0-36.0 | 24.82             | 815.60            | 2.31      | 75.87     | 82.0-83.0 | 0.63              | 1053.92           | 0.06      | 98.03     |
| 36.0-37.0 | 23.53             | 839.13            | 2.19      | 78.05     | 83.0-84.0 | 0.58              | 1054.50           | 0.05      | 98.09     |
| 37.0-38.0 | 22.07             | 861.20            | 2.05      | 80.11     | 84.0-85.0 | 0.53              | 1055.03           | 0.05      | 98.14     |
| 38.0-39.0 | 20.47             | 881.67            | 1.90      | 82.01     | 85.0-86.0 | 0.49              | 1055.52           | 0.05      | 98.18     |
| 39.0-40.0 | 18.76             | 900.44            | 1.75      | 83.76     | 86.0-87.0 | 0.45              | 1055.97           | 0.04      | 98.22     |
| 40.0-41.0 | 16.96             | 917.40            | 1.58      | 85.33     | 87.0-88.0 | 0.41              | 1056.38           | 0.04      | 98.26     |
| 41.0-42.0 | 15.11             | 932.51            | 1.41      | 86.74     | 88.0-89.0 | 0.37              | 1056.75           | 0.03      | 98.30     |
| 42.0-43.0 | 13.26             | 945.78            | 1.23      | 87.97     | 89.0-90.0 | 0.34              | 1057.10           | 0.03      | 98.33     |
| 43.0-44.0 | 11.45             | 957.23            | 1.06      | 89.04     | 90.0-91.0 | 0.32              | 1057.41           | 0.03      | 98.36     |
| 44.0-45.0 | 9.70              | 966.93            | 0.90      | 89.94     | 91.0-92.0 | 0.30              | 1057.71           | 0.03      | 98.39     |
| 45.0-46.0 | 8.09              | 975.02            | 0.75      | 90.69     | 92.0-93.0 | 0.28              | 1057.99           | 0.03      | 98.41     |
| 46.0-47.0 | 6.69              | 981.71            | 0.62      | 91.32     | 93.0-94.0 | 0.27              | 1058.26           | 0.02      | 98.44     |

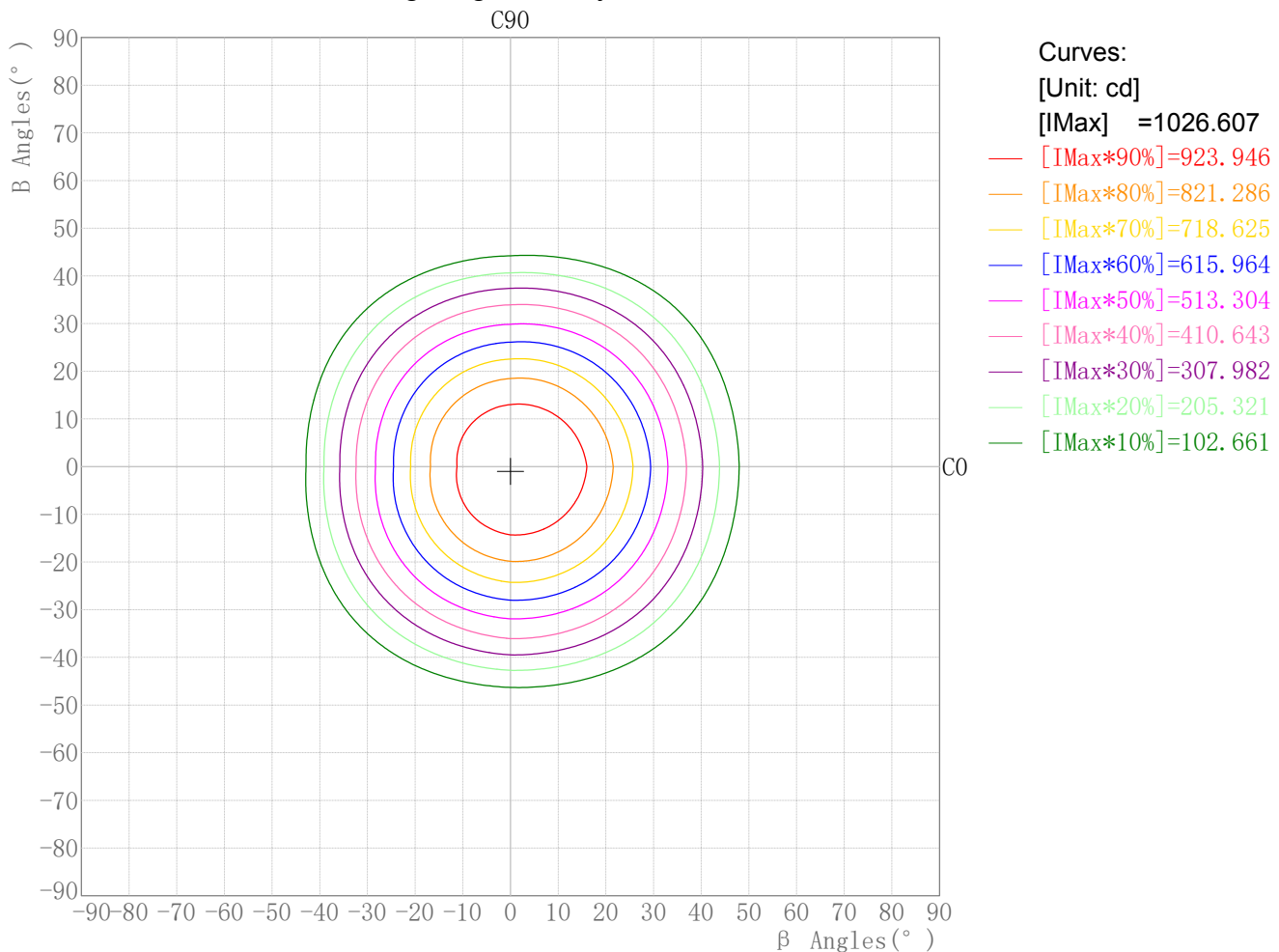
### Zonal Flux Tabulation - (Cont.)

| Zone (γ)    | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone (γ)    | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-------------|-------------------|-------------------|-----------|-----------|-------------|-------------------|-------------------|-----------|-----------|
| 94.0-95.0   | 0.26              | 1058.51           | 0.02      | 98.46     | 141.0-142.0 | 0.26              | 1068.27           | 0.02      | 99.37     |
| 95.0-96.0   | 0.25              | 1058.76           | 0.02      | 98.48     | 142.0-143.0 | 0.26              | 1068.53           | 0.02      | 99.39     |
| 96.0-97.0   | 0.24              | 1059.00           | 0.02      | 98.51     | 143.0-144.0 | 0.27              | 1068.80           | 0.02      | 99.42     |
| 97.0-98.0   | 0.23              | 1059.23           | 0.02      | 98.53     | 144.0-145.0 | 0.27              | 1069.06           | 0.02      | 99.44     |
| 98.0-99.0   | 0.22              | 1059.45           | 0.02      | 98.55     | 145.0-146.0 | 0.26              | 1069.33           | 0.02      | 99.47     |
| 99.0-100.0  | 0.21              | 1059.66           | 0.02      | 98.57     | 146.0-147.0 | 0.26              | 1069.59           | 0.02      | 99.49     |
| 100.0-101.0 | 0.21              | 1059.87           | 0.02      | 98.59     | 147.0-148.0 | 0.26              | 1069.86           | 0.02      | 99.52     |
| 101.0-102.0 | 0.20              | 1060.07           | 0.02      | 98.61     | 148.0-149.0 | 0.26              | 1070.12           | 0.02      | 99.54     |
| 102.0-103.0 | 0.19              | 1060.26           | 0.02      | 98.62     | 149.0-150.0 | 0.26              | 1070.37           | 0.02      | 99.56     |
| 103.0-104.0 | 0.19              | 1060.45           | 0.02      | 98.64     | 150.0-151.0 | 0.26              | 1070.63           | 0.02      | 99.59     |
| 104.0-105.0 | 0.18              | 1060.63           | 0.02      | 98.66     | 151.0-152.0 | 0.25              | 1070.88           | 0.02      | 99.61     |
| 105.0-106.0 | 0.18              | 1060.81           | 0.02      | 98.67     | 152.0-153.0 | 0.25              | 1071.13           | 0.02      | 99.63     |
| 106.0-107.0 | 0.18              | 1060.99           | 0.02      | 98.69     | 153.0-154.0 | 0.24              | 1071.37           | 0.02      | 99.66     |
| 107.0-108.0 | 0.17              | 1061.17           | 0.02      | 98.71     | 154.0-155.0 | 0.24              | 1071.61           | 0.02      | 99.68     |
| 108.0-109.0 | 0.17              | 1061.34           | 0.02      | 98.72     | 155.0-156.0 | 0.24              | 1071.85           | 0.02      | 99.70     |
| 109.0-110.0 | 0.17              | 1061.51           | 0.02      | 98.74     | 156.0-157.0 | 0.23              | 1072.08           | 0.02      | 99.72     |
| 110.0-111.0 | 0.17              | 1061.68           | 0.02      | 98.76     | 157.0-158.0 | 0.22              | 1072.31           | 0.02      | 99.74     |
| 111.0-112.0 | 0.17              | 1061.85           | 0.02      | 98.77     | 158.0-159.0 | 0.22              | 1072.52           | 0.02      | 99.76     |
| 112.0-113.0 | 0.17              | 1062.02           | 0.02      | 98.79     | 159.0-160.0 | 0.21              | 1072.74           | 0.02      | 99.78     |
| 113.0-114.0 | 0.17              | 1062.19           | 0.02      | 98.80     | 160.0-161.0 | 0.21              | 1072.94           | 0.02      | 99.80     |
| 114.0-115.0 | 0.17              | 1062.36           | 0.02      | 98.82     | 161.0-162.0 | 0.20              | 1073.14           | 0.02      | 99.82     |
| 115.0-116.0 | 0.17              | 1062.53           | 0.02      | 98.83     | 162.0-163.0 | 0.19              | 1073.33           | 0.02      | 99.84     |
| 116.0-117.0 | 0.17              | 1062.71           | 0.02      | 98.85     | 163.0-164.0 | 0.18              | 1073.52           | 0.02      | 99.86     |
| 117.0-118.0 | 0.18              | 1062.88           | 0.02      | 98.87     | 164.0-165.0 | 0.18              | 1073.69           | 0.02      | 99.87     |
| 118.0-119.0 | 0.18              | 1063.06           | 0.02      | 98.88     | 165.0-166.0 | 0.17              | 1073.86           | 0.02      | 99.89     |
| 119.0-120.0 | 0.18              | 1063.25           | 0.02      | 98.90     | 166.0-167.0 | 0.16              | 1074.02           | 0.01      | 99.90     |
| 120.0-121.0 | 0.19              | 1063.43           | 0.02      | 98.92     | 167.0-168.0 | 0.15              | 1074.16           | 0.01      | 99.92     |
| 121.0-122.0 | 0.19              | 1063.62           | 0.02      | 98.94     | 168.0-169.0 | 0.14              | 1074.30           | 0.01      | 99.93     |
| 122.0-123.0 | 0.19              | 1063.81           | 0.02      | 98.95     | 169.0-170.0 | 0.13              | 1074.43           | 0.01      | 99.94     |
| 123.0-124.0 | 0.20              | 1064.01           | 0.02      | 98.97     | 170.0-171.0 | 0.12              | 1074.55           | 0.01      | 99.95     |
| 124.0-125.0 | 0.20              | 1064.21           | 0.02      | 98.99     | 171.0-172.0 | 0.11              | 1074.65           | 0.01      | 99.96     |
| 125.0-126.0 | 0.21              | 1064.42           | 0.02      | 99.01     | 172.0-173.0 | 0.09              | 1074.75           | 0.01      | 99.97     |
| 126.0-127.0 | 0.21              | 1064.63           | 0.02      | 99.03     | 173.0-174.0 | 0.08              | 1074.83           | 0.01      | 99.98     |
| 127.0-128.0 | 0.21              | 1064.84           | 0.02      | 99.05     | 174.0-175.0 | 0.07              | 1074.90           | 0.01      | 99.99     |
| 128.0-129.0 | 0.22              | 1065.06           | 0.02      | 99.07     | 175.0-176.0 | 0.06              | 1074.96           | 0.01      | 99.99     |
| 129.0-130.0 | 0.22              | 1065.29           | 0.02      | 99.09     | 176.0-177.0 | 0.05              | 1075.00           | 0.00      | 99.99     |
| 130.0-131.0 | 0.23              | 1065.51           | 0.02      | 99.11     | 177.0-178.0 | 0.03              | 1075.04           | 0.00      | 100.00    |
| 131.0-132.0 | 0.23              | 1065.75           | 0.02      | 99.13     | 178.0-179.0 | 0.02              | 1075.05           | 0.00      | 100.00    |
| 132.0-133.0 | 0.24              | 1065.98           | 0.02      | 99.16     | 179.0-180.0 | 0.01              | 1075.06           | 0.00      | 100.00    |
| 133.0-134.0 | 0.24              | 1066.22           | 0.02      | 99.18     |             |                   |                   |           |           |
| 134.0-135.0 | 0.24              | 1066.47           | 0.02      | 99.20     |             |                   |                   |           |           |
| 135.0-136.0 | 0.25              | 1066.72           | 0.02      | 99.22     |             |                   |                   |           |           |
| 136.0-137.0 | 0.25              | 1066.97           | 0.02      | 99.25     |             |                   |                   |           |           |
| 137.0-138.0 | 0.26              | 1067.22           | 0.02      | 99.27     |             |                   |                   |           |           |
| 138.0-139.0 | 0.26              | 1067.48           | 0.02      | 99.30     |             |                   |                   |           |           |
| 139.0-140.0 | 0.26              | 1067.74           | 0.02      | 99.32     |             |                   |                   |           |           |
| 140.0-141.0 | 0.26              | 1068.01           | 0.02      | 99.34     |             |                   |                   |           |           |

## Rectangle ISO Lighting Intensity Diagram

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

### ISO Lighting Intensity Curve



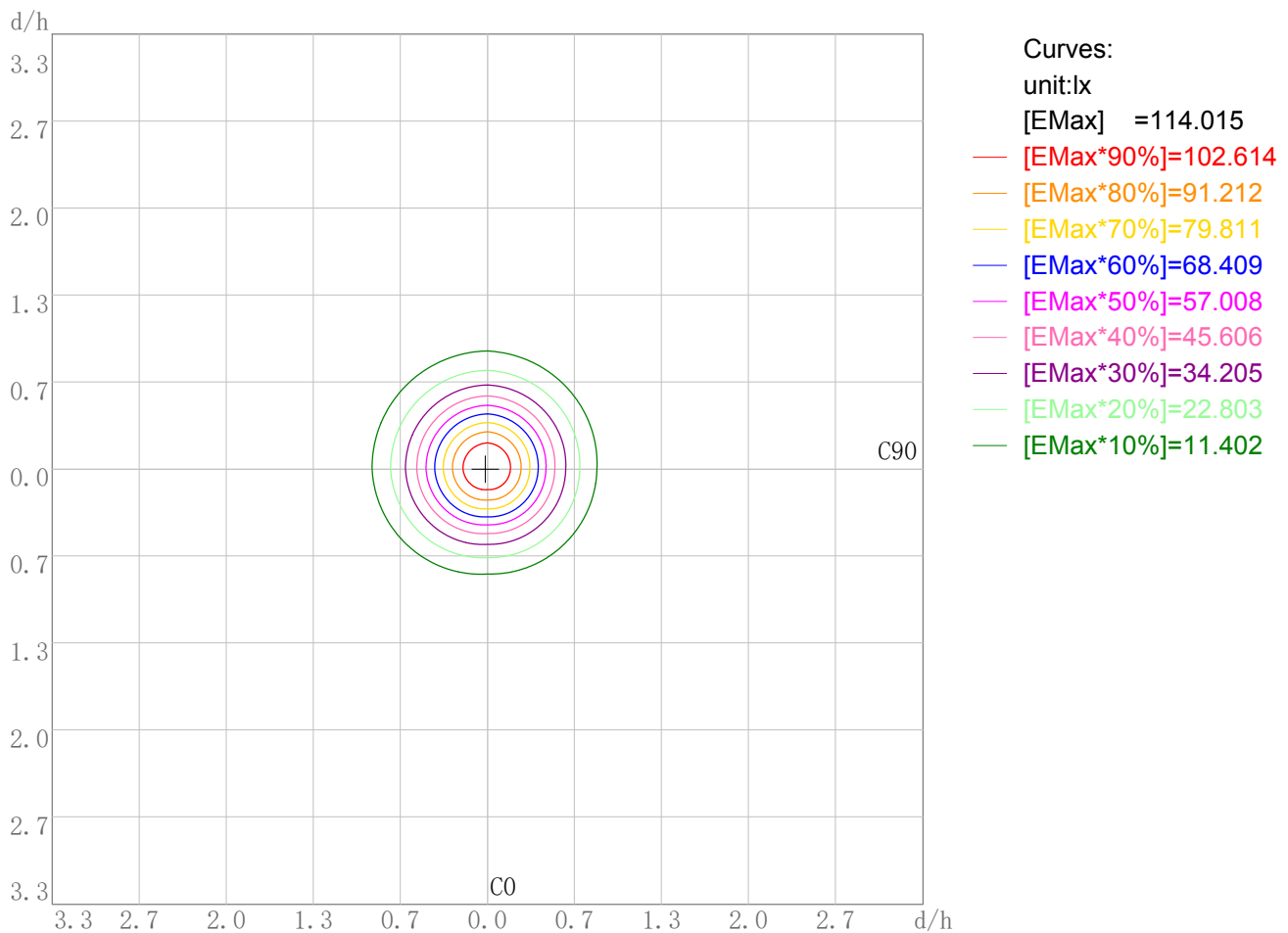
Maximum Light Intensity(cd): 1026.61

Maximum Cand.@Angle: H=-0.0°,V=-1.0°

## Plane ISO-Illuminance Diagram

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

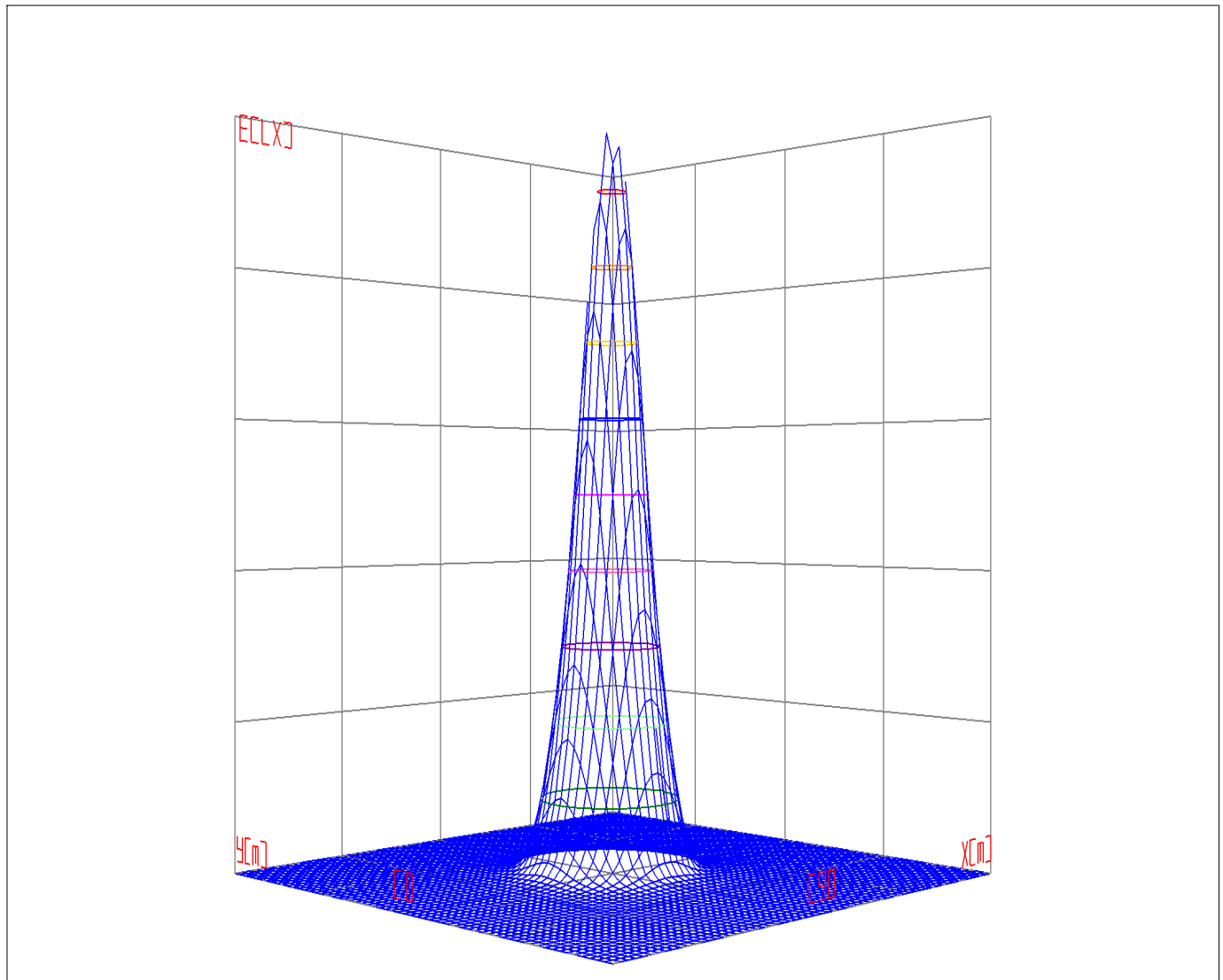
### Plane ISO-Illuminance Curve



### 3D Plane ISO Illuminance Diagram

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

### 3D Plane Illuminance Modal

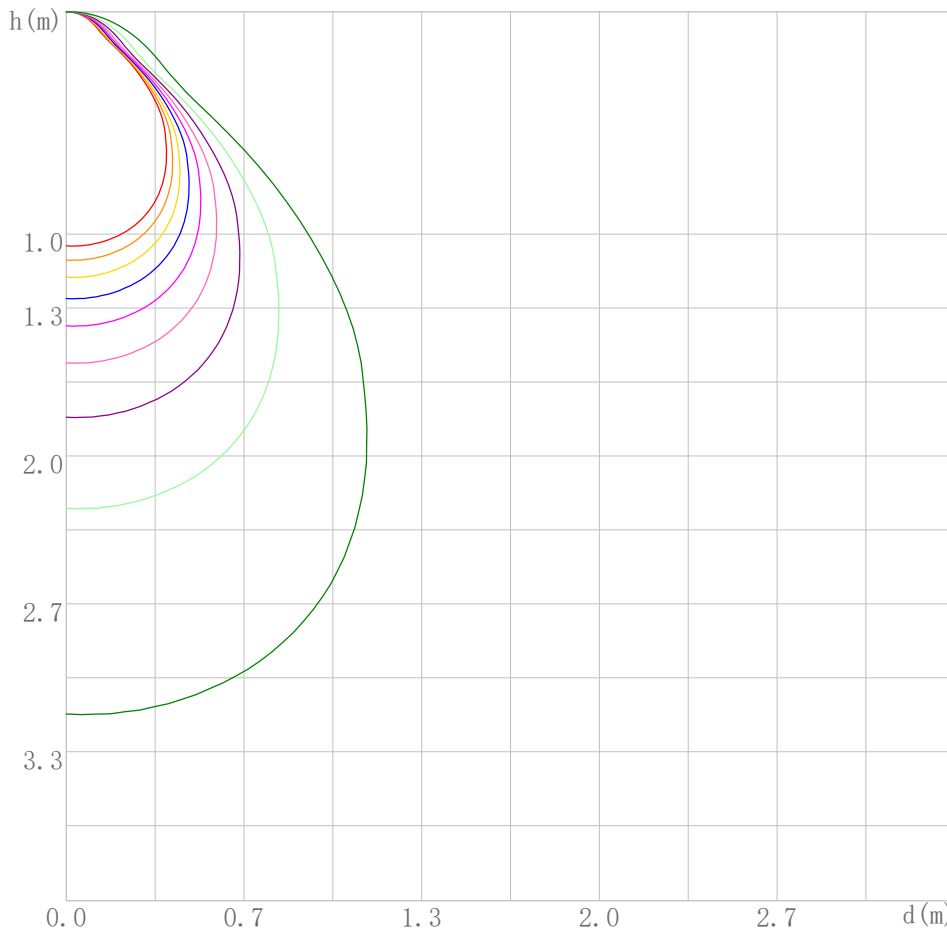


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

## Space ISO Illuminance Diagram

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog: LED      | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

### Space ISO Illuminance Curve



Curves:

[Unit: lx]

[E<sub>Max</sub>] = 1020.708

— [E<sub>Max</sub>\*90%]=918.638

— [E<sub>Max</sub>\*80%]=816.567

— [E<sub>Max</sub>\*70%]=714.496

— [E<sub>Max</sub>\*60%]=612.425

— [E<sub>Max</sub>\*50%]=510.354

— [E<sub>Max</sub>\*40%]=408.283

— [E<sub>Max</sub>\*30%]=306.213

— [E<sub>Max</sub>\*20%]=204.142

— [E<sub>Max</sub>\*10%]=102.071

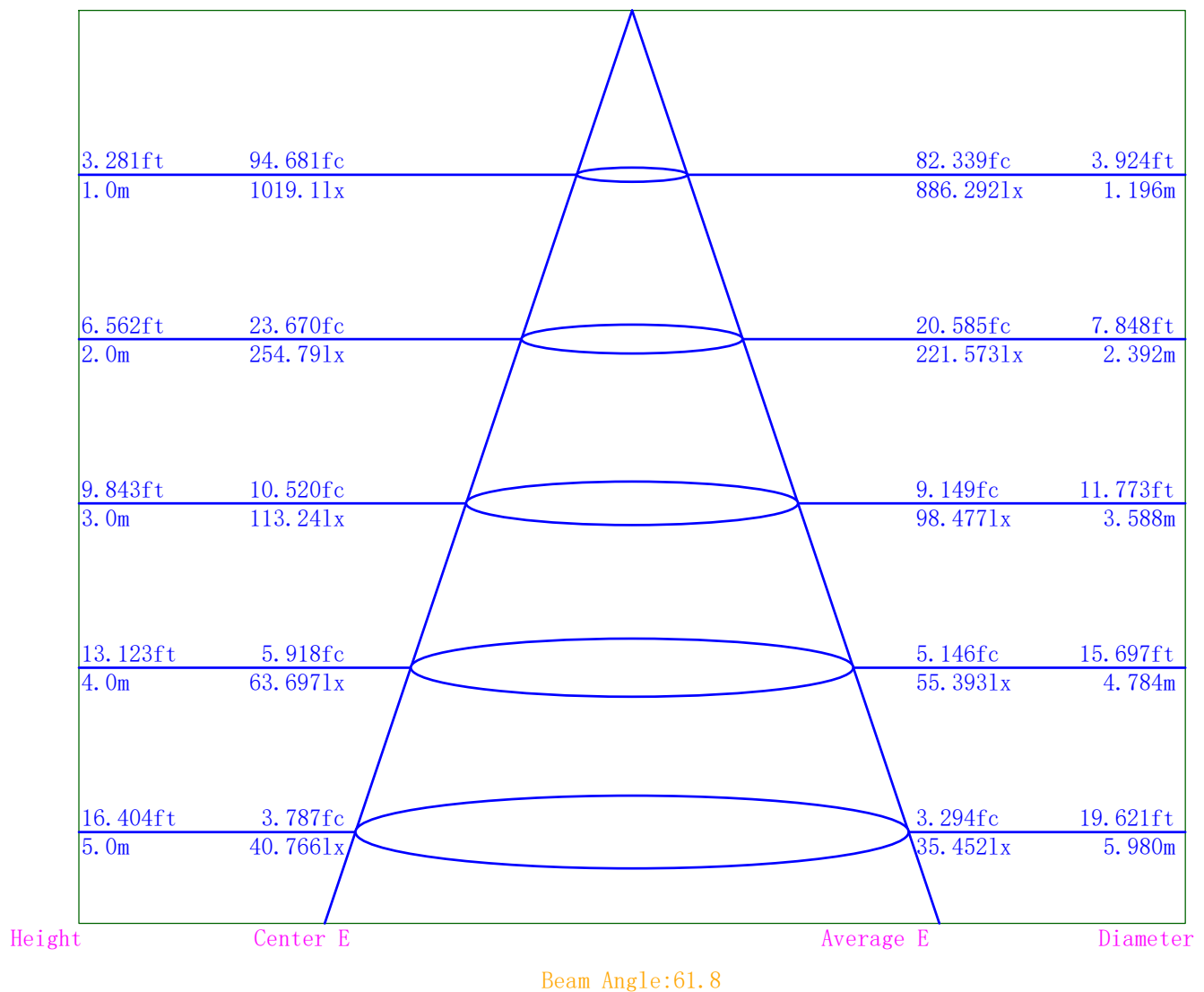
Space Plane Maximum Illuminance and @Angle:1020.71lx,1.0deg

Plane Maximum Lighting Intensity and @Angle:1022.855cd,0deg

## Illuminance-Distance Diagram

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

Illuminance-Distance Curve



## Indoor Luminance Limiting Curves

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

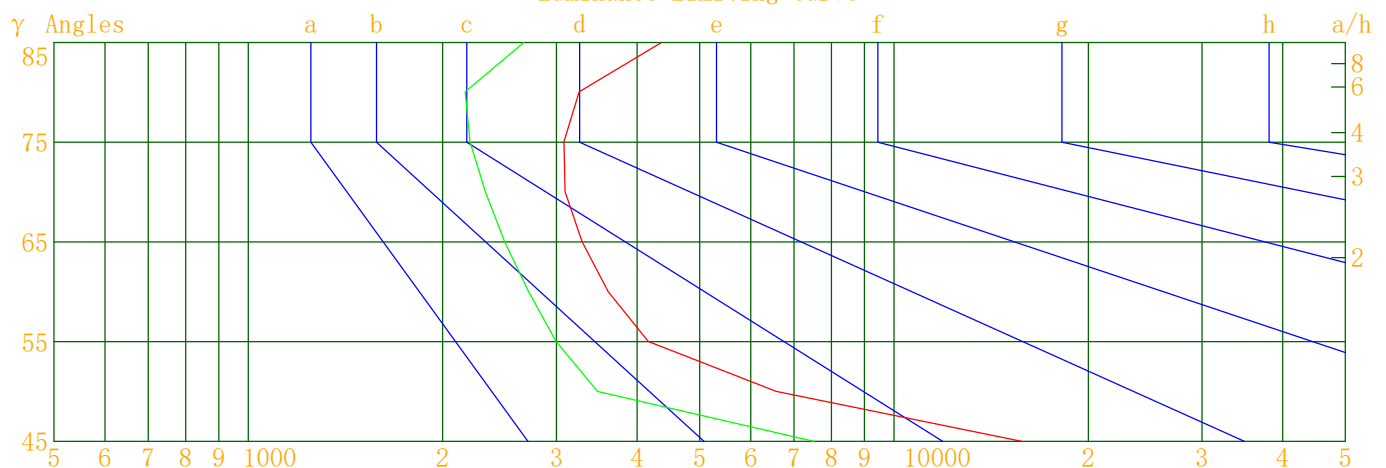
Glare Grade Table

| GI   | Quality | Using Illuminance |      |      |       |       |       |       |       |
|------|---------|-------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A       | 2000              | 1000 | 500  | <=300 |       |       |       |       |
| 1.5  | B       |                   | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85 | C       |                   |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.2  | D       |                   |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55 | E       | a                 |      |      |       | 2000  | 1000  | 500   | <=300 |
|      |         |                   | b    | c    | d     | e     | f     | g     | h     |

Luminance Table

| Gama (deg) | 45    | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|------------|-------|------|------|------|------|------|------|------|------|
| C0         | 15770 | 6575 | 4164 | 3607 | 3287 | 3094 | 3081 | 3254 | 4364 |
| C90        | 7520  | 3475 | 2997 | 2716 | 2494 | 2329 | 2204 | 2167 | 2670 |

Luminance Limiting Curve



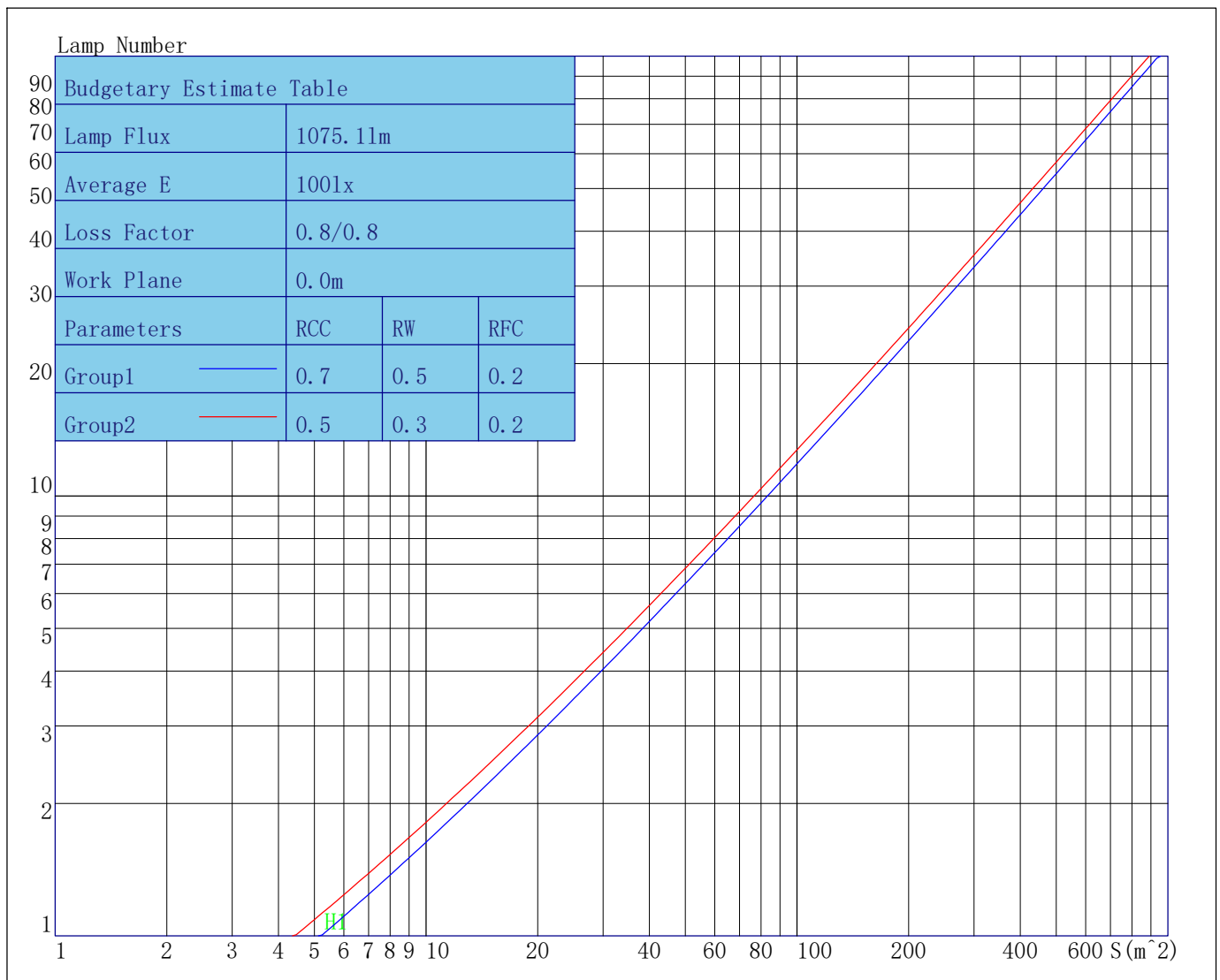
Luminous Size: Length(m)=0.000 Width(m)=0.050 Height(m)=0.080 Area(m^2)=0.015708

Luminous Type: Without Luminous Side

Luminous Curves: C0-C180 Color: — C90-C270 Color: —

## Indoor Budgetary Estimate Table

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8  
Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8  
Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

## Indoor Coefficient of Utilization Table

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

| Coefficients of Utilization – Zonal Cavity Method |                                             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|---------------------------------------------------|---------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Coef.                                             | Effective Floor Cavity Reflectance RFC=0.20 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
| RhoCC (%)                                         | 80                                          |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0  |
| RhoW (%)                                          | 70                                          | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0  |
| RCR                                               | Coefficient of Utilization(%)               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
| 0                                                 | 119                                         | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 105 | 105 | 105 | 101 | 101 | 101 | 98 |
| 1                                                 | 112                                         | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 102 | 100 | 99  | 98  | 97  | 95  | 95  | 93  | 92  | 90 |
| 2                                                 | 106                                         | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 95  | 92  | 89  | 92  | 89  | 87  | 89  | 87  | 85  | 83 |
| 3                                                 | 100                                         | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 88  | 84  | 81  | 86  | 82  | 79  | 83  | 80  | 78  | 76 |
| 4                                                 | 94                                          | 86  | 80  | 75  | 92  | 85  | 79  | 75  | 82  | 77  | 74  | 80  | 76  | 73  | 78  | 74  | 72  | 70 |
| 5                                                 | 89                                          | 80  | 74  | 69  | 87  | 79  | 73  | 68  | 77  | 72  | 68  | 75  | 70  | 67  | 73  | 69  | 66  | 65 |
| 6                                                 | 84                                          | 74  | 68  | 63  | 83  | 74  | 67  | 63  | 72  | 66  | 62  | 70  | 66  | 62  | 69  | 65  | 61  | 60 |
| 7                                                 | 80                                          | 70  | 63  | 59  | 78  | 69  | 63  | 58  | 67  | 62  | 58  | 66  | 61  | 57  | 65  | 60  | 57  | 55 |
| 8                                                 | 75                                          | 65  | 59  | 54  | 74  | 65  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 53  | 61  | 56  | 53  | 52 |
| 9                                                 | 72                                          | 61  | 55  | 51  | 70  | 61  | 55  | 50  | 60  | 54  | 50  | 58  | 53  | 50  | 57  | 53  | 50  | 48 |
| 10                                                | 68                                          | 58  | 51  | 47  | 67  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 54  | 50  | 47  | 45 |

## Unified Glare Rating Table

|                                      |                        |                              |
|--------------------------------------|------------------------|------------------------------|
| Lum. Name: HCP-817024-4000K RA90 60D | Lum. Catalog:          | Test ID: 01                  |
| Lamp Name:                           | Lamp Catalog: LED      | Test Lab: Quality Department |
| Manufacture: Havit Commercial        | Test Machine: GON-2000 | Test Date: 2020/10/13        |

## Unified Glare Rating Table

|                                                   |                 |      |      |      |      |               |      |      |      |      |
|---------------------------------------------------|-----------------|------|------|------|------|---------------|------|------|------|------|
| Ceiling RCC                                       | 0.70            | 0.70 | 0.50 | 0.50 | 0.30 | 0.70          | 0.70 | 0.50 | 0.50 | 0.30 |
| Wall RW                                           | 0.50            | 0.30 | 0.50 | 0.30 | 0.30 | 0.50          | 0.30 | 0.50 | 0.30 | 0.30 |
| Floor RFC                                         | 0.20            | 0.20 | 0.20 | 0.20 | 0.20 | 0.20          | 0.20 | 0.20 | 0.20 | 0.20 |
| Room Size                                         | Vewed crosswise |      |      |      |      | Vewed endwise |      |      |      |      |
| X=2H    Y=2H                                      | 18.1            | 19.2 | 18.5 | 19.6 | 19.9 | 16.4          | 17.5 | 16.8 | 17.8 | 18.2 |
|                                                   | 18.2            | 19.2 | 18.6 | 19.5 | 20.0 | 16.5          | 17.4 | 16.9 | 17.8 | 18.2 |
|                                                   | 18.3            | 19.2 | 18.7 | 19.6 | 20.0 | 16.5          | 17.4 | 16.9 | 17.8 | 18.2 |
|                                                   | 18.4            | 19.2 | 18.8 | 19.6 | 20.0 | 16.5          | 17.4 | 17.0 | 17.8 | 18.2 |
|                                                   | 18.4            | 19.2 | 18.9 | 19.6 | 20.1 | 16.6          | 17.4 | 17.0 | 17.8 | 18.2 |
|                                                   | 18.4            | 19.2 | 18.9 | 19.6 | 20.1 | 16.6          | 17.3 | 17.0 | 17.8 | 18.2 |
| X=4H    Y=2H                                      | 18.0            | 18.9 | 18.4 | 19.3 | 19.7 | 16.2          | 17.1 | 16.7 | 17.5 | 18.0 |
|                                                   | 18.1            | 18.9 | 18.6 | 19.3 | 19.8 | 16.4          | 17.2 | 16.9 | 17.6 | 18.1 |
|                                                   | 18.3            | 18.9 | 18.7 | 19.4 | 19.9 | 16.5          | 17.2 | 17.0 | 17.7 | 18.2 |
|                                                   | 18.4            | 19.0 | 18.9 | 19.5 | 20.0 | 16.7          | 17.3 | 17.2 | 17.7 | 18.3 |
|                                                   | 18.5            | 19.1 | 19.0 | 19.6 | 20.1 | 16.7          | 17.3 | 17.2 | 17.8 | 18.3 |
|                                                   | 18.7            | 19.2 | 19.2 | 19.7 | 20.2 | 16.8          | 17.3 | 17.3 | 17.8 | 18.3 |
| X=8H    Y=4H                                      | 18.2            | 18.8 | 18.7 | 19.3 | 19.8 | 16.5          | 17.1 | 17.0 | 17.6 | 18.1 |
|                                                   | 18.5            | 18.9 | 19.0 | 19.5 | 20.0 | 16.7          | 17.2 | 17.3 | 17.7 | 18.3 |
|                                                   | 18.6            | 19.1 | 19.2 | 19.6 | 20.1 | 16.8          | 17.3 | 17.4 | 17.8 | 18.3 |
|                                                   | 18.9            | 19.2 | 19.4 | 19.8 | 20.4 | 17.0          | 17.4 | 17.5 | 17.9 | 18.5 |
| X=12H    Y=4H                                     | 18.2            | 18.7 | 18.7 | 19.2 | 19.7 | 16.5          | 17.0 | 17.0 | 17.5 | 18.0 |
|                                                   | 18.5            | 18.9 | 19.0 | 19.4 | 20.0 | 16.7          | 17.1 | 17.3 | 17.6 | 18.2 |
|                                                   | 18.7            | 19.0 | 19.2 | 19.6 | 20.2 | 16.9          | 17.2 | 17.4 | 17.8 | 18.4 |
| Variations with the observer position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H                                            | 0.2/−0.2        |      |      |      |      | 0.4/−0.4      |      |      |      |      |
| S=1.5H                                            | 0.5/−0.5        |      |      |      |      | 0.6/−0.7      |      |      |      |      |
| S=2.0H                                            | 0.6/−0.7        |      |      |      |      | 0.8/−0.9      |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 1.0             |      |      |      |      | 0.9           |      |      |      |      |

o the CIE Pub.117, data has been corrected, refers to the lamp's lumens 8.2flm.

## Candela Tabulation

| V/H    | C0.0    | C90.0   | C180.0  | C270.0  |
|--------|---------|---------|---------|---------|
| γ 0.0  | 1019.15 | 1019.15 | 1019.15 | 1019.15 |
| γ 1.0  | 1021.17 | 1022.15 | 1016.04 | 1026.61 |
| γ 2.0  | 1021.07 | 1016.63 | 1011.32 | 1024.88 |
| γ 3.0  | 1022.85 | 1012.94 | 1008.43 | 1024.34 |
| γ 4.0  | 1019.91 | 1006.94 | 1000.59 | 1019.98 |
| γ 5.0  | 1019.25 | 1003.98 | 995.12  | 1016.77 |
| γ 6.0  | 1014.54 | 997.05  | 985.84  | 1009.34 |
| γ 7.0  | 1011.67 | 992.59  | 977.47  | 1003.74 |
| γ 8.0  | 1005.83 | 984.08  | 966.61  | 995.78  |
| γ 9.0  | 999.91  | 975.92  | 955.87  | 988.97  |
| γ 10.0 | 991.14  | 964.70  | 941.90  | 980.23  |
| γ 11.0 | 984.22  | 953.65  | 927.35  | 969.78  |
| γ 12.0 | 974.43  | 939.13  | 911.22  | 956.47  |
| γ 13.0 | 964.72  | 924.14  | 895.28  | 944.68  |
| γ 14.0 | 952.31  | 907.85  | 875.52  | 928.89  |
| γ 15.0 | 939.00  | 892.31  | 857.65  | 912.95  |
| γ 16.0 | 924.08  | 872.59  | 836.64  | 895.75  |
| γ 17.0 | 909.23  | 853.38  | 816.77  | 879.51  |
| γ 18.0 | 891.17  | 830.87  | 793.64  | 859.89  |
| γ 19.0 | 873.22  | 810.46  | 770.00  | 840.86  |
| γ 20.0 | 853.71  | 786.30  | 743.09  | 818.33  |
| γ 21.0 | 833.96  | 763.24  | 716.79  | 797.38  |
| γ 22.0 | 810.54  | 734.82  | 687.66  | 774.16  |
| γ 23.0 | 788.00  | 705.74  | 660.10  | 751.25  |
| γ 24.0 | 762.30  | 675.47  | 629.97  | 725.62  |
| γ 25.0 | 737.98  | 647.70  | 602.71  | 699.39  |
| γ 26.0 | 710.30  | 618.94  | 574.05  | 671.20  |
| γ 27.0 | 684.27  | 589.83  | 548.52  | 644.23  |
| γ 28.0 | 655.60  | 562.45  | 520.76  | 616.24  |
| γ 29.0 | 628.44  | 537.28  | 495.26  | 589.42  |
| γ 30.0 | 597.61  | 508.99  | 470.75  | 562.95  |
| γ 31.0 | 570.50  | 483.20  | 447.04  | 537.80  |
| γ 32.0 | 541.79  | 459.39  | 420.79  | 511.04  |
| γ 33.0 | 513.75  | 435.38  | 393.39  | 486.92  |
| γ 34.0 | 486.76  | 408.91  | 363.27  | 463.58  |
| γ 35.0 | 462.65  | 382.50  | 333.14  | 438.90  |
| γ 36.0 | 435.84  | 351.94  | 300.92  | 412.56  |
| γ 37.0 | 408.45  | 320.32  | 269.86  | 385.55  |
| γ 38.0 | 378.57  | 288.34  | 238.55  | 355.35  |
| γ 39.0 | 349.08  | 256.86  | 208.62  | 323.87  |
| γ 40.0 | 317.87  | 224.90  | 179.31  | 291.46  |
| γ 41.0 | 286.83  | 193.96  | 151.27  | 259.68  |
| γ 42.0 | 256.92  | 163.34  | 124.30  | 227.78  |
| γ 43.0 | 229.00  | 134.37  | 99.77   | 196.86  |
| γ 44.0 | 201.27  | 107.62  | 77.90   | 166.53  |
| γ 45.0 | 175.16  | 83.52   | 60.41   | 137.29  |
| γ 46.0 | 149.31  | 63.86   | 48.01   | 110.11  |

## Candela Tabulation - (Cont.)

| V/H    | C0.0   | C90.0 | C180.0 | C270.0 |
|--------|--------|-------|--------|--------|
| γ 47.0 | 125.17 | 50.21 | 40.37  | 86.23  |
| γ 48.0 | 101.97 | 42.37 | 35.32  | 66.69  |
| γ 49.0 | 82.16  | 37.90 | 31.70  | 53.11  |
| γ 50.0 | 66.39  | 35.09 | 28.81  | 44.76  |
| γ 51.0 | 55.49  | 32.71 | 27.50  | 39.84  |
| γ 52.0 | 49.28  | 30.67 | 26.43  | 36.11  |
| γ 53.0 | 44.81  | 29.55 | 25.30  | 33.20  |
| γ 54.0 | 40.59  | 28.35 | 24.22  | 31.08  |
| γ 55.0 | 37.52  | 27.00 | 23.23  | 29.65  |
| γ 56.0 | 35.29  | 25.83 | 22.32  | 28.02  |
| γ 57.0 | 33.39  | 24.78 | 21.43  | 26.57  |
| γ 58.0 | 31.45  | 23.73 | 20.33  | 25.31  |
| γ 59.0 | 29.79  | 22.62 | 19.34  | 24.28  |
| γ 60.0 | 28.33  | 21.33 | 18.46  | 23.25  |
| γ 61.0 | 26.95  | 20.26 | 17.67  | 22.21  |
| γ 62.0 | 25.59  | 19.25 | 16.98  | 21.04  |
| γ 63.0 | 24.28  | 18.38 | 16.22  | 20.12  |
| γ 64.0 | 22.93  | 17.50 | 15.32  | 19.27  |
| γ 65.0 | 21.82  | 16.56 | 14.63  | 18.53  |
| γ 66.0 | 20.74  | 15.55 | 13.94  | 17.71  |
| γ 67.0 | 19.67  | 14.74 | 13.37  | 16.79  |
| γ 68.0 | 18.65  | 13.96 | 12.77  | 15.99  |
| γ 69.0 | 17.60  | 13.24 | 12.12  | 15.31  |
| γ 70.0 | 16.62  | 12.51 | 11.41  | 14.71  |
| γ 71.0 | 15.77  | 11.69 | 10.85  | 14.11  |
| γ 72.0 | 14.98  | 10.91 | 10.25  | 13.50  |
| γ 73.0 | 14.21  | 10.24 | 9.66   | 12.79  |
| γ 74.0 | 13.38  | 9.61  | 8.96   | 12.06  |
| γ 75.0 | 12.53  | 8.96  | 8.29   | 11.44  |
| γ 76.0 | 11.78  | 8.23  | 7.74   | 10.87  |
| γ 77.0 | 11.07  | 7.57  | 7.24   | 10.28  |
| γ 78.0 | 10.41  | 7.01  | 6.69   | 9.56   |
| γ 79.0 | 9.68   | 6.46  | 6.08   | 8.94   |
| γ 80.0 | 8.88   | 5.91  | 5.54   | 8.38   |
| γ 81.0 | 8.25   | 5.29  | 5.09   | 7.83   |
| γ 82.0 | 7.71   | 4.79  | 4.63   | 7.23   |
| γ 83.0 | 7.16   | 4.41  | 4.15   | 6.61   |
| γ 84.0 | 6.57   | 4.05  | 3.72   | 6.10   |
| γ 85.0 | 5.97   | 3.66  | 3.40   | 5.70   |
| γ 86.0 | 5.50   | 3.28  | 3.04   | 5.25   |
| γ 87.0 | 5.12   | 2.96  | 2.70   | 4.81   |
| γ 88.0 | 4.74   | 2.59  | 2.53   | 4.37   |
| γ 89.0 | 4.36   | 2.38  | 2.44   | 3.93   |
| γ 90.0 | 3.96   | 2.28  | 2.34   | 3.42   |
| γ 91.0 | 3.46   | 2.19  | 2.26   | 3.20   |
| γ 92.0 | 3.11   | 2.10  | 2.17   | 3.05   |
| γ 93.0 | 2.95   | 2.02  | 2.09   | 2.95   |

## Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0  | 2.83 | 1.93  | 2.02   | 2.83   |
| γ 95.0  | 2.72 | 1.85  | 1.94   | 2.73   |
| γ 96.0  | 2.61 | 1.78  | 1.88   | 2.62   |
| γ 97.0  | 2.51 | 1.72  | 1.83   | 2.53   |
| γ 98.0  | 2.41 | 1.66  | 1.77   | 2.43   |
| γ 99.0  | 2.32 | 1.59  | 1.73   | 2.36   |
| γ 100.0 | 2.24 | 1.54  | 1.69   | 2.29   |
| γ 101.0 | 2.16 | 1.50  | 1.65   | 2.22   |
| γ 102.0 | 2.09 | 1.46  | 1.63   | 2.15   |
| γ 103.0 | 2.02 | 1.43  | 1.60   | 2.11   |
| γ 104.0 | 1.95 | 1.41  | 1.59   | 2.05   |
| γ 105.0 | 1.90 | 1.39  | 1.58   | 2.01   |
| γ 106.0 | 1.86 | 1.37  | 1.57   | 1.96   |
| γ 107.0 | 1.82 | 1.37  | 1.58   | 1.94   |
| γ 108.0 | 1.79 | 1.36  | 1.58   | 1.92   |
| γ 109.0 | 1.76 | 1.36  | 1.60   | 1.89   |
| γ 110.0 | 1.73 | 1.37  | 1.62   | 1.88   |
| γ 111.0 | 1.72 | 1.38  | 1.66   | 1.89   |
| γ 112.0 | 1.69 | 1.39  | 1.69   | 1.89   |
| γ 113.0 | 1.69 | 1.43  | 1.72   | 1.89   |
| γ 114.0 | 1.70 | 1.46  | 1.76   | 1.89   |
| γ 115.0 | 1.71 | 1.48  | 1.80   | 1.92   |
| γ 116.0 | 1.71 | 1.53  | 1.86   | 1.94   |
| γ 117.0 | 1.73 | 1.57  | 1.92   | 1.99   |
| γ 118.0 | 1.75 | 1.63  | 1.97   | 2.02   |
| γ 119.0 | 1.77 | 1.68  | 2.05   | 2.06   |
| γ 120.0 | 1.81 | 1.73  | 2.11   | 2.09   |
| γ 121.0 | 1.85 | 1.80  | 2.18   | 2.15   |
| γ 122.0 | 1.89 | 1.87  | 2.26   | 2.20   |
| γ 123.0 | 1.94 | 1.94  | 2.34   | 2.26   |
| γ 124.0 | 2.00 | 2.02  | 2.42   | 2.32   |
| γ 125.0 | 2.06 | 2.11  | 2.51   | 2.39   |
| γ 126.0 | 2.13 | 2.19  | 2.60   | 2.46   |
| γ 127.0 | 2.19 | 2.28  | 2.70   | 2.54   |
| γ 128.0 | 2.26 | 2.36  | 2.80   | 2.60   |
| γ 129.0 | 2.34 | 2.45  | 2.90   | 2.70   |
| γ 130.0 | 2.42 | 2.56  | 2.99   | 2.78   |
| γ 131.0 | 2.50 | 2.64  | 3.11   | 2.87   |
| γ 132.0 | 2.58 | 2.75  | 3.21   | 2.96   |
| γ 133.0 | 2.68 | 2.86  | 3.33   | 3.06   |
| γ 134.0 | 2.78 | 2.96  | 3.42   | 3.15   |
| γ 135.0 | 2.87 | 3.07  | 3.54   | 3.25   |
| γ 136.0 | 2.98 | 3.18  | 3.64   | 3.35   |
| γ 137.0 | 3.08 | 3.29  | 3.76   | 3.44   |
| γ 138.0 | 3.18 | 3.40  | 3.87   | 3.54   |
| γ 139.0 | 3.28 | 3.50  | 3.97   | 3.65   |
| γ 140.0 | 3.39 | 3.61  | 4.09   | 3.75   |

## Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 3.49 | 3.71  | 4.20   | 3.86   |
| γ 142.0 | 3.60 | 3.81  | 4.29   | 3.96   |
| γ 143.0 | 3.70 | 3.92  | 4.38   | 4.06   |
| γ 144.0 | 3.80 | 4.02  | 4.48   | 4.16   |
| γ 145.0 | 3.91 | 4.12  | 4.57   | 4.26   |
| γ 146.0 | 4.02 | 4.22  | 4.67   | 4.35   |
| γ 147.0 | 4.10 | 4.31  | 4.75   | 4.44   |
| γ 148.0 | 4.20 | 4.42  | 4.84   | 4.53   |
| γ 149.0 | 4.30 | 4.50  | 4.93   | 4.63   |
| γ 150.0 | 4.40 | 4.60  | 5.02   | 4.72   |
| γ 151.0 | 4.51 | 4.69  | 5.11   | 4.81   |
| γ 152.0 | 4.59 | 4.79  | 5.19   | 4.89   |
| γ 153.0 | 4.67 | 4.88  | 5.27   | 4.98   |
| γ 154.0 | 4.77 | 4.97  | 5.35   | 5.07   |
| γ 155.0 | 4.86 | 5.08  | 5.44   | 5.15   |
| γ 156.0 | 4.96 | 5.17  | 5.52   | 5.24   |
| γ 157.0 | 5.06 | 5.25  | 5.61   | 5.34   |
| γ 158.0 | 5.15 | 5.34  | 5.69   | 5.42   |
| γ 159.0 | 5.25 | 5.43  | 5.78   | 5.50   |
| γ 160.0 | 5.34 | 5.54  | 5.85   | 5.59   |
| γ 161.0 | 5.43 | 5.63  | 5.94   | 5.69   |
| γ 162.0 | 5.52 | 5.72  | 6.01   | 5.77   |
| γ 163.0 | 5.62 | 5.82  | 6.10   | 5.86   |
| γ 164.0 | 5.72 | 5.92  | 6.18   | 5.94   |
| γ 165.0 | 5.82 | 5.99  | 6.26   | 6.03   |
| γ 166.0 | 5.91 | 6.08  | 6.33   | 6.11   |
| γ 167.0 | 5.99 | 6.16  | 6.40   | 6.19   |
| γ 168.0 | 6.08 | 6.25  | 6.46   | 6.27   |
| γ 169.0 | 6.17 | 6.32  | 6.53   | 6.34   |
| γ 170.0 | 6.24 | 6.40  | 6.60   | 6.42   |
| γ 171.0 | 6.33 | 6.47  | 6.66   | 6.49   |
| γ 172.0 | 6.41 | 6.54  | 6.71   | 6.56   |
| γ 173.0 | 6.48 | 6.60  | 6.76   | 6.62   |
| γ 174.0 | 6.57 | 6.68  | 6.81   | 6.69   |
| γ 175.0 | 6.62 | 6.73  | 6.82   | 6.74   |
| γ 176.0 | 6.69 | 6.76  | 6.85   | 6.79   |
| γ 177.0 | 6.74 | 6.80  | 6.87   | 6.84   |
| γ 178.0 | 6.78 | 6.83  | 6.88   | 6.88   |
| γ 179.0 | 6.82 | 6.85  | 6.88   | 6.89   |
| γ 180.0 | 6.87 | 6.87  | 6.87   | 6.87   |