

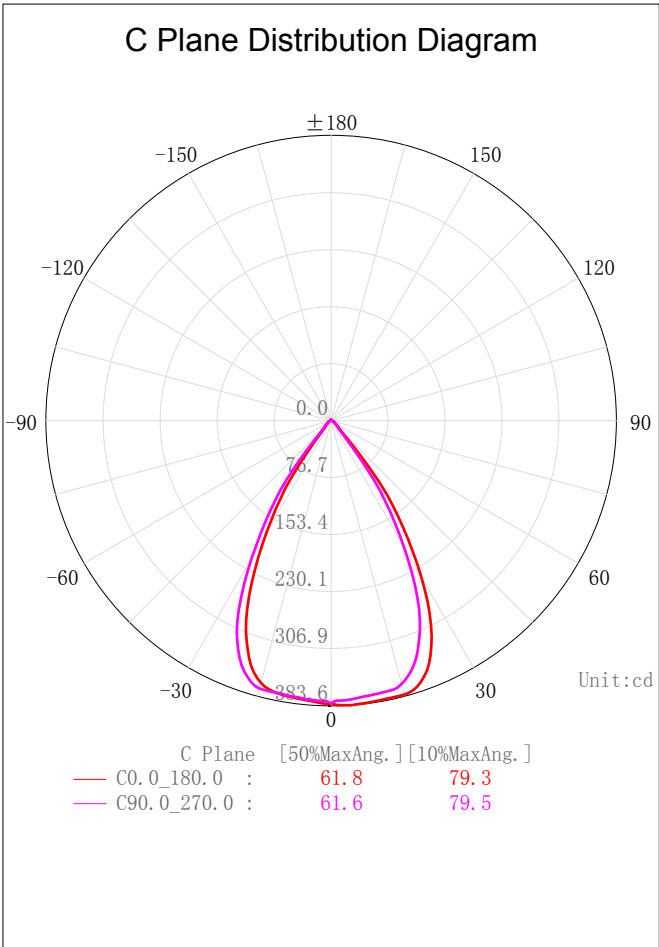
Indoor Luminaire Photometric Data

Description Information

|   |                         |                      |                       |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:SD05-06-XX-01 2700K RA90 60D    |                         | Lum. Catalog:        | Test ID: 01           |
| Lamp Name:                                    |                         | Lamp Catalog: LED    | Test Date: 2021/04/17 |
| Manufacture: Shenzhen Norming Lighting Co.Ltd |                         | 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*0.000m        |                         | Lum. Area (m2):0.002 | Lum. W (kg): 0.000    |
| Test System: C, γ                             | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25       | Humidity(%): 50.0     |

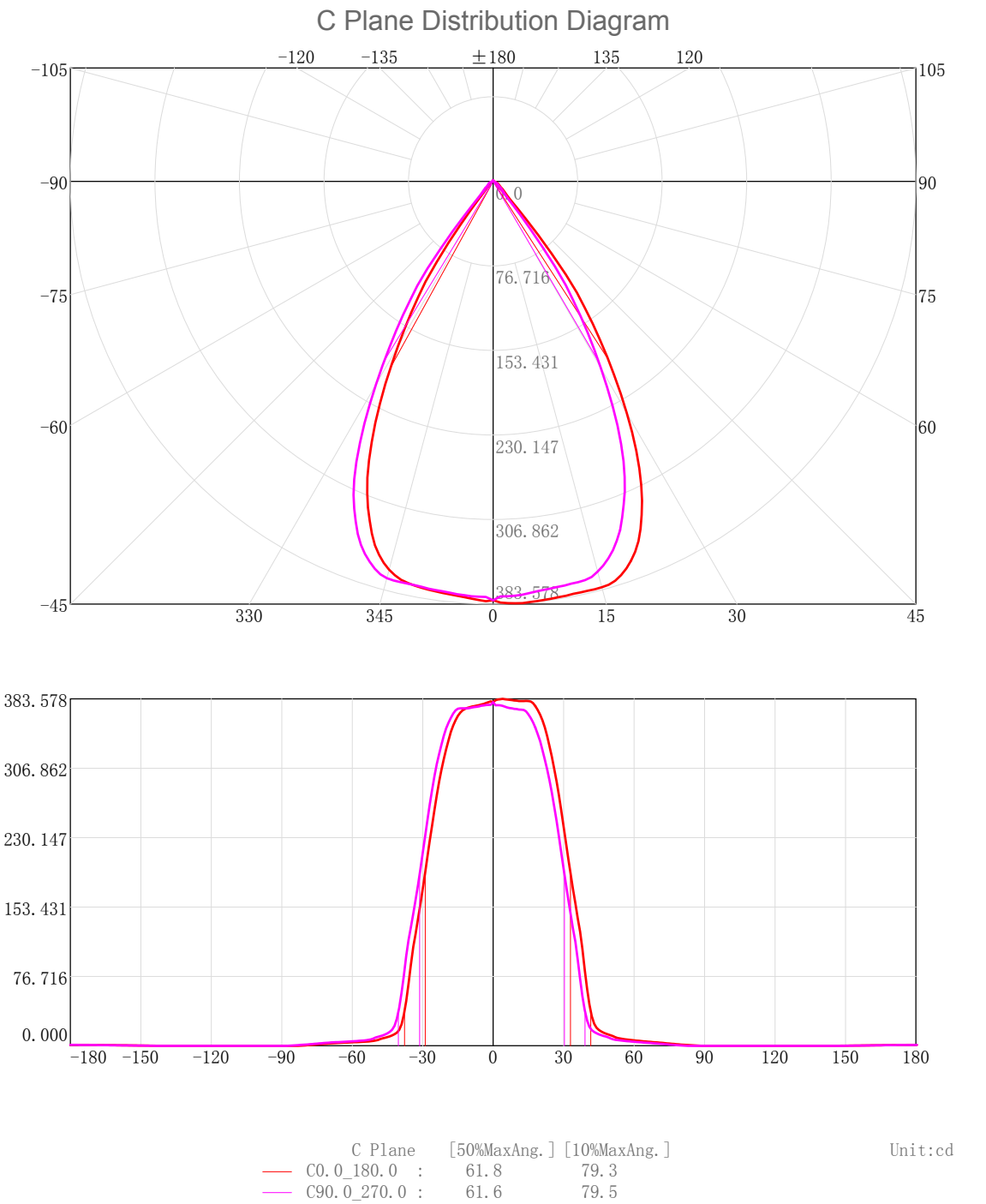
Character Parameter

| Lamp Speciality Parameter                       |                                | Luminaire Speciality Parameter        |  |
|---|--------------------------------|---------------------------------------|--|
| Rated Flux(lm): 368.070                         | Luminary Flux(lm): 368.075     | Field Angle(10%Imax): 79.3(°)         |  |
| Rated Power(W):                                 | Luminary Efficiency: 100.00%   | Down Lumens&Percent: 367.575lm 99.86% |  |
| Rated Voltage(V):                               | Luminary EER(lm/W): 64.203     | Up Lumens&Percent: 0.500lm 0.14%      |  |
| Tested Power(W): 5.733                          | Max. Candela(cd): 383.578      | S/MH: C0_a180=1.004 C90_270=0.998     |  |
| Lamps' Inside: 1                                | Max Cand@Ang. (°): C=0.0 γ=4.0 | CIE Type: Semi-Direct                 |  |
| Tested Electrics (V, A, pf):240.2, 0.030, 0.788 | Beam Angle(50%Imax): 61.8(°)   | ErP ϕ use(90°): 342.316lm             |  |
| Lamp Size (W*L*H):0.050m*0.000m*0.000m          | Left=-28.9°, Right=32.9°       | IRF(%): 209.904                       |  |



2D Plane Light Intensity Distribution Curve

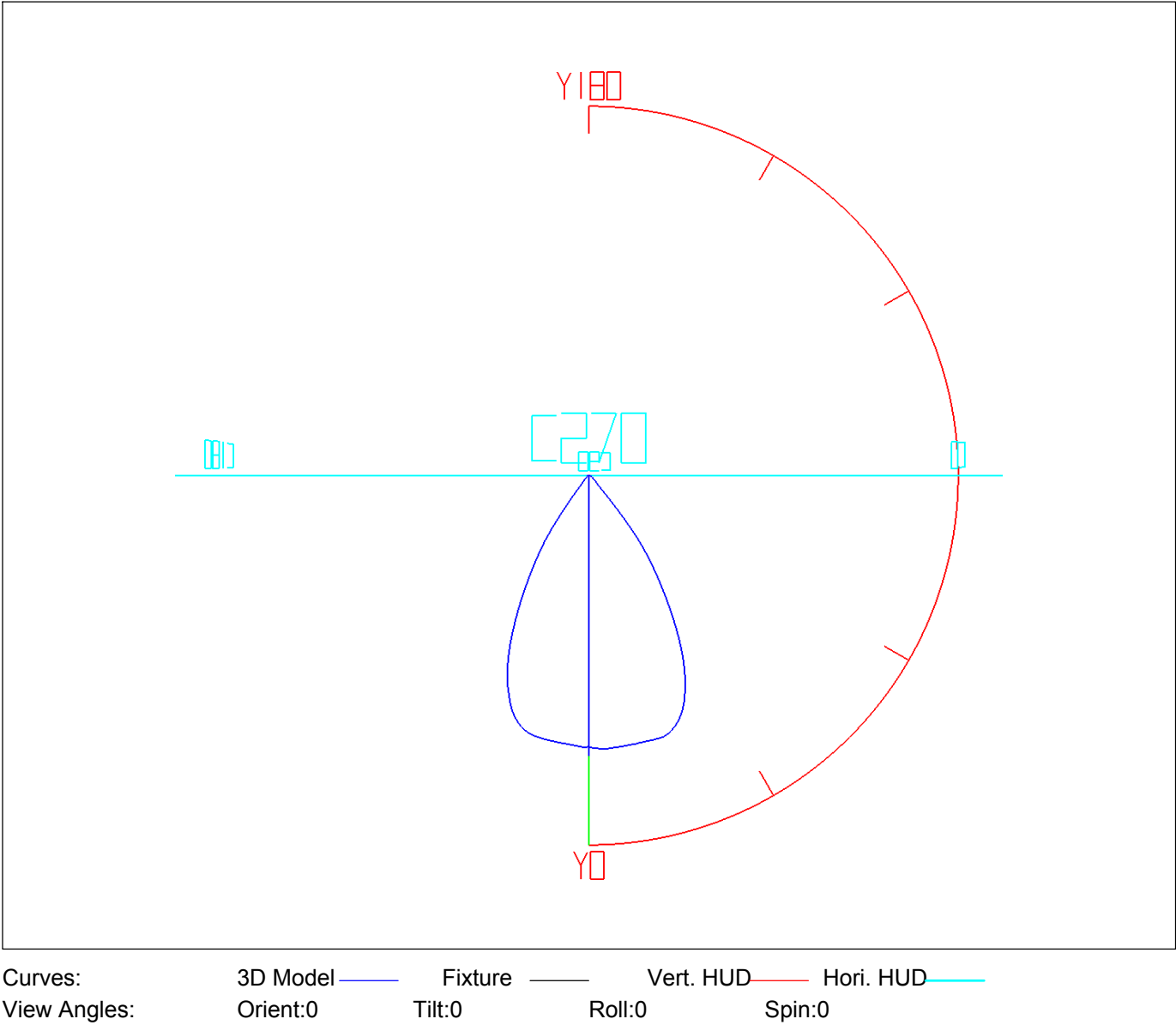
|  |                       |                             |
|--|-----------------------|-----------------------------|
| Lum. Name:SD05-06-XX-01 2700K RA90 60D       | Lum. Catelog:         | Test ID:01                  |
| Lamp Name:                                   | Lamp Catelog:LED      | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date:2021/04/17        |



3D Light Intensity Distribution Modal

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:SD05-06-XX-01 2700K RA90 60D.IES

Zonal Flux Tabulation

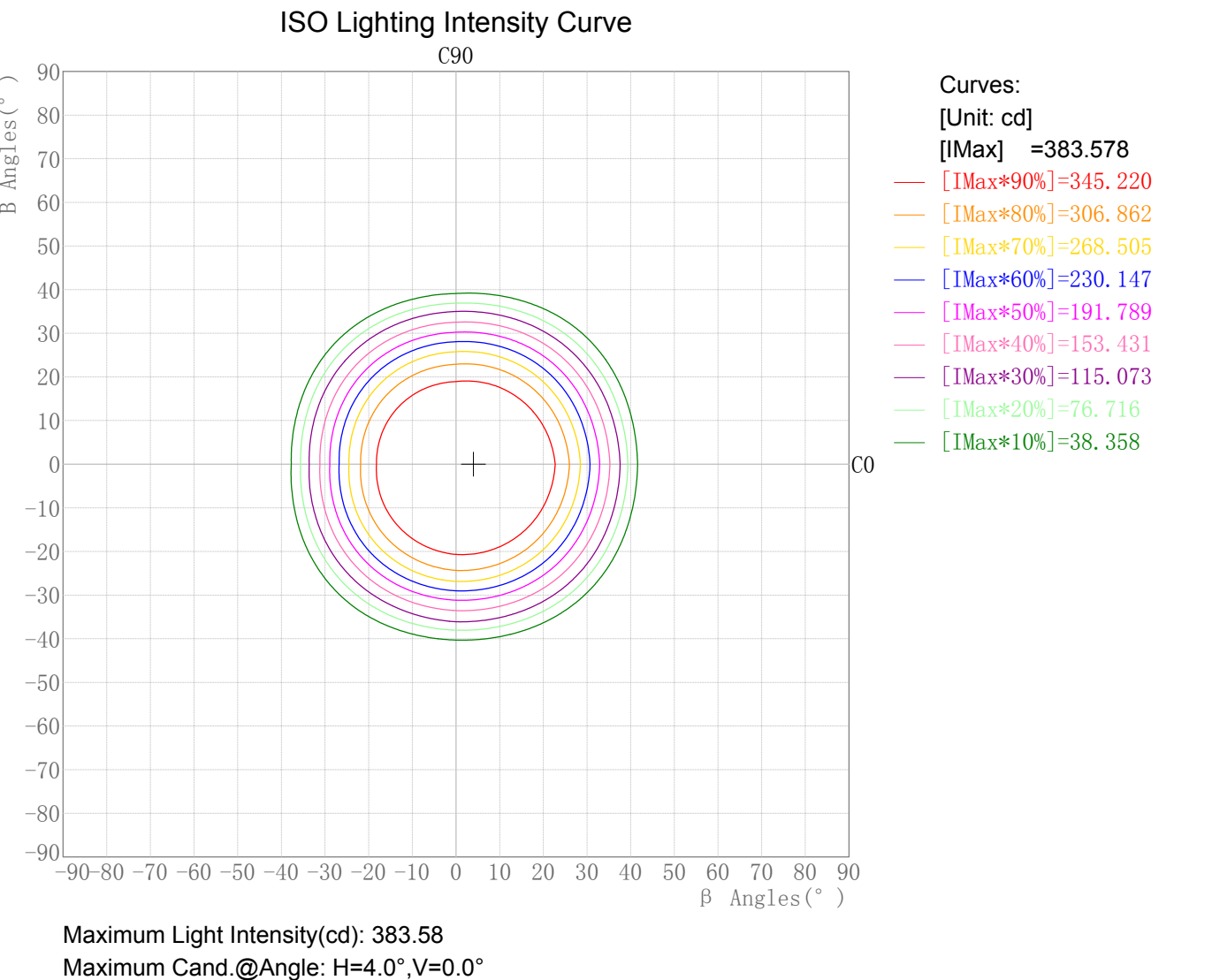
| Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0   | 0.36              | 0.36              | 0.10      | 0.10      | 47.0-48.0 | 0.88              | 354.03            | 0.24      | 96.19     |
| 1.0-2.0   | 1.09              | 1.45              | 0.30      | 0.39      | 48.0-49.0 | 0.83              | 354.86            | 0.22      | 96.41     |
| 2.0-3.0   | 1.81              | 3.26              | 0.49      | 0.89      | 49.0-50.0 | 0.77              | 355.62            | 0.21      | 96.62     |
| 3.0-4.0   | 2.53              | 5.80              | 0.69      | 1.58      | 50.0-51.0 | 0.71              | 356.33            | 0.19      | 96.81     |
| 4.0-5.0   | 3.25              | 9.05              | 0.88      | 2.46      | 51.0-52.0 | 0.65              | 356.98            | 0.18      | 96.99     |
| 5.0-6.0   | 3.97              | 13.02             | 1.08      | 3.54      | 52.0-53.0 | 0.60              | 357.58            | 0.16      | 97.15     |
| 6.0-7.0   | 4.68              | 17.70             | 1.27      | 4.81      | 53.0-54.0 | 0.57              | 358.15            | 0.15      | 97.30     |
| 7.0-8.0   | 5.39              | 23.09             | 1.46      | 6.27      | 54.0-55.0 | 0.55              | 358.69            | 0.15      | 97.45     |
| 8.0-9.0   | 6.10              | 29.18             | 1.66      | 7.93      | 55.0-56.0 | 0.53              | 359.22            | 0.14      | 97.60     |
| 9.0-10.0  | 6.80              | 35.98             | 1.85      | 9.78      | 56.0-57.0 | 0.51              | 359.74            | 0.14      | 97.74     |
| 10.0-11.0 | 7.50              | 43.48             | 2.04      | 11.81     | 57.0-58.0 | 0.50              | 360.24            | 0.14      | 97.87     |
| 11.0-12.0 | 8.19              | 51.67             | 2.23      | 14.04     | 58.0-59.0 | 0.48              | 360.72            | 0.13      | 98.00     |
| 12.0-13.0 | 8.89              | 60.56             | 2.41      | 16.45     | 59.0-60.0 | 0.47              | 361.19            | 0.13      | 98.13     |
| 13.0-14.0 | 9.56              | 70.12             | 2.60      | 19.05     | 60.0-61.0 | 0.46              | 361.65            | 0.12      | 98.26     |
| 14.0-15.0 | 10.22             | 80.34             | 2.78      | 21.83     | 61.0-62.0 | 0.44              | 362.09            | 0.12      | 98.38     |
| 15.0-16.0 | 10.84             | 91.18             | 2.94      | 24.77     | 62.0-63.0 | 0.43              | 362.52            | 0.12      | 98.49     |
| 16.0-17.0 | 11.41             | 102.60            | 3.10      | 27.87     | 63.0-64.0 | 0.42              | 362.94            | 0.11      | 98.61     |
| 17.0-18.0 | 11.93             | 114.53            | 3.24      | 31.12     | 64.0-65.0 | 0.40              | 363.34            | 0.11      | 98.72     |
| 18.0-19.0 | 12.39             | 126.92            | 3.37      | 34.48     | 65.0-66.0 | 0.39              | 363.73            | 0.11      | 98.82     |
| 19.0-20.0 | 12.78             | 139.70            | 3.47      | 37.95     | 66.0-67.0 | 0.38              | 364.11            | 0.10      | 98.92     |
| 20.0-21.0 | 13.09             | 152.79            | 3.56      | 41.51     | 67.0-68.0 | 0.36              | 364.47            | 0.10      | 99.02     |
| 21.0-22.0 | 13.32             | 166.11            | 3.62      | 45.13     | 68.0-69.0 | 0.35              | 364.82            | 0.09      | 99.12     |
| 22.0-23.0 | 13.47             | 179.59            | 3.66      | 48.79     | 69.0-70.0 | 0.33              | 365.15            | 0.09      | 99.21     |
| 23.0-24.0 | 13.53             | 193.12            | 3.68      | 52.47     | 70.0-71.0 | 0.31              | 365.46            | 0.08      | 99.29     |
| 24.0-25.0 | 13.48             | 206.60            | 3.66      | 56.13     | 71.0-72.0 | 0.29              | 365.74            | 0.08      | 99.37     |
| 25.0-26.0 | 13.32             | 219.92            | 3.62      | 59.75     | 72.0-73.0 | 0.26              | 366.01            | 0.07      | 99.44     |
| 26.0-27.0 | 13.03             | 232.95            | 3.54      | 63.29     | 73.0-74.0 | 0.24              | 366.25            | 0.07      | 99.50     |
| 27.0-28.0 | 12.64             | 245.59            | 3.43      | 66.72     | 74.0-75.0 | 0.22              | 366.46            | 0.06      | 99.56     |
| 28.0-29.0 | 12.15             | 257.75            | 3.30      | 70.03     | 75.0-76.0 | 0.19              | 366.66            | 0.05      | 99.62     |
| 29.0-30.0 | 11.59             | 269.33            | 3.15      | 73.17     | 76.0-77.0 | 0.17              | 366.83            | 0.05      | 99.66     |
| 30.0-31.0 | 10.97             | 280.31            | 2.98      | 76.16     | 77.0-78.0 | 0.15              | 366.98            | 0.04      | 99.70     |
| 31.0-32.0 | 10.32             | 290.63            | 2.80      | 78.96     | 78.0-79.0 | 0.13              | 367.11            | 0.04      | 99.74     |
| 32.0-33.0 | 9.64              | 300.26            | 2.62      | 81.58     | 79.0-80.0 | 0.11              | 367.23            | 0.03      | 99.77     |
| 33.0-34.0 | 8.93              | 309.20            | 2.43      | 84.01     | 80.0-81.0 | 0.09              | 367.32            | 0.03      | 99.80     |
| 34.0-35.0 | 8.17              | 317.36            | 2.22      | 86.22     | 81.0-82.0 | 0.07              | 367.39            | 0.02      | 99.82     |
| 35.0-36.0 | 7.28              | 324.64            | 1.98      | 88.20     | 82.0-83.0 | 0.06              | 367.45            | 0.02      | 99.83     |
| 36.0-37.0 | 6.28              | 330.93            | 1.71      | 89.91     | 83.0-84.0 | 0.04              | 367.49            | 0.01      | 99.84     |
| 37.0-38.0 | 5.20              | 336.13            | 1.41      | 91.32     | 84.0-85.0 | 0.03              | 367.52            | 0.01      | 99.85     |
| 38.0-39.0 | 4.09              | 340.22            | 1.11      | 92.43     | 85.0-86.0 | 0.02              | 367.55            | 0.01      | 99.86     |
| 39.0-40.0 | 3.11              | 343.33            | 0.85      | 93.28     | 86.0-87.0 | 0.02              | 367.56            | 0.00      | 99.86     |
| 40.0-41.0 | 2.34              | 345.67            | 0.64      | 93.92     | 87.0-88.0 | 0.01              | 367.57            | 0.00      | 99.86     |
| 41.0-42.0 | 1.79              | 347.46            | 0.49      | 94.40     | 88.0-89.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 42.0-43.0 | 1.43              | 348.89            | 0.39      | 94.79     | 89.0-90.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 43.0-44.0 | 1.22              | 350.11            | 0.33      | 95.12     | 90.0-91.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 44.0-45.0 | 1.09              | 351.20            | 0.30      | 95.42     | 91.0-92.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 45.0-46.0 | 1.01              | 352.21            | 0.27      | 95.69     | 92.0-93.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 46.0-47.0 | 0.94              | 353.15            | 0.26      | 95.95     | 93.0-94.0 | 0.00              | 367.57            | 0.00      | 99.87     |

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   | 0.00              | 367.57            | 0.00      | 99.87     | 141.0-142.0 | 0.00              | 367.57            | 0.00      | 99.87     |
| 95.0-96.0   | 0.00              | 367.57            | 0.00      | 99.87     | 142.0-143.0 | 0.00              | 367.58            | 0.00      | 99.87     |
| 96.0-97.0   | 0.00              | 367.57            | 0.00      | 99.87     | 143.0-144.0 | 0.00              | 367.58            | 0.00      | 99.87     |
| 97.0-98.0   | 0.00              | 367.57            | 0.00      | 99.87     | 144.0-145.0 | 0.00              | 367.58            | 0.00      | 99.87     |
| 98.0-99.0   | 0.00              | 367.57            | 0.00      | 99.87     | 145.0-146.0 | 0.00              | 367.58            | 0.00      | 99.87     |
| 99.0-100.0  | 0.00              | 367.57            | 0.00      | 99.87     | 146.0-147.0 | 0.01              | 367.59            | 0.00      | 99.87     |
| 100.0-101.0 | 0.00              | 367.57            | 0.00      | 99.87     | 147.0-148.0 | 0.01              | 367.60            | 0.00      | 99.87     |
| 101.0-102.0 | 0.00              | 367.57            | 0.00      | 99.87     | 148.0-149.0 | 0.01              | 367.61            | 0.00      | 99.87     |
| 102.0-103.0 | 0.00              | 367.57            | 0.00      | 99.87     | 149.0-150.0 | 0.01              | 367.62            | 0.00      | 99.88     |
| 103.0-104.0 | 0.00              | 367.57            | 0.00      | 99.87     | 150.0-151.0 | 0.01              | 367.63            | 0.00      | 99.88     |
| 104.0-105.0 | 0.00              | 367.57            | 0.00      | 99.87     | 151.0-152.0 | 0.01              | 367.64            | 0.00      | 99.88     |
| 105.0-106.0 | 0.00              | 367.57            | 0.00      | 99.87     | 152.0-153.0 | 0.02              | 367.66            | 0.00      | 99.89     |
| 106.0-107.0 | 0.00              | 367.57            | 0.00      | 99.87     | 153.0-154.0 | 0.02              | 367.68            | 0.00      | 99.89     |
| 107.0-108.0 | 0.00              | 367.57            | 0.00      | 99.87     | 154.0-155.0 | 0.02              | 367.69            | 0.00      | 99.90     |
| 108.0-109.0 | 0.00              | 367.57            | 0.00      | 99.87     | 155.0-156.0 | 0.02              | 367.71            | 0.00      | 99.90     |
| 109.0-110.0 | 0.00              | 367.57            | 0.00      | 99.87     | 156.0-157.0 | 0.02              | 367.73            | 0.01      | 99.91     |
| 110.0-111.0 | 0.00              | 367.57            | 0.00      | 99.87     | 157.0-158.0 | 0.02              | 367.75            | 0.01      | 99.91     |
| 111.0-112.0 | 0.00              | 367.57            | 0.00      | 99.87     | 158.0-159.0 | 0.02              | 367.77            | 0.01      | 99.92     |
| 112.0-113.0 | 0.00              | 367.57            | 0.00      | 99.87     | 159.0-160.0 | 0.02              | 367.79            | 0.01      | 99.92     |
| 113.0-114.0 | 0.00              | 367.57            | 0.00      | 99.87     | 160.0-161.0 | 0.02              | 367.81            | 0.01      | 99.93     |
| 114.0-115.0 | 0.00              | 367.57            | 0.00      | 99.87     | 161.0-162.0 | 0.02              | 367.83            | 0.01      | 99.94     |
| 115.0-116.0 | 0.00              | 367.57            | 0.00      | 99.87     | 162.0-163.0 | 0.02              | 367.85            | 0.01      | 99.94     |
| 116.0-117.0 | 0.00              | 367.57            | 0.00      | 99.87     | 163.0-164.0 | 0.02              | 367.87            | 0.01      | 99.95     |
| 117.0-118.0 | 0.00              | 367.57            | 0.00      | 99.87     | 164.0-165.0 | 0.02              | 367.89            | 0.01      | 99.95     |
| 118.0-119.0 | 0.00              | 367.57            | 0.00      | 99.87     | 165.0-166.0 | 0.02              | 367.91            | 0.01      | 99.96     |
| 119.0-120.0 | 0.00              | 367.57            | 0.00      | 99.87     | 166.0-167.0 | 0.02              | 367.93            | 0.01      | 99.96     |
| 120.0-121.0 | 0.00              | 367.57            | 0.00      | 99.87     | 167.0-168.0 | 0.02              | 367.95            | 0.01      | 99.97     |
| 121.0-122.0 | 0.00              | 367.57            | 0.00      | 99.87     | 168.0-169.0 | 0.02              | 367.97            | 0.00      | 99.97     |
| 122.0-123.0 | 0.00              | 367.57            | 0.00      | 99.87     | 169.0-170.0 | 0.02              | 367.99            | 0.00      | 99.98     |
| 123.0-124.0 | 0.00              | 367.57            | 0.00      | 99.87     | 170.0-171.0 | 0.02              | 368.00            | 0.00      | 99.98     |
| 124.0-125.0 | 0.00              | 367.57            | 0.00      | 99.87     | 171.0-172.0 | 0.01              | 368.02            | 0.00      | 99.99     |
| 125.0-126.0 | 0.00              | 367.57            | 0.00      | 99.87     | 172.0-173.0 | 0.01              | 368.03            | 0.00      | 99.99     |
| 126.0-127.0 | 0.00              | 367.57            | 0.00      | 99.87     | 173.0-174.0 | 0.01              | 368.04            | 0.00      | 99.99     |
| 127.0-128.0 | 0.00              | 367.57            | 0.00      | 99.87     | 174.0-175.0 | 0.01              | 368.05            | 0.00      | 99.99     |
| 128.0-129.0 | 0.00              | 367.57            | 0.00      | 99.87     | 175.0-176.0 | 0.01              | 368.06            | 0.00      | 100.00    |
| 129.0-130.0 | 0.00              | 367.57            | 0.00      | 99.87     | 176.0-177.0 | 0.01              | 368.07            | 0.00      | 100.00    |
| 130.0-131.0 | 0.00              | 367.57            | 0.00      | 99.87     | 177.0-178.0 | 0.00              | 368.07            | 0.00      | 100.00    |
| 131.0-132.0 | 0.00              | 367.57            | 0.00      | 99.87     | 178.0-179.0 | 0.00              | 368.07            | 0.00      | 100.00    |
| 132.0-133.0 | 0.00              | 367.57            | 0.00      | 99.87     | 179.0-180.0 | 0.00              | 368.07            | 0.00      | 100.00    |
| 133.0-134.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 134.0-135.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 135.0-136.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 136.0-137.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 137.0-138.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 138.0-139.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 139.0-140.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |
| 140.0-141.0 | 0.00              | 367.57            | 0.00      | 99.87     |             |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram

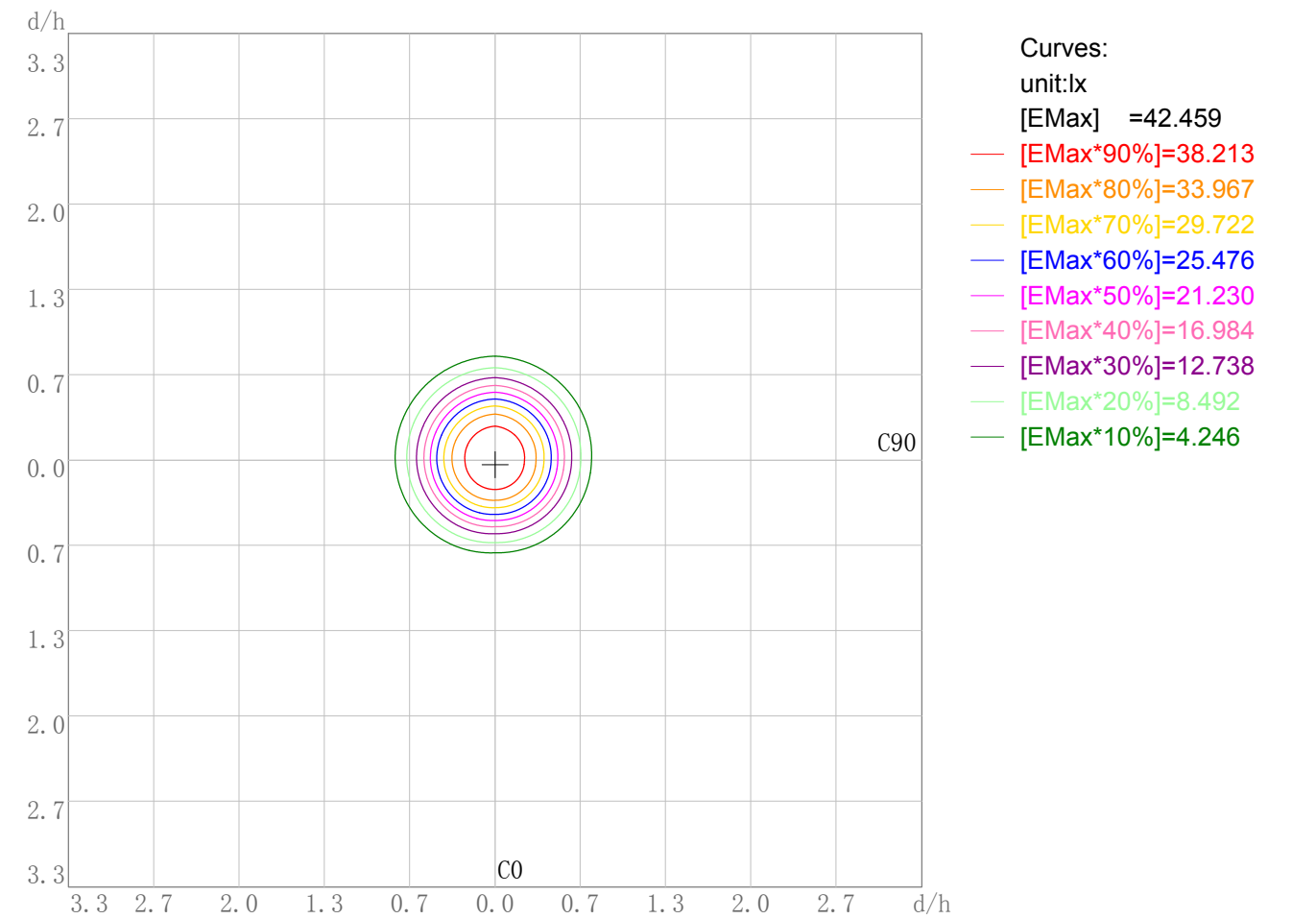
|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |



Plane ISO-Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 42.46

Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

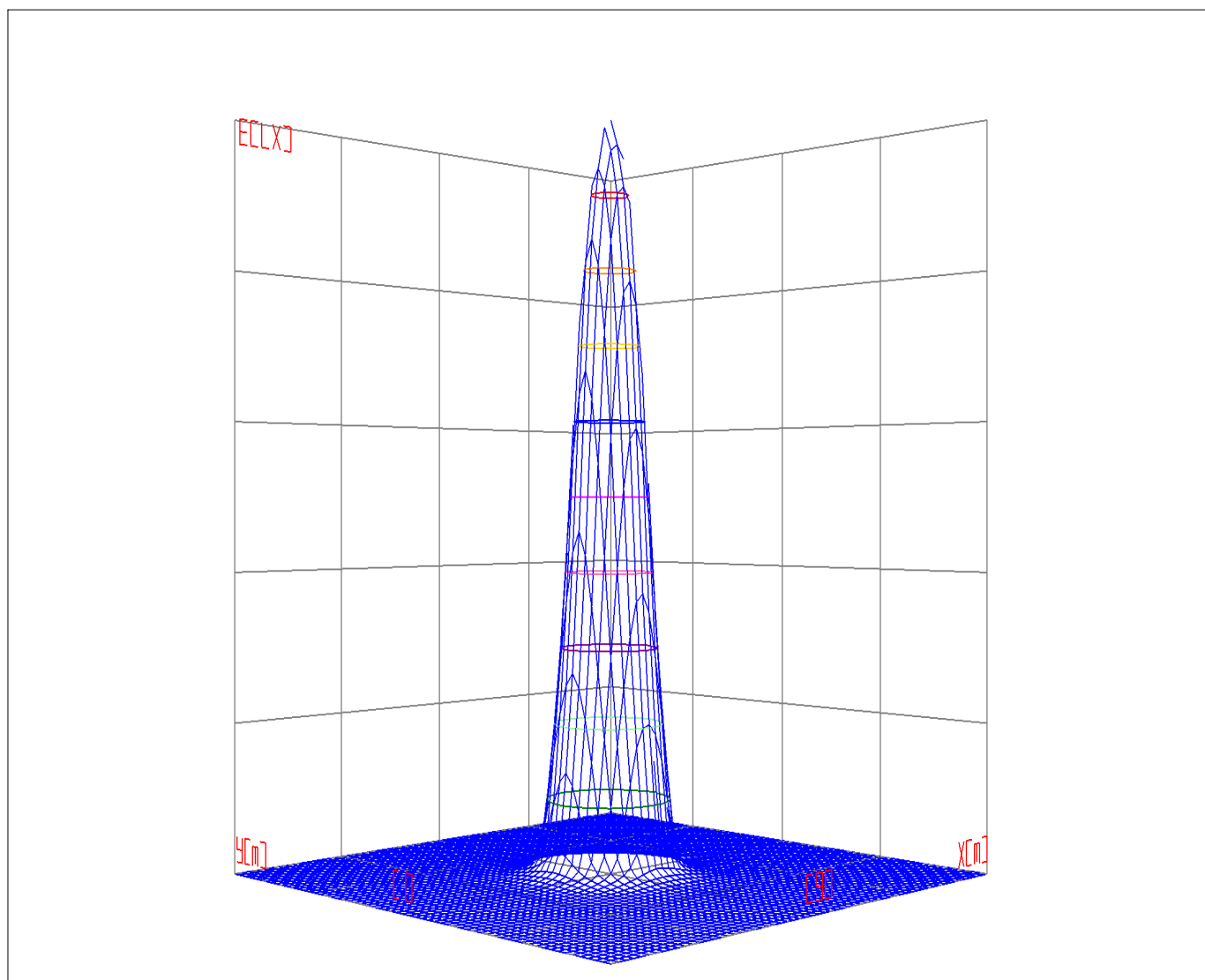
# IES Indoor Report

Photometric Filename:SD05-06-XX-01 2700K RA90 60D.IES

## 3D Plane ISO Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

## 3D Plane Illuminance Modal



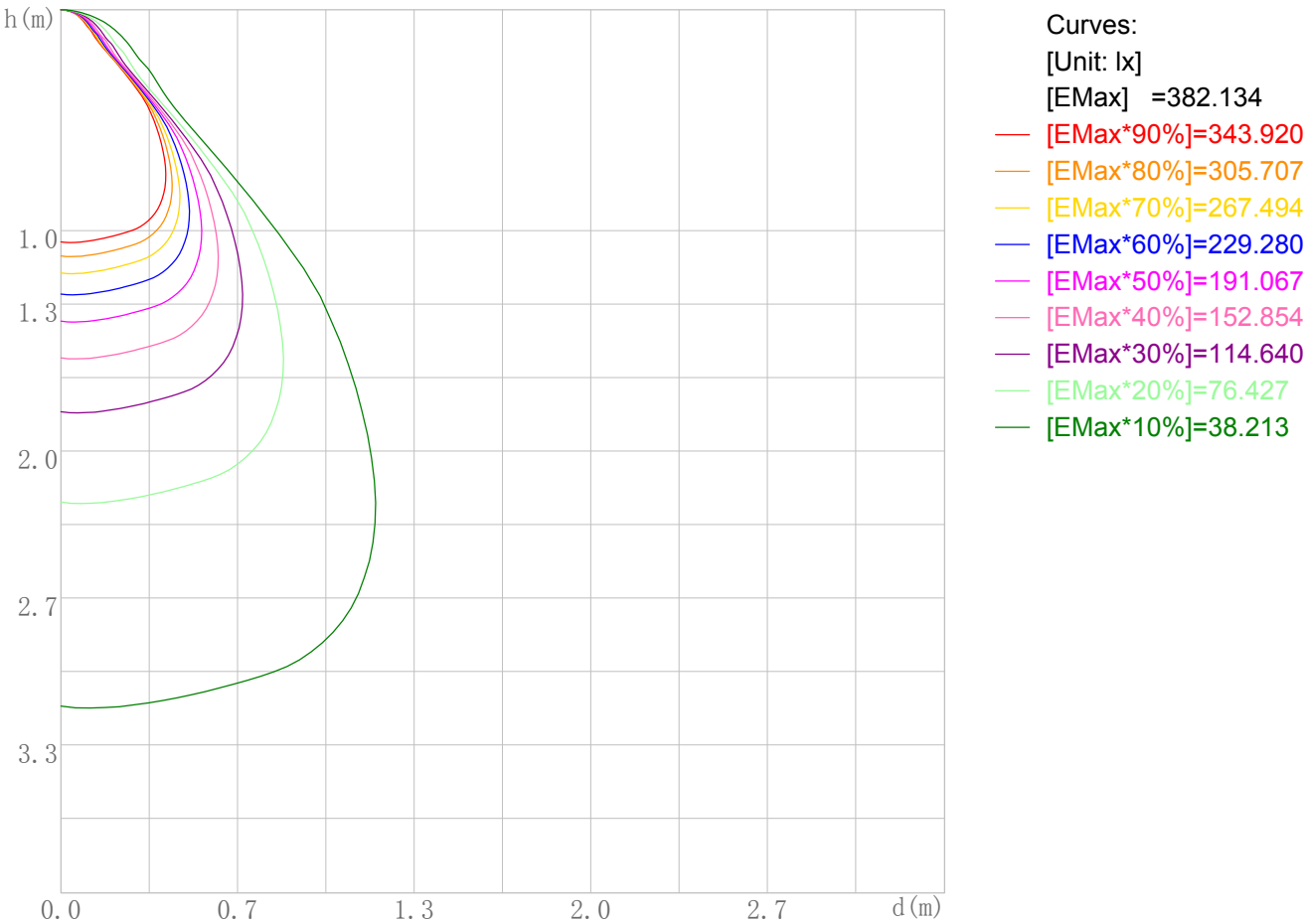
Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0



Space ISO Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

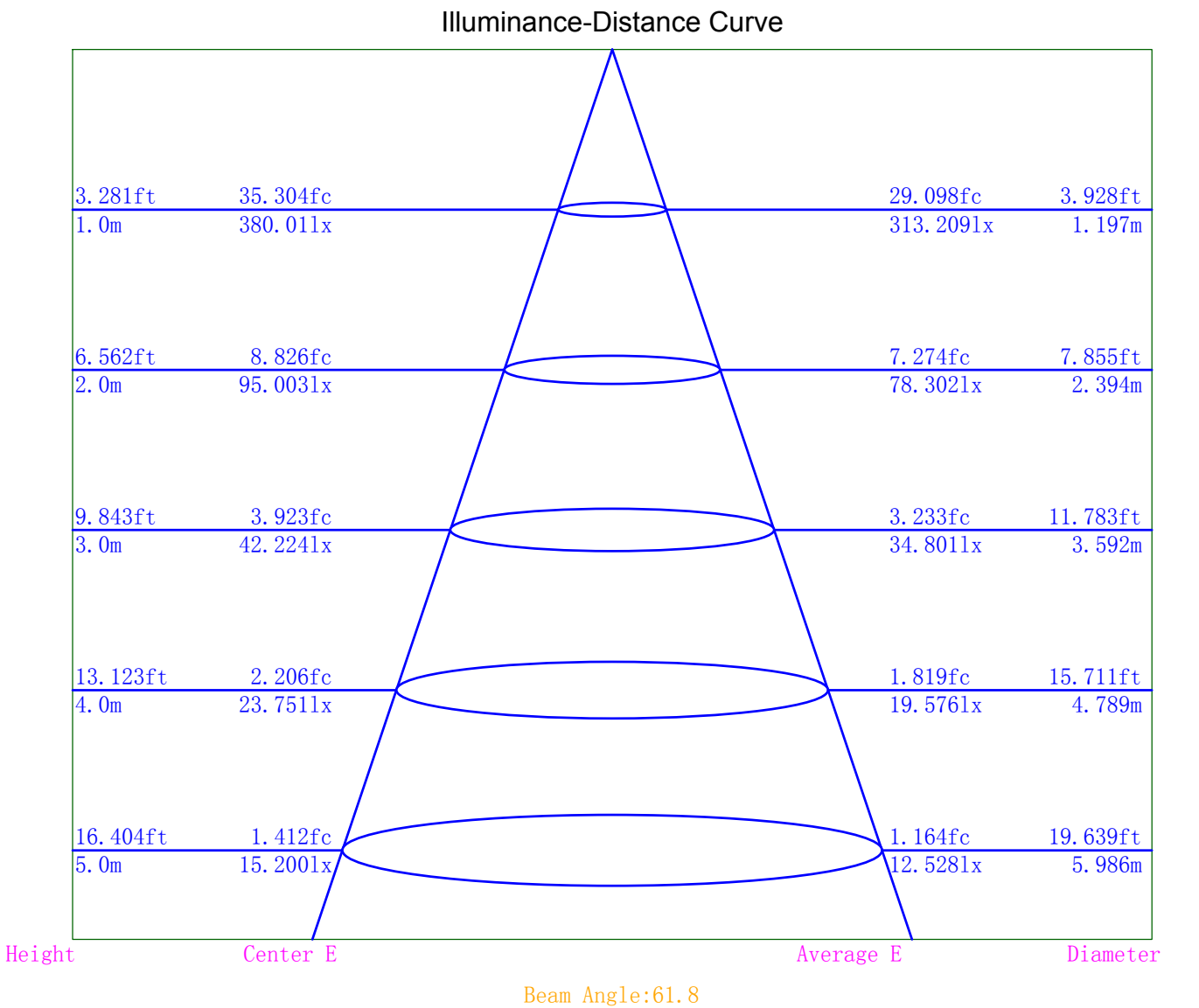
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:382.13lx,2.0deg  
Plane Maximum Lighting Intensity and @Angle:383.578cd,0deg

Illuminance-Distance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |



Indoor Luminance Limiting Curves

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

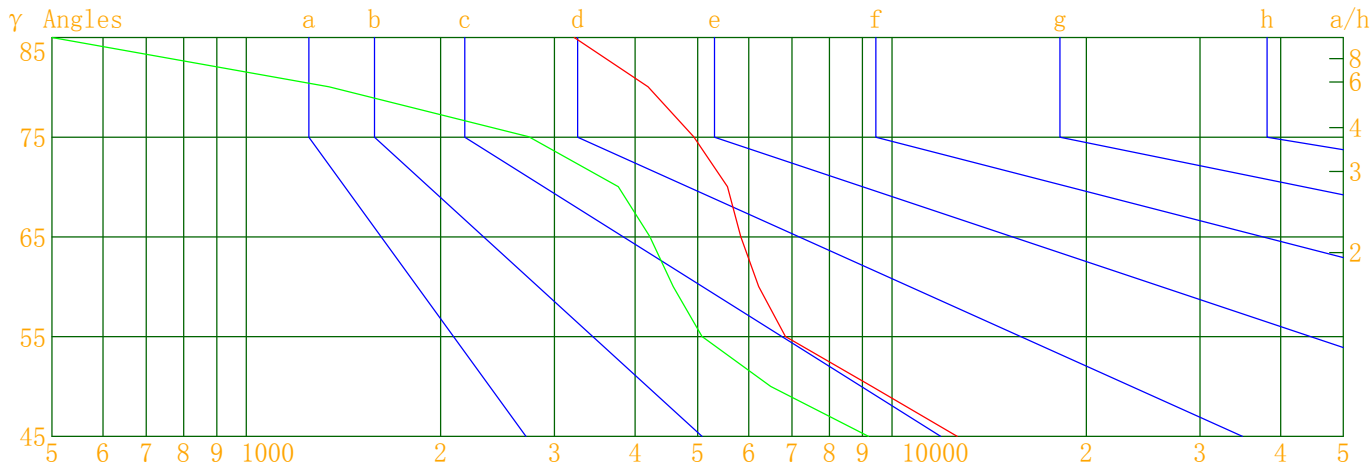
Glare Grade Table

| 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        | 12620 | 9305 | 6840 | 6215 | 5830 | 5563 | 4929 | 4191 | 3220 |
| C90       | 9198  | 6488 | 5078 | 4583 | 4217 | 3767 | 2739 | 1343 | 0    |

Luminance Limiting Curve



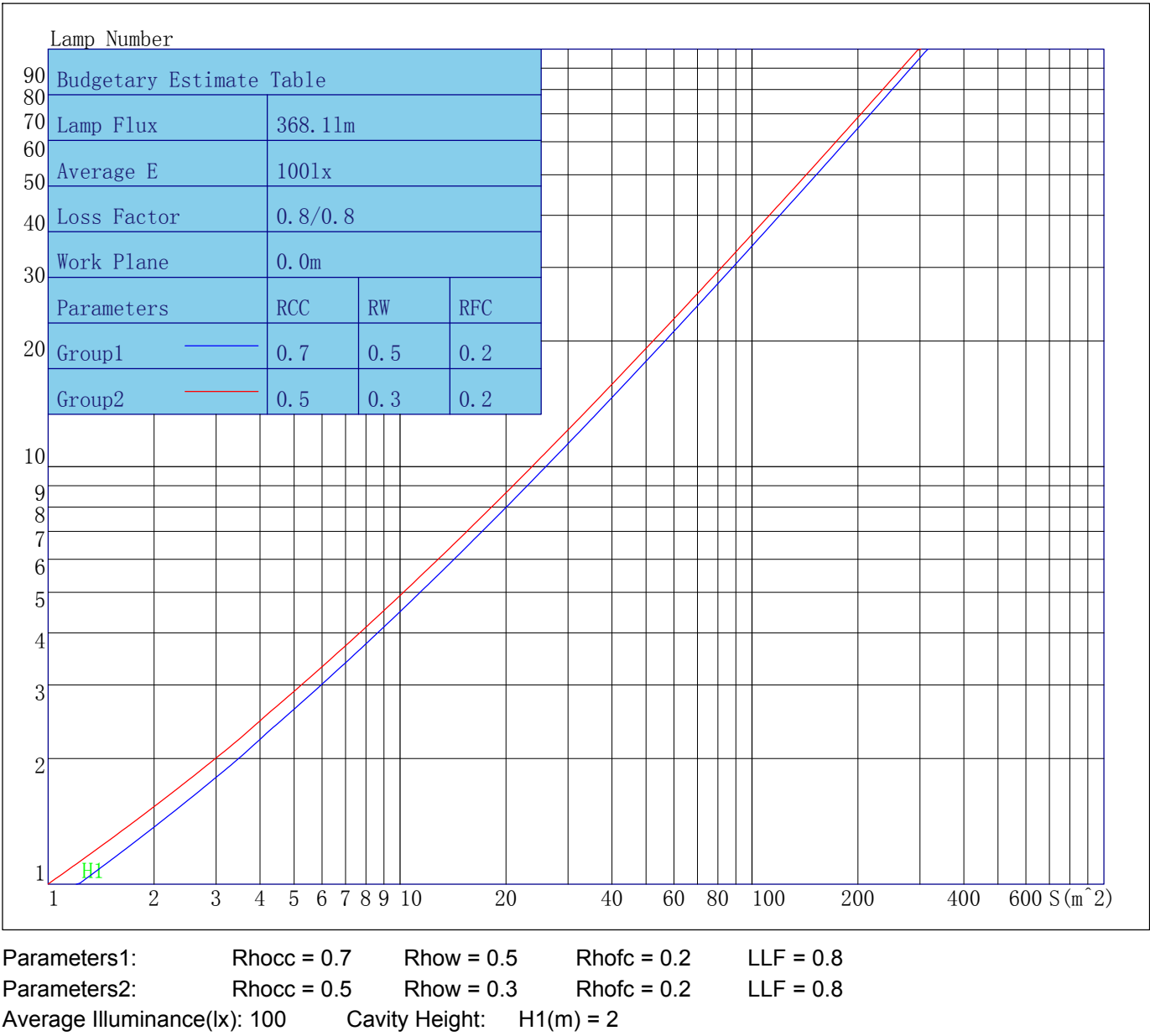
Luminous Size: Length(m)=0.000 Width(m)=-0.050 Height(m)=0.000 Area(m^2)=0.001963

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |



Indoor Coefficient of Utilization Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

| 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 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 113   | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 101 | 99  | 98  | 97  | 96  | 95  | 93  |
| 2   | 108   | 103 | 99  | 95  | 105 | 101 | 97  | 94  | 98  | 95  | 92  | 95  | 92  | 90  | 92  | 90  | 88  | 86  |
| 3   | 102   | 96  | 91  | 87  | 100 | 94  | 90  | 86  | 92  | 88  | 85  | 89  | 86  | 83  | 87  | 84  | 82  | 80  |
| 4   | 97  | 89  | 84  | 80  | 95  | 88  | 83  | 79  | 86  | 82  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 75  |
| 5   | 92  | 84  | 78  | 74  | 91  | 83  | 77  | 73  | 81  | 76  | 73  | 79  | 75  | 72  | 78  | 74  | 71  | 70  |
| 6   | 88  | 79  | 73  | 68  | 86  | 78  | 72  | 68  | 76  | 71  | 68  | 75  | 71  | 67  | 74  | 70  | 67  | 65  |
| 7   | 83  | 74  | 68  | 64  | 82  | 73  | 68  | 64  | 72  | 67  | 63  | 71  | 66  | 63  | 70  | 66  | 63  | 61  |
| 8   | 79  | 70  | 64  | 60  | 78  | 69  | 63  | 59  | 68  | 63  | 59  | 67  | 62  | 59  | 66  | 62  | 59  | 57  |
| 9   | 75  | 66  | 60  | 56  | 74  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 55  | 63  | 58  | 55  | 54  |
| 10  | 72  | 62  | 56  | 53  | 71  | 62  | 56  | 53  | 61  | 56  | 52  | 60  | 56  | 52  | 59  | 55  | 52  | 51  |

Unified Glare Rating Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: SD05-06-XX-01 2700K RA90 60D       | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                                    | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co.Ltd | Test Machine:GON-2000 | Test Date: 2021/04/17        |

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                                      | 19.9            | 20.9 | 20.3 | 21.2 | 21.6 | 18.1          | 19.2 | 18.5 | 19.5 | 19.8 |
|   | 19.9            | 20.8 | 20.3 | 21.1 | 21.5 | 18.1          | 19.0 | 18.5 | 19.4 | 19.7 |
|   | 19.9            | 20.7 | 20.3 | 21.1 | 21.5 | 18.1          | 18.9 | 18.5 | 19.3 | 19.7 |
|   | 19.9            | 20.7 | 20.3 | 21.0 | 21.4 | 18.0          | 18.8 | 18.4 | 19.1 | 19.5 |
|   | 19.9            | 20.6 | 20.3 | 21.0 | 21.4 | 17.9          | 18.7 | 18.4 | 19.1 | 19.5 |
|   | 19.8            | 20.5 | 20.3 | 20.9 | 21.3 | 17.9          | 18.6 | 18.3 | 19.0 | 19.4 |
| X=4H    Y=2H                                      | 19.7            | 20.5 | 20.1 | 20.9 | 21.3 | 17.9          | 18.8 | 18.4 | 19.1 | 19.5 |
|   | 19.7            | 20.4 | 20.2 | 20.9 | 21.3 | 18.0          | 18.7 | 18.4 | 19.1 | 19.5 |
|   | 19.8            | 20.4 | 20.2 | 20.8 | 21.3 | 18.0          | 18.6 | 18.4 | 19.0 | 19.5 |
|   | 19.8            | 20.3 | 20.3 | 20.8 | 21.3 | 17.9          | 18.4 | 18.4 | 18.9 | 19.4 |
|   | 19.8            | 20.3 | 20.3 | 20.7 | 21.2 | 17.8          | 18.3 | 18.3 | 18.8 | 19.3 |
|   | 19.7            | 20.2 | 20.2 | 20.7 | 21.2 | 17.8          | 18.2 | 18.3 | 18.7 | 19.2 |
| X=8H    Y=4H                                      | 19.7            | 20.2 | 20.1 | 20.6 | 21.1 | 17.8          | 18.4 | 18.3 | 18.8 | 19.3 |
|   | 19.7            | 20.1 | 20.2 | 20.6 | 21.2 | 17.8          | 18.2 | 18.3 | 18.7 | 19.2 |
|   | 19.7            | 20.1 | 20.2 | 20.6 | 21.1 | 17.7          | 18.1 | 18.3 | 18.6 | 19.1 |
|   | 19.7            | 20.0 | 20.2 | 20.5 | 21.1 | 17.7          | 18.0 | 18.2 | 18.5 | 19.1 |
| X=12H    Y=4H                                     | 19.6            | 20.1 | 20.1 | 20.5 | 21.0 | 17.8          | 18.2 | 18.3 | 18.7 | 19.2 |
|   | 19.7            | 20.0 | 20.2 | 20.5 | 21.1 | 17.7          | 18.1 | 18.3 | 18.6 | 19.1 |
|   | 19.7            | 20.0 | 20.2 | 20.5 | 21.1 | 17.7          | 18.0 | 18.2 | 18.5 | 19.1 |
| Variations with the objerver position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  | 0.5/-0.6        |      |      |      |      | 1.2/-1.6      |      |      |      |      |
| S=1.5H  | 1.0/-1.1        |      |      |      |      | 1.8/-2.5      |      |      |      |      |
| S=2.0H  | 1.1/-1.5        |      |      |      |      | 2.0/-3.1      |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 0.5             |      |      |      |      | 0.3           |      |      |      |      |

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  | 380.01 | 380.01 | 380.01 | 380.01 |
| γ 1.0  | 382.12 | 376.51 | 380.91 | 377.06 |
| γ 2.0  | 382.83 | 376.56 | 379.97 | 376.97 |
| γ 3.0  | 383.18 | 376.43 | 379.00 | 376.82 |
| γ 4.0  | 383.58 | 375.87 | 378.02 | 376.30 |
| γ 5.0  | 383.09 | 374.91 | 377.29 | 375.98 |
| γ 6.0  | 382.80 | 374.08 | 376.66 | 375.24 |
| γ 7.0  | 382.48 | 373.43 | 376.14 | 374.74 |
| γ 8.0  | 382.18 | 373.05 | 375.48 | 374.44 |
| γ 9.0  | 381.80 | 372.51 | 375.02 | 374.10 |
| γ 10.0 | 381.66 | 372.33 | 374.27 | 373.47 |
| γ 11.0 | 381.17 | 371.69 | 373.56 | 373.18 |
| γ 12.0 | 381.16 | 371.63 | 372.43 | 373.08 |
| γ 13.0 | 381.17 | 371.25 | 370.88 | 373.15 |
| γ 14.0 | 381.31 | 369.83 | 368.30 | 373.12 |
| γ 15.0 | 381.13 | 366.46 | 364.71 | 372.70 |
| γ 16.0 | 380.65 | 362.53 | 359.98 | 370.88 |
| γ 17.0 | 378.81 | 357.59 | 354.14 | 367.36 |
| γ 18.0 | 375.53 | 351.73 | 347.12 | 362.62 |
| γ 19.0 | 371.36 | 344.68 | 337.98 | 357.42 |
| γ 20.0 | 366.05 | 336.73 | 327.57 | 350.83 |
| γ 21.0 | 359.82 | 326.70 | 316.82 | 342.65 |
| γ 22.0 | 352.00 | 316.35 | 305.02 | 332.80 |
| γ 23.0 | 342.43 | 305.68 | 291.89 | 322.47 |
| γ 24.0 | 331.21 | 293.45 | 276.88 | 311.39 |
| γ 25.0 | 319.79 | 280.04 | 260.64 | 298.11 |
| γ 26.0 | 306.53 | 264.94 | 243.69 | 282.88 |
| γ 27.0 | 292.17 | 248.57 | 226.00 | 266.14 |
| γ 28.0 | 276.79 | 231.16 | 208.18 | 248.49 |
| γ 29.0 | 259.85 | 213.33 | 189.98 | 230.44 |
| γ 30.0 | 242.31 | 195.71 | 172.73 | 212.57 |
| γ 31.0 | 224.78 | 178.58 | 156.15 | 194.60 |
| γ 32.0 | 206.98 | 161.90 | 140.21 | 177.47 |
| γ 33.0 | 190.24 | 145.85 | 123.96 | 161.72 |
| γ 34.0 | 173.38 | 129.57 | 109.72 | 146.51 |
| γ 35.0 | 157.44 | 114.96 | 89.44  | 130.88 |
| γ 36.0 | 141.05 | 95.22  | 68.51  | 116.96 |
| γ 37.0 | 126.39 | 74.25  | 49.20  | 99.18  |
| γ 38.0 | 107.14 | 54.82  | 34.36  | 77.61  |
| γ 39.0 | 84.21  | 39.59  | 23.61  | 58.46  |
| γ 40.0 | 63.41  | 28.16  | 17.60  | 42.07  |
| γ 41.0 | 45.87  | 21.10  | 14.57  | 30.03  |
| γ 42.0 | 32.85  | 17.43  | 12.85  | 22.07  |
| γ 43.0 | 24.48  | 15.39  | 11.53  | 17.77  |
| γ 44.0 | 20.03  | 13.95  | 10.52  | 15.44  |
| γ 45.0 | 17.52  | 12.77  | 9.70   | 13.77  |
| γ 46.0 | 15.86  | 11.83  | 8.95   | 12.54  |

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Candela Tabulation - (Cont.)

| V/H    | C0.0  | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 14.56 | 10.98 | 8.32   | 11.54  |
| γ 48.0 | 13.47 | 10.24 | 7.57   | 10.73  |
| γ 49.0 | 12.56 | 9.36  | 6.59   | 9.98   |
| γ 50.0 | 11.74 | 8.19  | 5.90   | 9.18   |
| γ 51.0 | 10.82 | 7.29  | 5.49   | 8.06   |
| γ 52.0 | 9.55  | 6.73  | 5.15   | 7.17   |
| γ 53.0 | 8.64  | 6.30  | 4.92   | 6.68   |
| γ 54.0 | 8.13  | 6.01  | 4.73   | 6.27   |
| γ 55.0 | 7.70  | 5.72  | 4.57   | 5.99   |
| γ 56.0 | 7.34  | 5.47  | 4.41   | 5.76   |
| γ 57.0 | 7.01  | 5.21  | 4.27   | 5.54   |
| γ 58.0 | 6.70  | 4.96  | 4.13   | 5.35   |
| γ 59.0 | 6.40  | 4.72  | 4.02   | 5.16   |
| γ 60.0 | 6.10  | 4.50  | 3.91   | 4.99   |
| γ 61.0 | 5.82  | 4.29  | 3.81   | 4.84   |
| γ 62.0 | 5.57  | 4.08  | 3.69   | 4.70   |
| γ 63.0 | 5.32  | 3.87  | 3.59   | 4.56   |
| γ 64.0 | 5.07  | 3.68  | 3.48   | 4.43   |
| γ 65.0 | 4.84  | 3.50  | 3.36   | 4.29   |
| γ 66.0 | 4.60  | 3.31  | 3.24   | 4.17   |
| γ 67.0 | 4.38  | 3.13  | 3.10   | 4.03   |
| γ 68.0 | 4.17  | 2.94  | 2.95   | 3.89   |
| γ 69.0 | 3.95  | 2.74  | 2.76   | 3.72   |
| γ 70.0 | 3.74  | 2.53  | 2.56   | 3.56   |
| γ 71.0 | 3.52  | 2.28  | 2.31   | 3.36   |
| γ 72.0 | 3.28  | 2.05  | 2.10   | 3.13   |
| γ 73.0 | 3.02  | 1.81  | 1.88   | 2.89   |
| γ 74.0 | 2.77  | 1.60  | 1.65   | 2.66   |
| γ 75.0 | 2.51  | 1.39  | 1.45   | 2.43   |
| γ 76.0 | 2.28  | 1.19  | 1.25   | 2.20   |
| γ 77.0 | 2.06  | 0.99  | 1.05   | 1.98   |
| γ 78.0 | 1.84  | 0.80  | 0.87   | 1.78   |
| γ 79.0 | 1.63  | 0.62  | 0.69   | 1.57   |
| γ 80.0 | 1.43  | 0.46  | 0.51   | 1.37   |
| γ 81.0 | 1.24  | 0.30  | 0.34   | 1.18   |
| γ 82.0 | 1.06  | 0.14  | 0.17   | 1.00   |
| γ 83.0 | 0.88  | 0.00  | 0.02   | 0.83   |
| γ 84.0 | 0.72  | 0.00  | 0.00   | 0.66   |
| γ 85.0 | 0.55  | 0.00  | 0.00   | 0.50   |
| γ 86.0 | 0.39  | 0.00  | 0.00   | 0.34   |
| γ 87.0 | 0.25  | 0.00  | 0.00   | 0.20   |
| γ 88.0 | 0.11  | 0.00  | 0.00   | 0.05   |
| γ 89.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 90.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 91.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 92.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 93.0 | 0.00  | 0.00  | 0.00   | 0.00   |

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Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 95.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 96.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 97.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 98.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 99.0  | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 100.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 101.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 102.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 103.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 104.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 105.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 106.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 107.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 108.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 109.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 110.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 111.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 112.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 113.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 114.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 115.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 116.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 117.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 118.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 119.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 120.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 121.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 122.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 123.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 124.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 125.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 126.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 127.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 128.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 129.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 130.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 131.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 132.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 133.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 134.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 135.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 136.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 137.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 138.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 139.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 140.0 | 0.00 | 0.00  | 0.00   | 0.00   |

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Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 142.0 | 0.00 | 0.00  | 0.02   | 0.00   |
| γ 143.0 | 0.00 | 0.00  | 0.06   | 0.00   |
| γ 144.0 | 0.00 | 0.00  | 0.11   | 0.04   |
| γ 145.0 | 0.00 | 0.00  | 0.15   | 0.08   |
| γ 146.0 | 0.01 | 0.00  | 0.20   | 0.12   |
| γ 147.0 | 0.05 | 0.00  | 0.23   | 0.16   |
| γ 148.0 | 0.09 | 0.02  | 0.26   | 0.19   |
| γ 149.0 | 0.14 | 0.06  | 0.30   | 0.23   |
| γ 150.0 | 0.16 | 0.10  | 0.34   | 0.26   |
| γ 151.0 | 0.21 | 0.13  | 0.36   | 0.29   |
| γ 152.0 | 0.23 | 0.17  | 0.40   | 0.32   |
| γ 153.0 | 0.27 | 0.20  | 0.43   | 0.36   |
| γ 154.0 | 0.31 | 0.23  | 0.47   | 0.38   |
| γ 155.0 | 0.34 | 0.28  | 0.50   | 0.41   |
| γ 156.0 | 0.37 | 0.31  | 0.53   | 0.44   |
| γ 157.0 | 0.41 | 0.34  | 0.56   | 0.48   |
| γ 158.0 | 0.44 | 0.37  | 0.60   | 0.50   |
| γ 159.0 | 0.47 | 0.41  | 0.63   | 0.54   |
| γ 160.0 | 0.51 | 0.44  | 0.66   | 0.57   |
| γ 161.0 | 0.54 | 0.48  | 0.69   | 0.60   |
| γ 162.0 | 0.58 | 0.52  | 0.72   | 0.63   |
| γ 163.0 | 0.61 | 0.55  | 0.75   | 0.66   |
| γ 164.0 | 0.65 | 0.59  | 0.78   | 0.70   |
| γ 165.0 | 0.67 | 0.62  | 0.81   | 0.73   |
| γ 166.0 | 0.72 | 0.64  | 0.85   | 0.75   |
| γ 167.0 | 0.74 | 0.69  | 0.88   | 0.79   |
| γ 168.0 | 0.77 | 0.72  | 0.90   | 0.81   |
| γ 169.0 | 0.81 | 0.75  | 0.94   | 0.84   |
| γ 170.0 | 0.84 | 0.77  | 0.96   | 0.88   |
| γ 171.0 | 0.87 | 0.81  | 0.98   | 0.88   |
| γ 172.0 | 0.89 | 0.83  | 1.00   | 0.91   |
| γ 173.0 | 0.93 | 0.87  | 1.02   | 0.94   |
| γ 174.0 | 0.94 | 0.88  | 1.03   | 0.96   |
| γ 175.0 | 0.97 | 0.91  | 1.04   | 0.98   |
| γ 176.0 | 0.99 | 0.92  | 1.06   | 0.98   |
| γ 177.0 | 1.01 | 0.94  | 1.07   | 1.01   |
| γ 178.0 | 1.03 | 0.95  | 1.08   | 1.01   |
| γ 179.0 | 1.03 | 0.97  | 1.08   | 1.02   |
| γ 180.0 | 1.04 | 1.04  | 1.04   | 1.04   |