

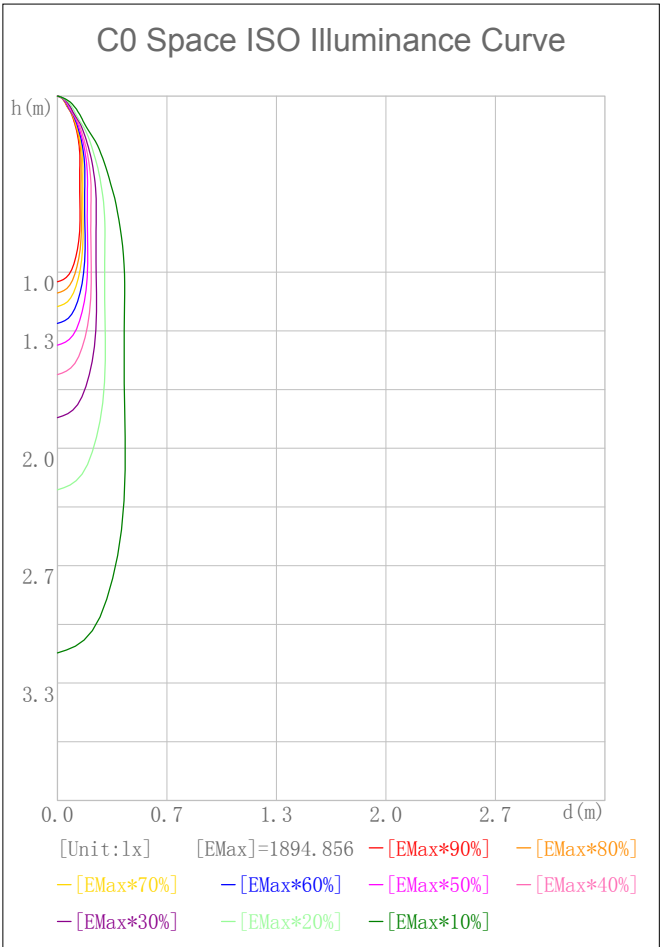
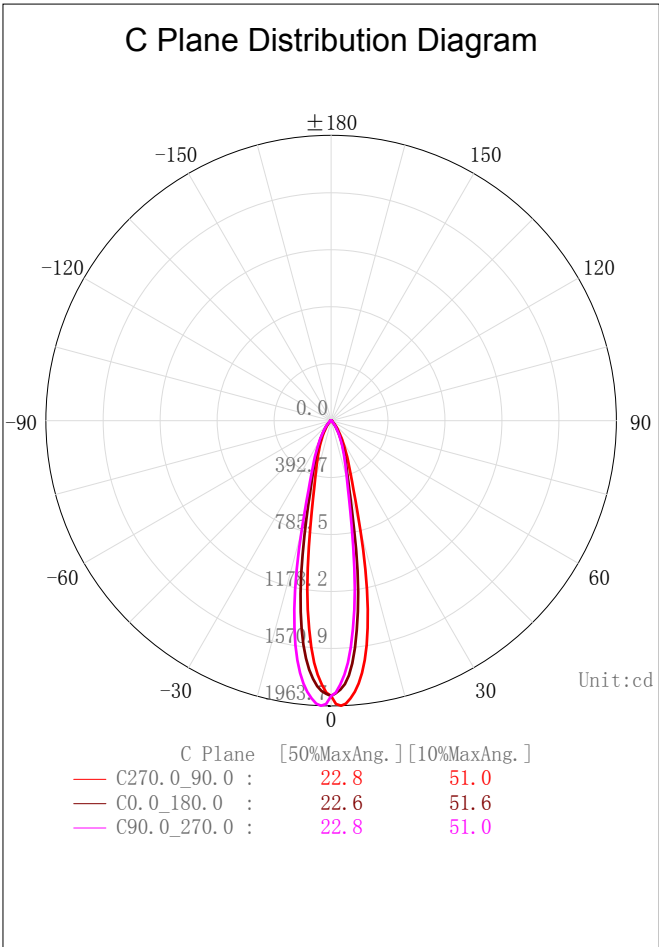
Indoor Luminaire Photometric Data

Description Information

|   |                         |                      |                       |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:DL52-06-XX-04 2700K RA90 24D      |                         | Lum. Catalog:        | Test ID: 01           |
| Lamp Name:                                      |                         | Lamp Catalog: LED    | Test Date: 2021/11/16 |
| 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):0.038m*0.038m*0.000m          |                         | Lum. Area (m2):0.001 | Lum. W (kg): 0.000    |
| Test System: C, γ                               | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25       | Humidity(%): 50.0     |

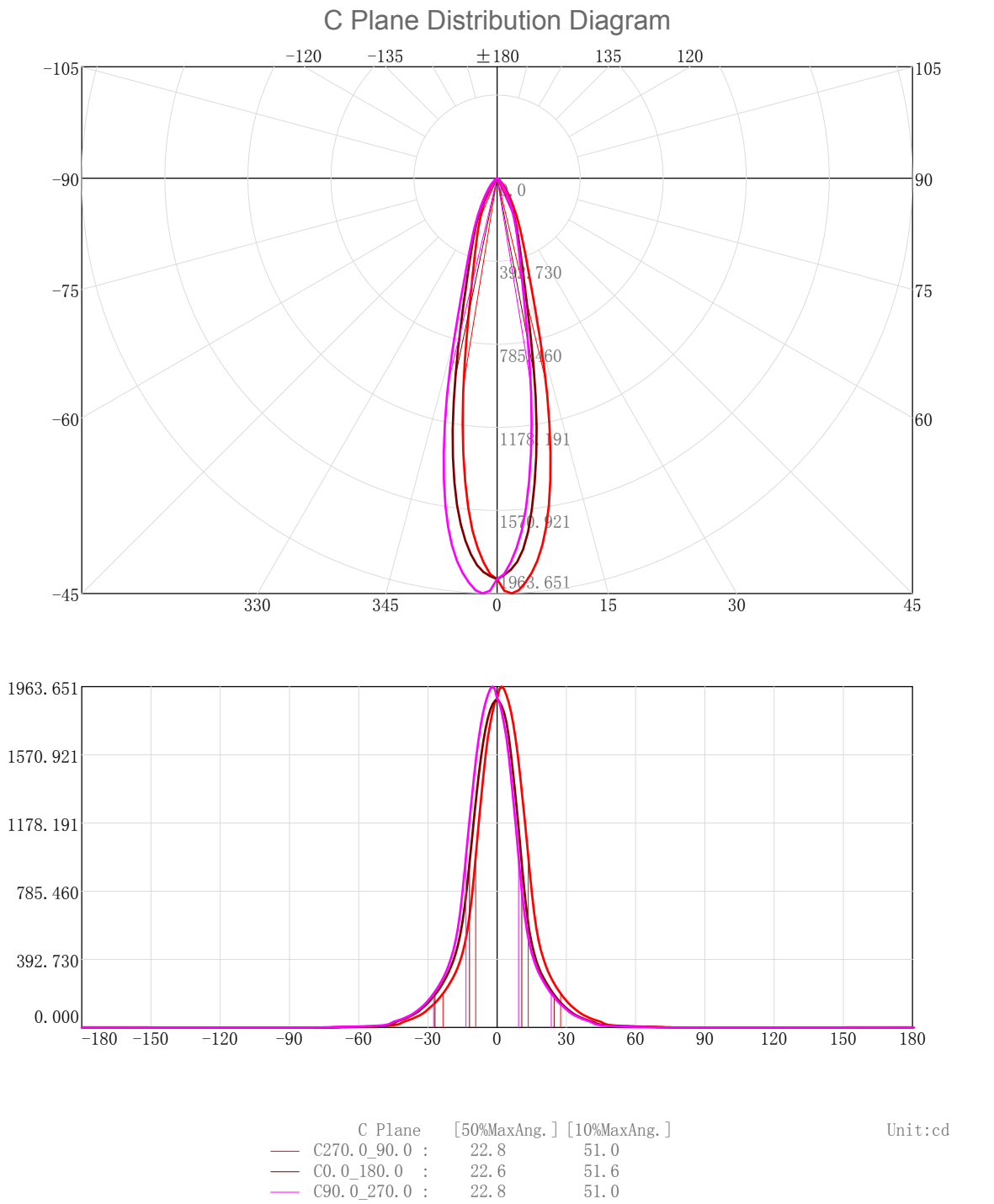
Character Parameter

| Lamp Speciality Parameter                       |                                  | Luminaire Speciality Parameter        |  |
|---|----------------------------------|---------------------------------------|--|
| Rated Flux(lm): 486.470                         | Luminary Flux(lm): 486.473       | Field Angle(10%Imax): 51.0(°)         |  |
| Rated Power(W):                                 | Luminary Efficiency: 100.00%     | Down Lumens&Percent: 485.749lm 99.85% |  |
| Rated Voltage(V):                               | Luminary EER(lm/W): 78.501       | Up Lumens&Percent: 0.724lm 0.15%      |  |
| Tested Power(W): 6.197                          | Max. Candela(cd): 1963.651       | S/MH: C0_a180=0.386 C90_270=0.398     |  |
| Lamps' Inside: 1                                | Max Cand@Ang. (°): C=270.0 γ=2.0 | CIE Type: Semi-Direct                 |  |
| Tested Electrics (V, A, pf):241.1, 0.030, 0.844 | Beam Angle(50%Imax): 22.8(°)     | ErP ϕ use(90°): 459.269lm             |  |
| Lamp Size (W*L*H):0.038m*0.038m*0.000m          | Left=-9.3°, Right=13.5°          | IRF(%): 896.777                       |  |



2D Plane Light Intensity Distribution Curve

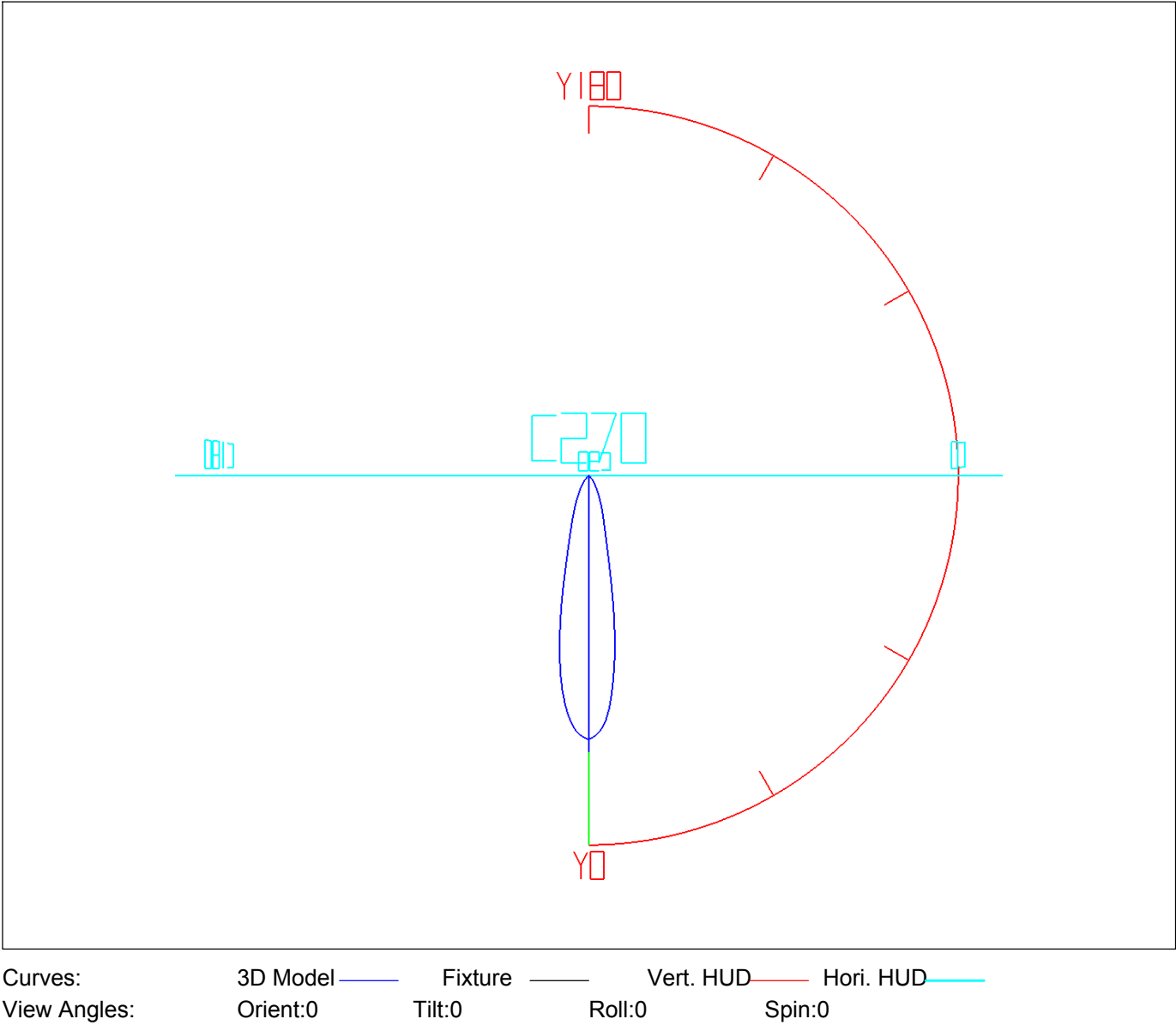
|   |                       |                             |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catelog:         | Test ID: 01                 |
| Lamp Name:                                      | Lamp Catelog: LED     | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16       |



3D Light Intensity Distribution Modal

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | 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: 2021/11/16        |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:DL52-06-XX-04 2700K RA90 24D.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   | 1.81              | 1.81              | 0.37      | 0.37      | 47.0-48.0 | 1.10              | 473.08            | 0.23      | 97.25     |
| 1.0-2.0   | 5.41              | 7.22              | 1.11      | 1.48      | 48.0-49.0 | 0.98              | 474.06            | 0.20      | 97.45     |
| 2.0-3.0   | 8.87              | 16.10             | 1.82      | 3.31      | 49.0-50.0 | 0.91              | 474.97            | 0.19      | 97.64     |
| 3.0-4.0   | 12.11             | 28.21             | 2.49      | 5.80      | 50.0-51.0 | 0.85              | 475.82            | 0.17      | 97.81     |
| 4.0-5.0   | 15.02             | 43.22             | 3.09      | 8.89      | 51.0-52.0 | 0.80              | 476.61            | 0.16      | 97.97     |
| 5.0-6.0   | 17.49             | 60.72             | 3.60      | 12.48     | 52.0-53.0 | 0.75              | 477.36            | 0.15      | 98.13     |
| 6.0-7.0   | 19.47             | 80.18             | 4.00      | 16.48     | 53.0-54.0 | 0.71              | 478.07            | 0.15      | 98.27     |
| 7.0-8.0   | 20.91             | 101.09            | 4.30      | 20.78     | 54.0-55.0 | 0.67              | 478.73            | 0.14      | 98.41     |
| 8.0-9.0   | 21.75             | 122.84            | 4.47      | 25.25     | 55.0-56.0 | 0.63              | 479.36            | 0.13      | 98.54     |
| 9.0-10.0  | 21.96             | 144.80            | 4.51      | 29.77     | 56.0-57.0 | 0.60              | 479.96            | 0.12      | 98.66     |
| 10.0-11.0 | 21.56             | 166.37            | 4.43      | 34.20     | 57.0-58.0 | 0.56              | 480.52            | 0.12      | 98.78     |
| 11.0-12.0 | 20.71             | 187.07            | 4.26      | 38.45     | 58.0-59.0 | 0.53              | 481.06            | 0.11      | 98.89     |
| 12.0-13.0 | 19.55             | 206.62            | 4.02      | 42.47     | 59.0-60.0 | 0.50              | 481.56            | 0.10      | 98.99     |
| 13.0-14.0 | 18.26             | 224.88            | 3.75      | 46.23     | 60.0-61.0 | 0.48              | 482.04            | 0.10      | 99.09     |
| 14.0-15.0 | 16.99             | 241.88            | 3.49      | 49.72     | 61.0-62.0 | 0.45              | 482.48            | 0.09      | 99.18     |
| 15.0-16.0 | 15.81             | 257.69            | 3.25      | 52.97     | 62.0-63.0 | 0.42              | 482.90            | 0.09      | 99.27     |
| 16.0-17.0 | 14.77             | 272.46            | 3.04      | 56.01     | 63.0-64.0 | 0.39              | 483.30            | 0.08      | 99.35     |
| 17.0-18.0 | 13.90             | 286.35            | 2.86      | 58.86     | 64.0-65.0 | 0.37              | 483.66            | 0.08      | 99.42     |
| 18.0-19.0 | 13.17             | 299.52            | 2.71      | 61.57     | 65.0-66.0 | 0.34              | 484.01            | 0.07      | 99.49     |
| 19.0-20.0 | 12.53             | 312.06            | 2.58      | 64.15     | 66.0-67.0 | 0.32              | 484.33            | 0.07      | 99.56     |
| 20.0-21.0 | 11.95             | 324.01            | 2.46      | 66.60     | 67.0-68.0 | 0.29              | 484.61            | 0.06      | 99.62     |
| 21.0-22.0 | 11.41             | 335.42            | 2.35      | 68.95     | 68.0-69.0 | 0.25              | 484.86            | 0.05      | 99.67     |
| 22.0-23.0 | 10.88             | 346.30            | 2.24      | 71.19     | 69.0-70.0 | 0.21              | 485.07            | 0.04      | 99.71     |
| 23.0-24.0 | 10.37             | 356.67            | 2.13      | 73.32     | 70.0-71.0 | 0.17              | 485.25            | 0.04      | 99.75     |
| 24.0-25.0 | 9.85              | 366.52            | 2.02      | 75.34     | 71.0-72.0 | 0.14              | 485.38            | 0.03      | 99.78     |
| 25.0-26.0 | 9.32              | 375.84            | 1.92      | 77.26     | 72.0-73.0 | 0.10              | 485.49            | 0.02      | 99.80     |
| 26.0-27.0 | 8.80              | 384.64            | 1.81      | 79.07     | 73.0-74.0 | 0.08              | 485.57            | 0.02      | 99.81     |
| 27.0-28.0 | 8.28              | 392.92            | 1.70      | 80.77     | 74.0-75.0 | 0.06              | 485.63            | 0.01      | 99.83     |
| 28.0-29.0 | 7.78              | 400.69            | 1.60      | 82.37     | 75.0-76.0 | 0.04              | 485.67            | 0.01      | 99.84     |
| 29.0-30.0 | 7.28              | 407.98            | 1.50      | 83.86     | 76.0-77.0 | 0.03              | 485.70            | 0.01      | 99.84     |
| 30.0-31.0 | 6.78              | 414.76            | 1.39      | 85.26     | 77.0-78.0 | 0.02              | 485.72            | 0.00      | 99.85     |
| 31.0-32.0 | 6.29              | 421.06            | 1.29      | 86.55     | 78.0-79.0 | 0.01              | 485.73            | 0.00      | 99.85     |
| 32.0-33.0 | 5.83              | 426.89            | 1.20      | 87.75     | 79.0-80.0 | 0.01              | 485.74            | 0.00      | 99.85     |
| 33.0-34.0 | 5.40              | 432.29            | 1.11      | 88.86     | 80.0-81.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 34.0-35.0 | 4.99              | 437.28            | 1.03      | 89.89     | 81.0-82.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 35.0-36.0 | 4.61              | 441.89            | 0.95      | 90.84     | 82.0-83.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 36.0-37.0 | 4.26              | 446.16            | 0.88      | 91.71     | 83.0-84.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 37.0-38.0 | 3.94              | 450.09            | 0.81      | 92.52     | 84.0-85.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 38.0-39.0 | 3.64              | 453.73            | 0.75      | 93.27     | 85.0-86.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 39.0-40.0 | 3.35              | 457.08            | 0.69      | 93.96     | 86.0-87.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 40.0-41.0 | 3.06              | 460.14            | 0.63      | 94.59     | 87.0-88.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 41.0-42.0 | 2.75              | 462.89            | 0.56      | 95.15     | 88.0-89.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 42.0-43.0 | 2.42              | 465.31            | 0.50      | 95.65     | 89.0-90.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 43.0-44.0 | 2.10              | 467.41            | 0.43      | 96.08     | 90.0-91.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 44.0-45.0 | 1.80              | 469.21            | 0.37      | 96.45     | 91.0-92.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 45.0-46.0 | 1.51              | 470.72            | 0.31      | 96.76     | 92.0-93.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 46.0-47.0 | 1.27              | 471.98            | 0.26      | 97.02     | 93.0-94.0 | 0.00              | 485.75            | 0.00      | 99.85     |

IES Indoor Report

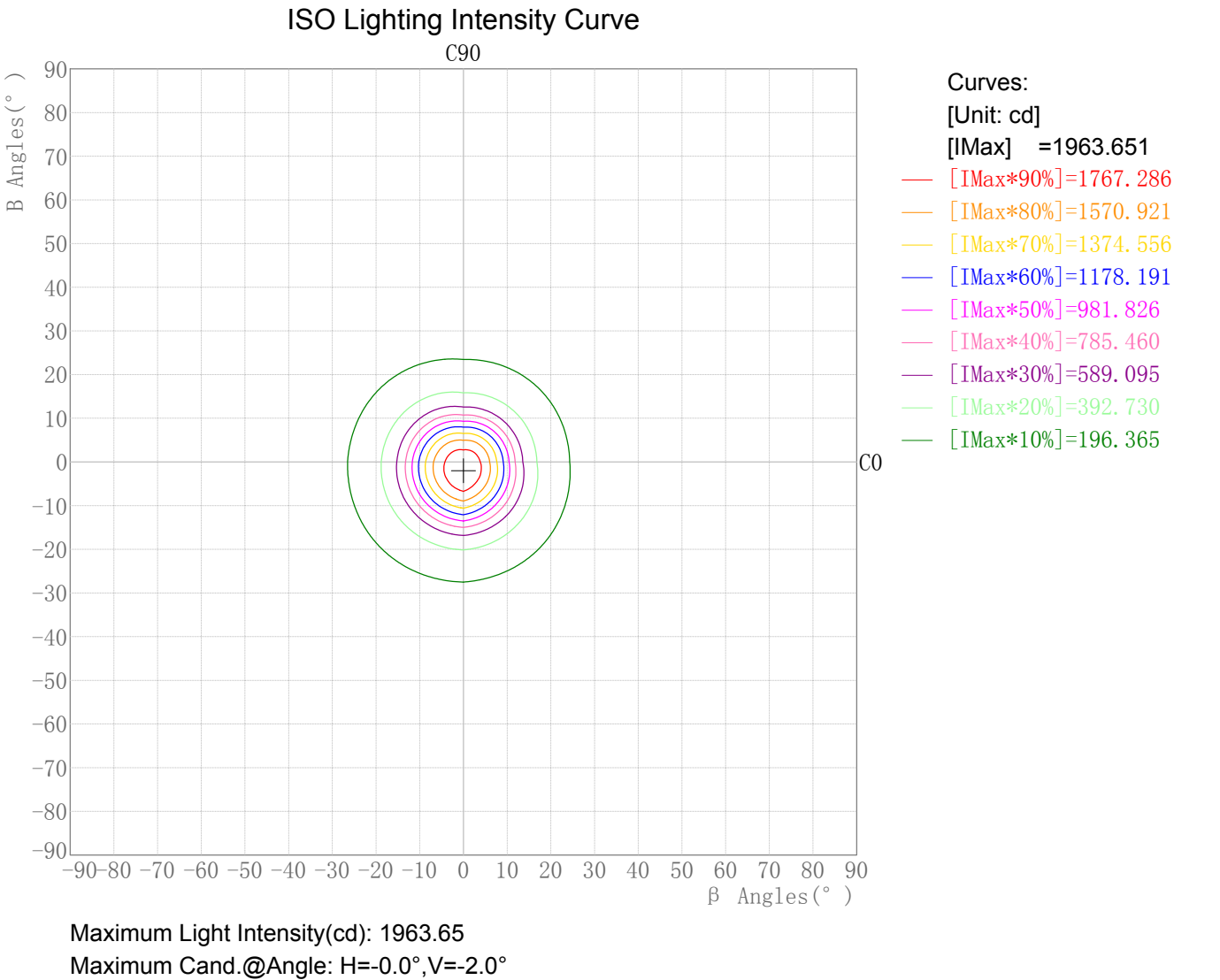
Photometric Filename:DL52-06-XX-04 2700K RA90 24D.IES

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              | 485.75            | 0.00      | 99.85     | 141.0-142.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 95.0-96.0   | 0.00              | 485.75            | 0.00      | 99.85     | 142.0-143.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 96.0-97.0   | 0.00              | 485.75            | 0.00      | 99.85     | 143.0-144.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 97.0-98.0   | 0.00              | 485.75            | 0.00      | 99.85     | 144.0-145.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 98.0-99.0   | 0.00              | 485.75            | 0.00      | 99.85     | 145.0-146.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 99.0-100.0  | 0.00              | 485.75            | 0.00      | 99.85     | 146.0-147.0 | 0.00              | 485.75            | 0.00      | 99.85     |
| 100.0-101.0 | 0.00              | 485.75            | 0.00      | 99.85     | 147.0-148.0 | 0.01              | 485.76            | 0.00      | 99.85     |
| 101.0-102.0 | 0.00              | 485.75            | 0.00      | 99.85     | 148.0-149.0 | 0.01              | 485.78            | 0.00      | 99.86     |
| 102.0-103.0 | 0.00              | 485.75            | 0.00      | 99.85     | 149.0-150.0 | 0.02              | 485.80            | 0.00      | 99.86     |
| 103.0-104.0 | 0.00              | 485.75            | 0.00      | 99.85     | 150.0-151.0 | 0.02              | 485.82            | 0.00      | 99.87     |
| 104.0-105.0 | 0.00              | 485.75            | 0.00      | 99.85     | 151.0-152.0 | 0.03              | 485.85            | 0.01      | 99.87     |
| 105.0-106.0 | 0.00              | 485.75            | 0.00      | 99.85     | 152.0-153.0 | 0.03              | 485.87            | 0.01      | 99.88     |
| 106.0-107.0 | 0.00              | 485.75            | 0.00      | 99.85     | 153.0-154.0 | 0.03              | 485.91            | 0.01      | 99.88     |
| 107.0-108.0 | 0.00              | 485.75            | 0.00      | 99.85     | 154.0-155.0 | 0.03              | 485.94            | 0.01      | 99.89     |
| 108.0-109.0 | 0.00              | 485.75            | 0.00      | 99.85     | 155.0-156.0 | 0.03              | 485.97            | 0.01      | 99.90     |
| 109.0-110.0 | 0.00              | 485.75            | 0.00      | 99.85     | 156.0-157.0 | 0.03              | 486.00            | 0.01      | 99.90     |
| 110.0-111.0 | 0.00              | 485.75            | 0.00      | 99.85     | 157.0-158.0 | 0.03              | 486.04            | 0.01      | 99.91     |
| 111.0-112.0 | 0.00              | 485.75            | 0.00      | 99.85     | 158.0-159.0 | 0.03              | 486.07            | 0.01      | 99.92     |
| 112.0-113.0 | 0.00              | 485.75            | 0.00      | 99.85     | 159.0-160.0 | 0.03              | 486.10            | 0.01      | 99.92     |
| 113.0-114.0 | 0.00              | 485.75            | 0.00      | 99.85     | 160.0-161.0 | 0.03              | 486.14            | 0.01      | 99.93     |
| 114.0-115.0 | 0.00              | 485.75            | 0.00      | 99.85     | 161.0-162.0 | 0.03              | 486.17            | 0.01      | 99.94     |
| 115.0-116.0 | 0.00              | 485.75            | 0.00      | 99.85     | 162.0-163.0 | 0.03              | 486.20            | 0.01      | 99.94     |
| 116.0-117.0 | 0.00              | 485.75            | 0.00      | 99.85     | 163.0-164.0 | 0.03              | 486.23            | 0.01      | 99.95     |
| 117.0-118.0 | 0.00              | 485.75            | 0.00      | 99.85     | 164.0-165.0 | 0.03              | 486.26            | 0.01      | 99.96     |
| 118.0-119.0 | 0.00              | 485.75            | 0.00      | 99.85     | 165.0-166.0 | 0.03              | 486.29            | 0.01      | 99.96     |
| 119.0-120.0 | 0.00              | 485.75            | 0.00      | 99.85     | 166.0-167.0 | 0.03              | 486.31            | 0.01      | 99.97     |
| 120.0-121.0 | 0.00              | 485.75            | 0.00      | 99.85     | 167.0-168.0 | 0.02              | 486.34            | 0.00      | 99.97     |
| 121.0-122.0 | 0.00              | 485.75            | 0.00      | 99.85     | 168.0-169.0 | 0.02              | 486.36            | 0.00      | 99.98     |
| 122.0-123.0 | 0.00              | 485.75            | 0.00      | 99.85     | 169.0-170.0 | 0.02              | 486.38            | 0.00      | 99.98     |
| 123.0-124.0 | 0.00              | 485.75            | 0.00      | 99.85     | 170.0-171.0 | 0.02              | 486.40            | 0.00      | 99.99     |
| 124.0-125.0 | 0.00              | 485.75            | 0.00      | 99.85     | 171.0-172.0 | 0.02              | 486.41            | 0.00      | 99.99     |
| 125.0-126.0 | 0.00              | 485.75            | 0.00      | 99.85     | 172.0-173.0 | 0.01              | 486.43            | 0.00      | 99.99     |
| 126.0-127.0 | 0.00              | 485.75            | 0.00      | 99.85     | 173.0-174.0 | 0.01              | 486.44            | 0.00      | 99.99     |
| 127.0-128.0 | 0.00              | 485.75            | 0.00      | 99.85     | 174.0-175.0 | 0.01              | 486.45            | 0.00      | 100.00    |
| 128.0-129.0 | 0.00              | 485.75            | 0.00      | 99.85     | 175.0-176.0 | 0.01              | 486.46            | 0.00      | 100.00    |
| 129.0-130.0 | 0.00              | 485.75            | 0.00      | 99.85     | 176.0-177.0 | 0.01              | 486.46            | 0.00      | 100.00    |
| 130.0-131.0 | 0.00              | 485.75            | 0.00      | 99.85     | 177.0-178.0 | 0.00              | 486.47            | 0.00      | 100.00    |
| 131.0-132.0 | 0.00              | 485.75            | 0.00      | 99.85     | 178.0-179.0 | 0.00              | 486.47            | 0.00      | 100.00    |
| 132.0-133.0 | 0.00              | 485.75            | 0.00      | 99.85     | 179.0-180.0 | 0.00              | 486.47            | 0.00      | 100.00    |
| 133.0-134.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 134.0-135.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 135.0-136.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 136.0-137.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 137.0-138.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 138.0-139.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 139.0-140.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |
| 140.0-141.0 | 0.00              | 485.75            | 0.00      | 99.85     |             |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram

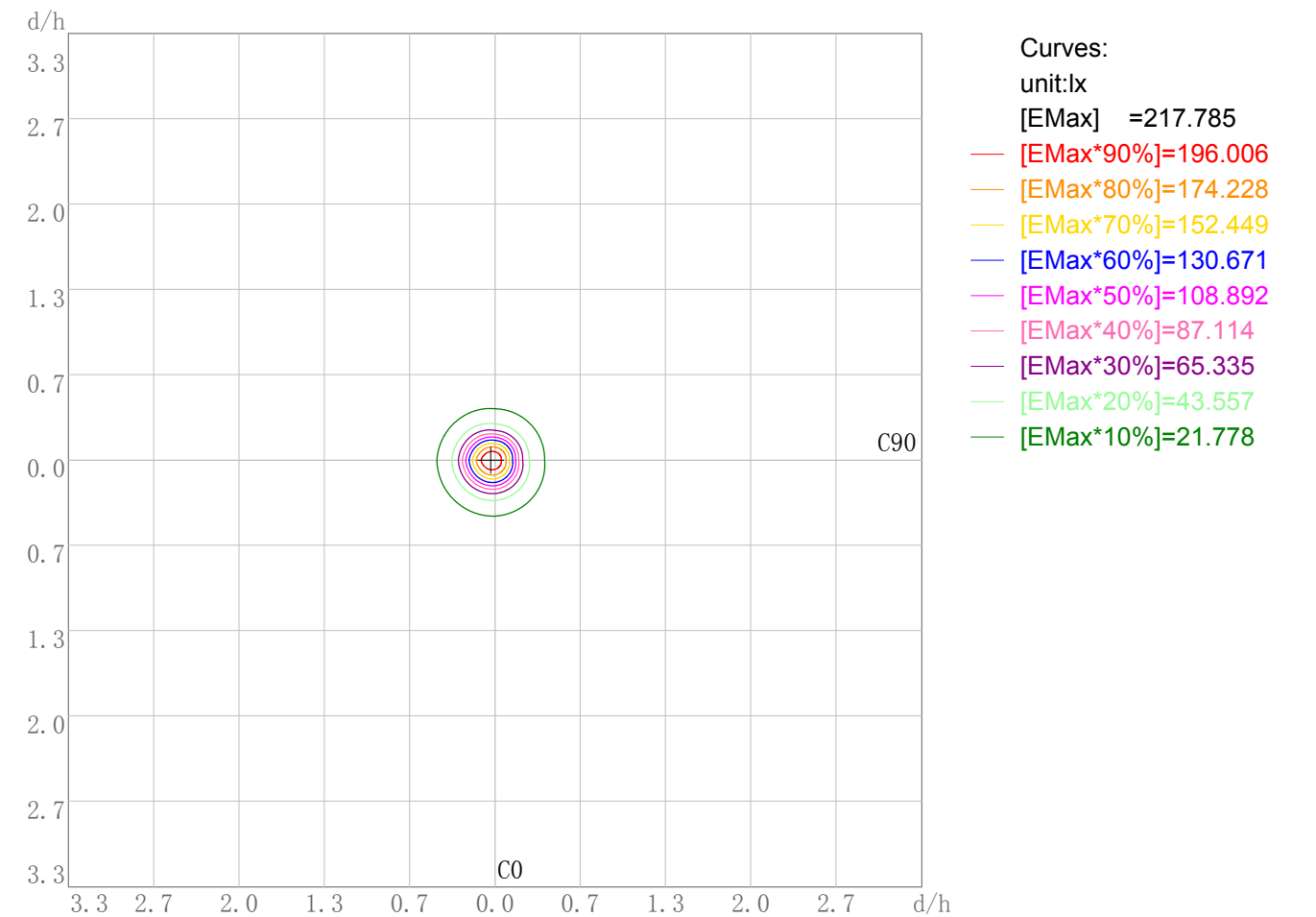
|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16        |



Plane ISO-Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | 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: 2021/11/16        |

Plane ISO-Illuminance Curve



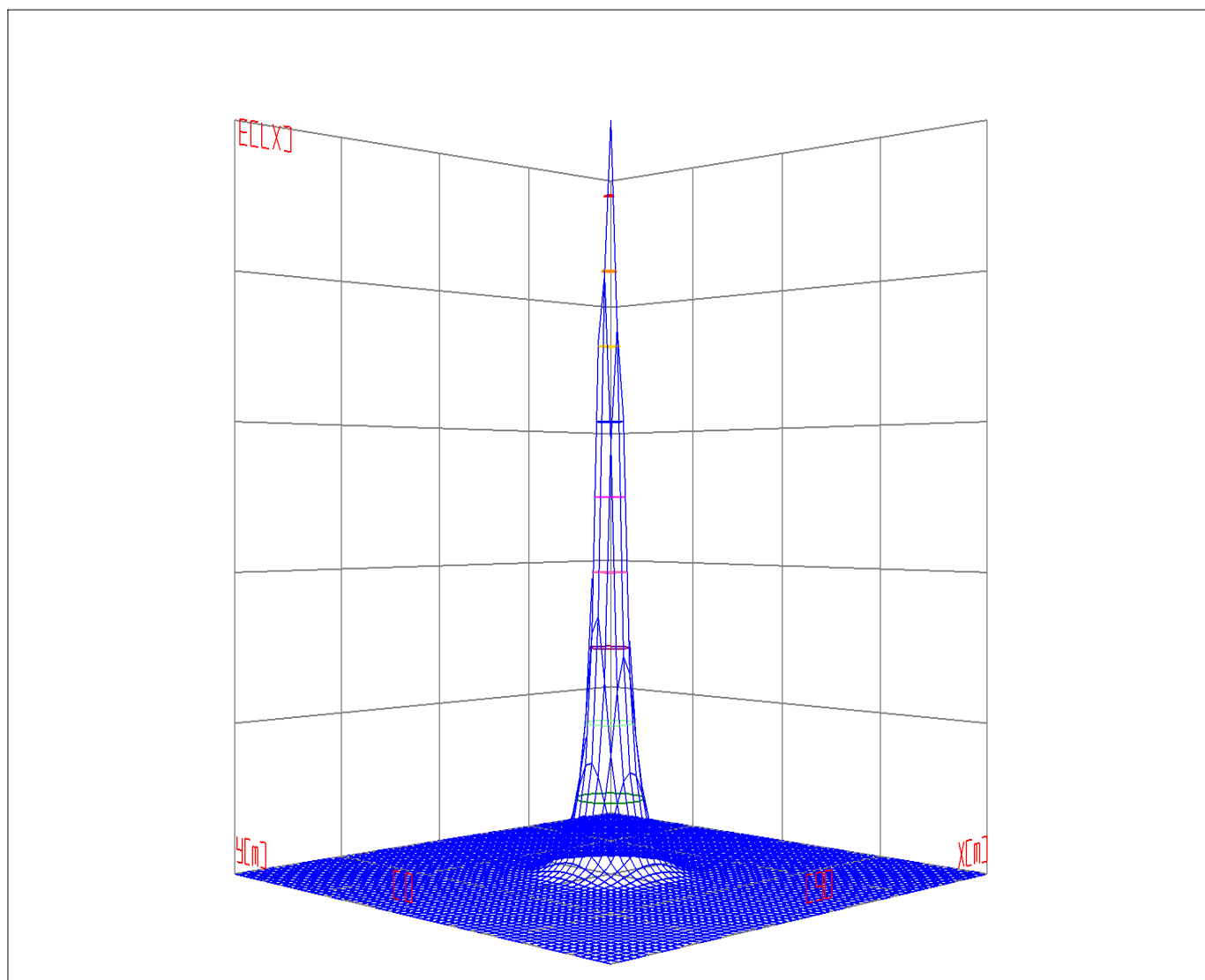
# IES Indoor Report

Photometric Filename:DL52-06-XX-04 2700K RA90 24D.IES

## 3D Plane ISO Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | 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: 2021/11/16        |

## 3D Plane Illuminance Modal



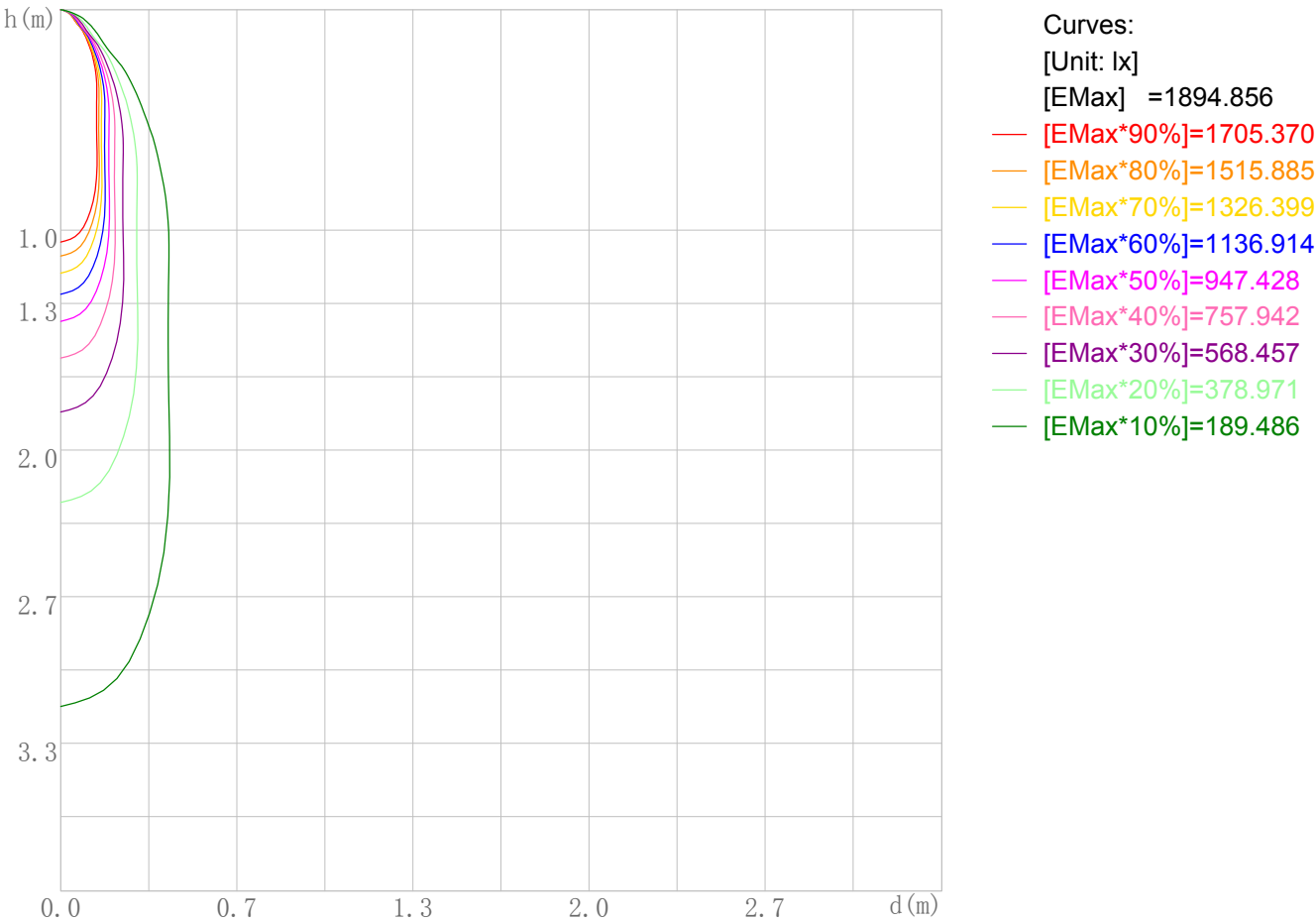
Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0



Space ISO Illuminance Diagram

|   |                       |                             |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catelog:         | Test ID: 01                 |
| Lamp Name:                                      | Lamp Catelog: LED     | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16       |

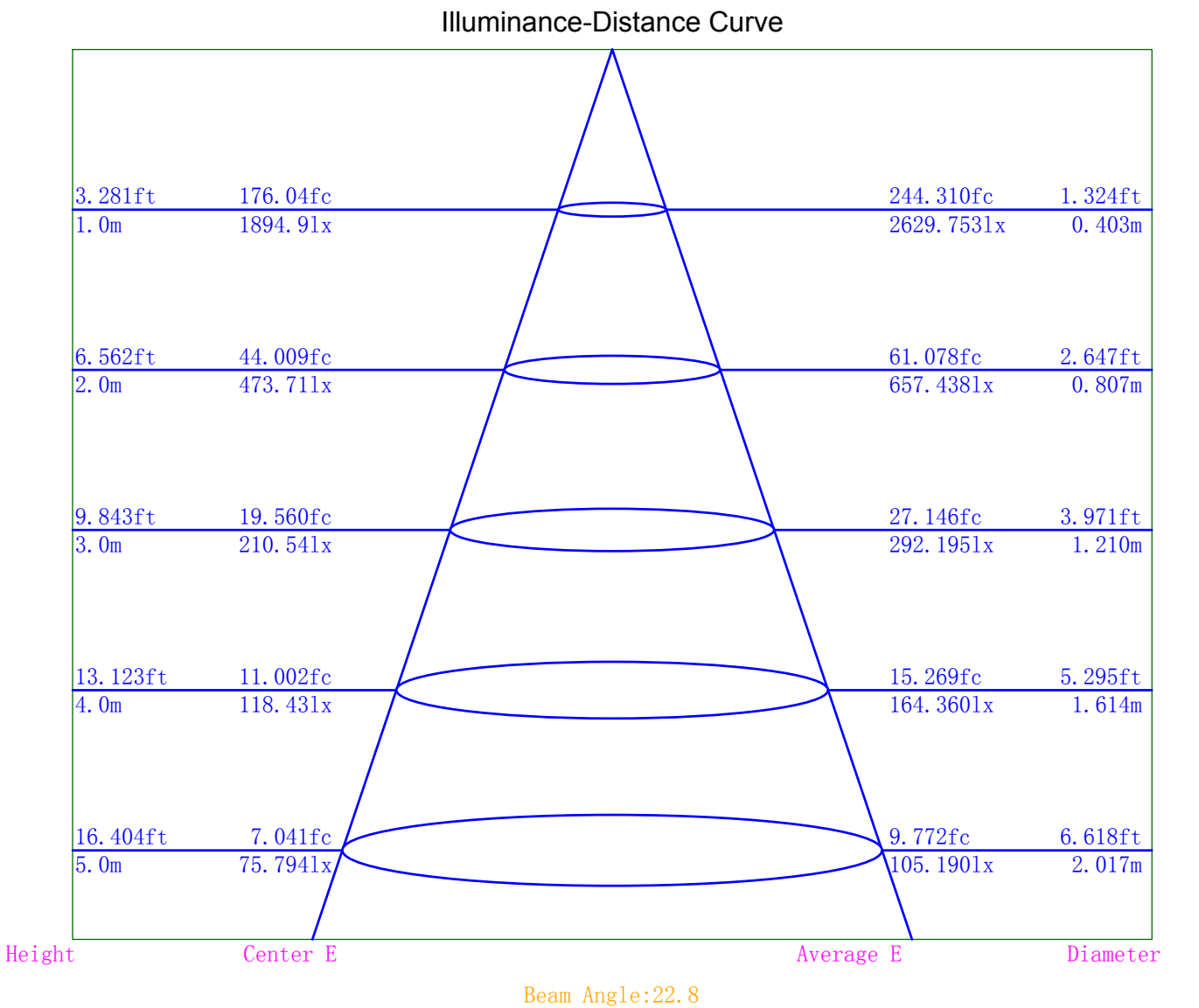
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1894.86lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:1894.856cd,0deg

Illuminance-Distance Diagram

|   |                       |                             |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catelog:         | Test ID: 01                 |
| Lamp Name:                                      | Lamp Catelog: LED     | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16       |



Indoor Luminance Limiting Curves

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | 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: 2021/11/16        |

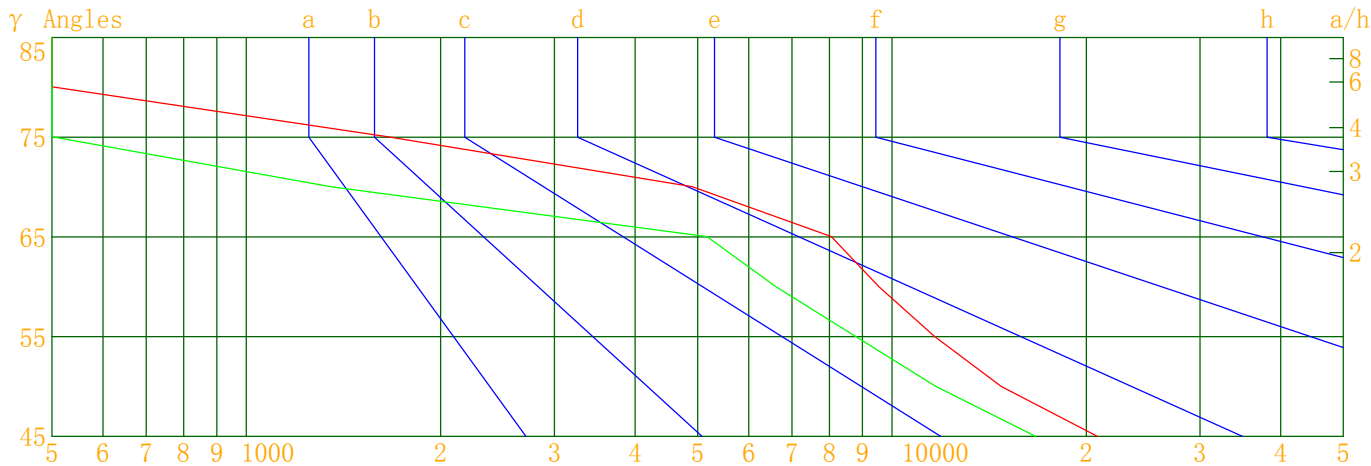
Glare Grade Table

| 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        | 20803 | 14766 | 11645 | 9537 | 8056 | 4906 | 1656 | 0  | 0  |
| C90       | 16695 | 11693 | 8786  | 6606 | 5170 | 1351 | 0    | 0  | 0  |

Luminance Limiting Curve



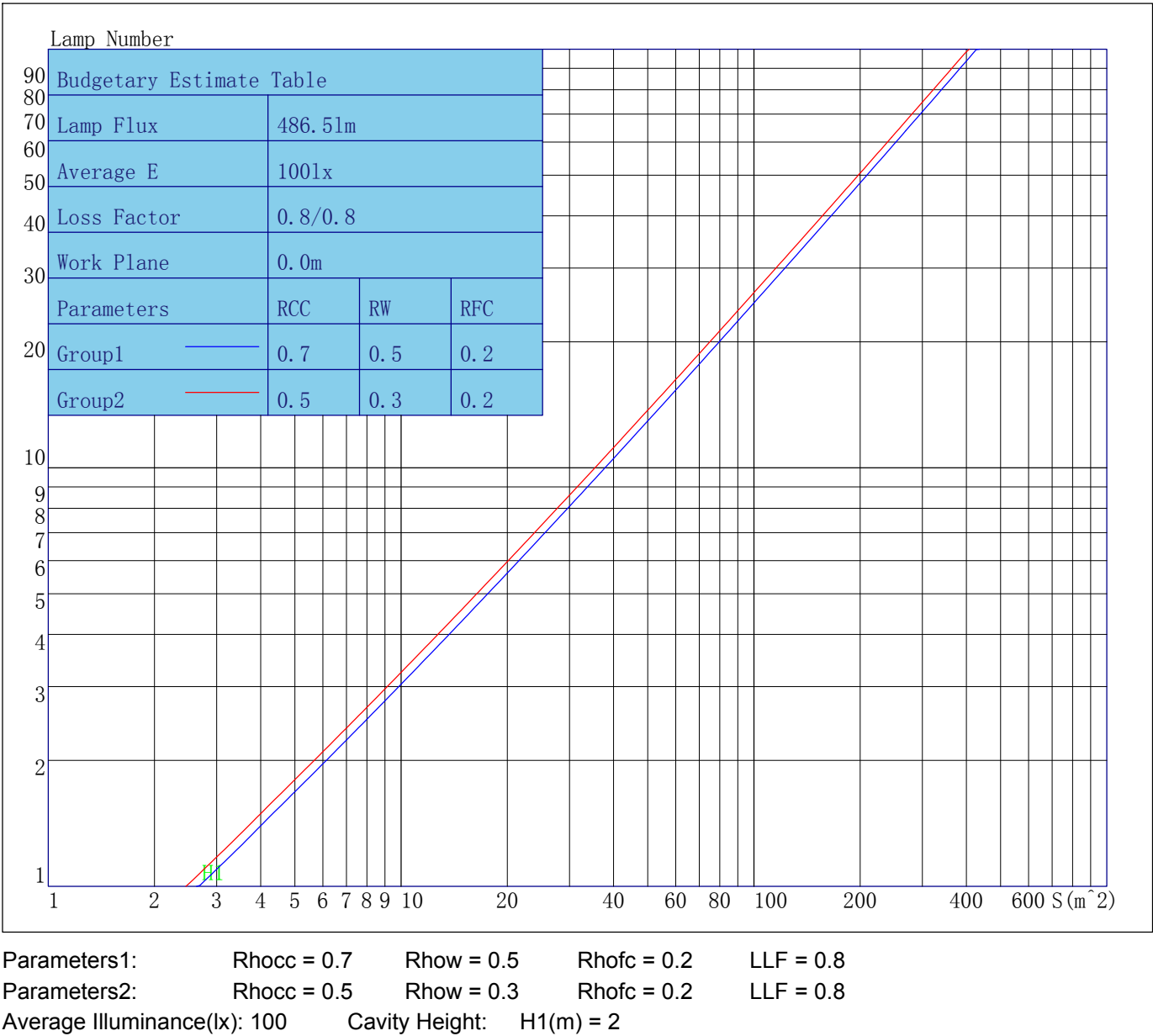
Luminous Size: Length(m)=-0.038 Width(m)=-0.038 Height(m)=0.000 Area(m^2)=0.001134

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | 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: 2021/11/16        |



Indoor Coefficient of Utilization Table

|   |                       |                             |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catelog:         | Test ID: 01                 |
| Lamp Name:                                      | Lamp Catelog: LED     | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16       |

| 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   | 114   | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 95  |
| 2   | 110   | 106 | 102 | 99  | 108 | 104 | 101 | 98  | 101 | 98  | 96  | 98  | 96  | 94  | 95  | 94  | 92  | 91  |
| 3   | 106   | 100 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 93  | 91  | 94  | 91  | 89  | 92  | 90  | 88  | 86  |
| 4   | 102   | 95  | 91  | 87  | 100 | 94  | 90  | 87  | 92  | 89  | 86  | 90  | 87  | 85  | 88  | 86  | 84  | 82  |
| 5   | 98  | 91  | 86  | 83  | 96  | 90  | 86  | 82  | 88  | 84  | 82  | 87  | 83  | 81  | 85  | 82  | 80  | 79  |
| 6   | 94  | 87  | 82  | 79  | 93  | 86  | 82  | 78  | 85  | 81  | 78  | 84  | 80  | 77  | 82  | 79  | 77  | 76  |
| 7   | 91  | 83  | 79  | 75  | 90  | 83  | 78  | 75  | 82  | 78  | 75  | 81  | 77  | 74  | 80  | 76  | 74  | 73  |
| 8   | 88  | 80  | 75  | 72  | 87  | 80  | 75  | 72  | 79  | 75  | 72  | 78  | 74  | 71  | 77  | 74  | 71  | 70  |
| 9   | 85  | 77  | 73  | 69  | 84  | 77  | 72  | 69  | 76  | 72  | 69  | 75  | 71  | 69  | 74  | 71  | 69  | 68  |
| 10  | 82  | 75  | 70  | 67  | 81  | 74  | 70  | 67  | 73  | 69  | 67  | 73  | 69  | 66  | 72  | 69  | 66  | 65  |

Unified Glare Rating Table

|   |                       |                             |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 2700K RA90 24D         | Lum. Catelog:         | Test ID: 01                 |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/16       |

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                                      | 17.2            | 18.2 | 17.6 | 18.5 | 18.9 | 16.4          | 17.4 | 16.7 | 17.7 | 18.0 |
|   | 17.3            | 18.2 | 17.7 | 18.5 | 18.9 | 16.3          | 17.1 | 16.6 | 17.5 | 17.8 |
|   | 17.2            | 18.0 | 17.6 | 18.4 | 18.8 | 16.1          | 17.0 | 16.6 | 17.3 | 17.7 |
|   | 17.1            | 17.8 | 17.5 | 18.2 | 18.6 | 16.0          | 16.8 | 16.5 | 17.2 | 17.6 |
|   | 17.0            | 17.7 | 17.5 | 18.1 | 18.5 | 16.0          | 16.7 | 16.4 | 17.1 | 17.5 |
|   | 17.0            | 17.6 | 17.4 | 18.0 | 18.5 | 15.9          | 16.6 | 16.4 | 17.0 | 17.4 |
| X=4H    Y=2H                                      | 17.1            | 17.9 | 17.5 | 18.3 | 18.7 | 16.2          | 17.0 | 16.6 | 17.4 | 17.8 |
|   | 17.2            | 17.9 | 17.6 | 18.3 | 18.7 | 16.1          | 16.8 | 16.5 | 17.2 | 17.6 |
|   | 17.1            | 17.7 | 17.5 | 18.1 | 18.6 | 16.0          | 16.6 | 16.4 | 17.0 | 17.5 |
|   | 17.0            | 17.5 | 17.5 | 18.0 | 18.4 | 15.9          | 16.4 | 16.3 | 16.9 | 17.3 |
|   | 16.9            | 17.4 | 17.4 | 17.9 | 18.3 | 15.8          | 16.3 | 16.3 | 16.7 | 17.2 |
|   | 16.9            | 17.3 | 17.3 | 17.8 | 18.3 | 15.7          | 16.2 | 16.2 | 16.7 | 17.1 |
| X=8H    Y=4H                                      | 16.9            | 17.4 | 17.4 | 17.9 | 18.4 | 15.8          | 16.3 | 16.3 | 16.8 | 17.2 |
|   | 16.8            | 17.2 | 17.3 | 17.7 | 18.2 | 15.7          | 16.1 | 16.2 | 16.6 | 17.1 |
|   | 16.7            | 17.1 | 17.3 | 17.6 | 18.1 | 15.6          | 16.0 | 16.1 | 16.5 | 17.0 |
|   | 16.7            | 17.0 | 17.2 | 17.5 | 18.1 | 15.6          | 15.9 | 16.1 | 16.4 | 16.9 |
| X=12H    Y=4H                                     | 16.9            | 17.3 | 17.4 | 17.8 | 18.3 | 15.7          | 16.2 | 16.2 | 16.7 | 17.1 |
|   | 16.7            | 17.1 | 17.3 | 17.6 | 18.1 | 15.6          | 16.0 | 16.2 | 16.4 | 17.0 |
|   | 16.7            | 17.0 | 17.2 | 17.5 | 18.1 | 15.6          | 15.9 | 16.1 | 16.4 | 16.9 |
| Variations with the objerver position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  | 3.3/-6.4        |      |      |      |      | 4.4/-21.6     |      |      |      |      |
| S=1.5H  | 3.7/-9.3        |      |      |      |      | 4.7/-18.7     |      |      |      |      |
| S=2.0H  | 4.0/-9.9        |      |      |      |      | 5.8/-24.3     |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 0.3             |      |      |      |      | 0.1           |      |      |      |      |

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

IES Indoor Report

Photometric Filename:DL52-06-XX-04 2700K RA90 24D.IES

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Candela Tabulation

| V/H    | C0.0    | C90.0   | C180.0  | C270.0  |
|--------|---------|---------|---------|---------|
| γ 0.0  | 1894.86 | 1894.86 | 1894.86 | 1894.86 |
| γ 1.0  | 1876.14 | 1872.38 | 1880.91 | 1950.17 |
| γ 2.0  | 1851.99 | 1817.53 | 1862.13 | 1963.65 |
| γ 3.0  | 1815.54 | 1750.91 | 1830.45 | 1950.27 |
| γ 4.0  | 1758.68 | 1669.60 | 1781.63 | 1915.60 |
| γ 5.0  | 1677.34 | 1565.36 | 1720.69 | 1872.88 |
| γ 6.0  | 1571.59 | 1442.47 | 1644.68 | 1818.64 |
| γ 7.0  | 1453.69 | 1311.07 | 1555.19 | 1748.79 |
| γ 8.0  | 1328.76 | 1172.42 | 1451.31 | 1663.87 |
| γ 9.0  | 1193.54 | 1026.70 | 1334.19 | 1565.42 |
| γ 10.0 | 1047.44 | 880.22  | 1208.91 | 1448.78 |
| γ 11.0 | 901.17  | 748.55  | 1075.33 | 1322.27 |
| γ 12.0 | 760.57  | 638.42  | 941.95  | 1188.51 |
| γ 13.0 | 642.62  | 550.47  | 814.26  | 1052.13 |
| γ 14.0 | 552.20  | 481.91  | 701.12  | 912.59  |
| γ 15.0 | 483.44  | 428.63  | 609.26  | 782.47  |
| γ 16.0 | 428.86  | 384.92  | 533.98  | 665.47  |
| γ 17.0 | 383.69  | 348.70  | 474.36  | 572.81  |
| γ 18.0 | 346.80  | 317.47  | 425.90  | 501.49  |
| γ 19.0 | 315.47  | 290.67  | 385.24  | 444.71  |
| γ 20.0 | 288.65  | 265.94  | 350.17  | 398.12  |
| γ 21.0 | 264.85  | 243.79  | 319.30  | 358.92  |
| γ 22.0 | 243.00  | 223.26  | 292.58  | 325.28  |
| γ 23.0 | 221.91  | 204.47  | 267.82  | 296.54  |
| γ 24.0 | 202.12  | 187.02  | 245.45  | 271.23  |
| γ 25.0 | 183.99  | 170.78  | 224.54  | 247.48  |
| γ 26.0 | 167.04  | 155.05  | 205.34  | 225.89  |
| γ 27.0 | 150.52  | 140.67  | 187.94  | 205.63  |
| γ 28.0 | 136.25  | 127.98  | 171.91  | 187.14  |
| γ 29.0 | 123.45  | 116.29  | 156.23  | 170.05  |
| γ 30.0 | 111.89  | 104.42  | 142.05  | 154.45  |
| γ 31.0 | 101.18  | 92.39   | 128.93  | 139.93  |
| γ 32.0 | 89.84   | 82.96   | 116.96  | 126.59  |
| γ 33.0 | 80.45   | 74.78   | 105.81  | 114.75  |
| γ 34.0 | 72.42   | 67.74   | 94.22   | 103.80  |
| γ 35.0 | 65.33   | 61.37   | 84.77   | 93.15   |
| γ 36.0 | 59.06   | 55.42   | 76.60   | 83.63   |
| γ 37.0 | 53.36   | 50.02   | 69.35   | 75.29   |
| γ 38.0 | 48.15   | 44.94   | 62.88   | 68.05   |
| γ 39.0 | 43.38   | 40.17   | 56.95   | 61.71   |
| γ 40.0 | 38.96   | 35.72   | 51.53   | 55.88   |
| γ 41.0 | 34.79   | 29.91   | 46.44   | 50.60   |
| γ 42.0 | 30.34   | 23.09   | 41.58   | 45.70   |
| γ 43.0 | 24.31   | 18.20   | 36.89   | 41.22   |
| γ 44.0 | 19.48   | 15.31   | 30.28   | 36.90   |
| γ 45.0 | 16.68   | 13.39   | 22.74   | 32.22   |
| γ 46.0 | 14.84   | 11.97   | 17.23   | 25.29   |

Candela Tabulation - (Cont.)

| V/H    | C0.0  | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 13.47 | 10.86 | 13.85  | 19.75  |
| γ 48.0 | 12.39 | 9.96  | 11.73  | 16.37  |
| γ 49.0 | 11.52 | 9.22  | 10.40  | 14.27  |
| γ 50.0 | 10.76 | 8.52  | 9.52   | 12.80  |
| γ 51.0 | 10.08 | 7.90  | 8.85   | 11.70  |
| γ 52.0 | 9.44  | 7.12  | 8.30   | 10.81  |
| γ 53.0 | 8.79  | 6.56  | 7.78   | 10.08  |
| γ 54.0 | 8.09  | 6.09  | 7.27   | 9.46   |
| γ 55.0 | 7.57  | 5.72  | 6.58   | 8.88   |
| γ 56.0 | 7.14  | 5.37  | 6.15   | 8.27   |
| γ 57.0 | 6.75  | 5.00  | 5.80   | 7.68   |
| γ 58.0 | 6.35  | 4.54  | 5.49   | 7.24   |
| γ 59.0 | 5.89  | 4.11  | 5.22   | 6.88   |
| γ 60.0 | 5.41  | 3.75  | 4.91   | 6.56   |
| γ 61.0 | 4.99  | 3.48  | 4.53   | 6.23   |
| γ 62.0 | 4.64  | 3.23  | 4.12   | 5.82   |
| γ 63.0 | 4.37  | 3.01  | 3.77   | 5.41   |
| γ 64.0 | 4.12  | 2.77  | 3.53   | 5.02   |
| γ 65.0 | 3.86  | 2.48  | 3.32   | 4.71   |
| γ 66.0 | 3.59  | 2.12  | 3.10   | 4.45   |
| γ 67.0 | 3.26  | 1.64  | 2.87   | 4.22   |
| γ 68.0 | 2.82  | 1.19  | 2.58   | 3.97   |
| γ 69.0 | 2.31  | 0.84  | 2.19   | 3.69   |
| γ 70.0 | 1.90  | 0.52  | 1.69   | 3.34   |
| γ 71.0 | 1.54  | 0.26  | 1.26   | 2.85   |
| γ 72.0 | 1.22  | 0.01  | 0.94   | 2.34   |
| γ 73.0 | 0.94  | 0.00  | 0.63   | 1.94   |
| γ 74.0 | 0.70  | 0.00  | 0.38   | 1.59   |
| γ 75.0 | 0.49  | 0.00  | 0.15   | 1.28   |
| γ 76.0 | 0.31  | 0.00  | 0.00   | 1.01   |
| γ 77.0 | 0.16  | 0.00  | 0.00   | 0.77   |
| γ 78.0 | 0.02  | 0.00  | 0.00   | 0.56   |
| γ 79.0 | 0.00  | 0.00  | 0.00   | 0.40   |
| γ 80.0 | 0.00  | 0.00  | 0.00   | 0.24   |
| γ 81.0 | 0.00  | 0.00  | 0.00   | 0.10   |
| γ 82.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 83.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 84.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 85.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 86.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 87.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| γ 88.0 | 0.00  | 0.00  | 0.00   | 0.00   |
| 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  | 0.00   | 0.00   |
| γ 143.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 144.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 145.0 | 0.00 | 0.00  | 0.00   | 0.00   |
| γ 146.0 | 0.06 | 0.02  | 0.06   | 0.00   |
| γ 147.0 | 0.14 | 0.09  | 0.16   | 0.06   |
| γ 148.0 | 0.25 | 0.18  | 0.26   | 0.16   |
| γ 149.0 | 0.34 | 0.26  | 0.35   | 0.25   |
| γ 150.0 | 0.41 | 0.34  | 0.44   | 0.34   |
| γ 151.0 | 0.50 | 0.40  | 0.52   | 0.42   |
| γ 152.0 | 0.56 | 0.46  | 0.59   | 0.50   |
| γ 153.0 | 0.64 | 0.51  | 0.66   | 0.56   |
| γ 154.0 | 0.70 | 0.55  | 0.71   | 0.62   |
| γ 155.0 | 0.75 | 0.59  | 0.76   | 0.69   |
| γ 156.0 | 0.79 | 0.63  | 0.81   | 0.73   |
| γ 157.0 | 0.83 | 0.67  | 0.84   | 0.77   |
| γ 158.0 | 0.87 | 0.70  | 0.88   | 0.81   |
| γ 159.0 | 0.91 | 0.74  | 0.92   | 0.84   |
| γ 160.0 | 0.94 | 0.76  | 0.96   | 0.88   |
| γ 161.0 | 0.96 | 0.79  | 0.98   | 0.92   |
| γ 162.0 | 0.98 | 0.82  | 1.00   | 0.94   |
| γ 163.0 | 1.01 | 0.83  | 1.02   | 0.97   |
| γ 164.0 | 1.02 | 0.85  | 1.04   | 1.00   |
| γ 165.0 | 1.04 | 0.87  | 1.06   | 1.02   |
| γ 166.0 | 1.04 | 0.88  | 1.07   | 1.04   |
| γ 167.0 | 1.06 | 0.89  | 1.07   | 1.06   |
| γ 168.0 | 1.06 | 0.89  | 1.08   | 1.07   |
| γ 169.0 | 1.05 | 0.89  | 1.08   | 1.07   |
| γ 170.0 | 1.04 | 0.89  | 1.07   | 1.09   |
| γ 171.0 | 1.03 | 0.88  | 1.05   | 1.09   |
| γ 172.0 | 1.01 | 0.88  | 1.03   | 1.07   |
| γ 173.0 | 1.00 | 0.87  | 1.00   | 1.08   |
| γ 174.0 | 0.99 | 0.88  | 0.99   | 1.06   |
| γ 175.0 | 0.98 | 0.88  | 0.97   | 1.05   |
| γ 176.0 | 0.97 | 0.89  | 0.95   | 1.05   |
| γ 177.0 | 0.97 | 0.92  | 0.95   | 1.05   |
| γ 178.0 | 0.96 | 0.94  | 0.96   | 1.05   |
| γ 179.0 | 0.97 | 0.95  | 0.94   | 1.05   |
| γ 180.0 | 0.98 | 0.98  | 0.98   | 0.98   |