

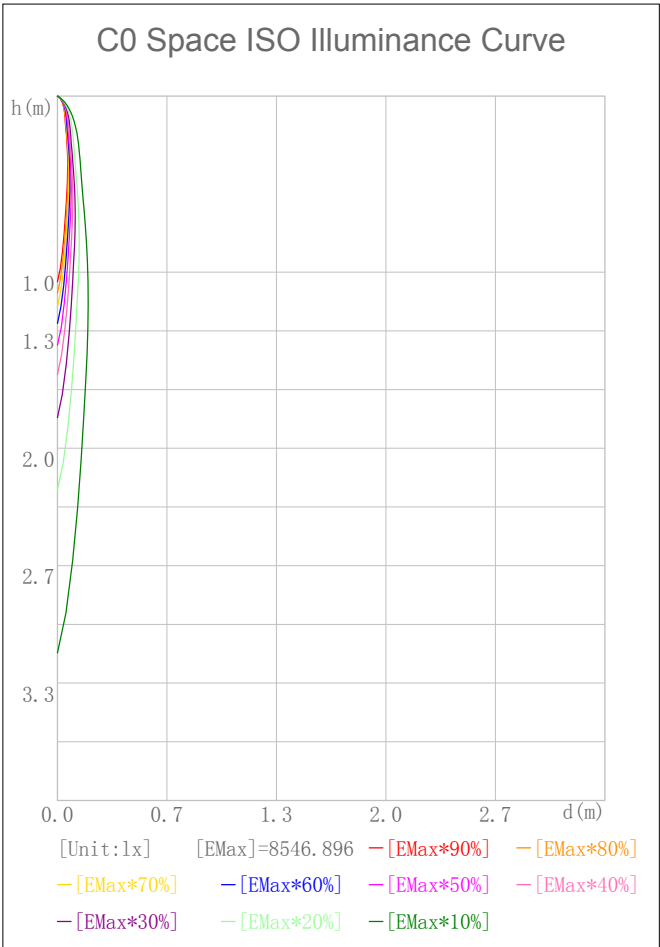
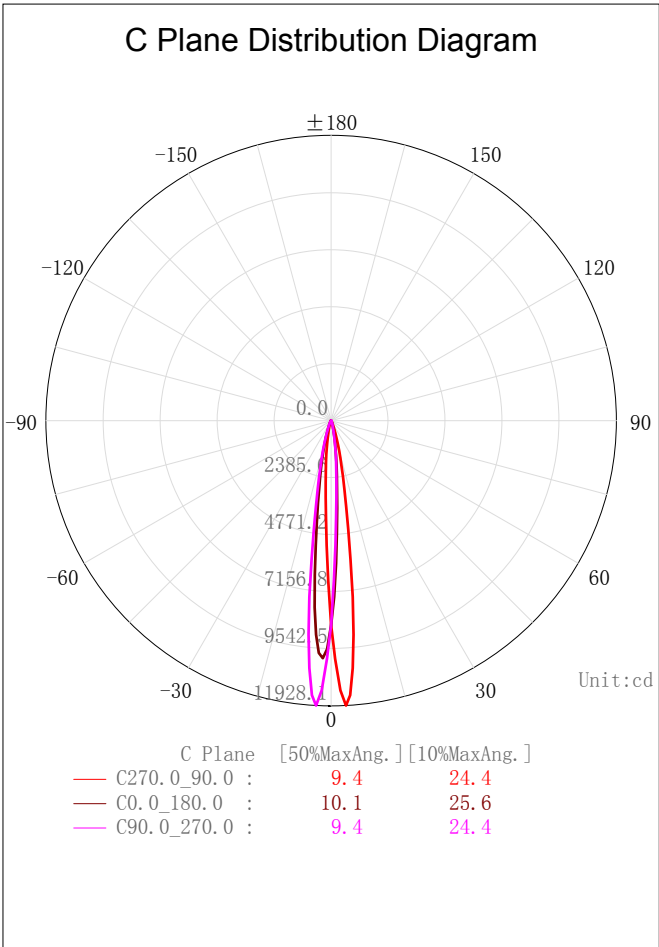
Indoor Luminaire Photometric Data

Description Information

|   |                         |                      |                       |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:DL52-09-XX-01 2700K RA90 15D      |                         | Lum. Catalog:        | Test ID: 01           |
| Lamp Name:                                      |                         | Lamp Catalog: LED    | Test Date: 2021/10/22 |
| 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):0.076m*0.076m*0.000m          |                         | Lum. Area (m2):0.005 | Lum. W (kg): 0.000    |
| Test System: C, γ                               | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25       | Humidity(%): 50.0     |

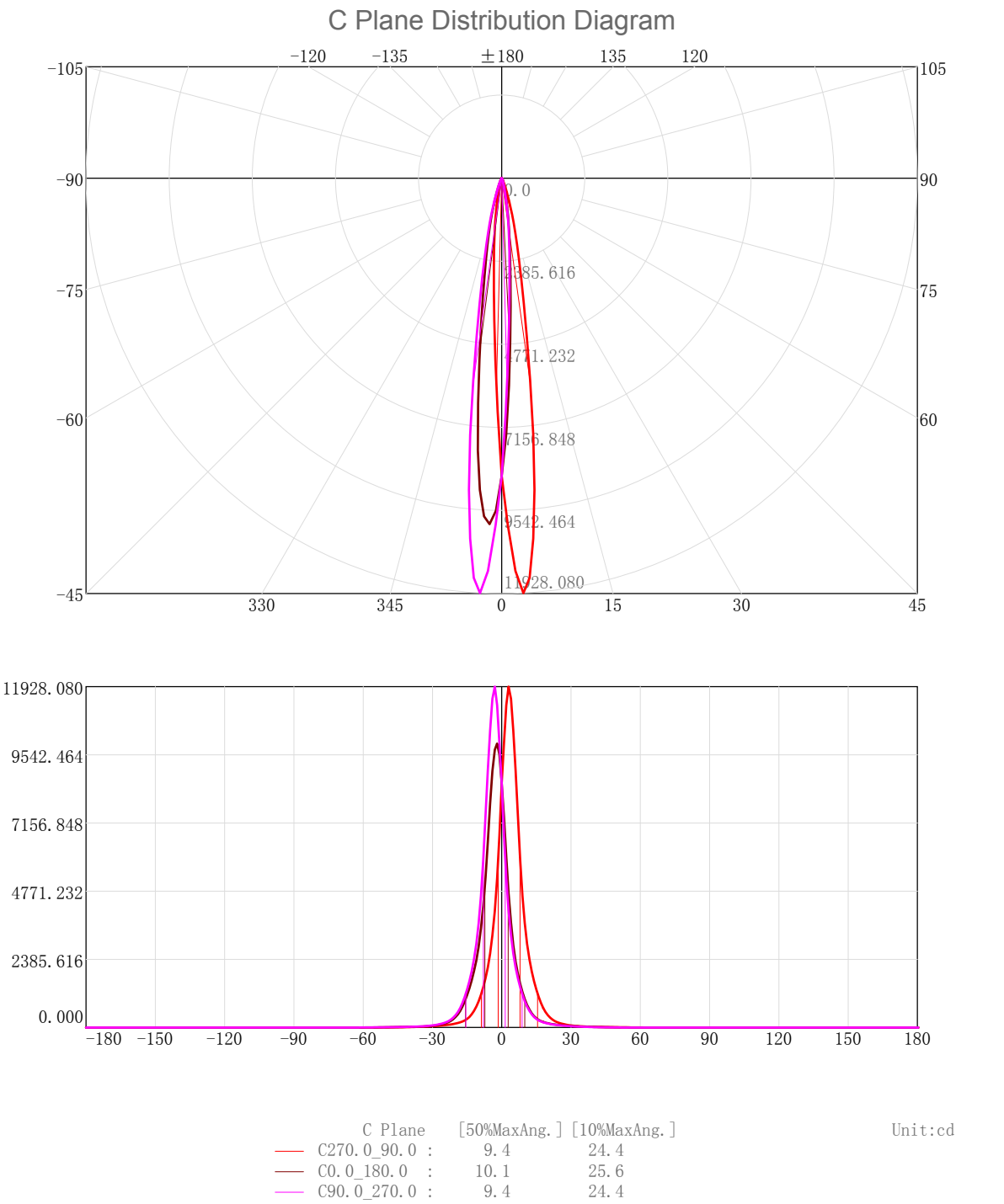
Character Parameter

| Lamp Speciality Parameter                       |                                  | Luminaire Speciality Parameter         |  |
|---|----------------------------------|--|--|
| Rated Flux(lm): 753.030                         | Luminary Flux(lm): 753.029       | Field Angle(10%Imax): 24.4(°)          |  |
| Rated Power(W):                                 | Luminary Efficiency: 100.00%     | Down Lumens&Percent: 753.029lm 100.00% |  |
| Rated Voltage(V):                               | Luminary EER(lm/W): 84.468       | Up Lumens&Percent: 0.000lm 0.00%       |  |
| Tested Power(W): 8.915                          | Max. Candela(cd): 11928.080      | S/MH: C0_a180=0.197 C90_270=0.211      |  |
| Lamps' Inside: 1                                | Max Cand@Ang. (°): C=270.0 γ=3.0 | CIE Type: Semi-Direct                  |  |
| Tested Electrics (V, A, pf):240.6, 0.041, 0.899 | Beam Angle(50%Imax): 9.4(°)      | ErP ϕ use(90°): 720.311lm              |  |
| Lamp Size (W*L*H):0.076m*0.076m*0.000m          | Left=-1.5°, Right=7.9°           | IRF(%): 4018.278                       |  |



2D Plane Light Intensity Distribution Curve

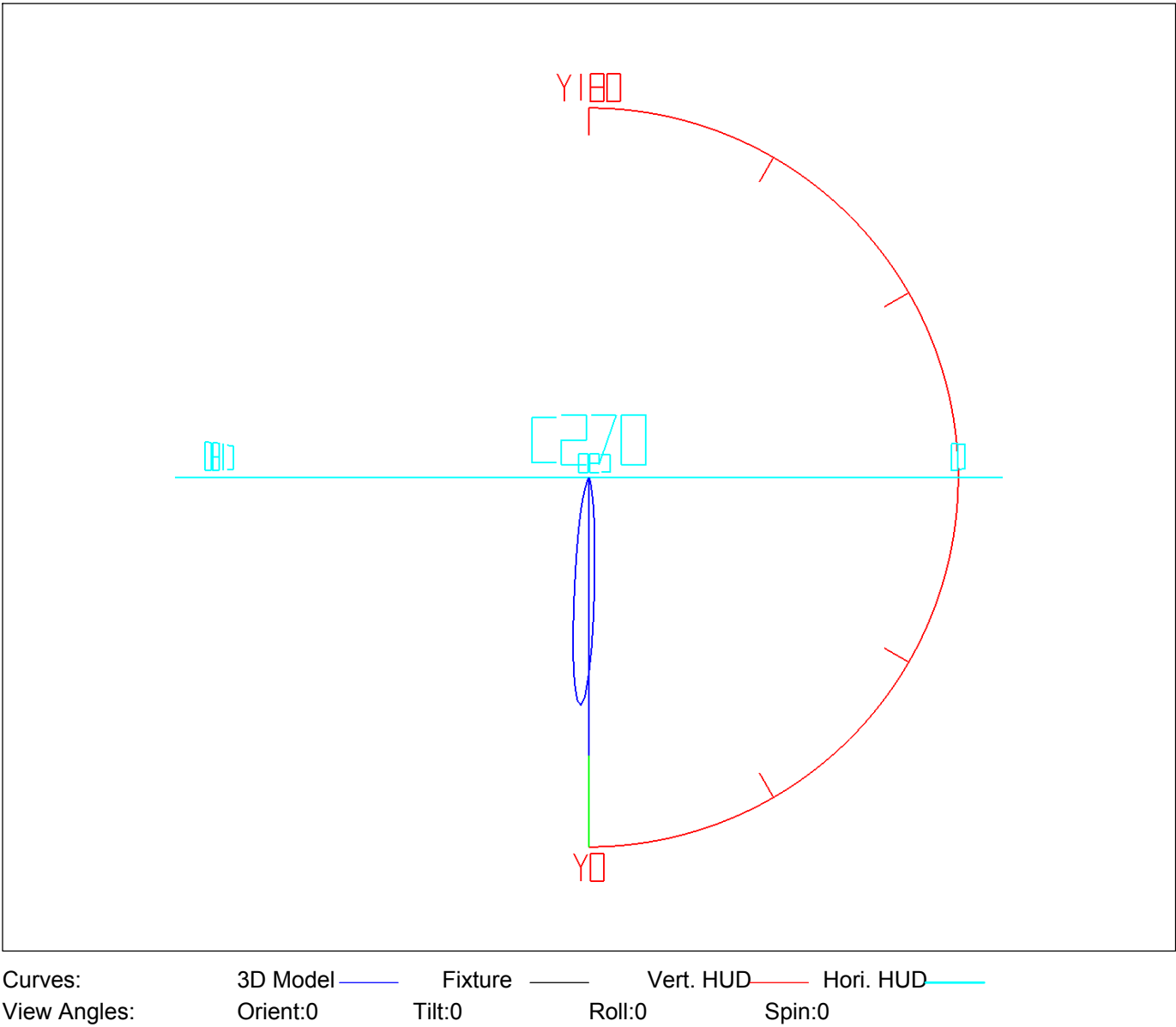
|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | Lum. Catelog:         | Test ID: 01                  |
| Lamp Name:                                      | Lamp Catelog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22        |



3D Light Intensity Distribution Modal

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:DL52-09-XX-01 2700K RA90 15D.IES

Zonal Flux Tabulation

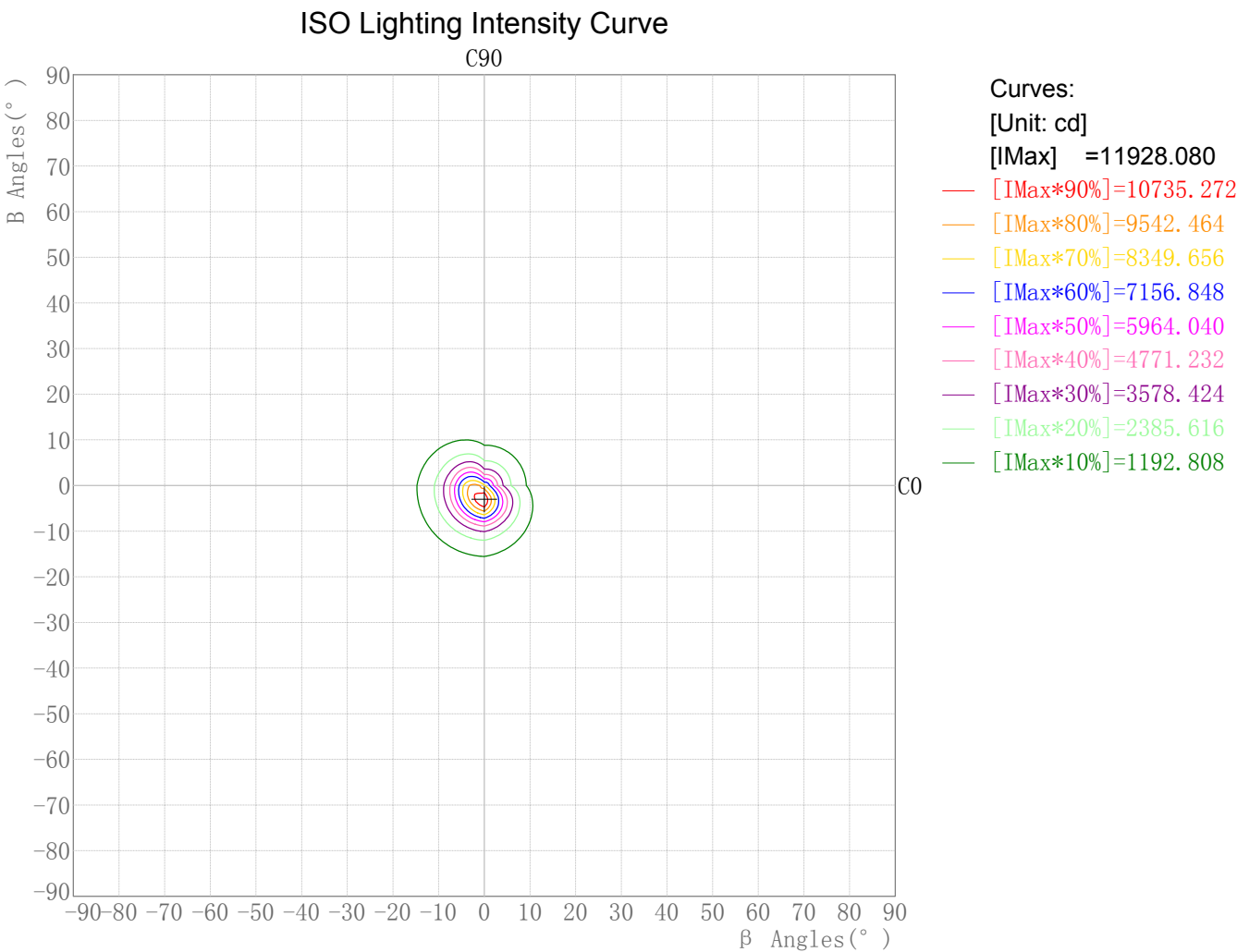
| Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp | Zone(γ)   | Zone Flux<br>(lm) | Sums Flux<br>(lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0   | 8.11              | 8.11              | 1.08      | 1.08      | 47.0-48.0 | 0.87              | 747.61            | 0.12      | 99.28     |
| 1.0-2.0   | 23.68             | 31.79             | 3.14      | 4.22      | 48.0-49.0 | 0.79              | 748.40            | 0.10      | 99.38     |
| 2.0-3.0   | 37.56             | 69.35             | 4.99      | 9.21      | 49.0-50.0 | 0.71              | 749.11            | 0.09      | 99.48     |
| 3.0-4.0   | 48.37             | 117.72            | 6.42      | 15.63     | 50.0-51.0 | 0.64              | 749.74            | 0.08      | 99.56     |
| 4.0-5.0   | 54.92             | 172.64            | 7.29      | 22.93     | 51.0-52.0 | 0.57              | 750.31            | 0.08      | 99.64     |
| 5.0-6.0   | 57.28             | 229.92            | 7.61      | 30.53     | 52.0-53.0 | 0.50              | 750.80            | 0.07      | 99.70     |
| 6.0-7.0   | 56.13             | 286.05            | 7.45      | 37.99     | 53.0-54.0 | 0.43              | 751.23            | 0.06      | 99.76     |
| 7.0-8.0   | 52.48             | 338.53            | 6.97      | 44.96     | 54.0-55.0 | 0.37              | 751.60            | 0.05      | 99.81     |
| 8.0-9.0   | 47.65             | 386.19            | 6.33      | 51.28     | 55.0-56.0 | 0.31              | 751.91            | 0.04      | 99.85     |
| 9.0-10.0  | 42.67             | 428.86            | 5.67      | 56.95     | 56.0-57.0 | 0.26              | 752.17            | 0.03      | 99.89     |
| 10.0-11.0 | 37.99             | 466.85            | 5.04      | 62.00     | 57.0-58.0 | 0.22              | 752.39            | 0.03      | 99.91     |
| 11.0-12.0 | 33.77             | 500.62            | 4.48      | 66.48     | 58.0-59.0 | 0.18              | 752.56            | 0.02      | 99.94     |
| 12.0-13.0 | 30.01             | 530.62            | 3.98      | 70.47     | 59.0-60.0 | 0.14              | 752.71            | 0.02      | 99.96     |
| 13.0-14.0 | 26.62             | 557.24            | 3.53      | 74.00     | 60.0-61.0 | 0.12              | 752.82            | 0.02      | 99.97     |
| 14.0-15.0 | 23.46             | 580.70            | 3.12      | 77.11     | 61.0-62.0 | 0.09              | 752.91            | 0.01      | 99.98     |
| 15.0-16.0 | 20.50             | 601.20            | 2.72      | 79.84     | 62.0-63.0 | 0.06              | 752.97            | 0.01      | 99.99     |
| 16.0-17.0 | 17.72             | 618.91            | 2.35      | 82.19     | 63.0-64.0 | 0.03              | 753.00            | 0.00      | 100.00    |
| 17.0-18.0 | 15.17             | 634.08            | 2.01      | 84.20     | 64.0-65.0 | 0.02              | 753.02            | 0.00      | 100.00    |
| 18.0-19.0 | 12.94             | 647.02            | 1.72      | 85.92     | 65.0-66.0 | 0.01              | 753.03            | 0.00      | 100.00    |
| 19.0-20.0 | 11.05             | 658.07            | 1.47      | 87.39     | 66.0-67.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 20.0-21.0 | 9.48              | 667.55            | 1.26      | 88.65     | 67.0-68.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 21.0-22.0 | 8.21              | 675.75            | 1.09      | 89.74     | 68.0-69.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 22.0-23.0 | 7.19              | 682.94            | 0.95      | 90.69     | 69.0-70.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 23.0-24.0 | 6.37              | 689.31            | 0.85      | 91.54     | 70.0-71.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 24.0-25.0 | 5.69              | 695.00            | 0.76      | 92.29     | 71.0-72.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 25.0-26.0 | 5.11              | 700.10            | 0.68      | 92.97     | 72.0-73.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 26.0-27.0 | 4.60              | 704.70            | 0.61      | 93.58     | 73.0-74.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 27.0-28.0 | 4.15              | 708.85            | 0.55      | 94.13     | 74.0-75.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 28.0-29.0 | 3.76              | 712.60            | 0.50      | 94.63     | 75.0-76.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 29.0-30.0 | 3.41              | 716.02            | 0.45      | 95.08     | 76.0-77.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 30.0-31.0 | 3.11              | 719.13            | 0.41      | 95.50     | 77.0-78.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 31.0-32.0 | 2.85              | 721.97            | 0.38      | 95.88     | 78.0-79.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 32.0-33.0 | 2.61              | 724.59            | 0.35      | 96.22     | 79.0-80.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 33.0-34.0 | 2.41              | 727.00            | 0.32      | 96.54     | 80.0-81.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 34.0-35.0 | 2.23              | 729.23            | 0.30      | 96.84     | 81.0-82.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 35.0-36.0 | 2.08              | 731.31            | 0.28      | 97.12     | 82.0-83.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 36.0-37.0 | 1.93              | 733.24            | 0.26      | 97.37     | 83.0-84.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 37.0-38.0 | 1.80              | 735.04            | 0.24      | 97.61     | 84.0-85.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 38.0-39.0 | 1.68              | 736.72            | 0.22      | 97.83     | 85.0-86.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 39.0-40.0 | 1.58              | 738.30            | 0.21      | 98.04     | 86.0-87.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 40.0-41.0 | 1.47              | 739.77            | 0.20      | 98.24     | 87.0-88.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 41.0-42.0 | 1.38              | 741.15            | 0.18      | 98.42     | 88.0-89.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 42.0-43.0 | 1.29              | 742.44            | 0.17      | 98.59     | 89.0-90.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 43.0-44.0 | 1.20              | 743.65            | 0.16      | 98.75     | 90.0-91.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 44.0-45.0 | 1.11              | 744.76            | 0.15      | 98.90     | 91.0-92.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 45.0-46.0 | 1.03              | 745.79            | 0.14      | 99.04     | 92.0-93.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 46.0-47.0 | 0.95              | 746.74            | 0.13      | 99.16     | 93.0-94.0 | 0.00              | 753.03            | 0.00      | 100.00    |

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              | 753.03            | 0.00      | 100.00    | 141.0-142.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 95.0-96.0   | 0.00              | 753.03            | 0.00      | 100.00    | 142.0-143.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 96.0-97.0   | 0.00              | 753.03            | 0.00      | 100.00    | 143.0-144.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 97.0-98.0   | 0.00              | 753.03            | 0.00      | 100.00    | 144.0-145.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 98.0-99.0   | 0.00              | 753.03            | 0.00      | 100.00    | 145.0-146.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 99.0-100.0  | 0.00              | 753.03            | 0.00      | 100.00    | 146.0-147.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 100.0-101.0 | 0.00              | 753.03            | 0.00      | 100.00    | 147.0-148.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 101.0-102.0 | 0.00              | 753.03            | 0.00      | 100.00    | 148.0-149.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 102.0-103.0 | 0.00              | 753.03            | 0.00      | 100.00    | 149.0-150.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 103.0-104.0 | 0.00              | 753.03            | 0.00      | 100.00    | 150.0-151.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 104.0-105.0 | 0.00              | 753.03            | 0.00      | 100.00    | 151.0-152.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 105.0-106.0 | 0.00              | 753.03            | 0.00      | 100.00    | 152.0-153.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 106.0-107.0 | 0.00              | 753.03            | 0.00      | 100.00    | 153.0-154.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 107.0-108.0 | 0.00              | 753.03            | 0.00      | 100.00    | 154.0-155.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 108.0-109.0 | 0.00              | 753.03            | 0.00      | 100.00    | 155.0-156.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 109.0-110.0 | 0.00              | 753.03            | 0.00      | 100.00    | 156.0-157.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 110.0-111.0 | 0.00              | 753.03            | 0.00      | 100.00    | 157.0-158.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 111.0-112.0 | 0.00              | 753.03            | 0.00      | 100.00    | 158.0-159.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 112.0-113.0 | 0.00              | 753.03            | 0.00      | 100.00    | 159.0-160.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 113.0-114.0 | 0.00              | 753.03            | 0.00      | 100.00    | 160.0-161.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 114.0-115.0 | 0.00              | 753.03            | 0.00      | 100.00    | 161.0-162.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 115.0-116.0 | 0.00              | 753.03            | 0.00      | 100.00    | 162.0-163.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 116.0-117.0 | 0.00              | 753.03            | 0.00      | 100.00    | 163.0-164.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 117.0-118.0 | 0.00              | 753.03            | 0.00      | 100.00    | 164.0-165.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 118.0-119.0 | 0.00              | 753.03            | 0.00      | 100.00    | 165.0-166.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 119.0-120.0 | 0.00              | 753.03            | 0.00      | 100.00    | 166.0-167.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 120.0-121.0 | 0.00              | 753.03            | 0.00      | 100.00    | 167.0-168.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 121.0-122.0 | 0.00              | 753.03            | 0.00      | 100.00    | 168.0-169.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 122.0-123.0 | 0.00              | 753.03            | 0.00      | 100.00    | 169.0-170.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 123.0-124.0 | 0.00              | 753.03            | 0.00      | 100.00    | 170.0-171.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 124.0-125.0 | 0.00              | 753.03            | 0.00      | 100.00    | 171.0-172.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 125.0-126.0 | 0.00              | 753.03            | 0.00      | 100.00    | 172.0-173.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 126.0-127.0 | 0.00              | 753.03            | 0.00      | 100.00    | 173.0-174.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 127.0-128.0 | 0.00              | 753.03            | 0.00      | 100.00    | 174.0-175.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 128.0-129.0 | 0.00              | 753.03            | 0.00      | 100.00    | 175.0-176.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 129.0-130.0 | 0.00              | 753.03            | 0.00      | 100.00    | 176.0-177.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 130.0-131.0 | 0.00              | 753.03            | 0.00      | 100.00    | 177.0-178.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 131.0-132.0 | 0.00              | 753.03            | 0.00      | 100.00    | 178.0-179.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 132.0-133.0 | 0.00              | 753.03            | 0.00      | 100.00    | 179.0-180.0 | 0.00              | 753.03            | 0.00      | 100.00    |
| 133.0-134.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 134.0-135.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 135.0-136.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 136.0-137.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 137.0-138.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 138.0-139.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 139.0-140.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |
| 140.0-141.0 | 0.00              | 753.03            | 0.00      | 100.00    |             |                   |                   |           |           |

Rectangle ISO Lighting Intensity Diagram

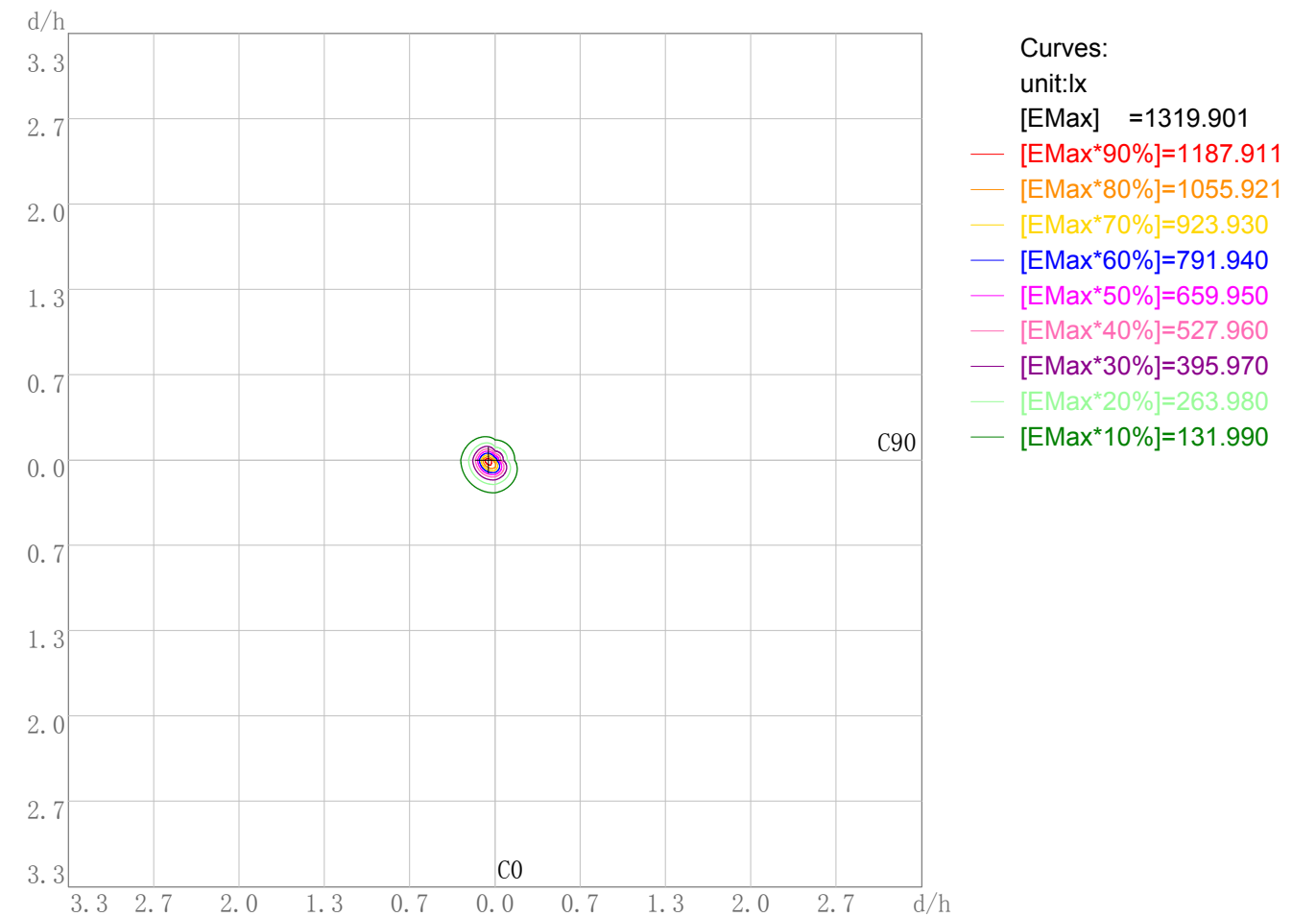
|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | Lum. Catalog:         | Test ID: 01                  |
| Lamp Name:                                      | Lamp Catalog: LED     | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22        |



Plane ISO-Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 1319.90

Working Plane Maximum Illuminance Position(d/h):H-0.1 V-0.0

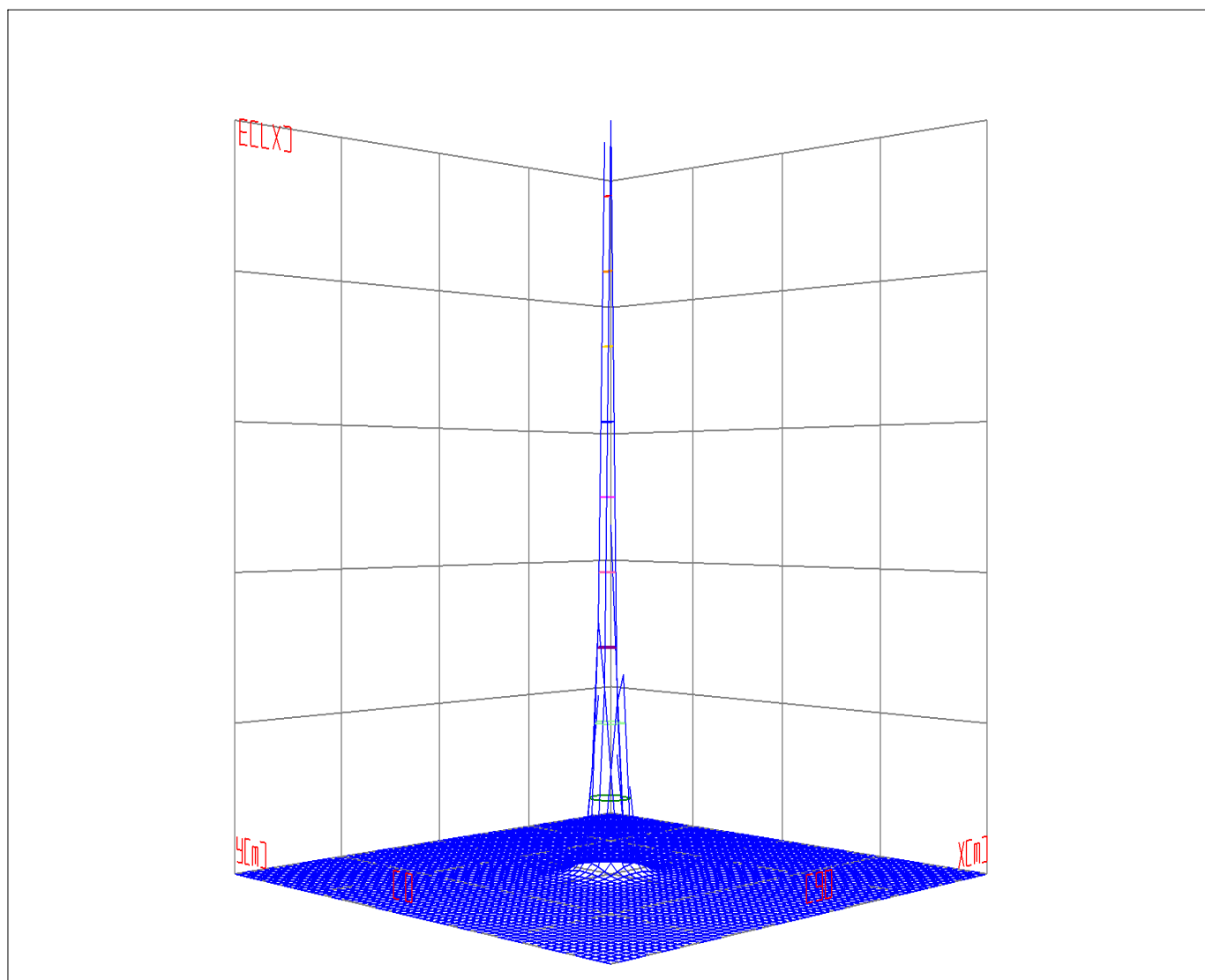
# IES Indoor Report

Photometric Filename:DL52-09-XX-01 2700K RA90 15D.IES

## 3D Plane ISO Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

## 3D Plane Illuminance Modal



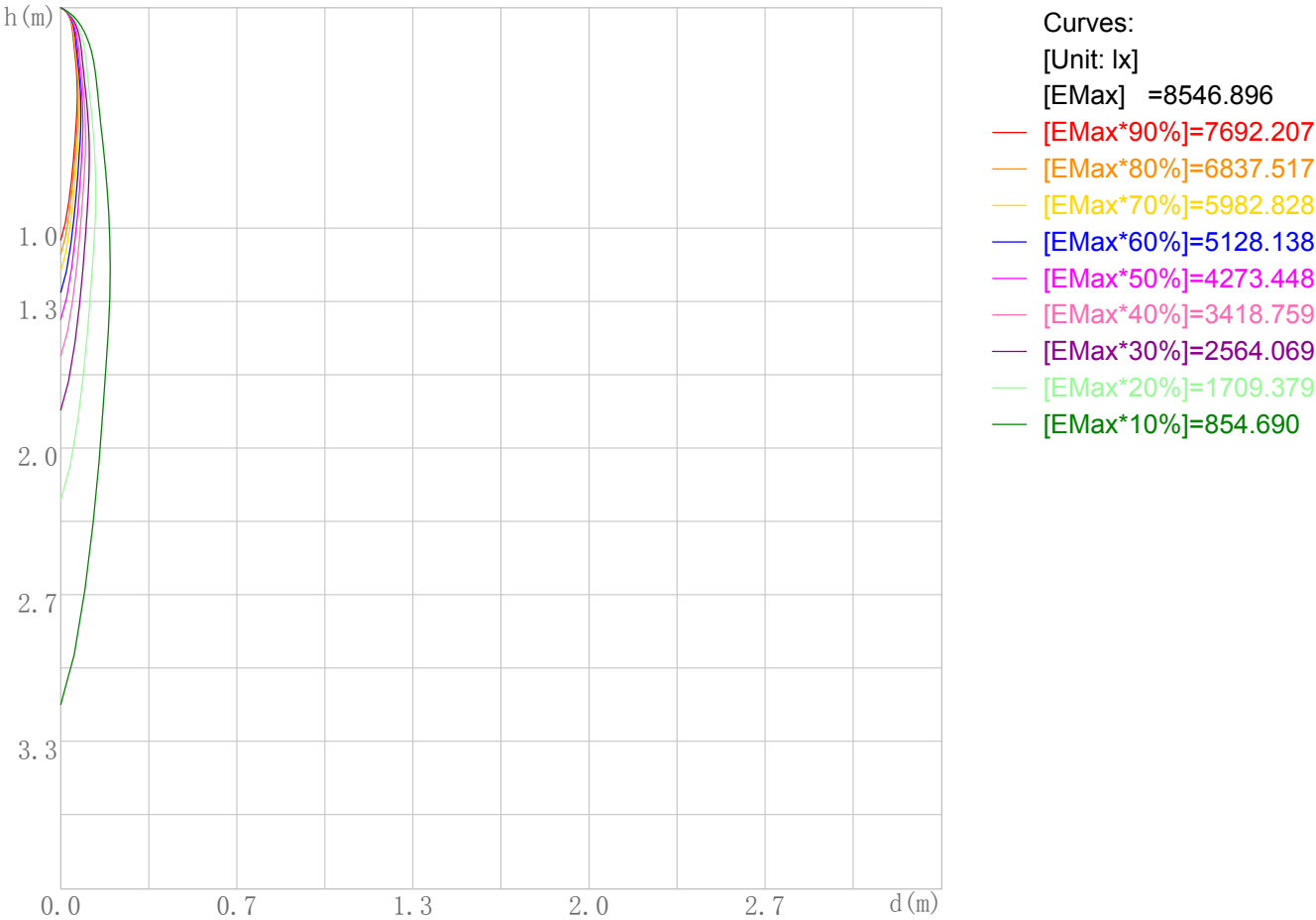
Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —  
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0



Space ISO Illuminance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

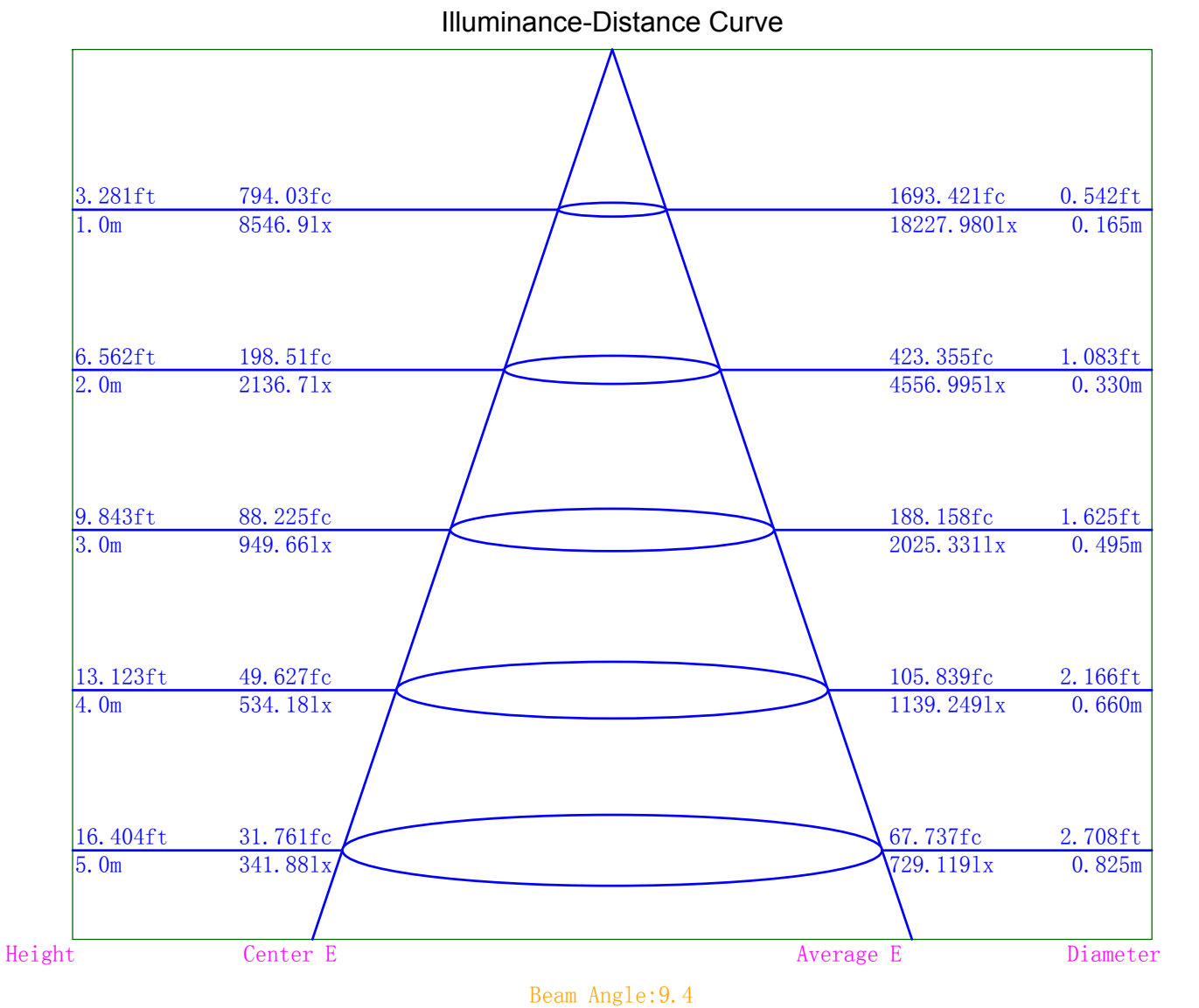
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:8546.90lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:8546.896cd,0deg

Illuminance-Distance Diagram

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |



Indoor Luminance Limiting Curves

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

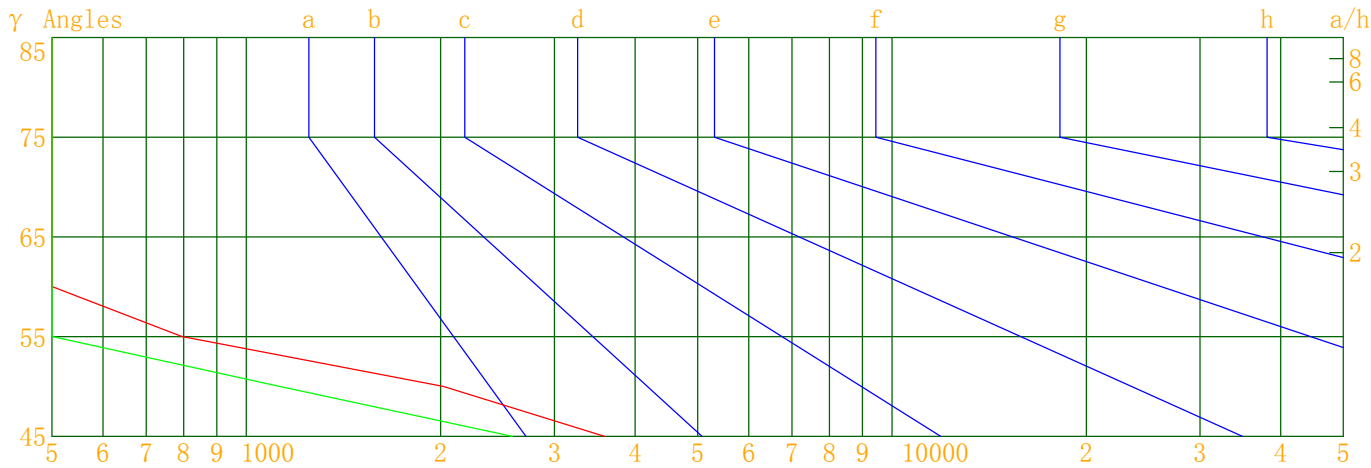
Glare Grade Table

| 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        | 3588 | 2019 | 794 | 0  | 0  | 0  | 0  | 0  | 0  |
| C90       | 2582 | 1126 | 0   | 0  | 0  | 0  | 0  | 0  | 0  |

Luminance Limiting Curve



Luminous Size:

Length(m)=-0.076

Width(m)=-0.076

Height(m)=0.000

Area(m^2)=0.004536

Luminous Type:

Without Luminous Side

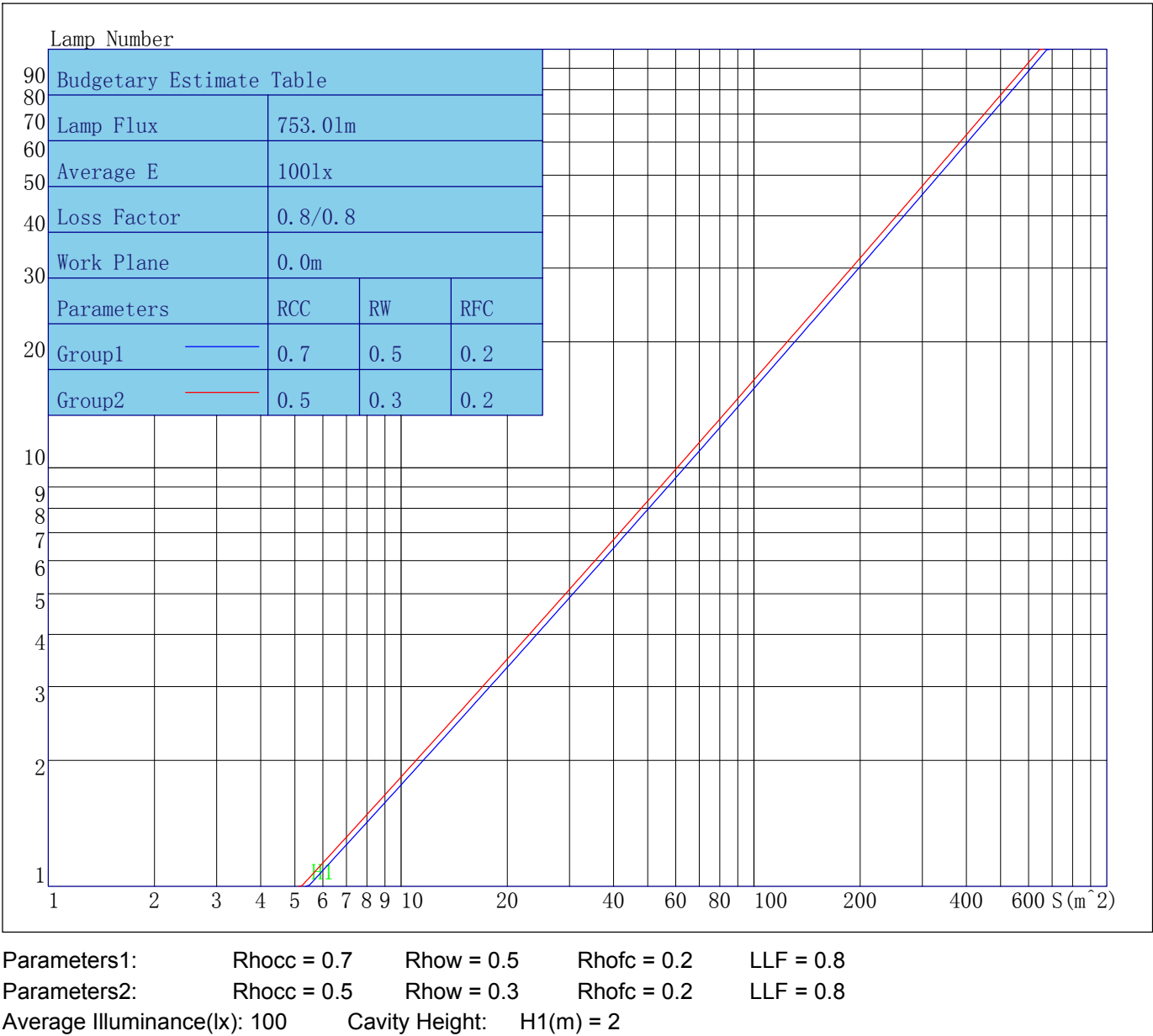
Luminous Curves:

C0-C180 Color: —

C90-C270 Color: —

Indoor Budgetary Estimate Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |



Indoor Coefficient of Utilization Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

| 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   | 116   | 114 | 112 | 110 | 113 | 112 | 110 | 109 | 108 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99  | 98  |
| 2   | 112   | 109 | 107 | 104 | 110 | 108 | 105 | 103 | 104 | 103 | 101 | 102 | 100 | 99  | 99  | 98  | 97  | 95  |
| 3   | 109   | 105 | 102 | 100 | 108 | 104 | 101 | 99  | 102 | 99  | 97  | 99  | 98  | 96  | 97  | 96  | 95  | 93  |
| 4   | 107   | 102 | 99  | 96  | 105 | 101 | 98  | 96  | 99  | 97  | 94  | 97  | 95  | 93  | 96  | 94  | 92  | 91  |
| 5   | 104   | 99  | 96  | 93  | 103 | 98  | 95  | 93  | 97  | 94  | 92  | 95  | 93  | 91  | 94  | 92  | 91  | 90  |
| 6   | 102   | 97  | 93  | 91  | 101 | 96  | 93  | 90  | 95  | 92  | 90  | 94  | 91  | 89  | 93  | 90  | 89  | 88  |
| 7   | 100   | 94  | 91  | 88  | 99  | 94  | 91  | 88  | 93  | 90  | 88  | 92  | 89  | 87  | 91  | 89  | 87  | 86  |
| 8   | 98  | 92  | 89  | 87  | 97  | 92  | 89  | 86  | 91  | 88  | 86  | 90  | 88  | 86  | 90  | 87  | 86  | 85  |
| 9   | 96  | 91  | 87  | 85  | 95  | 90  | 87  | 85  | 89  | 87  | 85  | 89  | 86  | 84  | 88  | 86  | 84  | 83  |
| 10  | 94  | 89  | 86  | 83  | 94  | 89  | 85  | 83  | 88  | 85  | 83  | 87  | 85  | 83  | 87  | 84  | 83  | 82  |

Unified Glare Rating Table

|   |                       |                              |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-XX-01 2700K RA90 15D         | 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: 2021/10/22        |

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                                      | 6.0             | 6.9  | 6.3  | 7.2  | 7.6  | 4.7           | 5.6  | 5.0  | 6.0  | 6.3  |
|   | 5.7             | 6.6  | 6.1  | 6.9  | 7.3  | 4.5           | 5.3  | 4.9  | 5.7  | 6.0  |
|   | 5.6             | 6.4  | 6.0  | 6.8  | 7.2  | 4.4           | 5.2  | 4.8  | 5.5  | 5.9  |
|   | 5.5             | 6.3  | 5.9  | 6.6  | 7.0  | 4.2           | 5.0  | 4.7  | 5.4  | 5.7  |
|   | 5.5             | 6.2  | 5.9  | 6.5  | 7.0  | 4.2           | 4.9  | 4.6  | 5.3  | 5.7  |
|   | 5.4             | 6.1  | 5.8  | 6.4  | 6.9  | 4.1           | 4.8  | 4.6  | 5.2  | 5.6  |
| X=4H    Y=2H                                      | 5.7             | 6.5  | 6.1  | 6.8  | 7.2  | 4.4           | 5.2  | 4.8  | 5.5  | 5.9  |
|   | 5.5             | 6.1  | 5.9  | 6.5  | 6.9  | 4.2           | 4.8  | 4.6  | 5.2  | 5.6  |
|   | 5.3             | 5.9  | 5.8  | 6.4  | 6.8  | 4.0           | 4.6  | 4.5  | 5.1  | 5.5  |
|   | 5.2             | 5.7  | 5.7  | 6.2  | 6.7  | 3.9           | 4.4  | 4.4  | 4.9  | 5.4  |
|   | 5.1             | 5.6  | 5.6  | 6.1  | 6.6  | 3.8           | 4.3  | 4.3  | 4.8  | 5.3  |
|   | 5.1             | 5.5  | 5.6  | 6.0  | 6.5  | 3.8           | 4.2  | 4.3  | 4.7  | 5.2  |
| X=8H    Y=4H                                      | 5.1             | 5.6  | 5.6  | 6.1  | 6.6  | 3.8           | 4.3  | 4.3  | 4.8  | 5.3  |
|   | 5.0             | 5.4  | 5.5  | 5.9  | 6.4  | 3.7           | 4.1  | 4.2  | 4.6  | 5.1  |
|   | 4.9             | 5.3  | 5.5  | 5.8  | 6.3  | 3.6           | 4.0  | 4.2  | 4.5  | 5.0  |
|   | 4.9             | 5.2  | 5.4  | 5.7  | 6.3  | 3.6           | 3.9  | 4.1  | 4.4  | 5.0  |
| X=12H    Y=4H                                     | 5.1             | 5.5  | 5.6  | 6.0  | 6.5  | 3.8           | 4.2  | 4.3  | 4.7  | 5.2  |
|   | 4.9             | 5.3  | 5.5  | 5.8  | 6.3  | 3.6           | 4.0  | 4.2  | 4.5  | 5.0  |
|   | 4.9             | 5.2  | 5.4  | 5.7  | 6.3  | 3.6           | 3.9  | 4.1  | 4.4  | 5.0  |
| Variations with the objerver position at spacings |                 |      |      |      |      |               |      |      |      |      |
| S=1.0H  | 0.0/0.0         |      |      |      |      | 0.0/0.0       |      |      |      |      |
| S=1.5H  | 0.0/0.0         |      |      |      |      | 0.0/0.0       |      |      |      |      |
| S=2.0H  | 13.0/0.0        |      |      |      |      | 0.0/0.0       |      |      |      |      |
| Reduced UGR Table:                                |                 |      |      |      |      |               |      |      |      |      |
| Nordic Standard Table:                            | BK0             |      |      |      |      | BK0           |      |      |      |      |
| Correction Value                                  | 0.0             |      |      |      |      | 0.0           |      |      |      |      |

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

IES Indoor Report

Photometric Filename:DL52-09-XX-01 2700K RA90 15D.IES

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Candela Tabulation

| V/H    | C0.0   | C90.0  | C180.0 | C270.0  |
|--------|--------|--------|--------|---------|
| γ 0.0  | 8546.9 | 8546.9 | 8546.9 | 8546.9  |
| γ 1.0  | 7370.0 | 6710.7 | 9549.6 | 9957.7  |
| γ 2.0  | 5957.9 | 5219.4 | 9938.4 | 11283.8 |
| γ 3.0  | 4693.3 | 4083.4 | 9720.5 | 11928.1 |
| γ 4.0  | 3670.2 | 3228.9 | 8969.7 | 11505.3 |
| γ 5.0  | 2881.3 | 2588.6 | 7836.1 | 10387.4 |
| γ 6.0  | 2306.3 | 2104.5 | 6491.7 | 8999.2  |
| γ 7.0  | 1882.4 | 1725.5 | 5241.3 | 7423.2  |
| γ 8.0  | 1533.4 | 1412.9 | 4252.2 | 5863.1  |
| γ 9.0  | 1240.0 | 1146.3 | 3470.7 | 4601.5  |
| γ 10.0 | 992.8  | 921.5  | 2835.4 | 3652.7  |
| γ 11.0 | 791.2  | 733.2  | 2350.2 | 2930.5  |
| γ 12.0 | 626.8  | 578.5  | 1964.0 | 2382.1  |
| γ 13.0 | 497.0  | 460.6  | 1645.5 | 1959.7  |
| γ 14.0 | 397.7  | 369.1  | 1369.5 | 1618.2  |
| γ 15.0 | 323.2  | 299.4  | 1130.1 | 1328.5  |
| γ 16.0 | 268.0  | 249.0  | 918.0  | 1079.1  |
| γ 17.0 | 227.4  | 210.9  | 733.9  | 864.3   |
| γ 18.0 | 196.0  | 181.7  | 581.6  | 684.2   |
| γ 19.0 | 171.1  | 158.4  | 460.4  | 540.6   |
| γ 20.0 | 150.9  | 139.2  | 365.7  | 428.7   |
| γ 21.0 | 133.8  | 122.9  | 292.0  | 342.4   |
| γ 22.0 | 119.5  | 109.3  | 236.6  | 276.9   |
| γ 23.0 | 107.1  | 97.5   | 195.1  | 228.0   |
| γ 24.0 | 96.5   | 87.3   | 162.8  | 190.6   |
| γ 25.0 | 87.3   | 78.7   | 137.0  | 160.7   |
| γ 26.0 | 79.0   | 70.9   | 115.7  | 136.1   |
| γ 27.0 | 71.8   | 63.9   | 98.0   | 115.9   |
| γ 28.0 | 65.2   | 57.9   | 83.6   | 99.0    |
| γ 29.0 | 59.4   | 52.4   | 71.9   | 85.0    |
| γ 30.0 | 54.1   | 47.5   | 62.1   | 73.2    |
| γ 31.0 | 49.2   | 42.8   | 54.4   | 63.8    |
| γ 32.0 | 44.5   | 38.6   | 48.1   | 56.0    |
| γ 33.0 | 40.4   | 34.8   | 42.8   | 49.7    |
| γ 34.0 | 36.6   | 31.3   | 38.5   | 44.6    |
| γ 35.0 | 33.1   | 28.2   | 34.8   | 40.5    |
| γ 36.0 | 30.1   | 25.3   | 31.8   | 36.9    |
| γ 37.0 | 27.2   | 22.7   | 29.4   | 33.6    |
| γ 38.0 | 24.5   | 20.3   | 27.1   | 31.0    |
| γ 39.0 | 22.2   | 18.0   | 25.3   | 28.9    |
| γ 40.0 | 19.9   | 16.0   | 23.5   | 26.9    |
| γ 41.0 | 17.9   | 14.1   | 22.0   | 25.2    |
| γ 42.0 | 16.1   | 12.5   | 20.5   | 23.5    |
| γ 43.0 | 14.5   | 11.0   | 19.2   | 22.0    |
| γ 44.0 | 12.8   | 9.6    | 17.8   | 20.5    |
| γ 45.0 | 11.5   | 8.3    | 16.3   | 19.1    |
| γ 46.0 | 10.1   | 7.1    | 15.1   | 17.8    |

Candela Tabulation - (Cont.)

| V/H    | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|------|-------|--------|--------|
| γ 47.0 | 9.0  | 6.1   | 13.8   | 16.5   |
| γ 48.0 | 7.9  | 5.1   | 12.6   | 15.1   |
| γ 49.0 | 6.8  | 4.1   | 11.4   | 13.8   |
| γ 50.0 | 5.9  | 3.3   | 10.3   | 12.5   |
| γ 51.0 | 5.0  | 2.5   | 9.2    | 11.4   |
| γ 52.0 | 4.1  | 1.8   | 8.3    | 10.3   |
| γ 53.0 | 3.4  | 1.1   | 7.3    | 9.2    |
| γ 54.0 | 2.7  | 0.5   | 6.3    | 8.3    |
| γ 55.0 | 2.1  | 0.0   | 5.4    | 7.4    |
| γ 56.0 | 1.4  | 0.0   | 4.7    | 6.4    |
| γ 57.0 | 0.8  | 0.0   | 4.0    | 5.7    |
| γ 58.0 | 0.1  | 0.0   | 3.2    | 4.9    |
| γ 59.0 | 0.0  | 0.0   | 2.5    | 4.2    |
| γ 60.0 | 0.0  | 0.0   | 1.9    | 3.5    |
| γ 61.0 | 0.0  | 0.0   | 1.3    | 2.9    |
| γ 62.0 | 0.0  | 0.0   | 0.7    | 2.2    |
| γ 63.0 | 0.0  | 0.0   | 0.1    | 1.7    |
| γ 64.0 | 0.0  | 0.0   | 0.0    | 1.1    |
| γ 65.0 | 0.0  | 0.0   | 0.0    | 0.5    |
| γ 66.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 67.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 68.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 69.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 70.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 71.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 72.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 73.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 74.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 75.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 76.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 77.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 78.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 79.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 80.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 81.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 82.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 83.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 84.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 85.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 86.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 87.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 88.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 89.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 90.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 91.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 92.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 93.0 | 0.0  | 0.0   | 0.0    | 0.0    |

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Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 95.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 96.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 97.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 98.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 99.0  | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 100.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 101.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 102.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 103.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 104.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 105.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 106.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 107.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 108.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 109.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 110.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 111.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 112.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 113.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 114.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 115.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 116.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 117.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 118.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 119.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 120.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 121.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 122.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 123.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 124.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 125.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 126.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 127.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 128.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 129.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 130.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 131.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 132.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 133.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 134.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 135.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 136.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 137.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 138.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 139.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 140.0 | 0.0  | 0.0   | 0.0    | 0.0    |

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Candela Tabulation - (Cont.)

| V/H     | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 142.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 143.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 144.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 145.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 146.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 147.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 148.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 149.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 150.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 151.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 152.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 153.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 154.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 155.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 156.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 157.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 158.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 159.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 160.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 161.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 162.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 163.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 164.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 165.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 166.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 167.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 168.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 169.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 170.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 171.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 172.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 173.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 174.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 175.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 176.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 177.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 178.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 179.0 | 0.0  | 0.0   | 0.0    | 0.0    |
| γ 180.0 | 0.0  | 0.0   | 0.0    | 0.0    |