

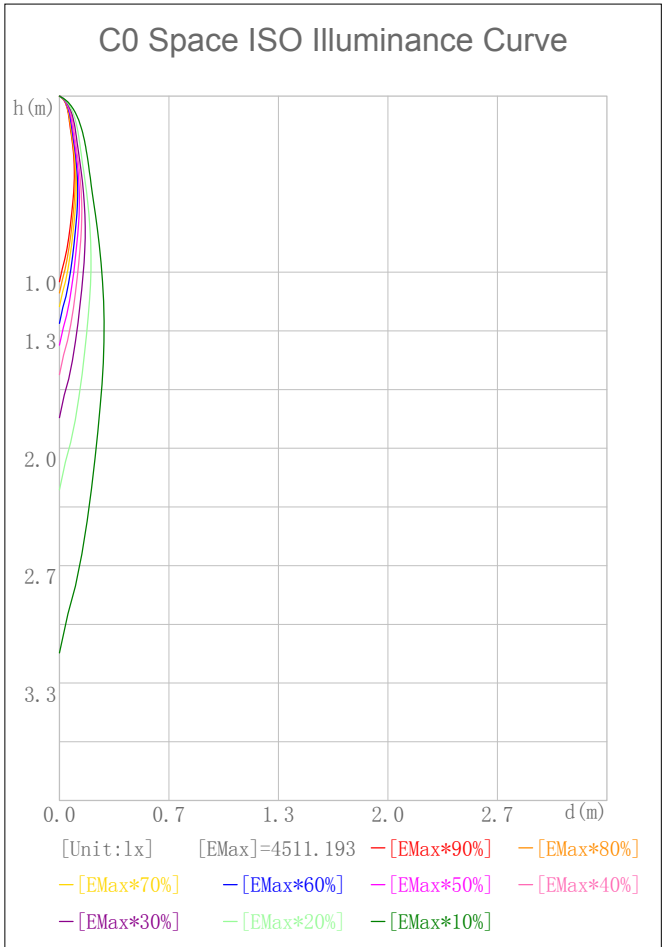
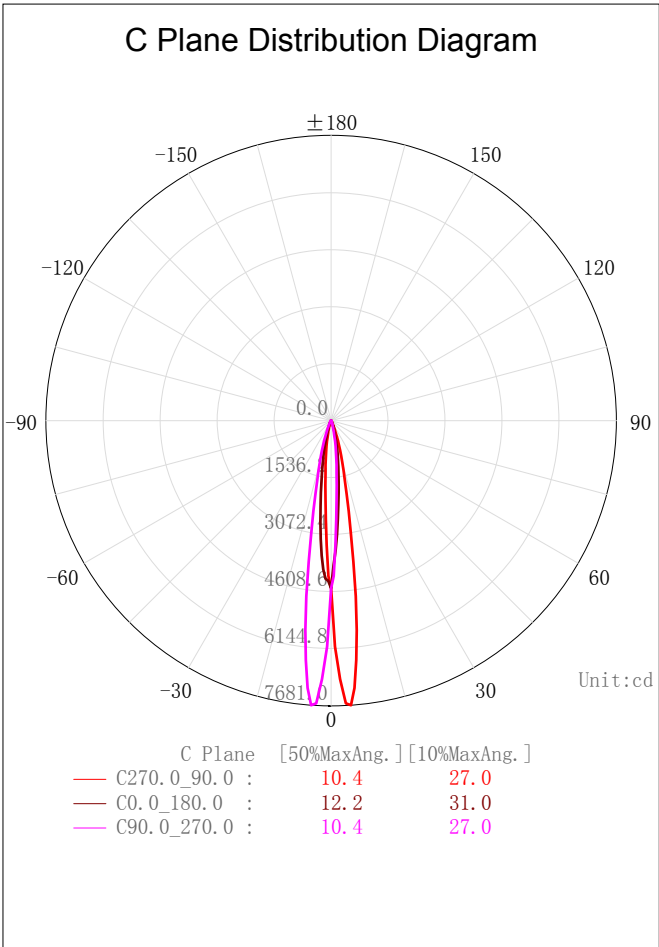
Indoor Luminaire Photometric Data

Description Information

| | | | |
|--|-------------------------|----------------------|-----------------------|
| Luminary Name:DL52-09-DW-01 RA95 2000K-3000K 15D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/11/08 |
| 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 |

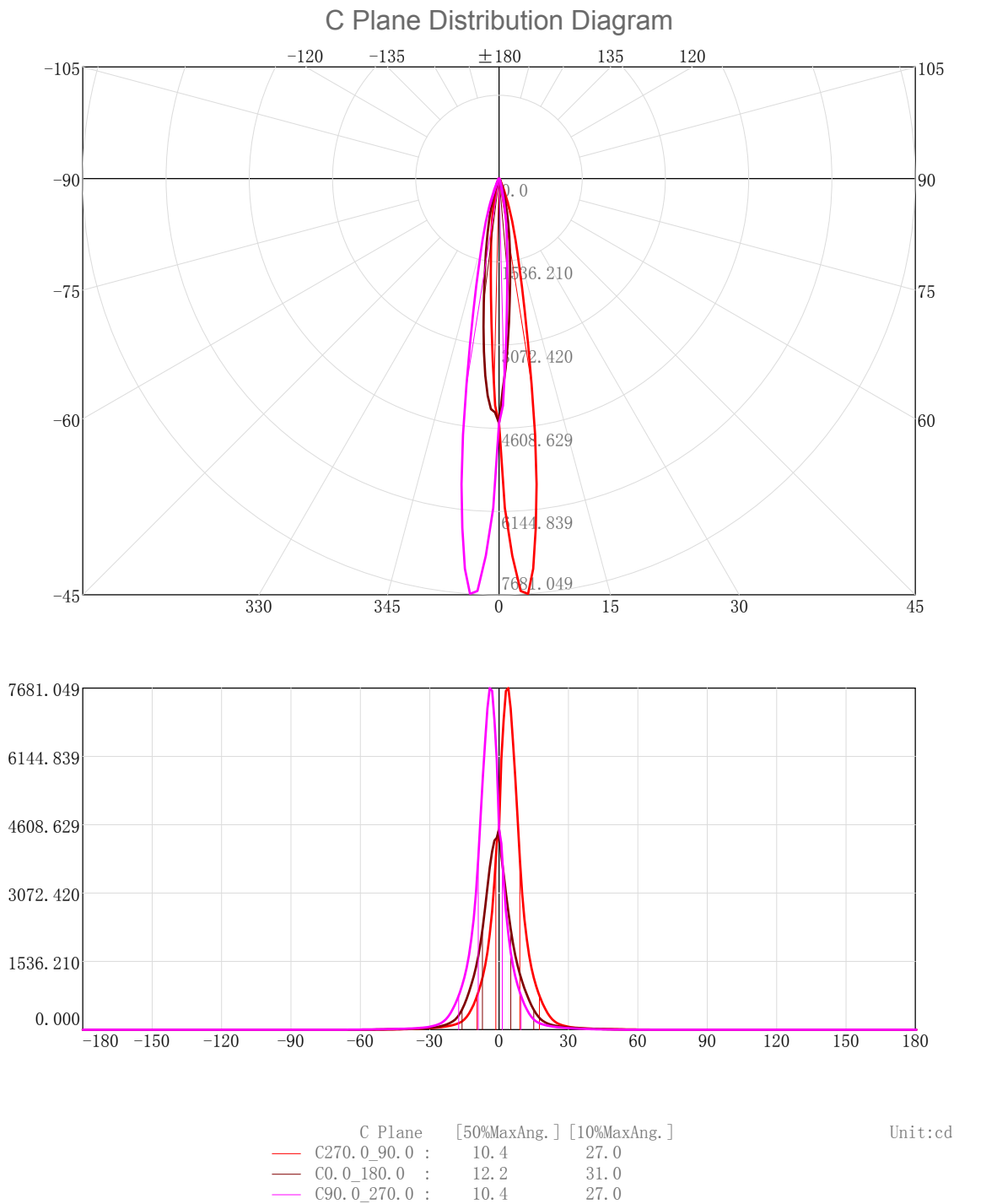
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|----------------------------------|--|--|
| Rated Flux(lm): 532.850 | Luminary Flux(lm): 532.849 | Field Angle(10%Imax): 27.0(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 532.849lm 100.00% | |
| Rated Voltage(V): | Luminary EER(lm/W): 62.460 | Up Lumens&Percent: 0.000lm 0.00% | |
| Tested Power(W): 8.531 | Max. Candela(cd): 7681.049 | S/MH: C0_a180=0.210 C90_270=0.264 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=270.0 γ=4.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):241.0, 0.039, 0.892 | Beam Angle(50%Imax): 10.4(°) | ErP Φ use(90°): 470.947lm | |
| Lamp Size (W*L*H):0.076m*-0.076m*0.000m | Left=-1.4°, Right=9.0° | IRF(%): 3153.061 | |



2D Plane Light Intensity Distribution Curve

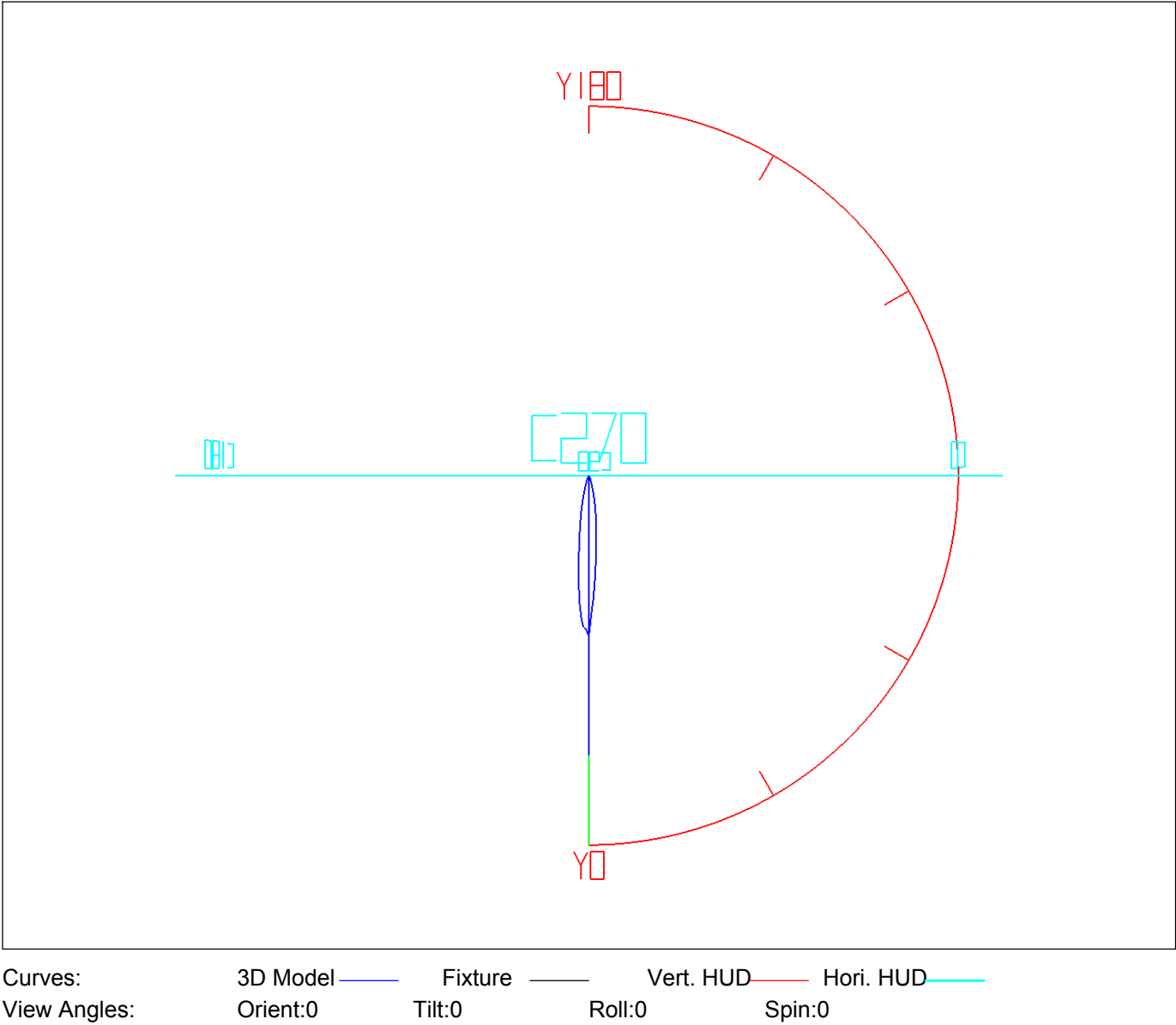
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/08 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 15D | 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: 2021/11/08 |

3D Light Intensity Distribution Modal



Zonal Flux Tabulation

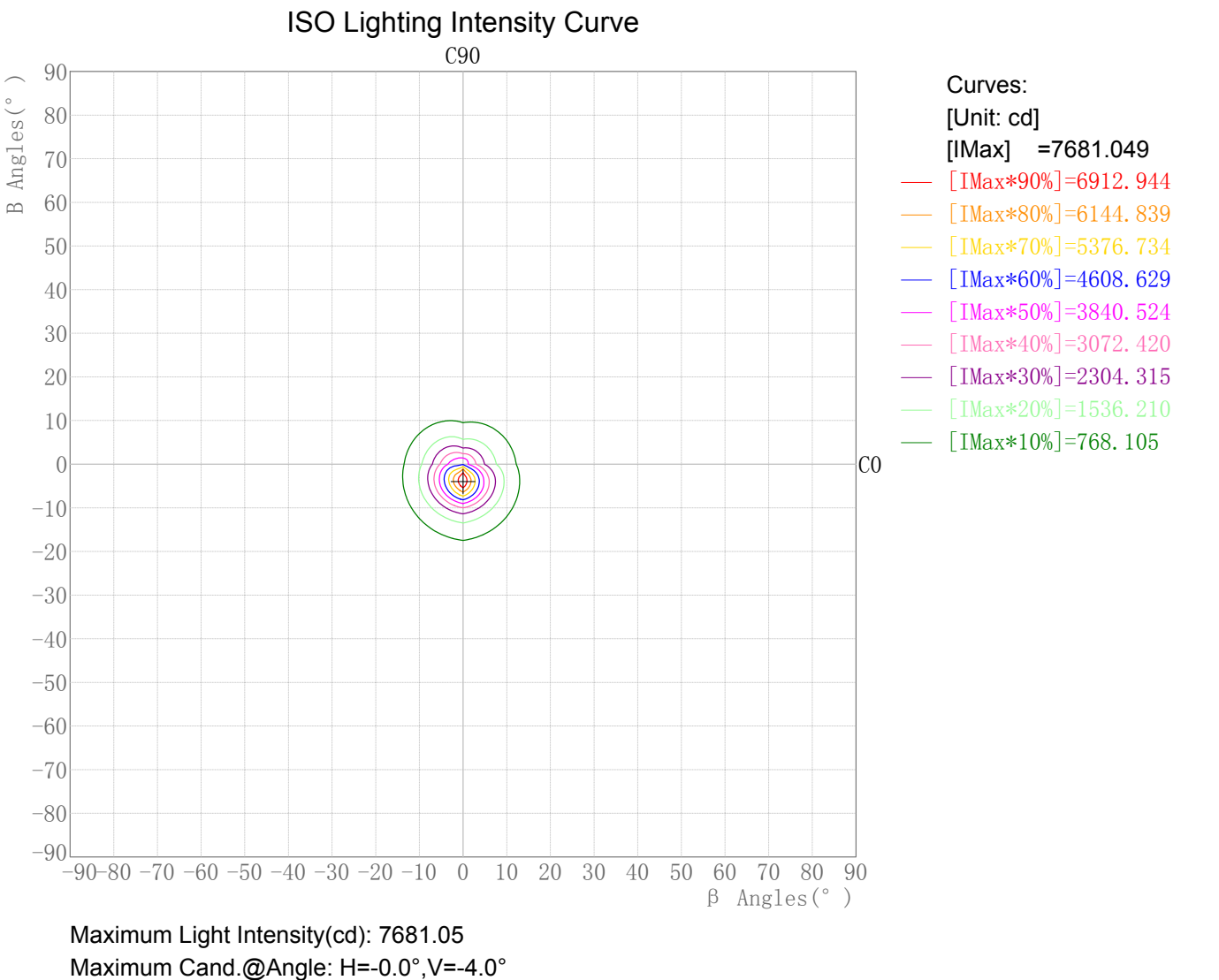
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 4.37 | 4.37 | 0.82 | 0.82 | 47.0-48.0 | 0.78 | 527.21 | 0.15 | 98.94 |
| 1.0-2.0 | 13.11 | 17.48 | 2.46 | 3.28 | 48.0-49.0 | 0.71 | 527.93 | 0.13 | 99.08 |
| 2.0-3.0 | 21.18 | 38.67 | 3.98 | 7.26 | 49.0-50.0 | 0.65 | 528.58 | 0.12 | 99.20 |
| 3.0-4.0 | 28.02 | 66.69 | 5.26 | 12.52 | 50.0-51.0 | 0.60 | 529.18 | 0.11 | 99.31 |
| 4.0-5.0 | 32.86 | 99.55 | 6.17 | 18.68 | 51.0-52.0 | 0.54 | 529.72 | 0.10 | 99.41 |
| 5.0-6.0 | 35.54 | 135.09 | 6.67 | 25.35 | 52.0-53.0 | 0.49 | 530.21 | 0.09 | 99.50 |
| 6.0-7.0 | 36.44 | 171.54 | 6.84 | 32.19 | 53.0-54.0 | 0.43 | 530.64 | 0.08 | 99.58 |
| 7.0-8.0 | 35.88 | 207.42 | 6.73 | 38.93 | 54.0-55.0 | 0.38 | 531.02 | 0.07 | 99.66 |
| 8.0-9.0 | 33.97 | 241.38 | 6.38 | 45.30 | 55.0-56.0 | 0.33 | 531.35 | 0.06 | 99.72 |
| 9.0-10.0 | 31.31 | 272.69 | 5.88 | 51.18 | 56.0-57.0 | 0.29 | 531.64 | 0.05 | 99.77 |
| 10.0-11.0 | 28.53 | 301.23 | 5.36 | 56.53 | 57.0-58.0 | 0.25 | 531.90 | 0.05 | 99.82 |
| 11.0-12.0 | 25.82 | 327.05 | 4.85 | 61.38 | 58.0-59.0 | 0.22 | 532.11 | 0.04 | 99.86 |
| 12.0-13.0 | 23.18 | 350.22 | 4.35 | 65.73 | 59.0-60.0 | 0.18 | 532.29 | 0.03 | 99.90 |
| 13.0-14.0 | 20.66 | 370.88 | 3.88 | 69.60 | 60.0-61.0 | 0.15 | 532.44 | 0.03 | 99.92 |
| 14.0-15.0 | 18.32 | 389.19 | 3.44 | 73.04 | 61.0-62.0 | 0.12 | 532.56 | 0.02 | 99.95 |
| 15.0-16.0 | 16.15 | 405.35 | 3.03 | 76.07 | 62.0-63.0 | 0.08 | 532.64 | 0.02 | 99.96 |
| 16.0-17.0 | 14.17 | 419.51 | 2.66 | 78.73 | 63.0-64.0 | 0.06 | 532.71 | 0.01 | 99.97 |
| 17.0-18.0 | 12.36 | 431.88 | 2.32 | 81.05 | 64.0-65.0 | 0.05 | 532.76 | 0.01 | 99.98 |
| 18.0-19.0 | 10.75 | 442.62 | 2.02 | 83.07 | 65.0-66.0 | 0.04 | 532.80 | 0.01 | 99.99 |
| 19.0-20.0 | 9.31 | 451.94 | 1.75 | 84.81 | 66.0-67.0 | 0.03 | 532.83 | 0.01 | 100.00 |
| 20.0-21.0 | 8.06 | 460.00 | 1.51 | 86.33 | 67.0-68.0 | 0.02 | 532.84 | 0.00 | 100.00 |
| 21.0-22.0 | 6.99 | 466.99 | 1.31 | 87.64 | 68.0-69.0 | 0.01 | 532.85 | 0.00 | 100.00 |
| 22.0-23.0 | 6.08 | 473.07 | 1.14 | 88.78 | 69.0-70.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 23.0-24.0 | 5.31 | 478.38 | 1.00 | 89.78 | 70.0-71.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 24.0-25.0 | 4.68 | 483.06 | 0.88 | 90.66 | 71.0-72.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 25.0-26.0 | 4.17 | 487.24 | 0.78 | 91.44 | 72.0-73.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 26.0-27.0 | 3.75 | 490.99 | 0.70 | 92.14 | 73.0-74.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 27.0-28.0 | 3.39 | 494.38 | 0.64 | 92.78 | 74.0-75.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 28.0-29.0 | 3.08 | 497.46 | 0.58 | 93.36 | 75.0-76.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 29.0-30.0 | 2.81 | 500.28 | 0.53 | 93.89 | 76.0-77.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 30.0-31.0 | 2.58 | 502.86 | 0.48 | 94.37 | 77.0-78.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 31.0-32.0 | 2.37 | 505.23 | 0.44 | 94.82 | 78.0-79.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 32.0-33.0 | 2.19 | 507.42 | 0.41 | 95.23 | 79.0-80.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 33.0-34.0 | 2.03 | 509.44 | 0.38 | 95.61 | 80.0-81.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 34.0-35.0 | 1.89 | 511.33 | 0.35 | 95.96 | 81.0-82.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 35.0-36.0 | 1.76 | 513.09 | 0.33 | 96.29 | 82.0-83.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 36.0-37.0 | 1.65 | 514.74 | 0.31 | 96.60 | 83.0-84.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 37.0-38.0 | 1.54 | 516.28 | 0.29 | 96.89 | 84.0-85.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 38.0-39.0 | 1.44 | 517.72 | 0.27 | 97.16 | 85.0-86.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 39.0-40.0 | 1.36 | 519.08 | 0.25 | 97.42 | 86.0-87.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 40.0-41.0 | 1.27 | 520.35 | 0.24 | 97.65 | 87.0-88.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 41.0-42.0 | 1.20 | 521.54 | 0.22 | 97.88 | 88.0-89.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 42.0-43.0 | 1.12 | 522.66 | 0.21 | 98.09 | 89.0-90.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 43.0-44.0 | 1.05 | 523.71 | 0.20 | 98.28 | 90.0-91.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 44.0-45.0 | 0.98 | 524.69 | 0.18 | 98.47 | 91.0-92.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 45.0-46.0 | 0.91 | 525.59 | 0.17 | 98.64 | 92.0-93.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 46.0-47.0 | 0.84 | 526.44 | 0.16 | 98.80 | 93.0-94.0 | 0.00 | 532.85 | 0.00 | 100.00 |

Zonal Flux Tabulation - (Cont.)

| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-------------|-------------------|-------------------|-----------|-----------|-------------|-------------------|-------------------|-----------|-----------|
| 94.0-95.0 | 0.00 | 532.85 | 0.00 | 100.00 | 141.0-142.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 95.0-96.0 | 0.00 | 532.85 | 0.00 | 100.00 | 142.0-143.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 96.0-97.0 | 0.00 | 532.85 | 0.00 | 100.00 | 143.0-144.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 97.0-98.0 | 0.00 | 532.85 | 0.00 | 100.00 | 144.0-145.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 98.0-99.0 | 0.00 | 532.85 | 0.00 | 100.00 | 145.0-146.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 99.0-100.0 | 0.00 | 532.85 | 0.00 | 100.00 | 146.0-147.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 100.0-101.0 | 0.00 | 532.85 | 0.00 | 100.00 | 147.0-148.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 101.0-102.0 | 0.00 | 532.85 | 0.00 | 100.00 | 148.0-149.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 102.0-103.0 | 0.00 | 532.85 | 0.00 | 100.00 | 149.0-150.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 103.0-104.0 | 0.00 | 532.85 | 0.00 | 100.00 | 150.0-151.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 104.0-105.0 | 0.00 | 532.85 | 0.00 | 100.00 | 151.0-152.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 105.0-106.0 | 0.00 | 532.85 | 0.00 | 100.00 | 152.0-153.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 106.0-107.0 | 0.00 | 532.85 | 0.00 | 100.00 | 153.0-154.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 107.0-108.0 | 0.00 | 532.85 | 0.00 | 100.00 | 154.0-155.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 108.0-109.0 | 0.00 | 532.85 | 0.00 | 100.00 | 155.0-156.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 109.0-110.0 | 0.00 | 532.85 | 0.00 | 100.00 | 156.0-157.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 110.0-111.0 | 0.00 | 532.85 | 0.00 | 100.00 | 157.0-158.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 111.0-112.0 | 0.00 | 532.85 | 0.00 | 100.00 | 158.0-159.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 112.0-113.0 | 0.00 | 532.85 | 0.00 | 100.00 | 159.0-160.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 113.0-114.0 | 0.00 | 532.85 | 0.00 | 100.00 | 160.0-161.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 114.0-115.0 | 0.00 | 532.85 | 0.00 | 100.00 | 161.0-162.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 115.0-116.0 | 0.00 | 532.85 | 0.00 | 100.00 | 162.0-163.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 116.0-117.0 | 0.00 | 532.85 | 0.00 | 100.00 | 163.0-164.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 117.0-118.0 | 0.00 | 532.85 | 0.00 | 100.00 | 164.0-165.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 118.0-119.0 | 0.00 | 532.85 | 0.00 | 100.00 | 165.0-166.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 119.0-120.0 | 0.00 | 532.85 | 0.00 | 100.00 | 166.0-167.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 120.0-121.0 | 0.00 | 532.85 | 0.00 | 100.00 | 167.0-168.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 121.0-122.0 | 0.00 | 532.85 | 0.00 | 100.00 | 168.0-169.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 122.0-123.0 | 0.00 | 532.85 | 0.00 | 100.00 | 169.0-170.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 123.0-124.0 | 0.00 | 532.85 | 0.00 | 100.00 | 170.0-171.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 124.0-125.0 | 0.00 | 532.85 | 0.00 | 100.00 | 171.0-172.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 125.0-126.0 | 0.00 | 532.85 | 0.00 | 100.00 | 172.0-173.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 126.0-127.0 | 0.00 | 532.85 | 0.00 | 100.00 | 173.0-174.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 127.0-128.0 | 0.00 | 532.85 | 0.00 | 100.00 | 174.0-175.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 128.0-129.0 | 0.00 | 532.85 | 0.00 | 100.00 | 175.0-176.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 532.85 | 0.00 | 100.00 | 176.0-177.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 532.85 | 0.00 | 100.00 | 177.0-178.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 532.85 | 0.00 | 100.00 | 178.0-179.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 532.85 | 0.00 | 100.00 | 179.0-180.0 | 0.00 | 532.85 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 134.0-135.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 135.0-136.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 136.0-137.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 137.0-138.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 138.0-139.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 139.0-140.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |
| 140.0-141.0 | 0.00 | 532.85 | 0.00 | 100.00 | | | | | |

Rectangle ISO Lighting Intensity Diagram

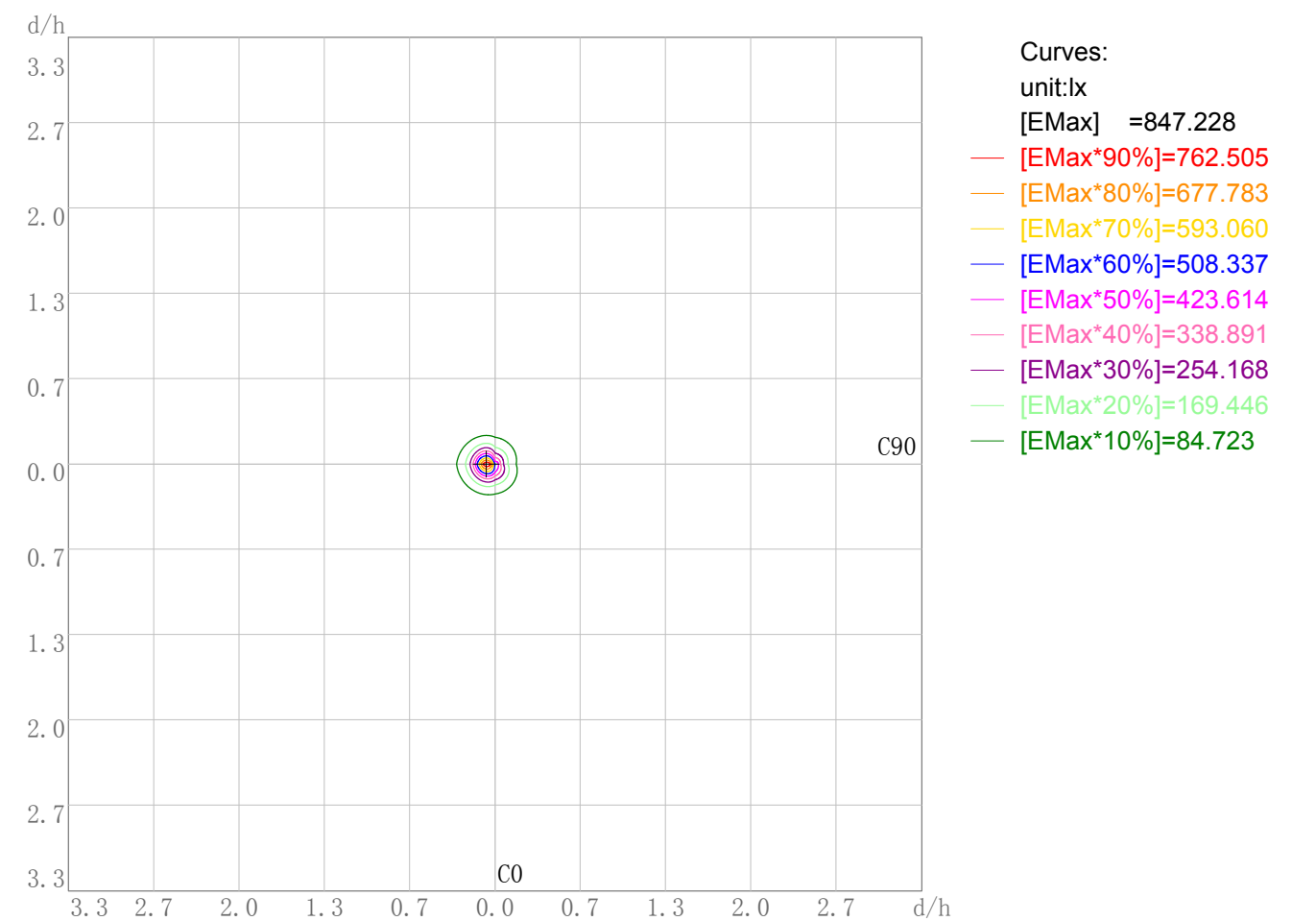
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/08 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 847.23
Working Plane Maximum Illuminance Position(d/h):H-0.1 V-0.0

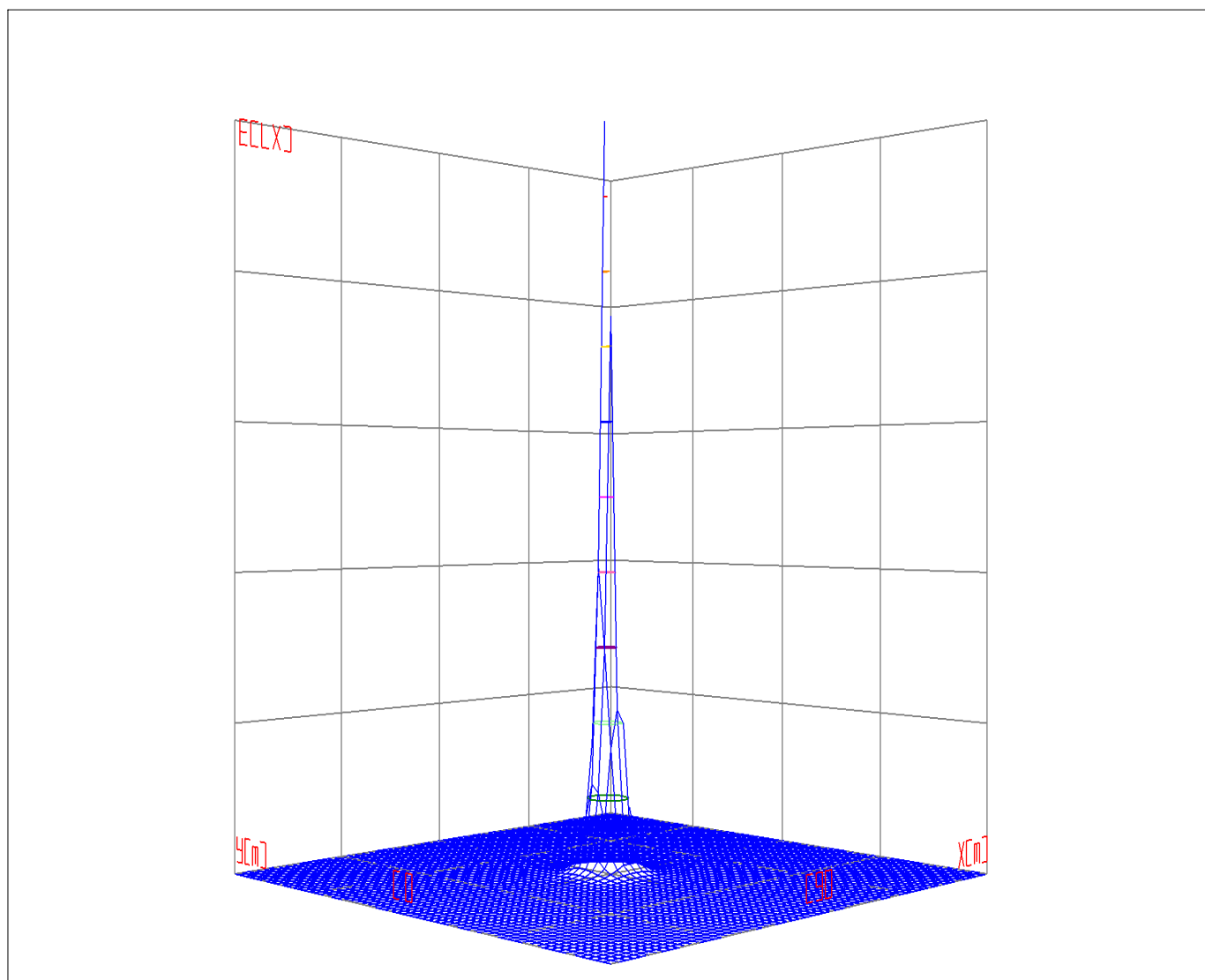
IES Indoor Report

Photometric Filename:DL52-09-DW-01 RA95 2000K-3000K 15D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |

3D Plane Illuminance Modal

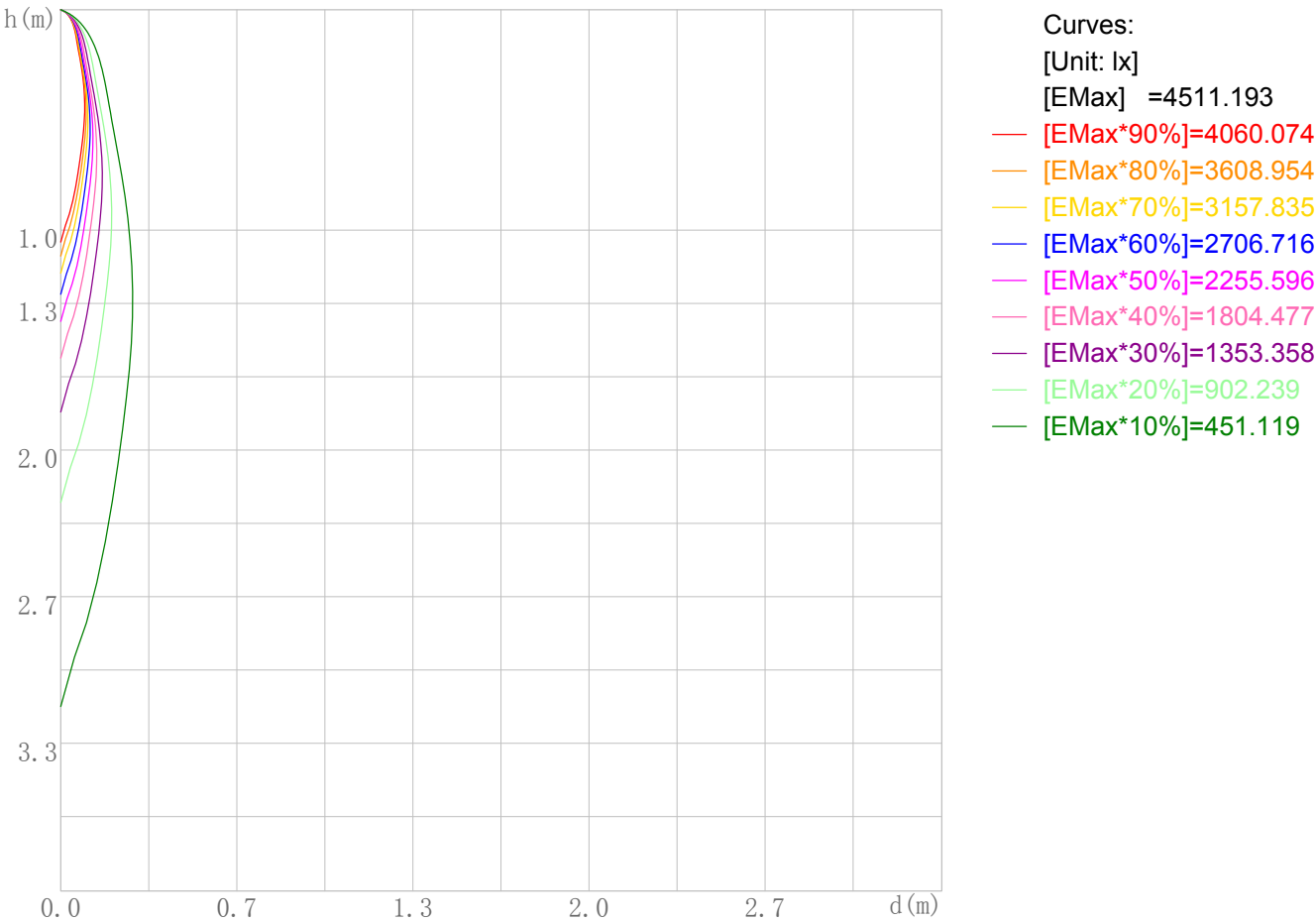


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |

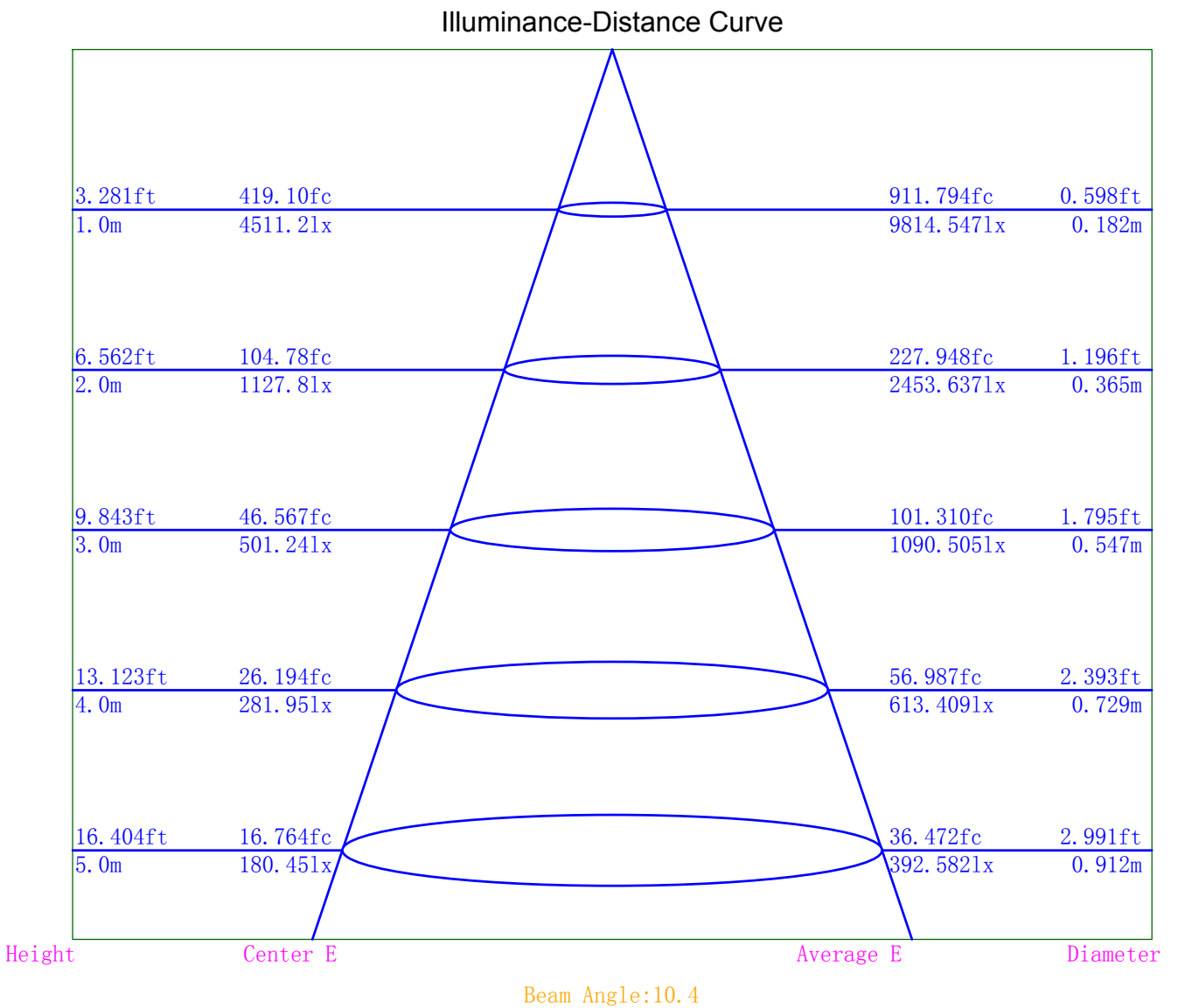
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:4511.19lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:4511.193cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |

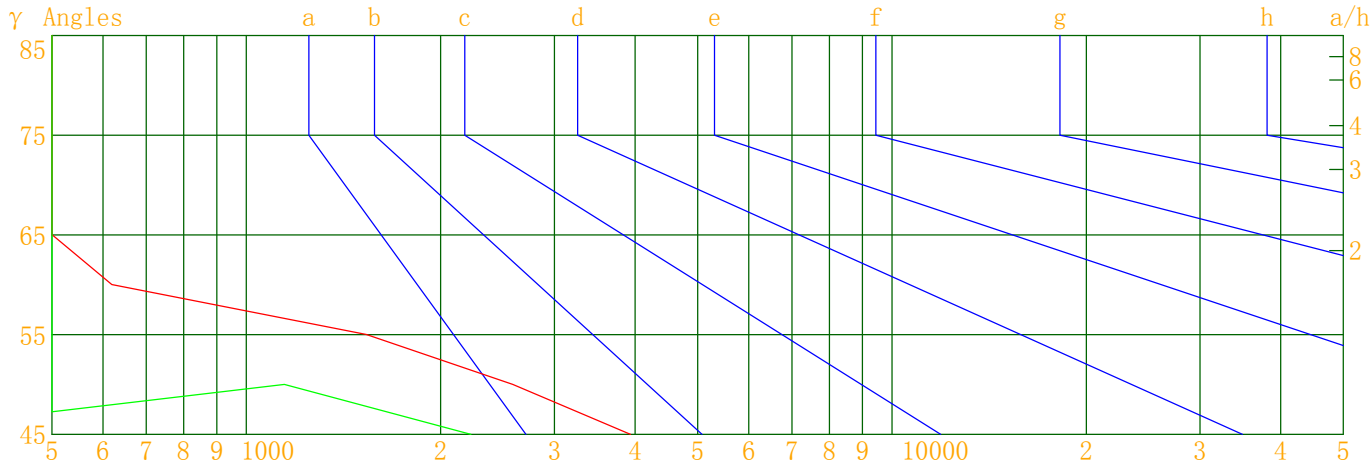
Glare Grade Table

| 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 | 3936 | 2586 | 1535 | 619 | 0 | 0 | 0 | 0 | 0 |
| C90 | 2227 | 1145 | 255 | 0 | 0 | 0 | 0 | 0 | 0 |

Luminance Limiting Curve



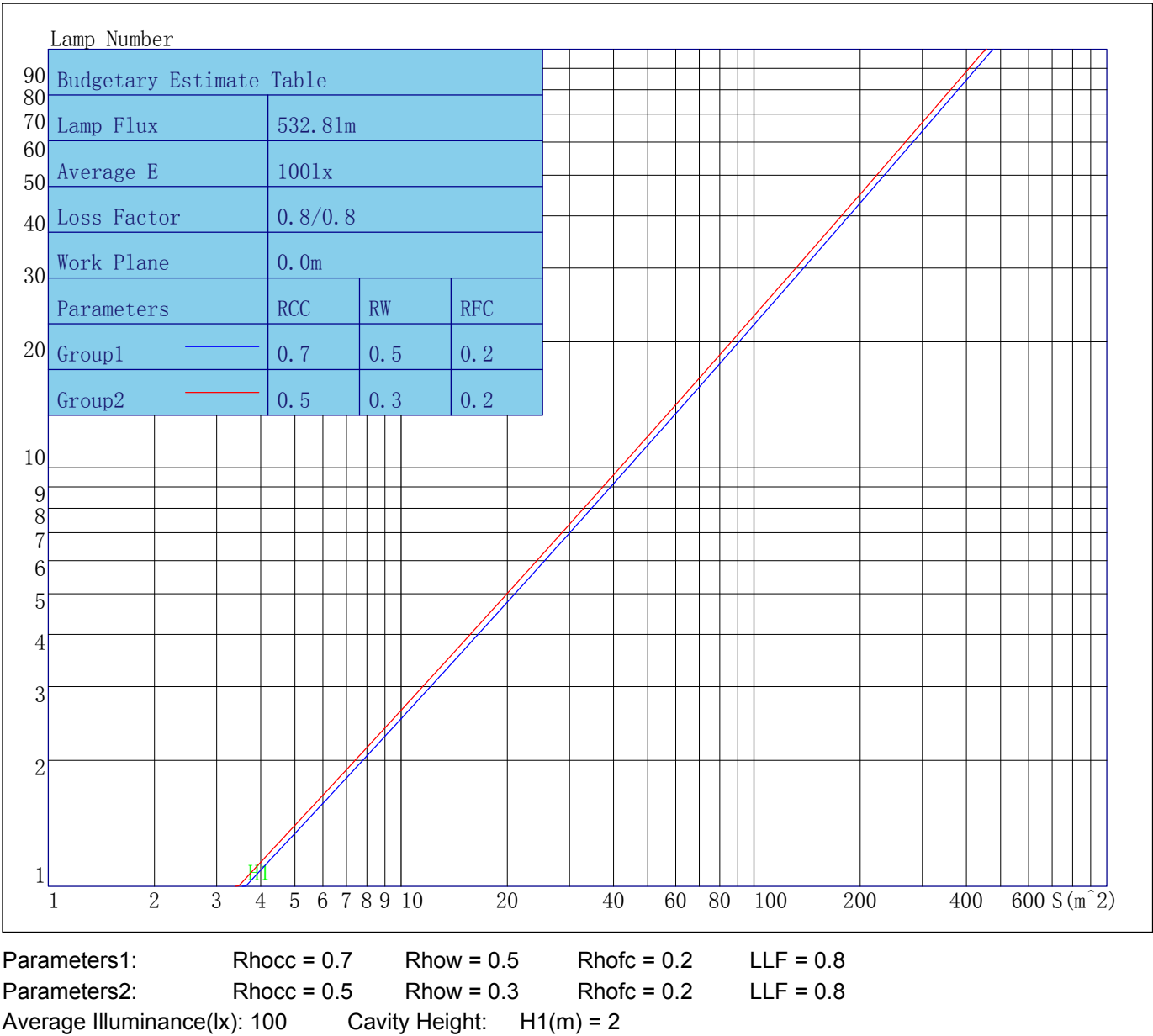
Luminous Size: Length(m)=-0.076 Width(m)=-0.076 Height(m)=0.000 Area(m^2)=0.004536

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 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: 2021/11/08 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 15D | 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: 2021/11/08 |

| 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 | 115 | 113 | 112 | 110 | 113 | 111 | 110 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 100 | 100 | 99 | 97 |
| 2 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 104 | 102 | 100 | 101 | 99 | 98 | 98 | 97 | 96 | 95 |
| 3 | 109 | 105 | 101 | 99 | 107 | 103 | 100 | 98 | 101 | 98 | 96 | 99 | 97 | 95 | 96 | 95 | 93 | 92 |
| 4 | 106 | 101 | 97 | 95 | 104 | 100 | 97 | 94 | 98 | 95 | 93 | 96 | 94 | 92 | 95 | 93 | 91 | 90 |
| 5 | 103 | 98 | 94 | 91 | 102 | 97 | 94 | 91 | 96 | 93 | 90 | 94 | 92 | 90 | 93 | 91 | 89 | 88 |
| 6 | 101 | 95 | 91 | 89 | 100 | 94 | 91 | 88 | 93 | 90 | 88 | 92 | 89 | 87 | 91 | 89 | 87 | 86 |
| 7 | 98 | 93 | 89 | 86 | 97 | 92 | 89 | 86 | 91 | 88 | 86 | 90 | 87 | 85 | 89 | 87 | 85 | 84 |
| 8 | 96 | 90 | 87 | 84 | 95 | 90 | 87 | 84 | 89 | 86 | 84 | 88 | 86 | 83 | 87 | 85 | 83 | 82 |
| 9 | 94 | 88 | 85 | 82 | 93 | 88 | 85 | 82 | 87 | 84 | 82 | 87 | 84 | 82 | 86 | 83 | 82 | 81 |
| 10 | 92 | 87 | 83 | 81 | 92 | 86 | 83 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 84 | 82 | 80 | 79 |

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-01 RA95 2000K-3000K 15D | 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: 2021/11/08 |

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 | 7.2 | 8.3 | 7.6 | 8.6 | 9.0 | 4.4 | 5.5 | 4.8 | 5.8 | 6.1 | |
| | Y=3H | 7.0 | 8.0 | 7.4 | 8.3 | 8.7 | 4.2 | 5.2 | 4.6 | 5.5 | 5.9 |
| | Y=4H | 6.9 | 7.8 | 7.3 | 8.2 | 8.6 | 4.1 | 5.0 | 4.5 | 5.4 | 5.8 |
| | Y=6H | 6.8 | 7.7 | 7.2 | 8.0 | 8.4 | 4.0 | 4.8 | 4.4 | 5.2 | 5.6 |
| | Y=8H | 6.7 | 7.6 | 7.2 | 8.0 | 8.4 | 3.9 | 4.7 | 4.3 | 5.1 | 5.5 |
| | Y=12H | 6.7 | 7.5 | 7.1 | 7.9 | 8.3 | 3.8 | 4.7 | 4.3 | 5.0 | 5.5 |
| X=4H Y=2H | 7.0 | 7.9 | 7.4 | 8.3 | 8.7 | 4.1 | 5.1 | 4.5 | 5.4 | 5.8 | |
| | Y=3H | 6.8 | 7.6 | 7.2 | 8.0 | 8.4 | 3.9 | 4.7 | 4.3 | 5.1 | 5.5 |
| | Y=4H | 6.6 | 7.4 | 7.1 | 7.8 | 8.2 | 3.8 | 4.5 | 4.2 | 4.9 | 5.4 |
| | Y=6H | 6.5 | 7.2 | 7.0 | 7.6 | 8.1 | 3.6 | 4.3 | 4.1 | 4.8 | 5.2 |
| | Y=8H | 6.4 | 7.1 | 6.9 | 7.5 | 8.0 | 3.6 | 4.2 | 4.0 | 4.7 | 5.1 |
| | Y=12H | 6.4 | 7.0 | 6.9 | 7.4 | 7.9 | 3.5 | 4.1 | 4.0 | 4.6 | 5.0 |
| X=8H Y=4H | 6.4 | 7.1 | 6.9 | 7.5 | 8.0 | 3.6 | 4.2 | 4.0 | 4.7 | 5.1 | |
| | Y=6H | 6.3 | 6.9 | 6.8 | 7.4 | 7.9 | 3.4 | 4.0 | 3.9 | 4.5 | 5.0 |
| | Y=8H | 6.2 | 6.7 | 6.7 | 7.3 | 7.7 | 3.3 | 3.9 | 3.9 | 4.4 | 4.9 |
| | Y=12H | 6.2 | 6.6 | 6.7 | 7.1 | 7.7 | 3.3 | 3.8 | 3.8 | 4.3 | 4.8 |
| X=12H Y=4H | 6.4 | 7.0 | 6.9 | 7.4 | 7.9 | 3.5 | 4.1 | 4.0 | 4.6 | 5.0 | |
| | Y=6H | 6.2 | 6.8 | 6.8 | 7.2 | 7.8 | 3.4 | 3.9 | 3.9 | 4.3 | 4.9 |
| | Y=8H | 6.2 | 6.6 | 6.7 | 7.1 | 7.7 | 3.3 | 3.8 | 3.8 | 4.3 | 4.8 |
| 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 | 10.2/0.0 | | | | | 0.0/0.0 | | | | | |
| Reduced UGR Table: | | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | | |
| Correction Value | 0.1 | | | | | 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-DW-01 RA95 2000K-3000K 15D.IES

Candela Tabulation

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|---------|---------|---------|---------|
| γ 0.0 | 4511.19 | 4511.19 | 4511.19 | 4511.19 |
| γ 1.0 | 3901.46 | 4187.52 | 4313.67 | 6079.93 |
| γ 2.0 | 3497.81 | 3347.46 | 4254.70 | 6962.26 |
| γ 3.0 | 3065.75 | 2670.13 | 4012.19 | 7618.70 |
| γ 4.0 | 2647.65 | 2146.22 | 3642.35 | 7681.05 |
| γ 5.0 | 2271.85 | 1743.61 | 3200.01 | 7224.79 |
| γ 6.0 | 1945.93 | 1440.70 | 2745.07 | 6481.33 |
| γ 7.0 | 1673.23 | 1202.23 | 2315.42 | 5681.47 |
| γ 8.0 | 1446.92 | 1007.48 | 1952.61 | 4773.45 |
| γ 9.0 | 1254.02 | 839.59 | 1647.25 | 3844.39 |
| γ 10.0 | 1084.02 | 695.98 | 1402.58 | 3070.38 |
| γ 11.0 | 929.04 | 564.91 | 1191.88 | 2484.19 |
| γ 12.0 | 789.72 | 454.97 | 1007.64 | 2024.84 |
| γ 13.0 | 662.46 | 362.36 | 843.66 | 1665.62 |
| γ 14.0 | 547.17 | 287.66 | 695.79 | 1390.80 |
| γ 15.0 | 448.85 | 230.96 | 564.41 | 1170.92 |
| γ 16.0 | 364.32 | 189.50 | 452.09 | 988.45 |
| γ 17.0 | 294.49 | 158.95 | 359.56 | 831.56 |
| γ 18.0 | 237.99 | 136.38 | 284.57 | 696.09 |
| γ 19.0 | 196.33 | 118.23 | 228.80 | 572.33 |
| γ 20.0 | 164.42 | 103.64 | 187.12 | 464.38 |
| γ 21.0 | 140.72 | 91.51 | 156.58 | 371.61 |
| γ 22.0 | 122.12 | 81.42 | 132.56 | 295.52 |
| γ 23.0 | 107.03 | 72.88 | 112.96 | 233.86 |
| γ 24.0 | 94.73 | 65.43 | 96.38 | 188.02 |
| γ 25.0 | 84.49 | 59.08 | 82.60 | 153.24 |
| γ 26.0 | 75.67 | 53.41 | 71.00 | 127.68 |
| γ 27.0 | 68.24 | 48.55 | 61.35 | 107.61 |
| γ 28.0 | 61.72 | 43.97 | 53.11 | 91.52 |
| γ 29.0 | 55.87 | 40.09 | 46.68 | 78.19 |
| γ 30.0 | 50.98 | 36.21 | 41.24 | 67.63 |
| γ 31.0 | 46.26 | 32.71 | 36.69 | 58.84 |
| γ 32.0 | 42.21 | 29.66 | 32.95 | 51.66 |
| γ 33.0 | 38.46 | 26.84 | 29.80 | 45.66 |
| γ 34.0 | 35.06 | 24.19 | 27.13 | 40.99 |
| γ 35.0 | 31.88 | 21.92 | 24.81 | 36.94 |
| γ 36.0 | 29.20 | 19.86 | 22.76 | 33.59 |
| γ 37.0 | 26.71 | 17.95 | 21.09 | 30.75 |
| γ 38.0 | 24.39 | 16.04 | 19.55 | 28.25 |
| γ 39.0 | 22.20 | 14.38 | 18.31 | 26.07 |
| γ 40.0 | 20.35 | 12.90 | 17.04 | 24.21 |
| γ 41.0 | 18.53 | 11.59 | 15.88 | 22.56 |
| γ 42.0 | 16.84 | 10.35 | 14.66 | 21.19 |
| γ 43.0 | 15.24 | 9.22 | 13.58 | 19.75 |
| γ 44.0 | 13.96 | 8.12 | 12.53 | 18.43 |
| γ 45.0 | 12.63 | 7.14 | 11.53 | 17.27 |
| γ 46.0 | 11.40 | 6.32 | 10.57 | 16.07 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 10.34 | 5.42 | 9.60 | 14.99 |
| γ 48.0 | 9.31 | 4.66 | 8.67 | 13.87 |
| γ 49.0 | 8.39 | 3.90 | 7.82 | 12.88 |
| γ 50.0 | 7.54 | 3.34 | 7.03 | 11.90 |
| γ 51.0 | 6.76 | 2.75 | 6.30 | 10.94 |
| γ 52.0 | 5.93 | 2.22 | 5.57 | 10.03 |
| γ 53.0 | 5.23 | 1.65 | 4.84 | 9.15 |
| γ 54.0 | 4.53 | 1.16 | 4.27 | 8.31 |
| γ 55.0 | 3.99 | 0.66 | 3.65 | 7.53 |
| γ 56.0 | 3.46 | 0.20 | 3.11 | 6.87 |
| γ 57.0 | 2.88 | 0.00 | 2.67 | 6.24 |
| γ 58.0 | 2.40 | 0.00 | 2.15 | 5.59 |
| γ 59.0 | 1.82 | 0.00 | 1.64 | 4.97 |
| γ 60.0 | 1.40 | 0.00 | 1.16 | 4.40 |
| γ 61.0 | 0.90 | 0.00 | 0.67 | 3.85 |
| γ 62.0 | 0.43 | 0.00 | 0.33 | 3.40 |
| γ 63.0 | 0.03 | 0.00 | 0.00 | 2.80 |
| γ 64.0 | 0.00 | 0.00 | 0.00 | 2.33 |
| γ 65.0 | 0.00 | 0.00 | 0.00 | 1.83 |
| γ 66.0 | 0.00 | 0.00 | 0.00 | 1.35 |
| γ 67.0 | 0.00 | 0.00 | 0.00 | 0.91 |
| γ 68.0 | 0.00 | 0.00 | 0.00 | 0.46 |
| γ 69.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 70.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 71.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 72.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 73.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 74.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 75.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 76.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 77.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 78.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 79.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 80.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 81.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 |

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 |

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 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 147.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 148.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 149.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 150.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 151.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 152.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 153.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 154.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 155.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 156.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 157.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 158.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 159.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 160.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 161.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 162.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 163.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 164.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 165.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 166.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 167.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 168.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 169.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 170.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 171.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 172.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 173.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 174.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 175.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 176.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 177.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 178.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 179.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 180.0 | 0.00 | 0.00 | 0.00 | 0.00 |