

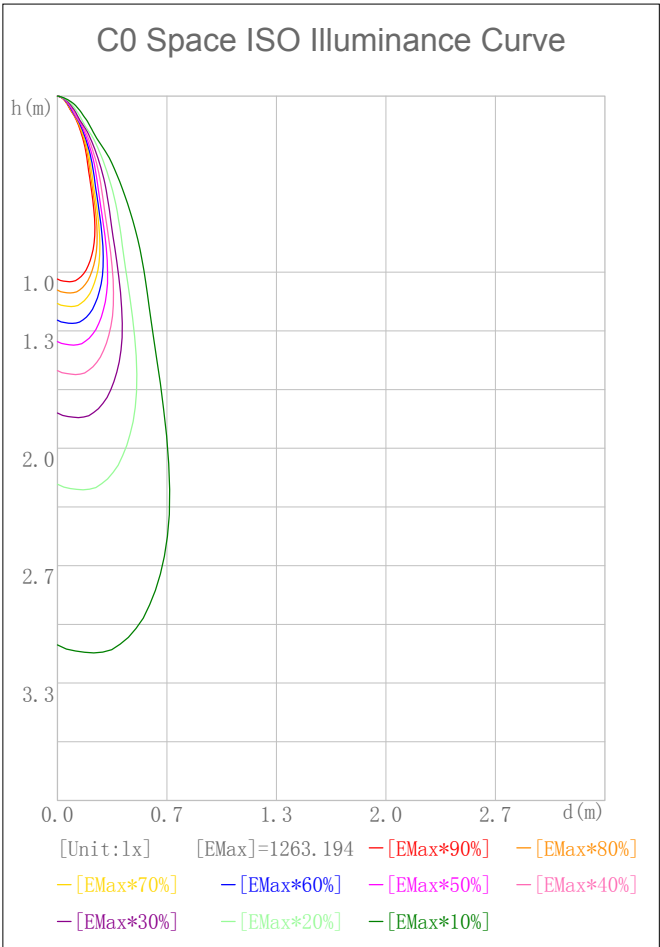
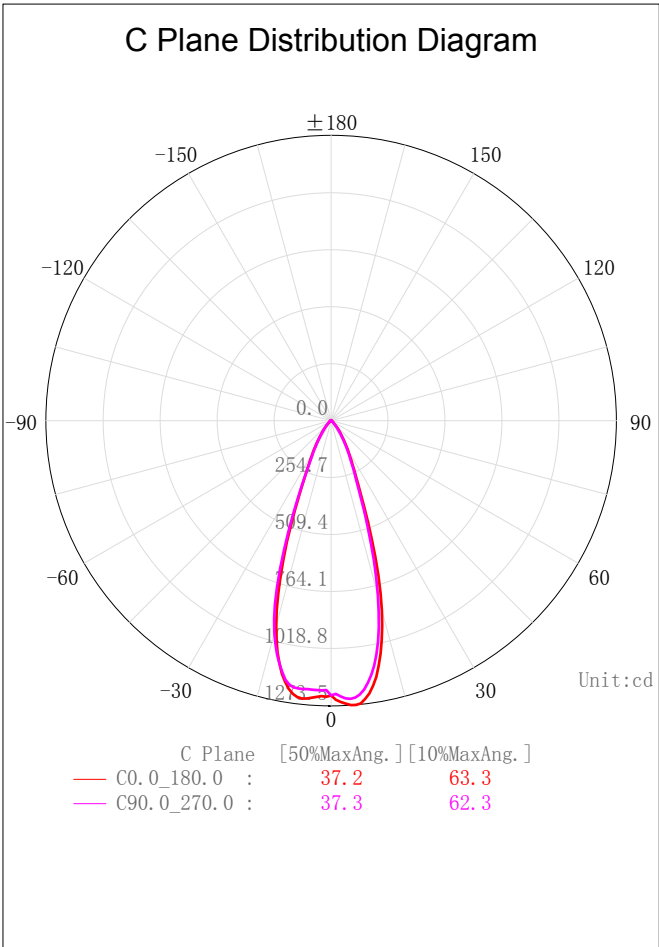
Indoor Luminaire Photometric Data

Description Information

| | | | |
|--|-------------------------|----------------------|-----------------------|
| Luminary Name:DL52-09-DW-04 2000K-3000K RA95 36D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/11/11 |
| 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 |

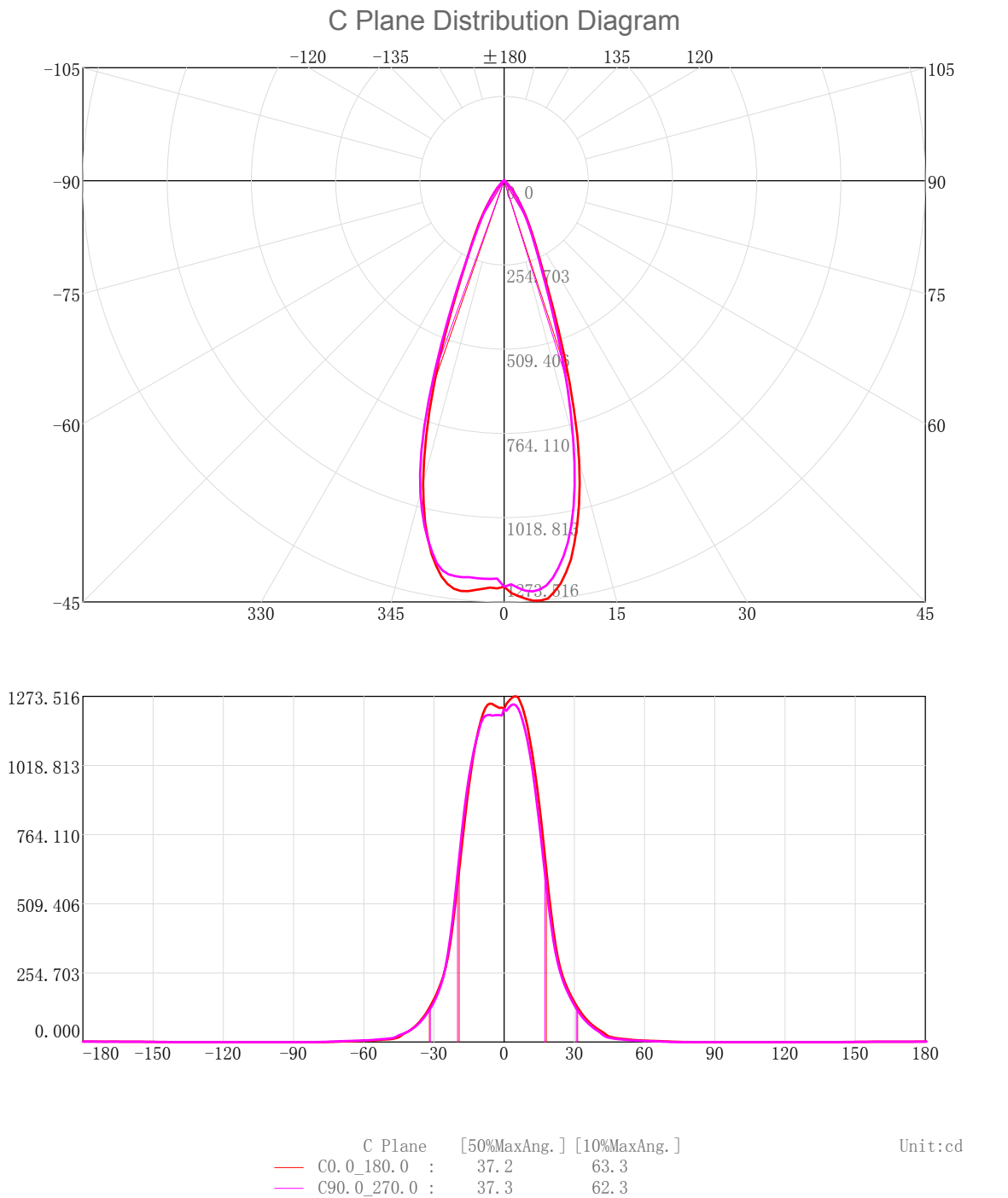
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|--------------------------------|---------------------------------------|--|
| Rated Flux(lm): 565.980 | Luminary Flux(lm): 565.981 | Field Angle(10%Imax): 63.3(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 564.590lm 99.75% | |
| Rated Voltage(V): | Luminary EER(lm/W): 65.996 | Up Lumens&Percent: 1.391lm 0.25% | |
| Tested Power(W): 8.576 | Max. Candela(cd): 1273.516 | S/MH: C0_a180=0.638 C90_270=0.635 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=5.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):241.2, 0.039, 0.891 | Beam Angle(50%Imax): 37.2(°) | ErP ϕ use(90°): 543.448lm | |
| Lamp Size (W*L*H):0.038m*0.038m*0.000m | Left=-19.2°, Right=18.0° | IRF(%): 482.238 | |



2D Plane Light Intensity Distribution Curve

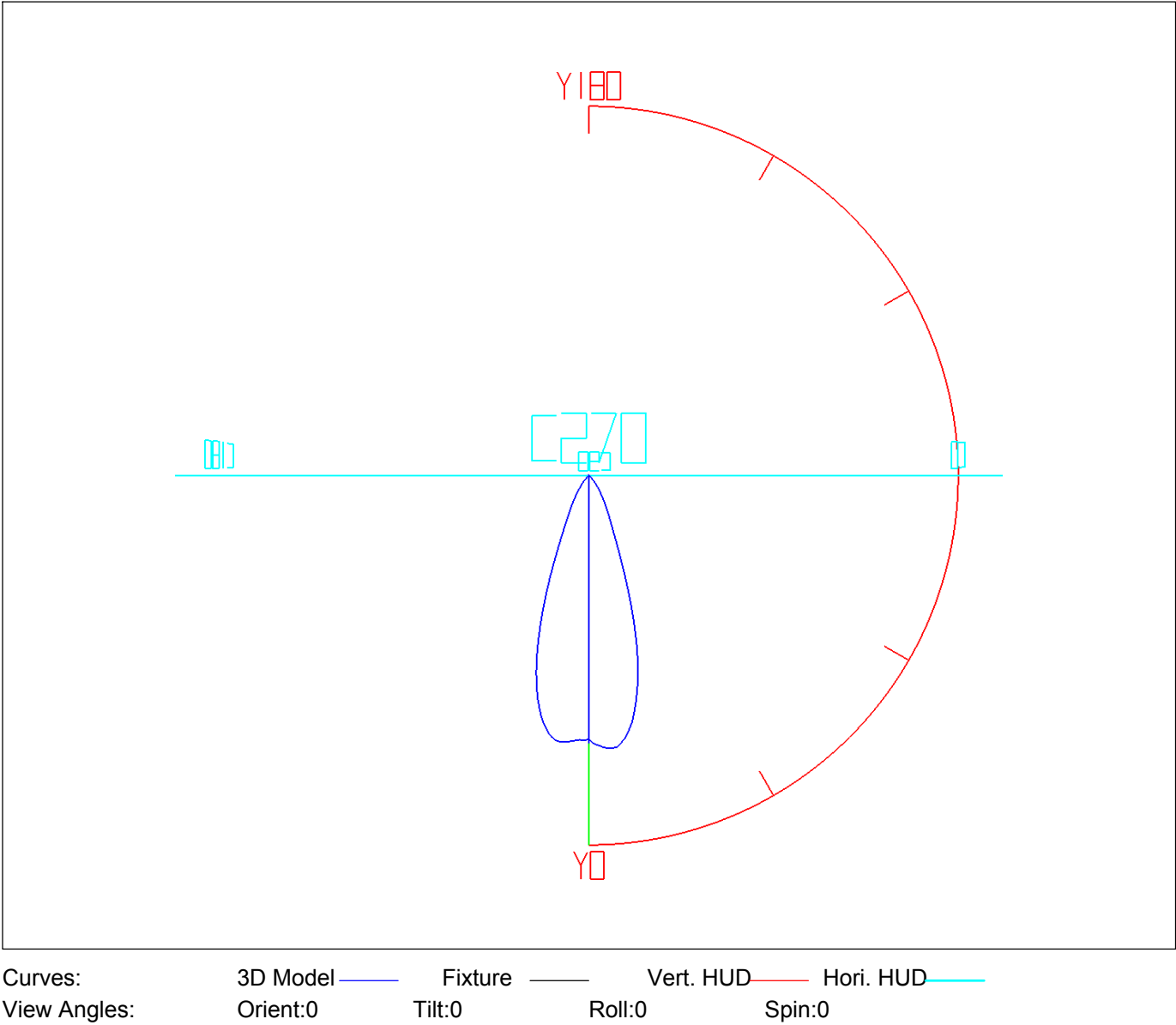
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/11 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:DL52-09-DW-04 2000K-3000K RA95 36D.IES

Zonal Flux Tabulation

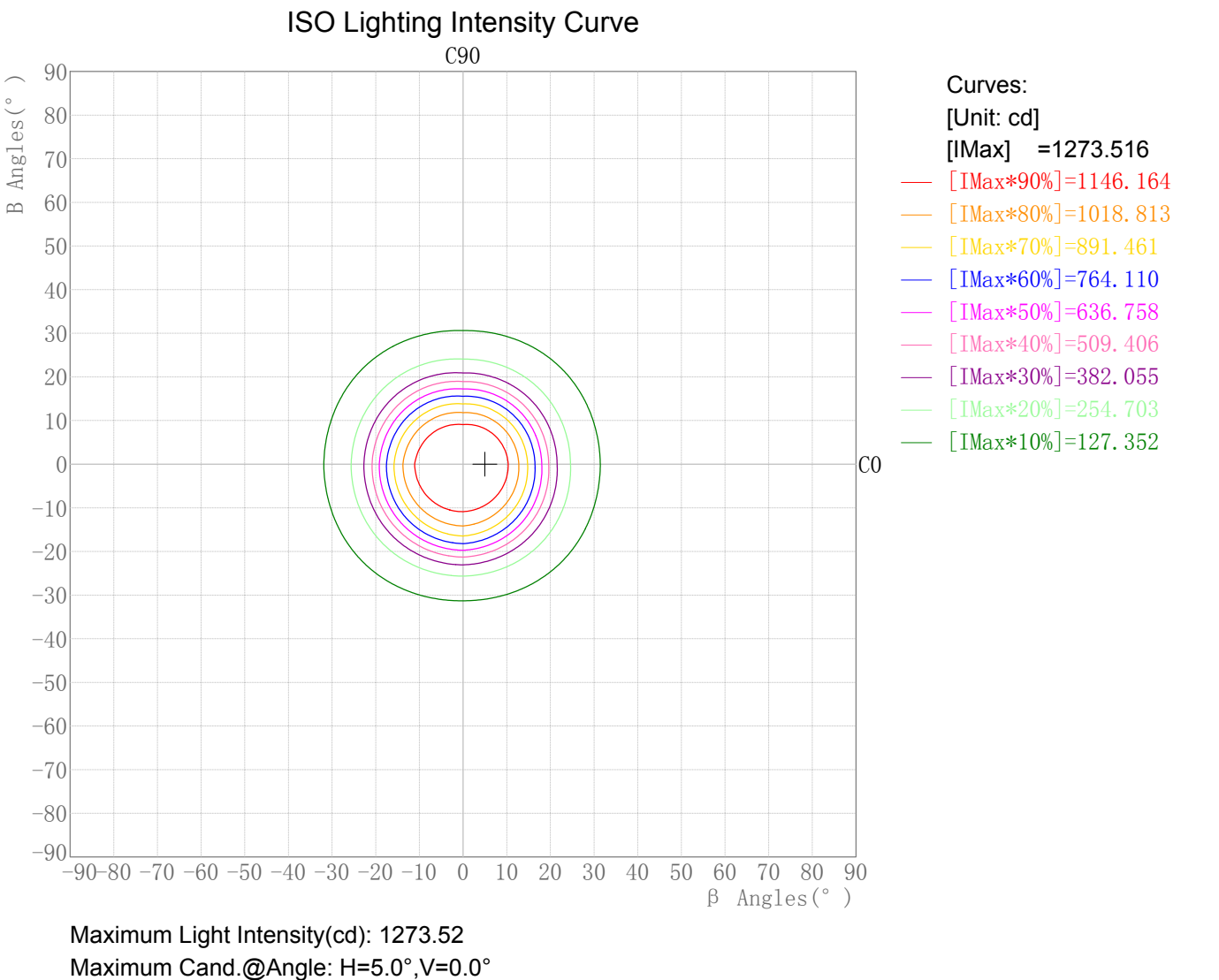
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 1.17 | 1.17 | 0.21 | 0.21 | 47.0-48.0 | 1.13 | 550.96 | 0.20 | 97.35 |
| 1.0-2.0 | 3.53 | 4.70 | 0.62 | 0.83 | 48.0-49.0 | 1.04 | 552.00 | 0.18 | 97.53 |
| 2.0-3.0 | 5.90 | 10.60 | 1.04 | 1.87 | 49.0-50.0 | 0.98 | 552.97 | 0.17 | 97.70 |
| 3.0-4.0 | 8.29 | 18.89 | 1.46 | 3.34 | 50.0-51.0 | 0.92 | 553.89 | 0.16 | 97.86 |
| 4.0-5.0 | 10.67 | 29.56 | 1.89 | 5.22 | 51.0-52.0 | 0.87 | 554.76 | 0.15 | 98.02 |
| 5.0-6.0 | 13.02 | 42.58 | 2.30 | 7.52 | 52.0-53.0 | 0.82 | 555.58 | 0.14 | 98.16 |
| 6.0-7.0 | 15.30 | 57.88 | 2.70 | 10.23 | 53.0-54.0 | 0.76 | 556.34 | 0.13 | 98.30 |
| 7.0-8.0 | 17.45 | 75.33 | 3.08 | 13.31 | 54.0-55.0 | 0.71 | 557.04 | 0.12 | 98.42 |
| 8.0-9.0 | 19.44 | 94.76 | 3.43 | 16.74 | 55.0-56.0 | 0.66 | 557.70 | 0.12 | 98.54 |
| 9.0-10.0 | 21.22 | 115.98 | 3.75 | 20.49 | 56.0-57.0 | 0.61 | 558.31 | 0.11 | 98.65 |
| 10.0-11.0 | 22.73 | 138.71 | 4.02 | 24.51 | 57.0-58.0 | 0.58 | 558.89 | 0.10 | 98.75 |
| 11.0-12.0 | 23.93 | 162.64 | 4.23 | 28.74 | 58.0-59.0 | 0.55 | 559.44 | 0.10 | 98.84 |
| 12.0-13.0 | 24.84 | 187.48 | 4.39 | 33.12 | 59.0-60.0 | 0.52 | 559.95 | 0.09 | 98.94 |
| 13.0-14.0 | 25.41 | 212.88 | 4.49 | 37.61 | 60.0-61.0 | 0.48 | 560.44 | 0.09 | 99.02 |
| 14.0-15.0 | 25.61 | 238.50 | 4.53 | 42.14 | 61.0-62.0 | 0.46 | 560.90 | 0.08 | 99.10 |
| 15.0-16.0 | 25.43 | 263.93 | 4.49 | 46.63 | 62.0-63.0 | 0.43 | 561.33 | 0.08 | 99.18 |
| 16.0-17.0 | 24.81 | 288.74 | 4.38 | 51.02 | 63.0-64.0 | 0.41 | 561.73 | 0.07 | 99.25 |
| 17.0-18.0 | 23.76 | 312.50 | 4.20 | 55.21 | 64.0-65.0 | 0.38 | 562.11 | 0.07 | 99.32 |
| 18.0-19.0 | 22.35 | 334.85 | 3.95 | 59.16 | 65.0-66.0 | 0.36 | 562.47 | 0.06 | 99.38 |
| 19.0-20.0 | 20.67 | 355.52 | 3.65 | 62.81 | 66.0-67.0 | 0.34 | 562.81 | 0.06 | 99.44 |
| 20.0-21.0 | 18.84 | 374.35 | 3.33 | 66.14 | 67.0-68.0 | 0.31 | 563.12 | 0.05 | 99.49 |
| 21.0-22.0 | 17.00 | 391.35 | 3.00 | 69.15 | 68.0-69.0 | 0.27 | 563.39 | 0.05 | 99.54 |
| 22.0-23.0 | 15.29 | 406.64 | 2.70 | 71.85 | 69.0-70.0 | 0.24 | 563.63 | 0.04 | 99.58 |
| 23.0-24.0 | 13.78 | 420.42 | 2.43 | 74.28 | 70.0-71.0 | 0.21 | 563.84 | 0.04 | 99.62 |
| 24.0-25.0 | 12.51 | 432.93 | 2.21 | 76.49 | 71.0-72.0 | 0.17 | 564.01 | 0.03 | 99.65 |
| 25.0-26.0 | 11.44 | 444.36 | 2.02 | 78.51 | 72.0-73.0 | 0.14 | 564.15 | 0.02 | 99.68 |
| 26.0-27.0 | 10.53 | 454.90 | 1.86 | 80.37 | 73.0-74.0 | 0.11 | 564.26 | 0.02 | 99.70 |
| 27.0-28.0 | 9.75 | 464.64 | 1.72 | 82.10 | 74.0-75.0 | 0.09 | 564.35 | 0.02 | 99.71 |
| 28.0-29.0 | 9.04 | 473.69 | 1.60 | 83.69 | 75.0-76.0 | 0.07 | 564.42 | 0.01 | 99.72 |
| 29.0-30.0 | 8.39 | 482.08 | 1.48 | 85.18 | 76.0-77.0 | 0.05 | 564.47 | 0.01 | 99.73 |
| 30.0-31.0 | 7.76 | 489.84 | 1.37 | 86.55 | 77.0-78.0 | 0.04 | 564.52 | 0.01 | 99.74 |
| 31.0-32.0 | 7.16 | 496.99 | 1.26 | 87.81 | 78.0-79.0 | 0.03 | 564.54 | 0.01 | 99.75 |
| 32.0-33.0 | 6.57 | 503.56 | 1.16 | 88.97 | 79.0-80.0 | 0.02 | 564.56 | 0.00 | 99.75 |
| 33.0-34.0 | 6.00 | 509.57 | 1.06 | 90.03 | 80.0-81.0 | 0.01 | 564.58 | 0.00 | 99.75 |
| 34.0-35.0 | 5.46 | 515.03 | 0.97 | 91.00 | 81.0-82.0 | 0.01 | 564.59 | 0.00 | 99.75 |
| 35.0-36.0 | 4.96 | 519.99 | 0.88 | 91.87 | 82.0-83.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 36.0-37.0 | 4.50 | 524.49 | 0.80 | 92.67 | 83.0-84.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 37.0-38.0 | 4.07 | 528.57 | 0.72 | 93.39 | 84.0-85.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 38.0-39.0 | 3.68 | 532.25 | 0.65 | 94.04 | 85.0-86.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 39.0-40.0 | 3.32 | 535.57 | 0.59 | 94.63 | 86.0-87.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 40.0-41.0 | 2.99 | 538.55 | 0.53 | 95.15 | 87.0-88.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 41.0-42.0 | 2.65 | 541.21 | 0.47 | 95.62 | 88.0-89.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 42.0-43.0 | 2.31 | 543.52 | 0.41 | 96.03 | 89.0-90.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 43.0-44.0 | 1.97 | 545.49 | 0.35 | 96.38 | 90.0-91.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 44.0-45.0 | 1.67 | 547.15 | 0.29 | 96.67 | 91.0-92.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 45.0-46.0 | 1.43 | 548.58 | 0.25 | 96.93 | 92.0-93.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 46.0-47.0 | 1.25 | 549.83 | 0.22 | 97.15 | 93.0-94.0 | 0.00 | 564.59 | 0.00 | 99.75 |

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 | 564.59 | 0.00 | 99.75 | 141.0-142.0 | 0.00 | 564.59 | 0.00 | 99.75 |
| 95.0-96.0 | 0.00 | 564.59 | 0.00 | 99.75 | 142.0-143.0 | 0.01 | 564.60 | 0.00 | 99.76 |
| 96.0-97.0 | 0.00 | 564.59 | 0.00 | 99.75 | 143.0-144.0 | 0.01 | 564.61 | 0.00 | 99.76 |
| 97.0-98.0 | 0.00 | 564.59 | 0.00 | 99.75 | 144.0-145.0 | 0.02 | 564.63 | 0.00 | 99.76 |
| 98.0-99.0 | 0.00 | 564.59 | 0.00 | 99.75 | 145.0-146.0 | 0.02 | 564.65 | 0.00 | 99.76 |
| 99.0-100.0 | 0.00 | 564.59 | 0.00 | 99.75 | 146.0-147.0 | 0.03 | 564.68 | 0.01 | 99.77 |
| 100.0-101.0 | 0.00 | 564.59 | 0.00 | 99.75 | 147.0-148.0 | 0.03 | 564.71 | 0.01 | 99.78 |
| 101.0-102.0 | 0.00 | 564.59 | 0.00 | 99.75 | 148.0-149.0 | 0.04 | 564.75 | 0.01 | 99.78 |
| 102.0-103.0 | 0.00 | 564.59 | 0.00 | 99.75 | 149.0-150.0 | 0.04 | 564.80 | 0.01 | 99.79 |
| 103.0-104.0 | 0.00 | 564.59 | 0.00 | 99.75 | 150.0-151.0 | 0.05 | 564.84 | 0.01 | 99.80 |
| 104.0-105.0 | 0.00 | 564.59 | 0.00 | 99.75 | 151.0-152.0 | 0.05 | 564.89 | 0.01 | 99.81 |
| 105.0-106.0 | 0.00 | 564.59 | 0.00 | 99.75 | 152.0-153.0 | 0.05 | 564.95 | 0.01 | 99.82 |
| 106.0-107.0 | 0.00 | 564.59 | 0.00 | 99.75 | 153.0-154.0 | 0.06 | 565.00 | 0.01 | 99.83 |
| 107.0-108.0 | 0.00 | 564.59 | 0.00 | 99.75 | 154.0-155.0 | 0.06 | 565.06 | 0.01 | 99.84 |
| 108.0-109.0 | 0.00 | 564.59 | 0.00 | 99.75 | 155.0-156.0 | 0.06 | 565.12 | 0.01 | 99.85 |
| 109.0-110.0 | 0.00 | 564.59 | 0.00 | 99.75 | 156.0-157.0 | 0.06 | 565.18 | 0.01 | 99.86 |
| 110.0-111.0 | 0.00 | 564.59 | 0.00 | 99.75 | 157.0-158.0 | 0.06 | 565.24 | 0.01 | 99.87 |
| 111.0-112.0 | 0.00 | 564.59 | 0.00 | 99.75 | 158.0-159.0 | 0.06 | 565.30 | 0.01 | 99.88 |
| 112.0-113.0 | 0.00 | 564.59 | 0.00 | 99.75 | 159.0-160.0 | 0.06 | 565.36 | 0.01 | 99.89 |
| 113.0-114.0 | 0.00 | 564.59 | 0.00 | 99.75 | 160.0-161.0 | 0.06 | 565.41 | 0.01 | 99.90 |
| 114.0-115.0 | 0.00 | 564.59 | 0.00 | 99.75 | 161.0-162.0 | 0.06 | 565.47 | 0.01 | 99.91 |
| 115.0-116.0 | 0.00 | 564.59 | 0.00 | 99.75 | 162.0-163.0 | 0.05 | 565.52 | 0.01 | 99.92 |
| 116.0-117.0 | 0.00 | 564.59 | 0.00 | 99.75 | 163.0-164.0 | 0.05 | 565.57 | 0.01 | 99.93 |
| 117.0-118.0 | 0.00 | 564.59 | 0.00 | 99.75 | 164.0-165.0 | 0.05 | 565.62 | 0.01 | 99.94 |
| 118.0-119.0 | 0.00 | 564.59 | 0.00 | 99.75 | 165.0-166.0 | 0.05 | 565.67 | 0.01 | 99.94 |
| 119.0-120.0 | 0.00 | 564.59 | 0.00 | 99.75 | 166.0-167.0 | 0.04 | 565.71 | 0.01 | 99.95 |
| 120.0-121.0 | 0.00 | 564.59 | 0.00 | 99.75 | 167.0-168.0 | 0.04 | 565.75 | 0.01 | 99.96 |
| 121.0-122.0 | 0.00 | 564.59 | 0.00 | 99.75 | 168.0-169.0 | 0.04 | 565.78 | 0.01 | 99.97 |
| 122.0-123.0 | 0.00 | 564.59 | 0.00 | 99.75 | 169.0-170.0 | 0.03 | 565.82 | 0.01 | 99.97 |
| 123.0-124.0 | 0.00 | 564.59 | 0.00 | 99.75 | 170.0-171.0 | 0.03 | 565.85 | 0.01 | 99.98 |
| 124.0-125.0 | 0.00 | 564.59 | 0.00 | 99.75 | 171.0-172.0 | 0.03 | 565.87 | 0.00 | 99.98 |
| 125.0-126.0 | 0.00 | 564.59 | 0.00 | 99.75 | 172.0-173.0 | 0.02 | 565.90 | 0.00 | 99.99 |
| 126.0-127.0 | 0.00 | 564.59 | 0.00 | 99.75 | 173.0-174.0 | 0.02 | 565.92 | 0.00 | 99.99 |
| 127.0-128.0 | 0.00 | 564.59 | 0.00 | 99.75 | 174.0-175.0 | 0.02 | 565.94 | 0.00 | 99.99 |
| 128.0-129.0 | 0.00 | 564.59 | 0.00 | 99.75 | 175.0-176.0 | 0.02 | 565.95 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 564.59 | 0.00 | 99.75 | 176.0-177.0 | 0.01 | 565.97 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 564.59 | 0.00 | 99.75 | 177.0-178.0 | 0.01 | 565.97 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 564.59 | 0.00 | 99.75 | 178.0-179.0 | 0.01 | 565.98 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 564.59 | 0.00 | 99.75 | 179.0-180.0 | 0.00 | 565.98 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 134.0-135.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 135.0-136.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 136.0-137.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 137.0-138.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 138.0-139.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 139.0-140.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |
| 140.0-141.0 | 0.00 | 564.59 | 0.00 | 99.75 | | | | | |

Rectangle ISO Lighting Intensity Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |



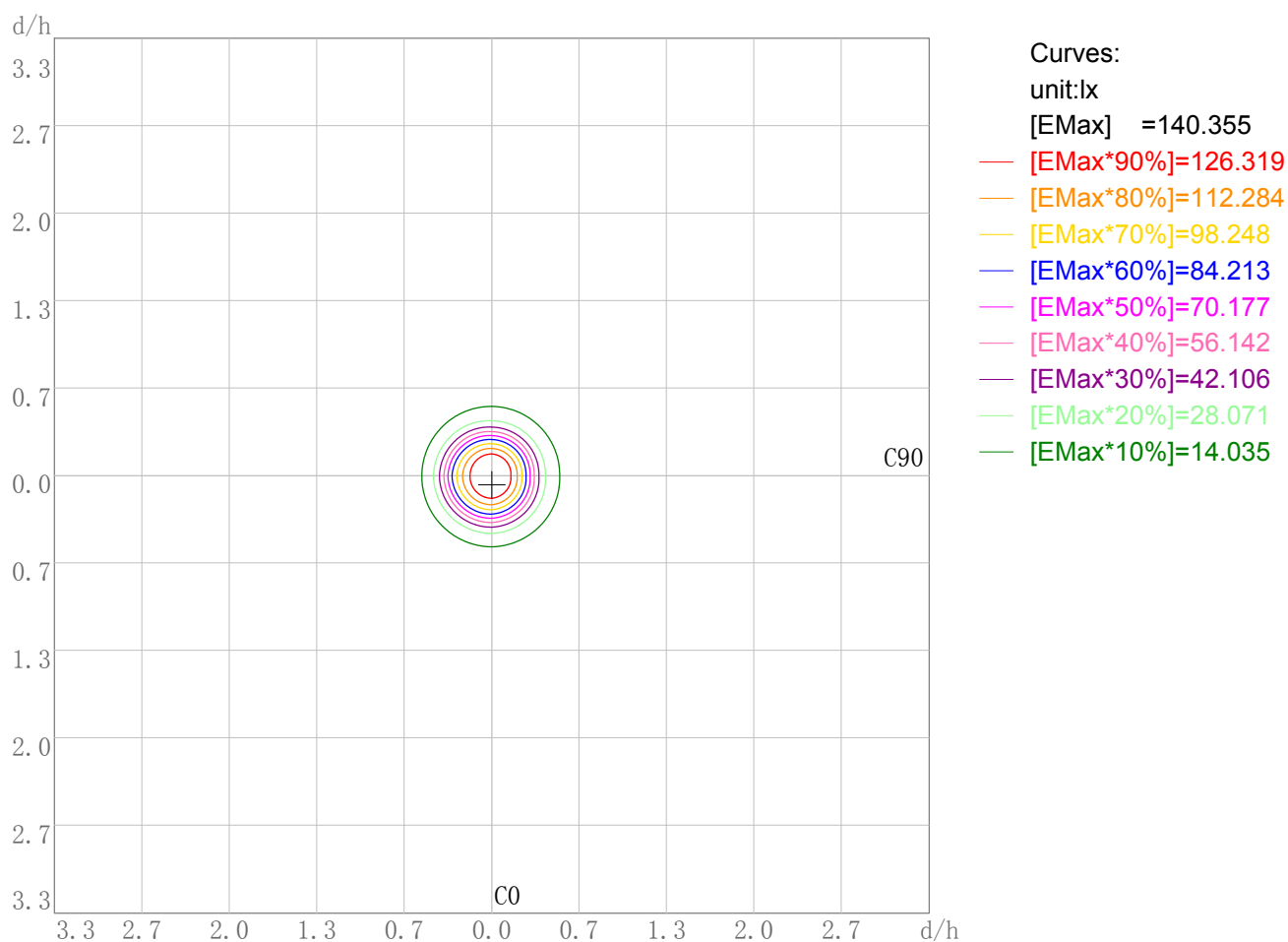
IES Indoor Report

Photometric Filename:DL52-09-DW-04 2000K-3000K RA95 36D.IES

Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 140.35

Working Plane Maximum Illuminance Position(d/h):H0.0 V0.1

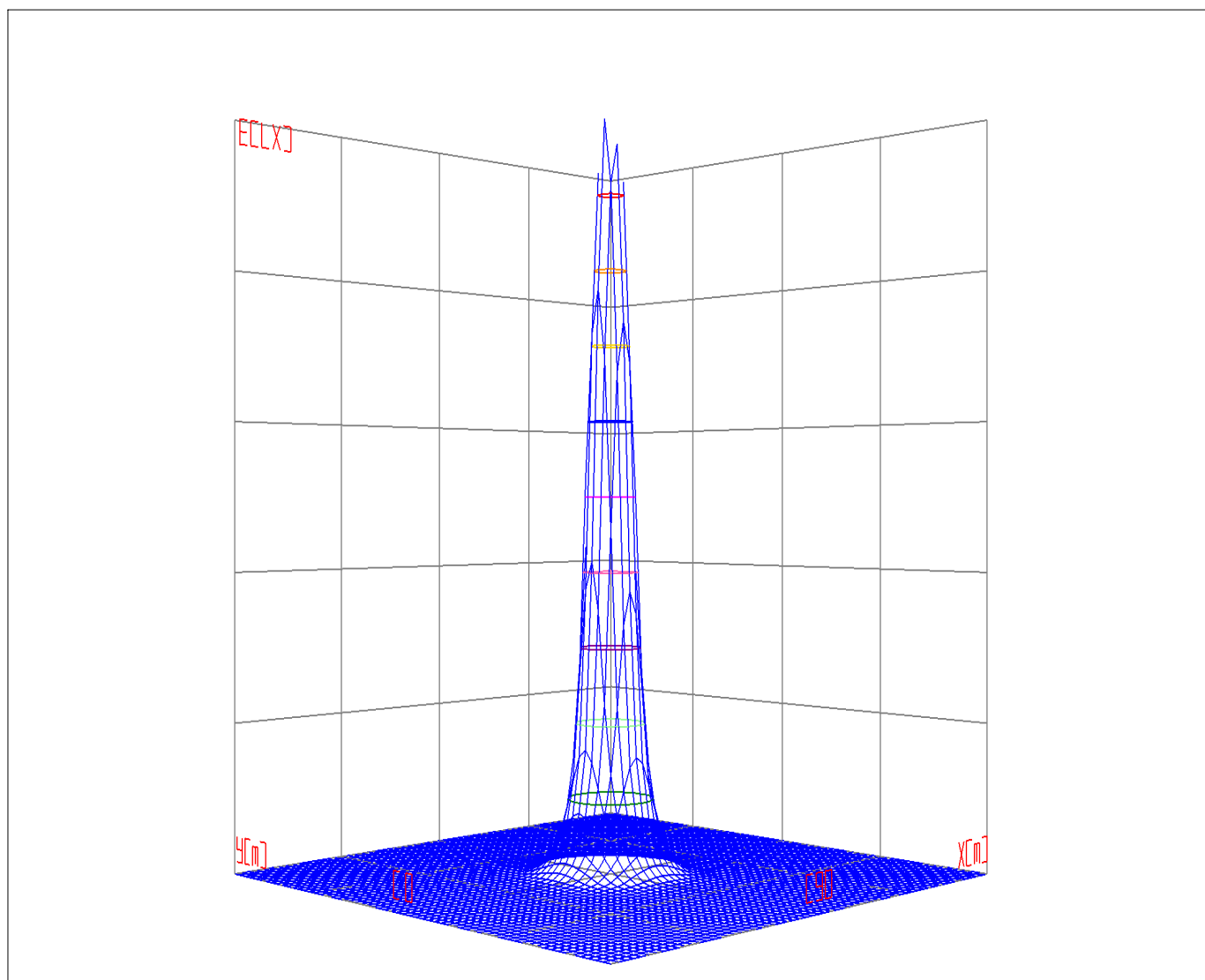
IES Indoor Report

Photometric Filename:DL52-09-DW-04 2000K-3000K RA95 36D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

3D Plane Illuminance Modal

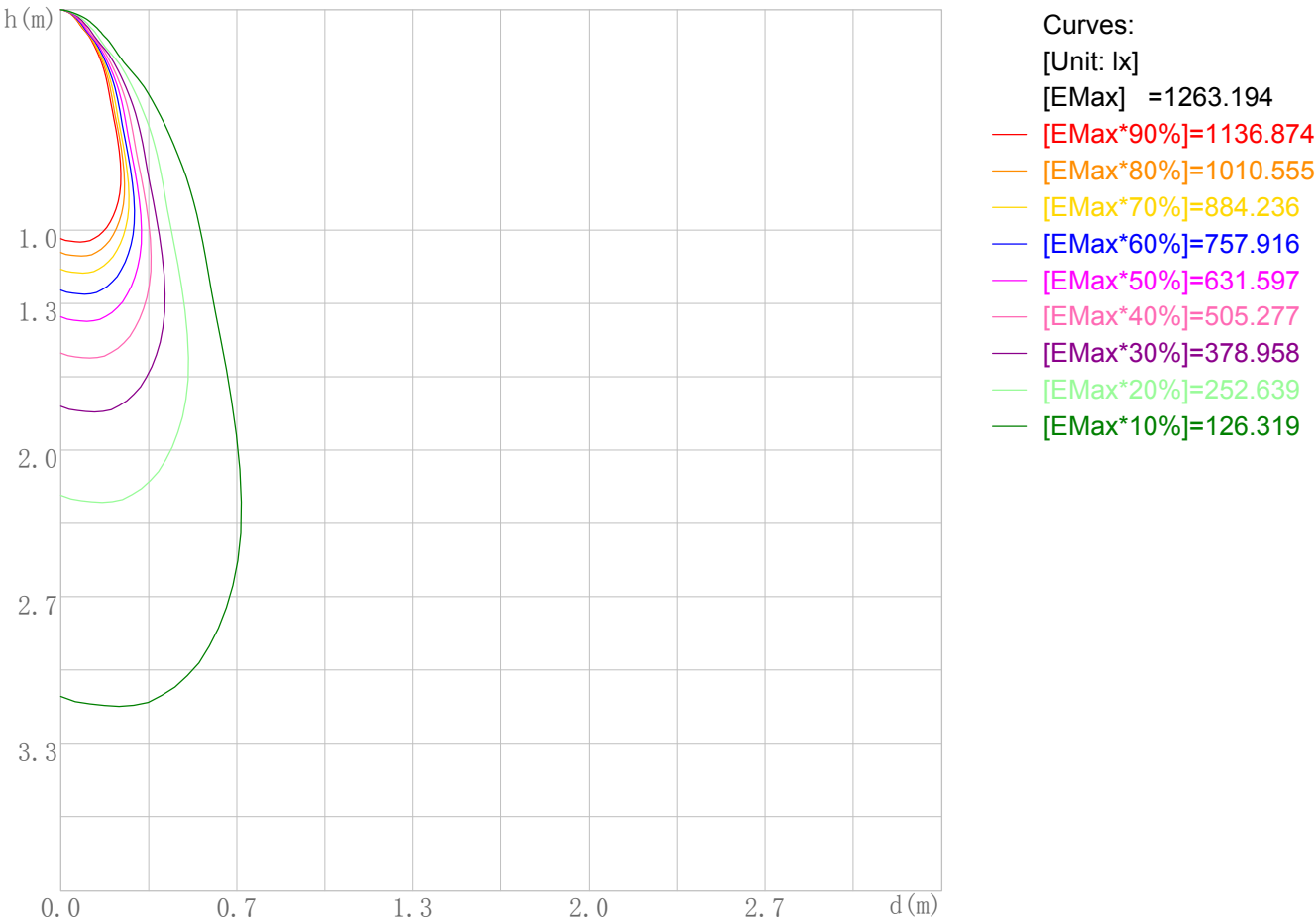


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

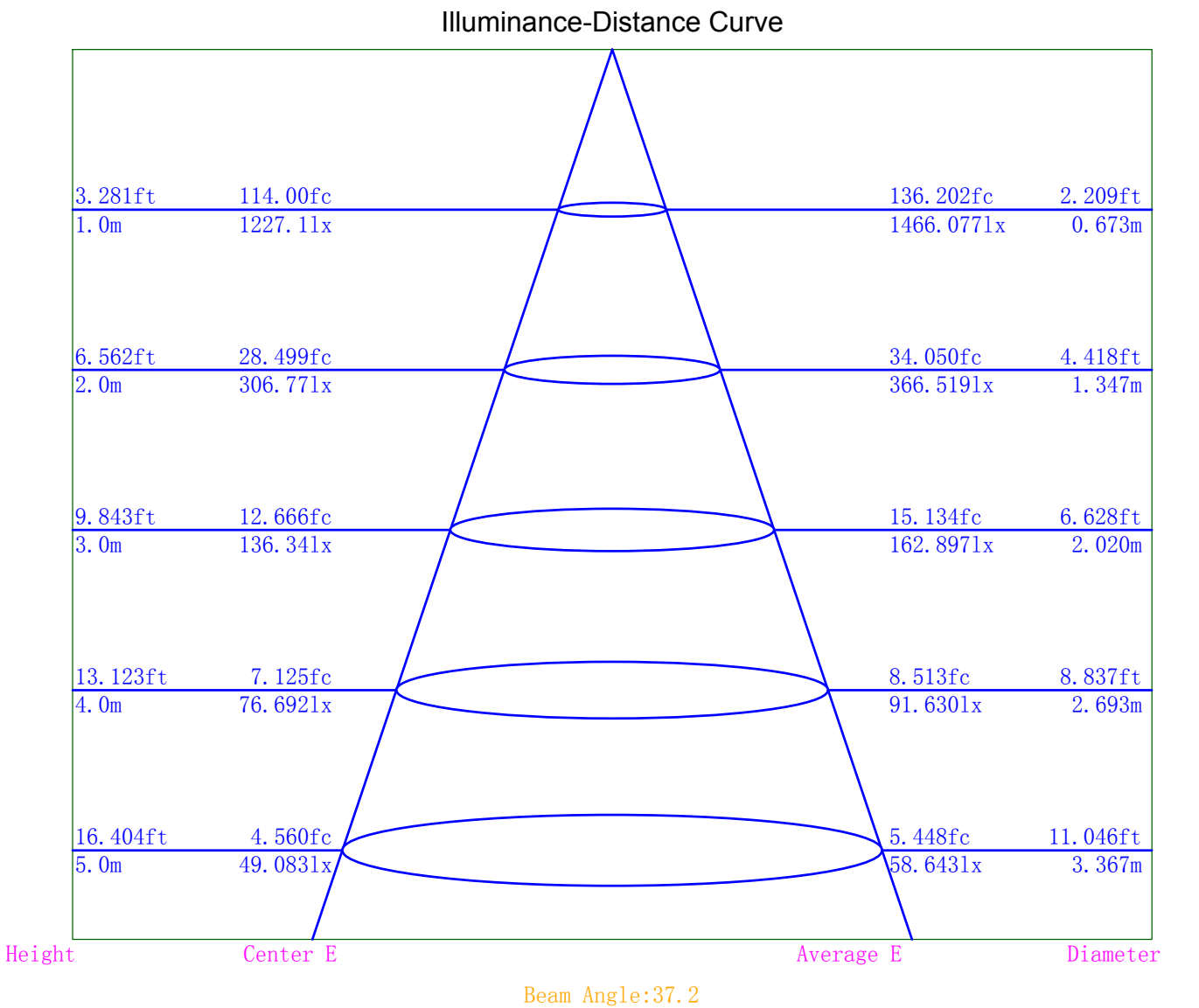
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1263.19lx,4.0deg
Plane Maximum Lighting Intensity and @Angle:1273.516cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

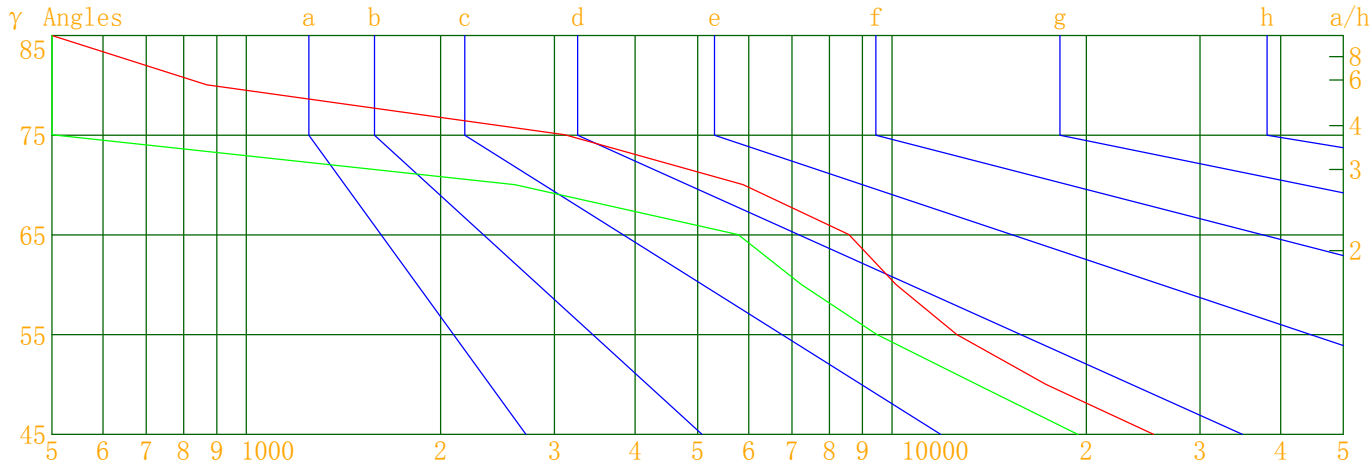
Glare Grade Table

| 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 | 25417 | 17320 | 12598 | 10145 | 8579 | 5883 | 3114 | 868 | 0 |
| C90 | 19394 | 13536 | 9473 | 7241 | 5777 | 2606 | 0 | 0 | 0 |

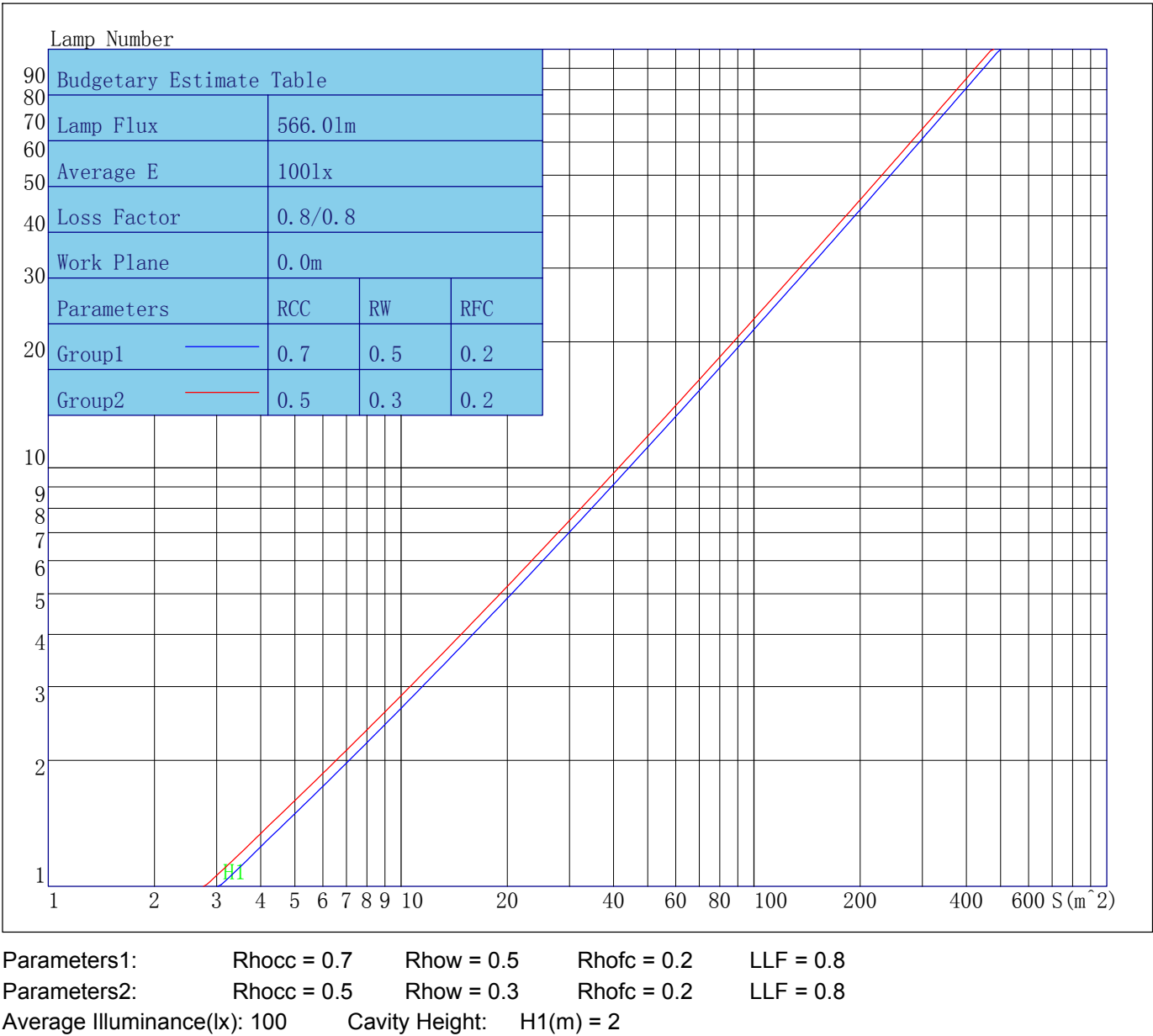
Luminance Limiting Curve



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: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

| 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 | 105 | 104 | 103 | 102 | 101 | 99 | 98 | 97 | 97 | 95 |
| 2 | 109 | 105 | 102 | 99 | 107 | 104 | 100 | 98 | 100 | 98 | 95 | 97 | 95 | 93 | 95 | 93 | 91 | 90 |
| 3 | 105 | 99 | 95 | 92 | 103 | 98 | 94 | 91 | 95 | 92 | 90 | 93 | 90 | 88 | 91 | 89 | 87 | 85 |
| 4 | 101 | 94 | 90 | 86 | 99 | 93 | 89 | 85 | 91 | 87 | 84 | 89 | 86 | 83 | 87 | 85 | 82 | 81 |
| 5 | 97 | 90 | 85 | 81 | 95 | 89 | 84 | 81 | 87 | 83 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 77 |
| 6 | 93 | 85 | 80 | 77 | 92 | 85 | 80 | 77 | 83 | 79 | 76 | 82 | 78 | 76 | 81 | 78 | 75 | 74 |
| 7 | 90 | 82 | 77 | 73 | 88 | 81 | 76 | 73 | 80 | 76 | 72 | 79 | 75 | 72 | 78 | 74 | 72 | 71 |
| 8 | 86 | 78 | 73 | 70 | 85 | 78 | 73 | 70 | 77 | 72 | 69 | 76 | 72 | 69 | 75 | 71 | 69 | 68 |
| 9 | 83 | 75 | 70 | 67 | 82 | 75 | 70 | 67 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 69 | 66 | 65 |
| 10 | 80 | 72 | 67 | 64 | 79 | 72 | 67 | 64 | 71 | 67 | 64 | 70 | 66 | 64 | 70 | 66 | 63 | 62 |

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-09-DW-04 2000K-3000K RA95 36D | 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: 2021/11/11 |

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 | 17.9 | 18.9 | 18.3 | 19.2 | 19.5 | 17.1 | 18.0 | 17.5 | 18.4 | 18.7 |
| | 18.0 | 18.8 | 18.3 | 19.1 | 19.5 | 17.0 | 17.8 | 17.4 | 18.2 | 18.5 |
| | 17.9 | 18.7 | 18.3 | 19.0 | 19.4 | 16.9 | 17.7 | 17.3 | 18.0 | 18.4 |
| | 17.8 | 18.5 | 18.2 | 18.9 | 19.3 | 16.8 | 17.5 | 17.2 | 17.9 | 18.3 |
| | 17.7 | 18.4 | 18.2 | 18.8 | 19.2 | 16.7 | 17.4 | 17.2 | 17.8 | 18.2 |
| | 17.7 | 18.3 | 18.1 | 18.7 | 19.1 | 16.7 | 17.3 | 17.1 | 17.7 | 18.1 |
| X=4H Y=2H | 17.8 | 18.6 | 18.2 | 18.9 | 19.3 | 16.9 | 17.7 | 17.3 | 18.1 | 18.5 |
| | 17.8 | 18.5 | 18.3 | 18.9 | 19.3 | 16.8 | 17.5 | 17.3 | 17.9 | 18.3 |
| | 17.8 | 18.3 | 18.2 | 18.8 | 19.2 | 16.7 | 17.3 | 17.2 | 17.7 | 18.2 |
| | 17.7 | 18.1 | 18.1 | 18.6 | 19.1 | 16.6 | 17.1 | 17.1 | 17.5 | 18.0 |
| | 17.6 | 18.0 | 18.1 | 18.5 | 19.0 | 16.5 | 17.0 | 17.0 | 17.4 | 17.9 |
| | 17.5 | 17.9 | 18.0 | 18.4 | 18.9 | 16.5 | 16.8 | 17.0 | 17.3 | 17.8 |
| X=8H Y=4H | 17.6 | 18.1 | 18.1 | 18.5 | 19.0 | 16.5 | 17.0 | 17.0 | 17.5 | 17.9 |
| | 17.5 | 17.9 | 18.0 | 18.4 | 18.9 | 16.4 | 16.8 | 16.9 | 17.3 | 17.8 |
| | 17.4 | 17.7 | 18.0 | 18.3 | 18.8 | 16.3 | 16.7 | 16.9 | 17.2 | 17.7 |
| | 17.4 | 17.6 | 17.9 | 18.1 | 18.7 | 16.3 | 16.6 | 16.8 | 17.1 | 17.6 |
| X=12H Y=4H | 17.5 | 17.9 | 18.0 | 18.4 | 18.9 | 16.5 | 16.9 | 17.0 | 17.4 | 17.8 |
| | 17.4 | 17.7 | 18.0 | 18.2 | 18.8 | 16.3 | 16.7 | 16.9 | 17.1 | 17.7 |
| | 17.4 | 17.6 | 17.9 | 18.1 | 18.7 | 16.3 | 16.6 | 16.8 | 17.1 | 17.6 |
| Variations with the objverver position at spacings | | | | | | | | | | |
| S=1.0H | 1.7/-2.4 | | | | | 2.2/-3.3 | | | | |
| S=1.5H | 2.6/-3.9 | | | | | 4.9/-8.3 | | | | |
| S=2.0H | 3.4/-5.9 | | | | | 4.9/-15.4 | | | | |
| 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.

Candela Tabulation

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|---------|---------|---------|---------|
| γ 0.0 | 1227.07 | 1227.07 | 1227.07 | 1227.07 |
| γ 1.0 | 1246.50 | 1220.04 | 1232.32 | 1202.79 |
| γ 2.0 | 1256.55 | 1231.67 | 1230.53 | 1204.40 |
| γ 3.0 | 1265.22 | 1240.98 | 1235.05 | 1204.39 |
| γ 4.0 | 1272.47 | 1244.47 | 1239.65 | 1204.05 |
| γ 5.0 | 1273.52 | 1240.41 | 1245.15 | 1202.72 |
| γ 6.0 | 1269.54 | 1229.45 | 1246.86 | 1205.01 |
| γ 7.0 | 1251.10 | 1209.04 | 1242.61 | 1204.49 |
| γ 8.0 | 1229.42 | 1180.91 | 1230.72 | 1201.88 |
| γ 9.0 | 1197.95 | 1148.69 | 1210.75 | 1192.40 |
| γ 10.0 | 1162.59 | 1109.88 | 1182.39 | 1173.78 |
| γ 11.0 | 1114.20 | 1063.05 | 1149.85 | 1142.27 |
| γ 12.0 | 1063.19 | 1008.46 | 1106.79 | 1109.04 |
| γ 13.0 | 1005.43 | 946.85 | 1061.35 | 1070.94 |
| γ 14.0 | 943.96 | 878.51 | 1005.91 | 1026.42 |
| γ 15.0 | 876.20 | 806.51 | 946.24 | 978.82 |
| γ 16.0 | 802.63 | 731.97 | 878.84 | 921.04 |
| γ 17.0 | 721.04 | 655.05 | 805.57 | 856.30 |
| γ 18.0 | 638.89 | 577.71 | 729.73 | 781.10 |
| γ 19.0 | 556.39 | 504.42 | 651.33 | 699.38 |
| γ 20.0 | 480.52 | 436.52 | 574.33 | 613.49 |
| γ 21.0 | 413.27 | 376.46 | 497.71 | 531.36 |
| γ 22.0 | 356.05 | 327.61 | 427.56 | 453.99 |
| γ 23.0 | 309.02 | 288.73 | 364.45 | 386.52 |
| γ 24.0 | 272.23 | 256.72 | 314.78 | 328.57 |
| γ 25.0 | 243.48 | 229.99 | 274.65 | 279.98 |
| γ 26.0 | 219.56 | 206.76 | 243.34 | 240.35 |
| γ 27.0 | 198.38 | 186.40 | 217.08 | 210.10 |
| γ 28.0 | 179.48 | 168.08 | 195.15 | 185.51 |
| γ 29.0 | 162.89 | 151.57 | 174.81 | 165.27 |
| γ 30.0 | 147.30 | 136.11 | 157.48 | 147.24 |
| γ 31.0 | 133.02 | 121.83 | 141.04 | 131.44 |
| γ 32.0 | 119.72 | 108.61 | 125.88 | 117.52 |
| γ 33.0 | 107.09 | 96.78 | 111.39 | 104.97 |
| γ 34.0 | 95.46 | 86.29 | 98.25 | 93.27 |
| γ 35.0 | 85.47 | 76.66 | 86.58 | 81.85 |
| γ 36.0 | 76.24 | 68.09 | 76.15 | 72.26 |
| γ 37.0 | 68.17 | 60.31 | 66.95 | 63.82 |
| γ 38.0 | 60.72 | 53.21 | 58.50 | 56.51 |
| γ 39.0 | 54.01 | 46.91 | 51.23 | 50.12 |
| γ 40.0 | 47.99 | 41.29 | 44.87 | 44.52 |
| γ 41.0 | 42.60 | 35.33 | 39.32 | 39.48 |
| γ 42.0 | 37.81 | 27.81 | 34.49 | 35.16 |
| γ 43.0 | 31.31 | 21.52 | 30.09 | 31.41 |
| γ 44.0 | 24.64 | 17.87 | 23.84 | 28.23 |
| γ 45.0 | 20.38 | 15.55 | 18.06 | 24.94 |
| γ 46.0 | 17.99 | 13.91 | 14.95 | 20.07 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 16.19 | 12.62 | 13.13 | 16.65 |
| γ 48.0 | 14.81 | 11.56 | 11.79 | 14.79 |
| γ 49.0 | 13.63 | 10.66 | 10.80 | 13.52 |
| γ 50.0 | 12.63 | 9.87 | 10.01 | 12.52 |
| γ 51.0 | 11.77 | 9.11 | 9.37 | 11.70 |
| γ 52.0 | 10.97 | 8.20 | 8.83 | 11.01 |
| γ 53.0 | 10.06 | 7.28 | 8.27 | 10.38 |
| γ 54.0 | 8.89 | 6.65 | 7.64 | 9.77 |
| γ 55.0 | 8.19 | 6.16 | 6.73 | 9.17 |
| γ 56.0 | 7.61 | 5.74 | 6.21 | 8.30 |
| γ 57.0 | 7.13 | 5.36 | 5.79 | 7.58 |
| γ 58.0 | 6.72 | 4.91 | 5.47 | 7.05 |
| γ 59.0 | 6.25 | 4.48 | 5.19 | 6.65 |
| γ 60.0 | 5.75 | 4.11 | 4.86 | 6.31 |
| γ 61.0 | 5.32 | 3.81 | 4.52 | 5.96 |
| γ 62.0 | 4.97 | 3.54 | 4.20 | 5.56 |
| γ 63.0 | 4.66 | 3.30 | 3.95 | 5.19 |
| γ 64.0 | 4.38 | 3.04 | 3.68 | 4.89 |
| γ 65.0 | 4.11 | 2.77 | 3.48 | 4.62 |
| γ 66.0 | 3.81 | 2.46 | 3.27 | 4.38 |
| γ 67.0 | 3.51 | 2.06 | 3.04 | 4.16 |
| γ 68.0 | 3.10 | 1.65 | 2.78 | 3.89 |
| γ 69.0 | 2.67 | 1.32 | 2.44 | 3.62 |
| γ 70.0 | 2.28 | 1.01 | 2.04 | 3.30 |
| γ 71.0 | 1.95 | 0.74 | 1.69 | 2.88 |
| γ 72.0 | 1.63 | 0.50 | 1.35 | 2.47 |
| γ 73.0 | 1.36 | 0.29 | 1.06 | 2.12 |
| γ 74.0 | 1.12 | 0.11 | 0.79 | 1.78 |
| γ 75.0 | 0.91 | 0.00 | 0.56 | 1.49 |
| γ 76.0 | 0.74 | 0.00 | 0.36 | 1.22 |
| γ 77.0 | 0.57 | 0.00 | 0.19 | 0.99 |
| γ 78.0 | 0.42 | 0.00 | 0.03 | 0.81 |
| γ 79.0 | 0.29 | 0.00 | 0.00 | 0.62 |
| γ 80.0 | 0.17 | 0.00 | 0.00 | 0.46 |
| γ 81.0 | 0.06 | 0.00 | 0.00 | 0.32 |
| γ 82.0 | 0.00 | 0.00 | 0.00 | 0.19 |
| γ 83.0 | 0.00 | 0.00 | 0.00 | 0.06 |
| 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 | 0.03 | 0.00 | 0.07 | 0.06 |
| γ 143.0 | 0.14 | 0.01 | 0.18 | 0.17 |
| γ 144.0 | 0.23 | 0.11 | 0.28 | 0.27 |
| γ 145.0 | 0.34 | 0.22 | 0.39 | 0.36 |
| γ 146.0 | 0.44 | 0.32 | 0.49 | 0.46 |
| γ 147.0 | 0.54 | 0.42 | 0.61 | 0.56 |
| γ 148.0 | 0.64 | 0.52 | 0.72 | 0.67 |
| γ 149.0 | 0.74 | 0.61 | 0.82 | 0.75 |
| γ 150.0 | 0.83 | 0.72 | 0.92 | 0.86 |
| γ 151.0 | 0.93 | 0.81 | 1.01 | 0.95 |
| γ 152.0 | 1.02 | 0.89 | 1.11 | 1.04 |
| γ 153.0 | 1.10 | 0.97 | 1.20 | 1.12 |
| γ 154.0 | 1.18 | 1.05 | 1.28 | 1.20 |
| γ 155.0 | 1.25 | 1.12 | 1.35 | 1.28 |
| γ 156.0 | 1.32 | 1.18 | 1.43 | 1.35 |
| γ 157.0 | 1.39 | 1.26 | 1.51 | 1.41 |
| γ 158.0 | 1.45 | 1.30 | 1.56 | 1.48 |
| γ 159.0 | 1.50 | 1.35 | 1.62 | 1.54 |
| γ 160.0 | 1.54 | 1.38 | 1.66 | 1.58 |
| γ 161.0 | 1.57 | 1.41 | 1.71 | 1.63 |
| γ 162.0 | 1.61 | 1.43 | 1.74 | 1.65 |
| γ 163.0 | 1.62 | 1.45 | 1.76 | 1.69 |
| γ 164.0 | 1.63 | 1.46 | 1.76 | 1.70 |
| γ 165.0 | 1.65 | 1.47 | 1.78 | 1.72 |
| γ 166.0 | 1.64 | 1.47 | 1.78 | 1.71 |
| γ 167.0 | 1.65 | 1.49 | 1.78 | 1.72 |
| γ 168.0 | 1.65 | 1.50 | 1.77 | 1.70 |
| γ 169.0 | 1.66 | 1.51 | 1.76 | 1.72 |
| γ 170.0 | 1.66 | 1.53 | 1.76 | 1.73 |
| γ 171.0 | 1.69 | 1.55 | 1.75 | 1.73 |
| γ 172.0 | 1.71 | 1.58 | 1.78 | 1.73 |
| γ 173.0 | 1.72 | 1.60 | 1.78 | 1.73 |
| γ 174.0 | 1.74 | 1.62 | 1.79 | 1.75 |
| γ 175.0 | 1.76 | 1.65 | 1.79 | 1.76 |
| γ 176.0 | 1.77 | 1.69 | 1.80 | 1.78 |
| γ 177.0 | 1.79 | 1.71 | 1.82 | 1.80 |
| γ 178.0 | 1.81 | 1.74 | 1.82 | 1.82 |
| γ 179.0 | 1.81 | 1.75 | 1.84 | 1.83 |
| γ 180.0 | 1.82 | 1.82 | 1.82 | 1.82 |