

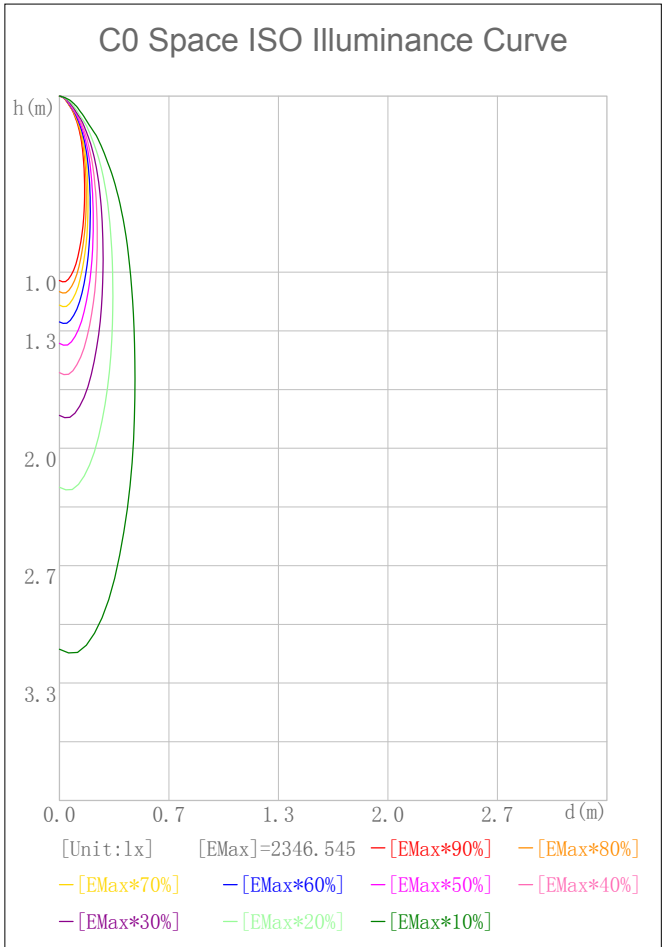
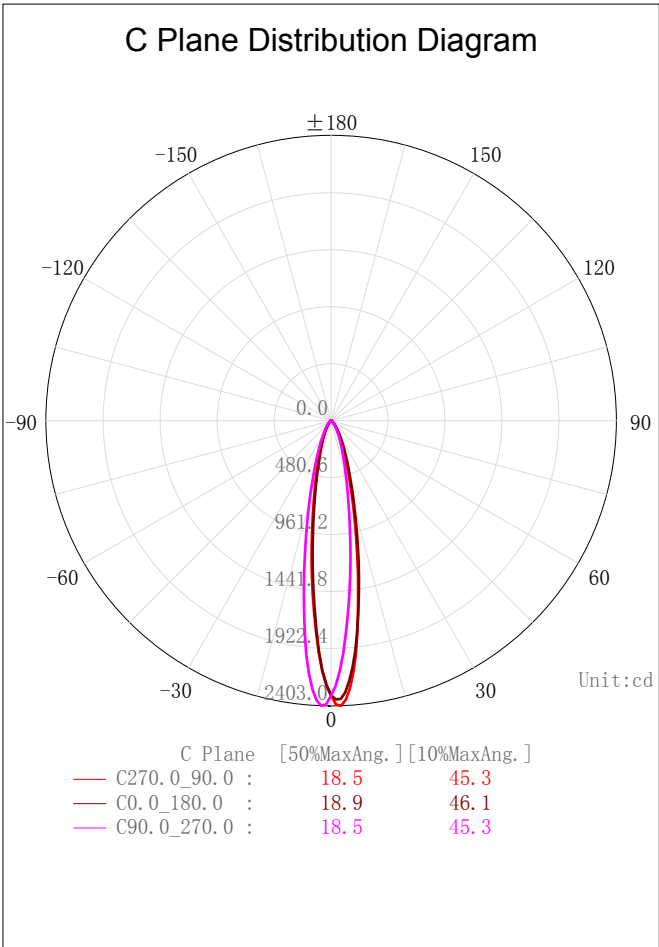
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:DL52-06-XX-04 3000K RA90 15D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/11/15 |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | | Shld.Ang(°): | Test Machine:GON-2000 |
| Test Lab: Quality Department | | Frequency (Hz): | Lamp CCT (K): Ra: |
| Lum. Size (W*L*H):0.038m*-0.038m*0.000m | | Lum. Area (m2):0.001 | Lum. W (kg): 0.000 |
| Test System: C, γ | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25 | Humidity(%): 50.0 |

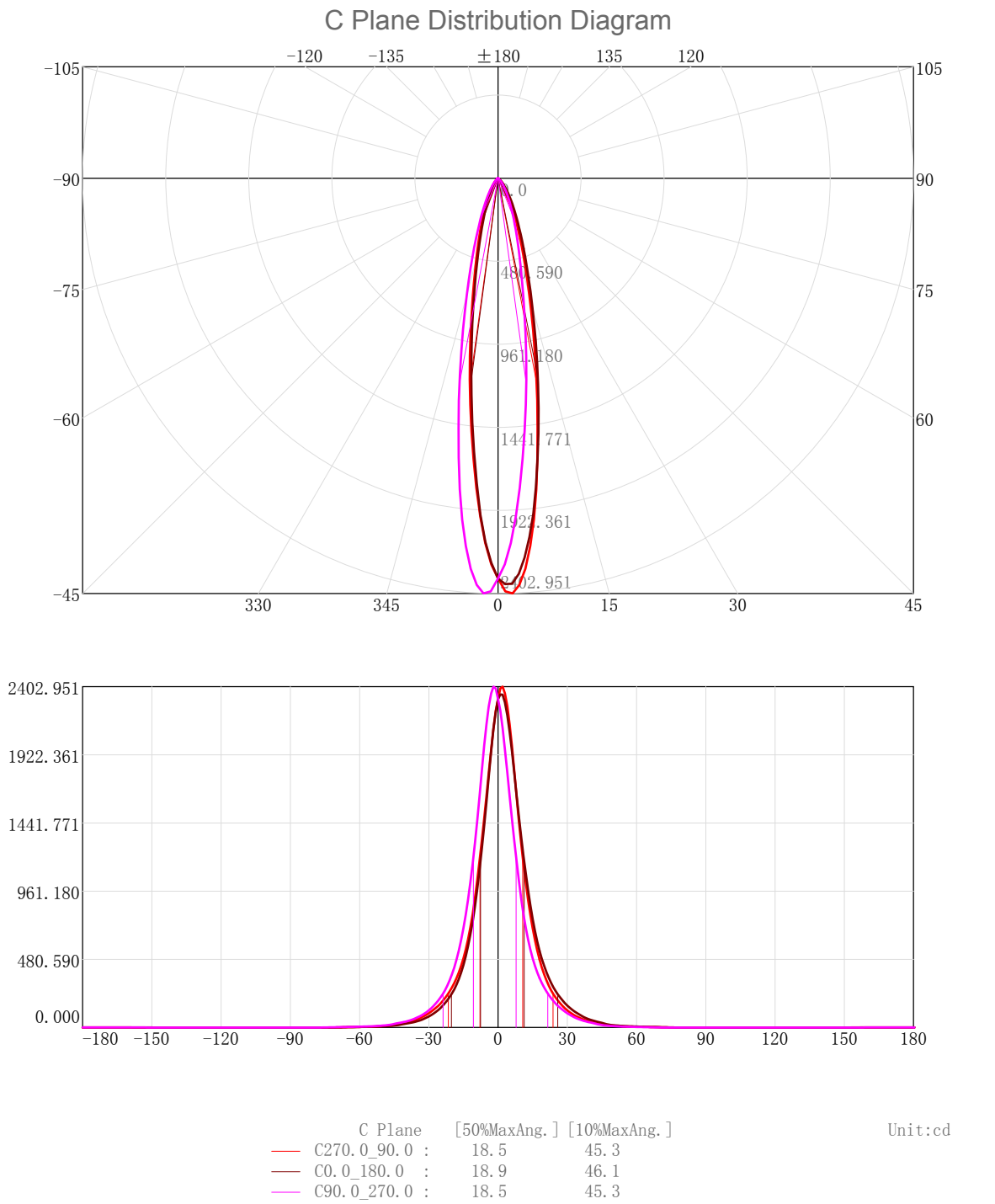
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|----------------------------------|---------------------------------------|--|
| Rated Flux(lm): 486.260 | Luminary Flux(lm): 486.256 | Field Angle(10%Imax): 45.3(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 485.700lm 99.89% | |
| Rated Voltage(V): | Luminary EER(lm/W): 77.963 | Up Lumens&Percent: 0.556lm 0.11% | |
| Tested Power(W): 6.237 | Max. Candela(cd): 2402.951 | S/MH: C0_a180=0.325 C90_270=0.326 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=270.0 γ=2.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.9, 0.030, 0.844 | Beam Angle(50%Imax): 18.5(°) | ErP ϕ use(90°): 437.439lm | |
| Lamp Size (W*L*H):0.038m*-0.038m*0.000m | Left=-7.8°, Right=10.7° | IRF(%): 938.080 | |



2D Plane Light Intensity Distribution Curve

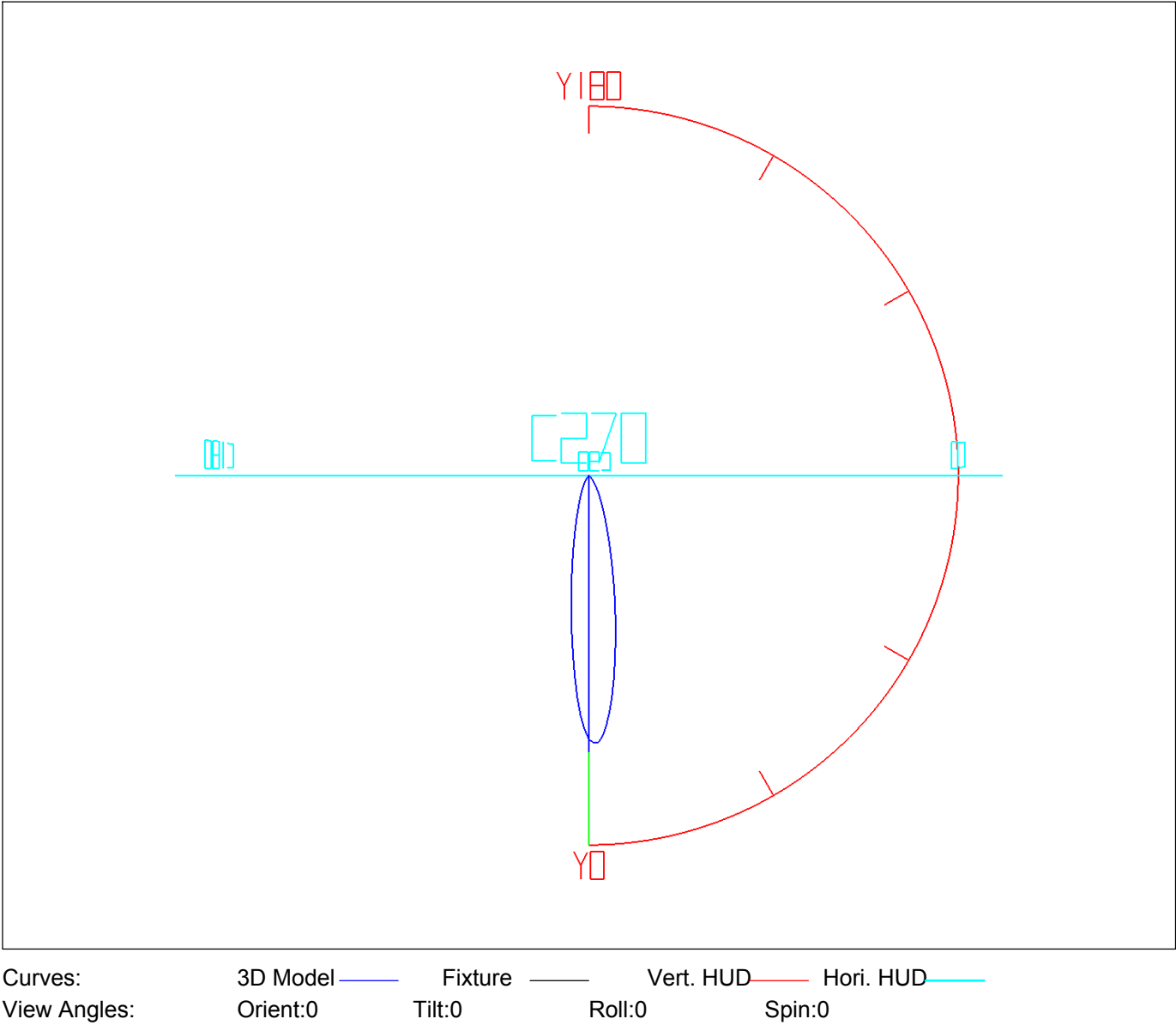
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K RA90 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:DL52-06-XX-04 3000K RA90 15D.IES

Zonal Flux Tabulation

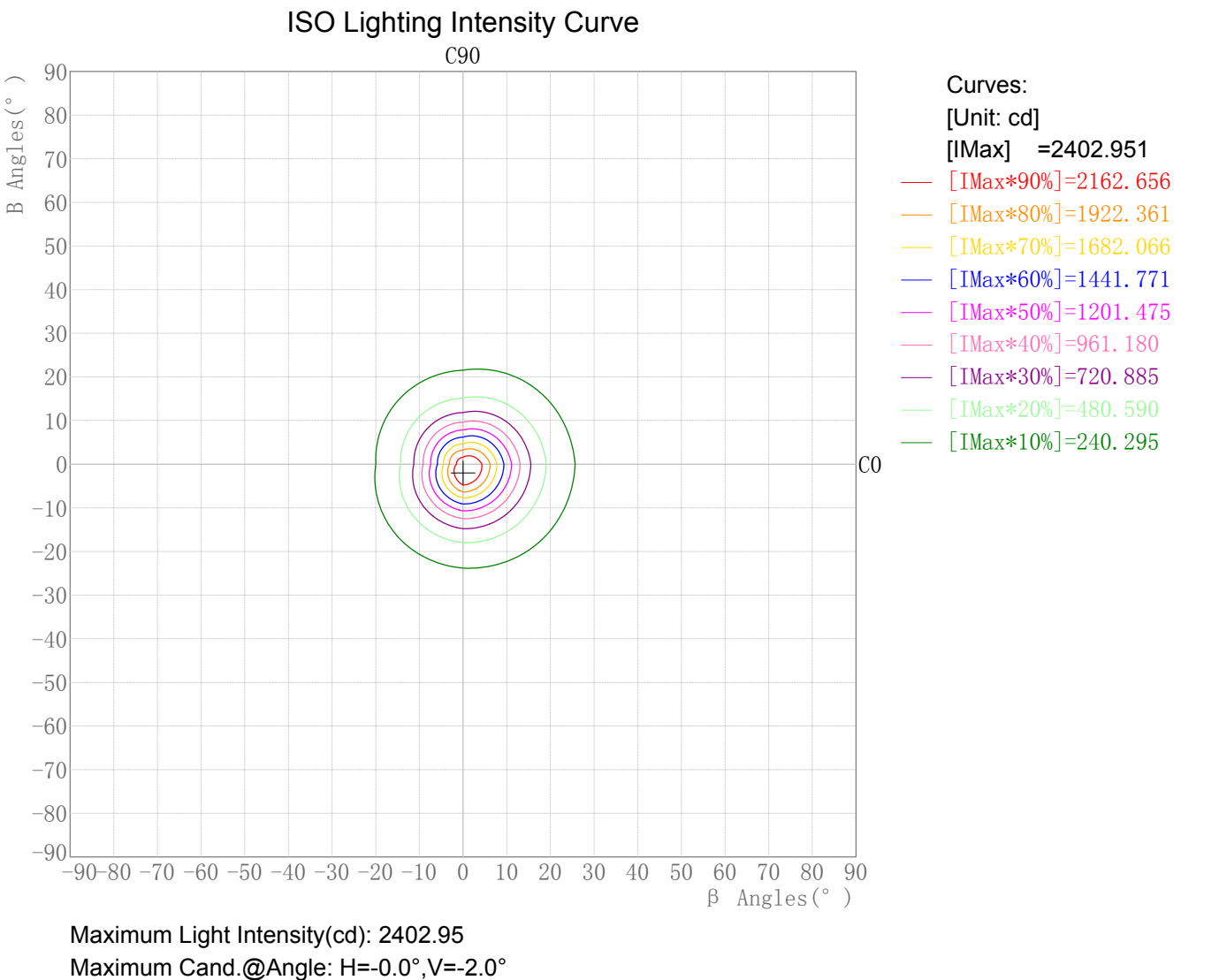
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 2.21 | 2.21 | 0.45 | 0.45 | 47.0-48.0 | 1.30 | 472.05 | 0.27 | 97.08 |
| 1.0-2.0 | 6.52 | 8.72 | 1.34 | 1.79 | 48.0-49.0 | 1.18 | 473.23 | 0.24 | 97.32 |
| 2.0-3.0 | 10.48 | 19.20 | 2.15 | 3.95 | 49.0-50.0 | 1.09 | 474.32 | 0.22 | 97.54 |
| 3.0-4.0 | 13.88 | 33.08 | 2.85 | 6.80 | 50.0-51.0 | 1.00 | 475.32 | 0.21 | 97.75 |
| 4.0-5.0 | 16.63 | 49.71 | 3.42 | 10.22 | 51.0-52.0 | 0.92 | 476.24 | 0.19 | 97.94 |
| 5.0-6.0 | 18.75 | 68.46 | 3.86 | 14.08 | 52.0-53.0 | 0.86 | 477.10 | 0.18 | 98.12 |
| 6.0-7.0 | 20.21 | 88.67 | 4.16 | 18.23 | 53.0-54.0 | 0.79 | 477.89 | 0.16 | 98.28 |
| 7.0-8.0 | 21.05 | 109.72 | 4.33 | 22.56 | 54.0-55.0 | 0.73 | 478.63 | 0.15 | 98.43 |
| 8.0-9.0 | 21.36 | 131.08 | 4.39 | 26.96 | 55.0-56.0 | 0.68 | 479.30 | 0.14 | 98.57 |
| 9.0-10.0 | 21.26 | 152.34 | 4.37 | 31.33 | 56.0-57.0 | 0.64 | 479.94 | 0.13 | 98.70 |
| 10.0-11.0 | 20.84 | 173.19 | 4.29 | 35.62 | 57.0-58.0 | 0.60 | 480.54 | 0.12 | 98.82 |
| 11.0-12.0 | 20.17 | 193.36 | 4.15 | 39.76 | 58.0-59.0 | 0.57 | 481.11 | 0.12 | 98.94 |
| 12.0-13.0 | 19.35 | 212.71 | 3.98 | 43.74 | 59.0-60.0 | 0.53 | 481.64 | 0.11 | 99.05 |
| 13.0-14.0 | 18.44 | 231.16 | 3.79 | 47.54 | 60.0-61.0 | 0.49 | 482.13 | 0.10 | 99.15 |
| 14.0-15.0 | 17.49 | 248.65 | 3.60 | 51.13 | 61.0-62.0 | 0.46 | 482.59 | 0.09 | 99.25 |
| 15.0-16.0 | 16.53 | 265.18 | 3.40 | 54.53 | 62.0-63.0 | 0.42 | 483.01 | 0.09 | 99.33 |
| 16.0-17.0 | 15.57 | 280.75 | 3.20 | 57.74 | 63.0-64.0 | 0.39 | 483.40 | 0.08 | 99.41 |
| 17.0-18.0 | 14.64 | 295.39 | 3.01 | 60.75 | 64.0-65.0 | 0.36 | 483.76 | 0.07 | 99.49 |
| 18.0-19.0 | 13.74 | 309.13 | 2.83 | 63.57 | 65.0-66.0 | 0.34 | 484.10 | 0.07 | 99.56 |
| 19.0-20.0 | 12.88 | 322.01 | 2.65 | 66.22 | 66.0-67.0 | 0.31 | 484.40 | 0.06 | 99.62 |
| 20.0-21.0 | 12.07 | 334.08 | 2.48 | 68.70 | 67.0-68.0 | 0.27 | 484.68 | 0.06 | 99.67 |
| 21.0-22.0 | 11.31 | 345.39 | 2.33 | 71.03 | 68.0-69.0 | 0.24 | 484.91 | 0.05 | 99.72 |
| 22.0-23.0 | 10.59 | 355.98 | 2.18 | 73.21 | 69.0-70.0 | 0.20 | 485.11 | 0.04 | 99.76 |
| 23.0-24.0 | 9.91 | 365.90 | 2.04 | 75.25 | 70.0-71.0 | 0.16 | 485.27 | 0.03 | 99.80 |
| 24.0-25.0 | 9.27 | 375.17 | 1.91 | 77.15 | 71.0-72.0 | 0.12 | 485.38 | 0.02 | 99.82 |
| 25.0-26.0 | 8.66 | 383.83 | 1.78 | 78.94 | 72.0-73.0 | 0.09 | 485.47 | 0.02 | 99.84 |
| 26.0-27.0 | 8.08 | 391.91 | 1.66 | 80.60 | 73.0-74.0 | 0.07 | 485.54 | 0.01 | 99.85 |
| 27.0-28.0 | 7.52 | 399.43 | 1.55 | 82.14 | 74.0-75.0 | 0.06 | 485.60 | 0.01 | 99.86 |
| 28.0-29.0 | 6.99 | 406.42 | 1.44 | 83.58 | 75.0-76.0 | 0.04 | 485.64 | 0.01 | 99.87 |
| 29.0-30.0 | 6.49 | 412.91 | 1.33 | 84.92 | 76.0-77.0 | 0.03 | 485.67 | 0.01 | 99.88 |
| 30.0-31.0 | 6.02 | 418.93 | 1.24 | 86.15 | 77.0-78.0 | 0.02 | 485.69 | 0.00 | 99.88 |
| 31.0-32.0 | 5.58 | 424.51 | 1.15 | 87.30 | 78.0-79.0 | 0.01 | 485.70 | 0.00 | 99.88 |
| 32.0-33.0 | 5.16 | 429.67 | 1.06 | 88.36 | 79.0-80.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 33.0-34.0 | 4.77 | 434.44 | 0.98 | 89.34 | 80.0-81.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 34.0-35.0 | 4.40 | 438.84 | 0.91 | 90.25 | 81.0-82.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 35.0-36.0 | 4.06 | 442.90 | 0.83 | 91.08 | 82.0-83.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 36.0-37.0 | 3.74 | 446.64 | 0.77 | 91.85 | 83.0-84.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 37.0-38.0 | 3.44 | 450.08 | 0.71 | 92.56 | 84.0-85.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 38.0-39.0 | 3.18 | 453.26 | 0.65 | 93.21 | 85.0-86.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 39.0-40.0 | 2.94 | 456.20 | 0.61 | 93.82 | 86.0-87.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 40.0-41.0 | 2.73 | 458.93 | 0.56 | 94.38 | 87.0-88.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 41.0-42.0 | 2.51 | 461.43 | 0.52 | 94.89 | 88.0-89.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 42.0-43.0 | 2.28 | 463.72 | 0.47 | 95.36 | 89.0-90.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 43.0-44.0 | 2.07 | 465.78 | 0.42 | 95.79 | 90.0-91.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 44.0-45.0 | 1.86 | 467.64 | 0.38 | 96.17 | 91.0-92.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 45.0-46.0 | 1.65 | 469.29 | 0.34 | 96.51 | 92.0-93.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 46.0-47.0 | 1.46 | 470.74 | 0.30 | 96.81 | 93.0-94.0 | 0.00 | 485.70 | 0.00 | 99.88 |

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 | 485.70 | 0.00 | 99.88 | 141.0-142.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 95.0-96.0 | 0.00 | 485.70 | 0.00 | 99.88 | 142.0-143.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 96.0-97.0 | 0.00 | 485.70 | 0.00 | 99.88 | 143.0-144.0 | 0.00 | 485.70 | 0.00 | 99.88 |
| 97.0-98.0 | 0.00 | 485.70 | 0.00 | 99.88 | 144.0-145.0 | 0.00 | 485.70 | 0.00 | 99.89 |
| 98.0-99.0 | 0.00 | 485.70 | 0.00 | 99.88 | 145.0-146.0 | 0.00 | 485.70 | 0.00 | 99.89 |
| 99.0-100.0 | 0.00 | 485.70 | 0.00 | 99.88 | 146.0-147.0 | 0.00 | 485.71 | 0.00 | 99.89 |
| 100.0-101.0 | 0.00 | 485.70 | 0.00 | 99.88 | 147.0-148.0 | 0.01 | 485.71 | 0.00 | 99.89 |
| 101.0-102.0 | 0.00 | 485.70 | 0.00 | 99.88 | 148.0-149.0 | 0.01 | 485.72 | 0.00 | 99.89 |
| 102.0-103.0 | 0.00 | 485.70 | 0.00 | 99.88 | 149.0-150.0 | 0.01 | 485.73 | 0.00 | 99.89 |
| 103.0-104.0 | 0.00 | 485.70 | 0.00 | 99.88 | 150.0-151.0 | 0.01 | 485.75 | 0.00 | 99.89 |
| 104.0-105.0 | 0.00 | 485.70 | 0.00 | 99.88 | 151.0-152.0 | 0.02 | 485.76 | 0.00 | 99.90 |
| 105.0-106.0 | 0.00 | 485.70 | 0.00 | 99.88 | 152.0-153.0 | 0.02 | 485.78 | 0.00 | 99.90 |
| 106.0-107.0 | 0.00 | 485.70 | 0.00 | 99.88 | 153.0-154.0 | 0.02 | 485.81 | 0.00 | 99.91 |
| 107.0-108.0 | 0.00 | 485.70 | 0.00 | 99.88 | 154.0-155.0 | 0.02 | 485.83 | 0.00 | 99.91 |
| 108.0-109.0 | 0.00 | 485.70 | 0.00 | 99.88 | 155.0-156.0 | 0.02 | 485.85 | 0.01 | 99.92 |
| 109.0-110.0 | 0.00 | 485.70 | 0.00 | 99.88 | 156.0-157.0 | 0.03 | 485.88 | 0.01 | 99.92 |
| 110.0-111.0 | 0.00 | 485.70 | 0.00 | 99.88 | 157.0-158.0 | 0.03 | 485.91 | 0.01 | 99.93 |
| 111.0-112.0 | 0.00 | 485.70 | 0.00 | 99.88 | 158.0-159.0 | 0.03 | 485.93 | 0.01 | 99.93 |
| 112.0-113.0 | 0.00 | 485.70 | 0.00 | 99.88 | 159.0-160.0 | 0.03 | 485.96 | 0.01 | 99.94 |
| 113.0-114.0 | 0.00 | 485.70 | 0.00 | 99.88 | 160.0-161.0 | 0.03 | 485.99 | 0.01 | 99.94 |
| 114.0-115.0 | 0.00 | 485.70 | 0.00 | 99.88 | 161.0-162.0 | 0.03 | 486.01 | 0.01 | 99.95 |
| 115.0-116.0 | 0.00 | 485.70 | 0.00 | 99.88 | 162.0-163.0 | 0.03 | 486.04 | 0.01 | 99.95 |
| 116.0-117.0 | 0.00 | 485.70 | 0.00 | 99.88 | 163.0-164.0 | 0.02 | 486.06 | 0.01 | 99.96 |
| 117.0-118.0 | 0.00 | 485.70 | 0.00 | 99.88 | 164.0-165.0 | 0.02 | 486.08 | 0.00 | 99.96 |
| 118.0-119.0 | 0.00 | 485.70 | 0.00 | 99.88 | 165.0-166.0 | 0.02 | 486.11 | 0.00 | 99.97 |
| 119.0-120.0 | 0.00 | 485.70 | 0.00 | 99.88 | 166.0-167.0 | 0.02 | 486.13 | 0.00 | 99.97 |
| 120.0-121.0 | 0.00 | 485.70 | 0.00 | 99.88 | 167.0-168.0 | 0.02 | 486.15 | 0.00 | 99.98 |
| 121.0-122.0 | 0.00 | 485.70 | 0.00 | 99.88 | 168.0-169.0 | 0.02 | 486.17 | 0.00 | 99.98 |
| 122.0-123.0 | 0.00 | 485.70 | 0.00 | 99.88 | 169.0-170.0 | 0.02 | 486.18 | 0.00 | 99.98 |
| 123.0-124.0 | 0.00 | 485.70 | 0.00 | 99.88 | 170.0-171.0 | 0.01 | 486.20 | 0.00 | 99.99 |
| 124.0-125.0 | 0.00 | 485.70 | 0.00 | 99.88 | 171.0-172.0 | 0.01 | 486.21 | 0.00 | 99.99 |
| 125.0-126.0 | 0.00 | 485.70 | 0.00 | 99.88 | 172.0-173.0 | 0.01 | 486.22 | 0.00 | 99.99 |
| 126.0-127.0 | 0.00 | 485.70 | 0.00 | 99.88 | 173.0-174.0 | 0.01 | 486.23 | 0.00 | 99.99 |
| 127.0-128.0 | 0.00 | 485.70 | 0.00 | 99.88 | 174.0-175.0 | 0.01 | 486.24 | 0.00 | 100.00 |
| 128.0-129.0 | 0.00 | 485.70 | 0.00 | 99.88 | 175.0-176.0 | 0.01 | 486.25 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 485.70 | 0.00 | 99.88 | 176.0-177.0 | 0.00 | 486.25 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 485.70 | 0.00 | 99.88 | 177.0-178.0 | 0.00 | 486.25 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 485.70 | 0.00 | 99.88 | 178.0-179.0 | 0.00 | 486.26 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 485.70 | 0.00 | 99.88 | 179.0-180.0 | 0.00 | 486.26 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 134.0-135.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 135.0-136.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 136.0-137.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 137.0-138.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 138.0-139.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 139.0-140.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |
| 140.0-141.0 | 0.00 | 485.70 | 0.00 | 99.88 | | | | | |

Rectangle ISO Lighting Intensity Diagram

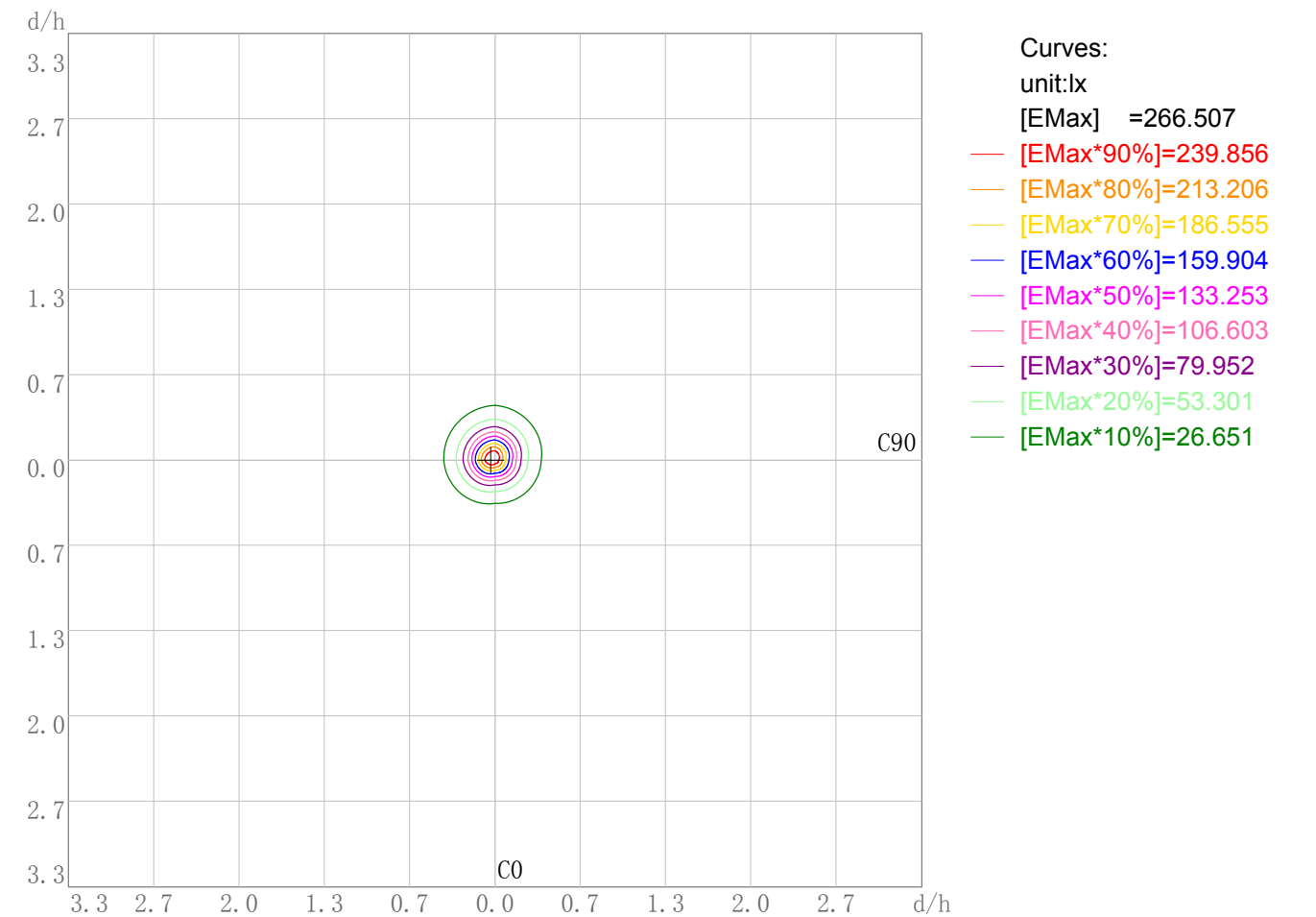
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K RA90 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 266.51
Working Plane Maximum Illuminance Position(d/h):H-0.0 V-0.0

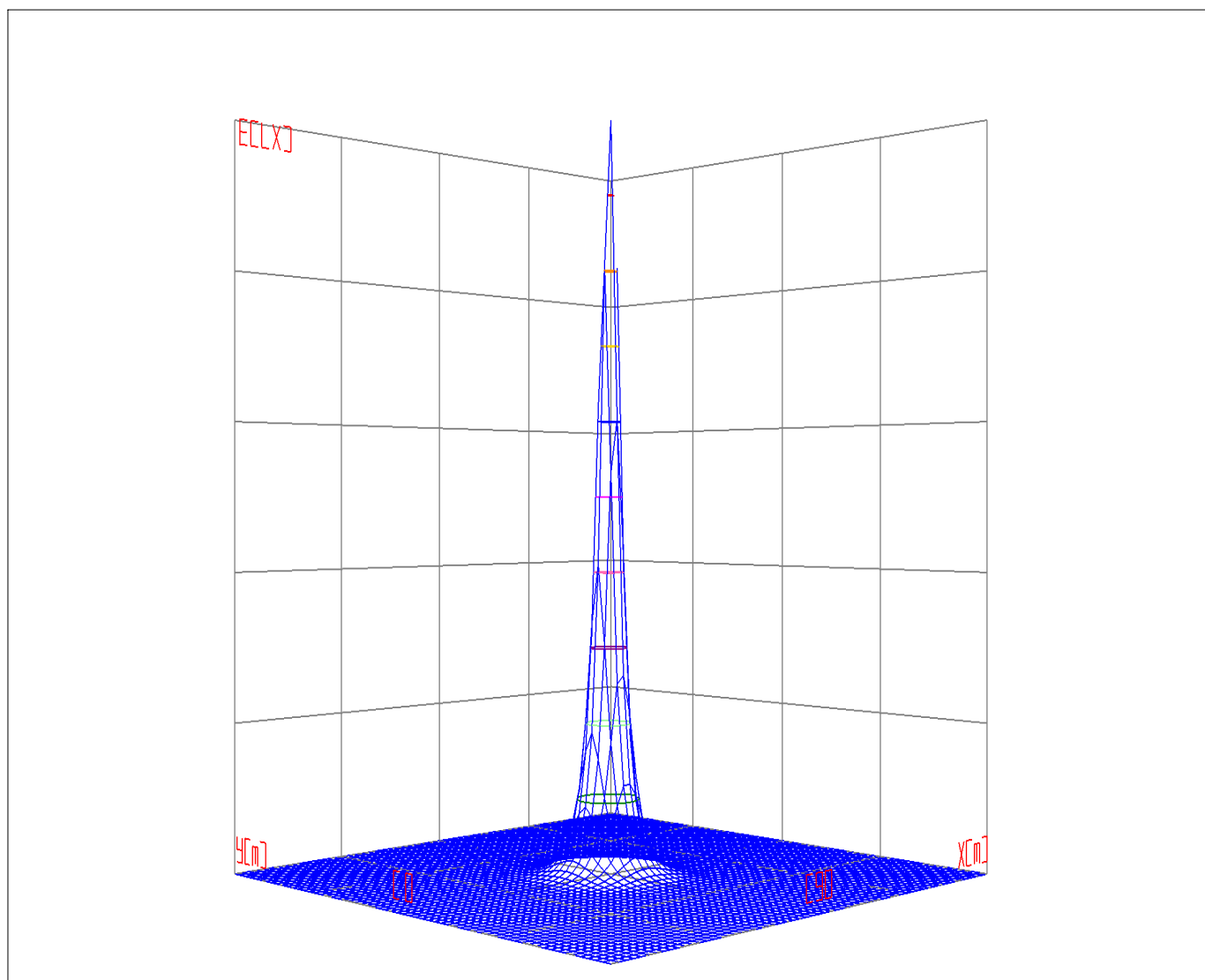
IES Indoor Report

Photometric Filename:DL52-06-XX-04 3000K RA90 15D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |

3D Plane Illuminance Modal

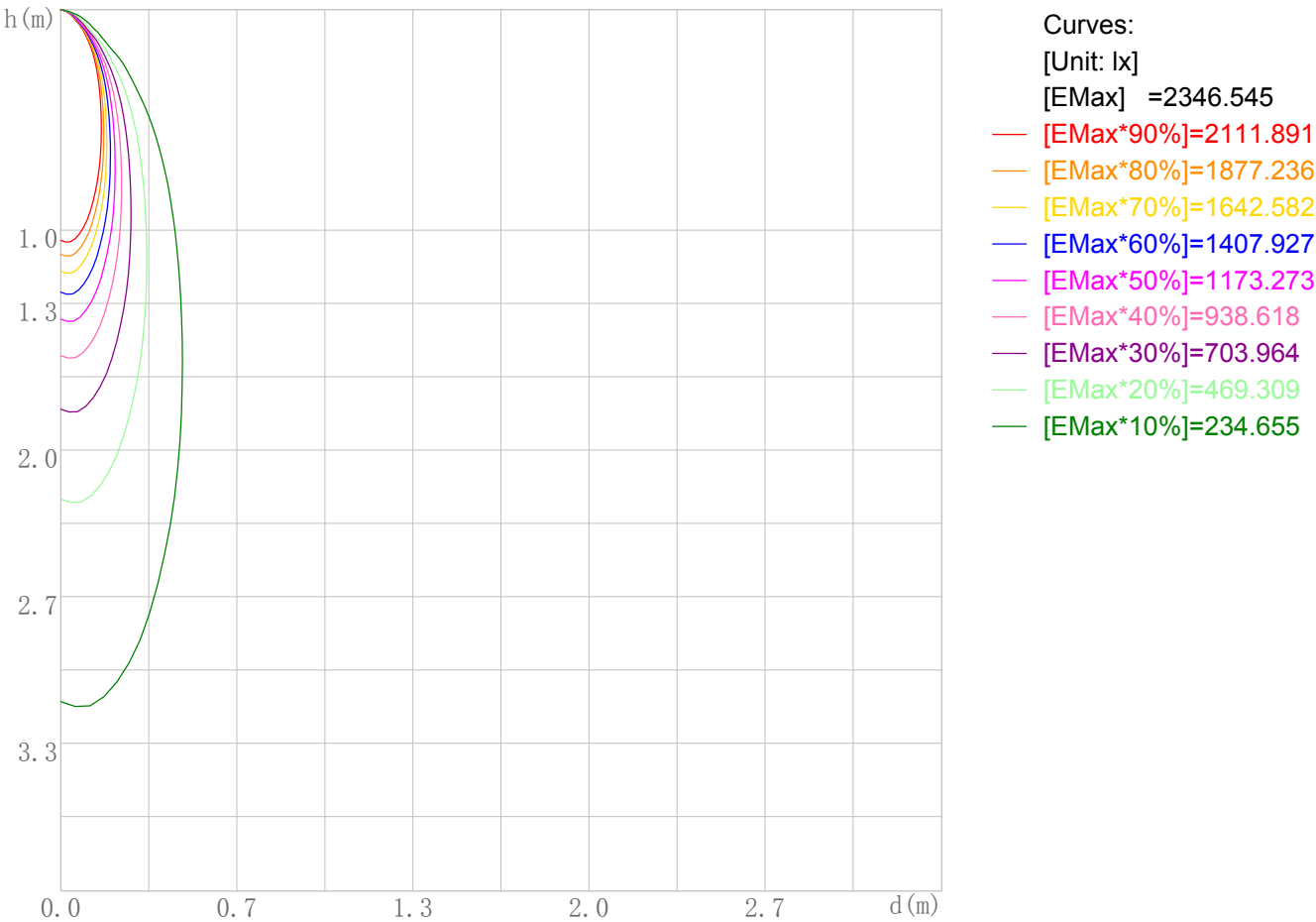


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |

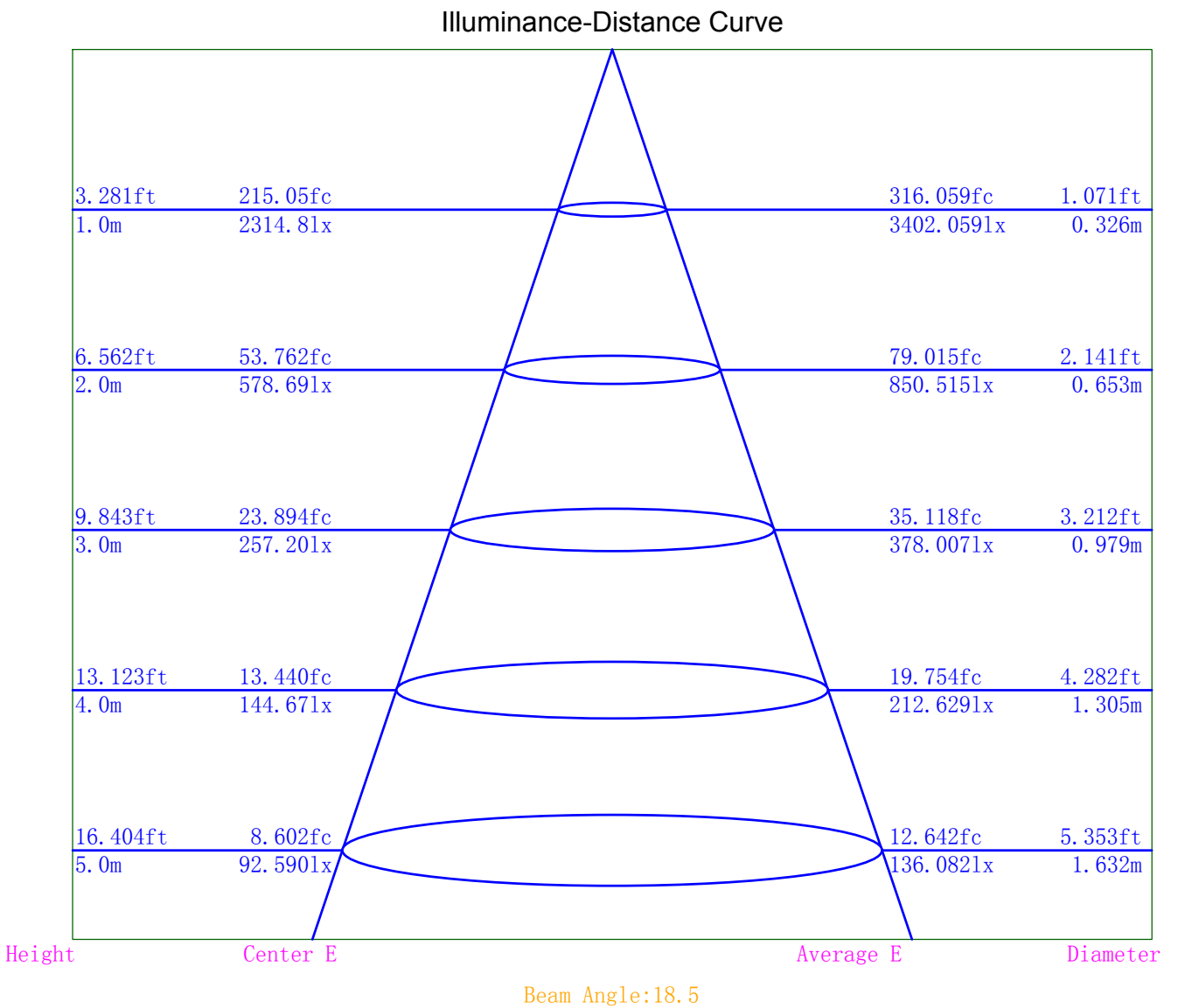
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:2346.55lx,1.0deg
Plane Maximum Lighting Intensity and @Angle:2347.618cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |

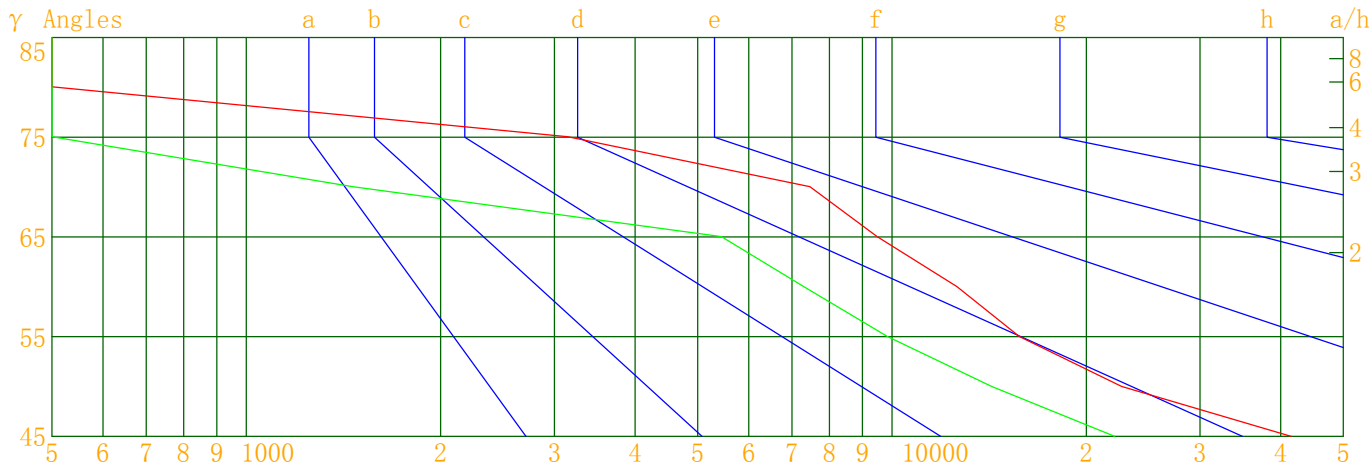
Glare Grade Table

| 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 | 41513 | 22674 | 15745 | 12604 | 9483 | 7461 | 3148 | 0 | 0 |
| C90 | 22133 | 14268 | 9837 | 7299 | 5441 | 1462 | 0 | 0 | 0 |

Luminance Limiting Curve



Luminous Size:

Length(m)=-0.038

Width(m)=-0.038

Height(m)=0.000

Area(m^2)=0.001134

Luminous Type:

Without Luminous Side

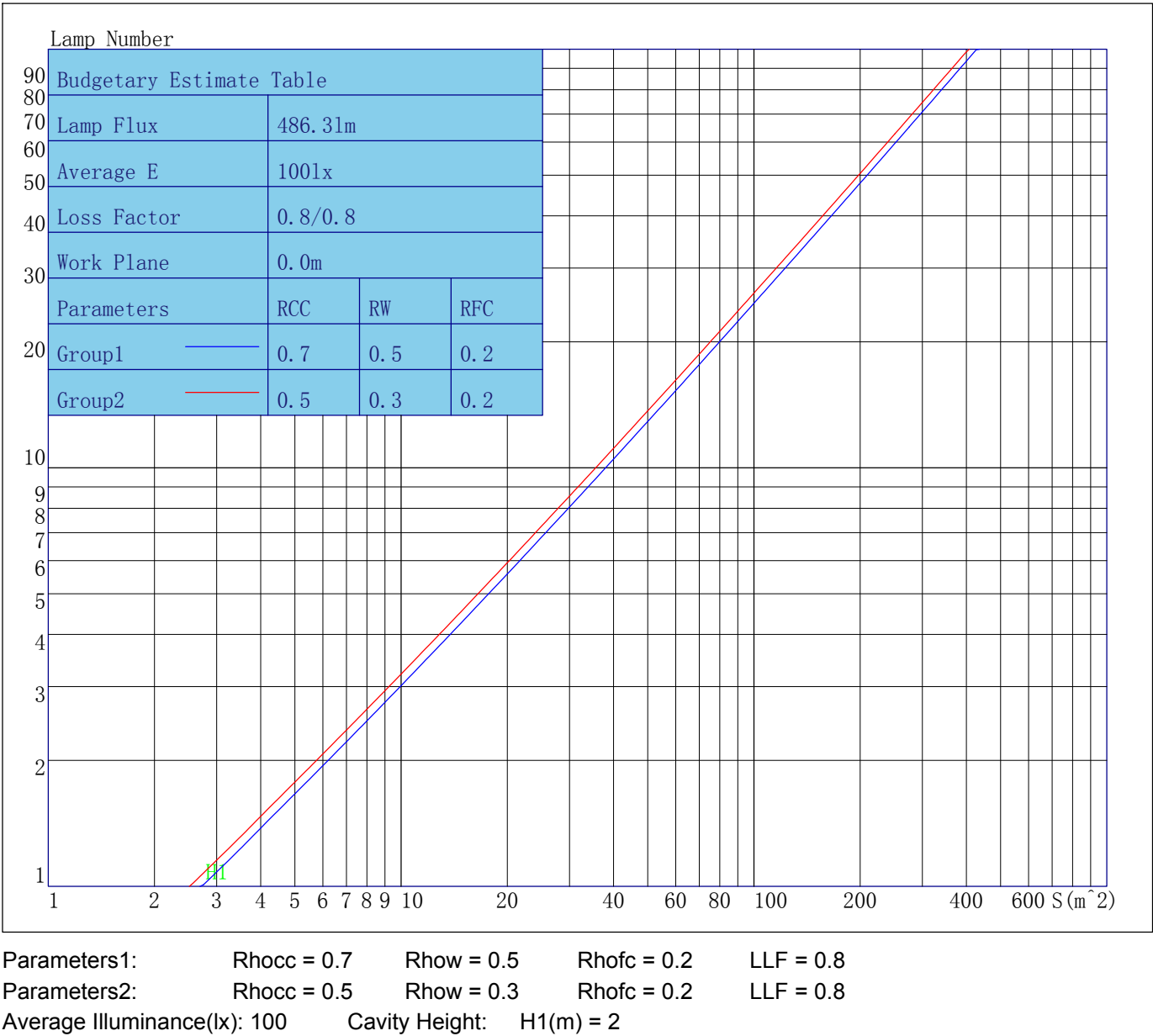
Luminous Curves:

C0-C180 Color: —

C90-C270 Color: —

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL52-06-XX-04 3000K 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: 2021/11/15 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 3000K RA90 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: 2021/11/15 |

| Coefficients of Utilization - Zonal Cavity Method | | | | | | | | | | | | | | | | | | |
|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Coef. | Effective Floor Cavity Reflectance RFC=0.20 | | | | | | | | | | | | | | | | | |
| RhoCC (%) | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
| RhoW (%) | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | Coefficient of Utilization(%) | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 114 | 112 | 110 | 108 | 112 | 110 | 108 | 106 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 95 |
| 2 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 99 | 101 | 99 | 96 | 98 | 96 | 94 | 95 | 94 | 92 | 91 |
| 3 | 106 | 100 | 96 | 93 | 104 | 99 | 95 | 92 | 97 | 94 | 91 | 94 | 92 | 90 | 92 | 90 | 88 | 87 |
| 4 | 102 | 96 | 91 | 88 | 100 | 95 | 90 | 87 | 93 | 89 | 86 | 91 | 88 | 85 | 89 | 86 | 84 | 83 |
| 5 | 98 | 91 | 87 | 83 | 97 | 91 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 81 | 86 | 83 | 81 | 80 |
| 6 | 95 | 88 | 83 | 79 | 93 | 87 | 82 | 79 | 85 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 78 | 76 |
| 7 | 92 | 84 | 79 | 76 | 90 | 84 | 79 | 76 | 82 | 78 | 75 | 81 | 78 | 75 | 80 | 77 | 75 | 74 |
| 8 | 89 | 81 | 76 | 73 | 87 | 81 | 76 | 73 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 74 | 72 | 71 |
| 9 | 86 | 78 | 74 | 70 | 85 | 78 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 70 | 75 | 72 | 70 | 69 |
| 10 | 83 | 76 | 71 | 68 | 82 | 75 | 71 | 68 | 74 | 70 | 68 | 74 | 70 | 68 | 73 | 70 | 67 | 66 |

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: DL52-06-XX-04 3000K RA90 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: 2021/11/15 |

Unified Glare Rating Table

| | | | | | | | | | | |
|--|-----------------|------|------|------|------|---------------|------|------|------|------|
| Ceiling RCC | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 |
| Wall RW | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 |
| Floor RFC | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Room Size | Vewed crosswise | | | | | Vewed endwise | | | | |
| X=2H Y=2H | 19.1 | 20.2 | 19.5 | 20.5 | 20.8 | 16.6 | 17.7 | 17.0 | 18.0 | 18.3 |
| | 19.1 | 20.1 | 19.5 | 20.4 | 20.8 | 16.5 | 17.5 | 16.9 | 17.8 | 18.2 |
| | 19.0 | 20.0 | 19.5 | 20.3 | 20.7 | 16.4 | 17.3 | 16.8 | 17.6 | 18.0 |
| | 18.9 | 19.8 | 19.4 | 20.2 | 20.6 | 16.3 | 17.1 | 16.7 | 17.5 | 17.9 |
| | 18.9 | 19.7 | 19.3 | 20.1 | 20.5 | 16.2 | 17.0 | 16.6 | 17.4 | 17.8 |
| | 18.8 | 19.6 | 19.3 | 20.0 | 20.4 | 16.2 | 16.9 | 16.6 | 17.3 | 17.7 |
| X=4H Y=2H | 18.9 | 19.8 | 19.3 | 20.2 | 20.6 | 16.5 | 17.4 | 16.9 | 17.7 | 18.1 |
| | 19.0 | 19.7 | 19.4 | 20.2 | 20.6 | 16.4 | 17.1 | 16.8 | 17.5 | 17.9 |
| | 18.9 | 19.6 | 19.3 | 20.0 | 20.5 | 16.2 | 16.9 | 16.7 | 17.4 | 17.8 |
| | 18.8 | 19.4 | 19.3 | 19.9 | 20.3 | 16.1 | 16.7 | 16.6 | 17.2 | 17.7 |
| | 18.7 | 19.3 | 19.2 | 19.8 | 20.2 | 16.0 | 16.6 | 16.5 | 17.1 | 17.6 |
| | 18.7 | 19.2 | 19.1 | 19.7 | 20.1 | 16.0 | 16.5 | 16.5 | 17.0 | 17.5 |
| X=8H Y=4H | 18.7 | 19.3 | 19.2 | 19.8 | 20.2 | 16.1 | 16.6 | 16.5 | 17.1 | 17.6 |
| | 18.6 | 19.1 | 19.1 | 19.6 | 20.1 | 15.9 | 16.4 | 16.4 | 16.9 | 17.5 |
| | 18.5 | 19.0 | 19.1 | 19.5 | 20.0 | 15.9 | 16.3 | 16.4 | 16.8 | 17.3 |
| | 18.5 | 18.9 | 19.0 | 19.4 | 20.0 | 15.8 | 16.2 | 16.3 | 16.7 | 17.3 |
| X=12H Y=4H | 18.7 | 19.2 | 19.2 | 19.7 | 20.2 | 16.0 | 16.5 | 16.5 | 17.0 | 17.5 |
| | 18.5 | 19.0 | 19.1 | 19.5 | 20.0 | 15.9 | 16.3 | 16.4 | 16.8 | 17.3 |
| | 18.5 | 18.9 | 19.0 | 19.4 | 20.0 | 15.8 | 16.2 | 16.3 | 16.7 | 17.3 |
| Variations with the objverver position at spacings | | | | | | | | | | |
| S=1.0H | 2.6/-5.1 | | | | | 3.0/-6.9 | | | | |
| S=1.5H | 3.2/-6.3 | | | | | 3.8/-8.0 | | | | |
| S=2.0H | 3.4/-7.5 | | | | | 5.6/-16.7 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 0.2 | | | | | 0.2 | | | | |

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 | 2314.76 | 2314.76 | 2314.76 | 2314.76 |
| γ 1.0 | 2347.62 | 2234.36 | 2224.48 | 2390.23 |
| γ 2.0 | 2346.41 | 2110.85 | 2105.24 | 2402.95 |
| γ 3.0 | 2291.83 | 1959.34 | 1949.21 | 2355.29 |
| γ 4.0 | 2199.27 | 1795.99 | 1767.36 | 2263.90 |
| γ 5.0 | 2083.57 | 1630.81 | 1588.34 | 2135.75 |
| γ 6.0 | 1950.10 | 1471.90 | 1420.85 | 1986.79 |
| γ 7.0 | 1799.14 | 1320.42 | 1262.83 | 1813.56 |
| γ 8.0 | 1643.42 | 1178.23 | 1114.82 | 1633.28 |
| γ 9.0 | 1492.98 | 1040.54 | 978.25 | 1462.17 |
| γ 10.0 | 1350.96 | 913.64 | 855.72 | 1304.06 |
| γ 11.0 | 1215.08 | 800.53 | 746.39 | 1156.73 |
| γ 12.0 | 1086.88 | 703.11 | 653.16 | 1020.34 |
| γ 13.0 | 968.48 | 620.13 | 571.45 | 899.36 |
| γ 14.0 | 860.99 | 548.97 | 500.90 | 793.05 |
| γ 15.0 | 765.38 | 487.50 | 439.69 | 700.07 |
| γ 16.0 | 680.59 | 434.65 | 387.22 | 616.89 |
| γ 17.0 | 605.98 | 388.79 | 342.15 | 543.35 |
| γ 18.0 | 540.71 | 348.33 | 302.53 | 479.44 |
| γ 19.0 | 483.38 | 312.97 | 269.11 | 422.69 |
| γ 20.0 | 432.65 | 281.32 | 239.58 | 373.55 |
| γ 21.0 | 388.36 | 253.62 | 214.29 | 331.16 |
| γ 22.0 | 349.11 | 228.91 | 192.03 | 294.18 |
| γ 23.0 | 314.08 | 206.70 | 172.02 | 262.57 |
| γ 24.0 | 283.38 | 186.77 | 153.39 | 234.96 |
| γ 25.0 | 256.20 | 168.37 | 136.94 | 210.83 |
| γ 26.0 | 231.83 | 152.04 | 122.42 | 189.26 |
| γ 27.0 | 210.12 | 137.26 | 109.46 | 168.87 |
| γ 28.0 | 189.80 | 124.04 | 97.93 | 150.79 |
| γ 29.0 | 171.41 | 111.70 | 87.35 | 135.17 |
| γ 30.0 | 155.26 | 100.81 | 78.13 | 121.29 |
| γ 31.0 | 140.58 | 90.82 | 69.82 | 108.67 |
| γ 32.0 | 127.16 | 81.90 | 62.33 | 97.54 |
| γ 33.0 | 114.97 | 73.56 | 55.49 | 87.67 |
| γ 34.0 | 104.10 | 66.00 | 49.53 | 78.92 |
| γ 35.0 | 93.99 | 59.08 | 44.39 | 71.01 |
| γ 36.0 | 84.58 | 53.13 | 40.17 | 63.69 |
| γ 37.0 | 75.50 | 47.95 | 36.36 | 57.00 |
| γ 38.0 | 67.77 | 43.38 | 33.12 | 51.28 |
| γ 39.0 | 61.04 | 39.29 | 30.23 | 46.38 |
| γ 40.0 | 55.08 | 35.64 | 27.67 | 42.19 |
| γ 41.0 | 49.87 | 32.31 | 25.04 | 38.48 |
| γ 42.0 | 45.19 | 28.56 | 21.55 | 35.22 |
| γ 43.0 | 41.06 | 24.19 | 18.24 | 32.32 |
| γ 44.0 | 37.34 | 20.50 | 15.80 | 29.44 |
| γ 45.0 | 33.29 | 17.75 | 14.02 | 25.44 |
| γ 46.0 | 28.25 | 15.61 | 12.58 | 21.69 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 23.90 | 13.91 | 11.45 | 18.97 |
| γ 48.0 | 20.74 | 12.52 | 10.52 | 16.88 |
| γ 49.0 | 18.35 | 11.40 | 9.70 | 15.16 |
| γ 50.0 | 16.53 | 10.40 | 8.91 | 13.78 |
| γ 51.0 | 15.08 | 9.40 | 8.01 | 12.66 |
| γ 52.0 | 13.86 | 8.28 | 7.15 | 11.71 |
| γ 53.0 | 12.74 | 7.52 | 6.59 | 10.85 |
| γ 54.0 | 11.58 | 6.89 | 6.11 | 9.81 |
| γ 55.0 | 10.24 | 6.40 | 5.75 | 8.81 |
| γ 56.0 | 9.36 | 5.98 | 5.43 | 8.12 |
| γ 57.0 | 8.65 | 5.56 | 5.11 | 7.59 |
| γ 58.0 | 8.10 | 5.13 | 4.73 | 7.18 |
| γ 59.0 | 7.62 | 4.62 | 4.29 | 6.79 |
| γ 60.0 | 7.15 | 4.14 | 3.86 | 6.41 |
| γ 61.0 | 6.62 | 3.72 | 3.50 | 5.95 |
| γ 62.0 | 6.01 | 3.37 | 3.26 | 5.43 |
| γ 63.0 | 5.42 | 3.10 | 3.04 | 4.92 |
| γ 64.0 | 4.95 | 2.87 | 2.84 | 4.58 |
| γ 65.0 | 4.55 | 2.61 | 2.59 | 4.31 |
| γ 66.0 | 4.24 | 2.30 | 2.31 | 4.06 |
| γ 67.0 | 3.98 | 1.86 | 1.88 | 3.82 |
| γ 68.0 | 3.69 | 1.34 | 1.38 | 3.56 |
| γ 69.0 | 3.36 | 0.90 | 0.98 | 3.24 |
| γ 70.0 | 2.89 | 0.57 | 0.63 | 2.79 |
| γ 71.0 | 2.33 | 0.27 | 0.33 | 2.27 |
| γ 72.0 | 1.88 | 0.01 | 0.07 | 1.84 |
| γ 73.0 | 1.52 | 0.00 | 0.00 | 1.49 |
| γ 74.0 | 1.20 | 0.00 | 0.00 | 1.17 |
| γ 75.0 | 0.92 | 0.00 | 0.00 | 0.89 |
| γ 76.0 | 0.68 | 0.00 | 0.00 | 0.64 |
| γ 77.0 | 0.46 | 0.00 | 0.00 | 0.42 |
| γ 78.0 | 0.28 | 0.00 | 0.00 | 0.24 |
| γ 79.0 | 0.12 | 0.00 | 0.00 | 0.07 |
| 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 | 0.03 | 0.00 |
| γ 145.0 | 0.00 | 0.00 | 0.13 | 0.00 |
| γ 146.0 | 0.00 | 0.00 | 0.23 | 0.00 |
| γ 147.0 | 0.00 | 0.00 | 0.30 | 0.01 |
| γ 148.0 | 0.00 | 0.00 | 0.38 | 0.12 |
| γ 149.0 | 0.00 | 0.02 | 0.45 | 0.20 |
| γ 150.0 | 0.00 | 0.10 | 0.52 | 0.28 |
| γ 151.0 | 0.06 | 0.17 | 0.58 | 0.36 |
| γ 152.0 | 0.15 | 0.23 | 0.64 | 0.42 |
| γ 153.0 | 0.24 | 0.29 | 0.68 | 0.48 |
| γ 154.0 | 0.31 | 0.33 | 0.72 | 0.55 |
| γ 155.0 | 0.38 | 0.36 | 0.76 | 0.59 |
| γ 156.0 | 0.44 | 0.41 | 0.80 | 0.63 |
| γ 157.0 | 0.50 | 0.44 | 0.83 | 0.66 |
| γ 158.0 | 0.55 | 0.47 | 0.86 | 0.70 |
| γ 159.0 | 0.60 | 0.50 | 0.87 | 0.74 |
| γ 160.0 | 0.64 | 0.53 | 0.88 | 0.75 |
| γ 161.0 | 0.69 | 0.56 | 0.90 | 0.77 |
| γ 162.0 | 0.73 | 0.58 | 0.91 | 0.80 |
| γ 163.0 | 0.76 | 0.61 | 0.92 | 0.81 |
| γ 164.0 | 0.79 | 0.62 | 0.92 | 0.84 |
| γ 165.0 | 0.81 | 0.65 | 0.92 | 0.84 |
| γ 166.0 | 0.83 | 0.66 | 0.91 | 0.87 |
| γ 167.0 | 0.85 | 0.67 | 0.90 | 0.86 |
| γ 168.0 | 0.86 | 0.67 | 0.89 | 0.87 |
| γ 169.0 | 0.87 | 0.67 | 0.87 | 0.88 |
| γ 170.0 | 0.87 | 0.68 | 0.86 | 0.88 |
| γ 171.0 | 0.88 | 0.67 | 0.83 | 0.88 |
| γ 172.0 | 0.86 | 0.65 | 0.81 | 0.87 |
| γ 173.0 | 0.85 | 0.65 | 0.78 | 0.87 |
| γ 174.0 | 0.84 | 0.63 | 0.75 | 0.86 |
| γ 175.0 | 0.81 | 0.64 | 0.72 | 0.83 |
| γ 176.0 | 0.80 | 0.63 | 0.71 | 0.82 |
| γ 177.0 | 0.78 | 0.65 | 0.70 | 0.82 |
| γ 178.0 | 0.76 | 0.65 | 0.69 | 0.80 |
| γ 179.0 | 0.74 | 0.68 | 0.71 | 0.79 |
| γ 180.0 | 0.73 | 0.73 | 0.73 | 0.73 |