

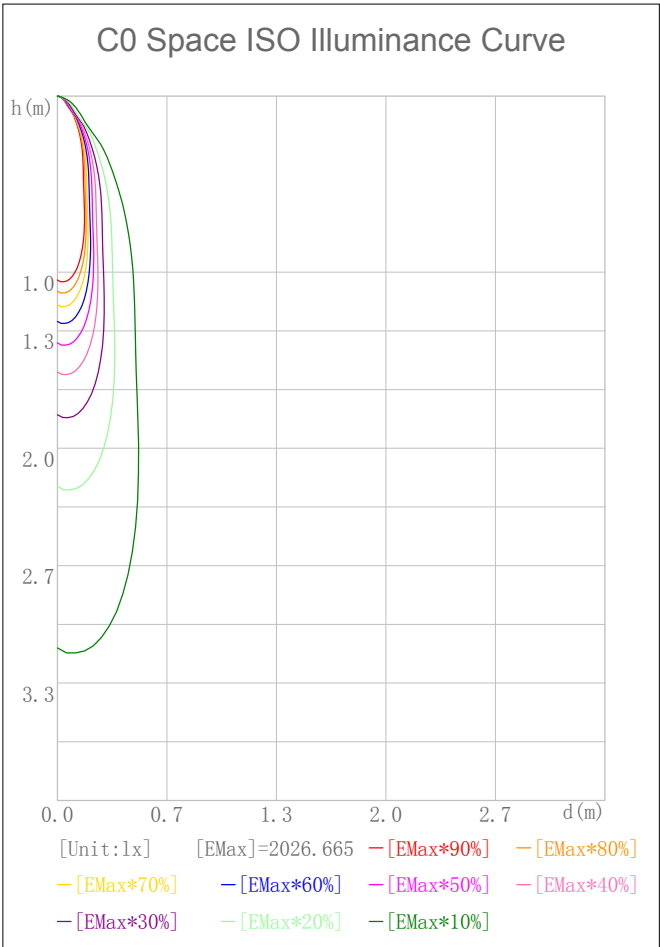
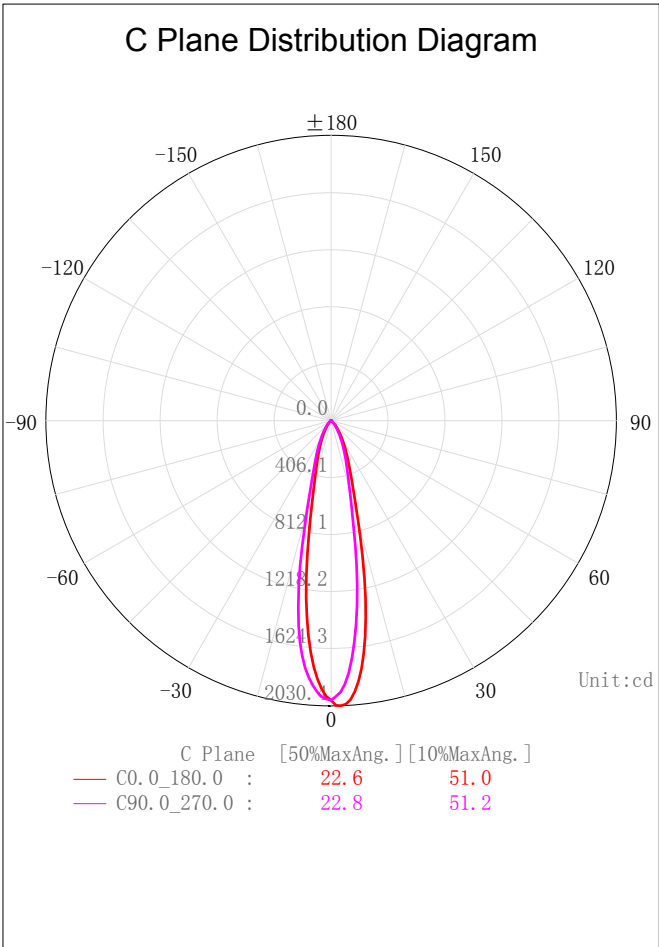
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:WL02-06-XX-04 3000K RA90 24D | | 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 |

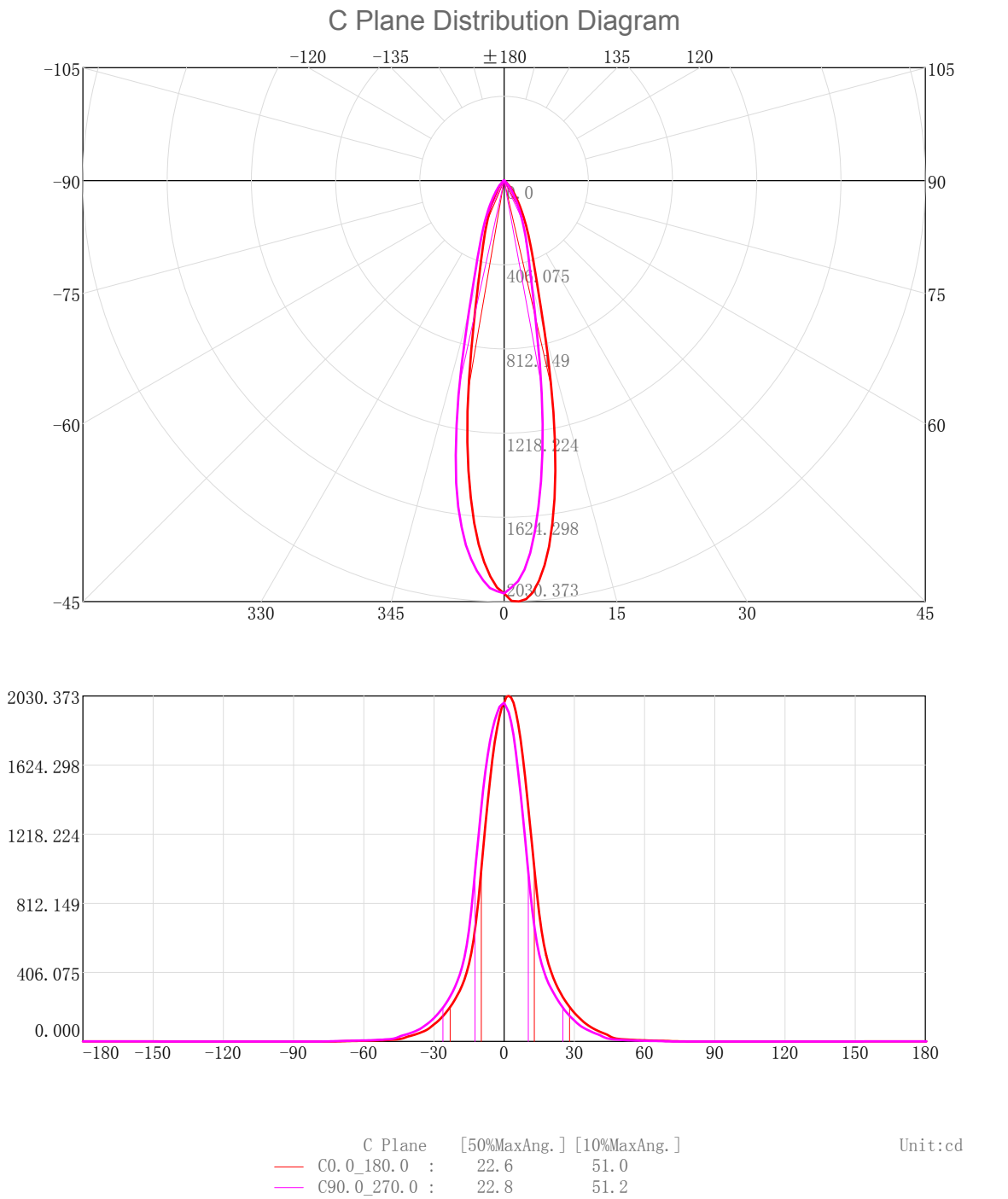
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|--------------------------------|---------------------------------------|--|
| Rated Flux(lm): 505.030 | Luminary Flux(lm): 505.025 | Field Angle(10%Imax): 51.0(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 504.339lm 99.86% | |
| Rated Voltage(V): | Luminary EER(lm/W): 80.830 | Up Lumens&Percent: 0.687lm 0.14% | |
| Tested Power(W): 6.248 | Max. Candela(cd): 2030.373 | S/MH: C0_a180=0.391 C90_270=0.388 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=2.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.9, 0.030, 0.845 | Beam Angle(50%Imax): 22.6(°) | ErP Φ use(90°): 463.811lm | |
| Lamp Size (W*L*H):0.038m*-0.038m*0.000m | Left=-9.7°, Right=12.9° | IRF(%): 777.578 | |



2D Plane Light Intensity Distribution Curve

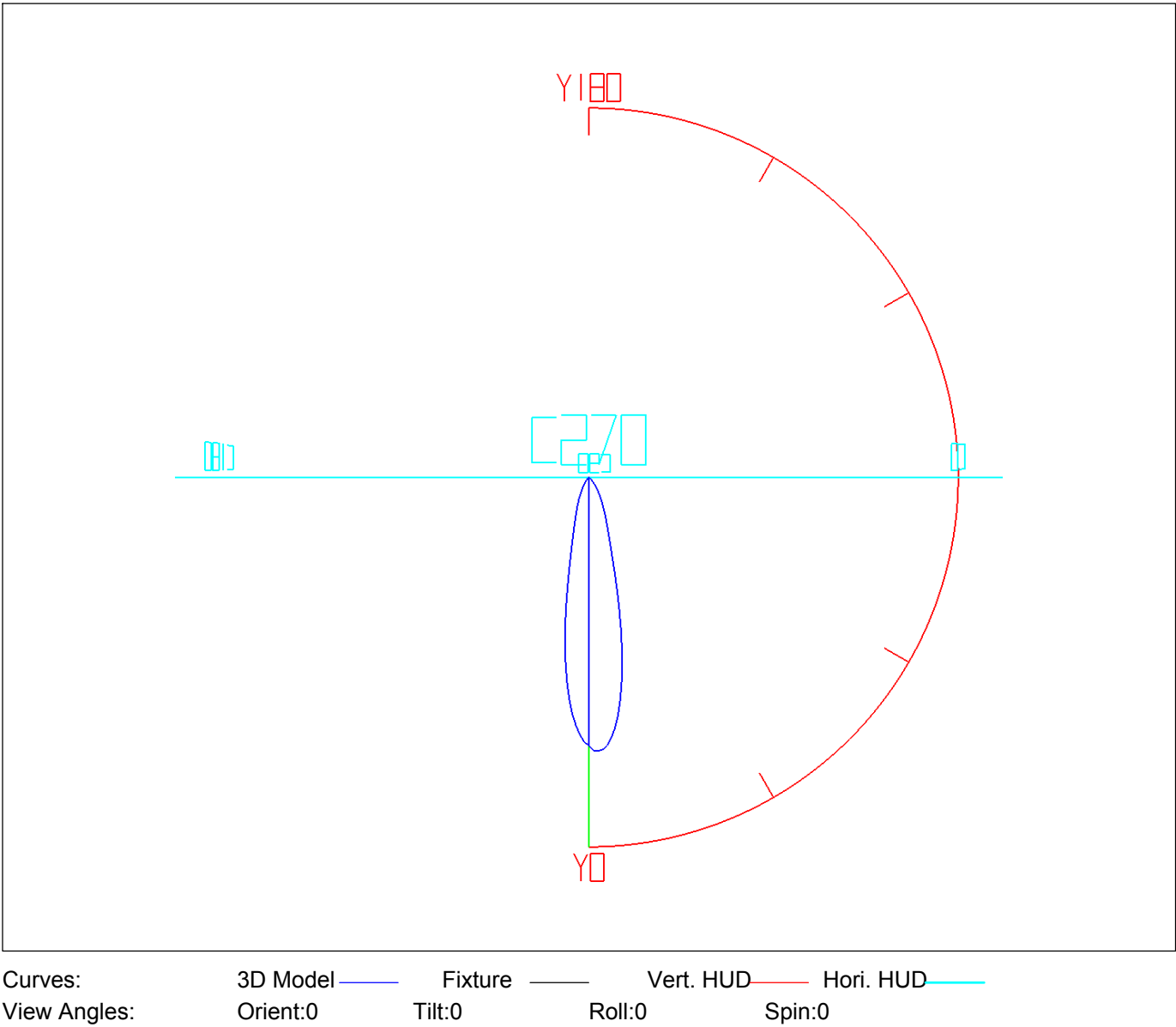
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

3D Light Intensity Distribution Modal



Zonal Flux Tabulation

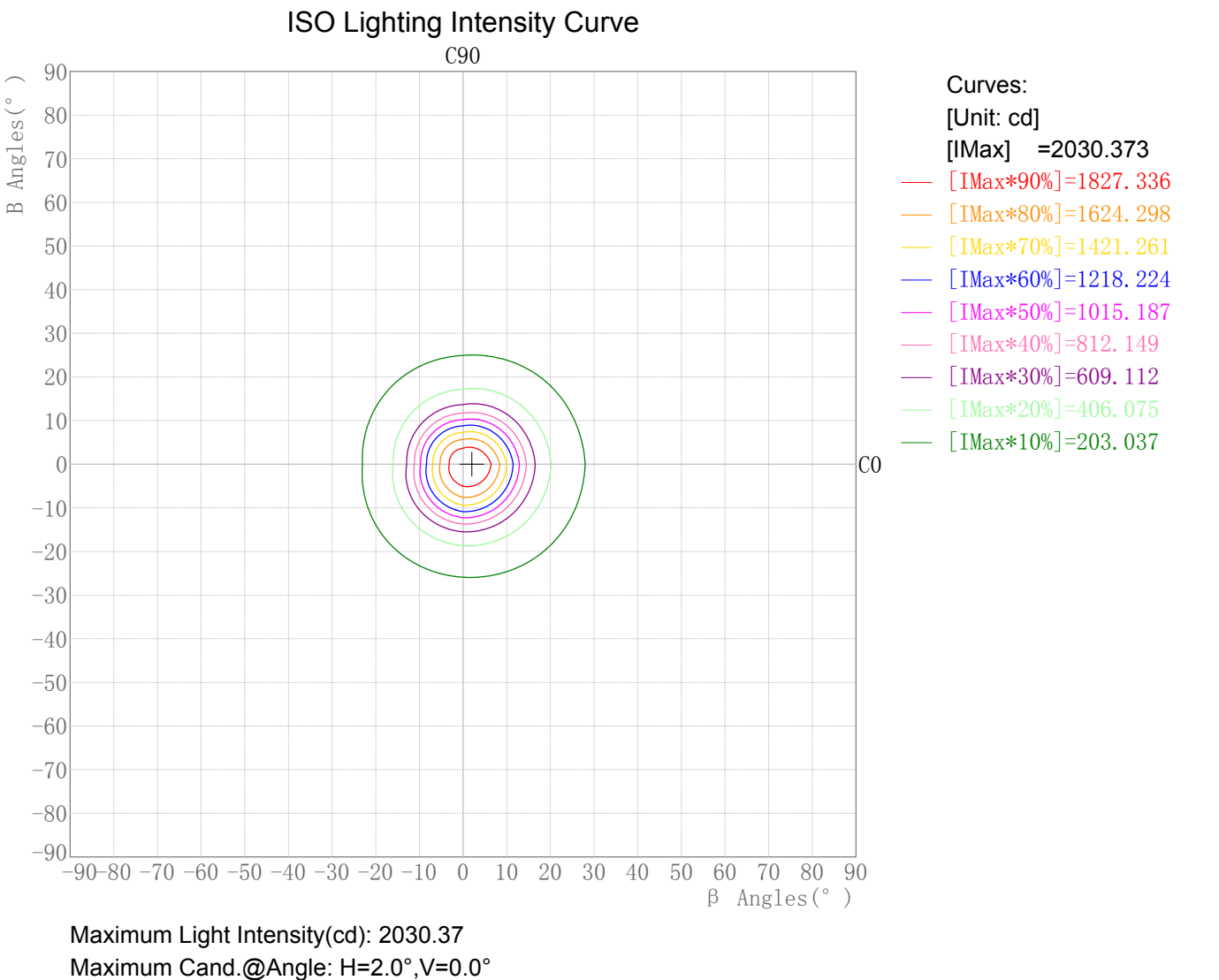
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 1.90 | 1.90 | 0.38 | 0.38 | 47.0-48.0 | 1.16 | 490.96 | 0.23 | 97.21 |
| 1.0-2.0 | 5.66 | 7.56 | 1.12 | 1.50 | 48.0-49.0 | 1.05 | 492.01 | 0.21 | 97.42 |
| 2.0-3.0 | 9.27 | 16.83 | 1.84 | 3.33 | 49.0-50.0 | 0.97 | 492.99 | 0.19 | 97.62 |
| 3.0-4.0 | 12.64 | 29.47 | 2.50 | 5.84 | 50.0-51.0 | 0.91 | 493.89 | 0.18 | 97.80 |
| 4.0-5.0 | 15.66 | 45.13 | 3.10 | 8.94 | 51.0-52.0 | 0.85 | 494.75 | 0.17 | 97.96 |
| 5.0-6.0 | 18.23 | 63.36 | 3.61 | 12.55 | 52.0-53.0 | 0.80 | 495.55 | 0.16 | 98.12 |
| 6.0-7.0 | 20.30 | 83.66 | 4.02 | 16.56 | 53.0-54.0 | 0.75 | 496.30 | 0.15 | 98.27 |
| 7.0-8.0 | 21.81 | 105.46 | 4.32 | 20.88 | 54.0-55.0 | 0.71 | 497.01 | 0.14 | 98.41 |
| 8.0-9.0 | 22.70 | 128.16 | 4.49 | 25.38 | 55.0-56.0 | 0.67 | 497.68 | 0.13 | 98.54 |
| 9.0-10.0 | 22.91 | 151.07 | 4.54 | 29.91 | 56.0-57.0 | 0.63 | 498.31 | 0.12 | 98.67 |
| 10.0-11.0 | 22.49 | 173.56 | 4.45 | 34.37 | 57.0-58.0 | 0.60 | 498.91 | 0.12 | 98.79 |
| 11.0-12.0 | 21.57 | 195.12 | 4.27 | 38.64 | 58.0-59.0 | 0.57 | 499.47 | 0.11 | 98.90 |
| 12.0-13.0 | 20.33 | 215.46 | 4.03 | 42.66 | 59.0-60.0 | 0.53 | 500.00 | 0.11 | 99.00 |
| 13.0-14.0 | 18.94 | 234.40 | 3.75 | 46.41 | 60.0-61.0 | 0.50 | 500.50 | 0.10 | 99.10 |
| 14.0-15.0 | 17.56 | 251.95 | 3.48 | 49.89 | 61.0-62.0 | 0.47 | 500.97 | 0.09 | 99.20 |
| 15.0-16.0 | 16.31 | 268.26 | 3.23 | 53.12 | 62.0-63.0 | 0.44 | 501.41 | 0.09 | 99.28 |
| 16.0-17.0 | 15.25 | 283.51 | 3.02 | 56.14 | 63.0-64.0 | 0.41 | 501.82 | 0.08 | 99.36 |
| 17.0-18.0 | 14.37 | 297.88 | 2.85 | 58.98 | 64.0-65.0 | 0.39 | 502.21 | 0.08 | 99.44 |
| 18.0-19.0 | 13.63 | 311.50 | 2.70 | 61.68 | 65.0-66.0 | 0.36 | 502.57 | 0.07 | 99.51 |
| 19.0-20.0 | 12.97 | 324.48 | 2.57 | 64.25 | 66.0-67.0 | 0.33 | 502.90 | 0.07 | 99.58 |
| 20.0-21.0 | 12.37 | 336.85 | 2.45 | 66.70 | 67.0-68.0 | 0.30 | 503.20 | 0.06 | 99.64 |
| 21.0-22.0 | 11.80 | 348.65 | 2.34 | 69.04 | 68.0-69.0 | 0.26 | 503.45 | 0.05 | 99.69 |
| 22.0-23.0 | 11.26 | 359.91 | 2.23 | 71.27 | 69.0-70.0 | 0.22 | 503.67 | 0.04 | 99.73 |
| 23.0-24.0 | 10.72 | 370.63 | 2.12 | 73.39 | 70.0-71.0 | 0.17 | 503.85 | 0.03 | 99.77 |
| 24.0-25.0 | 10.18 | 380.80 | 2.01 | 75.40 | 71.0-72.0 | 0.13 | 503.98 | 0.03 | 99.79 |
| 25.0-26.0 | 9.62 | 390.43 | 1.91 | 77.31 | 72.0-73.0 | 0.10 | 504.08 | 0.02 | 99.81 |
| 26.0-27.0 | 9.07 | 399.50 | 1.80 | 79.10 | 73.0-74.0 | 0.08 | 504.16 | 0.02 | 99.83 |
| 27.0-28.0 | 8.54 | 408.04 | 1.69 | 80.80 | 74.0-75.0 | 0.06 | 504.22 | 0.01 | 99.84 |
| 28.0-29.0 | 8.02 | 416.06 | 1.59 | 82.38 | 75.0-76.0 | 0.05 | 504.26 | 0.01 | 99.85 |
| 29.0-30.0 | 7.51 | 423.58 | 1.49 | 83.87 | 76.0-77.0 | 0.03 | 504.30 | 0.01 | 99.86 |
| 30.0-31.0 | 7.00 | 430.58 | 1.39 | 85.26 | 77.0-78.0 | 0.02 | 504.32 | 0.00 | 99.86 |
| 31.0-32.0 | 6.49 | 437.07 | 1.29 | 86.54 | 78.0-79.0 | 0.01 | 504.33 | 0.00 | 99.86 |
| 32.0-33.0 | 6.01 | 443.08 | 1.19 | 87.73 | 79.0-80.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 33.0-34.0 | 5.57 | 448.66 | 1.10 | 88.84 | 80.0-81.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 34.0-35.0 | 5.15 | 453.80 | 1.02 | 89.86 | 81.0-82.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 35.0-36.0 | 4.75 | 458.55 | 0.94 | 90.80 | 82.0-83.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 36.0-37.0 | 4.40 | 462.95 | 0.87 | 91.67 | 83.0-84.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 37.0-38.0 | 4.07 | 467.02 | 0.81 | 92.47 | 84.0-85.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 38.0-39.0 | 3.76 | 470.78 | 0.75 | 93.22 | 85.0-86.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 39.0-40.0 | 3.47 | 474.26 | 0.69 | 93.91 | 86.0-87.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 40.0-41.0 | 3.18 | 477.44 | 0.63 | 94.54 | 87.0-88.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 41.0-42.0 | 2.87 | 480.31 | 0.57 | 95.11 | 88.0-89.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 42.0-43.0 | 2.52 | 482.83 | 0.50 | 95.60 | 89.0-90.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 43.0-44.0 | 2.19 | 485.02 | 0.43 | 96.04 | 90.0-91.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 44.0-45.0 | 1.88 | 486.90 | 0.37 | 96.41 | 91.0-92.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 45.0-46.0 | 1.57 | 488.47 | 0.31 | 96.72 | 92.0-93.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 46.0-47.0 | 1.33 | 489.80 | 0.26 | 96.98 | 93.0-94.0 | 0.00 | 504.34 | 0.00 | 99.86 |

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 | 504.34 | 0.00 | 99.86 | 141.0-142.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 95.0-96.0 | 0.00 | 504.34 | 0.00 | 99.86 | 142.0-143.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 96.0-97.0 | 0.00 | 504.34 | 0.00 | 99.86 | 143.0-144.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 97.0-98.0 | 0.00 | 504.34 | 0.00 | 99.86 | 144.0-145.0 | 0.00 | 504.34 | 0.00 | 99.86 |
| 98.0-99.0 | 0.00 | 504.34 | 0.00 | 99.86 | 145.0-146.0 | 0.00 | 504.35 | 0.00 | 99.86 |
| 99.0-100.0 | 0.00 | 504.34 | 0.00 | 99.86 | 146.0-147.0 | 0.01 | 504.35 | 0.00 | 99.87 |
| 100.0-101.0 | 0.00 | 504.34 | 0.00 | 99.86 | 147.0-148.0 | 0.01 | 504.36 | 0.00 | 99.87 |
| 101.0-102.0 | 0.00 | 504.34 | 0.00 | 99.86 | 148.0-149.0 | 0.01 | 504.37 | 0.00 | 99.87 |
| 102.0-103.0 | 0.00 | 504.34 | 0.00 | 99.86 | 149.0-150.0 | 0.02 | 504.39 | 0.00 | 99.87 |
| 103.0-104.0 | 0.00 | 504.34 | 0.00 | 99.86 | 150.0-151.0 | 0.02 | 504.41 | 0.00 | 99.88 |
| 104.0-105.0 | 0.00 | 504.34 | 0.00 | 99.86 | 151.0-152.0 | 0.02 | 504.43 | 0.00 | 99.88 |
| 105.0-106.0 | 0.00 | 504.34 | 0.00 | 99.86 | 152.0-153.0 | 0.03 | 504.46 | 0.01 | 99.89 |
| 106.0-107.0 | 0.00 | 504.34 | 0.00 | 99.86 | 153.0-154.0 | 0.03 | 504.49 | 0.01 | 99.89 |
| 107.0-108.0 | 0.00 | 504.34 | 0.00 | 99.86 | 154.0-155.0 | 0.03 | 504.51 | 0.01 | 99.90 |
| 108.0-109.0 | 0.00 | 504.34 | 0.00 | 99.86 | 155.0-156.0 | 0.03 | 504.55 | 0.01 | 99.90 |
| 109.0-110.0 | 0.00 | 504.34 | 0.00 | 99.86 | 156.0-157.0 | 0.03 | 504.58 | 0.01 | 99.91 |
| 110.0-111.0 | 0.00 | 504.34 | 0.00 | 99.86 | 157.0-158.0 | 0.03 | 504.61 | 0.01 | 99.92 |
| 111.0-112.0 | 0.00 | 504.34 | 0.00 | 99.86 | 158.0-159.0 | 0.03 | 504.64 | 0.01 | 99.92 |
| 112.0-113.0 | 0.00 | 504.34 | 0.00 | 99.86 | 159.0-160.0 | 0.03 | 504.67 | 0.01 | 99.93 |
| 113.0-114.0 | 0.00 | 504.34 | 0.00 | 99.86 | 160.0-161.0 | 0.03 | 504.70 | 0.01 | 99.94 |
| 114.0-115.0 | 0.00 | 504.34 | 0.00 | 99.86 | 161.0-162.0 | 0.03 | 504.73 | 0.01 | 99.94 |
| 115.0-116.0 | 0.00 | 504.34 | 0.00 | 99.86 | 162.0-163.0 | 0.03 | 504.76 | 0.01 | 99.95 |
| 116.0-117.0 | 0.00 | 504.34 | 0.00 | 99.86 | 163.0-164.0 | 0.03 | 504.79 | 0.01 | 99.95 |
| 117.0-118.0 | 0.00 | 504.34 | 0.00 | 99.86 | 164.0-165.0 | 0.03 | 504.82 | 0.01 | 99.96 |
| 118.0-119.0 | 0.00 | 504.34 | 0.00 | 99.86 | 165.0-166.0 | 0.03 | 504.85 | 0.01 | 99.96 |
| 119.0-120.0 | 0.00 | 504.34 | 0.00 | 99.86 | 166.0-167.0 | 0.02 | 504.87 | 0.00 | 99.97 |
| 120.0-121.0 | 0.00 | 504.34 | 0.00 | 99.86 | 167.0-168.0 | 0.02 | 504.89 | 0.00 | 99.97 |
| 121.0-122.0 | 0.00 | 504.34 | 0.00 | 99.86 | 168.0-169.0 | 0.02 | 504.92 | 0.00 | 99.98 |
| 122.0-123.0 | 0.00 | 504.34 | 0.00 | 99.86 | 169.0-170.0 | 0.02 | 504.94 | 0.00 | 99.98 |
| 123.0-124.0 | 0.00 | 504.34 | 0.00 | 99.86 | 170.0-171.0 | 0.02 | 504.95 | 0.00 | 99.98 |
| 124.0-125.0 | 0.00 | 504.34 | 0.00 | 99.86 | 171.0-172.0 | 0.02 | 504.97 | 0.00 | 99.99 |
| 125.0-126.0 | 0.00 | 504.34 | 0.00 | 99.86 | 172.0-173.0 | 0.01 | 504.98 | 0.00 | 99.99 |
| 126.0-127.0 | 0.00 | 504.34 | 0.00 | 99.86 | 173.0-174.0 | 0.01 | 504.99 | 0.00 | 99.99 |
| 127.0-128.0 | 0.00 | 504.34 | 0.00 | 99.86 | 174.0-175.0 | 0.01 | 505.00 | 0.00 | 99.99 |
| 128.0-129.0 | 0.00 | 504.34 | 0.00 | 99.86 | 175.0-176.0 | 0.01 | 505.01 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 504.34 | 0.00 | 99.86 | 176.0-177.0 | 0.01 | 505.02 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 504.34 | 0.00 | 99.86 | 177.0-178.0 | 0.00 | 505.02 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 504.34 | 0.00 | 99.86 | 178.0-179.0 | 0.00 | 505.02 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 504.34 | 0.00 | 99.86 | 179.0-180.0 | 0.00 | 505.03 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 134.0-135.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 135.0-136.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 136.0-137.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 137.0-138.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 138.0-139.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 139.0-140.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |
| 140.0-141.0 | 0.00 | 504.34 | 0.00 | 99.86 | | | | | |

Rectangle ISO Lighting Intensity Diagram

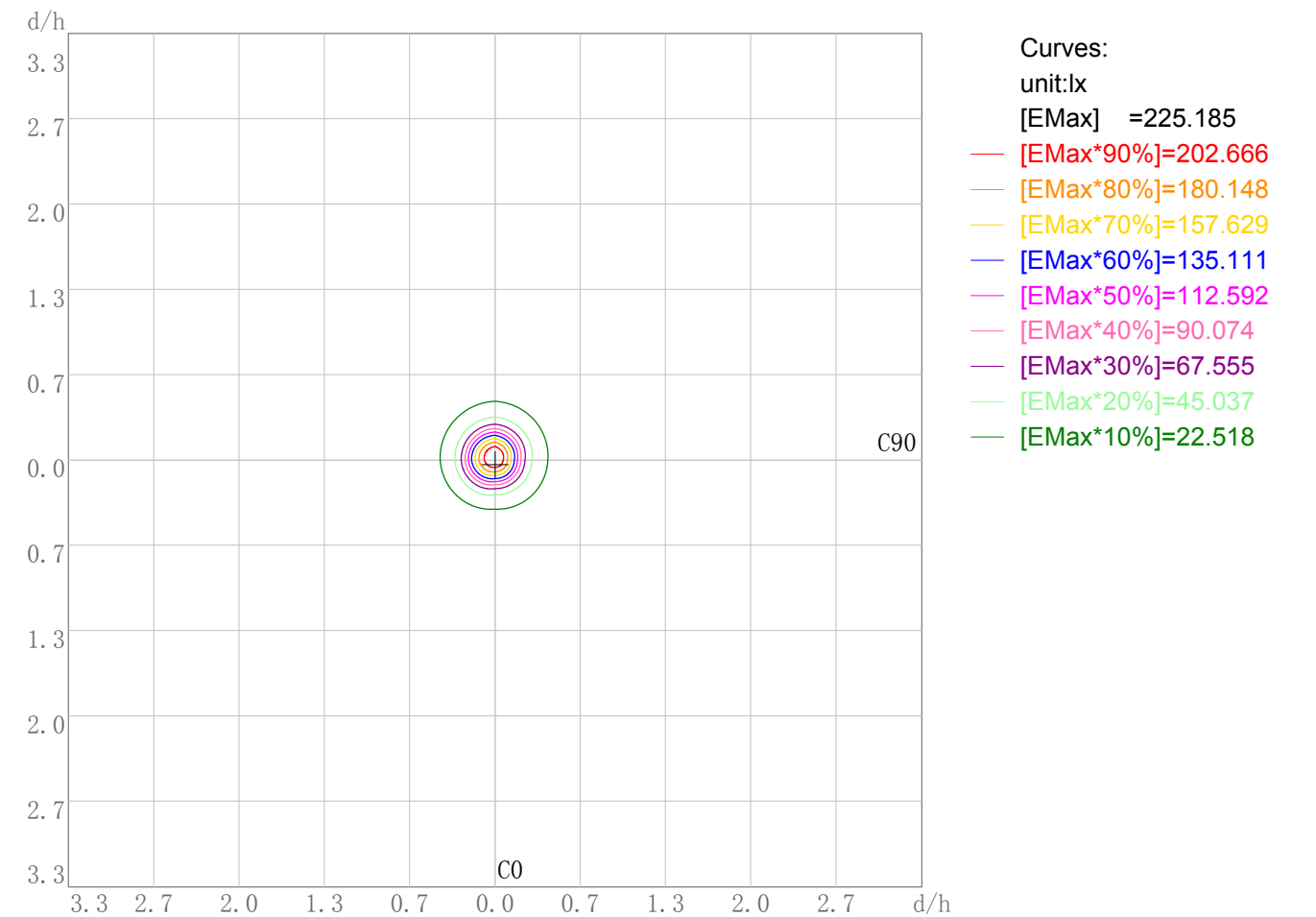
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 225.18
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

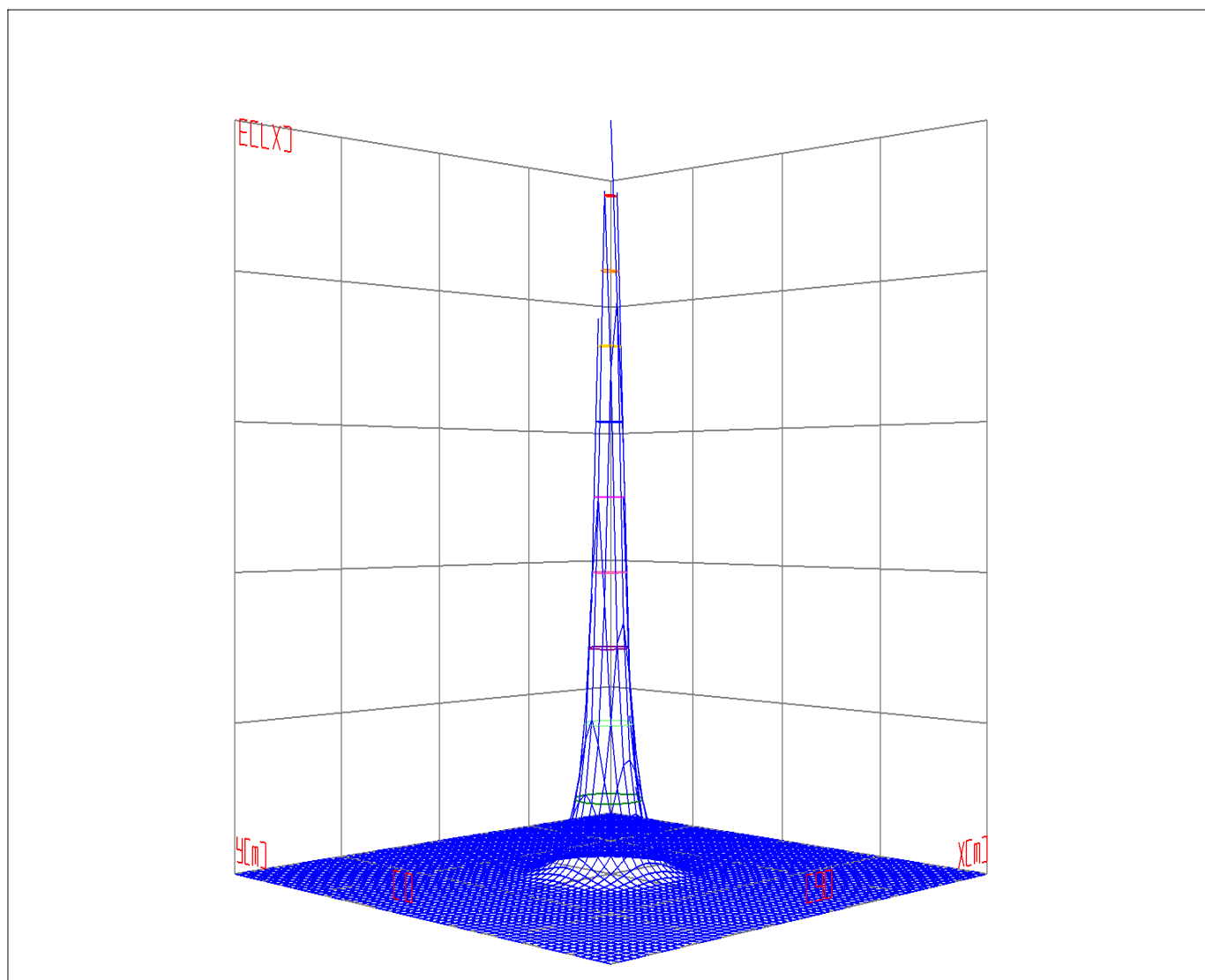
IES Indoor Report

Photometric Filename:WL02-06-XX-04 3000K RA90 24D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

3D Plane Illuminance Modal

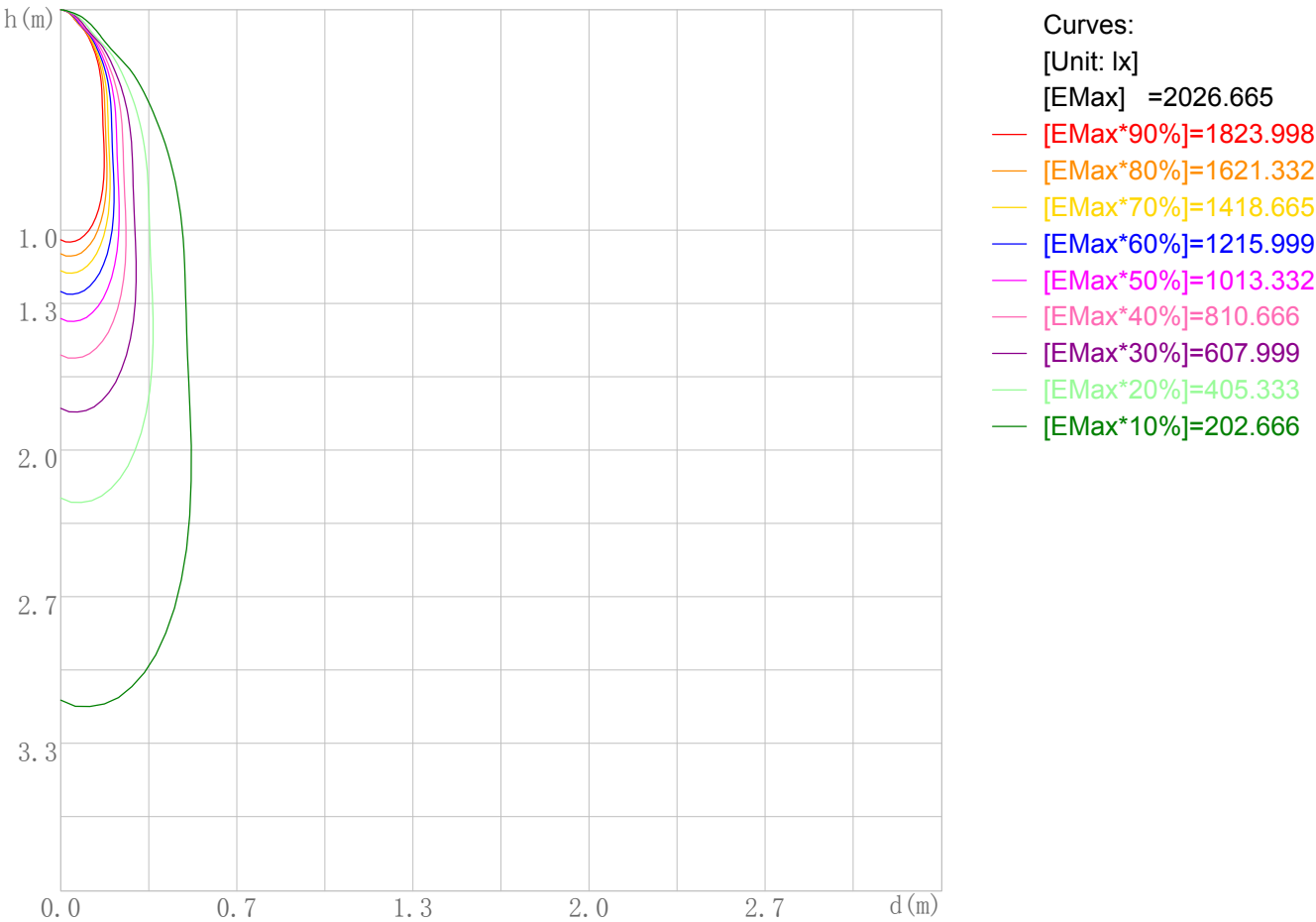


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

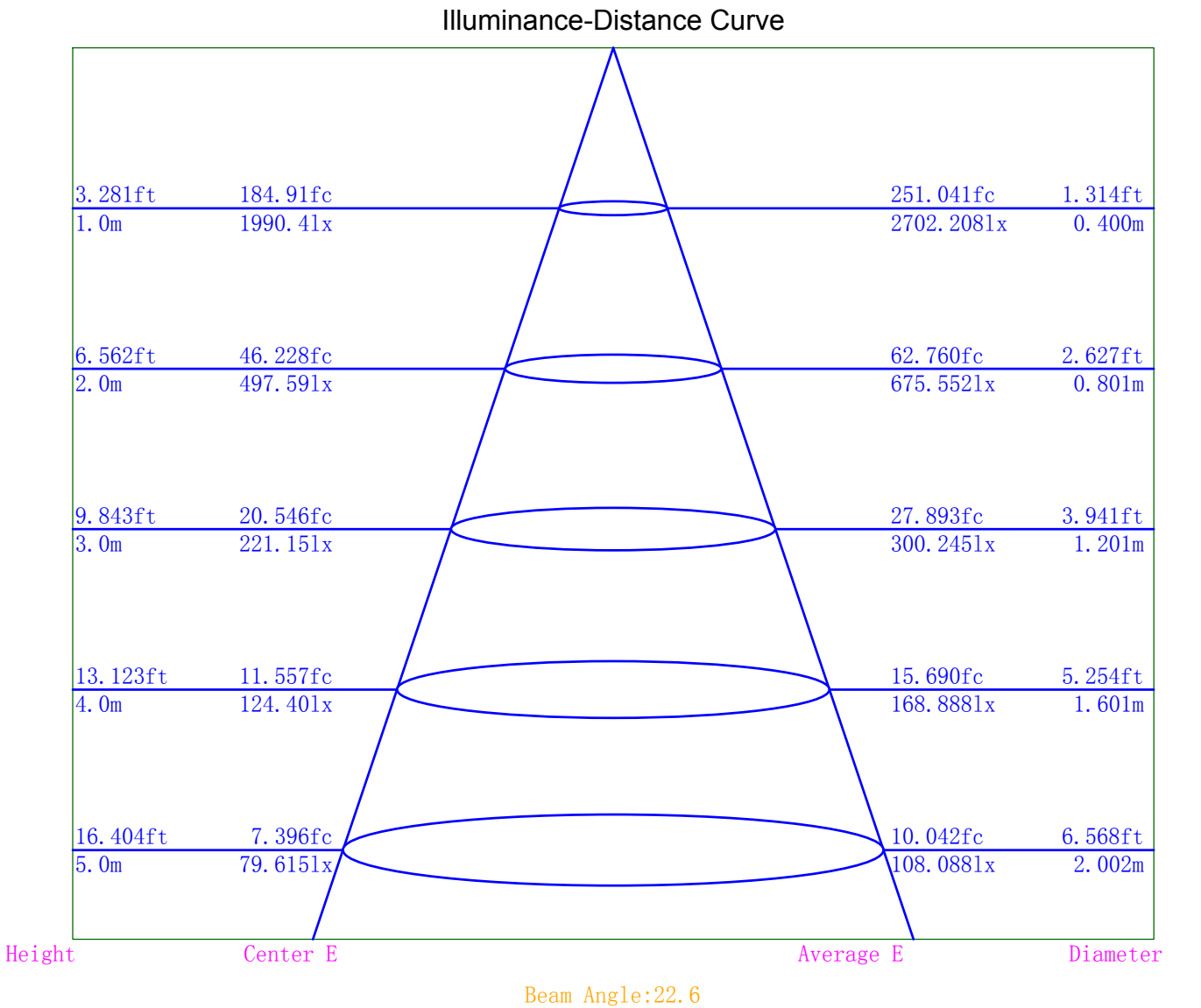
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:2026.66lx,2.0deg
Plane Maximum Lighting Intensity and @Angle:2030.373cd,0eg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

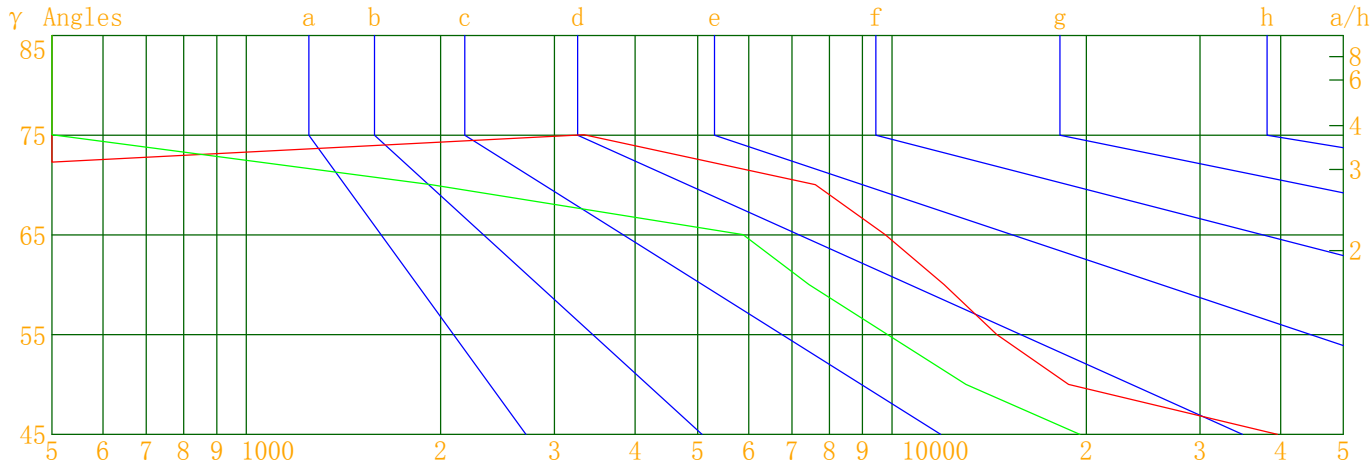
Glare Grade Table

| 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 | 39529 | 18778 | 14524 | 12043 | 9758 | 7610 | 3335 | 107 | 0 |
| C90 | 19535 | 13017 | 9837 | 7437 | 5879 | 1934 | 0 | 0 | 0 |

Luminance Limiting Curve



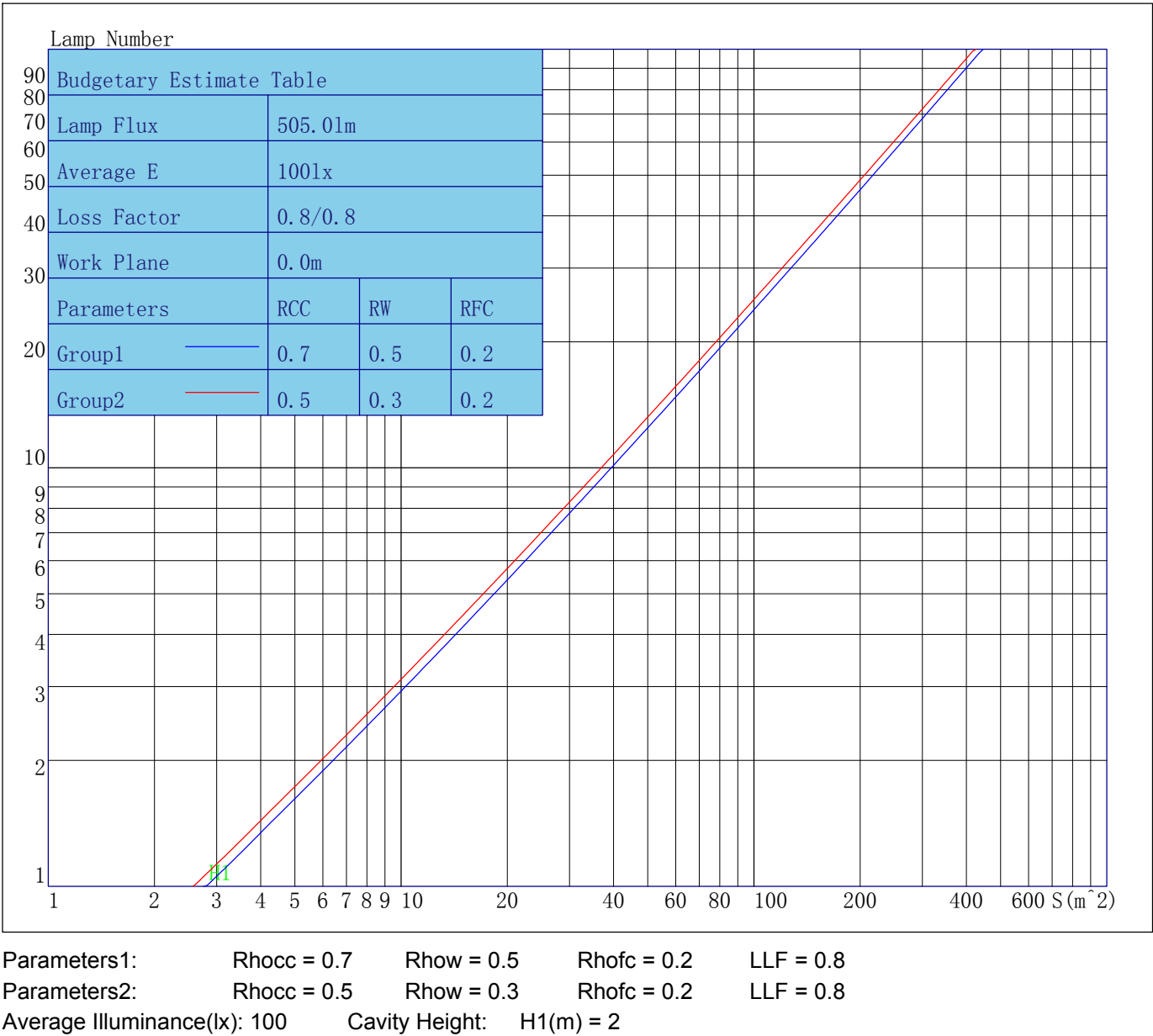
Luminous Size: Length(m)=-0.038 Width(m)=-0.038 Height(m)=0.000 Area(m^2)=0.001134

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|--------------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

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

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name: WL02-06-XX-04 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Deparment |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/11/15 |

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 | 19.4 | 20.5 | 19.8 | 20.8 | 21.1 | 17.2 | 18.2 | 17.6 | 18.6 | 18.9 |
| | 19.5 | 20.4 | 19.8 | 20.7 | 21.1 | 17.1 | 18.0 | 17.5 | 18.4 | 18.7 |
| | 19.4 | 20.2 | 19.8 | 20.6 | 21.0 | 17.0 | 17.9 | 17.4 | 18.2 | 18.6 |
| | 19.3 | 20.1 | 19.7 | 20.4 | 20.8 | 16.9 | 17.7 | 17.3 | 18.1 | 18.5 |
| | 19.2 | 20.0 | 19.6 | 20.4 | 20.8 | 16.8 | 17.6 | 17.3 | 18.0 | 18.4 |
| | 19.2 | 19.9 | 19.6 | 20.3 | 20.7 | 16.8 | 17.5 | 17.2 | 17.9 | 18.3 |
| X=4H Y=2H | 19.3 | 20.1 | 19.7 | 20.5 | 20.9 | 17.0 | 17.9 | 17.4 | 18.3 | 18.7 |
| | 19.3 | 20.0 | 19.7 | 20.4 | 20.9 | 16.9 | 17.7 | 17.4 | 18.1 | 18.5 |
| | 19.2 | 19.9 | 19.7 | 20.3 | 20.8 | 16.8 | 17.5 | 17.3 | 17.9 | 18.4 |
| | 19.1 | 19.7 | 19.6 | 20.1 | 20.6 | 16.7 | 17.3 | 17.2 | 17.7 | 18.2 |
| | 19.0 | 19.6 | 19.5 | 20.0 | 20.5 | 16.6 | 17.2 | 17.1 | 17.6 | 18.1 |
| | 19.0 | 19.5 | 19.5 | 19.9 | 20.4 | 16.6 | 17.0 | 17.1 | 17.5 | 18.0 |
| X=8H Y=4H | 19.0 | 19.6 | 19.5 | 20.0 | 20.5 | 16.6 | 17.2 | 17.1 | 17.6 | 18.1 |
| | 18.9 | 19.4 | 19.4 | 19.9 | 20.4 | 16.5 | 17.0 | 17.0 | 17.5 | 18.0 |
| | 18.8 | 19.3 | 19.4 | 19.8 | 20.3 | 16.4 | 16.9 | 17.0 | 17.4 | 17.9 |
| | 18.8 | 19.2 | 19.3 | 19.7 | 20.2 | 16.4 | 16.7 | 16.9 | 17.2 | 17.8 |
| X=12H Y=4H | 19.0 | 19.5 | 19.5 | 20.0 | 20.4 | 16.6 | 17.1 | 17.1 | 17.6 | 18.0 |
| | 18.9 | 19.3 | 19.4 | 19.7 | 20.3 | 16.4 | 16.9 | 17.0 | 17.3 | 17.9 |
| | 18.8 | 19.2 | 19.3 | 19.7 | 20.2 | 16.4 | 16.7 | 16.9 | 17.2 | 17.8 |
| Variations with the objverver position at spacings | | | | | | | | | | |
| S=1.0H | 2.4/-4.2 | | | | | 2.8/-5.5 | | | | |
| S=1.5H | 3.1/-5.7 | | | | | 3.9/-7.4 | | | | |
| S=2.0H | 3.3/-7.4 | | | | | 5.4/-16.5 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 0.2 | | | | | 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 | 1990.38 | 1990.38 | 1990.38 | 1990.38 |
| γ 1.0 | 2026.68 | 1963.15 | 1961.97 | 1979.79 |
| γ 2.0 | 2030.37 | 1933.05 | 1909.71 | 1965.78 |
| γ 3.0 | 2020.59 | 1877.96 | 1842.12 | 1930.36 |
| γ 4.0 | 1989.85 | 1799.72 | 1759.00 | 1885.65 |
| γ 5.0 | 1935.40 | 1698.56 | 1657.18 | 1831.12 |
| γ 6.0 | 1865.05 | 1582.61 | 1537.06 | 1766.47 |
| γ 7.0 | 1777.34 | 1460.22 | 1409.25 | 1683.20 |
| γ 8.0 | 1670.10 | 1326.81 | 1273.17 | 1588.42 |
| γ 9.0 | 1551.88 | 1189.24 | 1126.31 | 1475.91 |
| γ 10.0 | 1420.79 | 1044.11 | 975.62 | 1343.58 |
| γ 11.0 | 1283.74 | 903.01 | 828.96 | 1201.50 |
| γ 12.0 | 1142.42 | 771.29 | 703.42 | 1057.57 |
| γ 13.0 | 1001.37 | 665.90 | 600.12 | 910.73 |
| γ 14.0 | 869.92 | 579.49 | 520.52 | 771.63 |
| γ 15.0 | 749.99 | 511.30 | 456.41 | 655.78 |
| γ 16.0 | 650.62 | 457.26 | 405.84 | 563.83 |
| γ 17.0 | 570.73 | 412.94 | 362.84 | 492.92 |
| γ 18.0 | 507.12 | 374.16 | 327.93 | 437.48 |
| γ 19.0 | 455.34 | 341.40 | 297.80 | 391.51 |
| γ 20.0 | 411.83 | 313.13 | 271.27 | 352.73 |
| γ 21.0 | 374.11 | 287.71 | 246.47 | 319.89 |
| γ 22.0 | 342.02 | 264.31 | 223.96 | 291.12 |
| γ 23.0 | 313.30 | 241.57 | 203.58 | 266.33 |
| γ 24.0 | 287.76 | 220.60 | 185.16 | 242.73 |
| γ 25.0 | 263.49 | 201.32 | 167.93 | 221.15 |
| γ 26.0 | 241.26 | 182.51 | 151.98 | 201.23 |
| γ 27.0 | 220.92 | 165.60 | 136.60 | 183.50 |
| γ 28.0 | 202.28 | 150.32 | 122.82 | 167.04 |
| γ 29.0 | 184.89 | 136.07 | 111.06 | 152.04 |
| γ 30.0 | 168.55 | 123.32 | 100.01 | 137.21 |
| γ 31.0 | 153.77 | 110.01 | 89.44 | 124.12 |
| γ 32.0 | 140.20 | 98.58 | 77.86 | 112.34 |
| γ 33.0 | 127.52 | 88.66 | 69.29 | 101.99 |
| γ 34.0 | 114.83 | 80.08 | 62.04 | 91.98 |
| γ 35.0 | 103.76 | 72.39 | 56.06 | 81.71 |
| γ 36.0 | 93.78 | 65.52 | 50.56 | 73.29 |
| γ 37.0 | 85.05 | 59.11 | 45.71 | 66.23 |
| γ 38.0 | 77.06 | 53.22 | 41.20 | 60.16 |
| γ 39.0 | 69.96 | 47.66 | 37.09 | 54.67 |
| γ 40.0 | 63.22 | 42.48 | 33.30 | 49.66 |
| γ 41.0 | 57.16 | 37.09 | 29.79 | 45.05 |
| γ 42.0 | 51.41 | 29.59 | 25.09 | 40.79 |
| γ 43.0 | 46.09 | 22.88 | 19.47 | 36.72 |
| γ 44.0 | 39.96 | 18.39 | 15.73 | 32.93 |
| γ 45.0 | 31.70 | 15.67 | 13.65 | 27.40 |
| γ 46.0 | 24.73 | 13.74 | 12.20 | 21.64 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 20.01 | 12.32 | 11.04 | 17.89 |
| γ 48.0 | 17.04 | 11.16 | 10.14 | 15.62 |
| γ 49.0 | 15.05 | 10.27 | 9.35 | 13.97 |
| γ 50.0 | 13.69 | 9.49 | 8.73 | 12.71 |
| γ 51.0 | 12.60 | 8.82 | 8.12 | 11.65 |
| γ 52.0 | 11.73 | 8.16 | 7.58 | 10.82 |
| γ 53.0 | 10.95 | 7.39 | 6.87 | 10.09 |
| γ 54.0 | 10.24 | 6.85 | 6.38 | 9.45 |
| γ 55.0 | 9.45 | 6.40 | 5.97 | 8.82 |
| γ 56.0 | 8.75 | 6.02 | 5.66 | 8.08 |
| γ 57.0 | 8.15 | 5.61 | 5.36 | 7.56 |
| γ 58.0 | 7.69 | 5.18 | 5.03 | 7.14 |
| γ 59.0 | 7.27 | 4.68 | 4.61 | 6.81 |
| γ 60.0 | 6.83 | 4.22 | 4.20 | 6.48 |
| γ 61.0 | 6.33 | 3.87 | 3.88 | 6.12 |
| γ 62.0 | 5.83 | 3.58 | 3.62 | 5.67 |
| γ 63.0 | 5.36 | 3.32 | 3.40 | 5.26 |
| γ 64.0 | 5.00 | 3.07 | 3.18 | 4.90 |
| γ 65.0 | 4.68 | 2.82 | 2.94 | 4.62 |
| γ 66.0 | 4.39 | 2.48 | 2.64 | 4.36 |
| γ 67.0 | 4.12 | 2.05 | 2.23 | 4.12 |
| γ 68.0 | 3.82 | 1.52 | 1.71 | 3.85 |
| γ 69.0 | 3.46 | 1.10 | 1.26 | 3.52 |
| γ 70.0 | 2.95 | 0.75 | 0.89 | 3.06 |
| γ 71.0 | 2.40 | 0.44 | 0.56 | 2.50 |
| γ 72.0 | 1.96 | 0.17 | 0.27 | 2.04 |
| γ 73.0 | 1.59 | 0.00 | 0.02 | 1.65 |
| γ 74.0 | 1.26 | 0.00 | 0.00 | 1.30 |
| γ 75.0 | 0.98 | 0.00 | 0.00 | 1.00 |
| γ 76.0 | 0.72 | 0.00 | 0.00 | 0.74 |
| γ 77.0 | 0.52 | 0.00 | 0.00 | 0.51 |
| γ 78.0 | 0.33 | 0.00 | 0.00 | 0.32 |
| γ 79.0 | 0.17 | 0.00 | 0.00 | 0.16 |
| γ 80.0 | 0.02 | 0.00 | 0.00 | 0.01 |
| 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 | 0.07 | 0.00 |
| γ 145.0 | 0.00 | 0.00 | 0.18 | 0.00 |
| γ 146.0 | 0.00 | 0.00 | 0.28 | 0.05 |
| γ 147.0 | 0.00 | 0.00 | 0.38 | 0.15 |
| γ 148.0 | 0.00 | 0.00 | 0.46 | 0.26 |
| γ 149.0 | 0.00 | 0.10 | 0.54 | 0.34 |
| γ 150.0 | 0.09 | 0.17 | 0.61 | 0.44 |
| γ 151.0 | 0.19 | 0.25 | 0.68 | 0.49 |
| γ 152.0 | 0.29 | 0.31 | 0.73 | 0.57 |
| γ 153.0 | 0.37 | 0.37 | 0.79 | 0.63 |
| γ 154.0 | 0.45 | 0.42 | 0.83 | 0.68 |
| γ 155.0 | 0.51 | 0.47 | 0.87 | 0.73 |
| γ 156.0 | 0.58 | 0.52 | 0.91 | 0.78 |
| γ 157.0 | 0.65 | 0.56 | 0.93 | 0.81 |
| γ 158.0 | 0.69 | 0.60 | 0.96 | 0.83 |
| γ 159.0 | 0.74 | 0.64 | 0.98 | 0.86 |
| γ 160.0 | 0.79 | 0.67 | 1.02 | 0.89 |
| γ 161.0 | 0.83 | 0.69 | 1.04 | 0.91 |
| γ 162.0 | 0.86 | 0.73 | 1.05 | 0.94 |
| γ 163.0 | 0.88 | 0.76 | 1.06 | 0.96 |
| γ 164.0 | 0.91 | 0.77 | 1.08 | 0.99 |
| γ 165.0 | 0.94 | 0.79 | 1.07 | 1.00 |
| γ 166.0 | 0.98 | 0.81 | 1.07 | 1.01 |
| γ 167.0 | 0.99 | 0.82 | 1.07 | 1.03 |
| γ 168.0 | 1.00 | 0.84 | 1.06 | 1.03 |
| γ 169.0 | 1.01 | 0.83 | 1.05 | 1.05 |
| γ 170.0 | 1.02 | 0.83 | 1.02 | 1.04 |
| γ 171.0 | 1.01 | 0.81 | 1.00 | 1.04 |
| γ 172.0 | 1.00 | 0.81 | 0.98 | 1.02 |
| γ 173.0 | 0.99 | 0.80 | 0.96 | 1.01 |
| γ 174.0 | 0.98 | 0.82 | 0.94 | 0.99 |
| γ 175.0 | 0.96 | 0.82 | 0.93 | 0.97 |
| γ 176.0 | 0.95 | 0.83 | 0.92 | 0.98 |
| γ 177.0 | 0.95 | 0.85 | 0.92 | 0.97 |
| γ 178.0 | 0.94 | 0.86 | 0.93 | 0.98 |
| γ 179.0 | 0.93 | 0.88 | 0.93 | 0.99 |
| γ 180.0 | 0.94 | 0.94 | 0.94 | 0.94 |
