

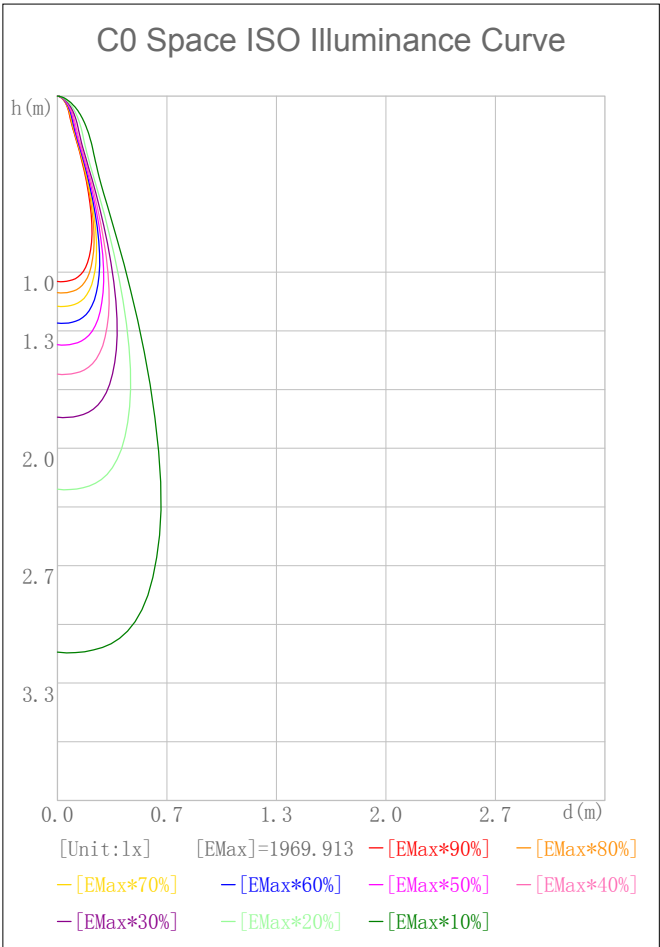
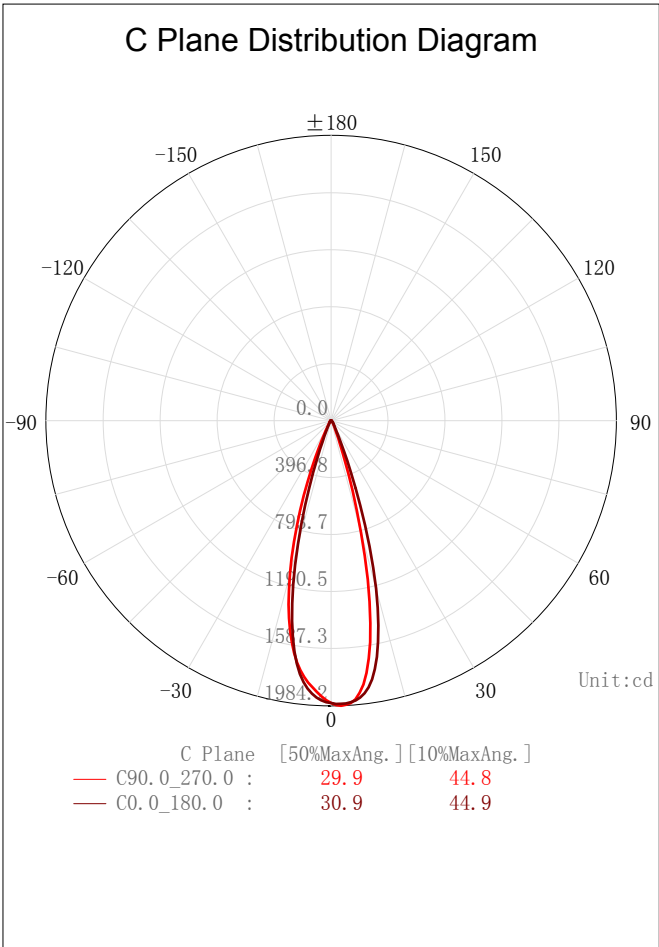
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:SD09-06-XX-02 3000K RA90 24D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/10/26 |
| 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 |

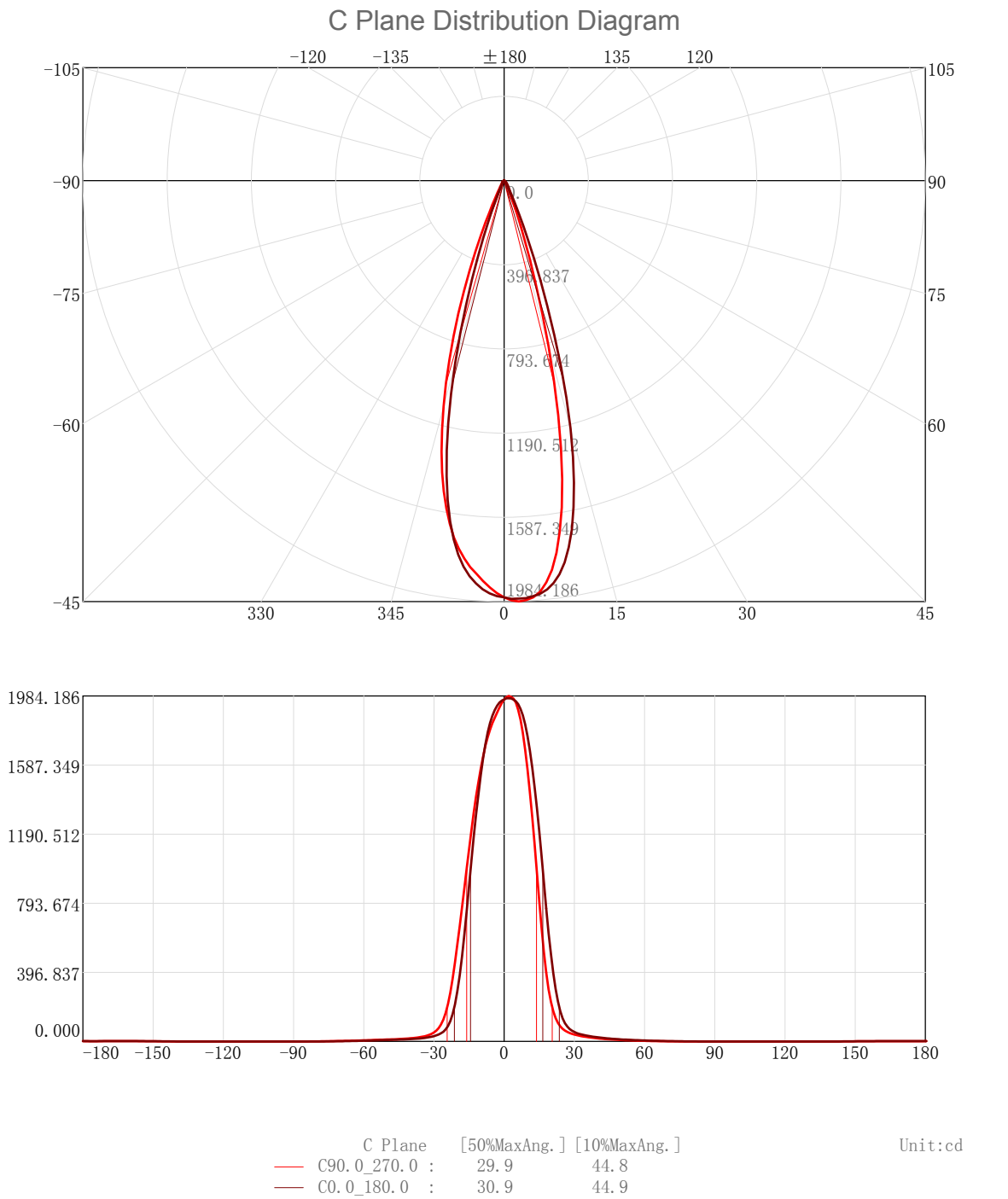
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|---------------------------------|---------------------------------------|--|
| Rated Flux(lm): 541.230 | Luminary Flux(lm): 541.234 | Field Angle(10%Imax): 44.8(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 539.197lm 99.62% | |
| Rated Voltage(V): | Luminary EER(lm/W): 87.282 | Up Lumens&Percent: 2.037lm 0.38% | |
| Tested Power(W): 6.201 | Max. Candela(cd): 1984.186 | S/MH: C0_a180=0.526 C90_270=0.508 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=90.0 γ=2.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.7, 0.030, 0.845 | Beam Angle(50%Imax): 29.9(°) | ErP ϕ use(90°): 500.895lm | |
| Lamp Size (W*L*H):0.038m*-0.038m*0.000m | Left=-16.0°, Right=13.9° | IRF(%): 731.127 | |



2D Plane Light Intensity Distribution Curve

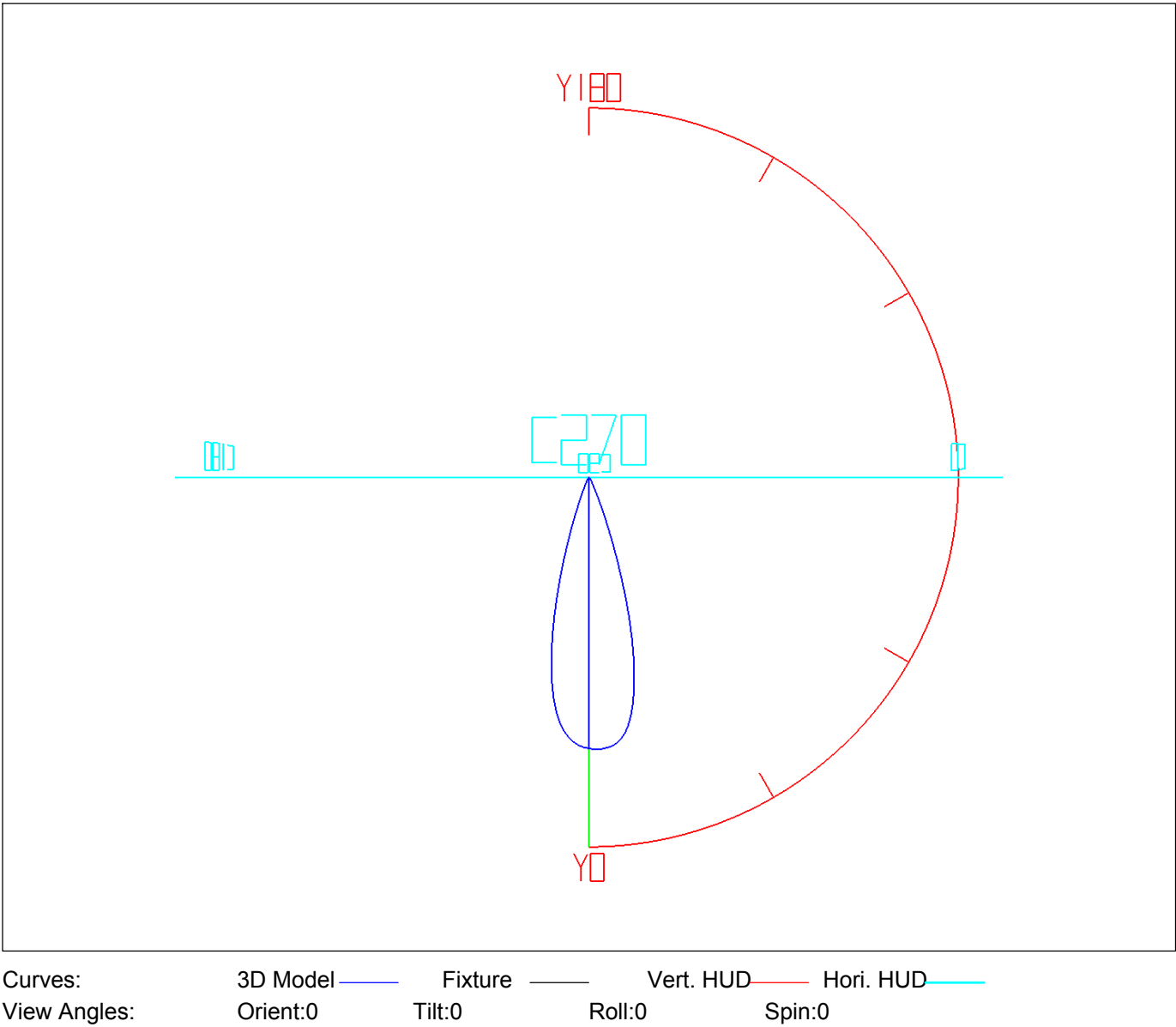
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |

3D Light Intensity Distribution Modal



Zonal Flux Tabulation

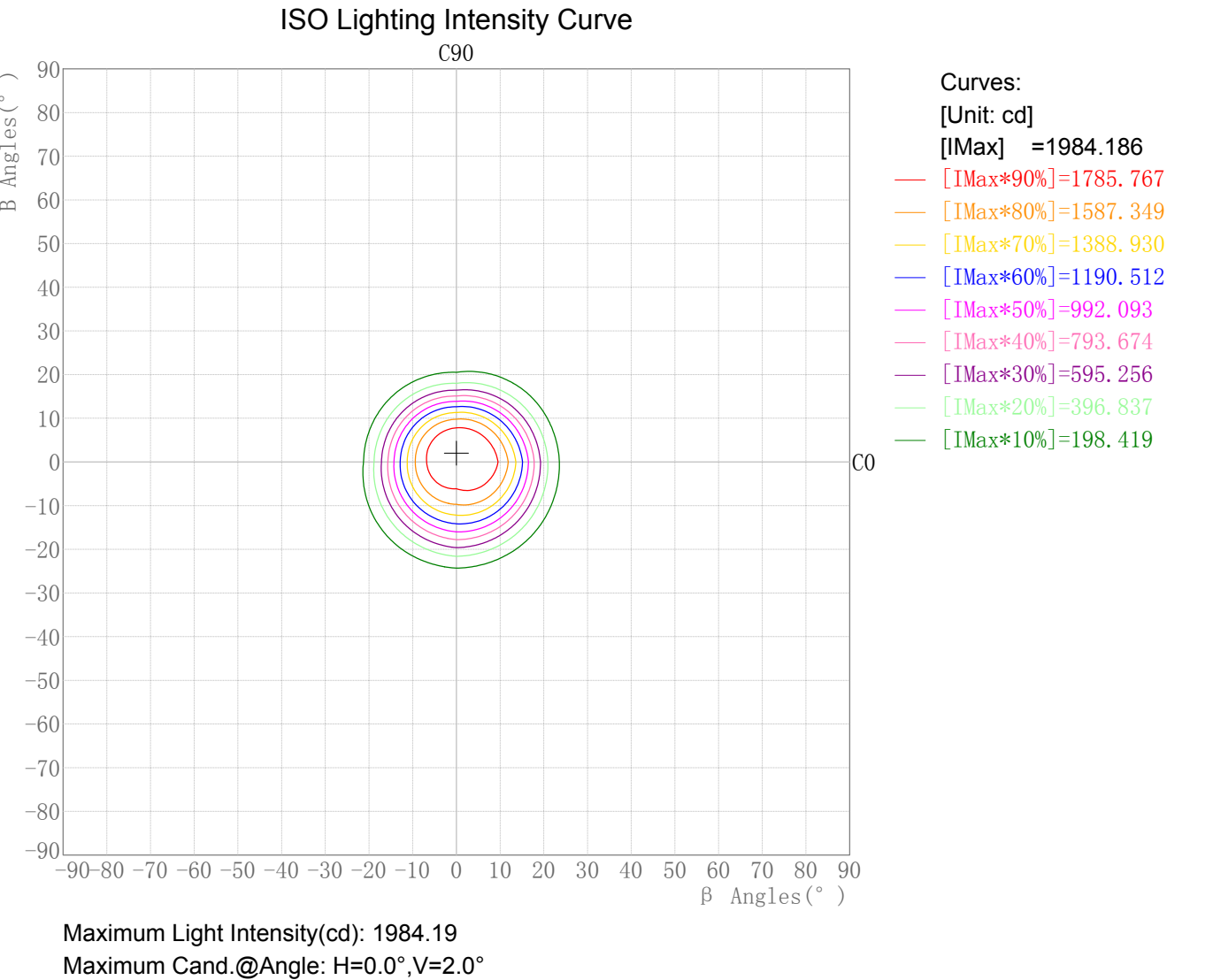
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 1.88 | 1.88 | 0.35 | 0.35 | 47.0-48.0 | 0.95 | 525.91 | 0.18 | 97.17 |
| 1.0-2.0 | 5.62 | 7.50 | 1.04 | 1.39 | 48.0-49.0 | 0.92 | 526.82 | 0.17 | 97.34 |
| 2.0-3.0 | 9.32 | 16.82 | 1.72 | 3.11 | 49.0-50.0 | 0.88 | 527.70 | 0.16 | 97.50 |
| 3.0-4.0 | 12.94 | 29.76 | 2.39 | 5.50 | 50.0-51.0 | 0.84 | 528.54 | 0.16 | 97.66 |
| 4.0-5.0 | 16.44 | 46.20 | 3.04 | 8.54 | 51.0-52.0 | 0.80 | 529.34 | 0.15 | 97.80 |
| 5.0-6.0 | 19.78 | 65.98 | 3.66 | 12.19 | 52.0-53.0 | 0.77 | 530.11 | 0.14 | 97.94 |
| 6.0-7.0 | 22.88 | 88.86 | 4.23 | 16.42 | 53.0-54.0 | 0.73 | 530.84 | 0.13 | 98.08 |
| 7.0-8.0 | 25.65 | 114.50 | 4.74 | 21.16 | 54.0-55.0 | 0.69 | 531.53 | 0.13 | 98.21 |
| 8.0-9.0 | 27.98 | 142.49 | 5.17 | 26.33 | 55.0-56.0 | 0.66 | 532.19 | 0.12 | 98.33 |
| 9.0-10.0 | 29.81 | 172.29 | 5.51 | 31.83 | 56.0-57.0 | 0.62 | 532.81 | 0.11 | 98.44 |
| 10.0-11.0 | 31.06 | 203.35 | 5.74 | 37.57 | 57.0-58.0 | 0.58 | 533.39 | 0.11 | 98.55 |
| 11.0-12.0 | 31.65 | 235.00 | 5.85 | 43.42 | 58.0-59.0 | 0.55 | 533.94 | 0.10 | 98.65 |
| 12.0-13.0 | 31.58 | 266.57 | 5.83 | 49.25 | 59.0-60.0 | 0.51 | 534.45 | 0.09 | 98.75 |
| 13.0-14.0 | 30.81 | 297.38 | 5.69 | 54.95 | 60.0-61.0 | 0.48 | 534.93 | 0.09 | 98.84 |
| 14.0-15.0 | 29.37 | 326.76 | 5.43 | 60.37 | 61.0-62.0 | 0.44 | 535.37 | 0.08 | 98.92 |
| 15.0-16.0 | 27.36 | 354.11 | 5.05 | 65.43 | 62.0-63.0 | 0.41 | 535.79 | 0.08 | 98.99 |
| 16.0-17.0 | 24.86 | 378.97 | 4.59 | 70.02 | 63.0-64.0 | 0.38 | 536.17 | 0.07 | 99.06 |
| 17.0-18.0 | 22.04 | 401.01 | 4.07 | 74.09 | 64.0-65.0 | 0.35 | 536.52 | 0.06 | 99.13 |
| 18.0-19.0 | 19.09 | 420.09 | 3.53 | 77.62 | 65.0-66.0 | 0.32 | 536.84 | 0.06 | 99.19 |
| 19.0-20.0 | 16.17 | 436.27 | 2.99 | 80.61 | 66.0-67.0 | 0.30 | 537.14 | 0.05 | 99.24 |
| 20.0-21.0 | 13.42 | 449.69 | 2.48 | 83.09 | 67.0-68.0 | 0.27 | 537.41 | 0.05 | 99.29 |
| 21.0-22.0 | 10.96 | 460.65 | 2.02 | 85.11 | 68.0-69.0 | 0.25 | 537.66 | 0.05 | 99.34 |
| 22.0-23.0 | 8.85 | 469.49 | 1.63 | 86.75 | 69.0-70.0 | 0.22 | 537.88 | 0.04 | 99.38 |
| 23.0-24.0 | 7.09 | 476.59 | 1.31 | 88.06 | 70.0-71.0 | 0.20 | 538.08 | 0.04 | 99.42 |
| 24.0-25.0 | 5.71 | 482.30 | 1.05 | 89.11 | 71.0-72.0 | 0.18 | 538.26 | 0.03 | 99.45 |
| 25.0-26.0 | 4.66 | 486.96 | 0.86 | 89.97 | 72.0-73.0 | 0.16 | 538.42 | 0.03 | 99.48 |
| 26.0-27.0 | 3.87 | 490.83 | 0.72 | 90.69 | 73.0-74.0 | 0.14 | 538.56 | 0.03 | 99.51 |
| 27.0-28.0 | 3.29 | 494.12 | 0.61 | 91.30 | 74.0-75.0 | 0.12 | 538.68 | 0.02 | 99.53 |
| 28.0-29.0 | 2.87 | 496.99 | 0.53 | 91.83 | 75.0-76.0 | 0.11 | 538.79 | 0.02 | 99.55 |
| 29.0-30.0 | 2.56 | 499.55 | 0.47 | 92.30 | 76.0-77.0 | 0.09 | 538.88 | 0.02 | 99.57 |
| 30.0-31.0 | 2.32 | 501.87 | 0.43 | 92.73 | 77.0-78.0 | 0.07 | 538.95 | 0.01 | 99.58 |
| 31.0-32.0 | 2.14 | 504.01 | 0.40 | 93.12 | 78.0-79.0 | 0.06 | 539.01 | 0.01 | 99.59 |
| 32.0-33.0 | 1.98 | 506.00 | 0.37 | 93.49 | 79.0-80.0 | 0.05 | 539.06 | 0.01 | 99.60 |
| 33.0-34.0 | 1.85 | 507.85 | 0.34 | 93.83 | 80.0-81.0 | 0.04 | 539.10 | 0.01 | 99.61 |
| 34.0-35.0 | 1.74 | 509.58 | 0.32 | 94.15 | 81.0-82.0 | 0.03 | 539.13 | 0.01 | 99.61 |
| 35.0-36.0 | 1.64 | 511.23 | 0.30 | 94.46 | 82.0-83.0 | 0.03 | 539.16 | 0.00 | 99.62 |
| 36.0-37.0 | 1.56 | 512.78 | 0.29 | 94.74 | 83.0-84.0 | 0.02 | 539.18 | 0.00 | 99.62 |
| 37.0-38.0 | 1.48 | 514.26 | 0.27 | 95.02 | 84.0-85.0 | 0.01 | 539.19 | 0.00 | 99.62 |
| 38.0-39.0 | 1.41 | 515.67 | 0.26 | 95.28 | 85.0-86.0 | 0.01 | 539.20 | 0.00 | 99.62 |
| 39.0-40.0 | 1.35 | 517.02 | 0.25 | 95.53 | 86.0-87.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 40.0-41.0 | 1.29 | 518.30 | 0.24 | 95.76 | 87.0-88.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 41.0-42.0 | 1.23 | 519.54 | 0.23 | 95.99 | 88.0-89.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 42.0-43.0 | 1.18 | 520.71 | 0.22 | 96.21 | 89.0-90.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 43.0-44.0 | 1.13 | 521.84 | 0.21 | 96.42 | 90.0-91.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 44.0-45.0 | 1.08 | 522.92 | 0.20 | 96.62 | 91.0-92.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 45.0-46.0 | 1.04 | 523.96 | 0.19 | 96.81 | 92.0-93.0 | 0.00 | 539.20 | 0.00 | 99.62 |
| 46.0-47.0 | 0.99 | 524.95 | 0.18 | 96.99 | 93.0-94.0 | 0.00 | 539.20 | 0.00 | 99.62 |

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 | 539.20 | 0.00 | 99.62 | 141.0-142.0 | 0.02 | 539.23 | 0.00 | 99.63 |
| 95.0-96.0 | 0.00 | 539.20 | 0.00 | 99.62 | 142.0-143.0 | 0.03 | 539.26 | 0.00 | 99.64 |
| 96.0-97.0 | 0.00 | 539.20 | 0.00 | 99.62 | 143.0-144.0 | 0.03 | 539.29 | 0.01 | 99.64 |
| 97.0-98.0 | 0.00 | 539.20 | 0.00 | 99.62 | 144.0-145.0 | 0.04 | 539.33 | 0.01 | 99.65 |
| 98.0-99.0 | 0.00 | 539.20 | 0.00 | 99.62 | 145.0-146.0 | 0.05 | 539.38 | 0.01 | 99.66 |
| 99.0-100.0 | 0.00 | 539.20 | 0.00 | 99.62 | 146.0-147.0 | 0.06 | 539.44 | 0.01 | 99.67 |
| 100.0-101.0 | 0.00 | 539.20 | 0.00 | 99.62 | 147.0-148.0 | 0.06 | 539.50 | 0.01 | 99.68 |
| 101.0-102.0 | 0.00 | 539.20 | 0.00 | 99.62 | 148.0-149.0 | 0.07 | 539.56 | 0.01 | 99.69 |
| 102.0-103.0 | 0.00 | 539.20 | 0.00 | 99.62 | 149.0-150.0 | 0.07 | 539.63 | 0.01 | 99.71 |
| 103.0-104.0 | 0.00 | 539.20 | 0.00 | 99.62 | 150.0-151.0 | 0.08 | 539.71 | 0.01 | 99.72 |
| 104.0-105.0 | 0.00 | 539.20 | 0.00 | 99.62 | 151.0-152.0 | 0.08 | 539.79 | 0.01 | 99.73 |
| 105.0-106.0 | 0.00 | 539.20 | 0.00 | 99.62 | 152.0-153.0 | 0.08 | 539.87 | 0.02 | 99.75 |
| 106.0-107.0 | 0.00 | 539.20 | 0.00 | 99.62 | 153.0-154.0 | 0.08 | 539.95 | 0.02 | 99.76 |
| 107.0-108.0 | 0.00 | 539.20 | 0.00 | 99.62 | 154.0-155.0 | 0.08 | 540.04 | 0.02 | 99.78 |
| 108.0-109.0 | 0.00 | 539.20 | 0.00 | 99.62 | 155.0-156.0 | 0.08 | 540.12 | 0.02 | 99.80 |
| 109.0-110.0 | 0.00 | 539.20 | 0.00 | 99.62 | 156.0-157.0 | 0.08 | 540.21 | 0.02 | 99.81 |
| 110.0-111.0 | 0.00 | 539.20 | 0.00 | 99.62 | 157.0-158.0 | 0.08 | 540.29 | 0.02 | 99.83 |
| 111.0-112.0 | 0.00 | 539.20 | 0.00 | 99.62 | 158.0-159.0 | 0.08 | 540.37 | 0.02 | 99.84 |
| 112.0-113.0 | 0.00 | 539.20 | 0.00 | 99.62 | 159.0-160.0 | 0.08 | 540.45 | 0.01 | 99.86 |
| 113.0-114.0 | 0.00 | 539.20 | 0.00 | 99.62 | 160.0-161.0 | 0.08 | 540.53 | 0.01 | 99.87 |
| 114.0-115.0 | 0.00 | 539.20 | 0.00 | 99.62 | 161.0-162.0 | 0.07 | 540.60 | 0.01 | 99.88 |
| 115.0-116.0 | 0.00 | 539.20 | 0.00 | 99.62 | 162.0-163.0 | 0.07 | 540.67 | 0.01 | 99.90 |
| 116.0-117.0 | 0.00 | 539.20 | 0.00 | 99.62 | 163.0-164.0 | 0.07 | 540.74 | 0.01 | 99.91 |
| 117.0-118.0 | 0.00 | 539.20 | 0.00 | 99.62 | 164.0-165.0 | 0.06 | 540.80 | 0.01 | 99.92 |
| 118.0-119.0 | 0.00 | 539.20 | 0.00 | 99.62 | 165.0-166.0 | 0.06 | 540.86 | 0.01 | 99.93 |
| 119.0-120.0 | 0.00 | 539.20 | 0.00 | 99.62 | 166.0-167.0 | 0.05 | 540.91 | 0.01 | 99.94 |
| 120.0-121.0 | 0.00 | 539.20 | 0.00 | 99.62 | 167.0-168.0 | 0.05 | 540.96 | 0.01 | 99.95 |
| 121.0-122.0 | 0.00 | 539.20 | 0.00 | 99.62 | 168.0-169.0 | 0.04 | 541.01 | 0.01 | 99.96 |
| 122.0-123.0 | 0.00 | 539.20 | 0.00 | 99.62 | 169.0-170.0 | 0.04 | 541.05 | 0.01 | 99.97 |
| 123.0-124.0 | 0.00 | 539.20 | 0.00 | 99.62 | 170.0-171.0 | 0.04 | 541.08 | 0.01 | 99.97 |
| 124.0-125.0 | 0.00 | 539.20 | 0.00 | 99.62 | 171.0-172.0 | 0.03 | 541.12 | 0.01 | 99.98 |
| 125.0-126.0 | 0.00 | 539.20 | 0.00 | 99.62 | 172.0-173.0 | 0.03 | 541.14 | 0.01 | 99.98 |
| 126.0-127.0 | 0.00 | 539.20 | 0.00 | 99.62 | 173.0-174.0 | 0.02 | 541.17 | 0.00 | 99.99 |
| 127.0-128.0 | 0.00 | 539.20 | 0.00 | 99.62 | 174.0-175.0 | 0.02 | 541.19 | 0.00 | 99.99 |
| 128.0-129.0 | 0.00 | 539.20 | 0.00 | 99.62 | 175.0-176.0 | 0.02 | 541.20 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 539.20 | 0.00 | 99.62 | 176.0-177.0 | 0.01 | 541.22 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 539.20 | 0.00 | 99.62 | 177.0-178.0 | 0.01 | 541.23 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 539.20 | 0.00 | 99.62 | 178.0-179.0 | 0.01 | 541.23 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 539.20 | 0.00 | 99.62 | 179.0-180.0 | 0.00 | 541.23 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 134.0-135.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 135.0-136.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 136.0-137.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 137.0-138.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 138.0-139.0 | 0.00 | 539.20 | 0.00 | 99.62 | | | | | |
| 139.0-140.0 | 0.01 | 539.20 | 0.00 | 99.63 | | | | | |
| 140.0-141.0 | 0.01 | 539.21 | 0.00 | 99.63 | | | | | |

Rectangle ISO Lighting Intensity Diagram

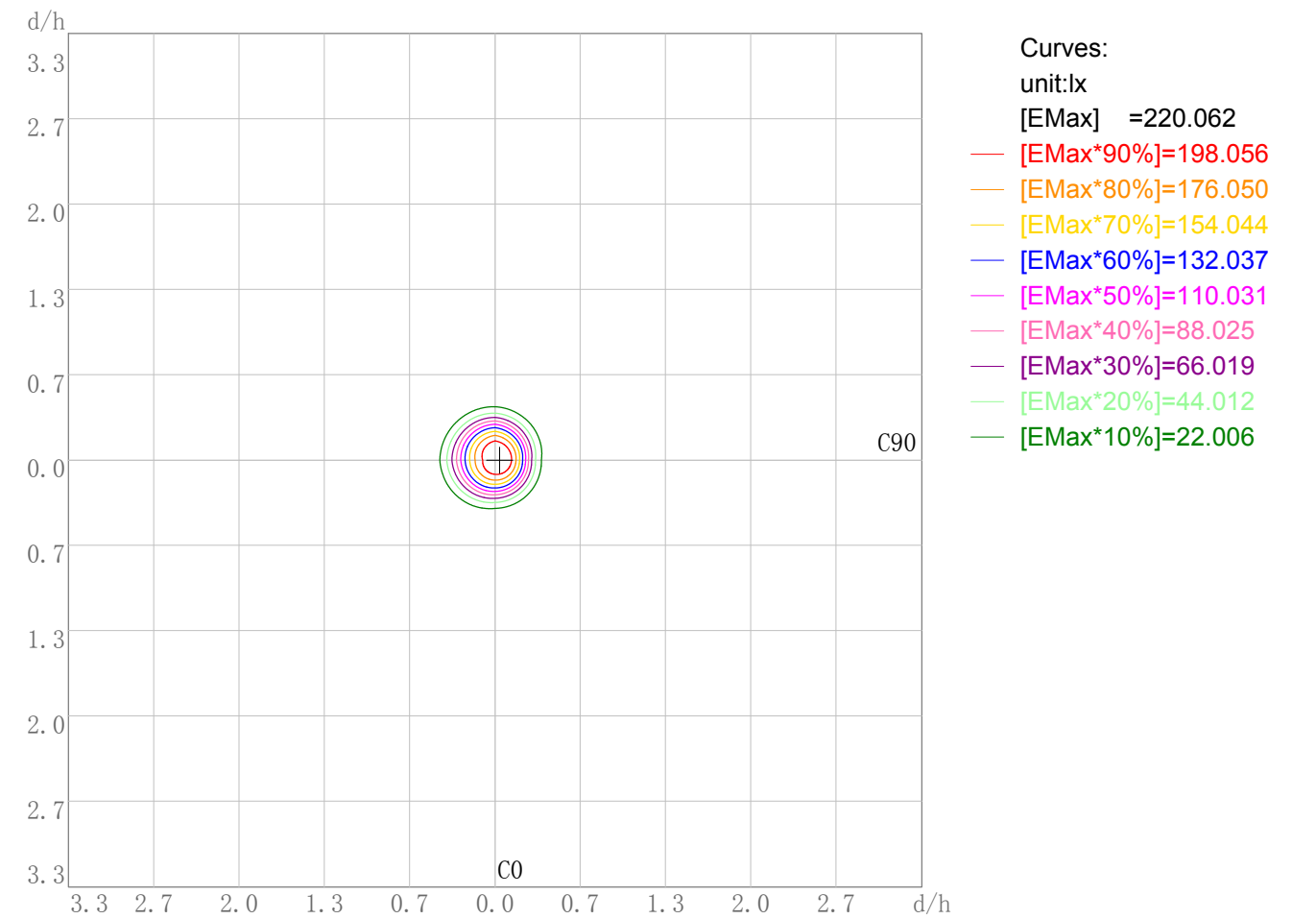
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 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: 2021/10/26 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 220.06
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

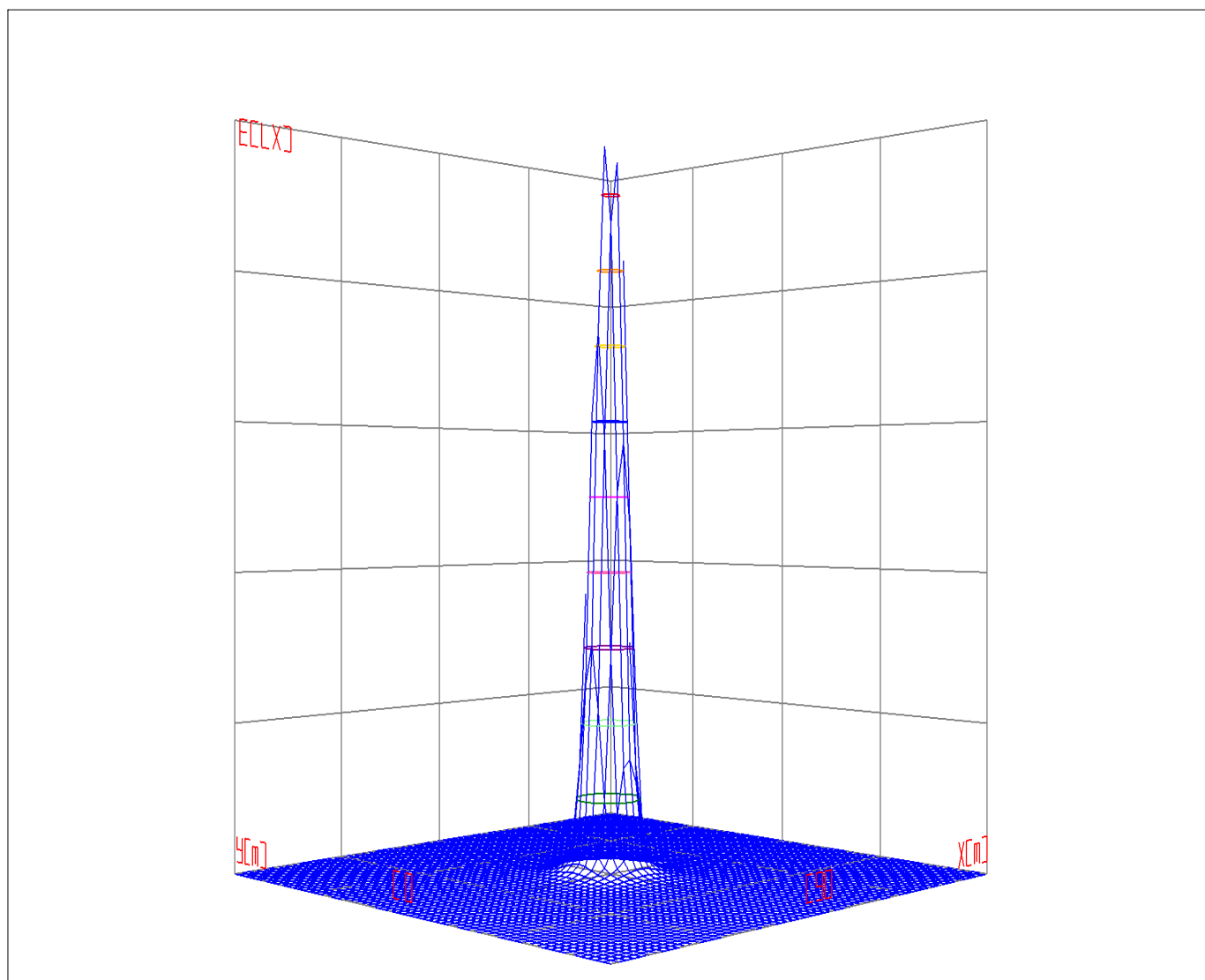
IES Indoor Report

Photometric Filename:SD09-06-XX-02 3000K RA90 24D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 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: 2021/10/26 |

3D Plane Illuminance Modal

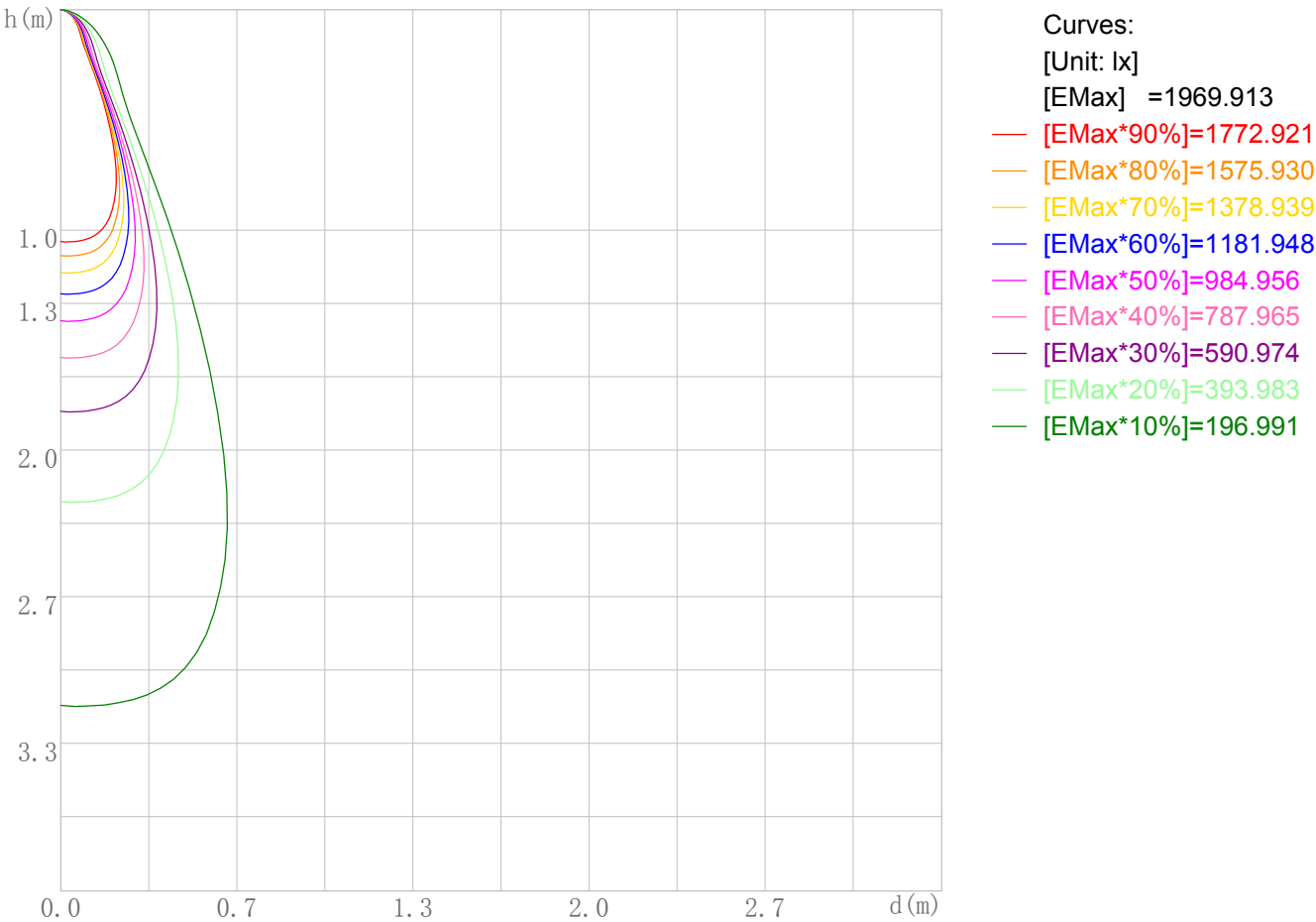


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |

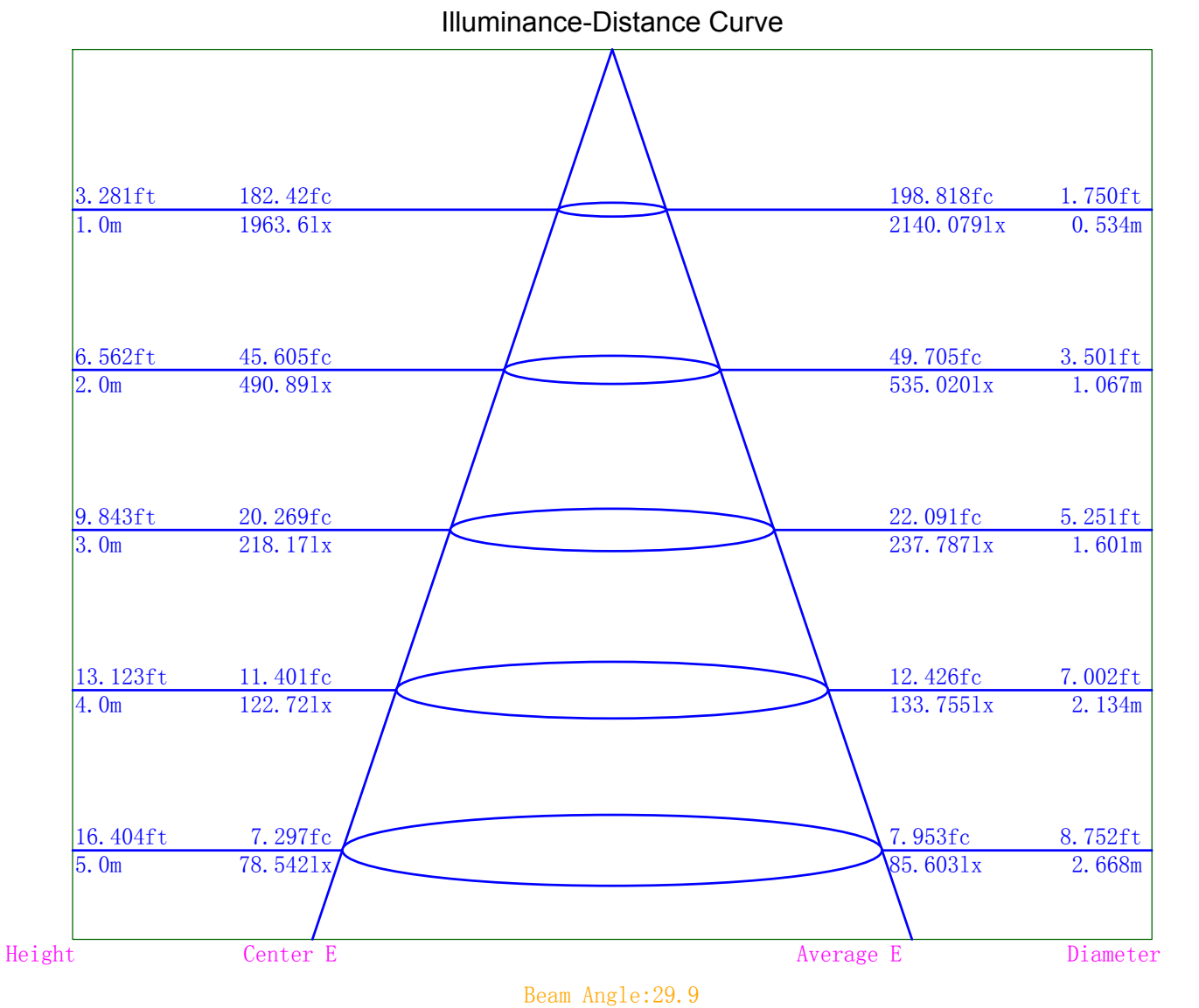
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1969.91lx,1.0deg
Plane Maximum Lighting Intensity and @Angle:1970.813cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 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: 2021/10/26 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 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: 2021/10/26 |

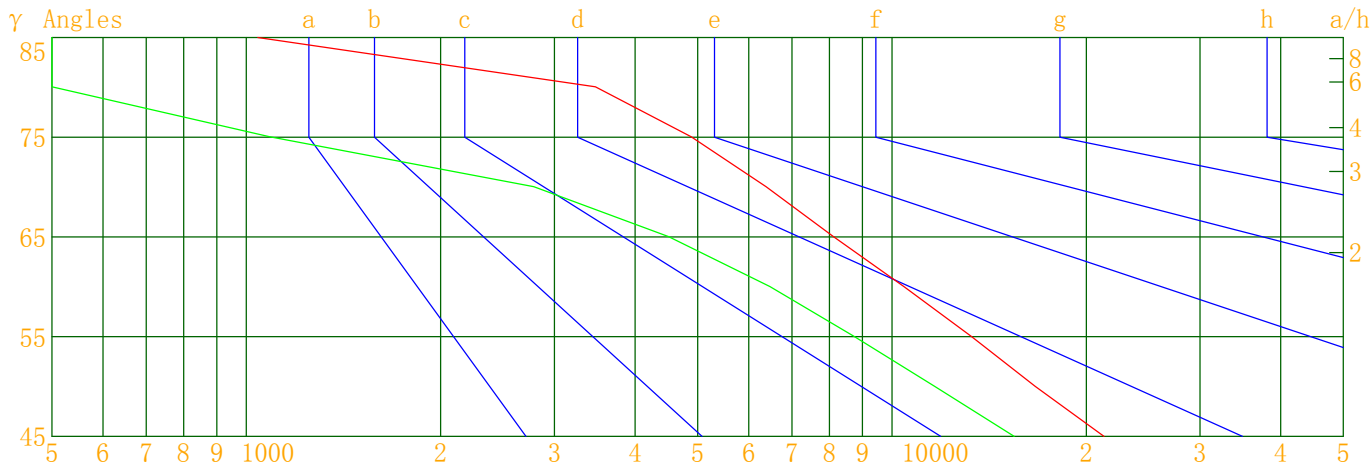
Glare Grade Table

| 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 | 21302 | 16674 | 13274 | 10435 | 8116 | 6381 | 4885 | 3473 | 1042 |
| C90 | 15458 | 11648 | 8742 | 6468 | 4507 | 2787 | 1087 | 0 | 0 |

Luminance Limiting Curve



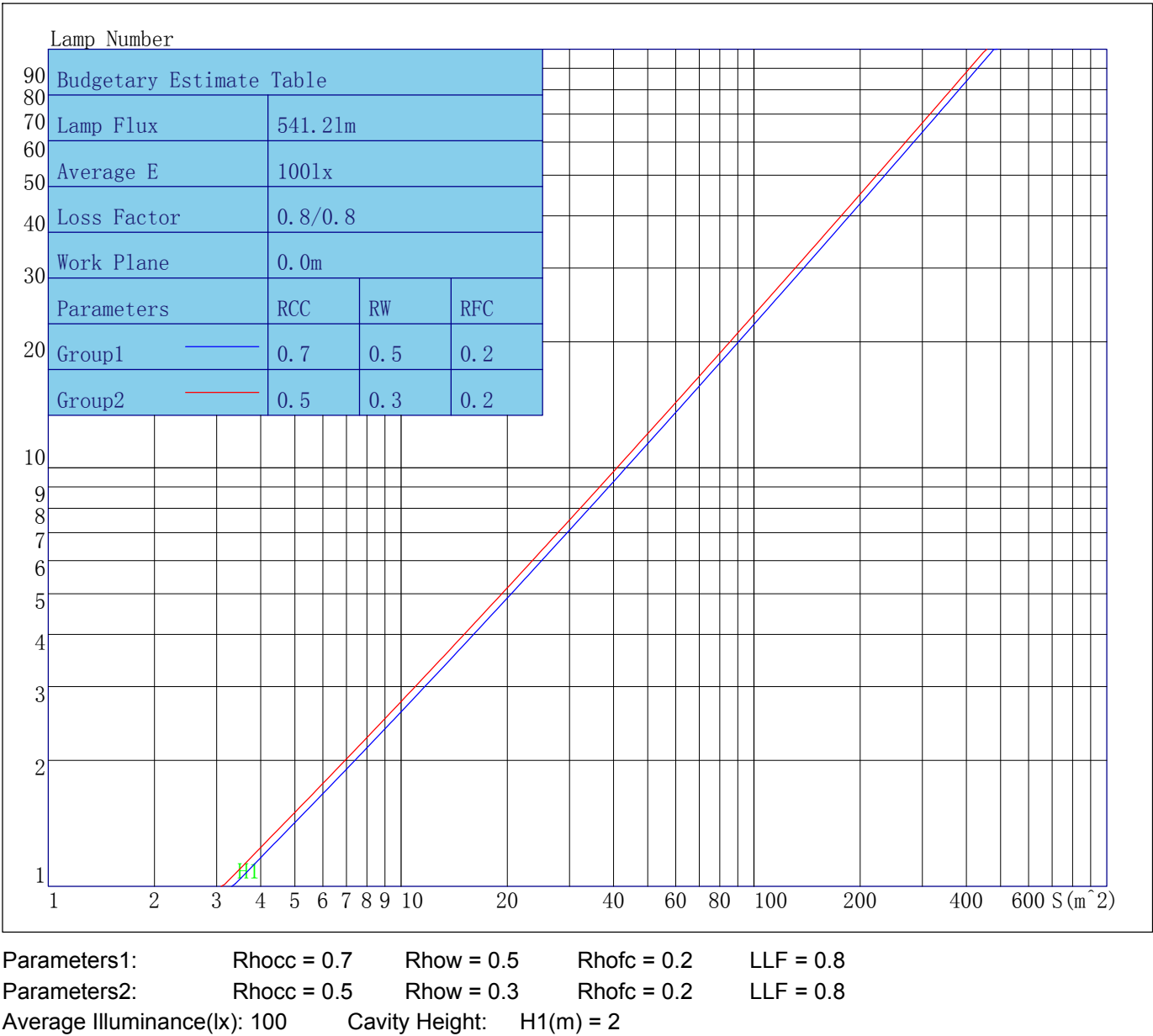
Luminous Size: Length(m)=-0.038 Width(m)=-0.038 Height(m)=0.000 Area(m^2)=0.001134

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 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: 2021/10/26 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |

| 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 | 112 | 110 | 109 | 112 | 110 | 109 | 107 | 106 | 105 | 104 | 103 | 101 | 100 | 99 | 98 | 98 | 96 |
| 2 | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 100 | 102 | 100 | 98 | 99 | 97 | 96 | 96 | 95 | 94 | 92 |
| 3 | 107 | 102 | 98 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 93 | 96 | 93 | 91 | 94 | 92 | 90 | 89 |
| 4 | 103 | 98 | 94 | 91 | 102 | 97 | 93 | 90 | 95 | 91 | 89 | 93 | 90 | 88 | 91 | 89 | 87 | 86 |
| 5 | 100 | 94 | 90 | 87 | 99 | 93 | 89 | 86 | 91 | 88 | 85 | 90 | 87 | 85 | 88 | 86 | 84 | 83 |
| 6 | 97 | 91 | 86 | 83 | 96 | 90 | 86 | 83 | 89 | 85 | 82 | 87 | 84 | 82 | 86 | 83 | 81 | 80 |
| 7 | 94 | 88 | 83 | 80 | 93 | 87 | 83 | 80 | 86 | 82 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 78 |
| 8 | 92 | 85 | 80 | 78 | 91 | 84 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 77 | 82 | 79 | 76 | 75 |
| 9 | 89 | 82 | 78 | 75 | 88 | 82 | 78 | 75 | 81 | 77 | 75 | 80 | 77 | 75 | 79 | 76 | 74 | 73 |
| 10 | 87 | 80 | 76 | 73 | 86 | 79 | 75 | 73 | 79 | 75 | 73 | 78 | 75 | 72 | 77 | 74 | 72 | 71 |

Unified Glare Rating Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-06-XX-02 3000K RA90 24D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/26 |

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 | 14.6 | 15.6 | 15.0 | 15.9 | 16.2 | 12.7 | 13.7 | 13.0 | 14.0 | 14.3 |
| | 14.9 | 15.8 | 15.3 | 16.2 | 16.5 | 12.8 | 13.7 | 13.1 | 14.0 | 14.4 |
| | 15.0 | 15.8 | 15.4 | 16.2 | 16.6 | 12.7 | 13.5 | 13.1 | 13.9 | 14.3 |
| | 15.0 | 15.8 | 15.4 | 16.1 | 16.6 | 12.6 | 13.3 | 13.0 | 13.7 | 14.1 |
| | 15.0 | 15.7 | 15.4 | 16.1 | 16.5 | 12.5 | 13.2 | 13.0 | 13.6 | 14.1 |
| | 14.9 | 15.6 | 15.3 | 16.0 | 16.4 | 12.5 | 13.2 | 12.9 | 13.5 | 14.0 |
| X=4H Y=2H | 14.6 | 15.5 | 15.1 | 15.9 | 16.3 | 12.8 | 13.6 | 13.2 | 14.0 | 14.4 |
| | 15.1 | 15.8 | 15.5 | 16.2 | 16.6 | 12.9 | 13.6 | 13.3 | 14.0 | 14.4 |
| | 15.2 | 15.8 | 15.6 | 16.3 | 16.7 | 12.8 | 13.5 | 13.3 | 13.9 | 14.4 |
| | 15.2 | 15.8 | 15.7 | 16.3 | 16.7 | 12.7 | 13.3 | 13.2 | 13.7 | 14.2 |
| | 15.2 | 15.7 | 15.7 | 16.2 | 16.7 | 12.6 | 13.2 | 13.1 | 13.6 | 14.1 |
| | 15.1 | 15.6 | 15.6 | 16.1 | 16.6 | 12.6 | 13.0 | 13.1 | 13.5 | 14.0 |
| X=8H Y=4H | 15.1 | 15.6 | 15.6 | 16.1 | 16.6 | 12.7 | 13.2 | 13.2 | 13.7 | 14.2 |
| | 15.2 | 15.6 | 15.7 | 16.1 | 16.7 | 12.6 | 13.0 | 13.1 | 13.5 | 14.1 |
| | 15.2 | 15.6 | 15.7 | 16.1 | 16.6 | 12.5 | 12.9 | 13.1 | 13.4 | 14.0 |
| | 15.1 | 15.5 | 15.7 | 16.0 | 16.6 | 12.5 | 12.8 | 13.0 | 13.3 | 13.9 |
| X=12H Y=4H | 15.1 | 15.5 | 15.6 | 16.0 | 16.5 | 12.7 | 13.1 | 13.2 | 13.6 | 14.1 |
| | 15.1 | 15.5 | 15.7 | 16.0 | 16.6 | 12.5 | 12.9 | 13.1 | 13.4 | 14.0 |
| | 15.1 | 15.5 | 15.7 | 16.0 | 16.6 | 12.5 | 12.8 | 13.0 | 13.3 | 13.9 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.8/-0.9 | | | | | 1.8/-2.2 | | | | |
| S=1.5H | 1.4/-1.7 | | | | | 3.2/-5.7 | | | | |
| S=2.0H | 2.2/-2.6 | | | | | 3.6/-7.3 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 0.8 | | | | | 0.5 | | | | |

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 | 1963.56 | 1963.56 | 1963.56 | 1963.56 |
| γ 1.0 | 1970.81 | 1978.25 | 1957.86 | 1943.86 |
| γ 2.0 | 1970.52 | 1984.19 | 1946.17 | 1918.48 |
| γ 3.0 | 1970.04 | 1979.03 | 1928.55 | 1889.54 |
| γ 4.0 | 1962.74 | 1968.29 | 1902.67 | 1858.13 |
| γ 5.0 | 1953.70 | 1945.38 | 1870.63 | 1828.11 |
| γ 6.0 | 1936.81 | 1903.12 | 1828.89 | 1790.81 |
| γ 7.0 | 1910.07 | 1848.32 | 1775.43 | 1748.41 |
| γ 8.0 | 1873.01 | 1771.60 | 1707.52 | 1699.00 |
| γ 9.0 | 1821.27 | 1674.89 | 1626.11 | 1636.34 |
| γ 10.0 | 1754.35 | 1564.07 | 1530.06 | 1566.95 |
| γ 11.0 | 1673.82 | 1434.13 | 1418.43 | 1490.11 |
| γ 12.0 | 1572.60 | 1287.51 | 1299.75 | 1404.95 |
| γ 13.0 | 1461.18 | 1133.95 | 1171.50 | 1311.26 |
| γ 14.0 | 1341.19 | 969.00 | 1033.41 | 1207.63 |
| γ 15.0 | 1208.85 | 807.71 | 889.27 | 1101.38 |
| γ 16.0 | 1065.01 | 653.41 | 748.81 | 993.64 |
| γ 17.0 | 915.27 | 513.97 | 614.37 | 880.93 |
| γ 18.0 | 764.90 | 396.86 | 488.89 | 770.58 |
| γ 19.0 | 624.93 | 300.74 | 379.68 | 661.54 |
| γ 20.0 | 500.26 | 227.04 | 285.94 | 554.14 |
| γ 21.0 | 391.22 | 173.14 | 212.02 | 452.34 |
| γ 22.0 | 301.02 | 134.06 | 157.43 | 360.31 |
| γ 23.0 | 229.92 | 106.54 | 117.12 | 279.83 |
| γ 24.0 | 174.31 | 86.86 | 88.92 | 214.52 |
| γ 25.0 | 133.71 | 73.01 | 69.42 | 163.69 |
| γ 26.0 | 105.14 | 62.64 | 56.07 | 125.57 |
| γ 27.0 | 85.22 | 54.84 | 46.76 | 96.71 |
| γ 28.0 | 71.35 | 48.75 | 40.13 | 76.31 |
| γ 29.0 | 61.73 | 43.88 | 35.01 | 61.76 |
| γ 30.0 | 54.54 | 39.95 | 30.93 | 51.45 |
| γ 31.0 | 48.81 | 36.59 | 27.51 | 44.28 |
| γ 32.0 | 44.26 | 33.61 | 24.79 | 38.65 |
| γ 33.0 | 40.53 | 30.98 | 22.54 | 34.05 |
| γ 34.0 | 37.36 | 28.56 | 20.48 | 30.18 |
| γ 35.0 | 34.53 | 26.47 | 18.90 | 27.21 |
| γ 36.0 | 32.01 | 24.58 | 17.55 | 24.89 |
| γ 37.0 | 29.77 | 22.82 | 16.38 | 22.88 |
| γ 38.0 | 27.78 | 21.18 | 15.39 | 21.18 |
| γ 39.0 | 25.92 | 19.58 | 14.53 | 19.74 |
| γ 40.0 | 24.23 | 18.10 | 13.78 | 18.48 |
| γ 41.0 | 22.63 | 16.76 | 13.11 | 17.42 |
| γ 42.0 | 21.11 | 15.54 | 12.47 | 16.46 |
| γ 43.0 | 19.67 | 14.42 | 11.89 | 15.63 |
| γ 44.0 | 18.32 | 13.36 | 11.40 | 14.87 |
| γ 45.0 | 17.08 | 12.40 | 10.94 | 14.14 |
| γ 46.0 | 15.95 | 11.48 | 10.50 | 13.49 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 14.91 | 10.66 | 10.07 | 12.93 |
| γ 48.0 | 13.92 | 9.88 | 9.63 | 12.42 |
| γ 49.0 | 13.00 | 9.18 | 9.21 | 11.92 |
| γ 50.0 | 12.15 | 8.49 | 8.79 | 11.42 |
| γ 51.0 | 11.35 | 7.84 | 8.35 | 10.97 |
| γ 52.0 | 10.62 | 7.23 | 7.92 | 10.52 |
| γ 53.0 | 9.93 | 6.68 | 7.46 | 10.06 |
| γ 54.0 | 9.28 | 6.20 | 7.00 | 9.61 |
| γ 55.0 | 8.64 | 5.69 | 6.56 | 9.16 |
| γ 56.0 | 8.05 | 5.23 | 6.13 | 8.69 |
| γ 57.0 | 7.50 | 4.80 | 5.69 | 8.20 |
| γ 58.0 | 6.93 | 4.40 | 5.27 | 7.72 |
| γ 59.0 | 6.41 | 4.03 | 4.88 | 7.26 |
| γ 60.0 | 5.92 | 3.67 | 4.51 | 6.76 |
| γ 61.0 | 5.47 | 3.33 | 4.14 | 6.27 |
| γ 62.0 | 5.04 | 3.03 | 3.80 | 5.81 |
| γ 63.0 | 4.63 | 2.74 | 3.47 | 5.39 |
| γ 64.0 | 4.24 | 2.43 | 3.19 | 4.99 |
| γ 65.0 | 3.89 | 2.16 | 2.89 | 4.60 |
| γ 66.0 | 3.57 | 1.92 | 2.58 | 4.24 |
| γ 67.0 | 3.28 | 1.70 | 2.33 | 3.92 |
| γ 68.0 | 2.98 | 1.48 | 2.09 | 3.61 |
| γ 69.0 | 2.71 | 1.26 | 1.86 | 3.33 |
| γ 70.0 | 2.47 | 1.08 | 1.63 | 3.06 |
| γ 71.0 | 2.23 | 0.92 | 1.40 | 2.81 |
| γ 72.0 | 2.00 | 0.75 | 1.20 | 2.57 |
| γ 73.0 | 1.80 | 0.60 | 1.02 | 2.30 |
| γ 74.0 | 1.61 | 0.45 | 0.85 | 2.06 |
| γ 75.0 | 1.43 | 0.32 | 0.69 | 1.85 |
| γ 76.0 | 1.26 | 0.19 | 0.53 | 1.65 |
| γ 77.0 | 1.12 | 0.08 | 0.37 | 1.46 |
| γ 78.0 | 0.96 | 0.00 | 0.23 | 1.29 |
| γ 79.0 | 0.82 | 0.00 | 0.09 | 1.11 |
| γ 80.0 | 0.68 | 0.00 | 0.00 | 0.95 |
| γ 81.0 | 0.55 | 0.00 | 0.00 | 0.80 |
| γ 82.0 | 0.43 | 0.00 | 0.00 | 0.64 |
| γ 83.0 | 0.31 | 0.00 | 0.00 | 0.49 |
| γ 84.0 | 0.20 | 0.00 | 0.00 | 0.36 |
| γ 85.0 | 0.10 | 0.00 | 0.00 | 0.22 |
| γ 86.0 | 0.00 | 0.00 | 0.00 | 0.09 |
| 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 | 0.02 | 0.00 |
| γ 139.0 | 0.00 | 0.00 | 0.16 | 0.00 |
| γ 140.0 | 0.00 | 0.00 | 0.28 | 0.13 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 0.00 | 0.09 | 0.42 | 0.25 |
| γ 142.0 | 0.09 | 0.23 | 0.55 | 0.38 |
| γ 143.0 | 0.23 | 0.37 | 0.70 | 0.52 |
| γ 144.0 | 0.36 | 0.49 | 0.83 | 0.64 |
| γ 145.0 | 0.49 | 0.63 | 0.97 | 0.78 |
| γ 146.0 | 0.63 | 0.76 | 1.09 | 0.90 |
| γ 147.0 | 0.77 | 0.89 | 1.23 | 1.02 |
| γ 148.0 | 0.90 | 1.01 | 1.36 | 1.14 |
| γ 149.0 | 1.02 | 1.13 | 1.48 | 1.26 |
| γ 150.0 | 1.14 | 1.25 | 1.59 | 1.37 |
| γ 151.0 | 1.26 | 1.35 | 1.71 | 1.48 |
| γ 152.0 | 1.38 | 1.45 | 1.81 | 1.58 |
| γ 153.0 | 1.50 | 1.54 | 1.90 | 1.68 |
| γ 154.0 | 1.60 | 1.63 | 1.98 | 1.77 |
| γ 155.0 | 1.70 | 1.71 | 2.05 | 1.85 |
| γ 156.0 | 1.79 | 1.77 | 2.12 | 1.92 |
| γ 157.0 | 1.87 | 1.83 | 2.17 | 2.00 |
| γ 158.0 | 1.94 | 1.88 | 2.21 | 2.06 |
| γ 159.0 | 2.01 | 1.90 | 2.25 | 2.11 |
| γ 160.0 | 2.07 | 1.92 | 2.25 | 2.14 |
| γ 161.0 | 2.11 | 1.93 | 2.27 | 2.18 |
| γ 162.0 | 2.12 | 1.93 | 2.28 | 2.20 |
| γ 163.0 | 2.15 | 1.92 | 2.26 | 2.22 |
| γ 164.0 | 2.16 | 1.91 | 2.25 | 2.21 |
| γ 165.0 | 2.16 | 1.89 | 2.22 | 2.21 |
| γ 166.0 | 2.15 | 1.87 | 2.18 | 2.18 |
| γ 167.0 | 2.13 | 1.86 | 2.15 | 2.16 |
| γ 168.0 | 2.12 | 1.85 | 2.11 | 2.12 |
| γ 169.0 | 2.08 | 1.84 | 2.07 | 2.08 |
| γ 170.0 | 2.06 | 1.83 | 2.03 | 2.03 |
| γ 171.0 | 2.05 | 1.83 | 1.99 | 2.00 |
| γ 172.0 | 2.04 | 1.84 | 1.98 | 1.95 |
| γ 173.0 | 2.03 | 1.86 | 1.96 | 1.91 |
| γ 174.0 | 2.03 | 1.88 | 1.95 | 1.90 |
| γ 175.0 | 2.03 | 1.90 | 1.95 | 1.89 |
| γ 176.0 | 2.02 | 1.92 | 1.95 | 1.90 |
| γ 177.0 | 2.03 | 1.94 | 1.96 | 1.91 |
| γ 178.0 | 2.02 | 1.95 | 1.97 | 1.93 |
| γ 179.0 | 2.01 | 1.92 | 1.98 | 1.96 |
| γ 180.0 | 1.97 | 1.97 | 1.97 | 1.97 |