

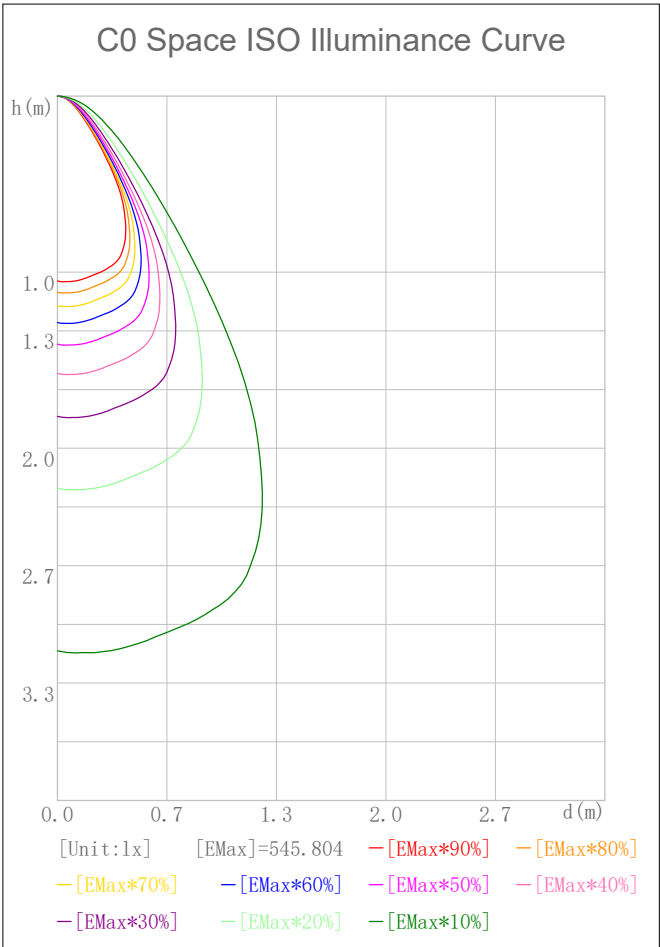
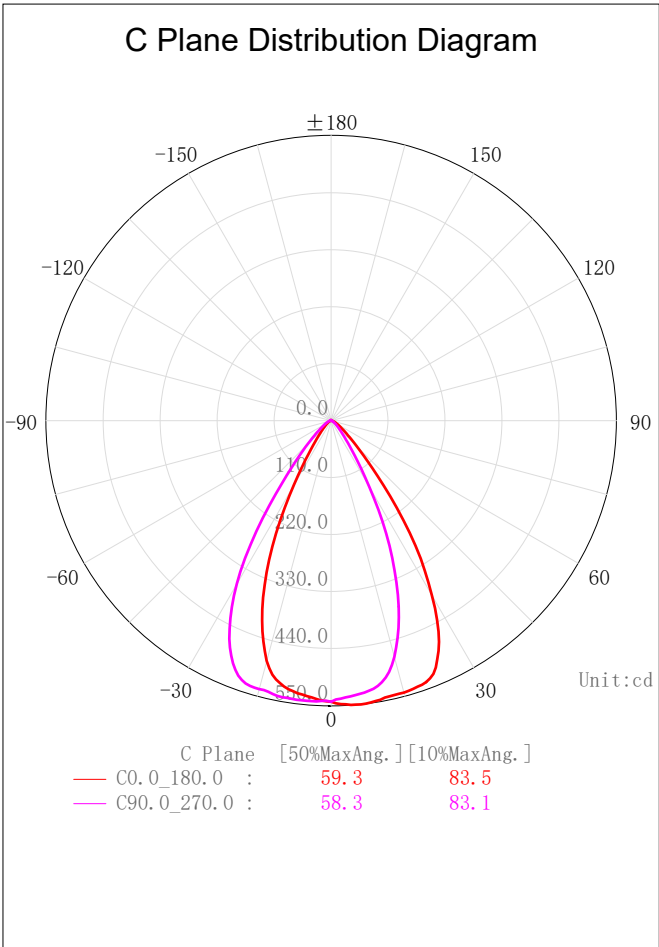
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name: TR08-06-XX-01 2700K RA90 60D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/10/25 |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | | Shld. Ang(°): | Test Machine:GON-2000 |
| Test Lab: Quality Department | | Frequency (Hz): | Lamp CCT (K): Ra: |
| Lum. Size (W*L*H):0.076m*0.076m*0.000m | | Lum. Area (m2):0.005 | Lum. W (kg): 0.000 |
| Test System: C, γ | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25 | Humidity(%): 50.0 |

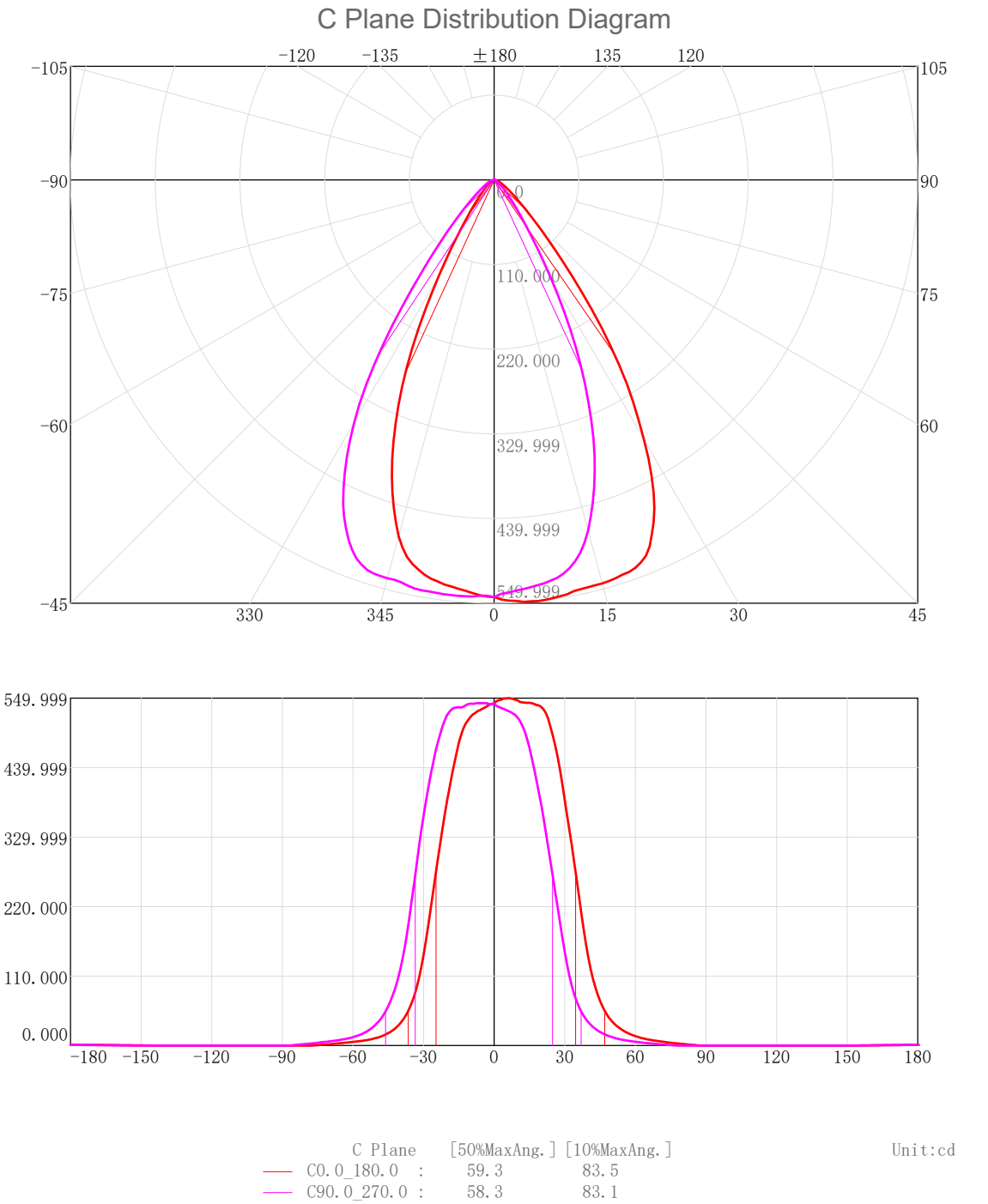
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|--------------------------------|---------------------------------------|--|
| Rated Flux(lm): 520.210 | Luminary Flux(lm): 520.212 | Field Angle(10%Imax): 83.5(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 519.760lm 99.91% | |
| Rated Voltage(V): | Luminary EER(lm/W): 83.568 | Up Lumens&Percent: 0.452lm 0.09% | |
| Tested Power(W): 6.225 | Max. Candela(cd): 549.999 | S/MH: C0_a180=0.965 C90_270=0.943 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=6.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.9, 0.030, 0.844 | Beam Angle(50%Imax): 59.3(°) | ErP Φ use(90°): 440.310lm | |
| Lamp Size (W*L*H):0.076m*0.076m*0.000m | Left=-24.7°, Right=34.6° | IRF(%): 200.073 | |



2D Plane Light Intensity Distribution Curve

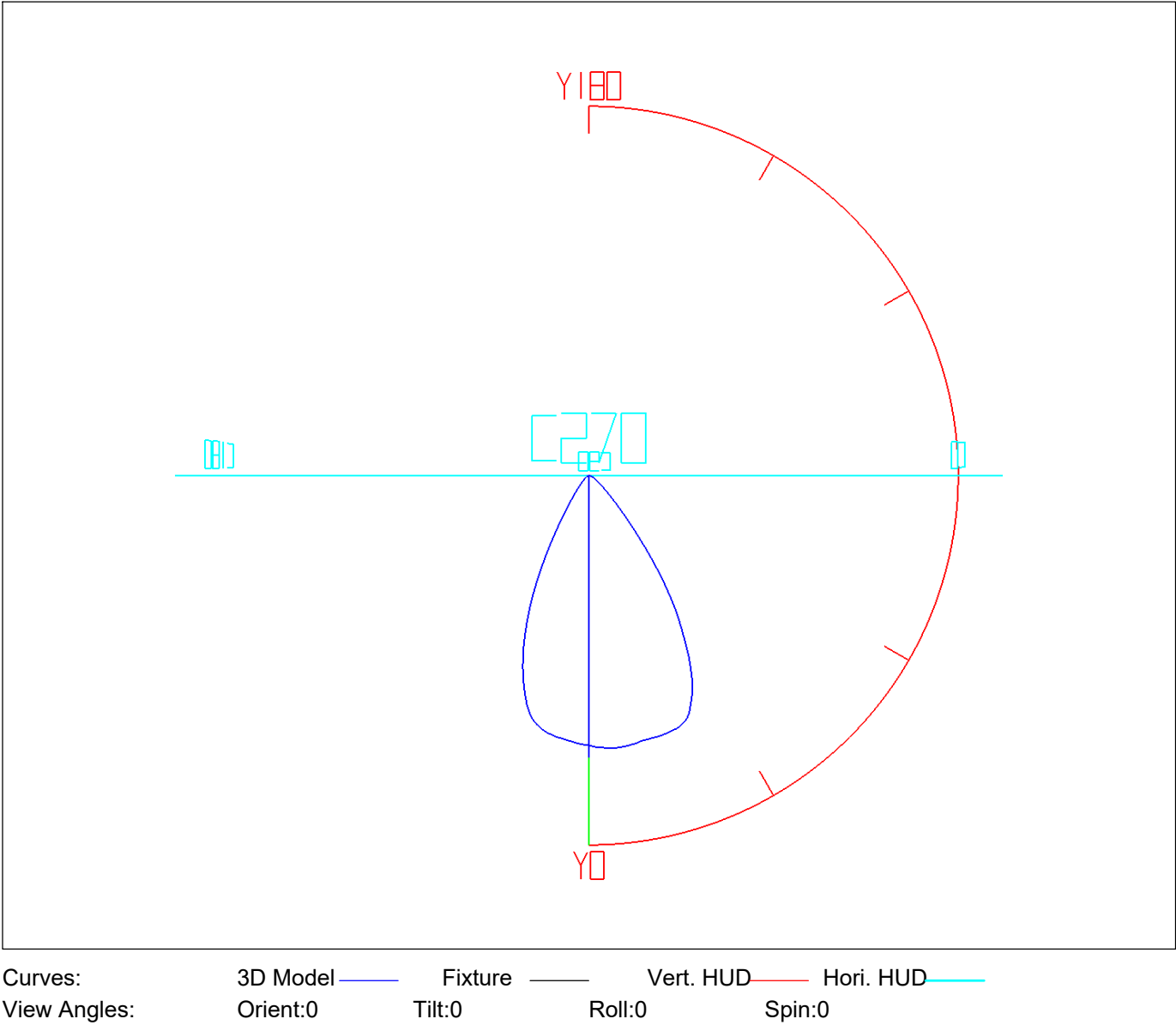
| | | |
|---|-----------------------|------------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/25 |



3D Light Intensity Distribution Modal

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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:2021/10/25 |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:TR08-06-XX-01 2700K RA90 60D.IES

Zonal Flux Tabulation

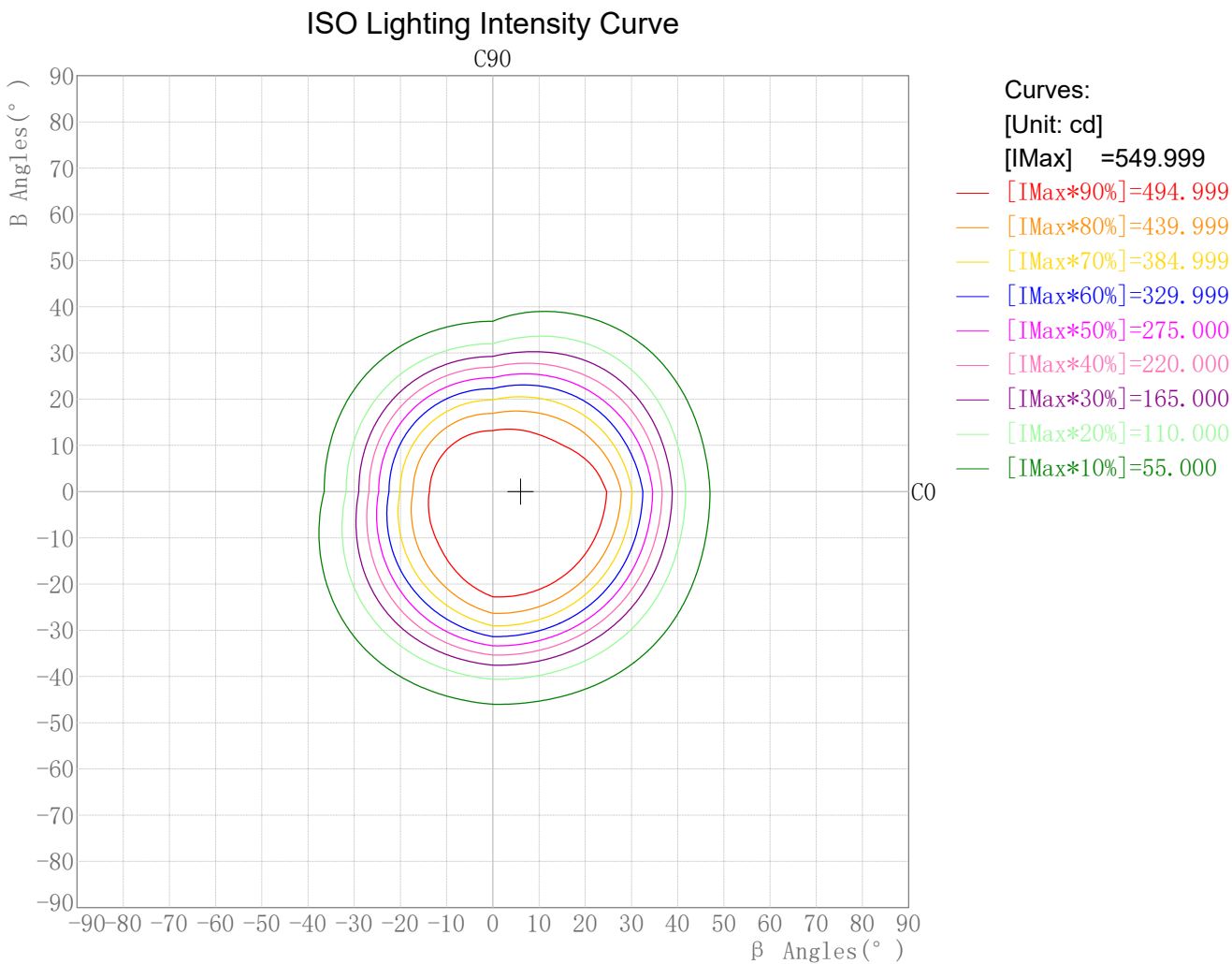
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 0.52 | 0.52 | 0.10 | 0.10 | 47.0-48.0 | 2.63 | 490.67 | 0.51 | 94.32 |
| 1.0-2.0 | 1.55 | 2.07 | 0.30 | 0.40 | 48.0-49.0 | 2.39 | 493.06 | 0.46 | 94.78 |
| 2.0-3.0 | 2.59 | 4.66 | 0.50 | 0.90 | 49.0-50.0 | 2.18 | 495.24 | 0.42 | 95.20 |
| 3.0-4.0 | 3.62 | 8.27 | 0.69 | 1.59 | 50.0-51.0 | 1.99 | 497.23 | 0.38 | 95.58 |
| 4.0-5.0 | 4.64 | 12.91 | 0.89 | 2.48 | 51.0-52.0 | 1.82 | 499.05 | 0.35 | 95.93 |
| 5.0-6.0 | 5.66 | 18.57 | 1.09 | 3.57 | 52.0-53.0 | 1.68 | 500.73 | 0.32 | 96.26 |
| 6.0-7.0 | 6.68 | 25.25 | 1.28 | 4.85 | 53.0-54.0 | 1.55 | 502.28 | 0.30 | 96.55 |
| 7.0-8.0 | 7.68 | 32.93 | 1.48 | 6.33 | 54.0-55.0 | 1.43 | 503.71 | 0.27 | 96.83 |
| 8.0-9.0 | 8.67 | 41.60 | 1.67 | 8.00 | 55.0-56.0 | 1.32 | 505.03 | 0.25 | 97.08 |
| 9.0-10.0 | 9.65 | 51.24 | 1.85 | 9.85 | 56.0-57.0 | 1.23 | 506.25 | 0.24 | 97.32 |
| 10.0-11.0 | 10.59 | 61.84 | 2.04 | 11.89 | 57.0-58.0 | 1.14 | 507.39 | 0.22 | 97.54 |
| 11.0-12.0 | 11.51 | 73.35 | 2.21 | 14.10 | 58.0-59.0 | 1.06 | 508.46 | 0.20 | 97.74 |
| 12.0-13.0 | 12.39 | 85.74 | 2.38 | 16.48 | 59.0-60.0 | 0.99 | 509.45 | 0.19 | 97.93 |
| 13.0-14.0 | 13.23 | 98.97 | 2.54 | 19.03 | 60.0-61.0 | 0.92 | 510.37 | 0.18 | 98.11 |
| 14.0-15.0 | 14.02 | 112.99 | 2.69 | 21.72 | 61.0-62.0 | 0.86 | 511.24 | 0.17 | 98.27 |
| 15.0-16.0 | 14.74 | 127.73 | 2.83 | 24.55 | 62.0-63.0 | 0.81 | 512.04 | 0.15 | 98.43 |
| 16.0-17.0 | 15.39 | 143.12 | 2.96 | 27.51 | 63.0-64.0 | 0.75 | 512.79 | 0.14 | 98.57 |
| 17.0-18.0 | 15.99 | 159.11 | 3.07 | 30.59 | 64.0-65.0 | 0.70 | 513.50 | 0.13 | 98.71 |
| 18.0-19.0 | 16.51 | 175.62 | 3.17 | 33.76 | 65.0-66.0 | 0.66 | 514.15 | 0.13 | 98.84 |
| 19.0-20.0 | 16.95 | 192.56 | 3.26 | 37.02 | 66.0-67.0 | 0.61 | 514.76 | 0.12 | 98.95 |
| 20.0-21.0 | 17.28 | 209.84 | 3.32 | 40.34 | 67.0-68.0 | 0.57 | 515.33 | 0.11 | 99.06 |
| 21.0-22.0 | 17.48 | 227.32 | 3.36 | 43.70 | 68.0-69.0 | 0.53 | 515.86 | 0.10 | 99.16 |
| 22.0-23.0 | 17.57 | 244.89 | 3.38 | 47.08 | 69.0-70.0 | 0.49 | 516.34 | 0.09 | 99.26 |
| 23.0-24.0 | 17.52 | 262.41 | 3.37 | 50.44 | 70.0-71.0 | 0.45 | 516.79 | 0.09 | 99.34 |
| 24.0-25.0 | 17.36 | 279.77 | 3.34 | 53.78 | 71.0-72.0 | 0.41 | 517.20 | 0.08 | 99.42 |
| 25.0-26.0 | 17.07 | 296.84 | 3.28 | 57.06 | 72.0-73.0 | 0.37 | 517.57 | 0.07 | 99.49 |
| 26.0-27.0 | 16.64 | 313.48 | 3.20 | 60.26 | 73.0-74.0 | 0.34 | 517.91 | 0.06 | 99.56 |
| 27.0-28.0 | 16.09 | 329.57 | 3.09 | 63.35 | 74.0-75.0 | 0.30 | 518.21 | 0.06 | 99.62 |
| 28.0-29.0 | 15.44 | 345.01 | 2.97 | 66.32 | 75.0-76.0 | 0.26 | 518.47 | 0.05 | 99.67 |
| 29.0-30.0 | 14.70 | 359.71 | 2.82 | 69.15 | 76.0-77.0 | 0.23 | 518.70 | 0.04 | 99.71 |
| 30.0-31.0 | 13.90 | 373.60 | 2.67 | 71.82 | 77.0-78.0 | 0.19 | 518.89 | 0.04 | 99.75 |
| 31.0-32.0 | 13.07 | 386.67 | 2.51 | 74.33 | 78.0-79.0 | 0.17 | 519.06 | 0.03 | 99.78 |
| 32.0-33.0 | 12.21 | 398.88 | 2.35 | 76.68 | 79.0-80.0 | 0.15 | 519.21 | 0.03 | 99.81 |
| 33.0-34.0 | 11.32 | 410.20 | 2.18 | 78.85 | 80.0-81.0 | 0.13 | 519.34 | 0.03 | 99.83 |
| 34.0-35.0 | 10.41 | 420.61 | 2.00 | 80.85 | 81.0-82.0 | 0.11 | 519.45 | 0.02 | 99.85 |
| 35.0-36.0 | 9.49 | 430.10 | 1.82 | 82.68 | 82.0-83.0 | 0.09 | 519.55 | 0.02 | 99.87 |
| 36.0-37.0 | 8.58 | 438.68 | 1.65 | 84.33 | 83.0-84.0 | 0.08 | 519.63 | 0.01 | 99.89 |
| 37.0-38.0 | 7.72 | 446.40 | 1.48 | 85.81 | 84.0-85.0 | 0.06 | 519.68 | 0.01 | 99.90 |
| 38.0-39.0 | 6.91 | 453.31 | 1.33 | 87.14 | 85.0-86.0 | 0.04 | 519.72 | 0.01 | 99.91 |
| 39.0-40.0 | 6.18 | 459.49 | 1.19 | 88.33 | 86.0-87.0 | 0.02 | 519.75 | 0.00 | 99.91 |
| 40.0-41.0 | 5.53 | 465.02 | 1.06 | 89.39 | 87.0-88.0 | 0.01 | 519.76 | 0.00 | 99.91 |
| 41.0-42.0 | 4.94 | 469.96 | 0.95 | 90.34 | 88.0-89.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 42.0-43.0 | 4.42 | 474.38 | 0.85 | 91.19 | 89.0-90.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 43.0-44.0 | 3.97 | 478.35 | 0.76 | 91.95 | 90.0-91.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 44.0-45.0 | 3.57 | 481.92 | 0.69 | 92.64 | 91.0-92.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 45.0-46.0 | 3.22 | 485.14 | 0.62 | 93.26 | 92.0-93.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 46.0-47.0 | 2.91 | 488.04 | 0.56 | 93.82 | 93.0-94.0 | 0.00 | 519.76 | 0.00 | 99.91 |

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 | 519.76 | 0.00 | 99.91 | 141.0-142.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 95.0-96.0 | 0.00 | 519.76 | 0.00 | 99.91 | 142.0-143.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 96.0-97.0 | 0.00 | 519.76 | 0.00 | 99.91 | 143.0-144.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 97.0-98.0 | 0.00 | 519.76 | 0.00 | 99.91 | 144.0-145.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 98.0-99.0 | 0.00 | 519.76 | 0.00 | 99.91 | 145.0-146.0 | 0.00 | 519.76 | 0.00 | 99.91 |
| 99.0-100.0 | 0.00 | 519.76 | 0.00 | 99.91 | 146.0-147.0 | 0.00 | 519.77 | 0.00 | 99.92 |
| 100.0-101.0 | 0.00 | 519.76 | 0.00 | 99.91 | 147.0-148.0 | 0.00 | 519.77 | 0.00 | 99.92 |
| 101.0-102.0 | 0.00 | 519.76 | 0.00 | 99.91 | 148.0-149.0 | 0.00 | 519.78 | 0.00 | 99.92 |
| 102.0-103.0 | 0.00 | 519.76 | 0.00 | 99.91 | 149.0-150.0 | 0.01 | 519.78 | 0.00 | 99.92 |
| 103.0-104.0 | 0.00 | 519.76 | 0.00 | 99.91 | 150.0-151.0 | 0.01 | 519.79 | 0.00 | 99.92 |
| 104.0-105.0 | 0.00 | 519.76 | 0.00 | 99.91 | 151.0-152.0 | 0.01 | 519.80 | 0.00 | 99.92 |
| 105.0-106.0 | 0.00 | 519.76 | 0.00 | 99.91 | 152.0-153.0 | 0.01 | 519.81 | 0.00 | 99.92 |
| 106.0-107.0 | 0.00 | 519.76 | 0.00 | 99.91 | 153.0-154.0 | 0.01 | 519.82 | 0.00 | 99.92 |
| 107.0-108.0 | 0.00 | 519.76 | 0.00 | 99.91 | 154.0-155.0 | 0.01 | 519.83 | 0.00 | 99.93 |
| 108.0-109.0 | 0.00 | 519.76 | 0.00 | 99.91 | 155.0-156.0 | 0.01 | 519.85 | 0.00 | 99.93 |
| 109.0-110.0 | 0.00 | 519.76 | 0.00 | 99.91 | 156.0-157.0 | 0.02 | 519.86 | 0.00 | 99.93 |
| 110.0-111.0 | 0.00 | 519.76 | 0.00 | 99.91 | 157.0-158.0 | 0.02 | 519.88 | 0.00 | 99.94 |
| 111.0-112.0 | 0.00 | 519.76 | 0.00 | 99.91 | 158.0-159.0 | 0.02 | 519.90 | 0.00 | 99.94 |
| 112.0-113.0 | 0.00 | 519.76 | 0.00 | 99.91 | 159.0-160.0 | 0.02 | 519.92 | 0.00 | 99.94 |
| 113.0-114.0 | 0.00 | 519.76 | 0.00 | 99.91 | 160.0-161.0 | 0.02 | 519.94 | 0.00 | 99.95 |
| 114.0-115.0 | 0.00 | 519.76 | 0.00 | 99.91 | 161.0-162.0 | 0.02 | 519.96 | 0.00 | 99.95 |
| 115.0-116.0 | 0.00 | 519.76 | 0.00 | 99.91 | 162.0-163.0 | 0.02 | 519.98 | 0.00 | 99.96 |
| 116.0-117.0 | 0.00 | 519.76 | 0.00 | 99.91 | 163.0-164.0 | 0.02 | 520.00 | 0.00 | 99.96 |
| 117.0-118.0 | 0.00 | 519.76 | 0.00 | 99.91 | 164.0-165.0 | 0.02 | 520.02 | 0.00 | 99.96 |
| 118.0-119.0 | 0.00 | 519.76 | 0.00 | 99.91 | 165.0-166.0 | 0.02 | 520.04 | 0.00 | 99.97 |
| 119.0-120.0 | 0.00 | 519.76 | 0.00 | 99.91 | 166.0-167.0 | 0.02 | 520.06 | 0.00 | 99.97 |
| 120.0-121.0 | 0.00 | 519.76 | 0.00 | 99.91 | 167.0-168.0 | 0.02 | 520.08 | 0.00 | 99.97 |
| 121.0-122.0 | 0.00 | 519.76 | 0.00 | 99.91 | 168.0-169.0 | 0.02 | 520.10 | 0.00 | 99.98 |
| 122.0-123.0 | 0.00 | 519.76 | 0.00 | 99.91 | 169.0-170.0 | 0.02 | 520.12 | 0.00 | 99.98 |
| 123.0-124.0 | 0.00 | 519.76 | 0.00 | 99.91 | 170.0-171.0 | 0.02 | 520.13 | 0.00 | 99.99 |
| 124.0-125.0 | 0.00 | 519.76 | 0.00 | 99.91 | 171.0-172.0 | 0.02 | 520.15 | 0.00 | 99.99 |
| 125.0-126.0 | 0.00 | 519.76 | 0.00 | 99.91 | 172.0-173.0 | 0.01 | 520.16 | 0.00 | 99.99 |
| 126.0-127.0 | 0.00 | 519.76 | 0.00 | 99.91 | 173.0-174.0 | 0.01 | 520.17 | 0.00 | 99.99 |
| 127.0-128.0 | 0.00 | 519.76 | 0.00 | 99.91 | 174.0-175.0 | 0.01 | 520.19 | 0.00 | 100.00 |
| 128.0-129.0 | 0.00 | 519.76 | 0.00 | 99.91 | 175.0-176.0 | 0.01 | 520.20 | 0.00 | 100.00 |
| 129.0-130.0 | 0.00 | 519.76 | 0.00 | 99.91 | 176.0-177.0 | 0.01 | 520.20 | 0.00 | 100.00 |
| 130.0-131.0 | 0.00 | 519.76 | 0.00 | 99.91 | 177.0-178.0 | 0.01 | 520.21 | 0.00 | 100.00 |
| 131.0-132.0 | 0.00 | 519.76 | 0.00 | 99.91 | 178.0-179.0 | 0.00 | 520.21 | 0.00 | 100.00 |
| 132.0-133.0 | 0.00 | 519.76 | 0.00 | 99.91 | 179.0-180.0 | 0.00 | 520.21 | 0.00 | 100.00 |
| 133.0-134.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 134.0-135.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 135.0-136.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 136.0-137.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 137.0-138.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 138.0-139.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 139.0-140.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |
| 140.0-141.0 | 0.00 | 519.76 | 0.00 | 99.91 | | | | | |

Rectangle ISO Lighting Intensity Diagram

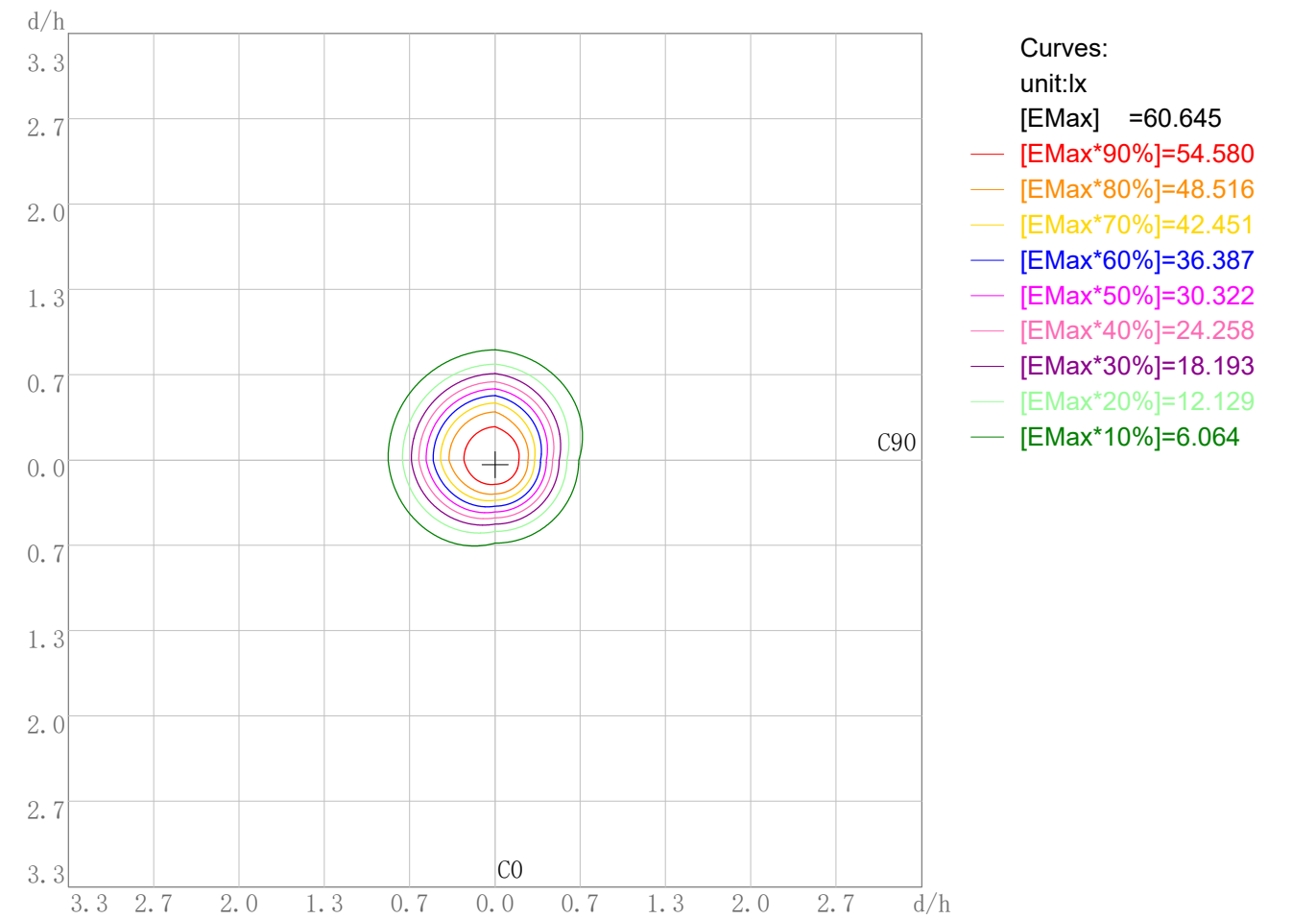
| | | |
|---|-----------------------|------------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/25 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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: 2021/10/25 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 60.64

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

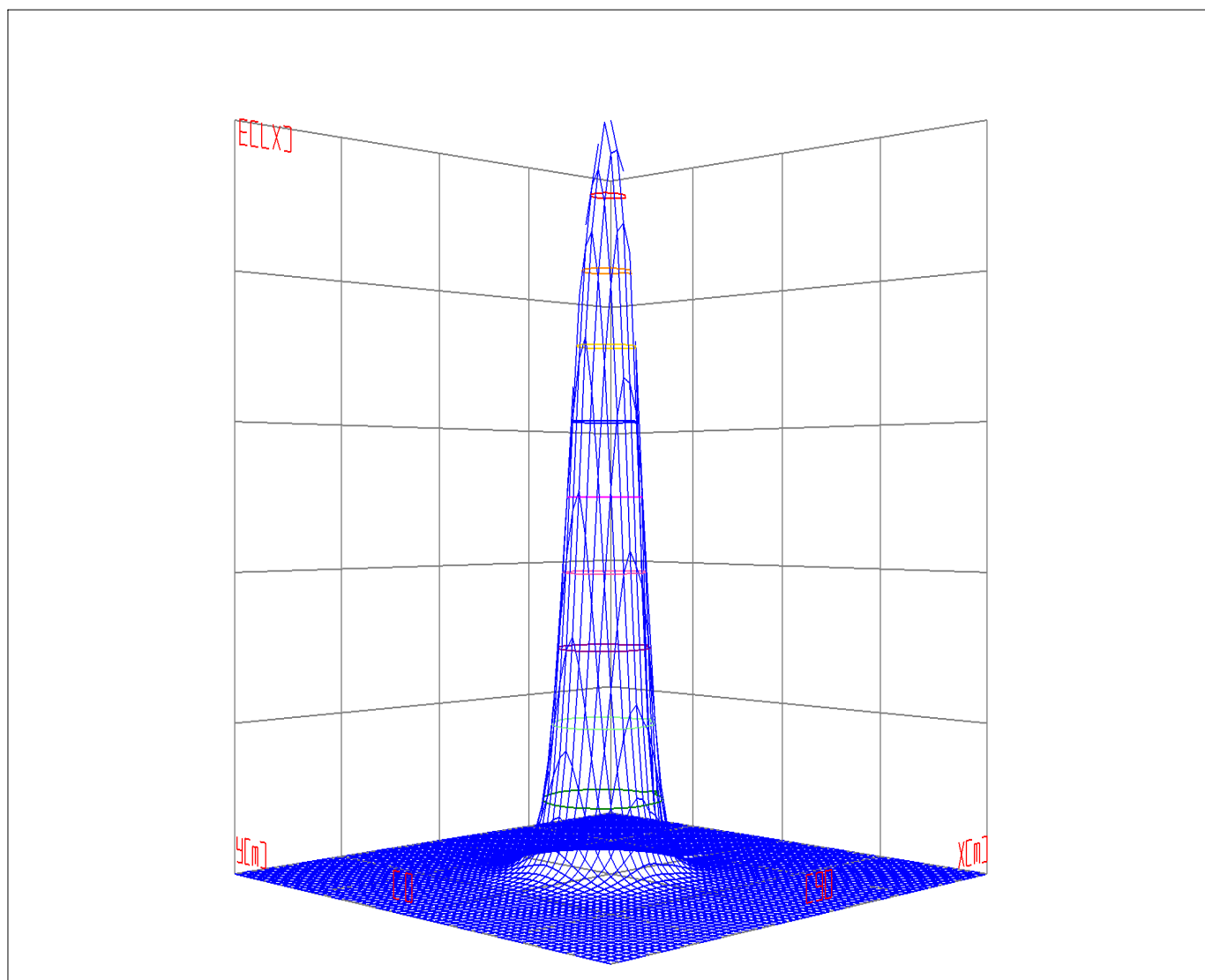
IES Indoor Report

Photometric Filename:TR08-06-XX-01 2700K RA90 60D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: TR08-06-XX-01 2700K RA90 60D | 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: 2021/10/25 |

3D Plane Illuminance Modal

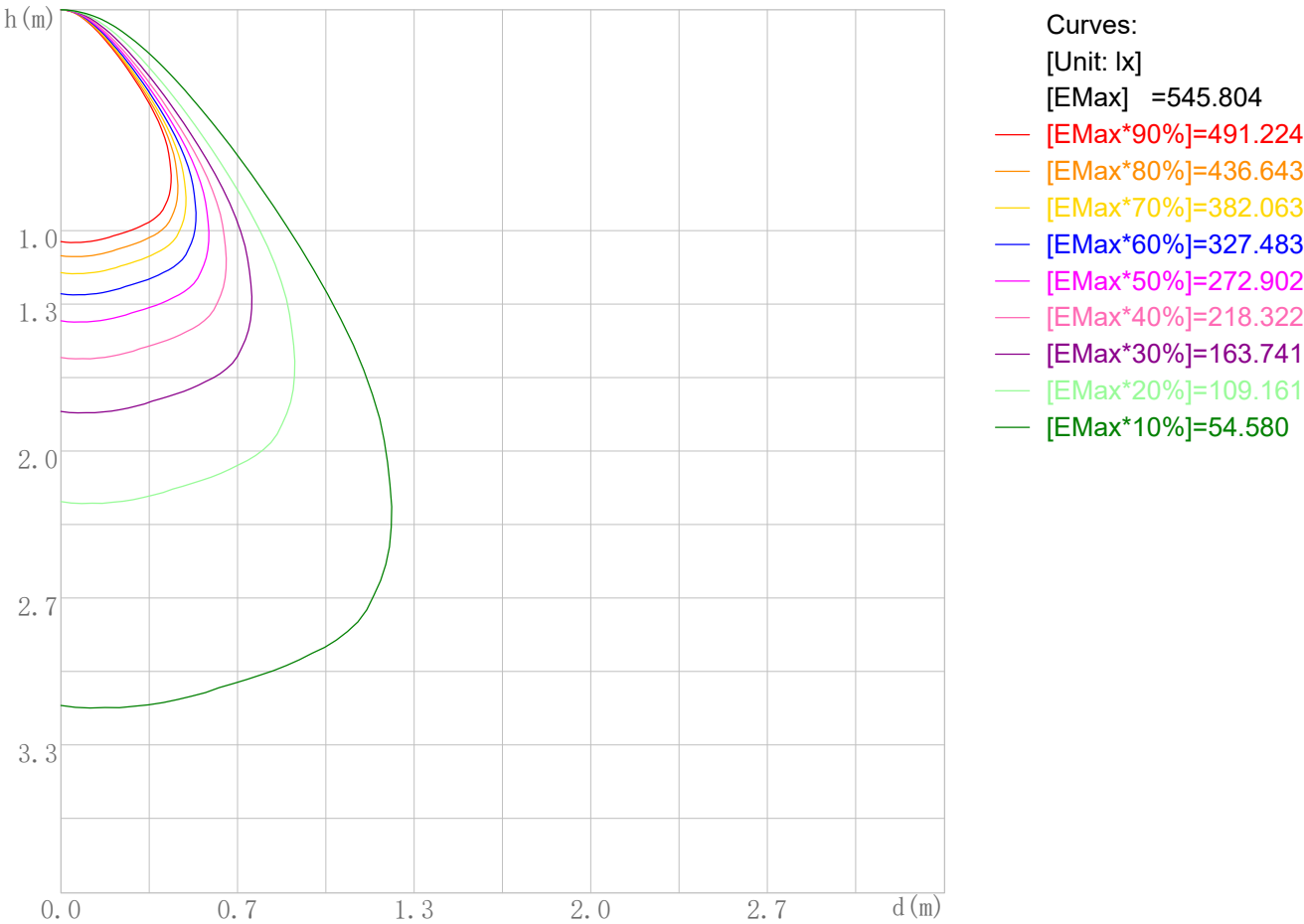


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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:2021/10/25 |

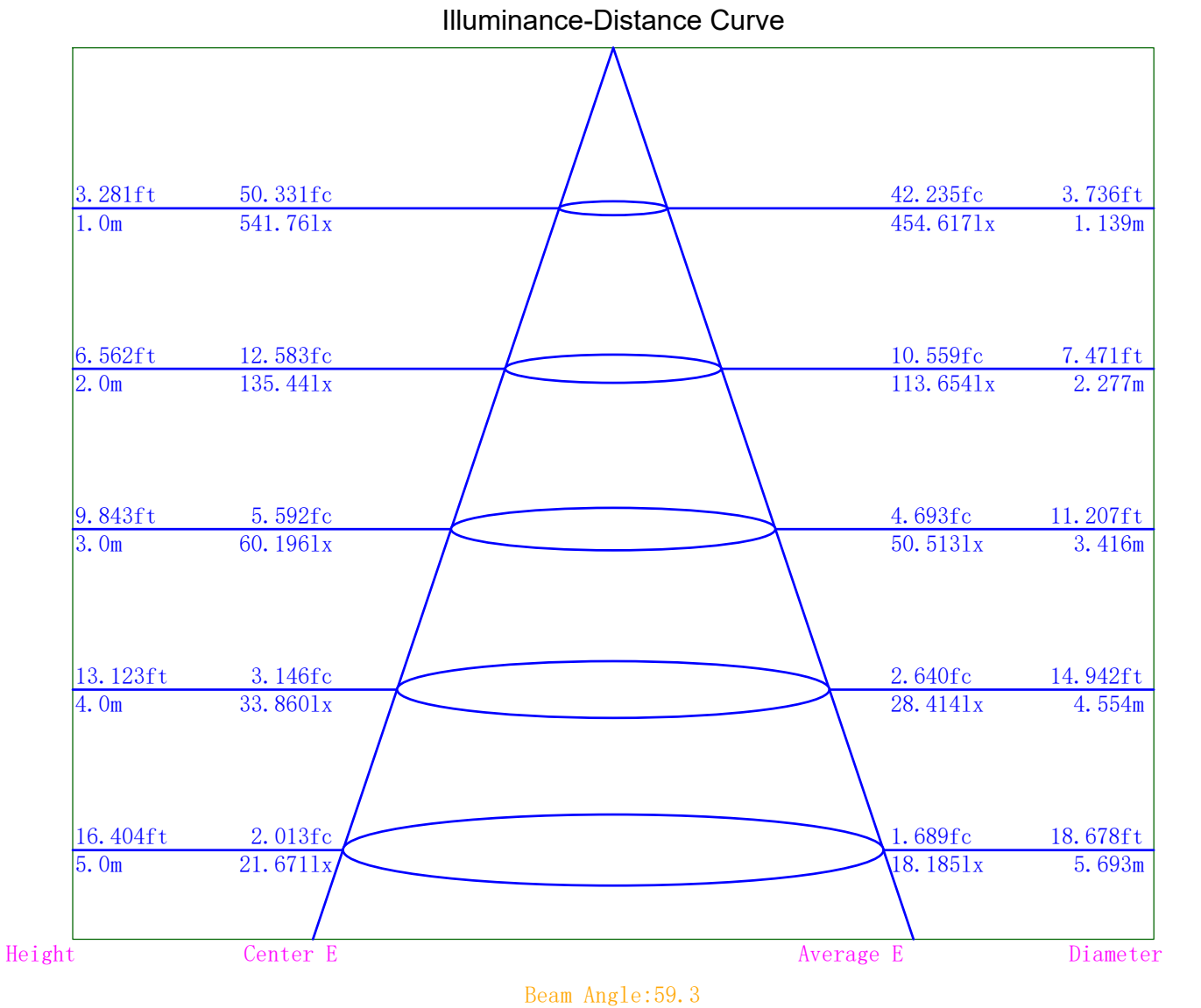
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:545.80lx,2.0deg
Plane Maximum Lighting Intensity and @Angle:549.999cd,0deg

Illuminance-Distance Diagram

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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:2021/10/25 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: TR08-06-XX-01 2700K RA90 60D | 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: 2021/10/25 |

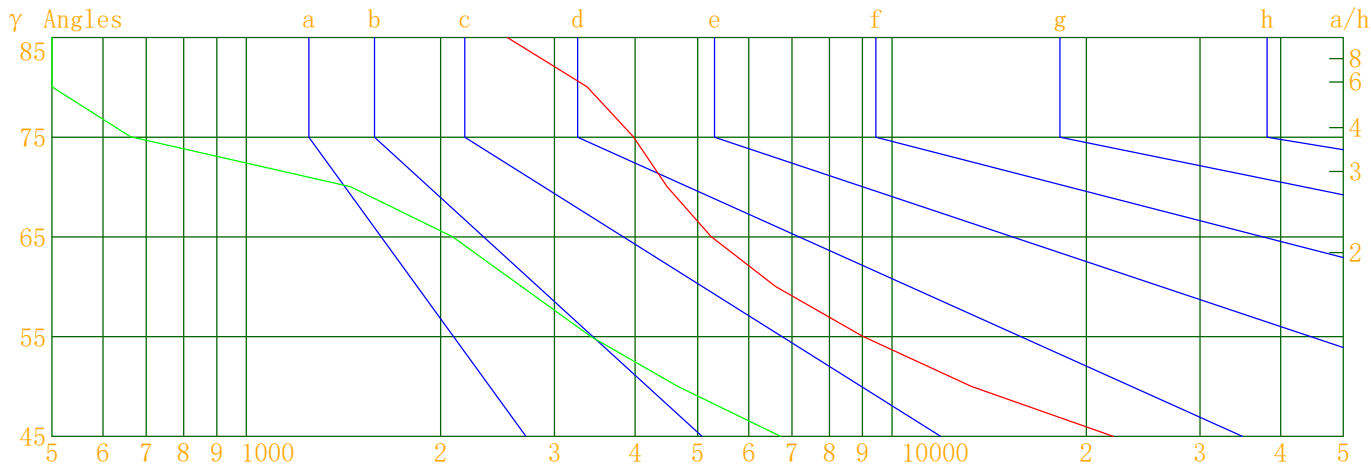
Glare Grade Table

| 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 | 22016 | 13274 | 9022 | 6604 | 5247 | 4485 | 3975 | 3370 | 2537 |
| C90 | 6723 | 4659 | 3415 | 2670 | 2084 | 1450 | 662 | 0 | 0 |

Luminance Limiting Curve



Luminous Size:

Length(m)=-0.076

Width(m)=-0.076

Height(m)=0.000

Area(m^2)=0.004536

Luminous Type:

Without Luminous Side

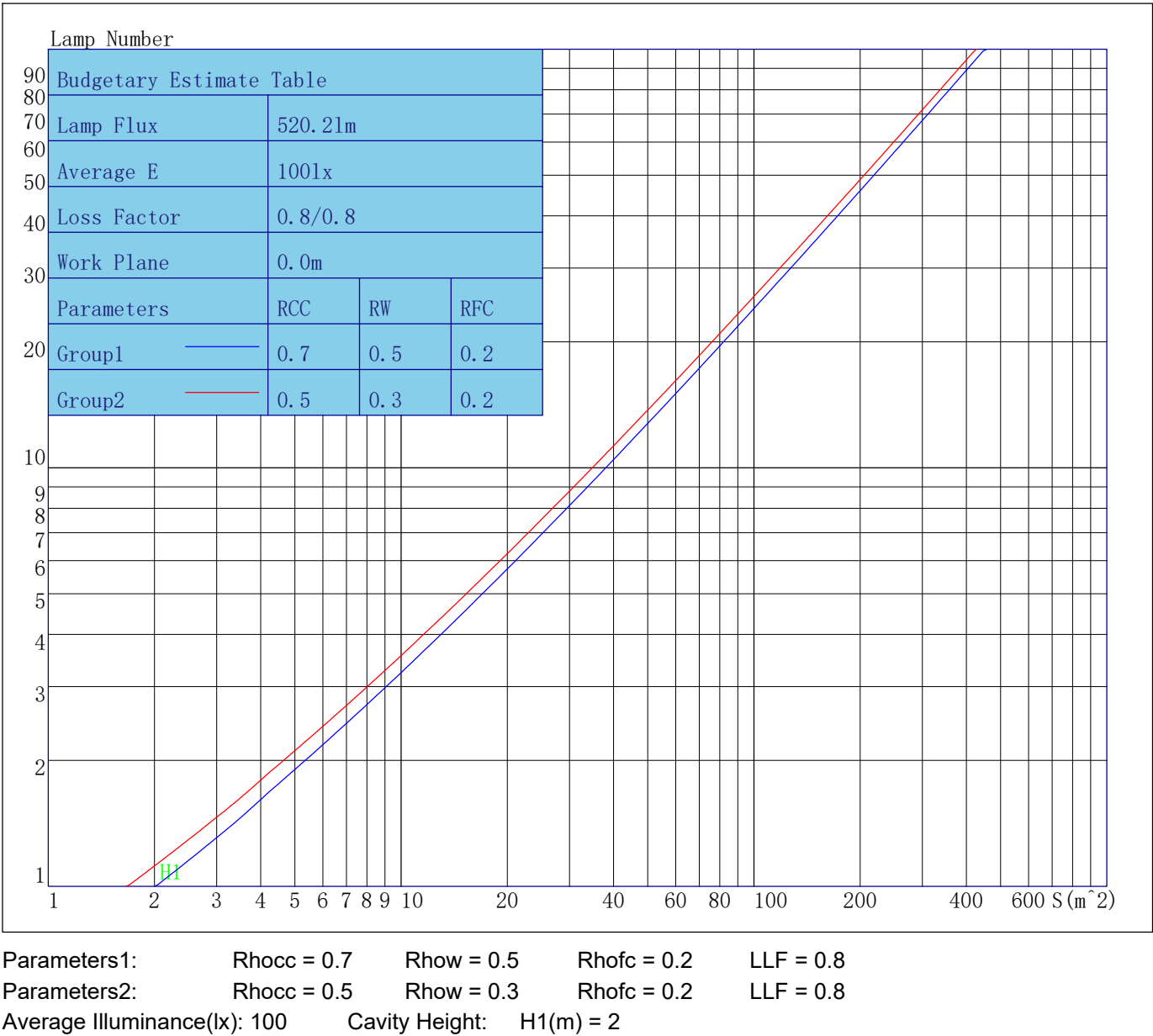
Luminous Curves:

C0-C180 Color: —

C90-C270 Color: —

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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: 2021/10/25 |



Indoor Coefficient of Utilization Table

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:TR08-06-XX-01 2700K RA90 60D | 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:2021/10/25 |

| 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 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 91 | 89 | 87 | 86 |
| 3 | 102 | 95 | 90 | 86 | 100 | 93 | 89 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 79 |
| 4 | 96 | 88 | 83 | 78 | 94 | 87 | 82 | 78 | 85 | 80 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 |
| 5 | 91 | 83 | 76 | 72 | 90 | 82 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 73 | 70 | 68 |
| 6 | 86 | 77 | 71 | 67 | 85 | 76 | 71 | 66 | 75 | 70 | 66 | 73 | 69 | 65 | 72 | 68 | 65 | 64 |
| 7 | 82 | 73 | 66 | 62 | 81 | 72 | 66 | 62 | 71 | 65 | 61 | 69 | 65 | 61 | 68 | 64 | 61 | 59 |
| 8 | 78 | 68 | 62 | 58 | 77 | 68 | 62 | 58 | 67 | 61 | 57 | 65 | 61 | 57 | 64 | 60 | 57 | 56 |
| 9 | 74 | 64 | 58 | 54 | 73 | 64 | 58 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 61 | 57 | 54 | 52 |
| 10 | 71 | 61 | 55 | 51 | 70 | 60 | 55 | 51 | 60 | 54 | 51 | 59 | 54 | 51 | 58 | 54 | 50 | 49 |

Unified Glare Rating Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: TR08-06-XX-01 2700K RA90 60D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/25 |

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 | 20.2 | 21.4 | 20.5 | 21.7 | 22.0 | 14.3 | 15.5 | 14.7 | 15.8 | 16.1 |
| | 20.2 | 21.2 | 20.6 | 21.6 | 21.9 | 14.3 | 15.4 | 14.7 | 15.7 | 16.1 |
| | 20.2 | 21.2 | 20.6 | 21.5 | 21.9 | 14.2 | 15.2 | 14.6 | 15.6 | 16.0 |
| | 20.1 | 21.1 | 20.6 | 21.4 | 21.8 | 14.1 | 15.1 | 14.5 | 15.4 | 15.8 |
| | 20.1 | 21.0 | 20.5 | 21.4 | 21.8 | 14.1 | 15.0 | 14.5 | 15.3 | 15.8 |
| | 20.1 | 20.9 | 20.5 | 21.3 | 21.7 | 14.0 | 14.9 | 14.4 | 15.3 | 15.7 |
| X=4H Y=2H | 20.0 | 21.0 | 20.4 | 21.3 | 21.7 | 14.3 | 15.3 | 14.7 | 15.6 | 16.0 |
| | 20.0 | 20.9 | 20.4 | 21.3 | 21.7 | 14.3 | 15.2 | 14.7 | 15.6 | 16.0 |
| | 20.0 | 20.8 | 20.5 | 21.2 | 21.7 | 14.2 | 15.0 | 14.7 | 15.5 | 15.9 |
| | 20.0 | 20.8 | 20.5 | 21.2 | 21.7 | 14.1 | 14.8 | 14.6 | 15.3 | 15.8 |
| | 20.0 | 20.7 | 20.5 | 21.1 | 21.6 | 14.1 | 14.7 | 14.5 | 15.2 | 15.7 |
| | 20.0 | 20.6 | 20.5 | 21.1 | 21.6 | 14.0 | 14.6 | 14.5 | 15.1 | 15.6 |
| X=8H Y=4H | 19.9 | 20.6 | 20.4 | 21.0 | 21.5 | 14.2 | 14.8 | 14.6 | 15.3 | 15.7 |
| | 19.9 | 20.5 | 20.4 | 21.0 | 21.6 | 14.0 | 14.6 | 14.6 | 15.1 | 15.7 |
| | 19.9 | 20.5 | 20.5 | 21.0 | 21.5 | 14.0 | 14.5 | 14.5 | 15.0 | 15.5 |
| | 19.9 | 20.4 | 20.4 | 20.9 | 21.5 | 13.9 | 14.4 | 14.4 | 14.9 | 15.5 |
| X=12H Y=4H | 19.9 | 20.5 | 20.4 | 21.0 | 21.4 | 14.1 | 14.7 | 14.6 | 15.2 | 15.7 |
| | 19.9 | 20.4 | 20.4 | 20.9 | 21.4 | 14.0 | 14.5 | 14.5 | 15.0 | 15.5 |
| | 19.9 | 20.4 | 20.4 | 20.9 | 21.4 | 14.0 | 14.4 | 14.5 | 14.9 | 15.5 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.5/-0.6 | | | | | 1.4/-1.7 | | | | |
| S=1.5H | 1.0/-1.1 | | | | | 2.4/-3.8 | | | | |
| S=2.0H | 1.5/-1.6 | | | | | 3.1/-4.8 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 0.4 | | | | | 0.4 | | | | |

o the CIE Pub.117,data has been corrected,refers to the lamp's lumens 8.2flm.

IES Indoor Report

Photometric Filename:TR08-06-XX-01 2700K RA90 60D.IES

Candela Tabulation

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|--------|--------|--------|--------|
| γ 0.0 | 541.76 | 541.76 | 541.76 | 541.76 |
| γ 1.0 | 545.02 | 537.59 | 541.12 | 540.07 |
| γ 2.0 | 546.80 | 536.17 | 539.55 | 540.47 |
| γ 3.0 | 547.46 | 534.27 | 537.31 | 541.90 |
| γ 4.0 | 549.46 | 532.94 | 534.85 | 542.06 |
| γ 5.0 | 549.34 | 531.28 | 533.18 | 542.17 |
| γ 6.0 | 550.00 | 529.61 | 530.96 | 542.03 |
| γ 7.0 | 549.53 | 528.14 | 529.52 | 542.07 |
| γ 8.0 | 548.61 | 525.63 | 526.50 | 541.53 |
| γ 9.0 | 547.46 | 523.24 | 524.32 | 541.16 |
| γ 10.0 | 546.45 | 519.15 | 520.54 | 541.35 |
| γ 11.0 | 543.92 | 513.62 | 515.59 | 540.59 |
| γ 12.0 | 543.30 | 506.29 | 510.10 | 538.73 |
| γ 13.0 | 542.87 | 497.13 | 502.53 | 536.49 |
| γ 14.0 | 542.53 | 485.34 | 492.05 | 535.18 |
| γ 15.0 | 542.67 | 471.52 | 479.26 | 535.68 |
| γ 16.0 | 541.88 | 455.23 | 462.66 | 535.29 |
| γ 17.0 | 540.80 | 438.36 | 445.36 | 534.59 |
| γ 18.0 | 539.07 | 420.26 | 427.46 | 532.70 |
| γ 19.0 | 538.43 | 401.18 | 407.57 | 528.52 |
| γ 20.0 | 536.15 | 381.49 | 387.00 | 523.08 |
| γ 21.0 | 531.98 | 359.77 | 365.09 | 514.48 |
| γ 22.0 | 526.39 | 336.49 | 341.42 | 504.38 |
| γ 23.0 | 517.04 | 313.39 | 317.57 | 491.96 |
| γ 24.0 | 503.45 | 289.83 | 293.24 | 479.00 |
| γ 25.0 | 490.08 | 266.45 | 267.60 | 464.07 |
| γ 26.0 | 474.46 | 242.24 | 241.73 | 446.04 |
| γ 27.0 | 456.39 | 218.14 | 214.88 | 427.16 |
| γ 28.0 | 435.57 | 193.90 | 189.36 | 406.88 |
| γ 29.0 | 413.23 | 170.50 | 165.00 | 385.68 |
| γ 30.0 | 388.53 | 148.54 | 142.75 | 362.96 |
| γ 31.0 | 364.33 | 128.10 | 123.01 | 339.49 |
| γ 32.0 | 340.98 | 110.12 | 105.69 | 312.99 |
| γ 33.0 | 317.38 | 94.81 | 90.81 | 284.85 |
| γ 34.0 | 290.86 | 81.72 | 78.23 | 257.13 |
| γ 35.0 | 264.18 | 70.74 | 67.59 | 229.80 |
| γ 36.0 | 237.58 | 61.62 | 58.66 | 202.24 |
| γ 37.0 | 210.37 | 53.96 | 51.16 | 177.18 |
| γ 38.0 | 184.96 | 47.46 | 44.84 | 154.79 |
| γ 39.0 | 160.99 | 41.99 | 39.46 | 135.73 |
| γ 40.0 | 140.09 | 37.27 | 34.84 | 118.80 |
| γ 41.0 | 121.51 | 33.21 | 30.79 | 104.14 |
| γ 42.0 | 105.91 | 29.65 | 27.35 | 91.32 |
| γ 43.0 | 92.23 | 26.57 | 24.42 | 80.27 |
| γ 44.0 | 80.70 | 23.90 | 21.84 | 70.73 |
| γ 45.0 | 70.62 | 21.57 | 19.68 | 62.41 |
| γ 46.0 | 62.33 | 19.52 | 17.77 | 55.08 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 55.01 | 17.75 | 16.09 | 48.63 |
| γ 48.0 | 48.76 | 16.20 | 14.62 | 43.12 |
| γ 49.0 | 43.32 | 14.85 | 13.35 | 38.46 |
| γ 50.0 | 38.71 | 13.59 | 12.18 | 34.49 |
| γ 51.0 | 34.71 | 12.43 | 11.20 | 30.90 |
| γ 52.0 | 31.37 | 11.40 | 10.28 | 27.76 |
| γ 53.0 | 28.39 | 10.48 | 9.48 | 25.08 |
| γ 54.0 | 25.77 | 9.63 | 8.78 | 22.67 |
| γ 55.0 | 23.48 | 8.89 | 8.17 | 20.56 |
| γ 56.0 | 21.36 | 8.22 | 7.61 | 18.74 |
| γ 57.0 | 19.52 | 7.62 | 7.12 | 17.13 |
| γ 58.0 | 17.84 | 7.07 | 6.68 | 15.71 |
| γ 59.0 | 16.37 | 6.55 | 6.24 | 14.49 |
| γ 60.0 | 14.98 | 6.06 | 5.85 | 13.36 |
| γ 61.0 | 13.81 | 5.60 | 5.43 | 12.37 |
| γ 62.0 | 12.69 | 5.18 | 5.07 | 11.49 |
| γ 63.0 | 11.73 | 4.77 | 4.68 | 10.70 |
| γ 64.0 | 10.84 | 4.37 | 4.32 | 9.94 |
| γ 65.0 | 10.06 | 4.00 | 3.94 | 9.28 |
| γ 66.0 | 9.33 | 3.65 | 3.61 | 8.66 |
| γ 67.0 | 8.68 | 3.32 | 3.27 | 8.13 |
| γ 68.0 | 8.06 | 2.97 | 2.90 | 7.59 |
| γ 69.0 | 7.51 | 2.62 | 2.52 | 7.10 |
| γ 70.0 | 6.96 | 2.25 | 2.20 | 6.65 |
| γ 71.0 | 6.45 | 1.94 | 1.88 | 6.19 |
| γ 72.0 | 5.99 | 1.64 | 1.58 | 5.77 |
| γ 73.0 | 5.53 | 1.35 | 1.28 | 5.36 |
| γ 74.0 | 5.11 | 1.06 | 1.00 | 4.94 |
| γ 75.0 | 4.67 | 0.78 | 0.71 | 4.45 |
| γ 76.0 | 4.22 | 0.51 | 0.46 | 4.00 |
| γ 77.0 | 3.79 | 0.25 | 0.19 | 3.59 |
| γ 78.0 | 3.41 | 0.00 | 0.00 | 3.25 |
| γ 79.0 | 3.03 | 0.00 | 0.00 | 2.87 |
| γ 80.0 | 2.65 | 0.00 | 0.00 | 2.52 |
| γ 81.0 | 2.31 | 0.00 | 0.00 | 2.18 |
| γ 82.0 | 1.96 | 0.00 | 0.00 | 1.87 |
| γ 83.0 | 1.61 | 0.00 | 0.00 | 1.54 |
| γ 84.0 | 1.30 | 0.00 | 0.00 | 1.22 |
| γ 85.0 | 1.00 | 0.00 | 0.00 | 0.77 |
| γ 86.0 | 0.58 | 0.00 | 0.00 | 0.47 |
| γ 87.0 | 0.32 | 0.00 | 0.00 | 0.31 |
| γ 88.0 | 0.11 | 0.00 | 0.00 | 0.08 |
| 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 | 0.01 | 0.00 |
| γ 144.0 | 0.00 | 0.00 | 0.07 | 0.00 |
| γ 145.0 | 0.00 | 0.00 | 0.13 | 0.00 |
| γ 146.0 | 0.00 | 0.00 | 0.19 | 0.00 |
| γ 147.0 | 0.00 | 0.00 | 0.23 | 0.00 |
| γ 148.0 | 0.00 | 0.00 | 0.29 | 0.00 |
| γ 149.0 | 0.00 | 0.05 | 0.34 | 0.00 |
| γ 150.0 | 0.00 | 0.09 | 0.38 | 0.00 |
| γ 151.0 | 0.00 | 0.14 | 0.43 | 0.00 |
| γ 152.0 | 0.00 | 0.18 | 0.48 | 0.04 |
| γ 153.0 | 0.00 | 0.22 | 0.50 | 0.09 |
| γ 154.0 | 0.03 | 0.27 | 0.56 | 0.14 |
| γ 155.0 | 0.10 | 0.31 | 0.60 | 0.18 |
| γ 156.0 | 0.15 | 0.35 | 0.63 | 0.24 |
| γ 157.0 | 0.20 | 0.39 | 0.67 | 0.28 |
| γ 158.0 | 0.25 | 0.43 | 0.70 | 0.32 |
| γ 159.0 | 0.31 | 0.48 | 0.75 | 0.37 |
| γ 160.0 | 0.34 | 0.52 | 0.79 | 0.42 |
| γ 161.0 | 0.40 | 0.57 | 0.83 | 0.46 |
| γ 162.0 | 0.46 | 0.61 | 0.85 | 0.50 |
| γ 163.0 | 0.50 | 0.65 | 0.88 | 0.55 |
| γ 164.0 | 0.55 | 0.69 | 0.91 | 0.59 |
| γ 165.0 | 0.61 | 0.74 | 0.95 | 0.63 |
| γ 166.0 | 0.66 | 0.78 | 0.98 | 0.68 |
| γ 167.0 | 0.70 | 0.82 | 1.00 | 0.72 |
| γ 168.0 | 0.75 | 0.84 | 1.03 | 0.75 |
| γ 169.0 | 0.81 | 0.88 | 1.06 | 0.80 |
| γ 170.0 | 0.84 | 0.90 | 1.07 | 0.84 |
| γ 171.0 | 0.89 | 0.94 | 1.09 | 0.88 |
| γ 172.0 | 0.94 | 0.96 | 1.11 | 0.91 |
| γ 173.0 | 0.98 | 0.99 | 1.13 | 0.94 |
| γ 174.0 | 1.01 | 1.00 | 1.13 | 0.98 |
| γ 175.0 | 1.05 | 1.02 | 1.14 | 1.00 |
| γ 176.0 | 1.08 | 1.03 | 1.14 | 1.04 |
| γ 177.0 | 1.10 | 1.04 | 1.14 | 1.06 |
| γ 178.0 | 1.12 | 1.05 | 1.15 | 1.09 |
| γ 179.0 | 1.13 | 1.04 | 1.15 | 1.11 |
| γ 180.0 | 1.12 | 1.12 | 1.12 | 1.12 |