

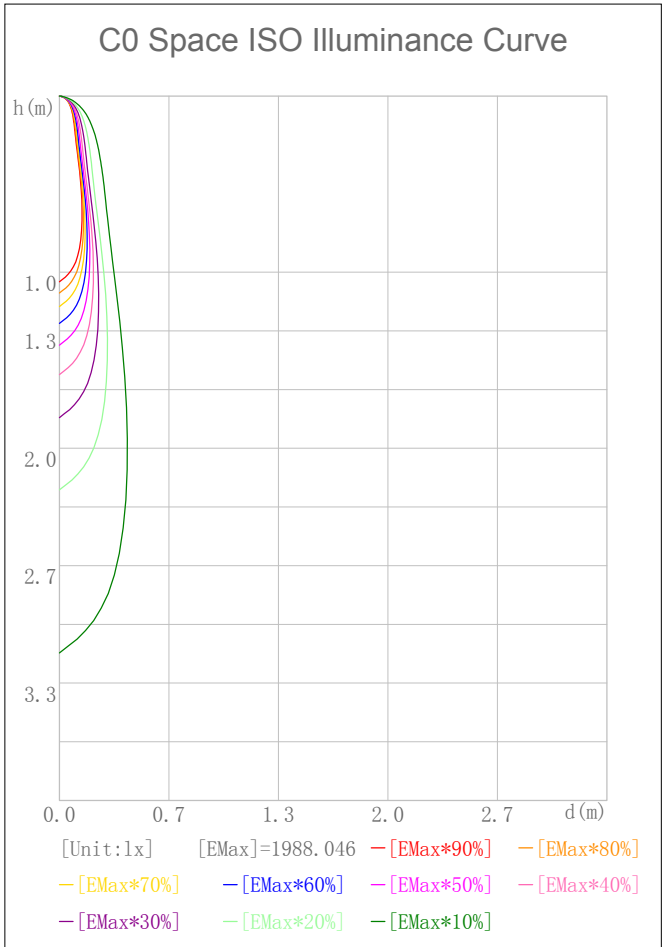
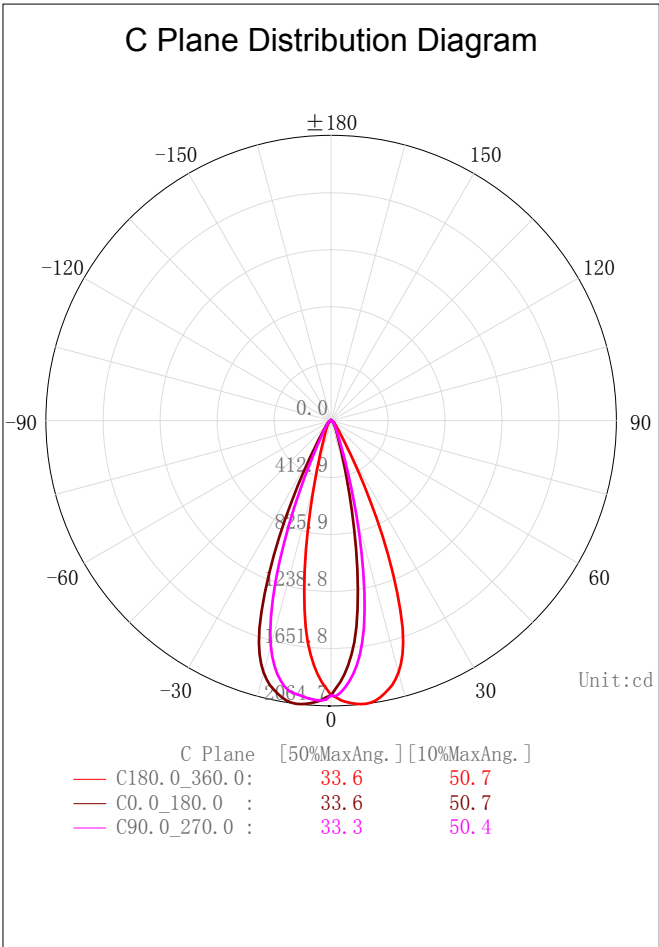
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name:SD09-09-XX-01 2700K RA90 36D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2021/10/22 |
| 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 |

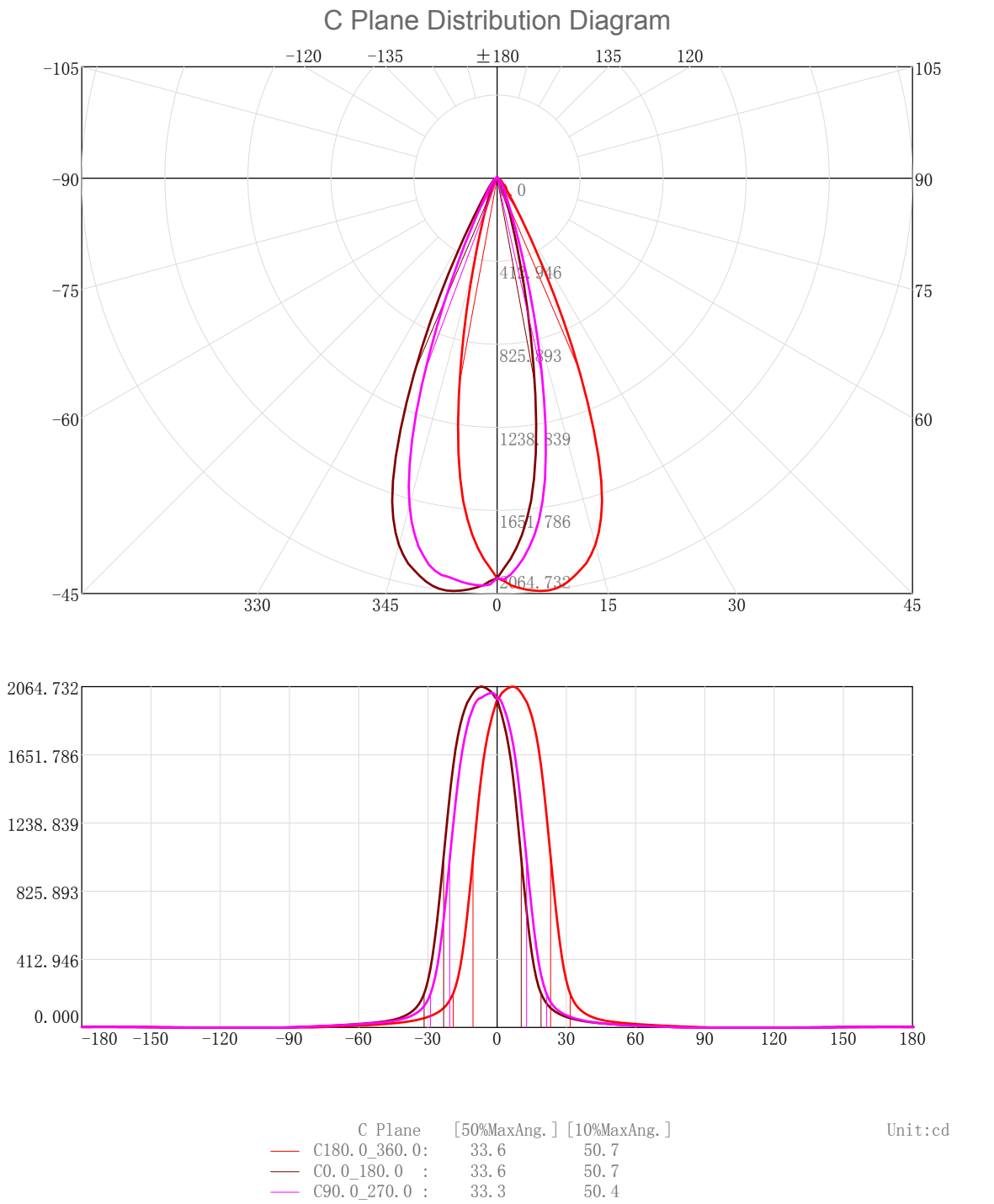
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|----------------------------------|---------------------------------------|--|
| Rated Flux(lm): 792.950 | Luminary Flux(lm): 792.947 | Field Angle(10%Imax): 50.7(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 788.416lm 99.43% | |
| Rated Voltage(V): | Luminary EER(lm/W): 89.125 | Up Lumens&Percent: 4.530lm 0.57% | |
| Tested Power(W): 8.897 | Max. Candela(cd): 2064.732 | S/MH: C0_a180=0.581 C90_270=0.571 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=180.0 γ=7.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):241.2, 0.041, 0.899 | Beam Angle(50%Imax): 33.6(°) | ErP Φ use(90°): 763.125lm | |
| Lamp Size (W*L*H):0.076m*0.076m*0.000m | Left=-10.4°, Right=23.2° | IRF(%): 776.713 | |



2D Plane Light Intensity Distribution Curve

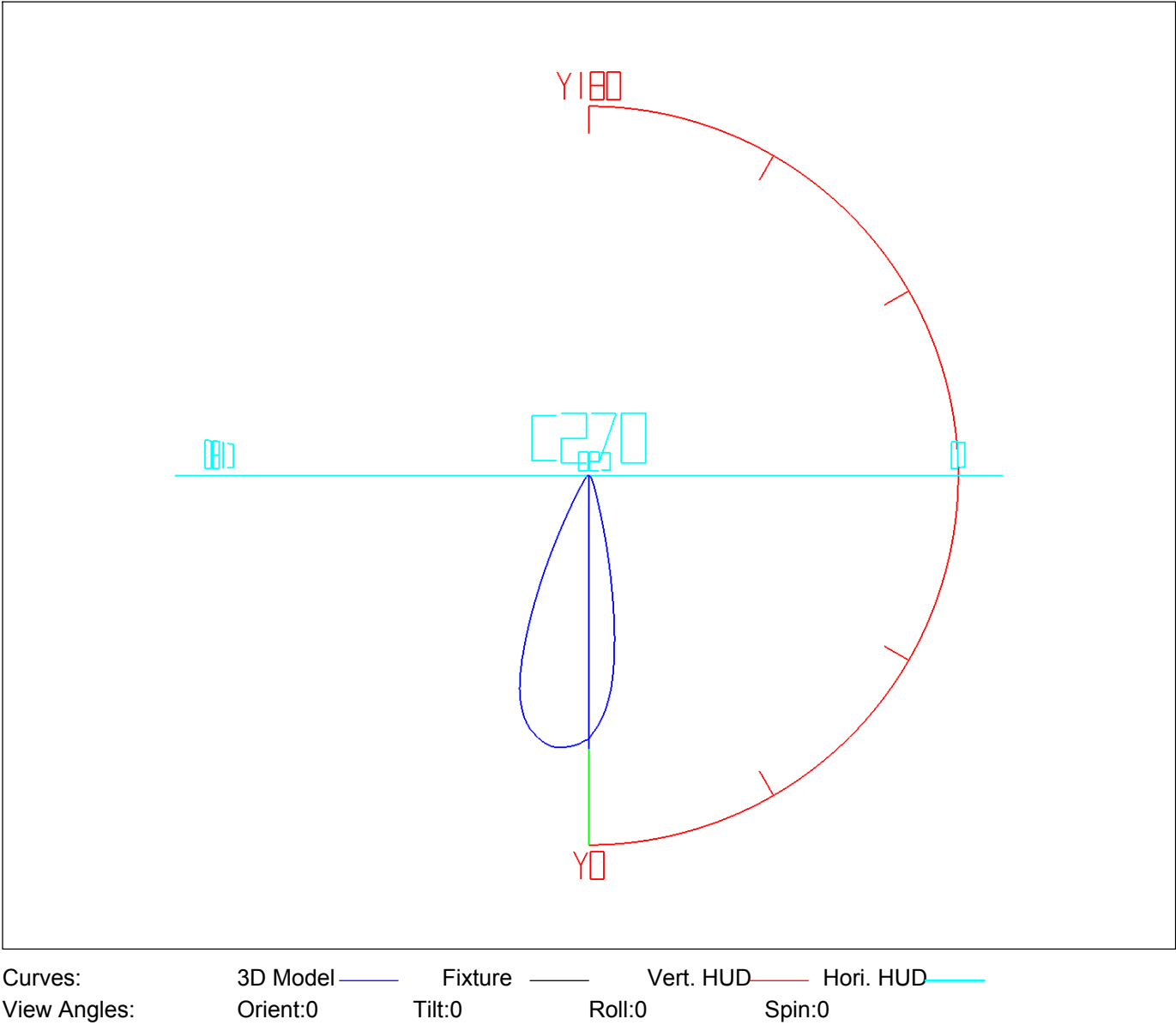
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | 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: 2021/10/22 |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:SD09-09-XX-01 2700K RA90 36D.IES

Zonal Flux Tabulation

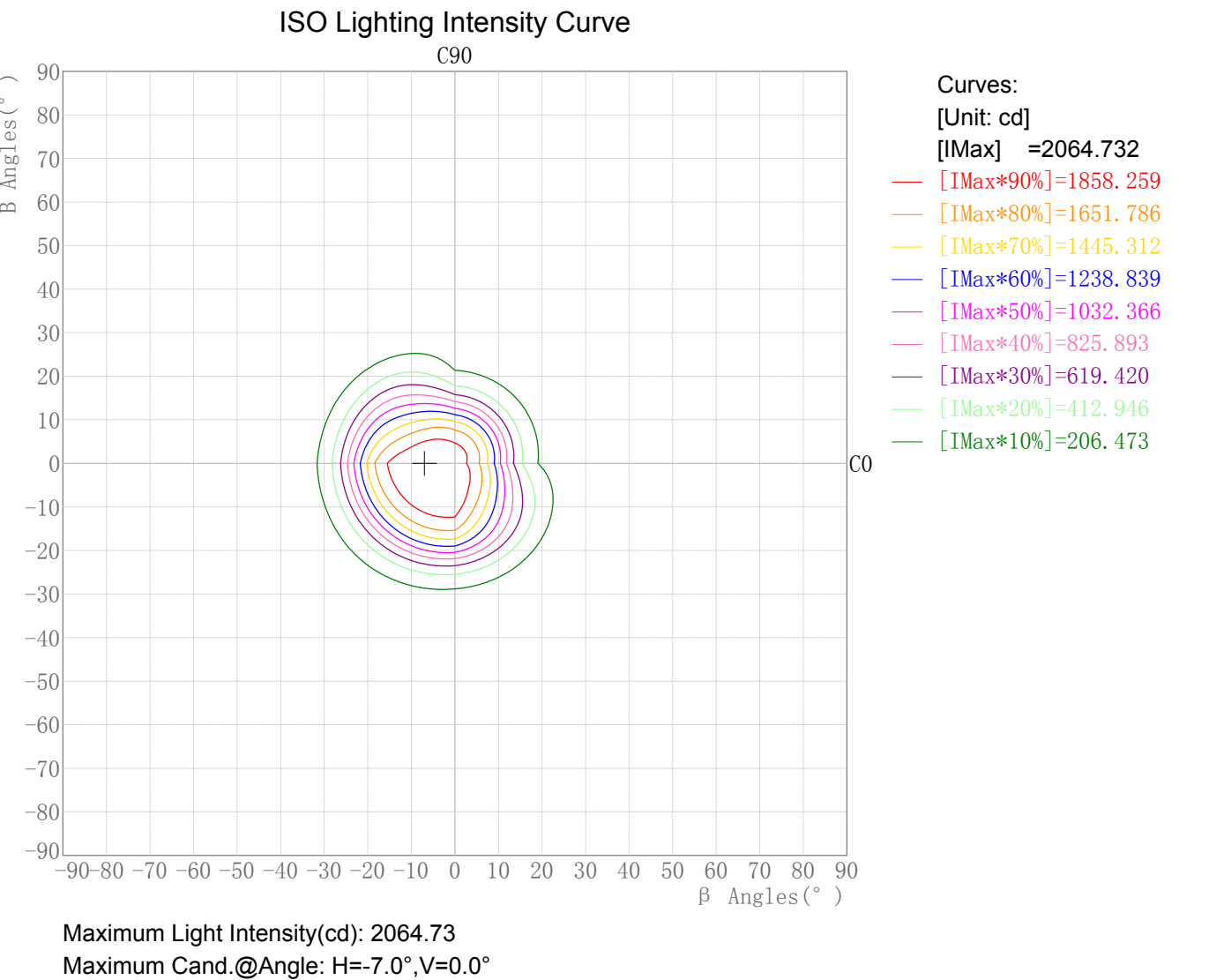
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 1.90 | 1.90 | 0.24 | 0.24 | 47.0-48.0 | 2.45 | 742.91 | 0.31 | 93.69 |
| 1.0-2.0 | 5.69 | 7.60 | 0.72 | 0.96 | 48.0-49.0 | 2.36 | 745.27 | 0.30 | 93.99 |
| 2.0-3.0 | 9.42 | 17.01 | 1.19 | 2.15 | 49.0-50.0 | 2.27 | 747.54 | 0.29 | 94.27 |
| 3.0-4.0 | 13.03 | 30.04 | 1.64 | 3.79 | 50.0-51.0 | 2.20 | 749.74 | 0.28 | 94.55 |
| 4.0-5.0 | 16.51 | 46.55 | 2.08 | 5.87 | 51.0-52.0 | 2.12 | 751.86 | 0.27 | 94.82 |
| 5.0-6.0 | 19.80 | 66.35 | 2.50 | 8.37 | 52.0-53.0 | 2.05 | 753.92 | 0.26 | 95.08 |
| 6.0-7.0 | 22.87 | 89.22 | 2.88 | 11.25 | 53.0-54.0 | 1.99 | 755.91 | 0.25 | 95.33 |
| 7.0-8.0 | 25.63 | 114.85 | 3.23 | 14.48 | 54.0-55.0 | 1.92 | 757.83 | 0.24 | 95.57 |
| 8.0-9.0 | 28.04 | 142.89 | 3.54 | 18.02 | 55.0-56.0 | 1.86 | 759.68 | 0.23 | 95.80 |
| 9.0-10.0 | 30.00 | 172.90 | 3.78 | 21.80 | 56.0-57.0 | 1.79 | 761.48 | 0.23 | 96.03 |
| 10.0-11.0 | 31.51 | 204.40 | 3.97 | 25.78 | 57.0-58.0 | 1.73 | 763.20 | 0.22 | 96.25 |
| 11.0-12.0 | 32.60 | 237.00 | 4.11 | 29.89 | 58.0-59.0 | 1.67 | 764.87 | 0.21 | 96.46 |
| 12.0-13.0 | 33.32 | 270.32 | 4.20 | 34.09 | 59.0-60.0 | 1.60 | 766.47 | 0.20 | 96.66 |
| 13.0-14.0 | 33.68 | 304.00 | 4.25 | 38.34 | 60.0-61.0 | 1.54 | 768.01 | 0.19 | 96.86 |
| 14.0-15.0 | 33.71 | 337.70 | 4.25 | 42.59 | 61.0-62.0 | 1.48 | 769.49 | 0.19 | 97.04 |
| 15.0-16.0 | 33.41 | 371.11 | 4.21 | 46.80 | 62.0-63.0 | 1.41 | 770.90 | 0.18 | 97.22 |
| 16.0-17.0 | 32.79 | 403.90 | 4.14 | 50.94 | 63.0-64.0 | 1.35 | 772.25 | 0.17 | 97.39 |
| 17.0-18.0 | 31.90 | 435.80 | 4.02 | 54.96 | 64.0-65.0 | 1.29 | 773.54 | 0.16 | 97.55 |
| 18.0-19.0 | 30.69 | 466.49 | 3.87 | 58.83 | 65.0-66.0 | 1.23 | 774.77 | 0.16 | 97.71 |
| 19.0-20.0 | 29.12 | 495.61 | 3.67 | 62.50 | 66.0-67.0 | 1.17 | 775.94 | 0.15 | 97.86 |
| 20.0-21.0 | 27.22 | 522.83 | 3.43 | 65.94 | 67.0-68.0 | 1.11 | 777.06 | 0.14 | 98.00 |
| 21.0-22.0 | 25.08 | 547.91 | 3.16 | 69.10 | 68.0-69.0 | 1.06 | 778.11 | 0.13 | 98.13 |
| 22.0-23.0 | 22.79 | 570.70 | 2.87 | 71.97 | 69.0-70.0 | 1.00 | 779.11 | 0.13 | 98.25 |
| 23.0-24.0 | 20.42 | 591.12 | 2.58 | 74.55 | 70.0-71.0 | 0.94 | 780.05 | 0.12 | 98.37 |
| 24.0-25.0 | 18.04 | 609.16 | 2.27 | 76.82 | 71.0-72.0 | 0.89 | 780.94 | 0.11 | 98.49 |
| 25.0-26.0 | 15.73 | 624.89 | 1.98 | 78.81 | 72.0-73.0 | 0.83 | 781.77 | 0.10 | 98.59 |
| 26.0-27.0 | 13.58 | 638.47 | 1.71 | 80.52 | 73.0-74.0 | 0.77 | 782.54 | 0.10 | 98.69 |
| 27.0-28.0 | 11.66 | 650.13 | 1.47 | 81.99 | 74.0-75.0 | 0.72 | 783.26 | 0.09 | 98.78 |
| 28.0-29.0 | 10.02 | 660.15 | 1.26 | 83.25 | 75.0-76.0 | 0.66 | 783.93 | 0.08 | 98.86 |
| 29.0-30.0 | 8.68 | 668.82 | 1.09 | 84.35 | 76.0-77.0 | 0.61 | 784.53 | 0.08 | 98.94 |
| 30.0-31.0 | 7.59 | 676.41 | 0.96 | 85.30 | 77.0-78.0 | 0.55 | 785.09 | 0.07 | 99.01 |
| 31.0-32.0 | 6.72 | 683.13 | 0.85 | 86.15 | 78.0-79.0 | 0.50 | 785.59 | 0.06 | 99.07 |
| 32.0-33.0 | 6.03 | 689.15 | 0.76 | 86.91 | 79.0-80.0 | 0.45 | 786.04 | 0.06 | 99.13 |
| 33.0-34.0 | 5.47 | 694.62 | 0.69 | 87.60 | 80.0-81.0 | 0.40 | 786.44 | 0.05 | 99.18 |
| 34.0-35.0 | 5.01 | 699.63 | 0.63 | 88.23 | 81.0-82.0 | 0.36 | 786.80 | 0.05 | 99.22 |
| 35.0-36.0 | 4.63 | 704.26 | 0.58 | 88.82 | 82.0-83.0 | 0.32 | 787.12 | 0.04 | 99.26 |
| 36.0-37.0 | 4.31 | 708.57 | 0.54 | 89.36 | 83.0-84.0 | 0.28 | 787.39 | 0.04 | 99.30 |
| 37.0-38.0 | 4.03 | 712.61 | 0.51 | 89.87 | 84.0-85.0 | 0.24 | 787.64 | 0.03 | 99.33 |
| 38.0-39.0 | 3.79 | 716.39 | 0.48 | 90.35 | 85.0-86.0 | 0.21 | 787.85 | 0.03 | 99.36 |
| 39.0-40.0 | 3.57 | 719.97 | 0.45 | 90.80 | 86.0-87.0 | 0.18 | 788.03 | 0.02 | 99.38 |
| 40.0-41.0 | 3.38 | 723.34 | 0.43 | 91.22 | 87.0-88.0 | 0.15 | 788.18 | 0.02 | 99.40 |
| 41.0-42.0 | 3.20 | 726.55 | 0.40 | 91.63 | 88.0-89.0 | 0.13 | 788.31 | 0.02 | 99.41 |
| 42.0-43.0 | 3.05 | 729.59 | 0.38 | 92.01 | 89.0-90.0 | 0.11 | 788.42 | 0.01 | 99.43 |
| 43.0-44.0 | 2.90 | 732.50 | 0.37 | 92.38 | 90.0-91.0 | 0.09 | 788.50 | 0.01 | 99.44 |
| 44.0-45.0 | 2.77 | 735.27 | 0.35 | 92.73 | 91.0-92.0 | 0.06 | 788.57 | 0.01 | 99.45 |
| 45.0-46.0 | 2.65 | 737.92 | 0.33 | 93.06 | 92.0-93.0 | 0.05 | 788.61 | 0.01 | 99.45 |
| 46.0-47.0 | 2.54 | 740.46 | 0.32 | 93.38 | 93.0-94.0 | 0.03 | 788.65 | 0.00 | 99.46 |

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 | 0.02 | 788.67 | 0.00 | 99.46 | 141.0-142.0 | 0.09 | 789.27 | 0.01 | 99.54 |
| 95.0-96.0 | 0.01 | 788.68 | 0.00 | 99.46 | 142.0-143.0 | 0.10 | 789.37 | 0.01 | 99.55 |
| 96.0-97.0 | 0.01 | 788.69 | 0.00 | 99.46 | 143.0-144.0 | 0.10 | 789.47 | 0.01 | 99.56 |
| 97.0-98.0 | 0.01 | 788.69 | 0.00 | 99.46 | 144.0-145.0 | 0.11 | 789.58 | 0.01 | 99.58 |
| 98.0-99.0 | 0.00 | 788.70 | 0.00 | 99.46 | 145.0-146.0 | 0.12 | 789.70 | 0.01 | 99.59 |
| 99.0-100.0 | 0.00 | 788.70 | 0.00 | 99.46 | 146.0-147.0 | 0.12 | 789.82 | 0.02 | 99.61 |
| 100.0-101.0 | 0.00 | 788.70 | 0.00 | 99.46 | 147.0-148.0 | 0.13 | 789.95 | 0.02 | 99.62 |
| 101.0-102.0 | 0.00 | 788.70 | 0.00 | 99.46 | 148.0-149.0 | 0.13 | 790.08 | 0.02 | 99.64 |
| 102.0-103.0 | 0.00 | 788.70 | 0.00 | 99.46 | 149.0-150.0 | 0.14 | 790.22 | 0.02 | 99.66 |
| 103.0-104.0 | 0.00 | 788.70 | 0.00 | 99.46 | 150.0-151.0 | 0.14 | 790.36 | 0.02 | 99.67 |
| 104.0-105.0 | 0.00 | 788.70 | 0.00 | 99.46 | 151.0-152.0 | 0.14 | 790.50 | 0.02 | 99.69 |
| 105.0-106.0 | 0.00 | 788.70 | 0.00 | 99.46 | 152.0-153.0 | 0.14 | 790.64 | 0.02 | 99.71 |
| 106.0-107.0 | 0.00 | 788.70 | 0.00 | 99.46 | 153.0-154.0 | 0.14 | 790.78 | 0.02 | 99.73 |
| 107.0-108.0 | 0.00 | 788.70 | 0.00 | 99.46 | 154.0-155.0 | 0.14 | 790.93 | 0.02 | 99.74 |
| 108.0-109.0 | 0.00 | 788.70 | 0.00 | 99.46 | 155.0-156.0 | 0.14 | 791.07 | 0.02 | 99.76 |
| 109.0-110.0 | 0.00 | 788.70 | 0.00 | 99.46 | 156.0-157.0 | 0.14 | 791.21 | 0.02 | 99.78 |
| 110.0-111.0 | 0.00 | 788.70 | 0.00 | 99.46 | 157.0-158.0 | 0.14 | 791.34 | 0.02 | 99.80 |
| 111.0-112.0 | 0.00 | 788.70 | 0.00 | 99.46 | 158.0-159.0 | 0.13 | 791.48 | 0.02 | 99.81 |
| 112.0-113.0 | 0.00 | 788.70 | 0.00 | 99.46 | 159.0-160.0 | 0.13 | 791.61 | 0.02 | 99.83 |
| 113.0-114.0 | 0.00 | 788.70 | 0.00 | 99.46 | 160.0-161.0 | 0.13 | 791.73 | 0.02 | 99.85 |
| 114.0-115.0 | 0.00 | 788.70 | 0.00 | 99.46 | 161.0-162.0 | 0.12 | 791.85 | 0.02 | 99.86 |
| 115.0-116.0 | 0.00 | 788.70 | 0.00 | 99.46 | 162.0-163.0 | 0.12 | 791.97 | 0.01 | 99.88 |
| 116.0-117.0 | 0.00 | 788.70 | 0.00 | 99.46 | 163.0-164.0 | 0.11 | 792.08 | 0.01 | 99.89 |
| 117.0-118.0 | 0.00 | 788.70 | 0.00 | 99.46 | 164.0-165.0 | 0.10 | 792.18 | 0.01 | 99.90 |
| 118.0-119.0 | 0.00 | 788.70 | 0.00 | 99.46 | 165.0-166.0 | 0.10 | 792.28 | 0.01 | 99.92 |
| 119.0-120.0 | 0.00 | 788.70 | 0.00 | 99.46 | 166.0-167.0 | 0.09 | 792.37 | 0.01 | 99.93 |
| 120.0-121.0 | 0.00 | 788.70 | 0.00 | 99.46 | 167.0-168.0 | 0.08 | 792.45 | 0.01 | 99.94 |
| 121.0-122.0 | 0.00 | 788.70 | 0.00 | 99.46 | 168.0-169.0 | 0.08 | 792.53 | 0.01 | 99.95 |
| 122.0-123.0 | 0.00 | 788.70 | 0.00 | 99.46 | 169.0-170.0 | 0.07 | 792.60 | 0.01 | 99.96 |
| 123.0-124.0 | 0.00 | 788.70 | 0.00 | 99.46 | 170.0-171.0 | 0.06 | 792.67 | 0.01 | 99.96 |
| 124.0-125.0 | 0.00 | 788.70 | 0.00 | 99.46 | 171.0-172.0 | 0.06 | 792.73 | 0.01 | 99.97 |
| 125.0-126.0 | 0.00 | 788.70 | 0.00 | 99.46 | 172.0-173.0 | 0.05 | 792.78 | 0.01 | 99.98 |
| 126.0-127.0 | 0.00 | 788.70 | 0.00 | 99.46 | 173.0-174.0 | 0.04 | 792.82 | 0.01 | 99.98 |
| 127.0-128.0 | 0.00 | 788.70 | 0.00 | 99.46 | 174.0-175.0 | 0.04 | 792.86 | 0.00 | 99.99 |
| 128.0-129.0 | 0.00 | 788.71 | 0.00 | 99.47 | 175.0-176.0 | 0.03 | 792.89 | 0.00 | 99.99 |
| 129.0-130.0 | 0.01 | 788.72 | 0.00 | 99.47 | 176.0-177.0 | 0.02 | 792.92 | 0.00 | 100.00 |
| 130.0-131.0 | 0.01 | 788.73 | 0.00 | 99.47 | 177.0-178.0 | 0.02 | 792.93 | 0.00 | 100.00 |
| 131.0-132.0 | 0.02 | 788.74 | 0.00 | 99.47 | 178.0-179.0 | 0.01 | 792.94 | 0.00 | 100.00 |
| 132.0-133.0 | 0.02 | 788.76 | 0.00 | 99.47 | 179.0-180.0 | 0.00 | 792.95 | 0.00 | 100.00 |
| 133.0-134.0 | 0.03 | 788.79 | 0.00 | 99.48 | | | | | |
| 134.0-135.0 | 0.03 | 788.82 | 0.00 | 99.48 | | | | | |
| 135.0-136.0 | 0.04 | 788.86 | 0.00 | 99.48 | | | | | |
| 136.0-137.0 | 0.05 | 788.91 | 0.01 | 99.49 | | | | | |
| 137.0-138.0 | 0.06 | 788.96 | 0.01 | 99.50 | | | | | |
| 138.0-139.0 | 0.06 | 789.03 | 0.01 | 99.51 | | | | | |
| 139.0-140.0 | 0.07 | 789.10 | 0.01 | 99.51 | | | | | |
| 140.0-141.0 | 0.08 | 789.18 | 0.01 | 99.52 | | | | | |

Rectangle ISO Lighting Intensity Diagram

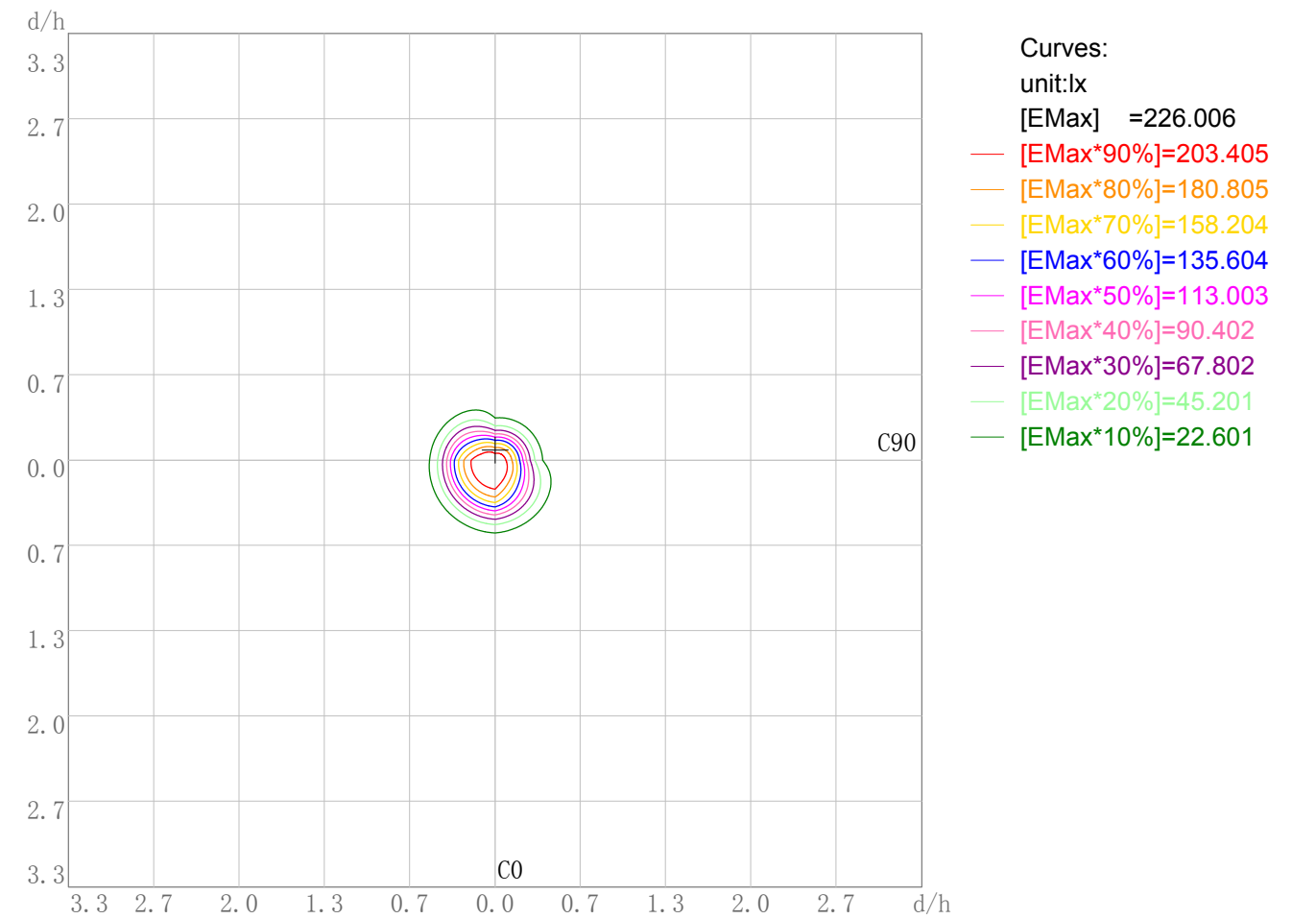
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 226.01
Working Plane Maximum Illuminance Position(d/h):H0.0 V-0.1

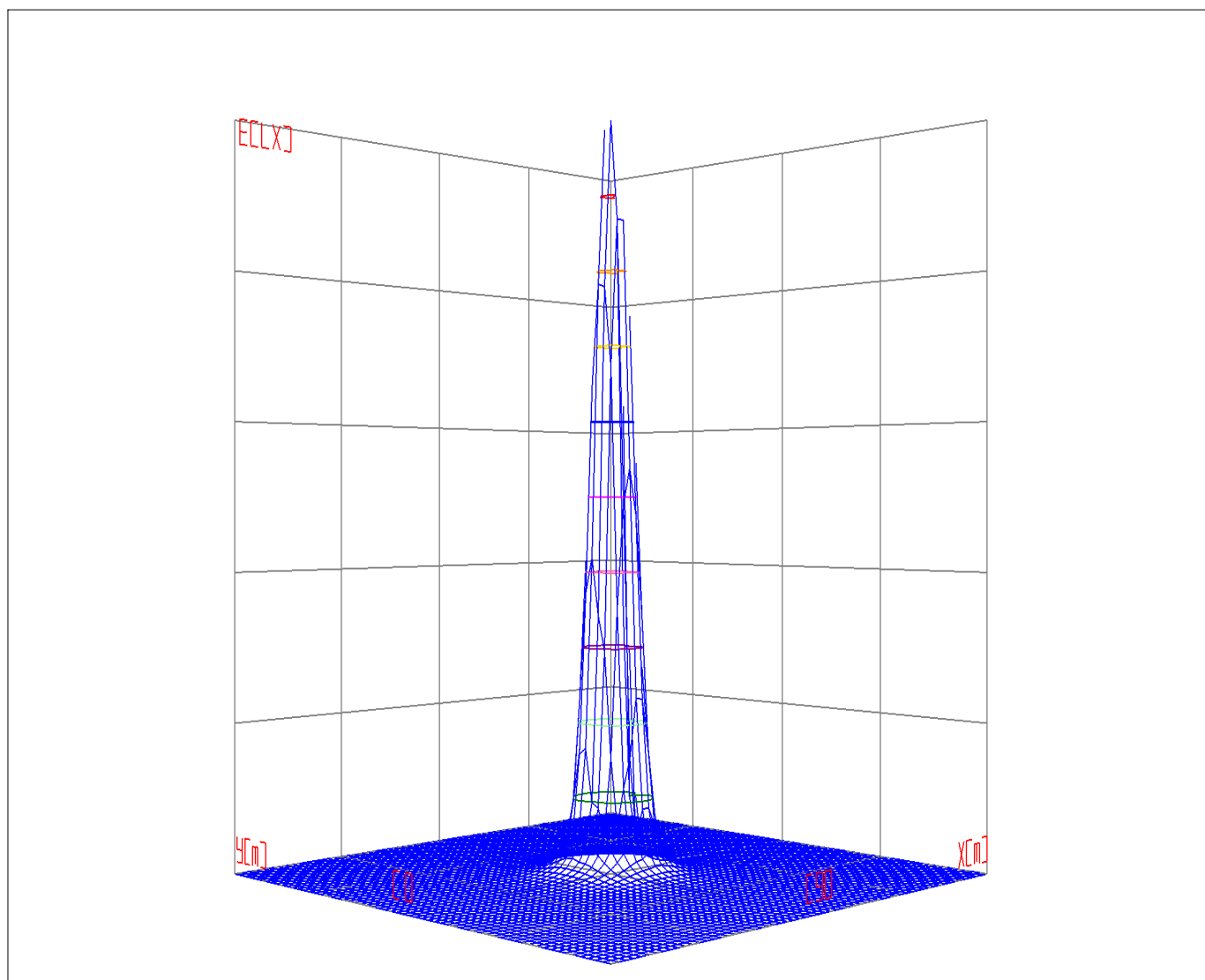
IES Indoor Report

Photometric Filename:SD09-09-XX-01 2700K RA90 36D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |

3D Plane Illuminance Modal

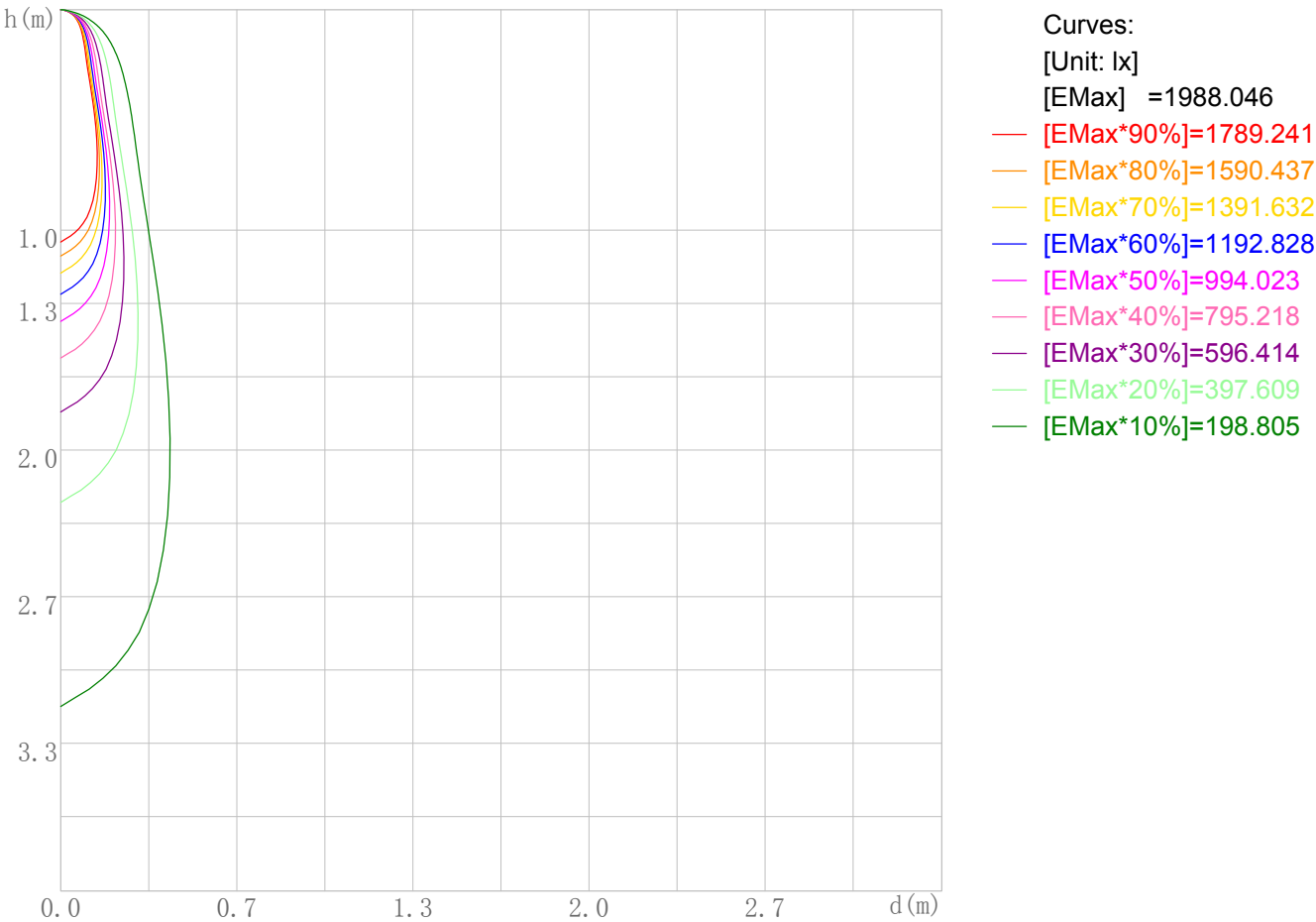


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | 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: 2021/10/22 |

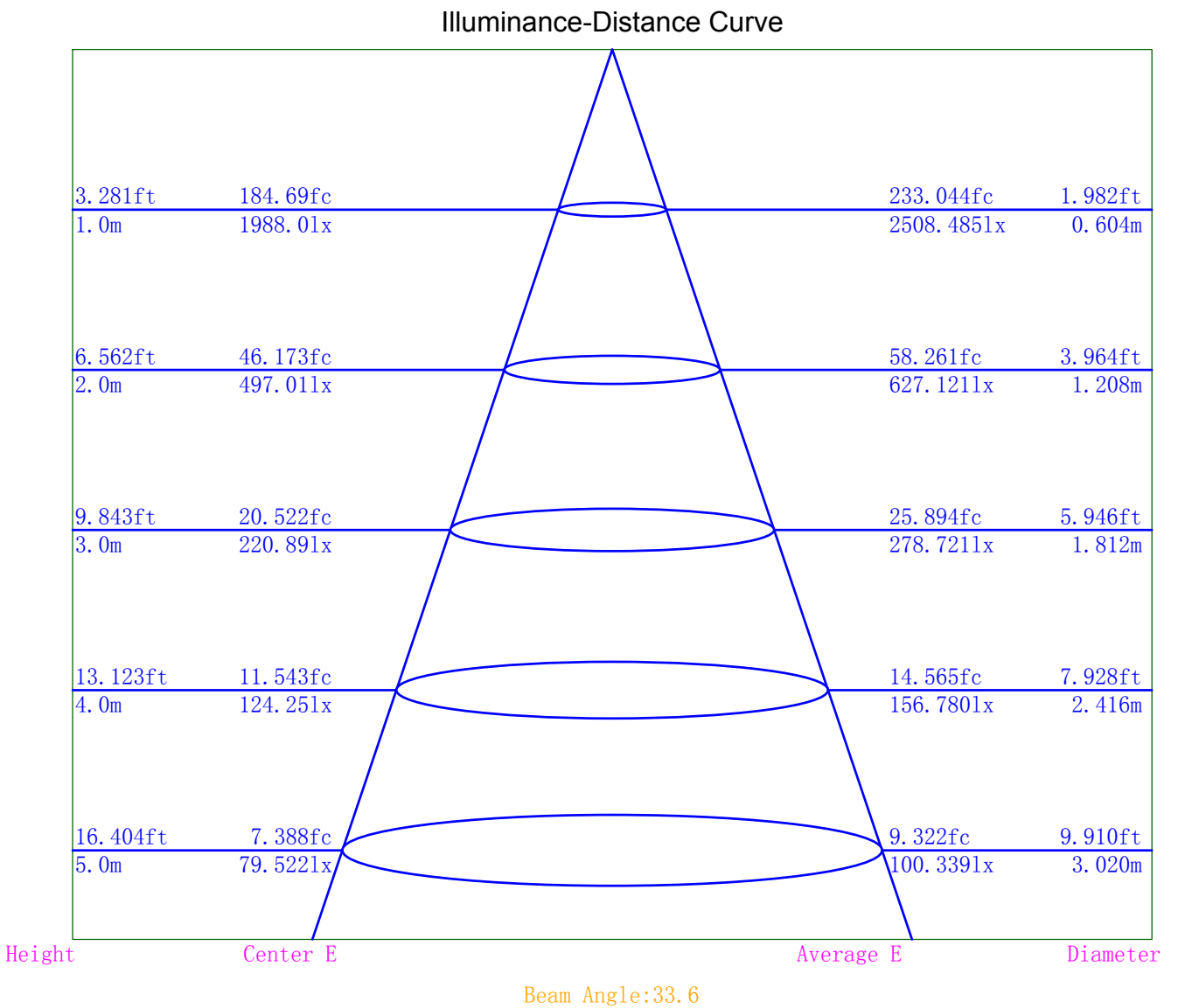
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1988.05lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:1988.046cd,0eg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | 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: 2021/10/22 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |

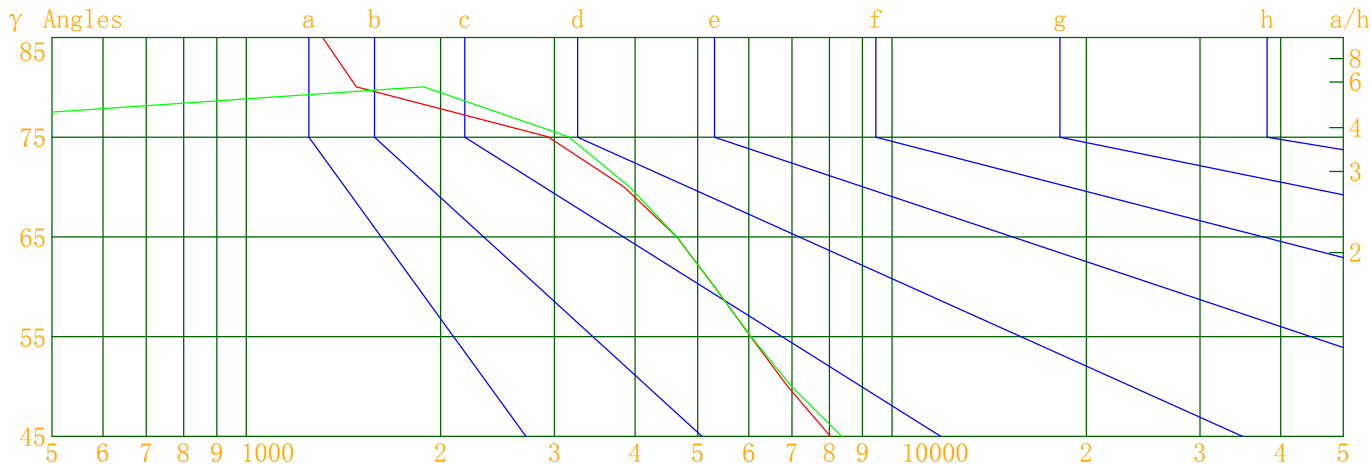
Glare Grade Table

| 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 | 8028 | 6893 | 6039 | 5309 | 4640 | 3843 | 2931 | 1480 | 1313 |
| C90 | 8358 | 6987 | 6047 | 5304 | 4638 | 3919 | 3156 | 1883 | 144 |

Luminance Limiting Curve



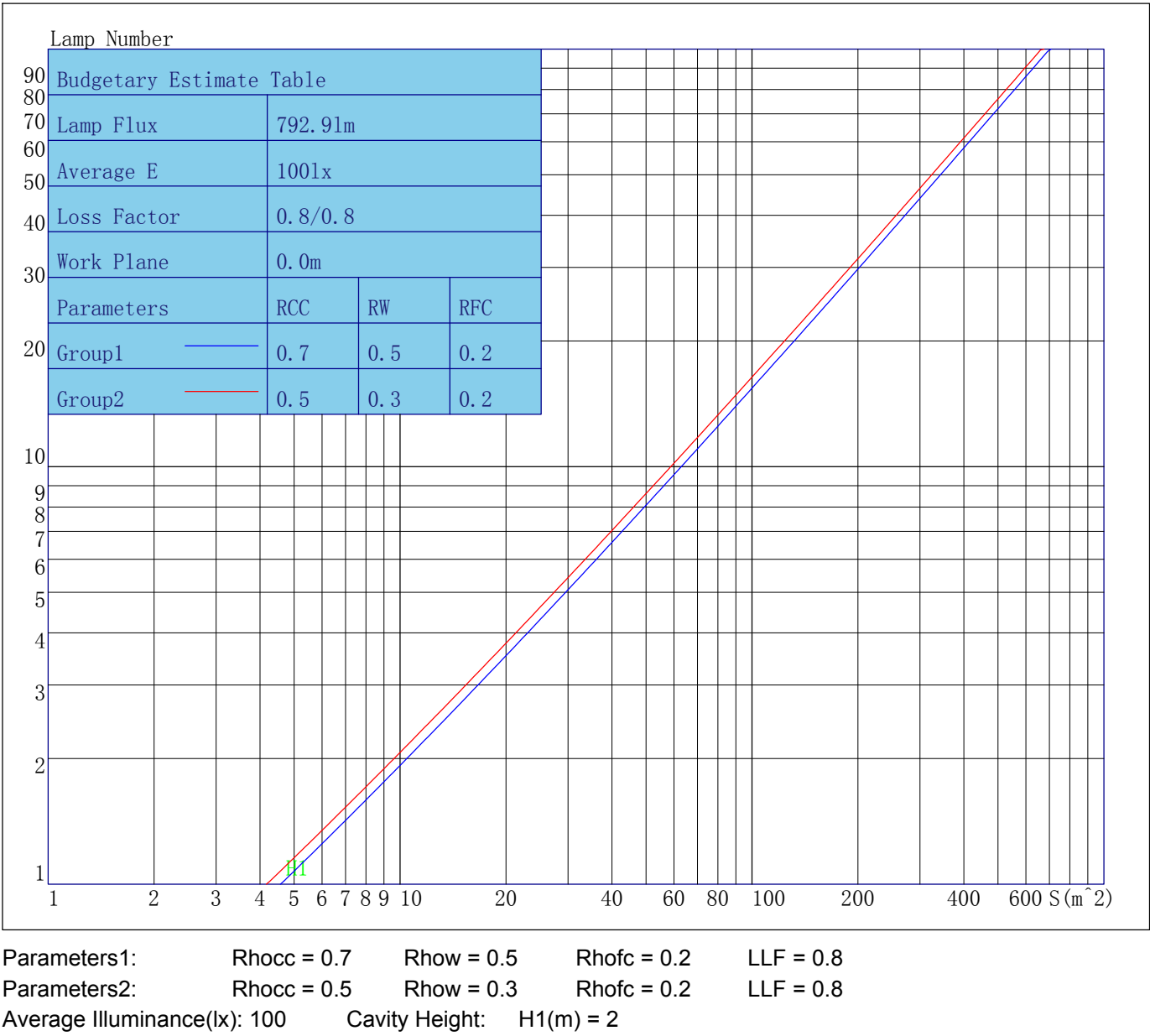
Luminous Size: Length(m)=-0.076 Width(m)=-0.076 Height(m)=0.000 Area(m^2)=0.004536

Luminous Type: Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2021/10/22 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | 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: 2021/10/22 |

| 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 | 99 |
| 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 98 | 97 | 96 | 96 | 94 |
| 2 | 109 | 104 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 97 | 94 | 96 | 94 | 92 | 93 | 92 | 90 | 88 |
| 3 | 104 | 98 | 94 | 90 | 102 | 97 | 93 | 90 | 94 | 91 | 88 | 92 | 89 | 87 | 90 | 87 | 85 | 84 |
| 4 | 100 | 93 | 88 | 85 | 98 | 92 | 88 | 84 | 90 | 86 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 80 |
| 5 | 96 | 89 | 83 | 80 | 94 | 88 | 83 | 79 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 80 | 77 | 76 |
| 6 | 92 | 84 | 79 | 76 | 91 | 84 | 79 | 75 | 82 | 78 | 75 | 81 | 77 | 74 | 80 | 76 | 74 | 72 |
| 7 | 89 | 81 | 76 | 72 | 88 | 80 | 75 | 72 | 79 | 75 | 71 | 78 | 74 | 71 | 77 | 73 | 71 | 69 |
| 8 | 86 | 77 | 72 | 69 | 84 | 77 | 72 | 69 | 76 | 71 | 68 | 75 | 71 | 68 | 74 | 70 | 68 | 67 |
| 9 | 83 | 74 | 69 | 66 | 82 | 74 | 69 | 66 | 73 | 69 | 66 | 72 | 68 | 65 | 71 | 68 | 65 | 64 |
| 10 | 80 | 72 | 67 | 63 | 79 | 71 | 66 | 63 | 70 | 66 | 63 | 70 | 66 | 63 | 69 | 65 | 63 | 62 |

Unified Glare Rating Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: SD09-09-XX-01 2700K RA90 36D | 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: 2021/10/22 |

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 | 12.9 | 13.8 | 13.2 | 14.1 | 14.5 | 13.2 | 14.1 | 13.6 | 14.5 | 14.8 |
| | 13.6 | 14.4 | 14.0 | 14.8 | 15.2 | 13.9 | 14.7 | 14.3 | 15.1 | 15.4 |
| | 13.8 | 14.6 | 14.3 | 15.0 | 15.4 | 14.1 | 14.9 | 14.5 | 15.2 | 15.6 |
| | 13.9 | 14.5 | 14.3 | 14.9 | 15.3 | 14.2 | 14.9 | 14.6 | 15.3 | 15.7 |
| | 13.8 | 14.5 | 14.3 | 14.9 | 15.3 | 14.2 | 14.8 | 14.6 | 15.2 | 15.6 |
| | 13.8 | 14.4 | 14.2 | 14.8 | 15.2 | 14.1 | 14.7 | 14.6 | 15.1 | 15.5 |
| X=4H Y=2H | 13.3 | 14.1 | 13.8 | 14.4 | 14.9 | 13.6 | 14.4 | 14.1 | 14.8 | 15.2 |
| | 14.3 | 14.9 | 14.7 | 15.3 | 15.7 | 14.5 | 15.1 | 15.0 | 15.6 | 16.0 |
| | 14.6 | 15.1 | 15.0 | 15.5 | 16.0 | 14.8 | 15.4 | 15.3 | 15.8 | 16.3 |
| | 14.7 | 15.1 | 15.1 | 15.5 | 16.0 | 15.0 | 15.4 | 15.5 | 15.9 | 16.4 |
| | 14.6 | 15.0 | 15.1 | 15.5 | 16.0 | 15.0 | 15.4 | 15.5 | 15.8 | 16.3 |
| | 14.6 | 14.9 | 15.1 | 15.4 | 15.9 | 14.9 | 15.2 | 15.4 | 15.7 | 16.2 |
| X=8H Y=4H | 14.7 | 15.1 | 15.2 | 15.6 | 16.1 | 15.0 | 15.4 | 15.5 | 15.9 | 16.4 |
| | 14.9 | 15.2 | 15.4 | 15.7 | 16.2 | 15.3 | 15.6 | 15.8 | 16.1 | 16.6 |
| | 14.9 | 15.2 | 15.5 | 15.7 | 16.2 | 15.3 | 15.5 | 15.8 | 16.1 | 16.6 |
| | 14.9 | 15.1 | 15.5 | 15.7 | 16.2 | 15.3 | 15.5 | 15.8 | 16.0 | 16.6 |
| X=12H Y=4H | 14.7 | 15.1 | 15.2 | 15.6 | 16.1 | 15.0 | 15.4 | 15.5 | 15.9 | 16.4 |
| | 14.9 | 15.2 | 15.5 | 15.7 | 16.2 | 15.3 | 15.6 | 15.8 | 16.0 | 16.6 |
| | 15.0 | 15.2 | 15.5 | 15.7 | 16.3 | 15.4 | 15.6 | 15.9 | 16.1 | 16.7 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.7/-0.8 | | | | | 0.9/-1.1 | | | | |
| S=1.5H | 1.5/-2.0 | | | | | 1.4/-1.8 | | | | |
| S=2.0H | 1.9/-2.5 | | | | | 1.8/-2.2 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 1.6 | | | | | 1.6 | | | | |

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

IES Indoor Report

Photometric Filename:SD09-09-XX-01 2700K RA90 36D.IES

Candela Tabulation

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|---------|---------|---------|---------|
| γ 0.0 | 1988.05 | 1988.05 | 1988.05 | 1988.05 |
| γ 1.0 | 1938.66 | 1993.92 | 2002.01 | 2019.67 |
| γ 2.0 | 1894.05 | 1969.20 | 2025.04 | 2025.71 |
| γ 3.0 | 1838.83 | 1933.21 | 2037.85 | 2024.80 |
| γ 4.0 | 1776.02 | 1891.38 | 2048.83 | 2020.72 |
| γ 5.0 | 1699.78 | 1840.25 | 2057.14 | 2013.84 |
| γ 6.0 | 1613.07 | 1781.18 | 2062.78 | 2004.88 |
| γ 7.0 | 1503.49 | 1709.81 | 2064.73 | 1996.21 |
| γ 8.0 | 1379.99 | 1621.31 | 2060.81 | 1991.01 |
| γ 9.0 | 1240.72 | 1518.91 | 2051.21 | 1975.40 |
| γ 10.0 | 1094.72 | 1393.80 | 2035.05 | 1951.25 |
| γ 11.0 | 946.77 | 1262.43 | 2014.28 | 1913.77 |
| γ 12.0 | 804.45 | 1122.40 | 1989.50 | 1873.53 |
| γ 13.0 | 672.53 | 982.62 | 1965.62 | 1819.85 |
| γ 14.0 | 553.69 | 845.03 | 1928.83 | 1757.89 |
| γ 15.0 | 451.22 | 714.81 | 1886.38 | 1682.76 |
| γ 16.0 | 366.69 | 592.36 | 1831.93 | 1593.19 |
| γ 17.0 | 299.90 | 485.60 | 1767.09 | 1486.21 |
| γ 18.0 | 247.56 | 396.07 | 1689.14 | 1366.85 |
| γ 19.0 | 208.00 | 322.00 | 1590.80 | 1235.89 |
| γ 20.0 | 177.63 | 263.58 | 1471.82 | 1094.80 |
| γ 21.0 | 154.22 | 218.61 | 1339.66 | 949.57 |
| γ 22.0 | 135.53 | 184.53 | 1202.04 | 807.47 |
| γ 23.0 | 120.70 | 158.09 | 1059.85 | 676.54 |
| γ 24.0 | 108.26 | 137.69 | 917.00 | 557.94 |
| γ 25.0 | 98.20 | 121.57 | 779.23 | 453.41 |
| γ 26.0 | 89.47 | 108.62 | 649.57 | 366.11 |
| γ 27.0 | 81.94 | 97.87 | 530.87 | 295.76 |
| γ 28.0 | 75.28 | 88.95 | 429.74 | 241.03 |
| γ 29.0 | 69.48 | 81.15 | 347.61 | 198.63 |
| γ 30.0 | 64.36 | 74.51 | 282.85 | 166.68 |
| γ 31.0 | 59.80 | 68.51 | 231.24 | 142.61 |
| γ 32.0 | 55.65 | 63.26 | 192.71 | 123.96 |
| γ 33.0 | 51.87 | 58.50 | 162.86 | 109.28 |
| γ 34.0 | 48.47 | 54.25 | 140.03 | 97.43 |
| γ 35.0 | 45.39 | 50.47 | 121.88 | 87.64 |
| γ 36.0 | 42.63 | 47.07 | 107.63 | 79.26 |
| γ 37.0 | 40.10 | 43.88 | 95.97 | 72.09 |
| γ 38.0 | 37.83 | 41.03 | 86.37 | 65.93 |
| γ 39.0 | 35.68 | 38.42 | 78.10 | 60.53 |
| γ 40.0 | 33.75 | 36.01 | 71.15 | 55.92 |
| γ 41.0 | 31.92 | 33.87 | 65.00 | 51.84 |
| γ 42.0 | 30.22 | 31.88 | 59.69 | 48.25 |
| γ 43.0 | 28.61 | 30.06 | 55.04 | 45.09 |
| γ 44.0 | 27.18 | 28.37 | 50.95 | 42.32 |
| γ 45.0 | 25.75 | 26.81 | 47.34 | 39.83 |
| γ 46.0 | 24.52 | 25.33 | 44.06 | 37.68 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|-------|-------|--------|--------|
| γ 47.0 | 23.28 | 23.98 | 41.31 | 35.74 |
| γ 48.0 | 22.16 | 22.71 | 38.84 | 34.03 |
| γ 49.0 | 21.11 | 21.52 | 36.74 | 32.47 |
| γ 50.0 | 20.10 | 20.38 | 34.78 | 31.07 |
| γ 51.0 | 19.17 | 19.36 | 33.14 | 29.74 |
| γ 52.0 | 18.26 | 18.36 | 31.51 | 28.53 |
| γ 53.0 | 17.36 | 17.44 | 30.11 | 27.37 |
| γ 54.0 | 16.51 | 16.58 | 28.73 | 26.24 |
| γ 55.0 | 15.71 | 15.73 | 27.51 | 25.13 |
| γ 56.0 | 14.91 | 14.93 | 26.29 | 24.11 |
| γ 57.0 | 14.19 | 14.16 | 25.14 | 23.08 |
| γ 58.0 | 13.45 | 13.42 | 23.97 | 22.12 |
| γ 59.0 | 12.75 | 12.71 | 22.91 | 21.19 |
| γ 60.0 | 12.04 | 12.03 | 21.84 | 20.26 |
| γ 61.0 | 11.42 | 11.37 | 20.78 | 19.36 |
| γ 62.0 | 10.75 | 10.73 | 19.76 | 18.45 |
| γ 63.0 | 10.11 | 10.10 | 18.74 | 17.62 |
| γ 64.0 | 9.47 | 9.49 | 17.77 | 16.80 |
| γ 65.0 | 8.90 | 8.89 | 16.85 | 16.03 |
| γ 66.0 | 8.29 | 8.31 | 16.05 | 15.28 |
| γ 67.0 | 7.68 | 7.74 | 15.23 | 14.55 |
| γ 68.0 | 7.10 | 7.19 | 14.54 | 13.82 |
| γ 69.0 | 6.52 | 6.64 | 13.78 | 13.14 |
| γ 70.0 | 5.96 | 6.08 | 13.10 | 12.43 |
| γ 71.0 | 5.53 | 5.55 | 12.37 | 11.76 |
| γ 72.0 | 5.11 | 5.04 | 11.74 | 11.11 |
| γ 73.0 | 4.47 | 4.56 | 11.11 | 10.47 |
| γ 74.0 | 3.90 | 4.13 | 10.48 | 9.84 |
| γ 75.0 | 3.44 | 3.70 | 9.81 | 9.23 |
| γ 76.0 | 2.73 | 3.24 | 9.22 | 8.61 |
| γ 77.0 | 2.24 | 2.78 | 8.61 | 8.02 |
| γ 78.0 | 1.84 | 2.38 | 8.04 | 7.40 |
| γ 79.0 | 1.45 | 1.87 | 7.45 | 6.80 |
| γ 80.0 | 1.17 | 1.48 | 6.89 | 6.21 |
| γ 81.0 | 0.94 | 1.20 | 6.30 | 5.63 |
| γ 82.0 | 0.78 | 0.88 | 5.74 | 5.07 |
| γ 83.0 | 0.69 | 0.49 | 5.21 | 4.52 |
| γ 84.0 | 0.60 | 0.22 | 4.72 | 3.96 |
| γ 85.0 | 0.52 | 0.06 | 4.25 | 3.51 |
| γ 86.0 | 0.45 | 0.00 | 3.71 | 2.89 |
| γ 87.0 | 0.39 | 0.00 | 3.21 | 2.33 |
| γ 88.0 | 0.33 | 0.00 | 2.77 | 2.05 |
| γ 89.0 | 0.28 | 0.00 | 2.34 | 1.77 |
| γ 90.0 | 0.24 | 0.00 | 1.83 | 1.46 |
| γ 91.0 | 0.18 | 0.00 | 1.50 | 1.03 |
| γ 92.0 | 0.14 | 0.00 | 1.13 | 0.74 |
| γ 93.0 | 0.09 | 0.00 | 0.72 | 0.60 |

IES Indoor Report

Photometric Filename:SD09-09-XX-01 2700K RA90 36D.IES

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0 | 0.05 | 0.00 | 0.36 | 0.50 |
| γ 95.0 | 0.01 | 0.00 | 0.17 | 0.42 |
| γ 96.0 | 0.00 | 0.00 | 0.00 | 0.34 |
| γ 97.0 | 0.00 | 0.00 | 0.00 | 0.27 |
| γ 98.0 | 0.00 | 0.00 | 0.00 | 0.20 |
| γ 99.0 | 0.00 | 0.00 | 0.00 | 0.13 |
| γ 100.0 | 0.00 | 0.00 | 0.00 | 0.07 |
| γ 101.0 | 0.00 | 0.00 | 0.00 | 0.01 |
| 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 | 0.03 | 0.00 | 0.00 | 0.00 |
| γ 128.0 | 0.15 | 0.00 | 0.00 | 0.00 |
| γ 129.0 | 0.28 | 0.00 | 0.00 | 0.00 |
| γ 130.0 | 0.41 | 0.00 | 0.00 | 0.00 |
| γ 131.0 | 0.55 | 0.05 | 0.00 | 0.00 |
| γ 132.0 | 0.70 | 0.19 | 0.00 | 0.00 |
| γ 133.0 | 0.86 | 0.33 | 0.00 | 0.00 |
| γ 134.0 | 1.02 | 0.49 | 0.00 | 0.00 |
| γ 135.0 | 1.17 | 0.64 | 0.00 | 0.04 |
| γ 136.0 | 1.31 | 0.80 | 0.00 | 0.15 |
| γ 137.0 | 1.49 | 0.95 | 0.00 | 0.27 |
| γ 138.0 | 1.63 | 1.10 | 0.11 | 0.39 |
| γ 139.0 | 1.80 | 1.25 | 0.23 | 0.51 |
| γ 140.0 | 1.95 | 1.41 | 0.35 | 0.66 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 2.11 | 1.56 | 0.49 | 0.81 |
| γ 142.0 | 2.23 | 1.71 | 0.63 | 0.95 |
| γ 143.0 | 2.39 | 1.86 | 0.77 | 1.11 |
| γ 144.0 | 2.53 | 2.01 | 0.91 | 1.25 |
| γ 145.0 | 2.67 | 2.15 | 1.07 | 1.39 |
| γ 146.0 | 2.79 | 2.28 | 1.22 | 1.54 |
| γ 147.0 | 2.92 | 2.41 | 1.37 | 1.70 |
| γ 148.0 | 3.04 | 2.54 | 1.53 | 1.85 |
| γ 149.0 | 3.14 | 2.66 | 1.69 | 1.99 |
| γ 150.0 | 3.25 | 2.79 | 1.85 | 2.14 |
| γ 151.0 | 3.33 | 2.89 | 2.00 | 2.28 |
| γ 152.0 | 3.41 | 2.99 | 2.16 | 2.41 |
| γ 153.0 | 3.46 | 3.10 | 2.32 | 2.56 |
| γ 154.0 | 3.52 | 3.17 | 2.48 | 2.68 |
| γ 155.0 | 3.55 | 3.26 | 2.62 | 2.82 |
| γ 156.0 | 3.59 | 3.30 | 2.78 | 2.93 |
| γ 157.0 | 3.58 | 3.35 | 2.91 | 3.04 |
| γ 158.0 | 3.60 | 3.38 | 3.04 | 3.15 |
| γ 159.0 | 3.58 | 3.41 | 3.17 | 3.25 |
| γ 160.0 | 3.56 | 3.42 | 3.28 | 3.34 |
| γ 161.0 | 3.53 | 3.43 | 3.39 | 3.41 |
| γ 162.0 | 3.51 | 3.42 | 3.48 | 3.48 |
| γ 163.0 | 3.49 | 3.42 | 3.57 | 3.54 |
| γ 164.0 | 3.47 | 3.42 | 3.63 | 3.58 |
| γ 165.0 | 3.45 | 3.42 | 3.70 | 3.61 |
| γ 166.0 | 3.44 | 3.41 | 3.72 | 3.65 |
| γ 167.0 | 3.44 | 3.41 | 3.77 | 3.65 |
| γ 168.0 | 3.45 | 3.40 | 3.78 | 3.66 |
| γ 169.0 | 3.46 | 3.42 | 3.79 | 3.66 |
| γ 170.0 | 3.47 | 3.43 | 3.78 | 3.66 |
| γ 171.0 | 3.49 | 3.46 | 3.78 | 3.65 |
| γ 172.0 | 3.52 | 3.47 | 3.73 | 3.63 |
| γ 173.0 | 3.54 | 3.52 | 3.72 | 3.63 |
| γ 174.0 | 3.56 | 3.54 | 3.69 | 3.62 |
| γ 175.0 | 3.57 | 3.57 | 3.67 | 3.61 |
| γ 176.0 | 3.60 | 3.59 | 3.65 | 3.62 |
| γ 177.0 | 3.62 | 3.62 | 3.65 | 3.63 |
| γ 178.0 | 3.64 | 3.63 | 3.65 | 3.65 |
| γ 179.0 | 3.63 | 3.62 | 3.64 | 3.67 |
| γ 180.0 | 3.64 | 3.64 | 3.64 | 3.64 |