

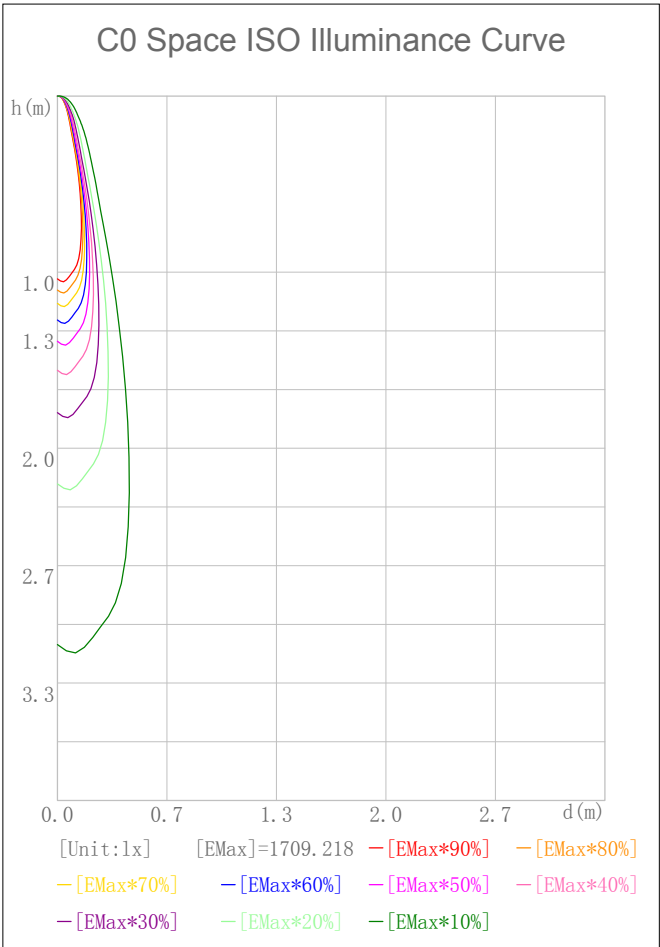
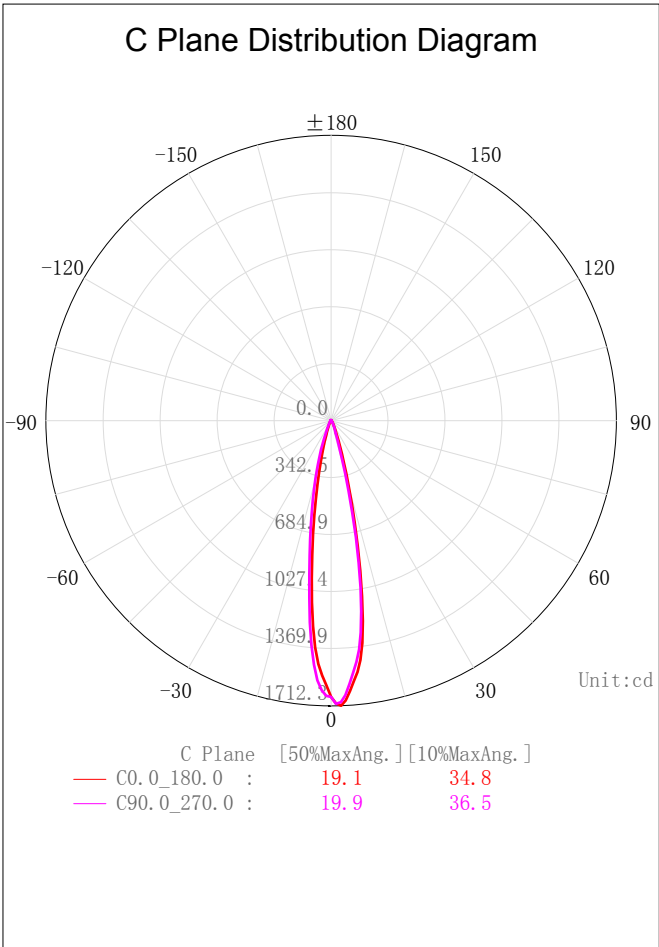
Indoor Luminaire Photometric Data

Description Information

| | | | |
|---|-------------------------|----------------------|-----------------------|
| Luminary Name: DL43-05-XX-02 4000K RA90 15D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2020/06/23 |
| 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):0.050m*0.050m*0.072m | | Lum. Area (m2):0.006 | Lum. W (kg): 0.000 |
| Test System: C, γ | Test Step: C=90.0 γ=1.0 | Temp. (°C): 25 | Humidity(%): 50.0 |

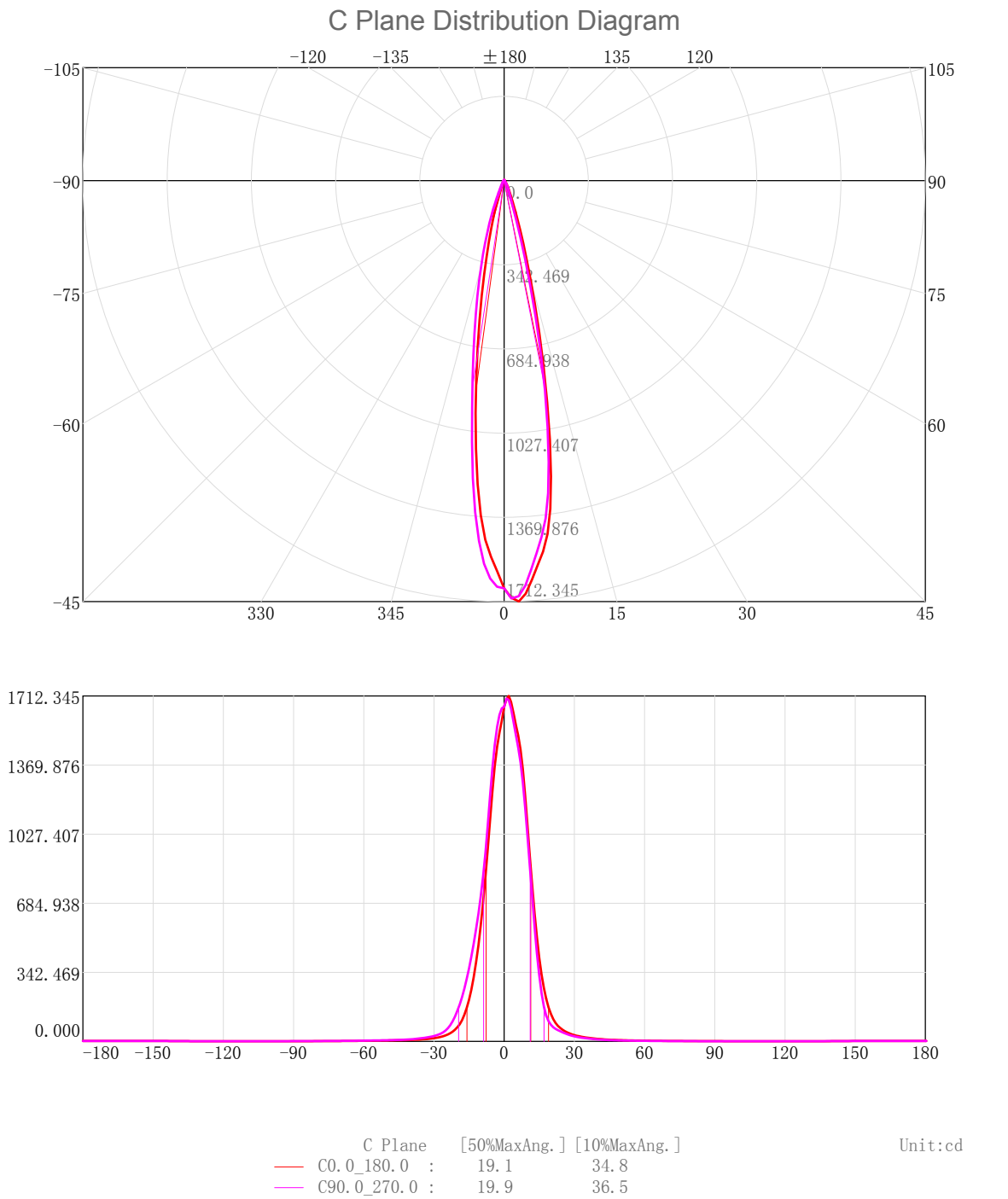
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|--------------------------------|---------------------------------------|--|
| Rated Flux(lm): 275.870 | Luminary Flux(lm): 275.872 | Field Angle(10%Imax): 34.8(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 265.196lm 96.13% | |
| Rated Voltage(V): | Luminary EER(lm/W): 57.883 | Up Lumens&Percent: 10.676lm 3.87% | |
| Tested Power(W): 4.766 | Max. Candela(cd): 1712.345 | S/MH: C0_a180=0.335 C90_270=0.346 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=2.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):240.1, 0.022, 0.865 | Beam Angle(50%Imax): 19.1(°) | ErP Φ use(90°): 242.117lm | |
| Lamp Size(W*L*H):0.050m*0.050m*0.072m | Left=-7.7°, Right=11.4° | IRF(%): 1253.948 | |



2D Plane Light Intensity Distribution Curve

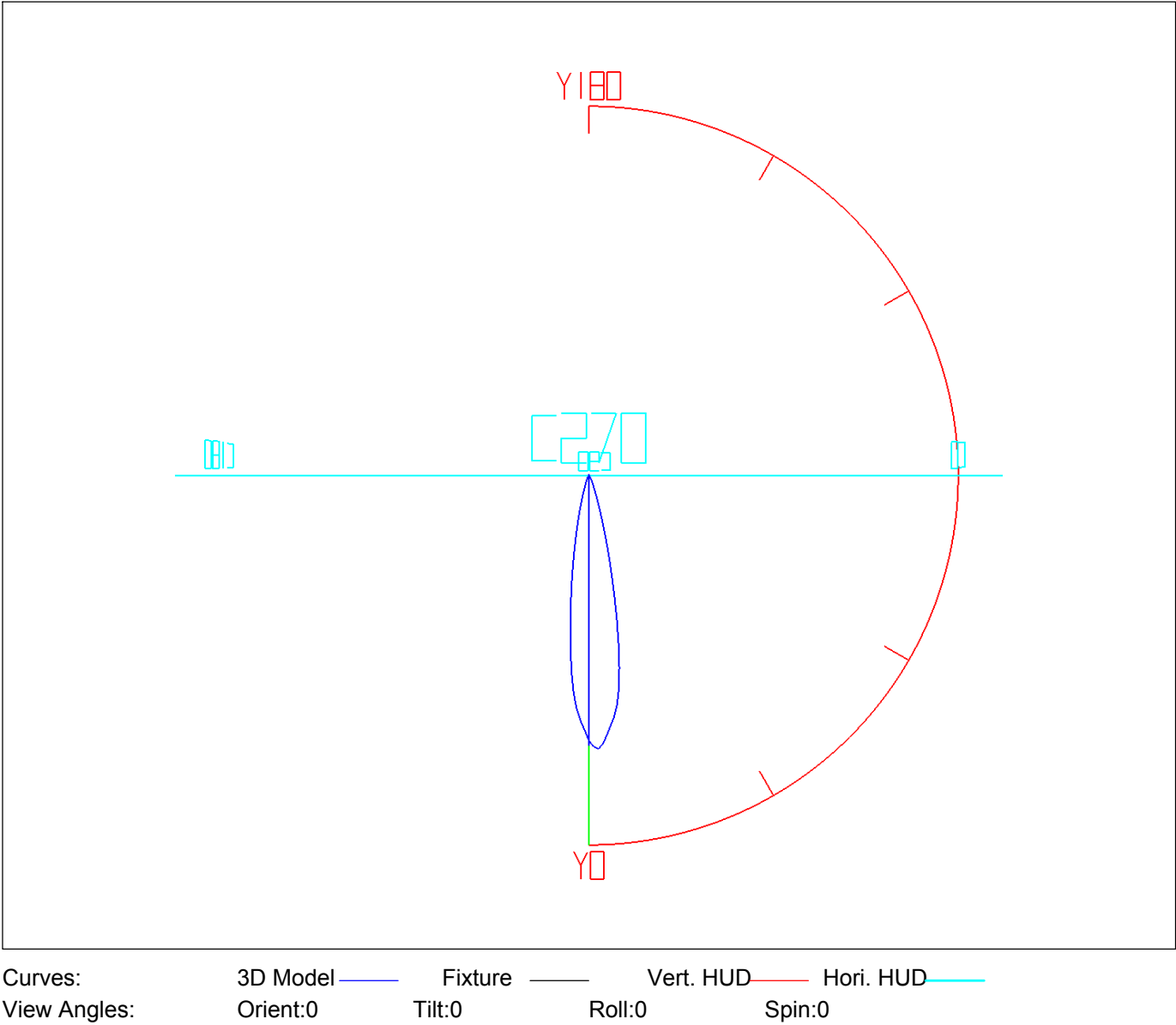
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |



3D Light Intensity Distribution Modal

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:DL43-05-XX-02 4000K RA90 15D | 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:2020/06/23 |

3D Light Intensity Distribution Modal



IES Indoor Report

Photometric Filename:DL43-05-XX-02 4000K RA90 15D.IES

Zonal Flux Tabulation

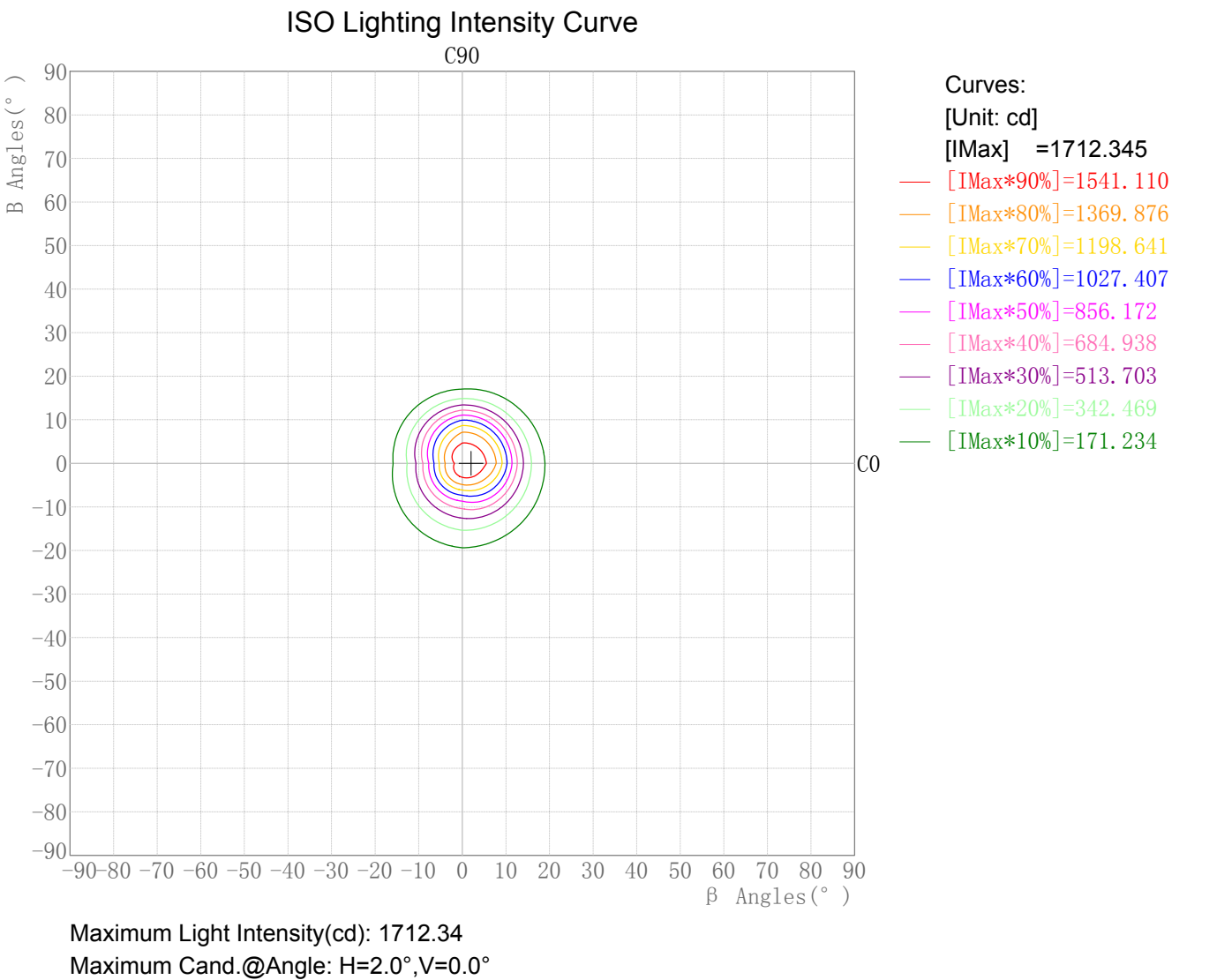
| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp | Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-----------|-------------------|-------------------|-----------|-----------|-----------|-------------------|-------------------|-----------|-----------|
| 0.0-1.0 | 1.59 | 1.59 | 0.58 | 0.58 | 47.0-48.0 | 0.53 | 252.58 | 0.19 | 91.56 |
| 1.0-2.0 | 4.73 | 6.32 | 1.72 | 2.29 | 48.0-49.0 | 0.51 | 253.09 | 0.18 | 91.74 |
| 2.0-3.0 | 7.72 | 14.04 | 2.80 | 5.09 | 49.0-50.0 | 0.49 | 253.58 | 0.18 | 91.92 |
| 3.0-4.0 | 10.37 | 24.41 | 3.76 | 8.85 | 50.0-51.0 | 0.48 | 254.06 | 0.17 | 92.09 |
| 4.0-5.0 | 12.61 | 37.02 | 4.57 | 13.42 | 51.0-52.0 | 0.46 | 254.52 | 0.17 | 92.26 |
| 5.0-6.0 | 14.41 | 51.43 | 5.22 | 18.64 | 52.0-53.0 | 0.45 | 254.97 | 0.16 | 92.42 |
| 6.0-7.0 | 15.73 | 67.16 | 5.70 | 24.34 | 53.0-54.0 | 0.44 | 255.41 | 0.16 | 92.58 |
| 7.0-8.0 | 16.52 | 83.68 | 5.99 | 30.33 | 54.0-55.0 | 0.42 | 255.83 | 0.15 | 92.74 |
| 8.0-9.0 | 16.74 | 100.42 | 6.07 | 36.40 | 55.0-56.0 | 0.41 | 256.24 | 0.15 | 92.88 |
| 9.0-10.0 | 16.44 | 116.86 | 5.96 | 42.36 | 56.0-57.0 | 0.40 | 256.64 | 0.14 | 93.03 |
| 10.0-11.0 | 15.69 | 132.55 | 5.69 | 48.05 | 57.0-58.0 | 0.39 | 257.02 | 0.14 | 93.17 |
| 11.0-12.0 | 14.55 | 147.10 | 5.27 | 53.32 | 58.0-59.0 | 0.37 | 257.40 | 0.14 | 93.30 |
| 12.0-13.0 | 13.14 | 160.24 | 4.76 | 58.09 | 59.0-60.0 | 0.36 | 257.76 | 0.13 | 93.43 |
| 13.0-14.0 | 11.62 | 171.86 | 4.21 | 62.30 | 60.0-61.0 | 0.35 | 258.11 | 0.13 | 93.56 |
| 14.0-15.0 | 10.10 | 181.96 | 3.66 | 65.96 | 61.0-62.0 | 0.34 | 258.45 | 0.12 | 93.68 |
| 15.0-16.0 | 8.64 | 190.60 | 3.13 | 69.09 | 62.0-63.0 | 0.33 | 258.78 | 0.12 | 93.80 |
| 16.0-17.0 | 7.32 | 197.92 | 2.65 | 71.74 | 63.0-64.0 | 0.32 | 259.10 | 0.12 | 93.92 |
| 17.0-18.0 | 6.18 | 204.09 | 2.24 | 73.98 | 64.0-65.0 | 0.31 | 259.41 | 0.11 | 94.03 |
| 18.0-19.0 | 5.24 | 209.33 | 1.90 | 75.88 | 65.0-66.0 | 0.30 | 259.71 | 0.11 | 94.14 |
| 19.0-20.0 | 4.48 | 213.81 | 1.62 | 77.50 | 66.0-67.0 | 0.29 | 260.00 | 0.11 | 94.25 |
| 20.0-21.0 | 3.85 | 217.66 | 1.40 | 78.90 | 67.0-68.0 | 0.29 | 260.29 | 0.10 | 94.35 |
| 21.0-22.0 | 3.34 | 221.00 | 1.21 | 80.11 | 68.0-69.0 | 0.28 | 260.57 | 0.10 | 94.45 |
| 22.0-23.0 | 2.93 | 223.93 | 1.06 | 81.17 | 69.0-70.0 | 0.27 | 260.84 | 0.10 | 94.55 |
| 23.0-24.0 | 2.59 | 226.52 | 0.94 | 82.11 | 70.0-71.0 | 0.27 | 261.11 | 0.10 | 94.65 |
| 24.0-25.0 | 2.32 | 228.84 | 0.84 | 82.95 | 71.0-72.0 | 0.26 | 261.37 | 0.09 | 94.74 |
| 25.0-26.0 | 2.08 | 230.92 | 0.75 | 83.71 | 72.0-73.0 | 0.25 | 261.62 | 0.09 | 94.84 |
| 26.0-27.0 | 1.88 | 232.80 | 0.68 | 84.39 | 73.0-74.0 | 0.25 | 261.87 | 0.09 | 94.93 |
| 27.0-28.0 | 1.71 | 234.51 | 0.62 | 85.01 | 74.0-75.0 | 0.24 | 262.11 | 0.09 | 95.01 |
| 28.0-29.0 | 1.56 | 236.08 | 0.57 | 85.58 | 75.0-76.0 | 0.24 | 262.35 | 0.09 | 95.10 |
| 29.0-30.0 | 1.44 | 237.52 | 0.52 | 86.10 | 76.0-77.0 | 0.23 | 262.58 | 0.08 | 95.18 |
| 30.0-31.0 | 1.33 | 238.85 | 0.48 | 86.58 | 77.0-78.0 | 0.23 | 262.81 | 0.08 | 95.27 |
| 31.0-32.0 | 1.24 | 240.09 | 0.45 | 87.03 | 78.0-79.0 | 0.22 | 263.03 | 0.08 | 95.35 |
| 32.0-33.0 | 1.16 | 241.26 | 0.42 | 87.45 | 79.0-80.0 | 0.22 | 263.25 | 0.08 | 95.42 |
| 33.0-34.0 | 1.09 | 242.35 | 0.40 | 87.85 | 80.0-81.0 | 0.21 | 263.46 | 0.08 | 95.50 |
| 34.0-35.0 | 1.03 | 243.38 | 0.37 | 88.22 | 81.0-82.0 | 0.21 | 263.67 | 0.08 | 95.58 |
| 35.0-36.0 | 0.97 | 244.34 | 0.35 | 88.57 | 82.0-83.0 | 0.20 | 263.88 | 0.07 | 95.65 |
| 36.0-37.0 | 0.91 | 245.26 | 0.33 | 88.90 | 83.0-84.0 | 0.20 | 264.08 | 0.07 | 95.72 |
| 37.0-38.0 | 0.86 | 246.11 | 0.31 | 89.21 | 84.0-85.0 | 0.20 | 264.27 | 0.07 | 95.80 |
| 38.0-39.0 | 0.81 | 246.92 | 0.29 | 89.51 | 85.0-86.0 | 0.19 | 264.46 | 0.07 | 95.87 |
| 39.0-40.0 | 0.76 | 247.68 | 0.28 | 89.78 | 86.0-87.0 | 0.19 | 264.65 | 0.07 | 95.93 |
| 40.0-41.0 | 0.72 | 248.40 | 0.26 | 90.04 | 87.0-88.0 | 0.18 | 264.84 | 0.07 | 96.00 |
| 41.0-42.0 | 0.68 | 249.08 | 0.25 | 90.29 | 88.0-89.0 | 0.18 | 265.02 | 0.07 | 96.07 |
| 42.0-43.0 | 0.65 | 249.73 | 0.23 | 90.52 | 89.0-90.0 | 0.18 | 265.20 | 0.06 | 96.13 |
| 43.0-44.0 | 0.62 | 250.35 | 0.22 | 90.75 | 90.0-91.0 | 0.18 | 265.37 | 0.06 | 96.19 |
| 44.0-45.0 | 0.59 | 250.94 | 0.21 | 90.96 | 91.0-92.0 | 0.17 | 265.54 | 0.06 | 96.26 |
| 45.0-46.0 | 0.57 | 251.51 | 0.21 | 91.17 | 92.0-93.0 | 0.17 | 265.71 | 0.06 | 96.32 |
| 46.0-47.0 | 0.55 | 252.05 | 0.20 | 91.37 | 93.0-94.0 | 0.17 | 265.88 | 0.06 | 96.38 |

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 | 0.16 | 266.05 | 0.06 | 96.44 | 141.0-142.0 | 0.14 | 272.32 | 0.05 | 98.71 |
| 95.0-96.0 | 0.16 | 266.21 | 0.06 | 96.50 | 142.0-143.0 | 0.14 | 272.46 | 0.05 | 98.76 |
| 96.0-97.0 | 0.16 | 266.37 | 0.06 | 96.56 | 143.0-144.0 | 0.14 | 272.60 | 0.05 | 98.82 |
| 97.0-98.0 | 0.16 | 266.52 | 0.06 | 96.61 | 144.0-145.0 | 0.14 | 272.75 | 0.05 | 98.87 |
| 98.0-99.0 | 0.16 | 266.68 | 0.06 | 96.67 | 145.0-146.0 | 0.15 | 272.89 | 0.05 | 98.92 |
| 99.0-100.0 | 0.15 | 266.83 | 0.06 | 96.72 | 146.0-147.0 | 0.15 | 273.04 | 0.05 | 98.97 |
| 100.0-101.0 | 0.15 | 266.99 | 0.06 | 96.78 | 147.0-148.0 | 0.15 | 273.18 | 0.05 | 99.03 |
| 101.0-102.0 | 0.15 | 267.14 | 0.05 | 96.83 | 148.0-149.0 | 0.15 | 273.33 | 0.05 | 99.08 |
| 102.0-103.0 | 0.15 | 267.29 | 0.05 | 96.89 | 149.0-150.0 | 0.14 | 273.47 | 0.05 | 99.13 |
| 103.0-104.0 | 0.15 | 267.44 | 0.05 | 96.94 | 150.0-151.0 | 0.14 | 273.62 | 0.05 | 99.18 |
| 104.0-105.0 | 0.15 | 267.58 | 0.05 | 97.00 | 151.0-152.0 | 0.14 | 273.76 | 0.05 | 99.23 |
| 105.0-106.0 | 0.14 | 267.73 | 0.05 | 97.05 | 152.0-153.0 | 0.14 | 273.90 | 0.05 | 99.28 |
| 106.0-107.0 | 0.14 | 267.87 | 0.05 | 97.10 | 153.0-154.0 | 0.14 | 274.03 | 0.05 | 99.33 |
| 107.0-108.0 | 0.14 | 268.01 | 0.05 | 97.15 | 154.0-155.0 | 0.13 | 274.17 | 0.05 | 99.38 |
| 108.0-109.0 | 0.14 | 268.15 | 0.05 | 97.20 | 155.0-156.0 | 0.13 | 274.29 | 0.05 | 99.43 |
| 109.0-110.0 | 0.14 | 268.29 | 0.05 | 97.25 | 156.0-157.0 | 0.13 | 274.42 | 0.05 | 99.47 |
| 110.0-111.0 | 0.14 | 268.43 | 0.05 | 97.30 | 157.0-158.0 | 0.12 | 274.54 | 0.04 | 99.52 |
| 111.0-112.0 | 0.14 | 268.57 | 0.05 | 97.35 | 158.0-159.0 | 0.12 | 274.66 | 0.04 | 99.56 |
| 112.0-113.0 | 0.14 | 268.70 | 0.05 | 97.40 | 159.0-160.0 | 0.11 | 274.77 | 0.04 | 99.60 |
| 113.0-114.0 | 0.13 | 268.84 | 0.05 | 97.45 | 160.0-161.0 | 0.11 | 274.88 | 0.04 | 99.64 |
| 114.0-115.0 | 0.13 | 268.97 | 0.05 | 97.50 | 161.0-162.0 | 0.10 | 274.98 | 0.04 | 99.68 |
| 115.0-116.0 | 0.13 | 269.10 | 0.05 | 97.55 | 162.0-163.0 | 0.10 | 275.08 | 0.04 | 99.71 |
| 116.0-117.0 | 0.13 | 269.23 | 0.05 | 97.59 | 163.0-164.0 | 0.09 | 275.17 | 0.03 | 99.75 |
| 117.0-118.0 | 0.13 | 269.35 | 0.05 | 97.64 | 164.0-165.0 | 0.09 | 275.25 | 0.03 | 99.78 |
| 118.0-119.0 | 0.13 | 269.48 | 0.05 | 97.68 | 165.0-166.0 | 0.08 | 275.33 | 0.03 | 99.81 |
| 119.0-120.0 | 0.12 | 269.60 | 0.04 | 97.73 | 166.0-167.0 | 0.08 | 275.41 | 0.03 | 99.83 |
| 120.0-121.0 | 0.12 | 269.72 | 0.04 | 97.77 | 167.0-168.0 | 0.07 | 275.48 | 0.03 | 99.86 |
| 121.0-122.0 | 0.12 | 269.85 | 0.04 | 97.82 | 168.0-169.0 | 0.06 | 275.54 | 0.02 | 99.88 |
| 122.0-123.0 | 0.12 | 269.96 | 0.04 | 97.86 | 169.0-170.0 | 0.06 | 275.60 | 0.02 | 99.90 |
| 123.0-124.0 | 0.12 | 270.08 | 0.04 | 97.90 | 170.0-171.0 | 0.05 | 275.65 | 0.02 | 99.92 |
| 124.0-125.0 | 0.12 | 270.20 | 0.04 | 97.94 | 171.0-172.0 | 0.05 | 275.70 | 0.02 | 99.94 |
| 125.0-126.0 | 0.12 | 270.32 | 0.04 | 97.99 | 172.0-173.0 | 0.04 | 275.74 | 0.01 | 99.95 |
| 126.0-127.0 | 0.12 | 270.43 | 0.04 | 98.03 | 173.0-174.0 | 0.04 | 275.77 | 0.01 | 99.97 |
| 127.0-128.0 | 0.12 | 270.55 | 0.04 | 98.07 | 174.0-175.0 | 0.03 | 275.80 | 0.01 | 99.98 |
| 128.0-129.0 | 0.12 | 270.67 | 0.04 | 98.11 | 175.0-176.0 | 0.02 | 275.83 | 0.01 | 99.99 |
| 129.0-130.0 | 0.12 | 270.78 | 0.04 | 98.16 | 176.0-177.0 | 0.02 | 275.85 | 0.01 | 99.99 |
| 130.0-131.0 | 0.12 | 270.90 | 0.04 | 98.20 | 177.0-178.0 | 0.01 | 275.86 | 0.00 | 100.00 |
| 131.0-132.0 | 0.12 | 271.02 | 0.04 | 98.24 | 178.0-179.0 | 0.01 | 275.87 | 0.00 | 100.00 |
| 132.0-133.0 | 0.12 | 271.14 | 0.04 | 98.28 | 179.0-180.0 | 0.00 | 275.87 | 0.00 | 100.00 |
| 133.0-134.0 | 0.12 | 271.26 | 0.04 | 98.33 | | | | | |
| 134.0-135.0 | 0.12 | 271.38 | 0.04 | 98.37 | | | | | |
| 135.0-136.0 | 0.13 | 271.51 | 0.05 | 98.42 | | | | | |
| 136.0-137.0 | 0.13 | 271.64 | 0.05 | 98.47 | | | | | |
| 137.0-138.0 | 0.13 | 271.77 | 0.05 | 98.51 | | | | | |
| 138.0-139.0 | 0.13 | 271.90 | 0.05 | 98.56 | | | | | |
| 139.0-140.0 | 0.14 | 272.04 | 0.05 | 98.61 | | | | | |
| 140.0-141.0 | 0.14 | 272.18 | 0.05 | 98.66 | | | | | |

Rectangle ISO Lighting Intensity Diagram

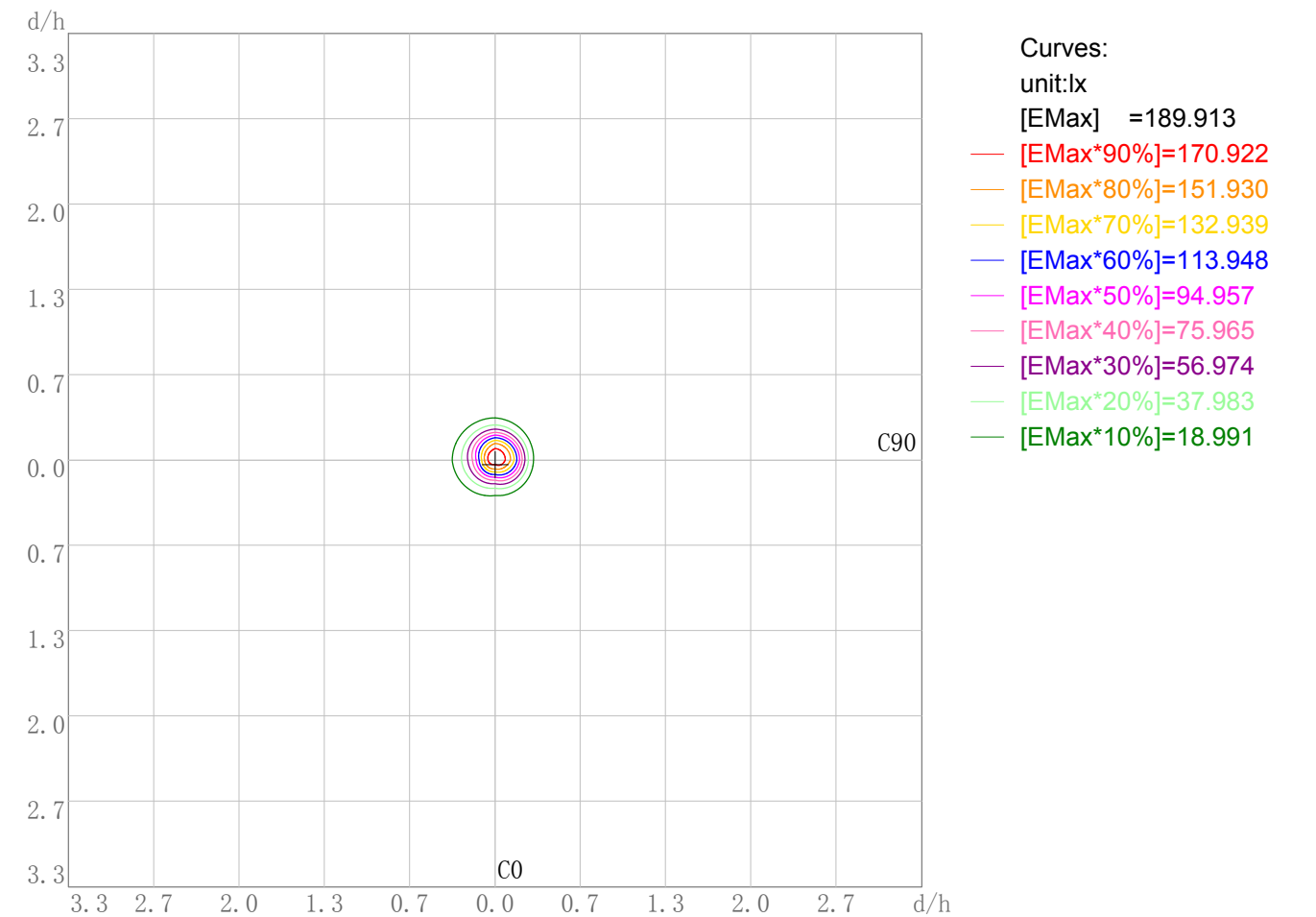
| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name:DL43-05-XX-02 4000K RA90 15D | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 189.91
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

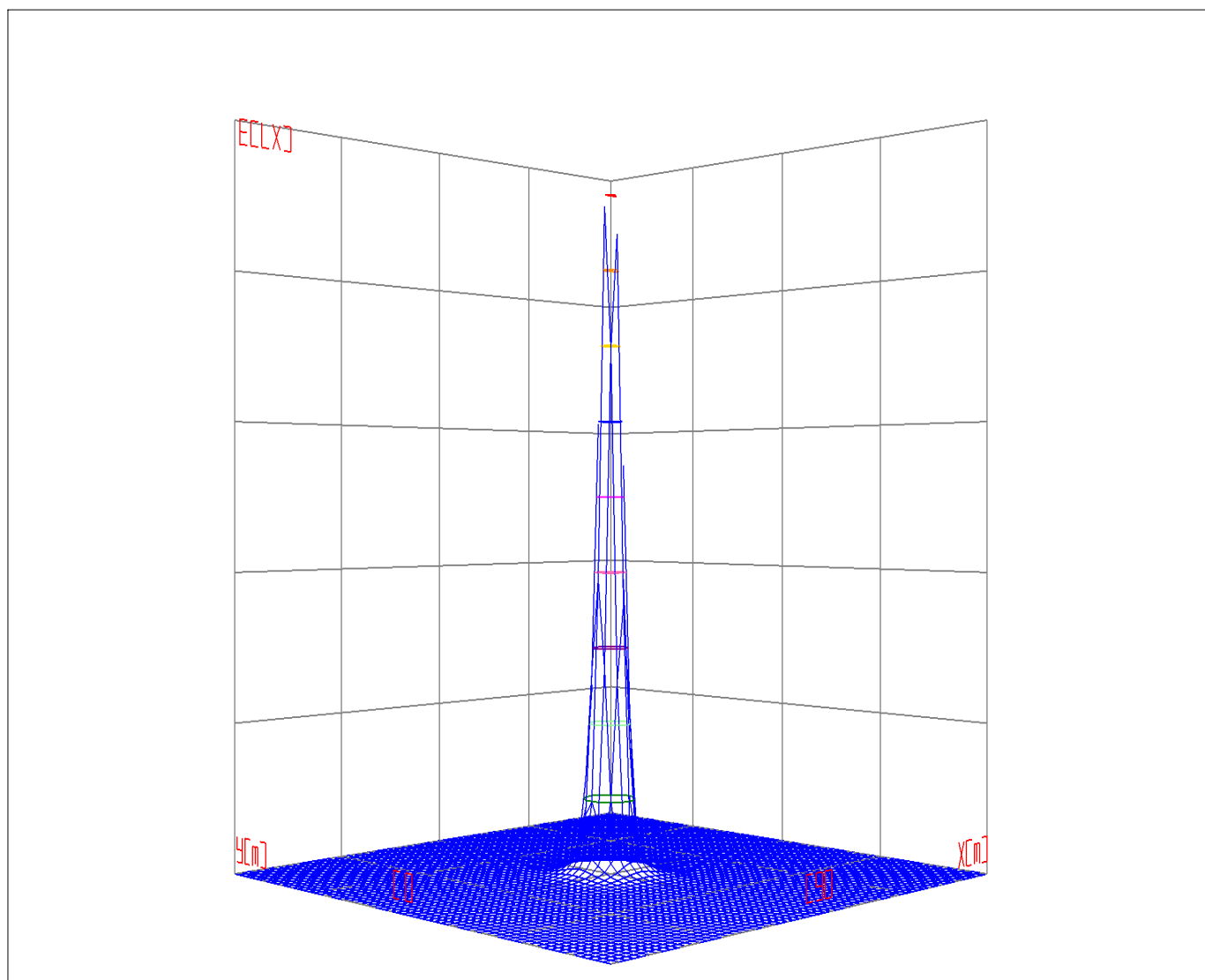
IES Indoor Report

Photometric Filename:DL43-05-XX-02 4000K RA90 15D.IES

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |

3D Plane Illuminance Modal

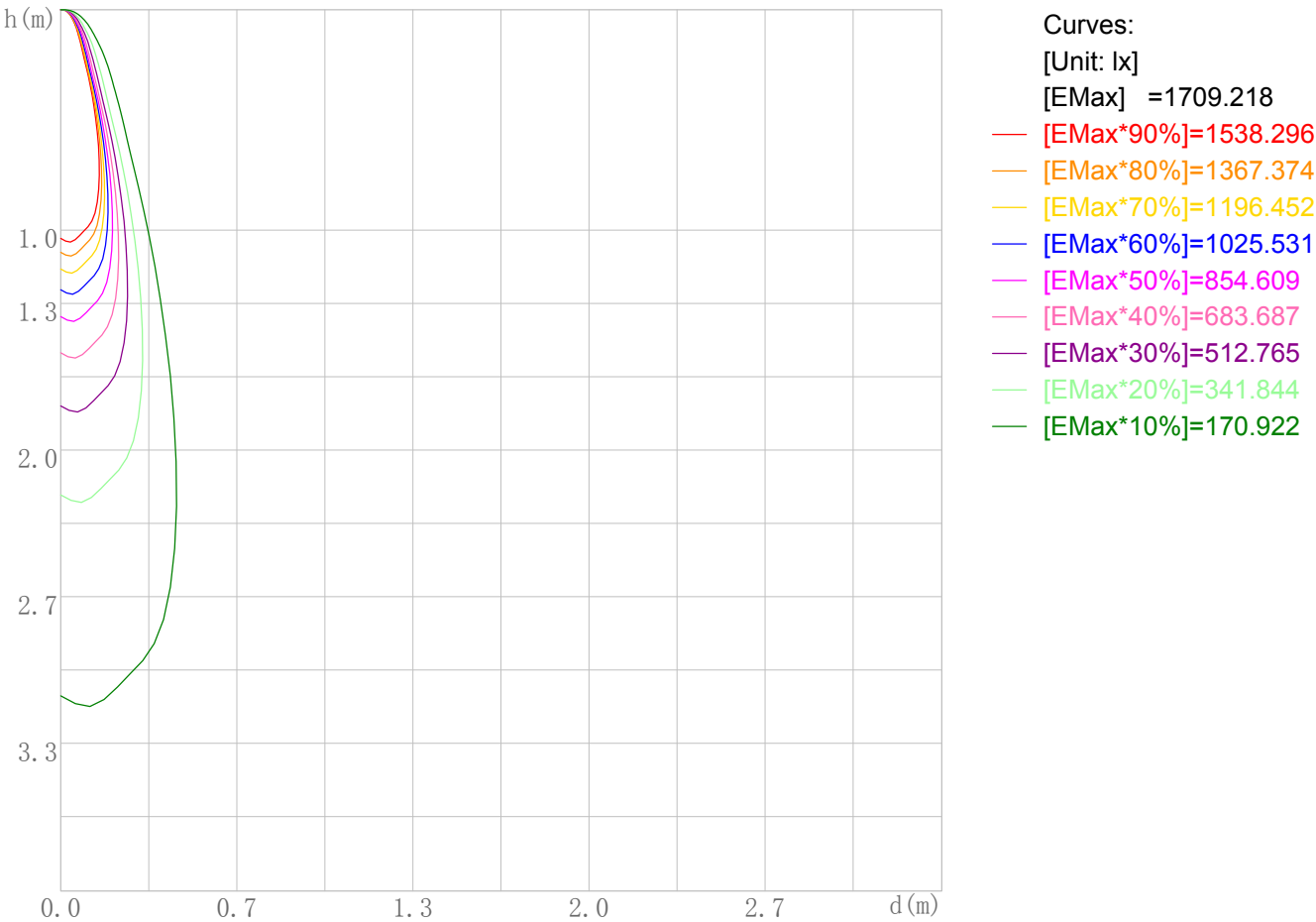


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | 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: 2020/06/23 |

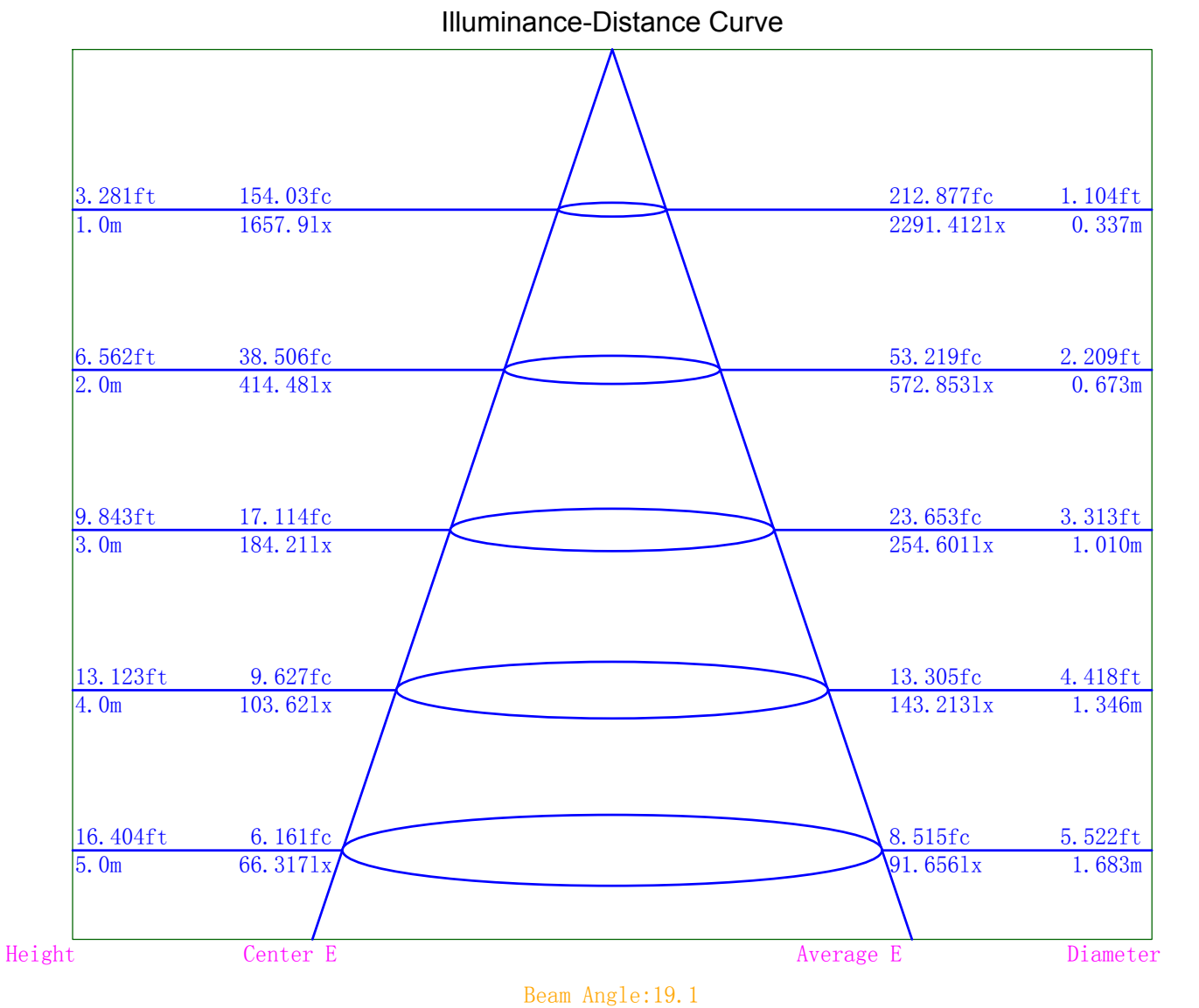
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1709.22lx,2.0deg
Plane Maximum Lighting Intensity and @Angle:1712.345cd,0deg

Illuminance-Distance Diagram

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:DL43-05-XX-02 4000K RA90 15D | 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:2020/06/23 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |

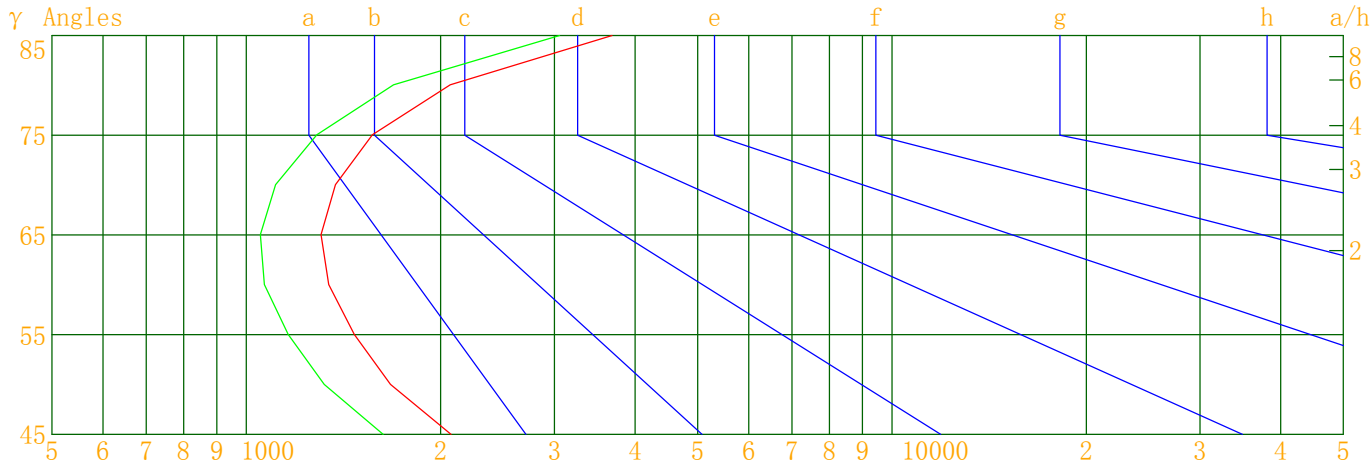
Glare Grade Table

| 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 | 2075 | 1672 | 1470 | 1342 | 1305 | 1374 | 1568 | 2069 | 3685 |
| C90 | 1629 | 1321 | 1161 | 1066 | 1052 | 1110 | 1286 | 1691 | 3057 |

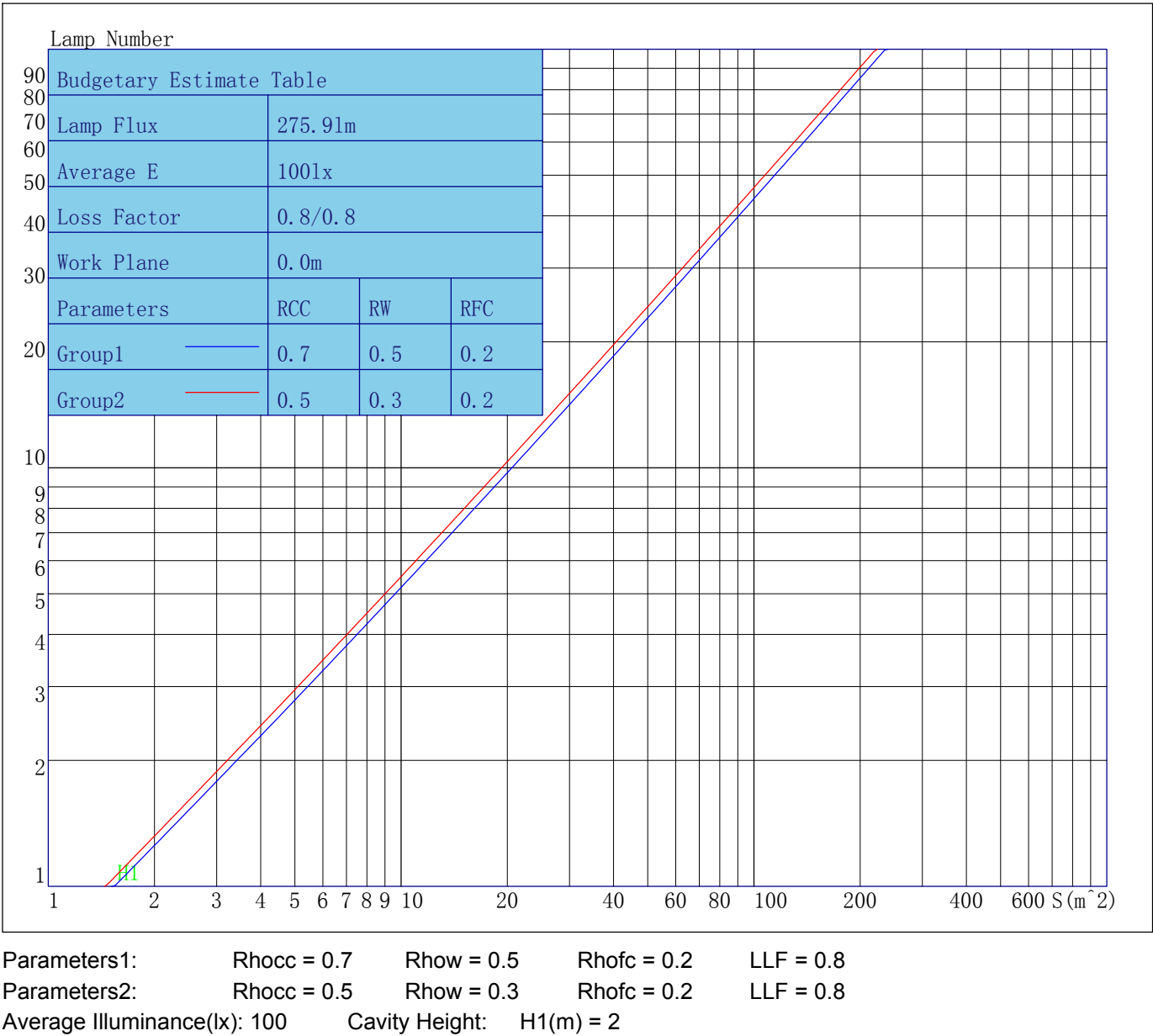
Luminance Limiting Curve



Luminous Size: Length(m)=0.050 Width(m)=0.050 Height(m)=0.072 Area(m^2)=0.006100
Luminous Type: Without Luminous Side
Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting Co., Ltd | Test Machine:GON-2000 | Test Date: 2020/06/23 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name: DL43-05-XX-02 4000K RA90 15D | 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: 2020/06/23 |

| 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 98 | 98 | 98 | 96 |
| 1 | 113 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 104 | 102 | 101 | 100 | 98 | 97 | 96 | 95 | 94 | 92 |
| 2 | 109 | 105 | 102 | 99 | 107 | 103 | 100 | 98 | 100 | 97 | 95 | 96 | 94 | 93 | 93 | 91 | 90 | 88 |
| 3 | 106 | 101 | 97 | 94 | 103 | 99 | 95 | 93 | 96 | 93 | 91 | 93 | 91 | 89 | 90 | 89 | 87 | 85 |
| 4 | 102 | 96 | 92 | 89 | 100 | 95 | 91 | 88 | 93 | 89 | 87 | 90 | 88 | 86 | 88 | 86 | 84 | 83 |
| 5 | 99 | 93 | 89 | 85 | 97 | 92 | 88 | 85 | 90 | 86 | 84 | 88 | 85 | 83 | 86 | 84 | 82 | 80 |
| 6 | 96 | 90 | 85 | 82 | 95 | 89 | 85 | 82 | 87 | 84 | 81 | 86 | 83 | 80 | 84 | 81 | 79 | 78 |
| 7 | 94 | 87 | 83 | 80 | 92 | 86 | 82 | 79 | 85 | 81 | 79 | 83 | 80 | 78 | 82 | 79 | 77 | 76 |
| 8 | 91 | 85 | 80 | 77 | 90 | 84 | 80 | 77 | 83 | 79 | 77 | 81 | 78 | 76 | 80 | 78 | 76 | 75 |
| 9 | 89 | 82 | 78 | 75 | 88 | 82 | 78 | 75 | 81 | 77 | 75 | 80 | 77 | 74 | 79 | 76 | 74 | 73 |
| 10 | 87 | 80 | 76 | 74 | 86 | 80 | 76 | 73 | 79 | 75 | 73 | 78 | 75 | 73 | 77 | 74 | 72 | 71 |

Unified Glare Rating Table

| | | |
|--|-----------------------|-----------------------------|
| Lum. Name:DL43-05-XX-02 4000K RA90 15D | 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:2020/06/23 |

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 | 7.4 | 8.4 | 7.8 | 8.8 | 9.2 | 6.1 | 7.1 | 6.5 | 7.5 | 7.9 |
| | 8.6 | 9.5 | 9.0 | 9.9 | 10.3 | 7.3 | 8.2 | 7.7 | 8.6 | 9.0 |
| | 9.3 | 10.2 | 9.8 | 10.6 | 11.1 | 8.1 | 8.9 | 8.5 | 9.3 | 9.8 |
| | 10.3 | 11.1 | 10.8 | 11.6 | 12.0 | 9.0 | 9.8 | 9.5 | 10.3 | 10.7 |
| | 10.9 | 11.7 | 11.4 | 12.1 | 12.6 | 9.6 | 10.4 | 10.1 | 10.8 | 11.3 |
| | 11.7 | 12.4 | 12.2 | 12.8 | 13.4 | 10.4 | 11.1 | 10.9 | 11.5 | 12.1 |
| X=4H Y=2H | 7.7 | 8.5 | 8.2 | 9.0 | 9.4 | 6.5 | 7.3 | 7.0 | 7.8 | 8.2 |
| | 9.2 | 9.9 | 9.7 | 10.4 | 10.9 | 8.0 | 8.7 | 8.5 | 9.2 | 9.7 |
| | 10.2 | 10.8 | 10.7 | 11.3 | 11.9 | 9.0 | 9.6 | 9.5 | 10.1 | 10.7 |
| | 11.4 | 12.0 | 12.0 | 12.5 | 13.1 | 10.2 | 10.8 | 10.7 | 11.3 | 11.8 |
| | 12.1 | 12.7 | 12.7 | 13.2 | 13.8 | 10.9 | 11.4 | 11.5 | 12.0 | 12.5 |
| | 13.0 | 13.5 | 13.6 | 14.1 | 14.6 | 11.8 | 12.3 | 12.4 | 12.8 | 13.4 |
| X=8H Y=4H | 10.6 | 11.1 | 11.1 | 11.6 | 12.2 | 9.4 | 10.0 | 10.0 | 10.5 | 11.0 |
| | 12.1 | 12.5 | 12.6 | 13.1 | 13.7 | 10.9 | 11.4 | 11.5 | 11.9 | 12.6 |
| | 13.0 | 13.4 | 13.6 | 14.0 | 14.6 | 11.9 | 12.2 | 12.4 | 12.8 | 13.4 |
| | 14.2 | 14.5 | 14.7 | 15.1 | 15.7 | 13.0 | 13.3 | 13.6 | 13.9 | 14.6 |
| X=12H Y=4H | 10.6 | 11.1 | 11.2 | 11.7 | 12.2 | 9.5 | 10.0 | 10.1 | 10.6 | 11.1 |
| | 12.3 | 12.6 | 12.9 | 13.2 | 13.8 | 11.2 | 11.5 | 11.7 | 12.1 | 12.7 |
| | 13.3 | 13.7 | 13.9 | 14.2 | 14.9 | 12.2 | 12.5 | 12.8 | 13.1 | 13.8 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.0/-0.0 | | | | | 0.1/-0.1 | | | | |
| S=1.5H | 0.1/-0.1 | | | | | 0.1/-0.2 | | | | |
| S=2.0H | 0.1/-0.1 | | | | | 0.1/-0.1 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 4.2 | | | | | 4.3 | | | | |

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

IES Indoor Report

Photometric Filename:DL43-05-XX-02 4000K RA90 15D.IES

Candela Tabulation

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|---------|---------|---------|---------|
| γ 0.0 | 1657.93 | 1657.93 | 1657.93 | 1657.93 |
| γ 1.0 | 1696.48 | 1699.32 | 1589.73 | 1651.31 |
| γ 2.0 | 1712.34 | 1691.27 | 1530.66 | 1618.71 |
| γ 3.0 | 1681.87 | 1649.61 | 1462.05 | 1560.07 |
| γ 4.0 | 1626.45 | 1583.35 | 1363.58 | 1468.71 |
| γ 5.0 | 1569.04 | 1519.79 | 1238.13 | 1353.20 |
| γ 6.0 | 1516.60 | 1456.72 | 1096.67 | 1216.80 |
| γ 7.0 | 1447.32 | 1383.57 | 952.31 | 1069.84 |
| γ 8.0 | 1347.96 | 1283.20 | 814.15 | 933.66 |
| γ 9.0 | 1217.58 | 1158.80 | 687.95 | 818.46 |
| γ 10.0 | 1070.15 | 1017.79 | 576.43 | 719.80 |
| γ 11.0 | 917.52 | 869.31 | 476.40 | 632.67 |
| γ 12.0 | 768.55 | 716.06 | 389.65 | 554.16 |
| γ 13.0 | 633.95 | 566.88 | 317.16 | 484.07 |
| γ 14.0 | 516.95 | 436.12 | 256.76 | 420.37 |
| γ 15.0 | 414.96 | 328.17 | 206.65 | 361.55 |
| γ 16.0 | 331.37 | 239.87 | 165.74 | 309.68 |
| γ 17.0 | 265.35 | 173.10 | 132.37 | 262.16 |
| γ 18.0 | 211.84 | 128.22 | 105.51 | 220.16 |
| γ 19.0 | 168.94 | 100.81 | 85.39 | 183.48 |
| γ 20.0 | 135.79 | 82.78 | 70.33 | 151.42 |
| γ 21.0 | 110.08 | 70.70 | 58.42 | 123.22 |
| γ 22.0 | 91.24 | 62.14 | 48.97 | 99.96 |
| γ 23.0 | 77.33 | 55.88 | 41.42 | 80.92 |
| γ 24.0 | 66.77 | 50.65 | 35.30 | 66.03 |
| γ 25.0 | 58.09 | 45.56 | 30.34 | 54.70 |
| γ 26.0 | 50.85 | 40.68 | 26.36 | 46.15 |
| γ 27.0 | 44.83 | 36.18 | 23.07 | 39.58 |
| γ 28.0 | 39.74 | 32.09 | 20.40 | 34.40 |
| γ 29.0 | 35.46 | 28.62 | 18.17 | 30.33 |
| γ 30.0 | 31.81 | 25.61 | 16.30 | 27.05 |
| γ 31.0 | 28.71 | 23.03 | 14.74 | 24.36 |
| γ 32.0 | 26.09 | 20.91 | 13.46 | 22.12 |
| γ 33.0 | 23.77 | 19.05 | 12.35 | 20.20 |
| γ 34.0 | 21.74 | 17.41 | 11.40 | 18.48 |
| γ 35.0 | 19.95 | 15.93 | 10.56 | 16.92 |
| γ 36.0 | 18.32 | 14.60 | 9.80 | 15.49 |
| γ 37.0 | 16.85 | 13.39 | 9.13 | 14.14 |
| γ 38.0 | 15.52 | 12.32 | 8.55 | 12.87 |
| γ 39.0 | 14.30 | 11.33 | 8.03 | 11.70 |
| γ 40.0 | 13.18 | 10.44 | 7.59 | 10.69 |
| γ 41.0 | 12.13 | 9.62 | 7.20 | 9.87 |
| γ 42.0 | 11.21 | 8.88 | 6.86 | 9.21 |
| γ 43.0 | 10.38 | 8.19 | 6.54 | 8.66 |
| γ 44.0 | 9.64 | 7.59 | 6.29 | 8.20 |
| γ 45.0 | 8.95 | 7.03 | 6.05 | 7.82 |
| γ 46.0 | 8.34 | 6.54 | 5.82 | 7.48 |

IES Indoor Report

Photometric Filename:DL43-05-XX-02 4000K RA90 15D.IES

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|--------|------|-------|--------|--------|
| γ 47.0 | 7.78 | 6.12 | 5.60 | 7.16 |
| γ 48.0 | 7.32 | 5.76 | 5.41 | 6.88 |
| γ 49.0 | 6.92 | 5.45 | 5.20 | 6.63 |
| γ 50.0 | 6.56 | 5.18 | 4.99 | 6.39 |
| γ 51.0 | 6.22 | 4.92 | 4.80 | 6.16 |
| γ 52.0 | 5.92 | 4.68 | 4.60 | 5.93 |
| γ 53.0 | 5.64 | 4.45 | 4.41 | 5.71 |
| γ 54.0 | 5.38 | 4.25 | 4.24 | 5.52 |
| γ 55.0 | 5.14 | 4.06 | 4.07 | 5.30 |
| γ 56.0 | 4.91 | 3.88 | 3.90 | 5.09 |
| γ 57.0 | 4.69 | 3.71 | 3.74 | 4.88 |
| γ 58.0 | 4.49 | 3.55 | 3.60 | 4.66 |
| γ 59.0 | 4.28 | 3.40 | 3.45 | 4.47 |
| γ 60.0 | 4.09 | 3.25 | 3.31 | 4.29 |
| γ 61.0 | 3.93 | 3.13 | 3.19 | 4.09 |
| γ 62.0 | 3.77 | 3.01 | 3.07 | 3.92 |
| γ 63.0 | 3.62 | 2.91 | 2.97 | 3.78 |
| γ 64.0 | 3.48 | 2.80 | 2.87 | 3.64 |
| γ 65.0 | 3.37 | 2.71 | 2.76 | 3.51 |
| γ 66.0 | 3.25 | 2.62 | 2.66 | 3.38 |
| γ 67.0 | 3.15 | 2.53 | 2.57 | 3.27 |
| γ 68.0 | 3.04 | 2.46 | 2.48 | 3.15 |
| γ 69.0 | 2.95 | 2.39 | 2.41 | 3.05 |
| γ 70.0 | 2.87 | 2.32 | 2.33 | 2.95 |
| γ 71.0 | 2.77 | 2.26 | 2.25 | 2.86 |
| γ 72.0 | 2.69 | 2.19 | 2.19 | 2.76 |
| γ 73.0 | 2.61 | 2.14 | 2.12 | 2.68 |
| γ 74.0 | 2.54 | 2.08 | 2.06 | 2.61 |
| γ 75.0 | 2.48 | 2.03 | 2.00 | 2.54 |
| γ 76.0 | 2.41 | 1.98 | 1.96 | 2.47 |
| γ 77.0 | 2.36 | 1.93 | 1.90 | 2.40 |
| γ 78.0 | 2.30 | 1.88 | 1.86 | 2.34 |
| γ 79.0 | 2.25 | 1.84 | 1.82 | 2.29 |
| γ 80.0 | 2.19 | 1.79 | 1.77 | 2.23 |
| γ 81.0 | 2.14 | 1.75 | 1.74 | 2.18 |
| γ 82.0 | 2.09 | 1.71 | 1.67 | 2.12 |
| γ 83.0 | 2.05 | 1.68 | 1.65 | 2.07 |
| γ 84.0 | 2.01 | 1.65 | 1.60 | 2.02 |
| γ 85.0 | 1.96 | 1.63 | 1.57 | 1.95 |
| γ 86.0 | 1.93 | 1.59 | 1.53 | 1.90 |
| γ 87.0 | 1.88 | 1.57 | 1.50 | 1.86 |
| γ 88.0 | 1.83 | 1.54 | 1.48 | 1.81 |
| γ 89.0 | 1.80 | 1.53 | 1.45 | 1.78 |
| γ 90.0 | 1.78 | 1.51 | 1.42 | 1.74 |
| γ 91.0 | 1.75 | 1.49 | 1.40 | 1.71 |
| γ 92.0 | 1.72 | 1.47 | 1.38 | 1.67 |
| γ 93.0 | 1.70 | 1.46 | 1.35 | 1.65 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 94.0 | 1.67 | 1.44 | 1.33 | 1.61 |
| γ 95.0 | 1.65 | 1.42 | 1.32 | 1.58 |
| γ 96.0 | 1.64 | 1.41 | 1.30 | 1.56 |
| γ 97.0 | 1.62 | 1.40 | 1.28 | 1.54 |
| γ 98.0 | 1.60 | 1.38 | 1.27 | 1.51 |
| γ 99.0 | 1.58 | 1.37 | 1.26 | 1.49 |
| γ 100.0 | 1.57 | 1.36 | 1.26 | 1.49 |
| γ 101.0 | 1.56 | 1.36 | 1.25 | 1.47 |
| γ 102.0 | 1.55 | 1.36 | 1.25 | 1.46 |
| γ 103.0 | 1.54 | 1.35 | 1.24 | 1.45 |
| γ 104.0 | 1.52 | 1.34 | 1.24 | 1.43 |
| γ 105.0 | 1.50 | 1.33 | 1.24 | 1.43 |
| γ 106.0 | 1.50 | 1.32 | 1.23 | 1.41 |
| γ 107.0 | 1.49 | 1.32 | 1.23 | 1.40 |
| γ 108.0 | 1.48 | 1.31 | 1.24 | 1.41 |
| γ 109.0 | 1.47 | 1.30 | 1.24 | 1.41 |
| γ 110.0 | 1.45 | 1.29 | 1.25 | 1.40 |
| γ 111.0 | 1.44 | 1.29 | 1.25 | 1.39 |
| γ 112.0 | 1.42 | 1.28 | 1.24 | 1.39 |
| γ 113.0 | 1.41 | 1.28 | 1.25 | 1.38 |
| γ 114.0 | 1.39 | 1.27 | 1.25 | 1.38 |
| γ 115.0 | 1.39 | 1.25 | 1.25 | 1.38 |
| γ 116.0 | 1.36 | 1.25 | 1.25 | 1.38 |
| γ 117.0 | 1.35 | 1.24 | 1.26 | 1.38 |
| γ 118.0 | 1.34 | 1.23 | 1.27 | 1.38 |
| γ 119.0 | 1.33 | 1.21 | 1.27 | 1.38 |
| γ 120.0 | 1.32 | 1.21 | 1.28 | 1.38 |
| γ 121.0 | 1.30 | 1.21 | 1.29 | 1.38 |
| γ 122.0 | 1.29 | 1.19 | 1.30 | 1.39 |
| γ 123.0 | 1.28 | 1.19 | 1.30 | 1.39 |
| γ 124.0 | 1.27 | 1.20 | 1.32 | 1.39 |
| γ 125.0 | 1.28 | 1.21 | 1.34 | 1.39 |
| γ 126.0 | 1.28 | 1.22 | 1.34 | 1.41 |
| γ 127.0 | 1.28 | 1.23 | 1.36 | 1.43 |
| γ 128.0 | 1.29 | 1.25 | 1.40 | 1.44 |
| γ 129.0 | 1.29 | 1.27 | 1.42 | 1.46 |
| γ 130.0 | 1.32 | 1.30 | 1.46 | 1.49 |
| γ 131.0 | 1.33 | 1.33 | 1.50 | 1.52 |
| γ 132.0 | 1.36 | 1.37 | 1.55 | 1.57 |
| γ 133.0 | 1.39 | 1.42 | 1.60 | 1.62 |
| γ 134.0 | 1.43 | 1.46 | 1.66 | 1.67 |
| γ 135.0 | 1.46 | 1.51 | 1.73 | 1.74 |
| γ 136.0 | 1.50 | 1.57 | 1.80 | 1.80 |
| γ 137.0 | 1.56 | 1.63 | 1.87 | 1.87 |
| γ 138.0 | 1.62 | 1.70 | 1.95 | 1.95 |
| γ 139.0 | 1.68 | 1.76 | 2.03 | 2.01 |
| γ 140.0 | 1.73 | 1.83 | 2.11 | 2.10 |

Candela Tabulation - (Cont.)

| V/H | C0.0 | C90.0 | C180.0 | C270.0 |
|---------|------|-------|--------|--------|
| γ 141.0 | 1.80 | 1.90 | 2.18 | 2.17 |
| γ 142.0 | 1.87 | 1.98 | 2.27 | 2.25 |
| γ 143.0 | 1.95 | 2.04 | 2.34 | 2.32 |
| γ 144.0 | 2.03 | 2.13 | 2.40 | 2.39 |
| γ 145.0 | 2.10 | 2.20 | 2.48 | 2.46 |
| γ 146.0 | 2.18 | 2.28 | 2.55 | 2.52 |
| γ 147.0 | 2.25 | 2.35 | 2.61 | 2.58 |
| γ 148.0 | 2.32 | 2.42 | 2.65 | 2.64 |
| γ 149.0 | 2.39 | 2.49 | 2.71 | 2.69 |
| γ 150.0 | 2.45 | 2.55 | 2.75 | 2.73 |
| γ 151.0 | 2.52 | 2.61 | 2.80 | 2.77 |
| γ 152.0 | 2.57 | 2.66 | 2.83 | 2.81 |
| γ 153.0 | 2.63 | 2.70 | 2.87 | 2.84 |
| γ 154.0 | 2.67 | 2.75 | 2.89 | 2.87 |
| γ 155.0 | 2.72 | 2.77 | 2.91 | 2.90 |
| γ 156.0 | 2.76 | 2.82 | 2.93 | 2.92 |
| γ 157.0 | 2.79 | 2.83 | 2.94 | 2.94 |
| γ 158.0 | 2.82 | 2.84 | 2.95 | 2.96 |
| γ 159.0 | 2.85 | 2.86 | 2.97 | 2.97 |
| γ 160.0 | 2.87 | 2.87 | 2.98 | 2.98 |
| γ 161.0 | 2.87 | 2.88 | 2.98 | 2.98 |
| γ 162.0 | 2.89 | 2.89 | 2.97 | 3.00 |
| γ 163.0 | 2.90 | 2.89 | 2.98 | 2.99 |
| γ 164.0 | 2.90 | 2.88 | 2.97 | 2.99 |
| γ 165.0 | 2.92 | 2.89 | 2.97 | 2.99 |
| γ 166.0 | 2.93 | 2.89 | 2.96 | 2.99 |
| γ 167.0 | 2.92 | 2.88 | 2.95 | 2.98 |
| γ 168.0 | 2.92 | 2.89 | 2.92 | 2.96 |
| γ 169.0 | 2.92 | 2.88 | 2.90 | 2.94 |
| γ 170.0 | 2.90 | 2.88 | 2.88 | 2.91 |
| γ 171.0 | 2.89 | 2.88 | 2.84 | 2.90 |
| γ 172.0 | 2.88 | 2.86 | 2.82 | 2.86 |
| γ 173.0 | 2.85 | 2.86 | 2.79 | 2.83 |
| γ 174.0 | 2.84 | 2.85 | 2.79 | 2.82 |
| γ 175.0 | 2.82 | 2.83 | 2.77 | 2.81 |
| γ 176.0 | 2.81 | 2.83 | 2.77 | 2.80 |
| γ 177.0 | 2.79 | 2.82 | 2.78 | 2.82 |
| γ 178.0 | 2.78 | 2.81 | 2.78 | 2.83 |
| γ 179.0 | 2.78 | 2.81 | 2.78 | 2.83 |
| γ 180.0 | 2.80 | 2.80 | 2.80 | 2.80 |