

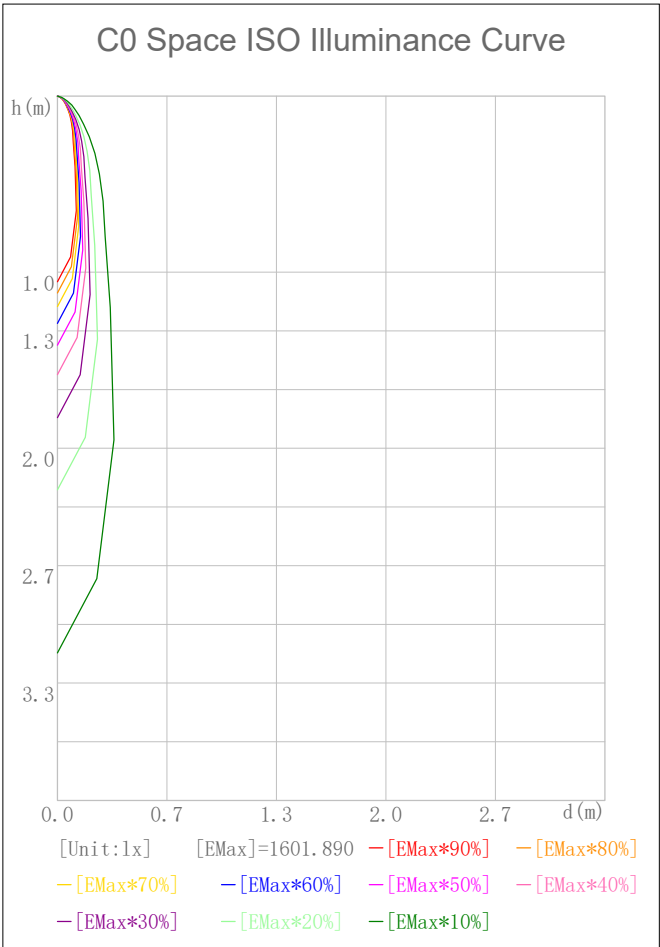
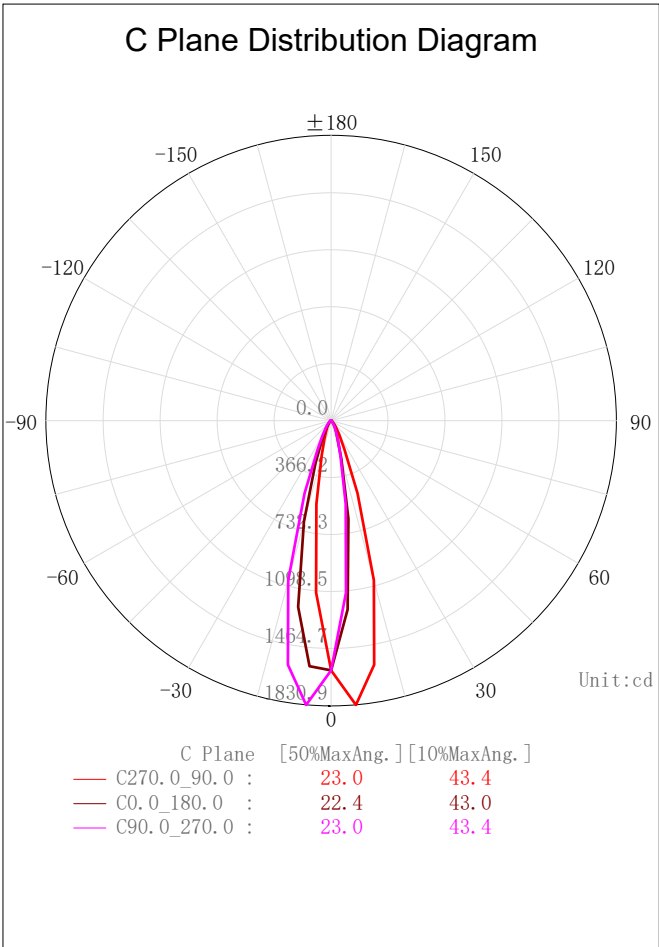
Indoor Luminaire Photometric Data

Description Information

| | | | |
|--|-------------------------|----------------------|-----------------------|
| Luminary Name: TR08-06-DW-02 1800-3000K RA90 15D | | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | | Lamp Catalog: LED | Test Date: 2022/08/18 |
| Manufacture: Shenzhen Norming Lighting | | Shld. Ang(°): | Test Machine:GON-2000 |
| Test Lab: Quality Department | | Frequency (Hz): | Lamp CCT (K): Ra: |
| Lum. Size (W*L*H):0.039m*0.039m*0.000m | | Lum. Area (m2):0.001 | Lum. W (kg): 0.000 |
| Test System: C, γ | Test Step: C=90.0 γ=5.0 | Temp. (°C): 25 | Humidity(%): |

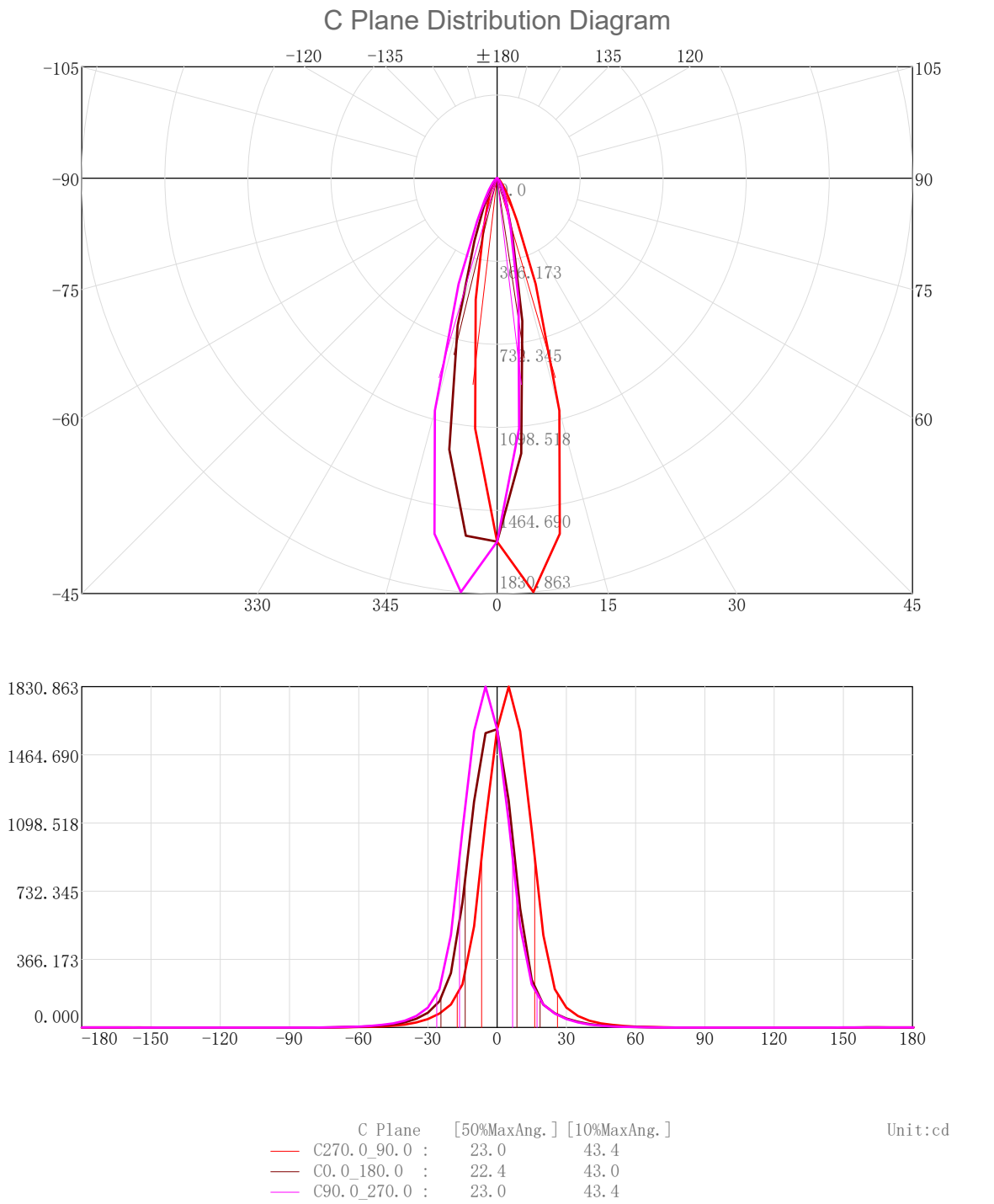
Character Parameter

| Lamp Speciality Parameter | | Luminaire Speciality Parameter | |
|---|----------------------------------|---------------------------------------|--|
| Rated Flux(lm): 397.020 | Luminary Flux(lm): 397.024 | Field Angle(10%Imax): 43.4(°) | |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 396.322lm 99.82% | |
| Rated Voltage(V): | Luminary EER(lm/W): 68.464 | Up Lumens&Percent: 0.702lm 0.18% | |
| Tested Power(W): 5.799 | Max. Candela(cd): 1830.863 | S/MH: C0_a180=0.383 C90_270=0.427 | |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=270.0 γ=5.0 | CIE Type: Semi-Direct | |
| Tested Electrics (V, A, pf):239.8, 0.029, 0.891 | Beam Angle(50%Imax): 23.0(°) | ErP Φ use(90°): 366.415lm | |
| Lamp Size (W*L*H):0.039m*0.039m*0.000m | Left=-6.7°, Right=16.3° | IRF(%): 1112.621 | |



2D Plane Light Intensity Distribution Curve

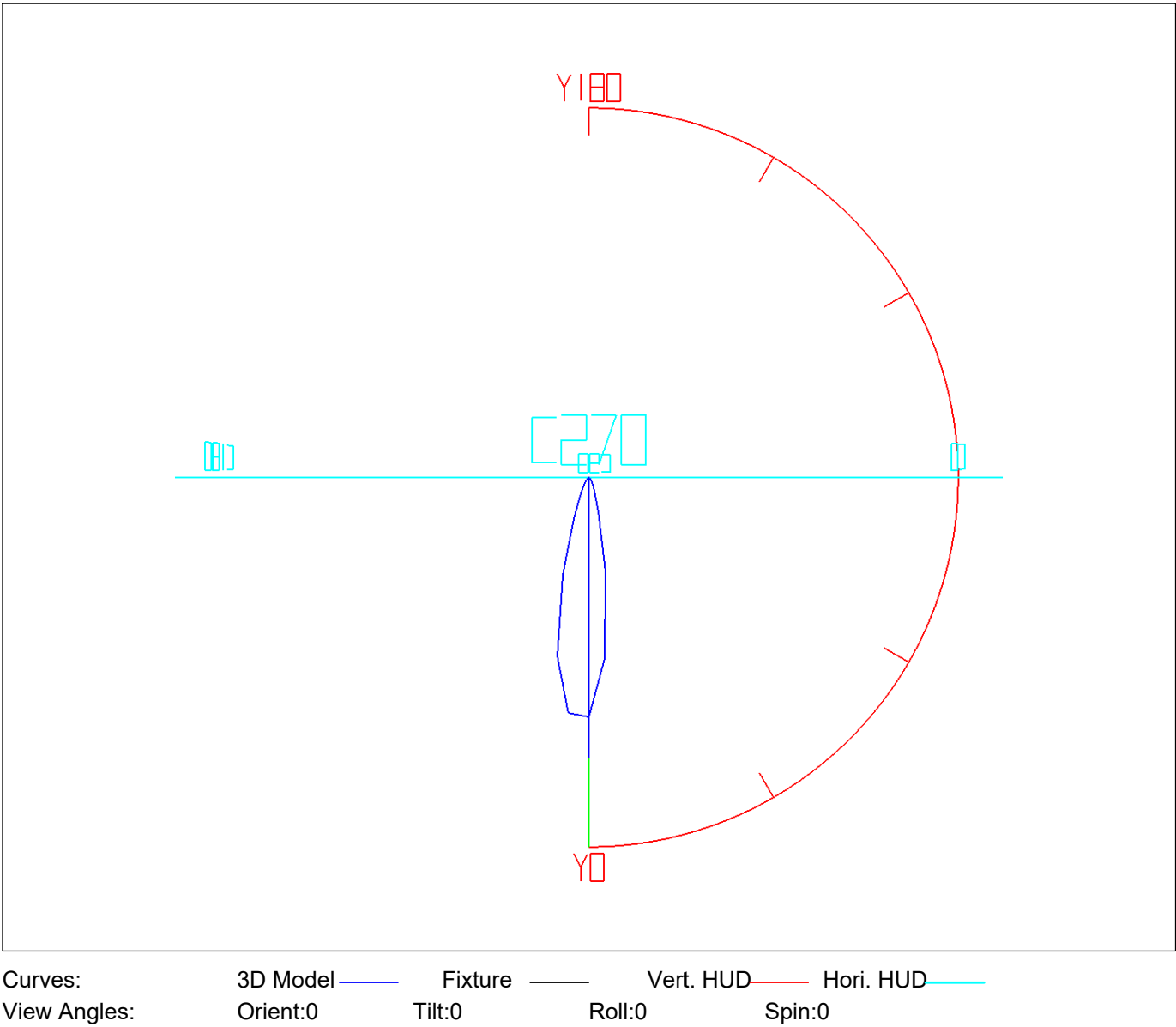
| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

3D Light Intensity Distribution Modal

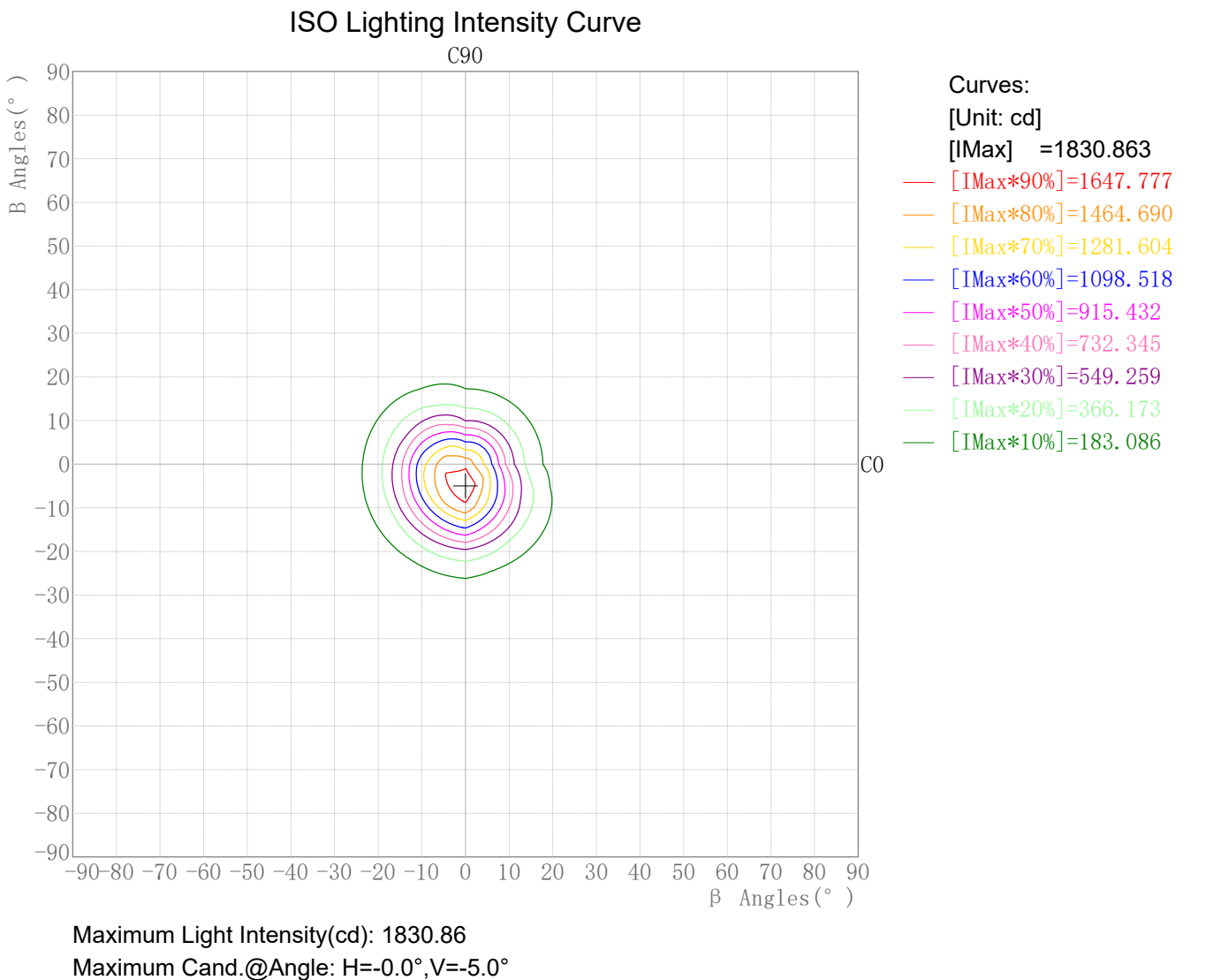


Zonal Flux Tabulation

| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|---------------|-------------------|-------------------|-----------|-----------|
| 0. 0-5. 0 | 36. 29 | 36. 29 | 9. 14 | 9. 14 |
| 5. 0-10. 0 | 86. 96 | 123. 26 | 21. 90 | 31. 05 |
| 10. 0-15. 0 | 92. 07 | 215. 33 | 23. 19 | 54. 24 |
| 15. 0-20. 0 | 67. 10 | 282. 42 | 16. 90 | 71. 14 |
| 20. 0-25. 0 | 40. 23 | 322. 66 | 10. 13 | 81. 27 |
| 25. 0-30. 0 | 24. 65 | 347. 31 | 6. 21 | 87. 48 |
| 30. 0-35. 0 | 16. 49 | 363. 81 | 4. 15 | 91. 63 |
| 35. 0-40. 0 | 11. 19 | 375. 00 | 2. 82 | 94. 45 |
| 40. 0-45. 0 | 7. 50 | 382. 50 | 1. 89 | 96. 34 |
| 45. 0-50. 0 | 5. 02 | 387. 52 | 1. 26 | 97. 61 |
| 50. 0-55. 0 | 3. 36 | 390. 89 | 0. 85 | 98. 45 |
| 55. 0-60. 0 | 2. 29 | 393. 18 | 0. 58 | 99. 03 |
| 60. 0-65. 0 | 1. 54 | 394. 71 | 0. 39 | 99. 42 |
| 65. 0-70. 0 | 0. 95 | 395. 66 | 0. 24 | 99. 66 |
| 70. 0-75. 0 | 0. 49 | 396. 15 | 0. 12 | 99. 78 |
| 75. 0-80. 0 | 0. 15 | 396. 30 | 0. 04 | 99. 82 |
| 80. 0-85. 0 | 0. 02 | 396. 32 | 0. 00 | 99. 82 |
| 85. 0-90. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 90. 0-95. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 95. 0-100. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 100. 0-105. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 105. 0-110. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 110. 0-115. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 115. 0-120. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 120. 0-125. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 125. 0-130. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 130. 0-135. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 135. 0-140. 0 | 0. 00 | 396. 32 | 0. 00 | 99. 82 |
| 140. 0-145. 0 | 0. 03 | 396. 35 | 0. 01 | 99. 83 |
| 145. 0-150. 0 | 0. 09 | 396. 44 | 0. 02 | 99. 85 |
| 150. 0-155. 0 | 0. 14 | 396. 58 | 0. 04 | 99. 89 |
| 155. 0-160. 0 | 0. 15 | 396. 73 | 0. 04 | 99. 93 |
| 160. 0-165. 0 | 0. 13 | 396. 86 | 0. 03 | 99. 96 |
| 165. 0-170. 0 | 0. 10 | 396. 96 | 0. 02 | 99. 98 |
| 170. 0-175. 0 | 0. 05 | 397. 01 | 0. 01 | 100. 00 |
| 175. 0-180. 0 | 0. 01 | 397. 02 | 0. 00 | 100. 00 |

Rectangle ISO Lighting Intensity Diagram

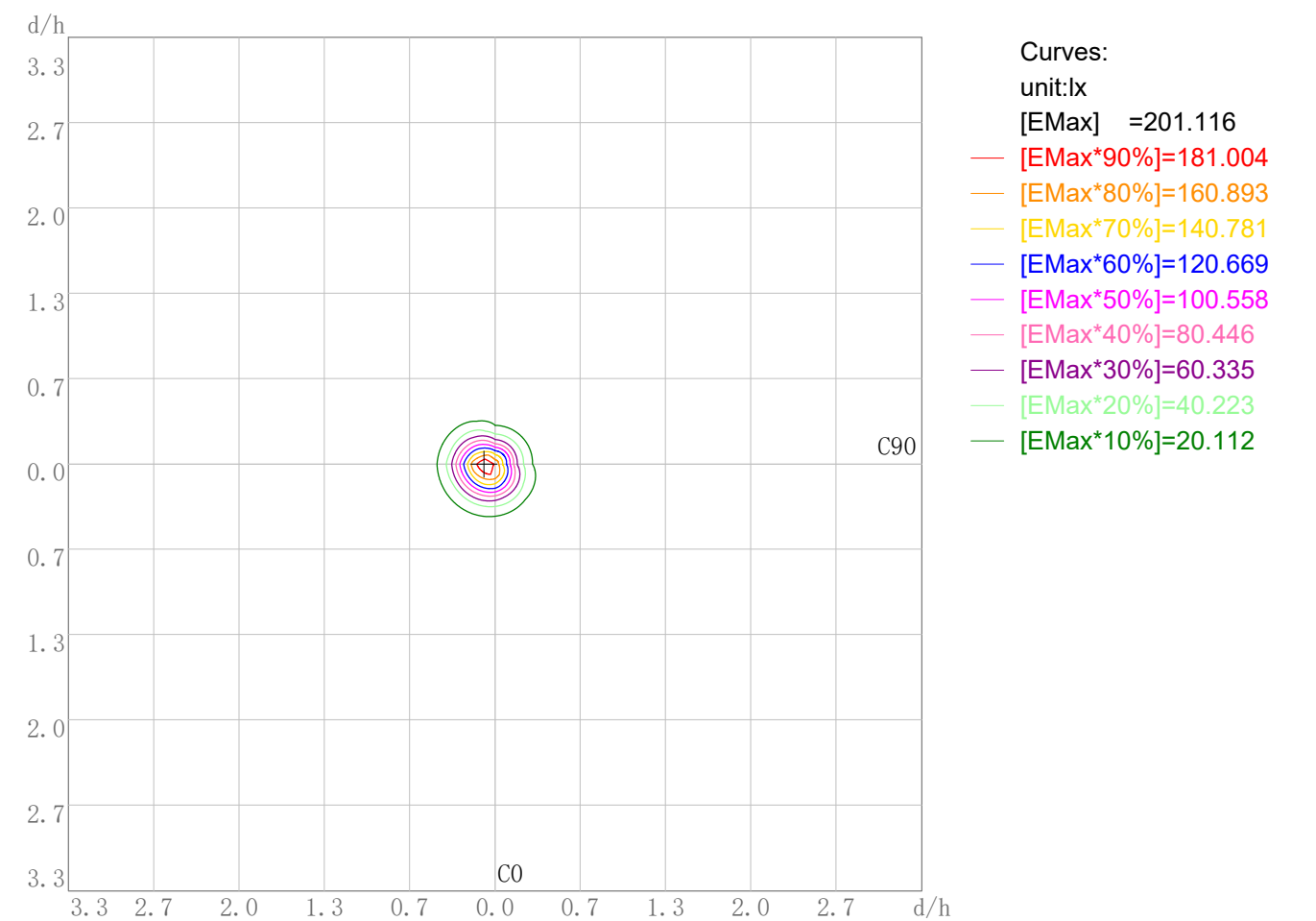
| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

Plane ISO-Illuminance Curve

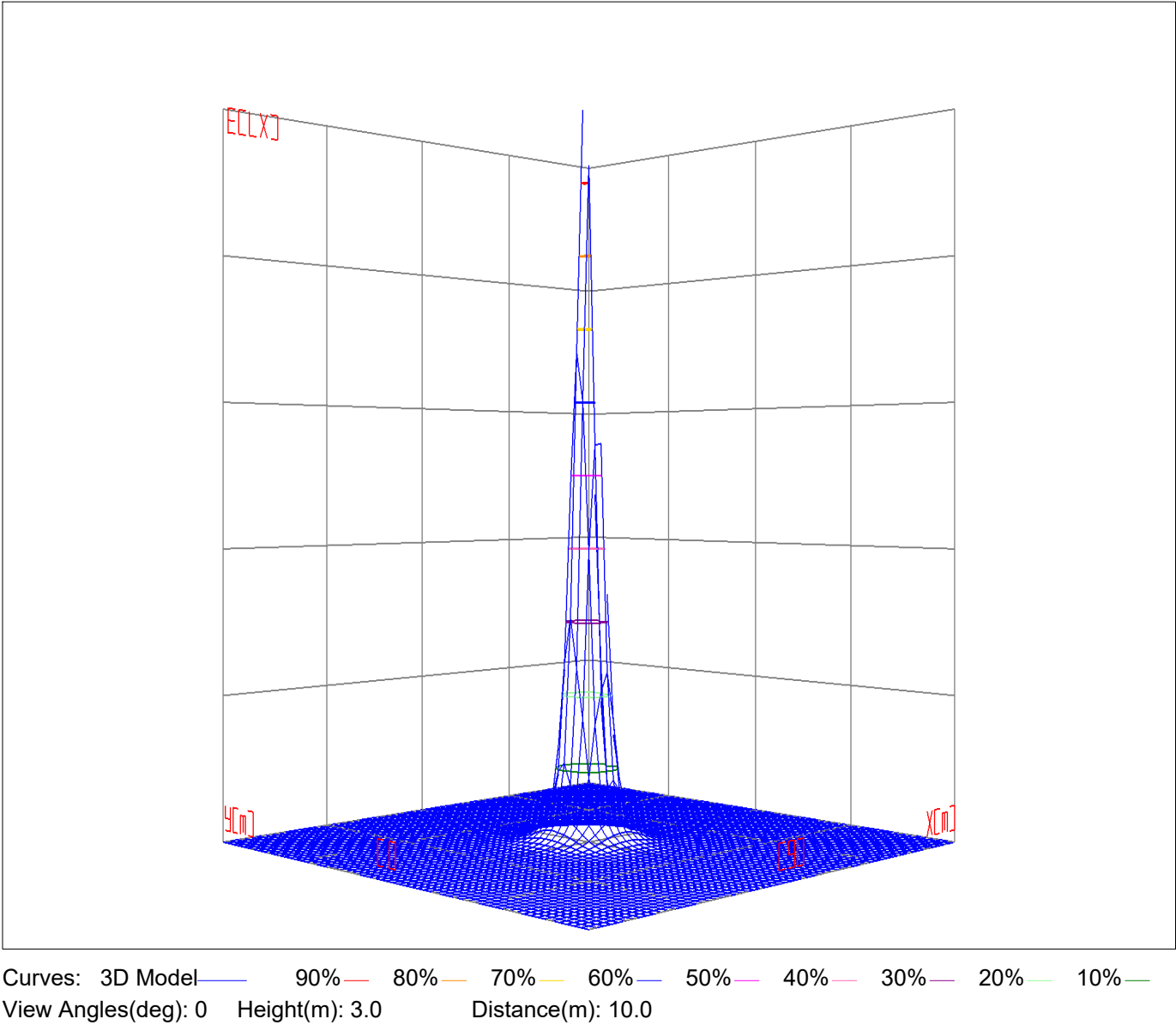


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 201.12
Working Plane Maximum Illuminance Position(d/h):H-0.1 V-0.0

3D Plane ISO Illuminance Diagram

| | | |
|--|-----------------------|------------------------------|
| Lum. Name: TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date: 2022/08/18 |

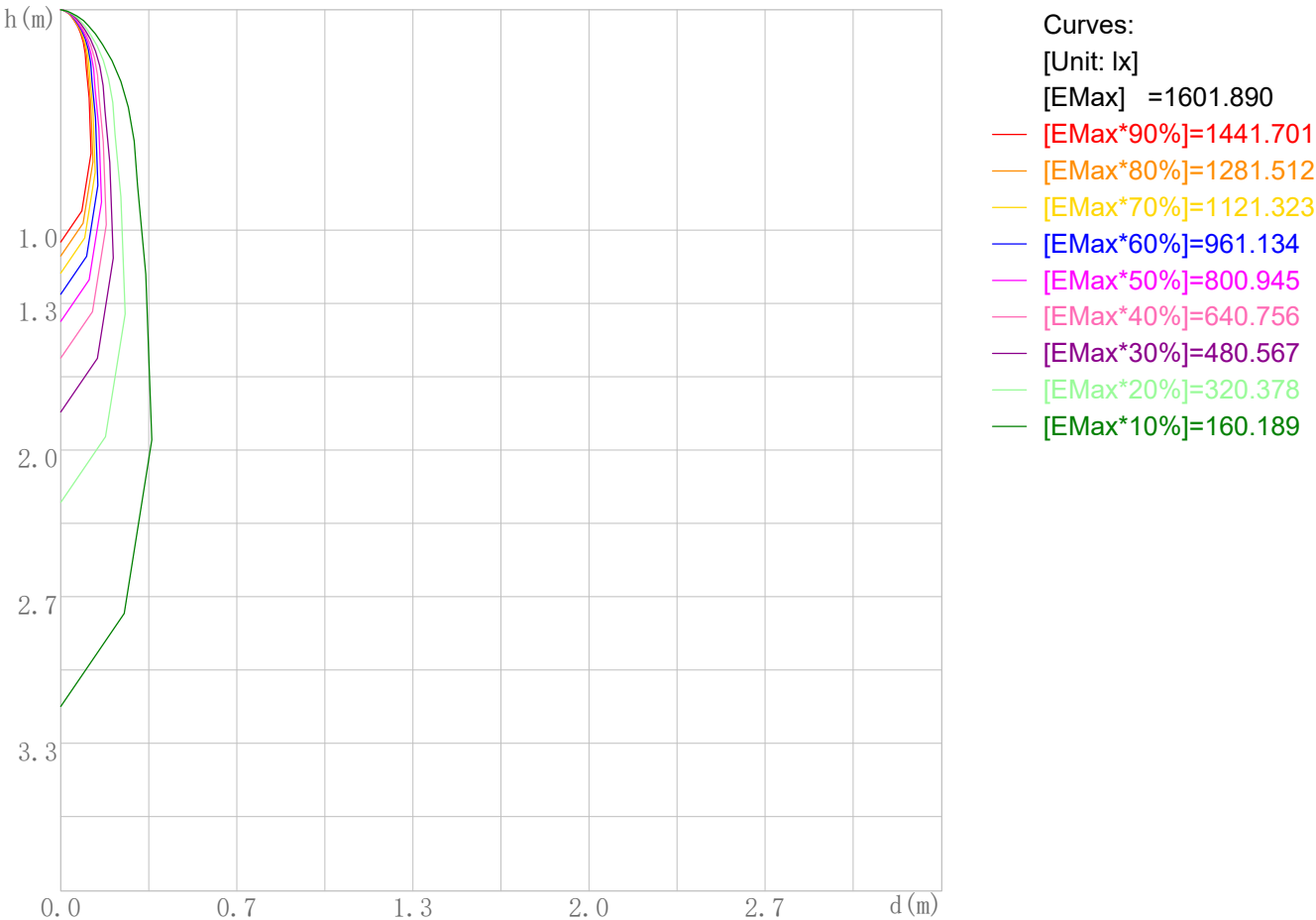
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

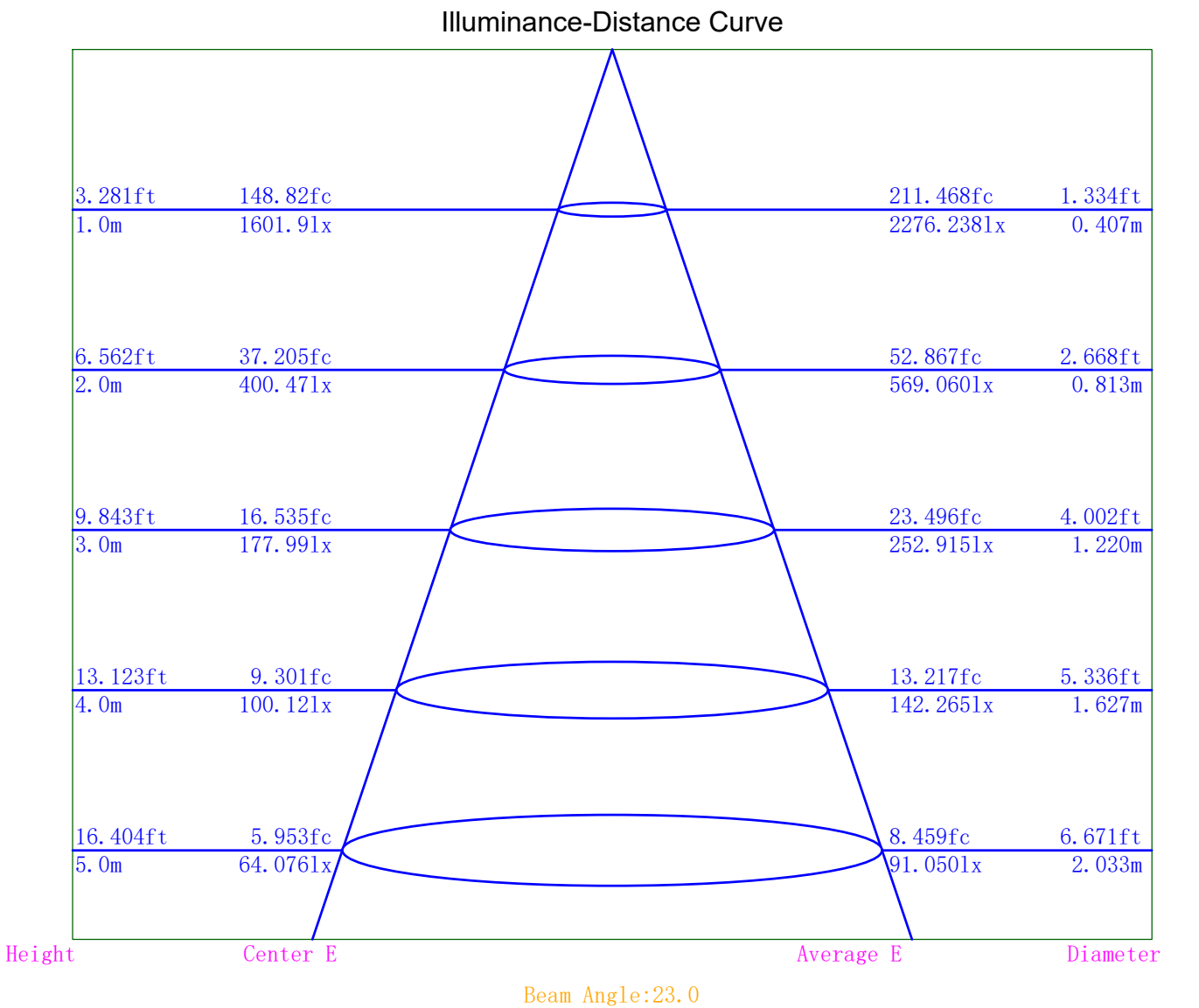
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1601.89lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:1601.890cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

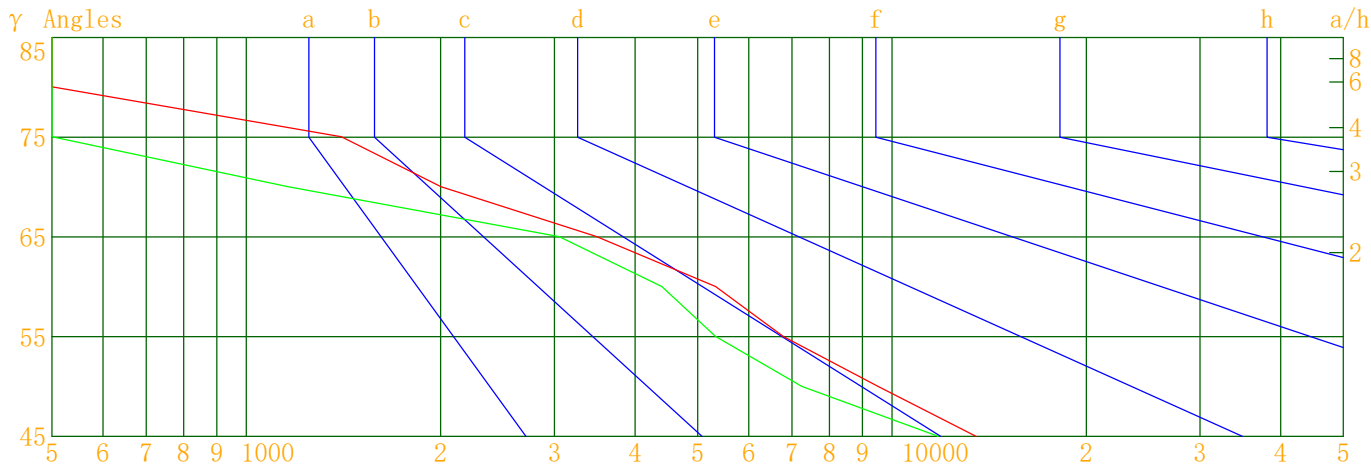
Glare Grade Table

| 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 | 13499 | 9515 | 6786 | 5331 | 3488 | 2002 | 1404 | 0 | 0 |
| C90 | 11798 | 7251 | 5333 | 4400 | 3050 | 1160 | 0 | 0 | 0 |

Luminance Limiting Curve



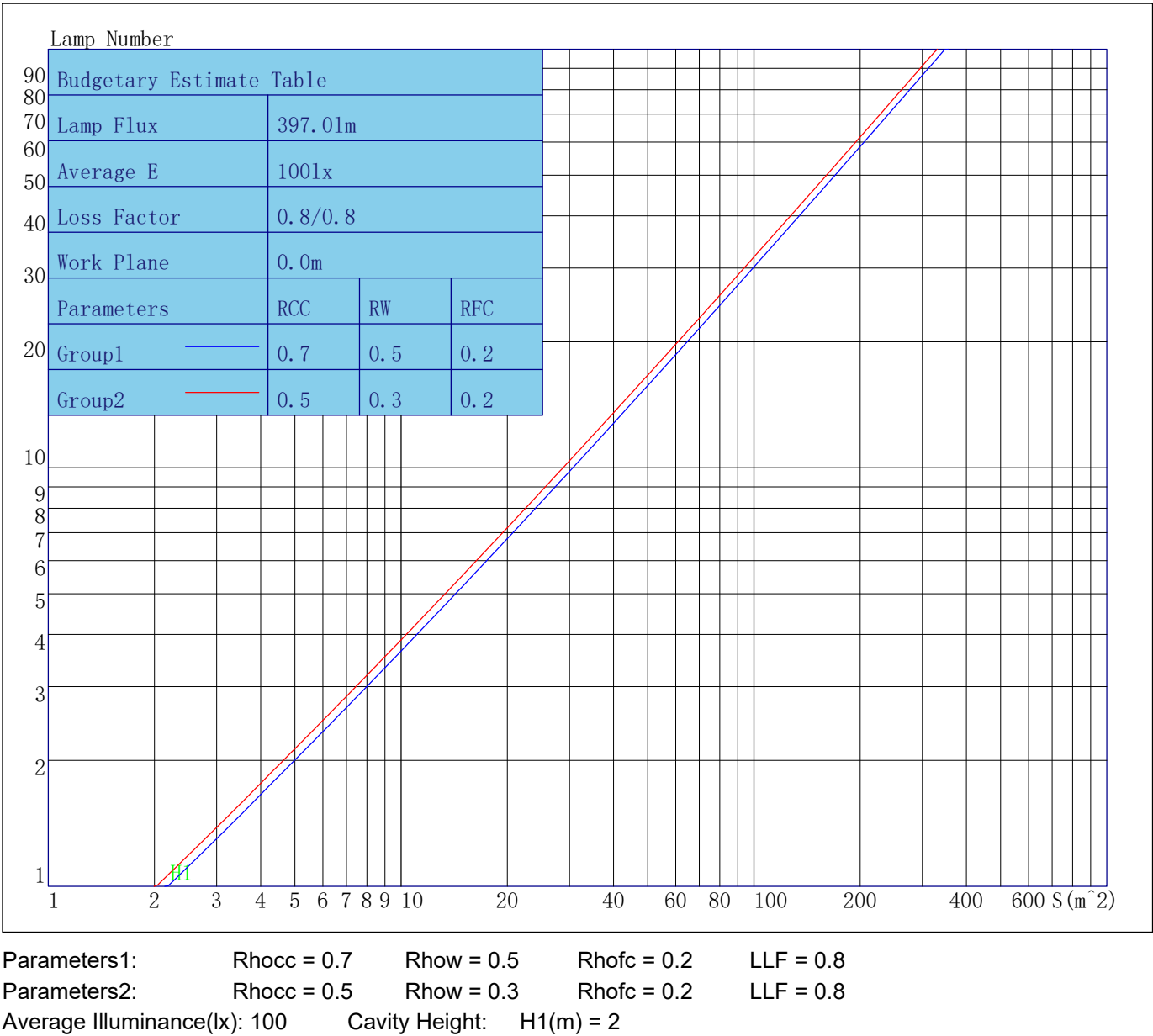
Luminous Size:Length(m)=-0.039Width(m)=-0.039Height(m)=0.000Area(m^2)=0.001195

Luminous Type:Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

| 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 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 99 | 97 | 98 | 97 | 95 | 96 | 94 | 93 | 91 |
| 3 | 106 | 101 | 97 | 94 | 104 | 100 | 96 | 93 | 97 | 94 | 92 | 95 | 92 | 90 | 93 | 91 | 89 | 87 |
| 4 | 102 | 96 | 92 | 89 | 101 | 95 | 91 | 88 | 93 | 90 | 87 | 91 | 88 | 86 | 90 | 87 | 85 | 84 |
| 5 | 99 | 92 | 88 | 84 | 97 | 91 | 87 | 84 | 90 | 86 | 83 | 88 | 85 | 83 | 87 | 84 | 82 | 81 |
| 6 | 96 | 89 | 84 | 81 | 94 | 88 | 84 | 80 | 86 | 83 | 80 | 85 | 82 | 79 | 84 | 81 | 79 | 78 |
| 7 | 92 | 85 | 81 | 77 | 91 | 85 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 76 | 81 | 78 | 76 | 75 |
| 8 | 90 | 82 | 78 | 74 | 88 | 82 | 77 | 74 | 81 | 77 | 74 | 80 | 76 | 74 | 79 | 76 | 73 | 72 |
| 9 | 87 | 79 | 75 | 72 | 86 | 79 | 75 | 72 | 78 | 74 | 72 | 77 | 74 | 71 | 77 | 73 | 71 | 70 |
| 10 | 84 | 77 | 73 | 70 | 83 | 77 | 72 | 69 | 76 | 72 | 69 | 75 | 72 | 69 | 74 | 71 | 69 | 68 |

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:TR08-06-DW-02 1800-3000K RA90 15D | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/18 |

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 | 13.9 | 14.9 | 14.3 | 15.2 | 15.5 | 12.9 | 13.9 | 13.2 | 14.2 | 14.5 |
| | 13.8 | 14.8 | 14.2 | 15.1 | 15.5 | 12.8 | 13.7 | 13.2 | 14.1 | 14.4 |
| | 13.8 | 14.6 | 14.2 | 15.0 | 15.4 | 12.7 | 13.6 | 13.1 | 13.9 | 14.3 |
| | 13.7 | 14.5 | 14.1 | 14.8 | 15.2 | 12.6 | 13.4 | 13.0 | 13.8 | 14.2 |
| | 13.6 | 14.4 | 14.1 | 14.8 | 15.2 | 12.5 | 13.3 | 13.0 | 13.7 | 14.1 |
| | 13.6 | 14.3 | 14.0 | 14.7 | 15.1 | 12.5 | 13.2 | 12.9 | 13.6 | 14.0 |
| X=4H Y=2H | 13.8 | 14.7 | 14.2 | 15.0 | 15.4 | 12.8 | 13.7 | 13.2 | 14.0 | 14.4 |
| | 13.8 | 14.5 | 14.2 | 15.0 | 15.4 | 12.8 | 13.5 | 13.2 | 13.9 | 14.3 |
| | 13.8 | 14.4 | 14.2 | 14.8 | 15.3 | 12.6 | 13.3 | 13.1 | 13.7 | 14.2 |
| | 13.6 | 14.2 | 14.1 | 14.7 | 15.1 | 12.5 | 13.1 | 13.0 | 13.6 | 14.0 |
| | 13.6 | 14.1 | 14.1 | 14.6 | 15.0 | 12.5 | 13.0 | 12.9 | 13.4 | 13.9 |
| | 13.5 | 14.0 | 14.0 | 14.5 | 15.0 | 12.4 | 12.9 | 12.9 | 13.4 | 13.8 |
| X=8H Y=4H | 13.6 | 14.1 | 14.1 | 14.6 | 15.1 | 12.5 | 13.0 | 13.0 | 13.5 | 14.0 |
| | 13.5 | 13.9 | 14.0 | 14.4 | 15.0 | 12.4 | 12.8 | 12.9 | 13.3 | 13.8 |
| | 13.4 | 13.8 | 13.9 | 14.3 | 14.8 | 12.3 | 12.7 | 12.8 | 13.2 | 13.7 |
| | 13.4 | 13.7 | 13.9 | 14.2 | 14.8 | 12.2 | 12.6 | 12.8 | 13.1 | 13.7 |
| X=12H Y=4H | 13.5 | 14.0 | 14.0 | 14.5 | 15.0 | 12.4 | 12.9 | 12.9 | 13.4 | 13.9 |
| | 13.4 | 13.8 | 14.0 | 14.3 | 14.8 | 12.3 | 12.7 | 12.8 | 13.2 | 13.7 |
| | 13.4 | 13.7 | 13.9 | 14.2 | 14.8 | 12.2 | 12.6 | 12.8 | 13.1 | 13.7 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 2.1/-3.4 | | | | | 2.7/-5.7 | | | | |
| S=1.5H | 2.6/-4.3 | | | | | 4.5/-8.4 | | | | |
| S=2.0H | 3.6/-5.5 | | | | | 4.9/-13.1 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 0.3 | | | | | 0.2 | | | | |

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 | 1601.89 | 1601.89 | 1601.89 | 1601.89 |
| γ 5.0 | 1217.01 | 1107.33 | 1581.33 | 1830.86 |
| γ 10.0 | 639.26 | 543.12 | 1213.97 | 1591.07 |
| γ 15.0 | 256.15 | 232.02 | 672.46 | 1060.36 |
| γ 20.0 | 122.73 | 123.93 | 292.55 | 496.34 |
| γ 25.0 | 76.48 | 75.24 | 140.78 | 206.41 |
| γ 30.0 | 48.35 | 45.66 | 79.51 | 106.84 |
| γ 35.0 | 30.83 | 27.81 | 47.12 | 61.91 |
| γ 40.0 | 19.06 | 16.17 | 28.42 | 36.95 |
| γ 45.0 | 11.40 | 9.97 | 17.48 | 22.68 |
| γ 50.0 | 7.31 | 5.57 | 10.78 | 14.23 |
| γ 55.0 | 4.65 | 3.65 | 6.73 | 8.94 |
| γ 60.0 | 3.18 | 2.63 | 4.43 | 5.42 |
| γ 65.0 | 1.76 | 1.54 | 2.94 | 3.36 |
| γ 70.0 | 0.82 | 0.47 | 1.73 | 2.40 |
| γ 75.0 | 0.43 | 0.00 | 0.72 | 0.89 |
| γ 80.0 | 0.00 | 0.00 | 0.00 | 0.25 |
| γ 85.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 90.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 95.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 100.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 105.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 110.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 115.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 120.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 125.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 130.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 135.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| γ 140.0 | 0.06 | 0.00 | 0.00 | 0.00 |
| γ 145.0 | 0.19 | 0.35 | 0.00 | 0.00 |
| γ 150.0 | 0.83 | 0.67 | 0.31 | 0.11 |
| γ 155.0 | 0.86 | 0.94 | 0.56 | 0.14 |
| γ 160.0 | 1.10 | 0.74 | 0.74 | 0.47 |
| γ 165.0 | 1.09 | 0.87 | 0.65 | 0.79 |
| γ 170.0 | 0.91 | 0.50 | 0.88 | 0.90 |
| γ 175.0 | 0.62 | 0.67 | 0.88 | 0.51 |
| γ 180.0 | 0.56 | 0.56 | 0.56 | 0.56 |