

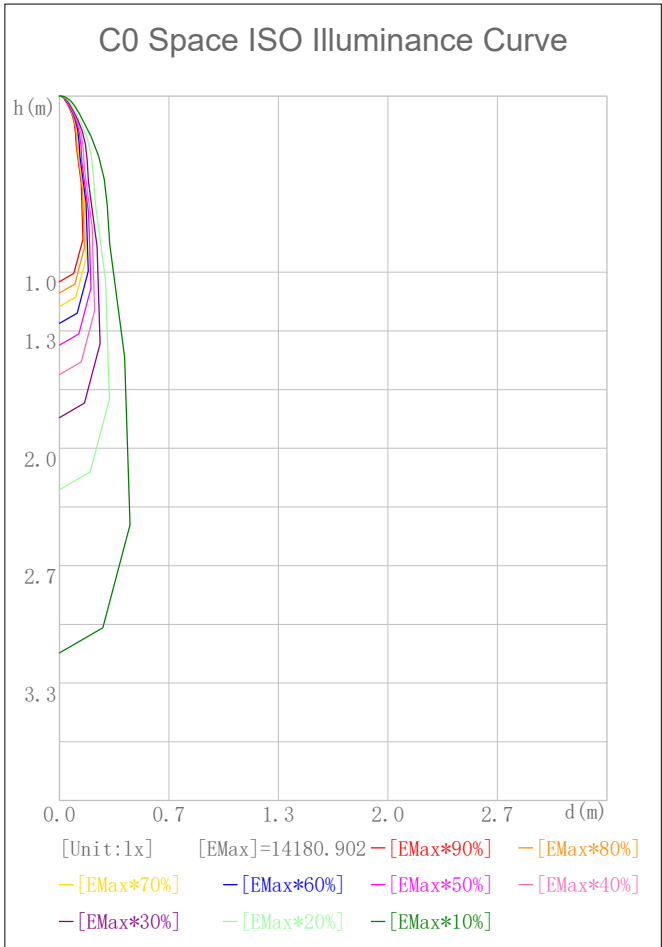
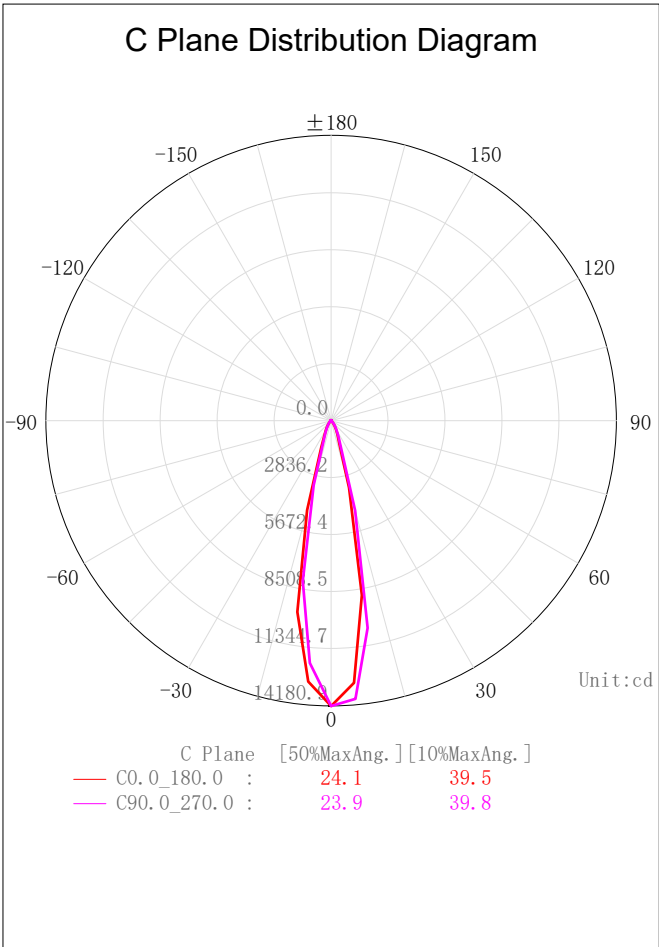
Indoor Luminaire Photometric Data

Description Information

| | | |
|--|-------------------------|-----------------------|
| Luminary Name: DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catalog: | Test ID: 01 |
| Lamp Name: | Lamp Catalog: LED | Test Date: 2022/08/11 |
| 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): 0.110m*0.110m*0.000m | Lum. Area (m2): 0.012 | Lum. W (kg): 0.000 |
| Test System: C, γ | Test Step: C=90.0 γ=5.0 | Temp. (°C): 25 |
| | | Humidity (%): 50.0 |

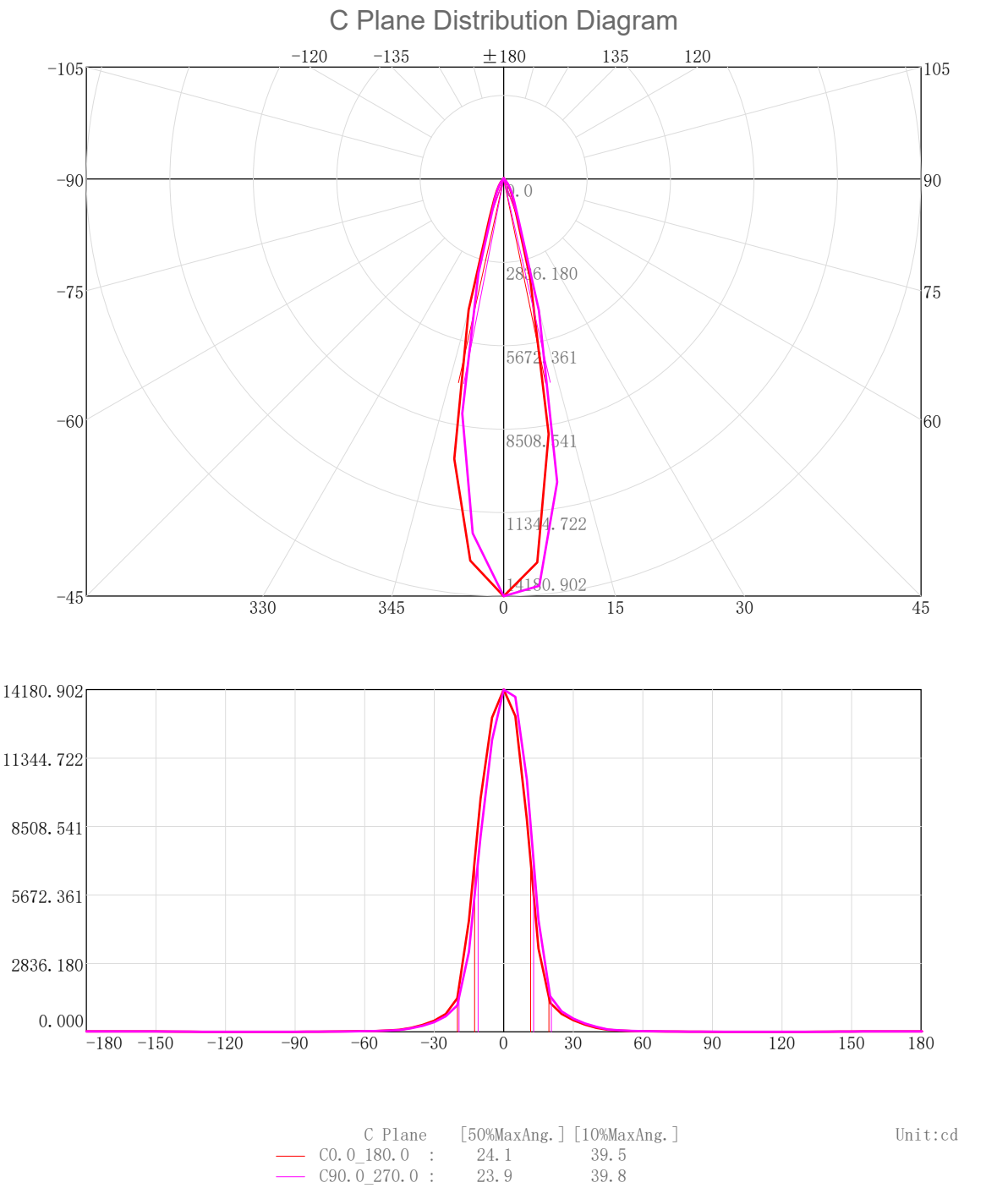
Character Parameter

| Lamp Speciality Parameter | Luminaire Speciality Parameter | |
|--|--------------------------------|--|
| Rated Flux(lm): 3141.140 | Luminary Flux(lm): 3141.145 | Field Angle(10%Imax): 39.5(°) |
| Rated Power(W): | Luminary Efficiency: 100.00% | Down Lumens&Percent: 3079.852lm 98.05% |
| Rated Voltage(V): | Luminary EER(lm/W): 93.292 | Up Lumens&Percent: 61.293lm 1.95% |
| Tested Power(W): 33.670 | Max. Candela(cd): 14180.902 | S/MH: C0_a180=0.413 C90_270=0.410 |
| Lamps' Inside: 1 | Max Cand@Ang. (°): C=0.0 γ=0.0 | CIE Type: Semi-Direct |
| Tested Electrics (V, A, pf): 239.6, 0.146, 0.960 | Beam Angle(50%Imax): 24.1(°) | ErP Φ use(90°): 3038.865lm |
| Lamp Size (W*L*H): 0.110m*0.110m*0.000m | Left=-12.5°, Right=11.6° | IRF (%): 1021.821 |



2D Plane Light Intensity Distribution Curve

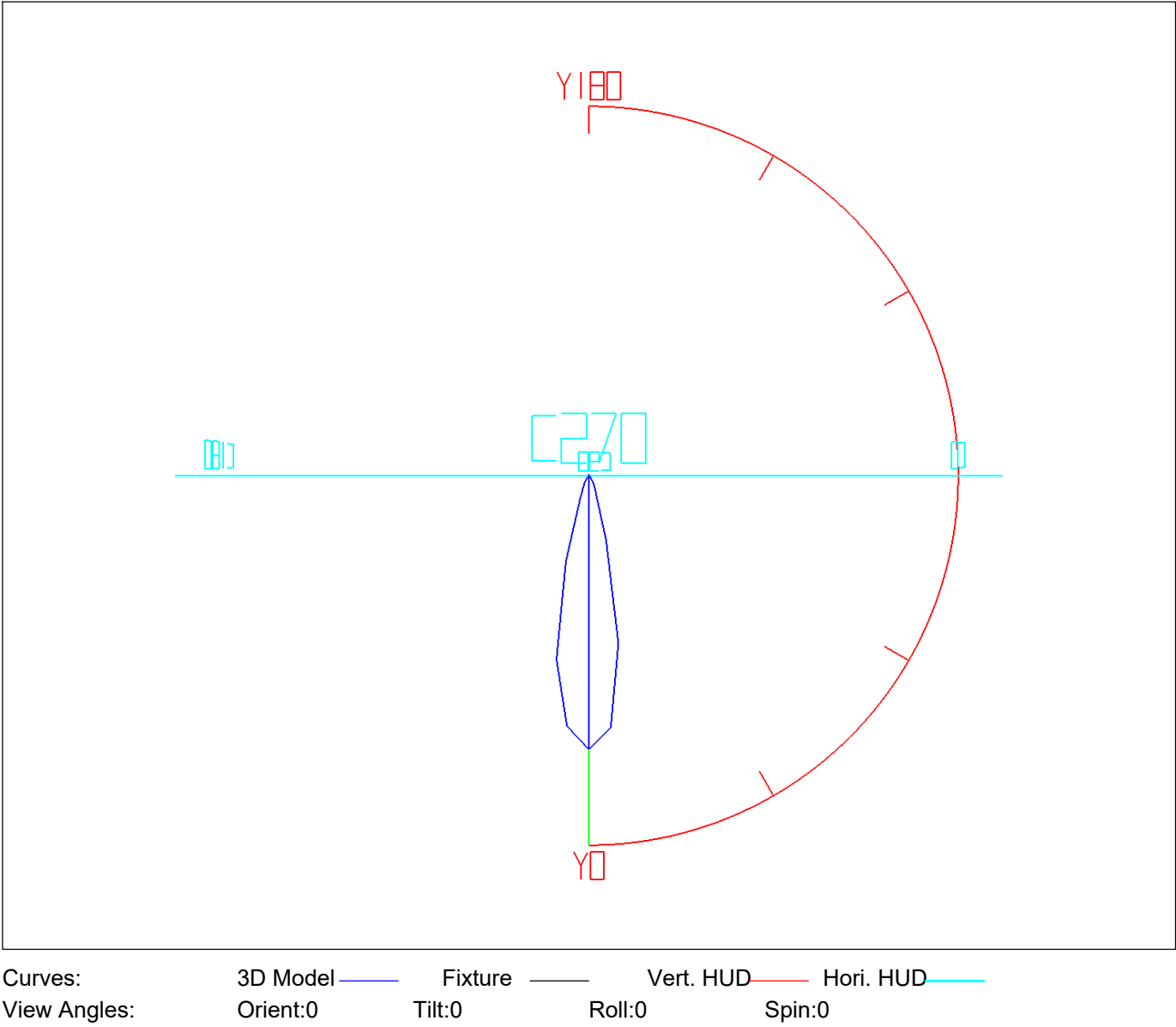
| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |



3D Light Intensity Distribution Modal

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

3D Light Intensity Distribution Modal

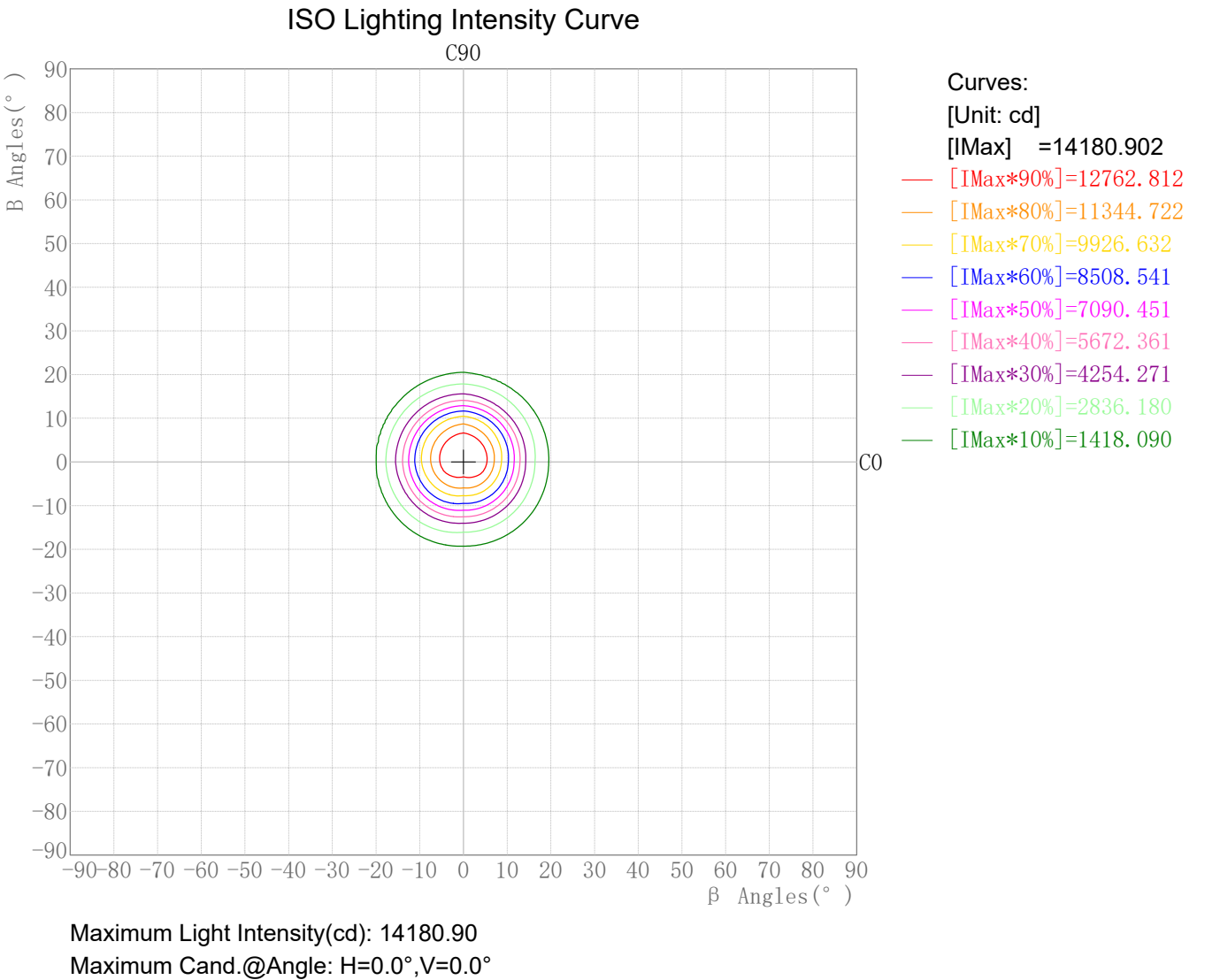


Zonal Flux Tabulation

| Zone(γ) | Zone Flux (lm) | Sums Flux (lm) | Zone%Lamp | Sums%Lamp |
|-------------|-------------------|-------------------|-----------|-----------|
| 0.0-5.0 | 325.15 | 325.15 | 10.35 | 10.35 |
| 5.0-10.0 | 796.73 | 1121.88 | 25.36 | 35.72 |
| 10.0-15.0 | 786.28 | 1908.16 | 25.03 | 60.75 |
| 15.0-20.0 | 436.59 | 2344.75 | 13.90 | 74.65 |
| 20.0-25.0 | 214.37 | 2559.12 | 6.82 | 81.47 |
| 25.0-30.0 | 155.20 | 2714.32 | 4.94 | 86.41 |
| 30.0-35.0 | 114.62 | 2828.95 | 3.65 | 90.06 |
| 35.0-40.0 | 79.17 | 2908.12 | 2.52 | 92.58 |
| 40.0-45.0 | 48.89 | 2957.01 | 1.56 | 94.14 |
| 45.0-50.0 | 30.46 | 2987.47 | 0.97 | 95.11 |
| 50.0-55.0 | 22.34 | 3009.81 | 0.71 | 95.82 |
| 55.0-60.0 | 16.78 | 3026.59 | 0.53 | 96.35 |
| 60.0-65.0 | 13.75 | 3040.34 | 0.44 | 96.79 |
| 65.0-70.0 | 11.33 | 3051.67 | 0.36 | 97.15 |
| 70.0-75.0 | 9.27 | 3060.94 | 0.30 | 97.45 |
| 75.0-80.0 | 7.58 | 3068.52 | 0.24 | 97.69 |
| 80.0-85.0 | 6.23 | 3074.75 | 0.20 | 97.89 |
| 85.0-90.0 | 5.10 | 3079.85 | 0.16 | 98.05 |
| 90.0-95.0 | 4.25 | 3084.10 | 0.14 | 98.18 |
| 95.0-100.0 | 3.66 | 3087.76 | 0.12 | 98.30 |
| 100.0-105.0 | 3.24 | 3091.00 | 0.10 | 98.40 |
| 105.0-110.0 | 2.99 | 3093.99 | 0.10 | 98.50 |
| 110.0-115.0 | 2.77 | 3096.76 | 0.09 | 98.59 |
| 115.0-120.0 | 2.59 | 3099.35 | 0.08 | 98.67 |
| 120.0-125.0 | 2.56 | 3101.91 | 0.08 | 98.75 |
| 125.0-130.0 | 2.72 | 3104.63 | 0.09 | 98.84 |
| 130.0-135.0 | 3.25 | 3107.88 | 0.10 | 98.94 |
| 135.0-140.0 | 4.06 | 3111.94 | 0.13 | 99.07 |
| 140.0-145.0 | 4.88 | 3116.83 | 0.16 | 99.23 |
| 145.0-150.0 | 5.38 | 3122.21 | 0.17 | 99.40 |
| 150.0-155.0 | 5.34 | 3127.54 | 0.17 | 99.57 |
| 155.0-160.0 | 4.78 | 3132.32 | 0.15 | 99.72 |
| 160.0-165.0 | 3.88 | 3136.20 | 0.12 | 99.84 |
| 165.0-170.0 | 2.78 | 3138.98 | 0.09 | 99.93 |
| 170.0-175.0 | 1.63 | 3140.61 | 0.05 | 99.98 |
| 175.0-180.0 | 0.53 | 3141.14 | 0.02 | 100.00 |

Rectangle ISO Lighting Intensity Diagram

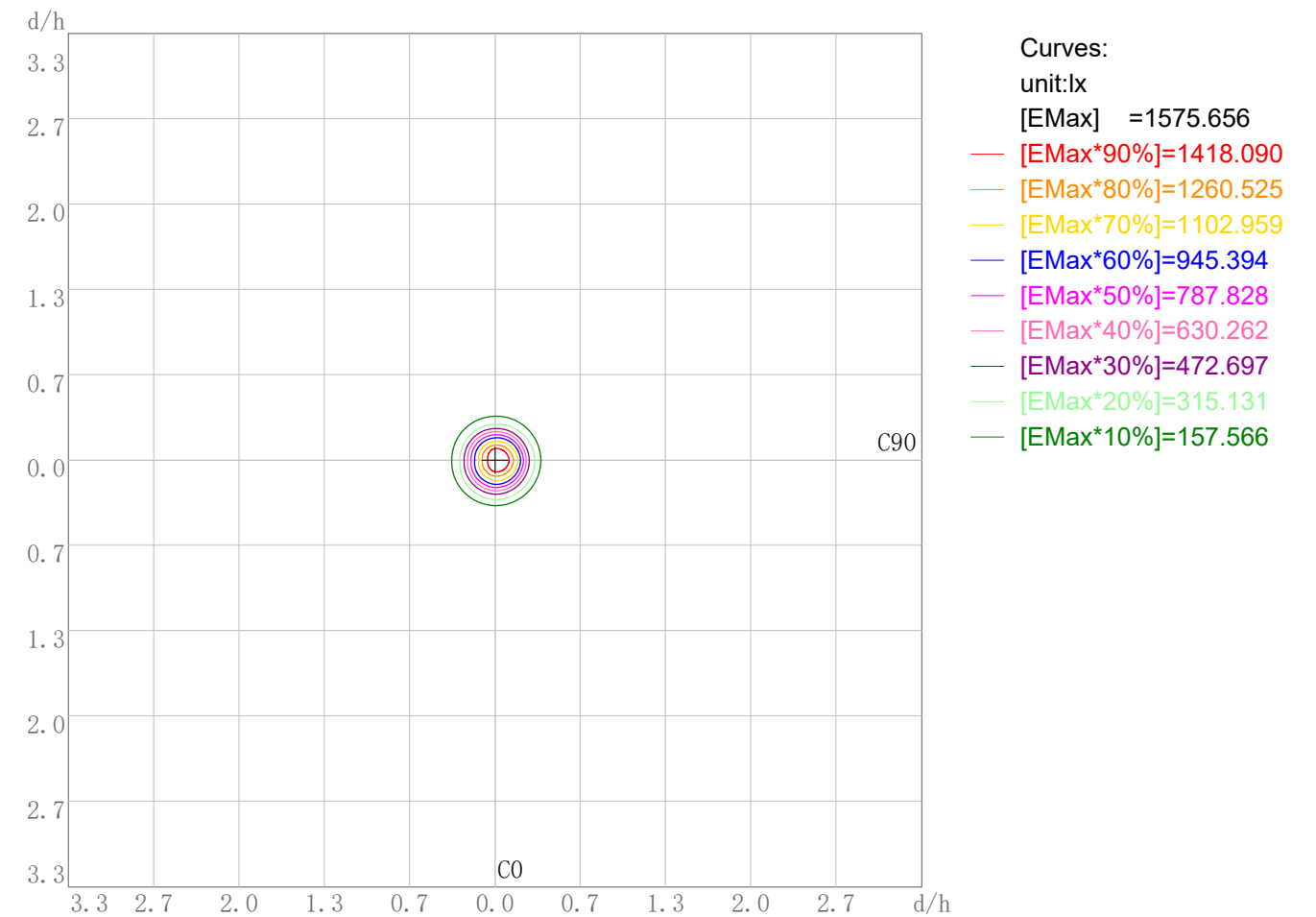
| | | |
|--|-----------------------|------------------------------|
| Lum. Name: DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID: 01 |
| Lamp Name: | Lamp Catelog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date: 2022/08/11 |



Plane ISO-Illuminance Diagram

| | | |
|---|-----------------------|------------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date: 2022/08/11 |

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

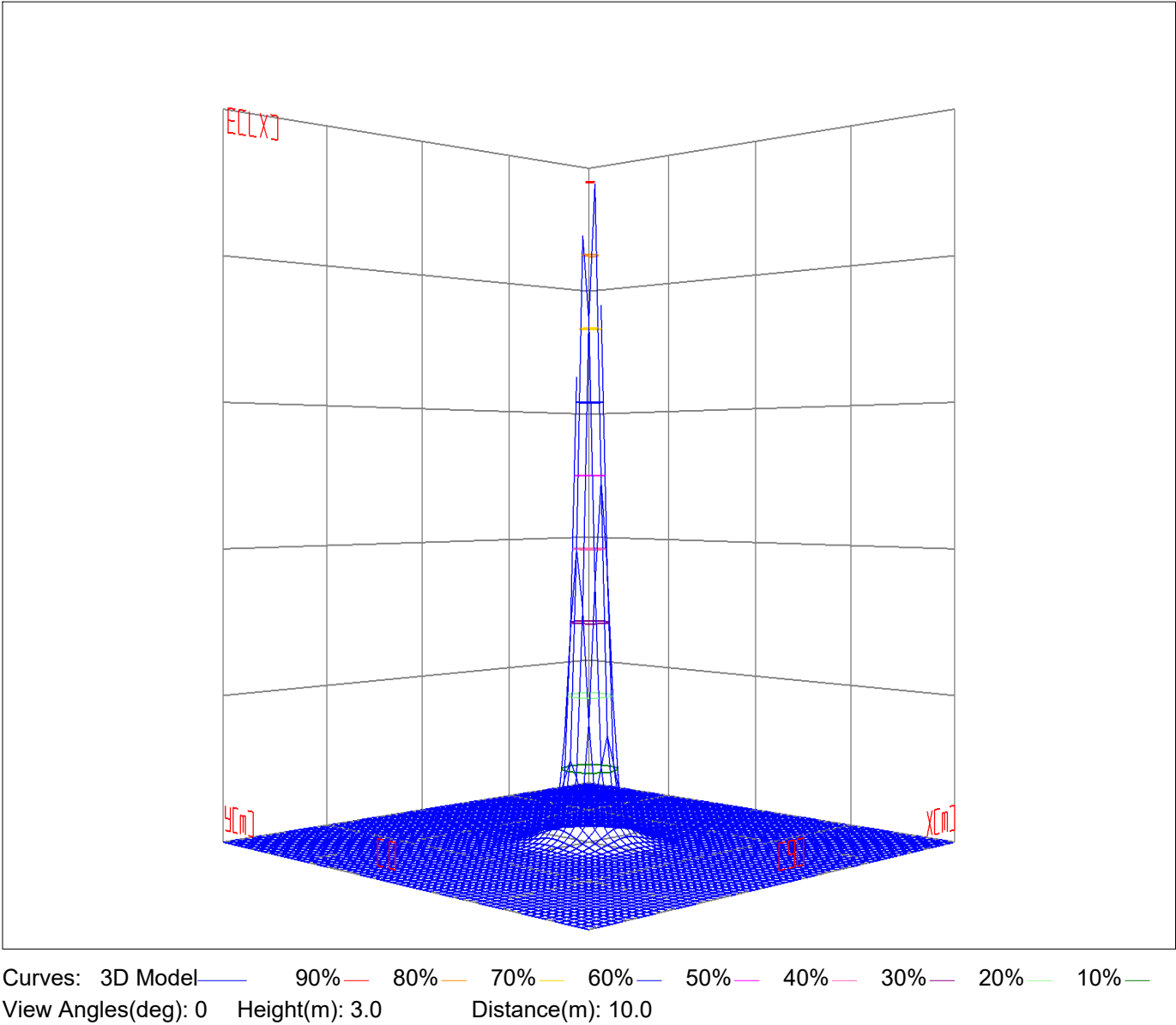
Working Plane Maximum Illuminance(lx): 1575.66

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

3D Plane ISO Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

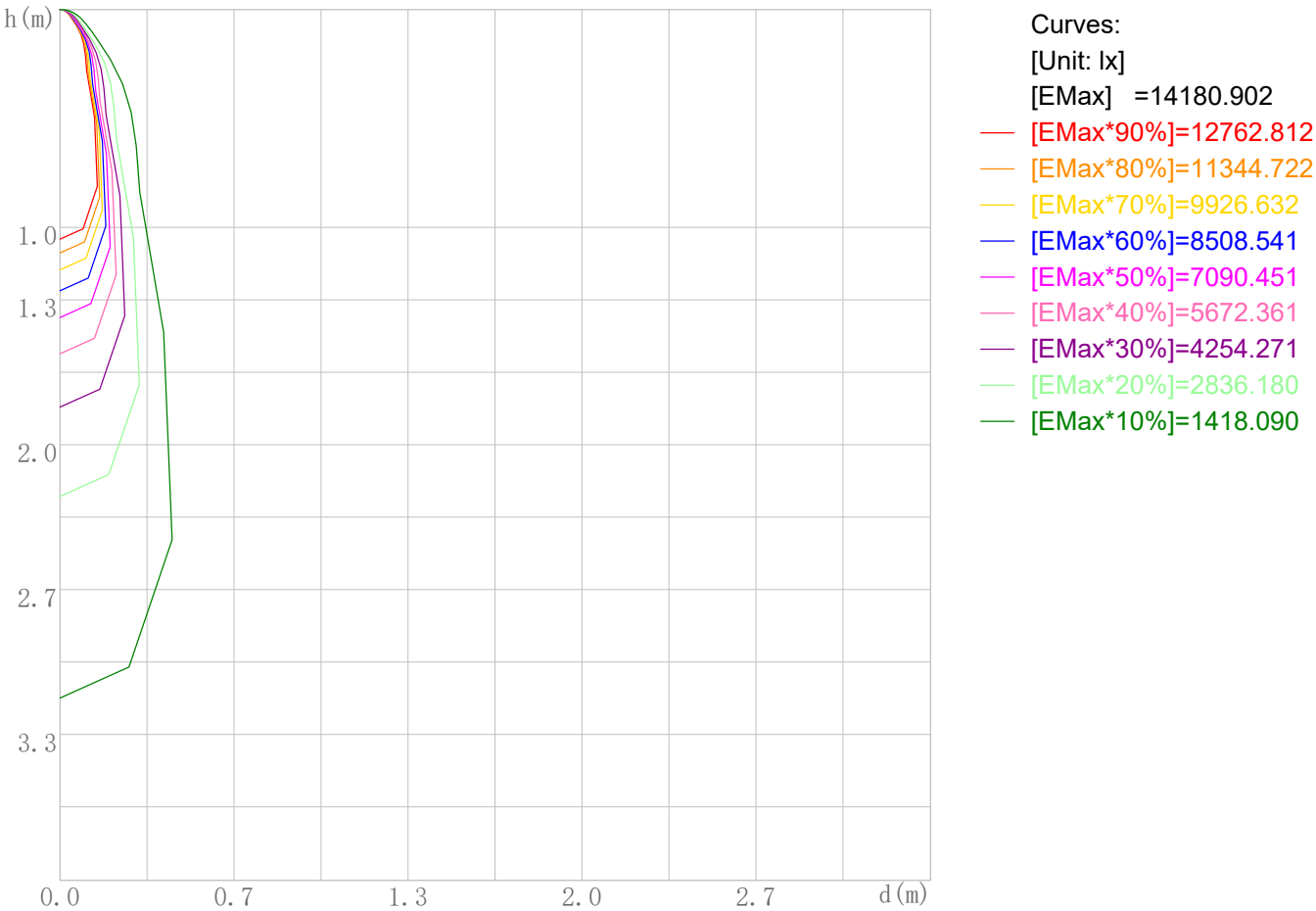
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

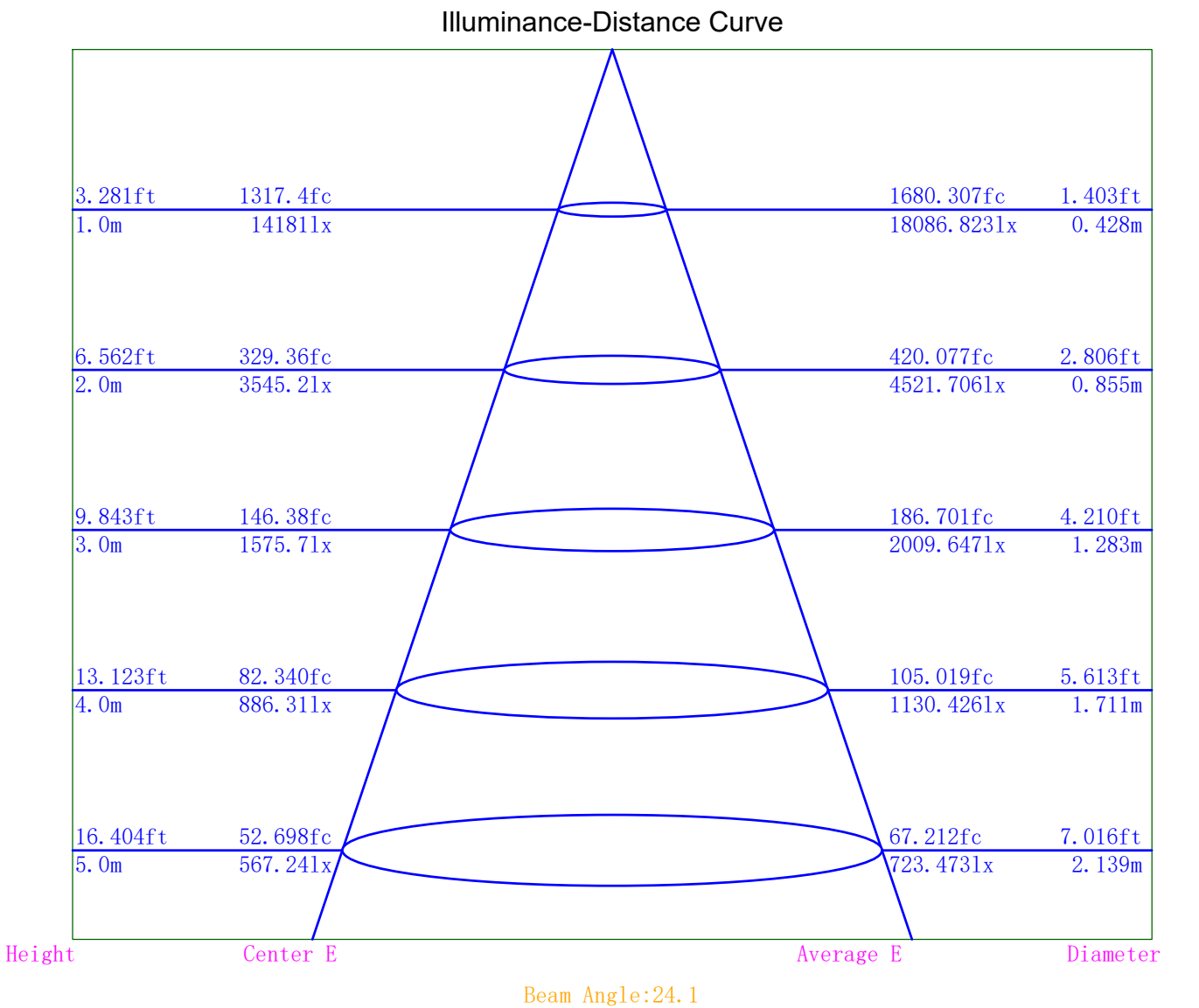
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:14180.90lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:14180.902cd,0deg

Illuminance-Distance Diagram

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |



Indoor Luminance Limiting Curves

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

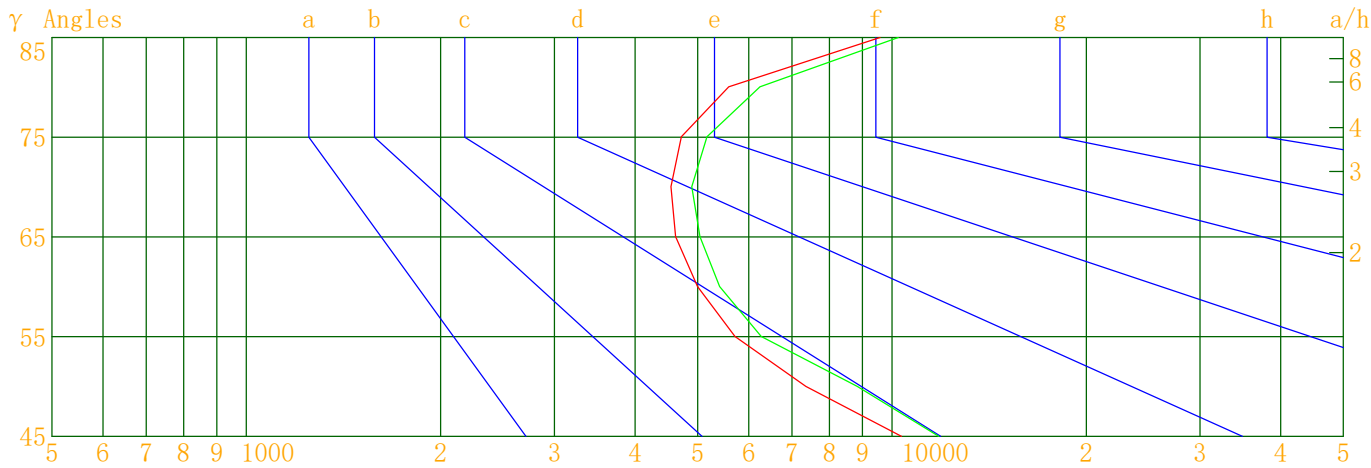
Glare Grade Table

| 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 | 10345 | 7356 | 5712 | 4998 | 4624 | 4546 | 4720 | 5588 | 9582 |
| C90 | 11819 | 8835 | 6275 | 5407 | 5041 | 4898 | 5170 | 6247 | 10229 |

Luminance Limiting Curve



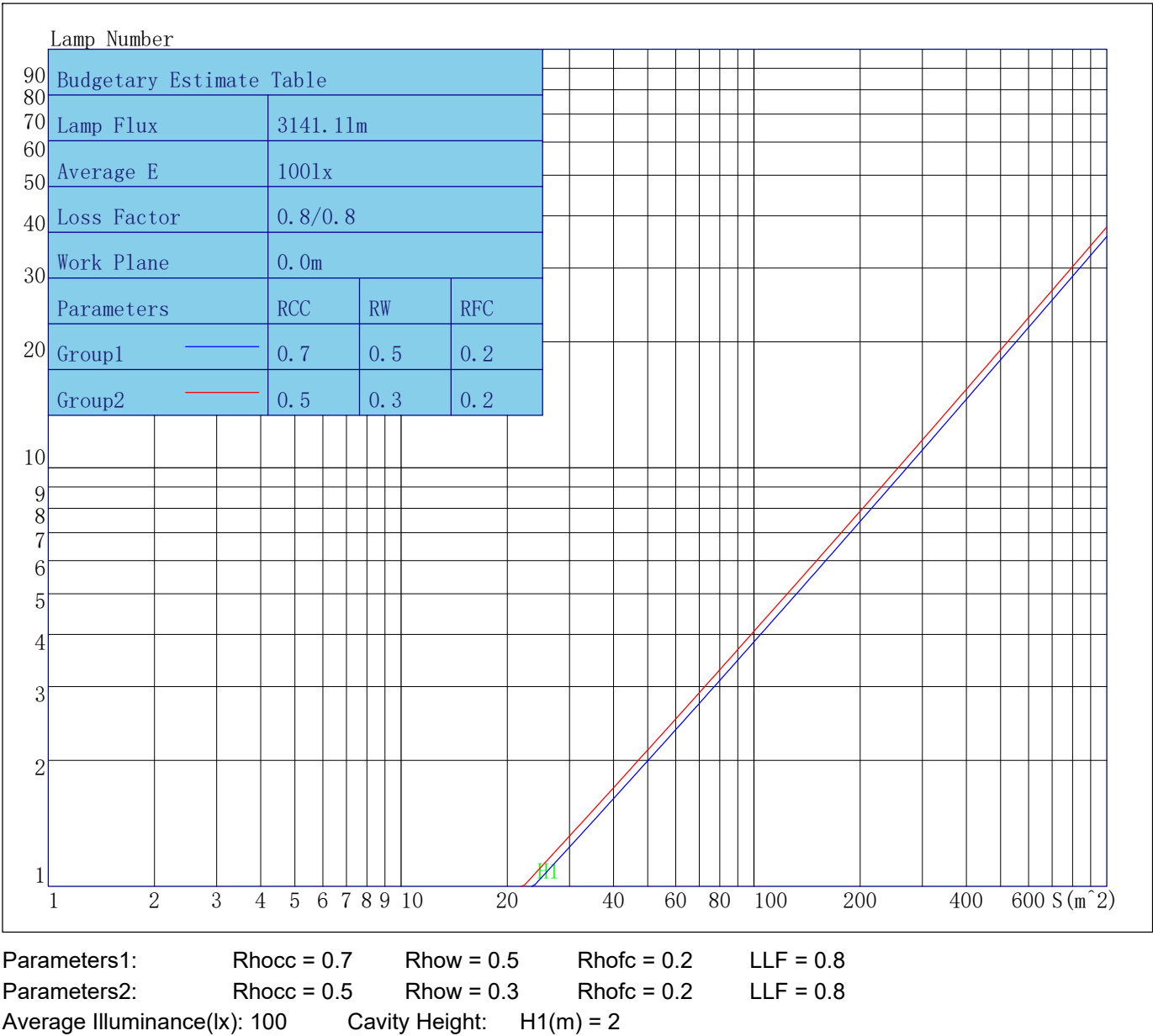
Luminous Size:Length(m)=0.110Width(m)=0.110Height(m)=0.000Area(m^2)=0.012100

Luminous Type:Without Luminous Side

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

Indoor Budgetary Estimate Table

| | | |
|---|-----------------------|------------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catalog: | Test ID:01 |
| Lamp Name: | Lamp Catalog: LED | Test Lab: Quality Department |
| Manufacture: Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date: 2022/08/11 |



Indoor Coefficient of Utilization Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

| 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 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | 98 |
| 1 | 114 | 112 | 110 | 108 | 111 | 109 | 107 | 106 | 105 | 104 | 102 | 101 | 100 | 99 | 97 | 96 | 96 | 94 |
| 2 | 110 | 106 | 102 | 100 | 107 | 104 | 101 | 98 | 100 | 98 | 96 | 97 | 95 | 94 | 94 | 93 | 92 | 90 |
| 3 | 106 | 101 | 97 | 94 | 104 | 99 | 96 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 92 | 90 | 88 | 86 |
| 4 | 102 | 96 | 92 | 89 | 100 | 95 | 91 | 88 | 93 | 90 | 87 | 91 | 88 | 86 | 89 | 87 | 85 | 83 |
| 5 | 99 | 93 | 88 | 85 | 97 | 92 | 87 | 84 | 90 | 86 | 83 | 88 | 85 | 83 | 86 | 84 | 82 | 80 |
| 6 | 96 | 89 | 85 | 81 | 94 | 88 | 84 | 81 | 87 | 83 | 80 | 85 | 82 | 80 | 84 | 81 | 79 | 78 |
| 7 | 93 | 86 | 82 | 78 | 92 | 85 | 81 | 78 | 84 | 80 | 78 | 83 | 80 | 77 | 82 | 79 | 77 | 76 |
| 8 | 90 | 83 | 79 | 76 | 89 | 83 | 78 | 76 | 82 | 78 | 75 | 80 | 77 | 75 | 80 | 77 | 74 | 73 |
| 9 | 88 | 81 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 76 | 73 | 78 | 75 | 73 | 77 | 75 | 72 | 71 |
| 10 | 85 | 78 | 74 | 71 | 85 | 78 | 74 | 71 | 77 | 73 | 71 | 76 | 73 | 71 | 76 | 73 | 70 | 69 |

Unified Glare Rating Table

| | | |
|---|-----------------------|-----------------------------|
| Lum. Name:DL51-35-XX-01 4000K RA90 24D 金色 | Lum. Catelog: | Test ID:01 |
| Lamp Name: | Lamp Catelog:LED | Test Lab:Quality Department |
| Manufacture:Shenzhen Norming Lighting | Test Machine:GON-2000 | Test Date:2022/08/11 |

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 | 13.4 | 14.3 | 13.8 | 14.7 | 15.1 | 14.2 | 15.1 | 14.6 | 15.5 | 15.8 |
| | 13.9 | 14.6 | 14.3 | 15.0 | 15.4 | 14.6 | 15.4 | 15.0 | 15.8 | 16.2 |
| | 14.1 | 14.8 | 14.6 | 15.2 | 15.7 | 14.9 | 15.6 | 15.3 | 16.0 | 16.4 |
| | 14.5 | 15.1 | 14.9 | 15.5 | 16.0 | 15.2 | 15.8 | 15.7 | 16.3 | 16.7 |
| | 14.7 | 15.3 | 15.2 | 15.7 | 16.2 | 15.4 | 16.0 | 15.9 | 16.4 | 16.9 |
| | 15.0 | 15.6 | 15.5 | 16.0 | 16.5 | 15.7 | 16.3 | 16.2 | 16.7 | 17.2 |
| X=4H Y=2H | 13.5 | 14.2 | 13.9 | 14.6 | 15.0 | 14.2 | 14.9 | 14.7 | 15.3 | 15.8 |
| | 14.1 | 14.7 | 14.5 | 15.1 | 15.6 | 14.8 | 15.3 | 15.2 | 15.8 | 16.2 |
| | 14.5 | 15.0 | 15.0 | 15.5 | 16.0 | 15.2 | 15.7 | 15.6 | 16.1 | 16.6 |
| | 15.0 | 15.5 | 15.6 | 16.0 | 16.5 | 15.7 | 16.1 | 16.2 | 16.6 | 17.1 |
| | 15.4 | 15.8 | 15.9 | 16.3 | 16.8 | 16.0 | 16.4 | 16.5 | 16.9 | 17.4 |
| | 15.8 | 16.2 | 16.4 | 16.7 | 17.2 | 16.5 | 16.8 | 17.0 | 17.3 | 17.8 |
| X=8H Y=4H | 14.6 | 15.0 | 15.2 | 15.5 | 16.0 | 15.3 | 15.7 | 15.8 | 16.1 | 16.7 |
| | 15.4 | 15.7 | 15.9 | 16.2 | 16.8 | 16.0 | 16.3 | 16.5 | 16.8 | 17.4 |
| | 15.9 | 16.1 | 16.5 | 16.7 | 17.3 | 16.5 | 16.7 | 17.1 | 17.3 | 17.8 |
| | 16.6 | 16.8 | 17.1 | 17.3 | 18.0 | 17.1 | 17.4 | 17.7 | 17.9 | 18.5 |
| X=12H Y=4H | 14.6 | 15.0 | 15.2 | 15.5 | 16.0 | 15.3 | 15.6 | 15.8 | 16.1 | 16.6 |
| | 15.5 | 15.7 | 16.0 | 16.2 | 16.8 | 16.1 | 16.3 | 16.6 | 16.8 | 17.4 |
| | 16.1 | 16.3 | 16.6 | 16.8 | 17.5 | 16.7 | 16.9 | 17.2 | 17.4 | 18.0 |
| Variations with the objerver position at spacings | | | | | | | | | | |
| S=1.0H | 0.1/-0.1 | | | | | 0.2/-0.2 | | | | |
| S=1.5H | 0.3/-0.3 | | | | | 0.3/-0.3 | | | | |
| S=2.0H | 0.3/-0.3 | | | | | 0.3/-0.3 | | | | |
| Reduced UGR Table: | | | | | | | | | | |
| Nordic Standard Table: | BK0 | | | | | BK0 | | | | |
| Correction Value | 2.3 | | | | | 2.2 | | | | |

to 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 | 14180.9 | 14180.9 | 14180.9 | 14180.9 |
| γ 5.0 | 13079.9 | 13880.4 | 13021.0 | 12088.7 |
| γ 10.0 | 8805.7 | 10458.9 | 9656.8 | 8095.2 |
| γ 15.0 | 3452.0 | 4627.8 | 4604.9 | 3319.2 |
| γ 20.0 | 1204.6 | 1484.3 | 1396.9 | 1100.3 |
| γ 25.0 | 743.9 | 849.6 | 748.0 | 648.3 |
| γ 30.0 | 487.3 | 556.6 | 466.8 | 405.1 |
| γ 35.0 | 301.1 | 354.3 | 289.5 | 253.0 |
| γ 40.0 | 166.9 | 212.2 | 168.9 | 152.3 |
| γ 45.0 | 88.5 | 101.1 | 86.9 | 79.5 |
| γ 50.0 | 57.2 | 68.7 | 63.5 | 57.5 |
| γ 55.0 | 39.6 | 43.5 | 41.8 | 39.2 |
| γ 60.0 | 30.2 | 32.7 | 32.4 | 30.8 |
| γ 65.0 | 23.6 | 25.8 | 25.9 | 24.6 |
| γ 70.0 | 18.8 | 20.3 | 20.8 | 19.2 |
| γ 75.0 | 14.8 | 16.2 | 16.3 | 15.5 |
| γ 80.0 | 11.7 | 13.1 | 13.2 | 12.5 |
| γ 85.0 | 10.1 | 10.8 | 10.2 | 9.9 |
| γ 90.0 | 8.2 | 8.9 | 8.4 | 8.0 |
| γ 95.0 | 7.2 | 7.9 | 6.8 | 6.6 |
| γ 100.0 | 6.7 | 7.3 | 5.7 | 5.8 |
| γ 105.0 | 5.9 | 6.5 | 4.9 | 5.7 |
| γ 110.0 | 5.7 | 6.3 | 5.0 | 5.6 |
| γ 115.0 | 5.0 | 5.4 | 4.9 | 5.7 |
| γ 120.0 | 4.8 | 5.2 | 5.7 | 5.9 |
| γ 125.0 | 5.2 | 5.1 | 5.8 | 6.6 |
| γ 130.0 | 6.6 | 5.9 | 7.0 | 7.9 |
| γ 135.0 | 8.9 | 7.9 | 9.2 | 10.8 |
| γ 140.0 | 12.4 | 11.3 | 12.7 | 14.3 |
| γ 145.0 | 16.3 | 15.0 | 17.0 | 18.1 |
| γ 150.0 | 19.5 | 18.7 | 20.3 | 21.2 |
| γ 155.0 | 22.3 | 21.0 | 22.7 | 23.0 |
| γ 160.0 | 23.3 | 22.5 | 23.7 | 23.8 |
| γ 165.0 | 24.0 | 23.1 | 24.1 | 23.8 |
| γ 170.0 | 22.8 | 22.8 | 23.8 | 23.1 |
| γ 175.0 | 22.5 | 22.4 | 22.5 | 22.1 |
| γ 180.0 | 22.3 | 22.3 | 22.3 | 22.3 |