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| | | | |
|---|---|---|---|
| Report No | : | Voltage | : 120.01 V |
| Test No | : | Current | : 0.1254 A |
| LumCAT | : | Power | : 14.889 W |
| Luminaire | : LD4S-40K | PF | : 0.9892 |
| LampCAT | : | Ballast type | : |
| Lamp flux | : 1333.6 lm | Width | : 0 mm |
| Number of Lamps | : 1 | Length | : 0 mm |
| Phm Type | : C | Height | : 0 mm |

## Photometric Results

| | | | |
|---|---|---|---|
| Lumens(lm) | : 1333.56 | Central intensity(cd) | : 4265.066 |
| Efficiency(%) | : 100.00% | Maximum intensity(cd) | : 4265.066 |
| Luminous Efficacy(lm/W) | : 89.57 | Angle of maximum intensity | : C=0.0 γ=0.0 |

| | |
|---|---|
| Beam Angle(50%Imax) | : [C0/180]Total=32.2 [C90/270]Total=33.6 |
| Field angle(10%Imax) | : [C0/180]Total=47.9 [C90/270]Total=49.2 |
| Maximum s/h(1/2) | : C0_180=0.56 C90_270=0.61 |
| Maximum s/h(1/4) | : C0_180=0.52 C90_270=0.55 |
| Up flux rate of lamp(%) | : 0.04% |
| Down flux rate of lamp(%) | : 99.96% |
| Up flux rate of LUM(%) | : 0.04% |
| Down flux rate of LUM(%) | : 99.96% |
| CIE Type | : Direct lighting |
| Output flux ratio in π solid angle : | : 98.682% |

## Zonal flux distribution table



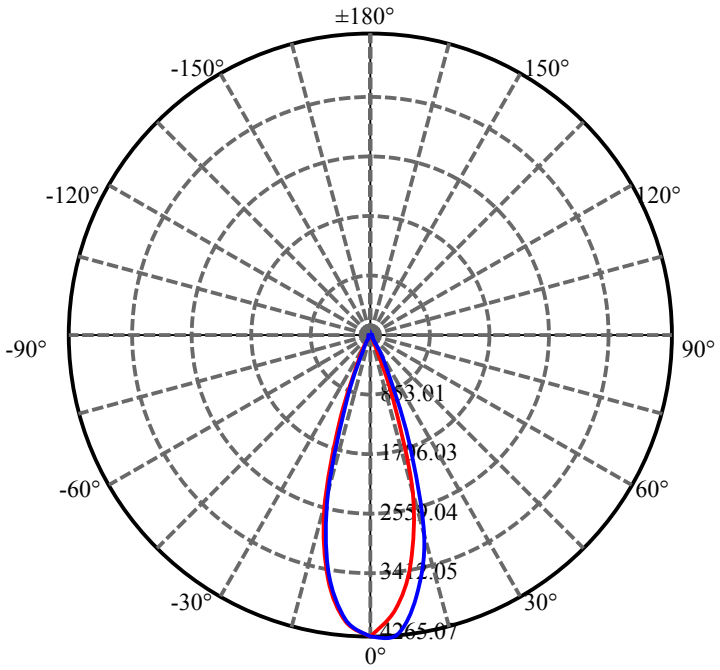
| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 4265.066 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 4010.489 | 98.932 | 98.932 | 7.42% | 7.42% |
| 10.0 | 3437.568 | 266.440 | 365.372 | 19.98% | 27.40% |
| 15.0 | 2489.245 | 351.575 | 716.947 | 26.36% | 53.76% |
| 20.0 | 1242.061 | 307.512 | 1024.459 | 23.06% | 76.82% |
| 25.0 | 350.438 | 167.024 | 1191.483 | 12.52% | 89.35% |
| 30.0 | 88.572 | 55.557 | 1247.04 | 4.17% | 93.51% |
| 35.0 | 46.922 | 19.952 | 1266.992 | 1.50% | 95.01% |
| 40.0 | 32.448 | 13.242 | 1280.234 | 0.99% | 96.00% |
| 45.0 | 25.446 | 10.720 | 1290.954 | 0.80% | 96.81% |
| 50.0 | 21.033 | 9.392 | 1300.346 | 0.70% | 97.51% |
| 55.0 | 17.492 | 8.377 | 1308.722 | 0.63% | 98.14% |
| 60.0 | 13.897 | 7.255 | 1315.978 | 0.54% | 98.68% |
| 65.0 | 10.597 | 5.955 | 1321.932 | 0.45% | 99.13% |
| 70.0 | 7.646 | 4.619 | 1326.552 | 0.35% | 99.47% |
| 75.0 | 5.097 | 3.331 | 1329.882 | 0.25% | 99.72% |
| 80.0 | 2.683 | 2.082 | 1331.964 | 0.16% | 99.88% |
| 85.0 | 0.657 | 0.908 | 1332.872 | 0.07% | 99.95% |
| 90.0 | 0.000 | 0.180 | 1333.052 | 0.01% | 99.96% |
| 95.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 100.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 105.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 110.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 115.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 120.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 125.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 130.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 135.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 140.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 145.0 | 0.000 | 0.000 | 1333.052 | 0.00% | 99.96% |
| 150.0 | 0.067 | 0.010 | 1333.061 | 0.00% | 99.96% |
| 155.0 | 0.309 | 0.048 | 1333.109 | 0.00% | 99.97% |
| 160.0 | 0.617 | 0.097 | 1333.206 | 0.01% | 99.97% |
| 165.0 | 0.912 | 0.126 | 1333.332 | 0.01% | 99.98% |
| 170.0 | 1.046 | 0.116 | 1333.448 | 0.01% | 99.99% |
| 175.0 | 1.194 | 0.080 | 1333.528 | 0.01% | 100.00% |
| 180.0 | 1.263 | 0.029 | 1333.558 | 0.00% | 100.00% |

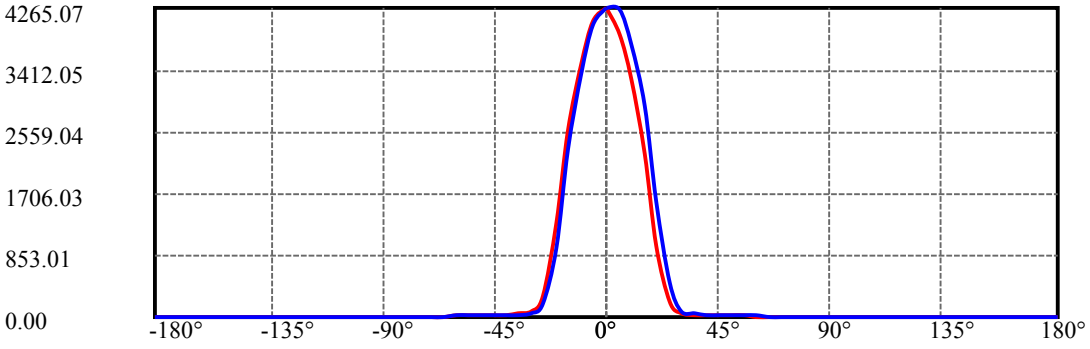
ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 1247.04 | 93.51% | 93.51% |
| 0-40 | 1280.23 | 96.00% | 96.00% |
| 0-60 | 1315.98 | 98.68% | 98.68% |
| 0-90 | 1333.05 | 99.96% | 99.96% |
| 0-120 | 1333.05 | 99.96% | 99.96% |
| 0-180 | 1333.56 | 100.00% | 100.00% |
| 60-90 | 17.07 | 1.28% | 1.28% |
| 90-120 | 0.00 | 0.00% | 0.00% |
| 90-130 | 0.00 | 0.00% | 0.00% |
| 90-150 | 0.01 | 0.00% | 0.00% |
| 90-180 | 0.48 | 0.04% | 0.04% |
| 0-21.27 | 1066.85 | 80.00% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 365.37 |
| 10-20 | 659.09 |
| 20-30 | 222.58 |
| 30-40 | 33.19 |
| 40-50 | 20.11 |
| 50-60 | 15.63 |
| 60-70 | 10.57 |
| 70-80 | 5.41 |
| 80-90 | 1.09 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.01 |
| 150-160 | 0.14 |
| 160-170 | 0.24 |
| 170-180 | 0.08 |



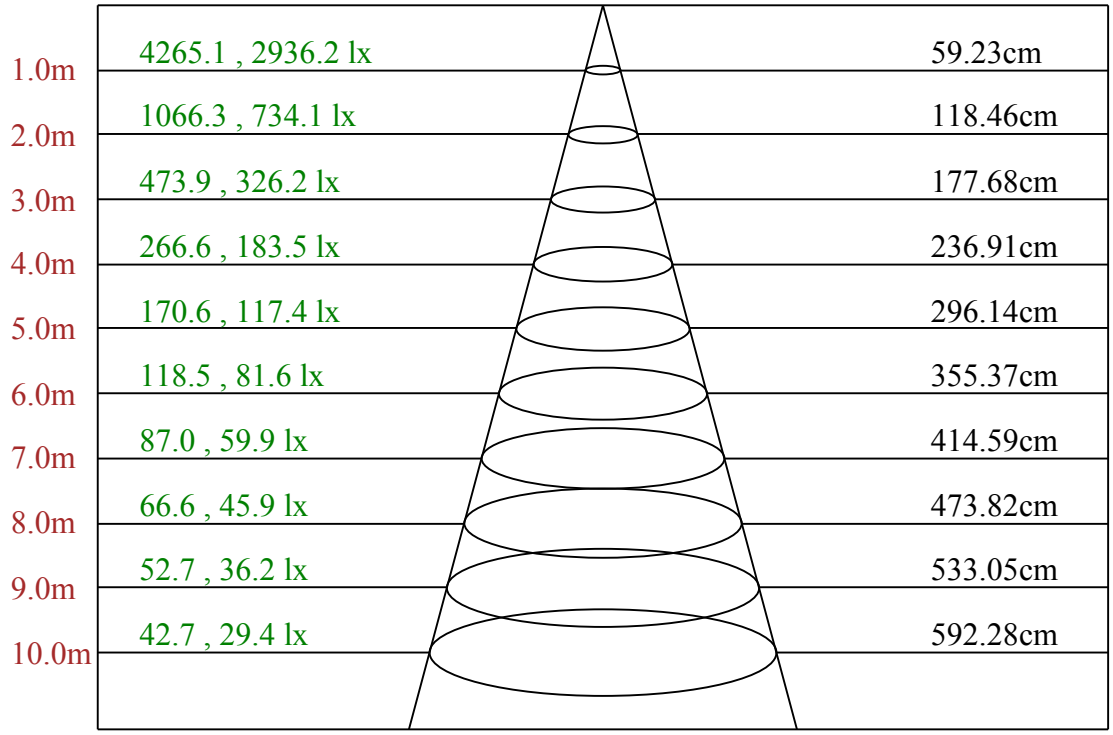




C0/C180:

C90/C270:

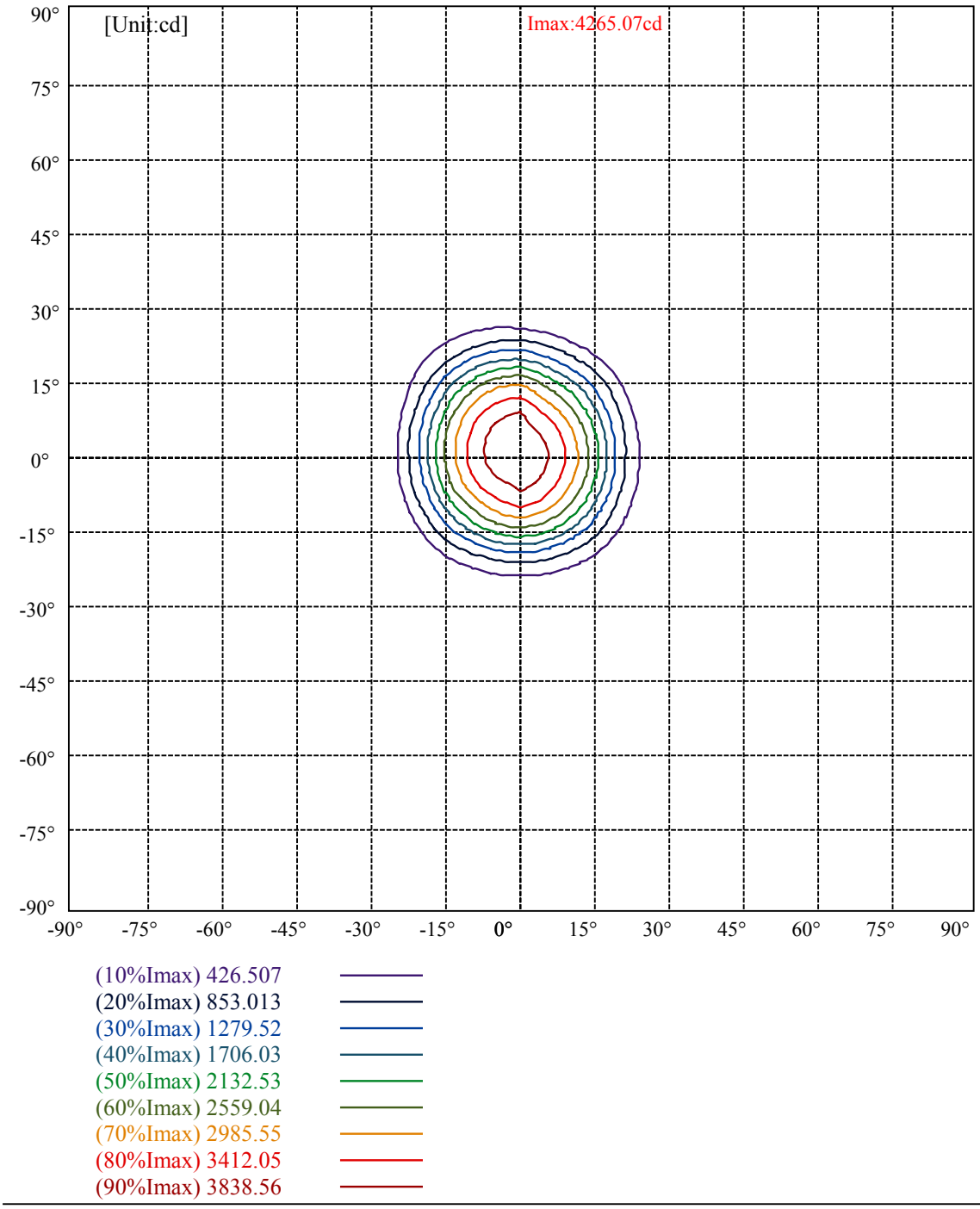
Field angle(10%Imax):C0/180Left:24.3 Right:23.6
:C90/270Left:23.5 Right:25.7

Beam Angle(50%Imax):C0/180Left:16.7 Right:15.5
:C90/270Left:15.7 Right:17.9




Max , Ave

Beam angle of C0 plane 32.99


[Unit:cd]
Imax:4265.07cd
90°
75°
60°
45°
30°
15°
0°
-15°
-30°
-45°
-60°
-75°
-90°
-90° -75° -60° -45° -30° -15° 0° 15° 30° 45° 60° 75° 90°
(10%Imax) 426.507
(20%Imax) 853.013
(30%Imax) 1279.52
(40%Imax) 1706.03
(50%Imax) 2132.53
(60%Imax) 2559.04
(70%Imax) 2985.55
(80%Imax) 3412.05
(90%Imax) 3838.56

Intensity data(cd)

| C/γ(°) | 0.0 | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4265.07 | 3902.27 | 3274.28 | 2264.70 | 982.76 | 207.11 | 64.17 | 38.42 | 29.40 |
| 22.5 | 4265.07 | 3924.37 | 3298.32 | 2310.41 | 1110.46 | 277.72 | 71.47 | 41.64 | 30.91 |
| 45.0 | 4265.07 | 3960.21 | 3364.42 | 2414.29 | 1277.00 | 403.28 | 108.17 | 53.01 | 34.98 |
| 67.5 | 4265.07 | 3990.26 | 3423.23 | 2535.34 | 1356.20 | 414.01 | 100.44 | 48.51 | 32.19 |
| 90.0 | 4265.07 | 4243.09 | 3749.46 | 2914.57 | 1586.06 | 482.26 | 85.85 | 47.43 | 34.13 |
| 112.5 | 4265.07 | 4193.72 | 3715.12 | 2925.30 | 1706.25 | 597.08 | 126.20 | 56.88 | 34.55 |
| 135.0 | 4265.07 | 4144.36 | 3682.92 | 2865.21 | 1663.32 | 608.67 | 161.40 | 67.61 | 42.92 |
| 157.5 | 4265.07 | 4095.00 | 3601.15 | 2718.62 | 1446.34 | 436.54 | 94.01 | 51.08 | 33.70 |
| 180.0 | 4265.07 | 4067.31 | 3504.36 | 2569.03 | 1288.81 | 297.47 | 69.75 | 42.71 | 31.55 |
| 202.5 | 4265.07 | 4001.85 | 3451.99 | 2515.16 | 1210.90 | 324.30 | 78.98 | 44.43 | 31.76 |
| 225.0 | 4265.07 | 3949.27 | 3359.92 | 2349.47 | 1203.82 | 313.78 | 94.65 | 49.79 | 31.76 |
| 247.5 | 4265.07 | 3906.56 | 3334.59 | 2333.81 | 1009.58 | 252.83 | 71.90 | 40.78 | 29.19 |
| 270.0 | 4265.07 | 4034.69 | 3376.66 | 2314.92 | 956.14 | 192.09 | 65.67 | 38.63 | 30.05 |
| 292.5 | 4265.07 | 3964.72 | 3332.66 | 2282.30 | 993.70 | 262.05 | 67.82 | 39.71 | 30.48 |
| 315.0 | 4265.07 | 3901.84 | 3276.21 | 2270.49 | 1068.82 | 283.95 | 86.28 | 49.79 | 31.12 |
| 337.5 | 4265.07 | 3888.32 | 3255.82 | 2244.31 | 1012.80 | 253.90 | 70.40 | 40.35 | 30.48 |
| 360.0 | 4265.07 | 3902.27 | 3274.28 | 2264.70 | 982.76 | 207.11 | 64.17 | 38.42 | 29.40 |

| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 23.82 | 20.60 | 16.96 | 13.09 | 10.09 | 7.30 | 4.94 | 2.36 | 0.43 |
| 22.5 | 24.68 | 20.82 | 17.17 | 13.74 | 10.30 | 7.73 | 5.15 | 2.58 | 0.64 |
| 45.0 | 25.76 | 20.18 | 16.96 | 13.52 | 10.52 | 7.94 | 4.94 | 3.01 | 1.07 |
| 67.5 | 25.54 | 21.68 | 18.03 | 14.38 | 10.73 | 7.94 | 5.37 | 3.22 | 1.07 |
| 90.0 | 27.26 | 22.97 | 18.89 | 15.24 | 11.80 | 8.37 | 5.58 | 3.22 | 0.86 |
| 112.5 | 27.69 | 22.54 | 18.67 | 15.24 | 11.59 | 7.94 | 5.58 | 3.01 | 0.86 |
| 135.0 | 27.26 | 21.89 | 17.81 | 14.38 | 11.16 | 7.94 | 5.15 | 3.01 | 0.86 |
| 157.5 | 26.83 | 21.25 | 17.81 | 14.38 | 10.95 | 7.73 | 5.37 | 2.58 | 0.64 |
| 180.0 | 24.47 | 21.03 | 17.38 | 13.52 | 10.30 | 7.30 | 4.72 | 2.15 | 0.22 |
| 202.5 | 25.33 | 20.82 | 17.17 | 13.52 | 10.30 | 7.08 | 4.72 | 2.36 | 0.43 |
| 225.0 | 24.90 | 19.53 | 16.53 | 13.09 | 10.09 | 7.08 | 4.51 | 2.15 | 0.22 |
| 247.5 | 24.04 | 20.18 | 16.96 | 13.09 | 9.87 | 6.87 | 4.94 | 2.36 | 0.43 |
| 270.0 | 25.11 | 21.68 | 18.24 | 14.17 | 10.95 | 7.94 | 5.37 | 3.01 | 0.86 |
| 292.5 | 24.90 | 21.03 | 17.38 | 13.95 | 10.52 | 7.94 | 5.15 | 3.01 | 0.86 |
| 315.0 | 24.90 | 19.96 | 16.74 | 13.31 | 10.30 | 7.73 | 4.94 | 2.58 | 0.43 |
| 337.5 | 24.68 | 20.39 | 17.17 | 13.74 | 10.09 | 7.51 | 5.15 | 2.36 | 0.64 |
| 360.0 | 23.82 | 20.60 | 16.96 | 13.09 | 10.09 | 7.30 | 4.94 | 2.36 | 0.43 |

| C/γ(°) | 90.0 | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 45.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 112.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 157.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 202.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 247.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 270.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 292.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 315.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 337.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 360.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Intensity data(cd)

| C/γ(°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.00 | 0.22 | 0.43 | 0.86 | 0.86 | 1.29 | 1.07 |
| 22.5 | 0.00 | 0.00 | 0.00 | 0.22 | 0.22 | 0.86 | 1.07 | 1.07 | 1.07 |
| 45.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.43 | 0.86 | 1.07 | 1.07 |
| 67.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.43 | 0.86 | 1.07 | 1.07 |
| 90.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.64 | 0.86 | 1.07 | 1.50 |
| 112.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.43 | 0.64 | 1.07 | 1.07 |
| 135.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.64 | 0.86 | 1.07 | 1.07 |
| 157.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.43 | 0.64 | 0.64 | 1.07 |
| 180.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.86 | 0.86 | 1.07 |
| 202.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.43 | 0.86 | 1.07 | 0.86 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.43 | 0.64 | 1.07 | 1.07 |
| 247.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.86 | 0.86 | 1.29 |
| 270.0 | 0.00 | 0.00 | 0.00 | 0.43 | 0.43 | 1.29 | 1.50 | 1.50 | 1.72 |
| 292.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.64 | 1.07 | 1.07 | 1.29 |
| 315.0 | 0.00 | 0.00 | 0.00 | 0.22 | 0.64 | 0.86 | 1.29 | 0.86 | 1.50 |
| 337.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.64 | 0.86 | 1.07 | 1.29 |
| 360.0 | 0.00 | 0.00 | 0.00 | 0.22 | 0.43 | 0.86 | 0.86 | 1.29 | 1.07 |

| C/γ(°) | 180.0 |
|---|---|
| 0.0 | 1.26 |
| 22.5 | 1.26 |
| 45.0 | 1.26 |
| 67.5 | 1.26 |
| 90.0 | 1.26 |
| 112.5 | 1.26 |
| 135.0 | 1.26 |
| 157.5 | 1.26 |
| 180.0 | 1.26 |
| 202.5 | 1.26 |
| 225.0 | 1.26 |
| 247.5 | 1.26 |
| 270.0 | 1.26 |
| 292.5 | 1.26 |
| 315.0 | 1.26 |
| 337.5 | 1.26 |
| 360.0 | 1.26 |