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乐达凯

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Client:

LumCAT: LCD-RD-LS-15-CCT-120-36-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.118

Lamp flux(lm): 1228.3

Power (W): 13.740

Number of Lamps: 1

PF: 0.973

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 1228.29, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.40

Central intensity(cd): 2173.812, Maximum intensity(cd): 2173.812

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.8

[C90/270]Total=39.0

Field angle(10%Imax): [C0/180]Total=69.4

[C90/270]Total=69.4

Maximum s/h(1/2): C0\_180=0.64 C90\_270=0.64

Maximum s/h(1/4): C0\_180=0.63 C90\_270=0.63

Up flux rate of lamp(%): 0.33%

Down flux rate of lamp(%): 99.67%

Up flux rate of LUM(%): 0.33%

Down flux rate of LUM(%): 99.67%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 95.366%

## 乐达凯 LCD-RD-LS-15-CCT-120-36-WT

Zonal flux distribution table

Appendix Page: 2 Total:12

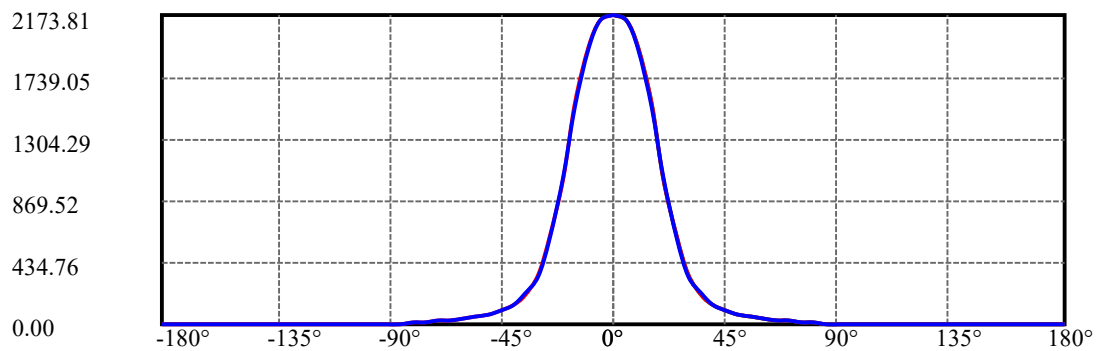
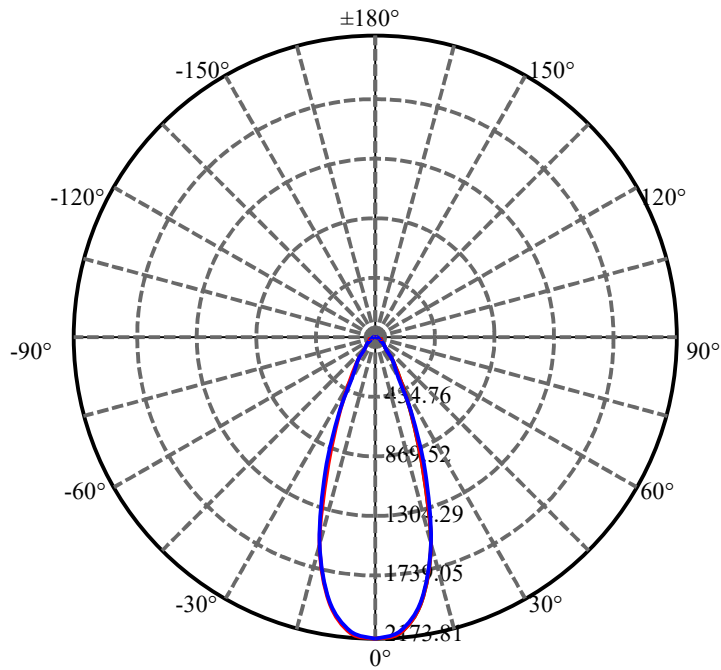
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 2173.812      | 0.000       | 0         | 0.00%       | 0.00%      |
| 5.0                | 2136.246      | 51.526      | 51.526    | 4.19%       | 4.19%      |
| 10.0               | 1940.552      | 145.840     | 197.365   | 11.87%      | 16.07%     |
| 15.0               | 1542.234      | 206.596     | 403.962   | 16.82%      | 32.89%     |
| 20.0               | 1039.681      | 212.786     | 616.748   | 17.32%      | 50.21%     |
| 25.0               | 613.889       | 173.429     | 790.177   | 14.12%      | 64.33%     |
| 30.0               | 349.080       | 121.865     | 912.042   | 9.92%       | 74.25%     |
| 35.0               | 208.882       | 82.164      | 994.205   | 6.69%       | 80.94%     |
| 40.0               | 132.990       | 57.039      | 1051.244  | 4.64%       | 85.59%     |
| 45.0               | 90.139        | 41.314      | 1092.558  | 3.36%       | 88.95%     |
| 50.0               | 66.899        | 31.732      | 1124.29   | 2.58%       | 91.53%     |
| 55.0               | 51.651        | 25.777      | 1150.067  | 2.10%       | 93.63%     |
| 60.0               | 40.494        | 21.299      | 1171.366  | 1.73%       | 95.37%     |
| 65.0               | 30.882        | 17.352      | 1188.717  | 1.41%       | 96.78%     |
| 70.0               | 23.239        | 13.704      | 1202.421  | 1.12%       | 97.89%     |
| 75.0               | 16.136        | 10.292      | 1212.713  | 0.84%       | 98.73%     |
| 80.0               | 9.536         | 6.869       | 1219.582  | 0.56%       | 99.29%     |
| 85.0               | 3.357         | 3.503       | 1223.086  | 0.29%       | 99.58%     |
| 90.0               | 0.695         | 1.110       | 1224.195  | 0.09%       | 99.67%     |
| 95.0               | 0.000         | 0.190       | 1224.386  | 0.02%       | 99.68%     |
| 100.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 105.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 110.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 115.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 120.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 125.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 130.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 135.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 140.0              | 0.000         | 0.000       | 1224.386  | 0.00%       | 99.68%     |
| 145.0              | 0.927         | 0.155       | 1224.54   | 0.01%       | 99.69%     |
| 150.0              | 1.853         | 0.409       | 1224.95   | 0.03%       | 99.73%     |
| 155.0              | 3.243         | 0.645       | 1225.595  | 0.05%       | 99.78%     |
| 160.0              | 4.169         | 0.777       | 1226.372  | 0.06%       | 99.84%     |
| 165.0              | 5.096         | 0.764       | 1227.135  | 0.06%       | 99.91%     |
| 170.0              | 5.559         | 0.632       | 1227.768  | 0.05%       | 99.96%     |
| 175.0              | 6.022         | 0.414       | 1228.182  | 0.03%       | 99.99%     |
| 180.0              | 3.011         | 0.108       | 1228.29   | 0.01%       | 100.00%    |

## ZONAL LUMEN SUMMARY

| Zone    | Lumens  | %Lamp   | %Fixt   |
|---------|---------|---------|---------|
| 0-30    | 912.04  | 74.25%  | 74.25%  |
| 0-40    | 1051.24 | 85.59%  | 85.59%  |
| 0-60    | 1171.37 | 95.37%  | 95.37%  |
| 0-90    | 1224.20 | 99.67%  | 99.67%  |
| 0-120   | 1224.39 | 99.68%  | 99.68%  |
| 0-180   | 1228.29 | 100.00% | 100.00% |
| 60-90   | 52.83   | 4.30%   | 4.30%   |
| 90-120  | 0.19    | 0.02%   | 0.02%   |
| 90-130  | 0.19    | 0.02%   | 0.02%   |
| 90-150  | 0.75    | 0.06%   | 0.06%   |
| 90-180  | 3.99    | 0.32%   | 0.32%   |
| 0-34.30 | 982.63  | 80.00%  | 80.00%  |

## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 197.37 |
| 10-20   | 419.38 |
| 20-30   | 295.29 |
| 30-40   | 139.20 |
| 40-50   | 73.05  |
| 50-60   | 47.08  |
| 60-70   | 31.06  |
| 70-80   | 17.16  |
| 80-90   | 4.61   |
| 90-100  | 0.19   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.56   |
| 150-160 | 1.42   |
| 160-170 | 1.40   |
| 170-180 | 0.41   |



C0(Max):

C0/C180:

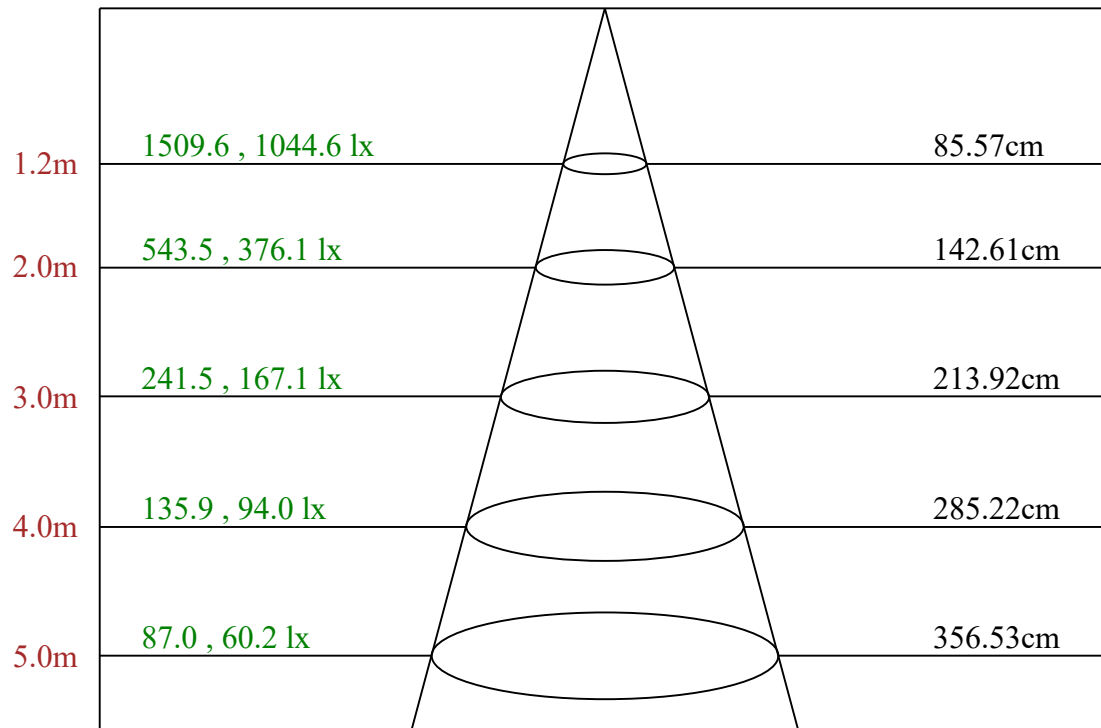
C90/C270:

Field angle(10%Imax):C0/180Left:34.7 Right:34.7

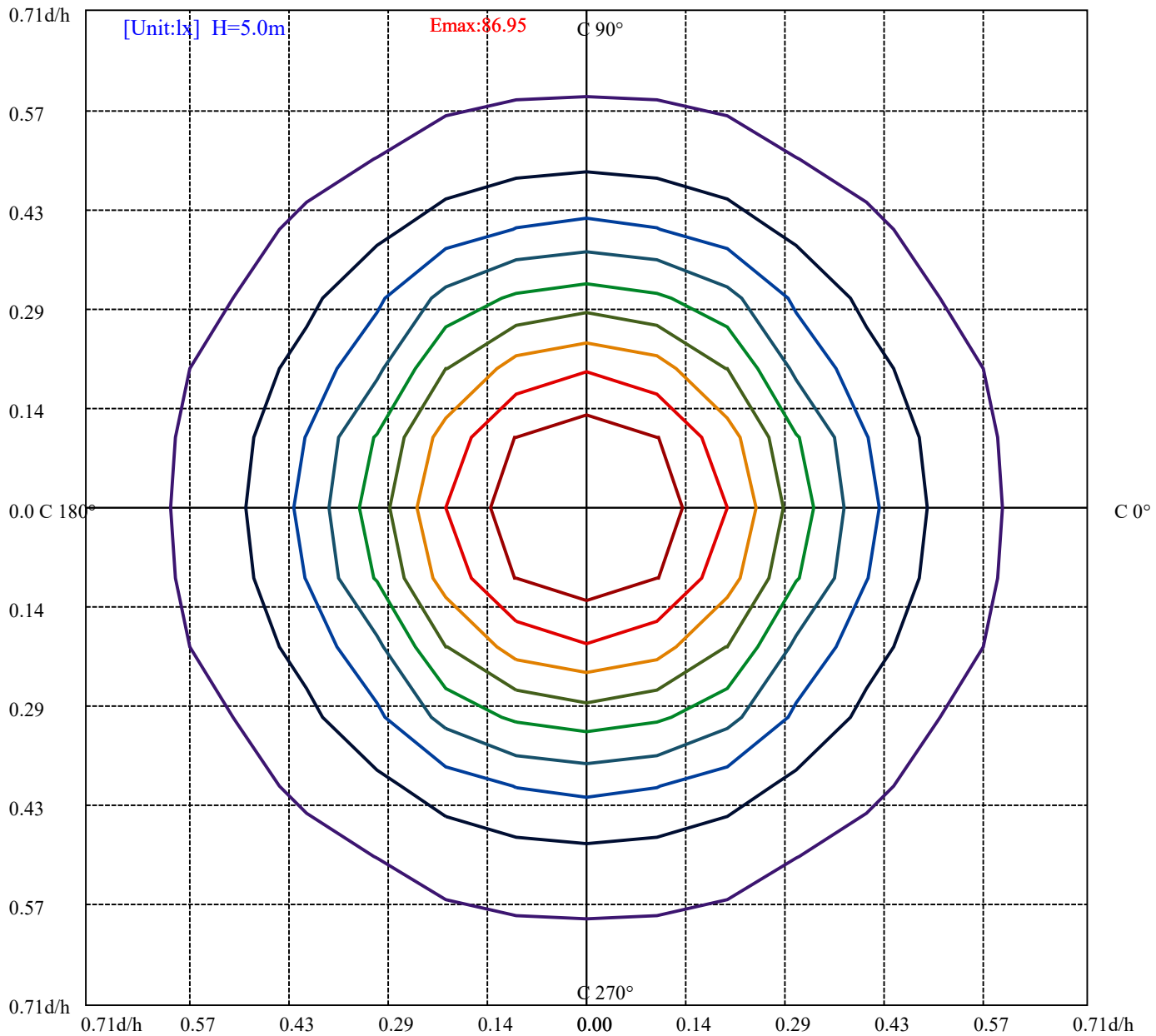
:C90/270Left:34.7 Right:34.7

Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4

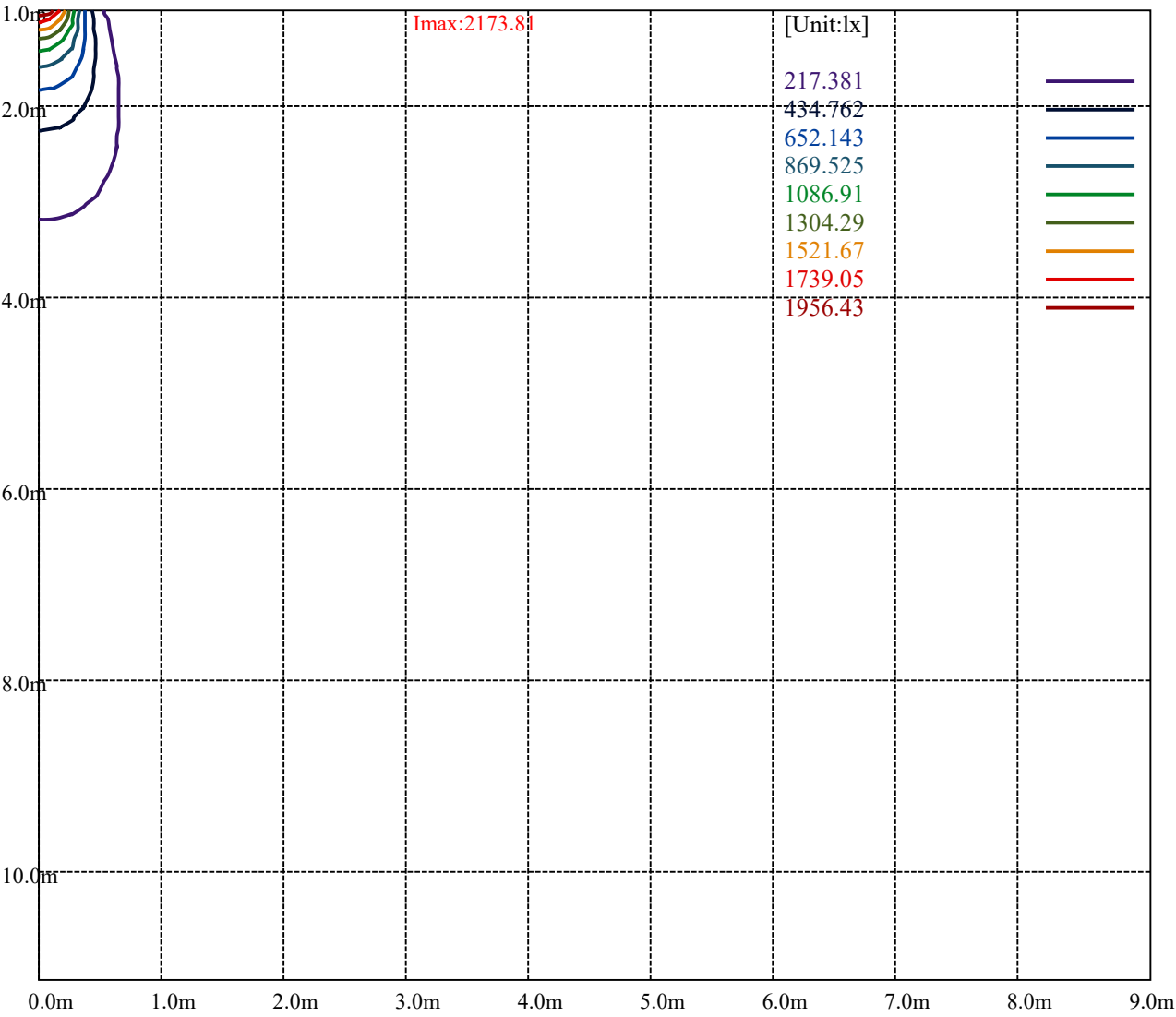
:C90/270Left:19.5 Right:19.5



Max , Ave      Beam angle of C0 plane 39.25



|                    |   |
|--------------------|---|
| (10%Emax) 8.69524  | — |
| (20%Emax) 17.39048 | — |
| (30%Emax) 26.08572 | — |
| (40%Emax) 34.78096 | — |
| (50%Emax) 43.4764  | — |
| (60%Emax) 52.1716  | — |
| (70%Emax) 60.8668  | — |
| (80%Emax) 69.562   | — |
| (90%Emax) 78.2572  | — |



Luminance Table

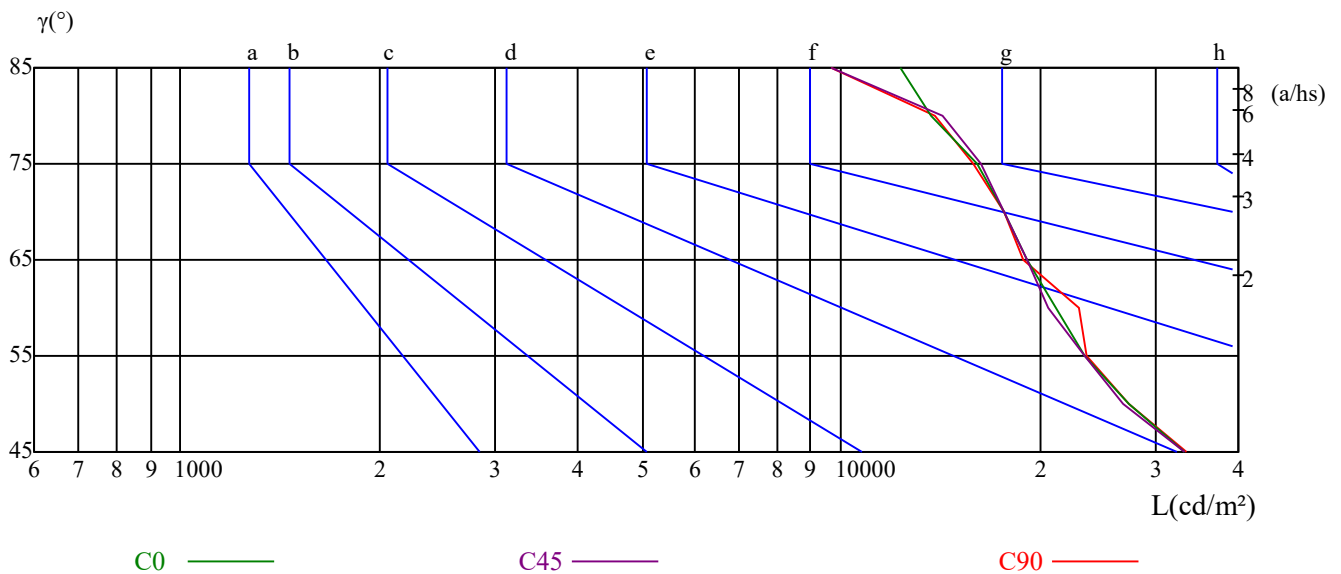
| $\gamma$ | 45    | 50    | 55    | 60    | 65    | 70    | 75    | 80    | 85    |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0       | 33088 | 27346 | 23398 | 21140 | 19110 | 17710 | 16061 | 13679 | 12264 |
| C45      | 33128 | 26768 | 23367 | 20648 | 19143 | 17651 | 16329 | 14256 | 9698  |
| C90      | 33441 | 27215 | 23558 | 22922 | 18841 | 17637 | 15848 | 13895 | 9690  |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 19110      | 18841      | 19143   | 16061      | 15848      | 16329   | 12264      | 9690       | 9698    |

Glare Table

| Glare | Quality | Service Values Illuminance(lx) |      |      |            |            |            |            |            |
|-------|---------|--------------------------------|------|------|------------|------------|------------|------------|------------|
| 1.15  | A       | 2000                           | 1000 | 500  | $\leq 300$ |            |            |            |            |
| 1.5   | B       |                                | 2000 | 1000 | 500        | $\leq 300$ |            |            |            |
| 1.85  | C       |                                |      | 2000 | 1000       | 500        | $\leq 300$ |            |            |
| 2.2   | D       |                                |      |      | 2000       | 1000       | 500        | $\leq 300$ |            |
| 2.55  | E       |                                |      |      |            | 2000       | 1000       | 500        | $\leq 300$ |
|       |         | a                              | b    | c    | d          | e          | f          | g          | h          |

Luminance Limiting Curve



| RHOC | 80                                      |      |      | 70   |      |      | 50   |      |      | 30   |      |      | 10   |      |      | 0    |
|------|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RHOW | 50                                      | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 0    |
| RCR  | COEFFICIENTS OF UTILIZATION RHOFC=20 CU |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0    | 1.19                                    | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1    | 1.10                                    | 1.08 | 1.05 | 1.08 | 1.06 | 1.04 | 1.04 | 1.02 | 1.00 | 1.00 | 0.99 | 0.97 | 0.97 | 0.95 | 0.94 | 0.92 |
| 2    | 1.02                                    | 0.98 | 0.95 | 1.01 | 0.97 | 0.94 | 0.97 | 0.94 | 0.91 | 0.94 | 0.92 | 0.89 | 0.91 | 0.89 | 0.88 | 0.86 |
| 3    | 0.95                                    | 0.90 | 0.86 | 0.94 | 0.89 | 0.86 | 0.91 | 0.87 | 0.84 | 0.89 | 0.86 | 0.83 | 0.87 | 0.84 | 0.82 | 0.80 |
| 4    | 0.89                                    | 0.84 | 0.80 | 0.88 | 0.83 | 0.79 | 0.86 | 0.82 | 0.78 | 0.84 | 0.80 | 0.77 | 0.82 | 0.79 | 0.76 | 0.75 |
| 5    | 0.84                                    | 0.78 | 0.74 | 0.83 | 0.78 | 0.74 | 0.81 | 0.77 | 0.73 | 0.80 | 0.76 | 0.72 | 0.78 | 0.75 | 0.72 | 0.70 |
| 6    | 0.80                                    | 0.74 | 0.70 | 0.79 | 0.73 | 0.69 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.68 | 0.74 | 0.71 | 0.68 | 0.66 |
| 7    | 0.75                                    | 0.70 | 0.65 | 0.75 | 0.69 | 0.65 | 0.73 | 0.68 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.64 | 0.63 |
| 8    | 0.72                                    | 0.66 | 0.62 | 0.71 | 0.66 | 0.62 | 0.70 | 0.65 | 0.61 | 0.69 | 0.64 | 0.61 | 0.68 | 0.64 | 0.61 | 0.60 |
| 9    | 0.68                                    | 0.63 | 0.59 | 0.68 | 0.62 | 0.59 | 0.67 | 0.62 | 0.58 | 0.66 | 0.61 | 0.58 | 0.65 | 0.61 | 0.58 | 0.57 |
| 10   | 0.65                                    | 0.60 | 0.56 | 0.65 | 0.59 | 0.56 | 0.64 | 0.59 | 0.56 | 0.63 | 0.59 | 0.56 | 0.62 | 0.58 | 0.55 | 0.54 |

# 乐达凯 LCD-RD-LS-15-CCT-120-36-WT

| Intensity data(cd) |         |         |         |         |         |        |        |        |        | Appendix Page: 10 Total:12 |  |
|--------------------|---------|---------|---------|---------|---------|--------|--------|--------|--------|----------------------------|--|
| C/γ(°)             | 0.0     | 5.0     | 10.0    | 15.0    | 20.0    | 25.0   | 30.0   | 35.0   | 40.0   |                            |  |
| 0.0                | 2173.81 | 2182.04 | 2123.53 | 1864.83 | 1311.78 | 821.81 | 453.41 | 261.44 | 159.97 |                            |  |
| 15.0               | 2173.81 | 2183.91 | 2115.95 | 1856.05 | 1329.82 | 800.83 | 453.68 | 260.82 | 158.88 |                            |  |
| 30.0               | 2173.81 | 2183.97 | 2109.20 | 1858.12 | 1340.29 | 802.14 | 438.45 | 255.69 | 156.00 |                            |  |
| 45.0               | 2173.81 | 2176.59 | 2107.04 | 1846.44 | 1348.43 | 784.58 | 442.37 | 256.89 | 155.80 |                            |  |
| 60.0               | 2173.81 | 2175.67 | 2112.47 | 1854.11 | 1324.36 | 788.11 | 429.37 | 259.30 | 157.99 |                            |  |
| 75.0               | 2173.81 | 2173.81 | 2116.19 | 1839.24 | 1329.01 | 792.76 | 434.95 | 257.44 | 157.99 |                            |  |
| 90.0               | 2173.81 | 2164.53 | 2103.24 | 1838.59 | 1306.52 | 797.65 | 425.29 | 260.00 | 161.57 |                            |  |
| 105.0              | 2173.81 | 2165.47 | 2106.11 | 1858.50 | 1326.17 | 796.63 | 440.51 | 257.82 | 161.37 |                            |  |
| 120.0              | 2173.81 | 2168.24 | 2098.60 | 1842.31 | 1347.37 | 816.22 | 447.58 | 260.00 | 159.72 |                            |  |
| 135.0              | 2173.81 | 2174.74 | 2109.55 | 1857.15 | 1345.83 | 810.29 | 461.03 | 260.78 | 162.99 |                            |  |
| 150.0              | 2173.81 | 2177.54 | 2113.25 | 1844.90 | 930.83  | 824.61 | 461.22 | 273.94 | 162.13 |                            |  |
| 165.0              | 2173.81 | 2167.31 | 2106.95 | 1853.45 | 1344.59 | 819.94 | 460.58 | 273.93 | 158.79 |                            |  |
| 180.0              | 2173.81 | 2091.54 | 1769.76 | 1240.48 | 745.93  | 430.56 | 253.22 | 155.40 | 102.38 |                            |  |
| 195.0              | 2173.81 | 2092.08 | 1779.83 | 1259.10 | 756.75  | 426.13 | 253.47 | 159.80 | 102.86 |                            |  |
| 210.0              | 2173.81 | 2107.35 | 1785.20 | 1247.98 | 752.30  | 425.53 | 258.46 | 156.00 | 105.23 |                            |  |
| 225.0              | 2173.81 | 2109.82 | 1806.56 | 1233.43 | 760.46  | 433.09 | 256.89 | 159.51 | 105.72 |                            |  |
| 240.0              | 2173.81 | 2117.12 | 1766.74 | 1249.08 | 759.30  | 431.23 | 261.15 | 158.92 | 107.81 |                            |  |
| 255.0              | 2173.81 | 2105.04 | 1772.32 | 1239.79 | 771.38  | 424.73 | 259.30 | 161.71 | 106.88 |                            |  |
| 270.0              | 2173.81 | 2095.81 | 1753.16 | 1218.30 | 760.51  | 430.86 | 256.29 | 159.72 | 105.86 |                            |  |
| 285.0              | 2173.81 | 2082.93 | 1762.98 | 1226.01 | 749.33  | 421.96 | 250.40 | 158.58 | 141.89 |                            |  |
| 300.0              | 2173.81 | 2094.88 | 1751.31 | 1216.44 | 1107.80 | 420.65 | 247.93 | 154.14 | 102.14 |                            |  |
| 315.0              | 2173.81 | 2098.37 | 1767.74 | 1224.75 | 734.85  | 410.73 | 249.61 | 151.81 | 101.52 |                            |  |
| 330.0              | 2173.81 | 2101.13 | 1758.24 | 1241.11 | 732.37  | 417.43 | 245.05 | 151.88 | 99.70  |                            |  |
| 345.0              | 2173.81 | 2080.02 | 1777.31 | 1203.44 | 736.37  | 404.86 | 237.72 | 147.64 | 96.57  |                            |  |
| 360.0              | 2173.81 | 2182.04 | 2123.53 | 1864.83 | 1311.78 | 821.81 | 453.41 | 261.44 | 159.97 |                            |  |
| C/γ(°)             | 45.0    | 50.0    | 55.0    | 60.0    | 65.0    | 70.0   | 75.0   | 80.0   | 85.0   |                            |  |
| 0.0                | 105.13  | 76.79   | 58.50   | 46.62   | 35.65   | 27.42  | 20.11  | 13.71  | 7.31   |                            |  |
| 15.0               | 104.70  | 74.39   | 58.78   | 45.92   | 35.82   | 27.55  | 20.20  | 13.78  | 6.43   |                            |  |
| 30.0               | 102.46  | 74.77   | 58.15   | 45.23   | 35.08   | 27.69  | 20.31  | 13.85  | 6.46   |                            |  |
| 45.0               | 102.01  | 73.26   | 57.50   | 44.51   | 35.24   | 27.82  | 20.40  | 13.91  | 6.49   |                            |  |
| 60.0               | 103.16  | 75.28   | 57.62   | 45.54   | 35.32   | 27.88  | 20.45  | 13.94  | 6.51   |                            |  |
| 75.0               | 103.16  | 75.28   | 58.55   | 46.47   | 35.32   | 27.88  | 20.45  | 13.94  | 6.51   |                            |  |
| 90.0               | 104.93  | 75.22   | 58.50   | 46.43   | 35.29   | 27.86  | 20.43  | 13.93  | 6.50   |                            |  |
| 105.0              | 103.87  | 75.12   | 58.43   | 44.51   | 35.24   | 26.89  | 20.40  | 13.91  | 6.49   |                            |  |
| 120.0              | 104.00  | 74.29   | 57.57   | 45.50   | 35.29   | 26.93  | 20.43  | 13.93  | 6.50   |                            |  |
| 135.0              | 106.18  | 75.44   | 59.61   | 45.64   | 36.32   | 27.01  | 20.49  | 13.97  | 6.52   |                            |  |
| 150.0              | 109.02  | 78.27   | 60.56   | 46.59   | 35.41   | 27.95  | 20.50  | 13.98  | 6.52   |                            |  |
| 165.0              | 107.72  | 78.00   | 60.36   | 47.36   | 36.21   | 27.86  | 20.43  | 13.00  | 6.50   |                            |  |
| 180.0              | 74.96   | 58.50   | 44.79   | 34.74   | 26.51   | 19.20  | 11.88  | 4.57   | 0.91   |                            |  |
| 195.0              | 75.31   | 57.86   | 45.00   | 34.90   | 26.63   | 19.29  | 11.94  | 4.59   | 0.00   |                            |  |
| 210.0              | 77.54   | 60.00   | 45.23   | 35.08   | 26.77   | 18.46  | 12.00  | 4.62   | 0.92   |                            |  |
| 225.0              | 77.90   | 59.35   | 45.44   | 35.24   | 26.89   | 19.48  | 12.06  | 4.64   | 0.00   |                            |  |
| 240.0              | 77.14   | 60.41   | 46.47   | 35.32   | 26.02   | 19.52  | 12.08  | 4.65   | 0.00   |                            |  |
| 255.0              | 77.14   | 59.48   | 45.54   | 35.32   | 26.02   | 19.52  | 11.15  | 10.22  | 0.00   |                            |  |
| 270.0              | 77.07   | 59.43   | 45.50   | 41.79   | 26.00   | 18.57  | 11.14  | 4.64   | 0.00   |                            |  |
| 285.0              | 76.05   | 58.43   | 44.51   | 34.31   | 25.97   | 18.55  | 12.06  | 4.64   | 0.00   |                            |  |
| 300.0              | 74.29   | 57.57   | 43.64   | 34.36   | 26.00   | 18.57  | 12.07  | 4.64   | 0.00   |                            |  |
| 315.0              | 74.51   | 56.81   | 43.77   | 33.53   | 26.08   | 18.63  | 12.11  | 5.59   | 0.00   |                            |  |
| 330.0              | 72.68   | 55.91   | 42.86   | 33.54   | 26.09   | 18.64  | 12.11  | 4.66   | 0.00   |                            |  |
| 345.0              | 72.43   | 55.71   | 42.71   | 33.43   | 26.00   | 18.57  | 12.07  | 5.57   | 0.00   |                            |  |
| 360.0              | 105.13  | 76.79   | 58.50   | 46.62   | 35.65   | 27.42  | 20.11  | 13.71  | 7.31   |                            |  |

# 乐达凯 LCD-RD-LS-15-CCT-120-36-WT

| Intensity data(cd) |       |       |       |       |       |       |       |       | Appendix Page: 11 Total:12 |  |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|--|
| C/γ(°)             | 90.0  | 95.0  | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0                      |  |
| 0.0                | 0.91  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 15.0               | 0.92  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 30.0               | 0.92  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 45.0               | 1.85  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 60.0               | 1.86  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 75.0               | 1.86  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 90.0               | 1.86  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 105.0              | 1.85  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 120.0              | 1.86  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 135.0              | 0.93  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 150.0              | 0.93  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 165.0              | 0.93  | 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                       |  |
| 195.0              | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 210.0              | 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                       |  |
| 240.0              | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 255.0              | 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                       |  |
| 285.0              | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 300.0              | 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                       |  |
| 330.0              | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 345.0              | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 360.0              | 0.91  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00                       |  |
| 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  | 0.91  | 1.83  | 3.66  | 4.57  | 5.48  | 6.40  | 6.40                       |  |
| 15.0               | 0.00  | 0.00  | 0.92  | 1.84  | 3.67  | 4.59  | 5.51  | 6.43  | 6.43                       |  |
| 30.0               | 0.00  | 0.00  | 0.92  | 1.85  | 3.69  | 4.62  | 5.54  | 6.46  | 6.46                       |  |
| 45.0               | 0.00  | 0.00  | 0.93  | 1.85  | 3.71  | 4.64  | 5.56  | 6.49  | 6.49                       |  |
| 60.0               | 0.00  | 0.00  | 0.93  | 1.86  | 3.72  | 4.65  | 5.58  | 6.51  | 6.51                       |  |
| 75.0               | 0.00  | 0.00  | 0.93  | 1.86  | 3.72  | 4.65  | 5.58  | 6.51  | 6.51                       |  |
| 90.0               | 0.00  | 0.00  | 0.93  | 1.86  | 3.71  | 4.64  | 5.57  | 6.50  | 6.50                       |  |
| 105.0              | 0.00  | 0.00  | 0.93  | 1.85  | 3.71  | 4.64  | 5.56  | 6.49  | 6.49                       |  |
| 120.0              | 0.00  | 0.00  | 0.93  | 1.86  | 3.71  | 4.64  | 5.57  | 6.50  | 6.50                       |  |
| 135.0              | 0.00  | 0.00  | 0.93  | 1.86  | 3.73  | 4.66  | 5.59  | 6.52  | 6.52                       |  |
| 150.0              | 0.00  | 0.00  | 0.93  | 1.86  | 3.73  | 4.66  | 5.59  | 6.52  | 6.52                       |  |
| 165.0              | 0.00  | 0.00  | 0.93  | 1.86  | 3.71  | 4.64  | 5.57  | 6.50  | 6.50                       |  |
| 180.0              | 0.00  | 0.00  | 0.91  | 1.83  | 2.74  | 4.57  | 4.57  | 4.57  | 5.48                       |  |
| 195.0              | 0.00  | 0.00  | 0.92  | 1.84  | 2.76  | 2.76  | 4.59  | 4.59  | 5.51                       |  |
| 210.0              | 0.00  | 0.00  | 0.92  | 1.85  | 2.77  | 3.69  | 4.62  | 4.62  | 5.54                       |  |
| 225.0              | 0.00  | 0.00  | 0.93  | 1.85  | 2.78  | 3.71  | 4.64  | 4.64  | 5.56                       |  |
| 240.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.72  | 4.65  | 4.65  | 5.58                       |  |
| 255.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.72  | 4.65  | 4.65  | 5.58                       |  |
| 270.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.71  | 4.64  | 4.64  | 5.57                       |  |
| 285.0              | 0.00  | 0.00  | 0.93  | 1.85  | 2.78  | 3.71  | 4.64  | 4.64  | 5.56                       |  |
| 300.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.71  | 4.64  | 4.64  | 5.57                       |  |
| 315.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.73  | 4.66  | 4.66  | 5.59                       |  |
| 330.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.80  | 3.73  | 4.66  | 4.66  | 5.59                       |  |
| 345.0              | 0.00  | 0.00  | 0.93  | 1.86  | 2.79  | 3.71  | 4.64  | 4.64  | 5.57                       |  |
| 360.0              | 0.00  | 0.00  | 0.91  | 1.83  | 3.66  | 4.57  | 5.48  | 6.40  | 6.40                       |  |

## Intensity data(cd)

|                       |       |
|-----------------------|-------|
| C/ $\gamma(^{\circ})$ | 180.0 |
| 0.0                   | 5.48  |
| 15.0                  | 6.43  |
| 30.0                  | 6.46  |
| 45.0                  | 6.49  |
| 60.0                  | 6.51  |
| 75.0                  | 6.51  |
| 90.0                  | 5.57  |
| 105.0                 | 6.49  |
| 120.0                 | 5.57  |
| 135.0                 | 5.59  |
| 150.0                 | 5.59  |
| 165.0                 | 5.57  |
| 180.0                 | 0.00  |
| 195.0                 | 0.00  |
| 210.0                 | 0.00  |
| 225.0                 | 0.00  |
| 240.0                 | 0.00  |
| 255.0                 | 0.00  |
| 270.0                 | 0.00  |
| 285.0                 | 0.00  |
| 300.0                 | 0.00  |
| 315.0                 | 0.00  |
| 330.0                 | 0.00  |
| 345.0                 | 0.00  |
| 360.0                 | 5.48  |