



Shenzhen Belling Efficiency Testing Lab Co.,Ltd
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Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

Client:

LumCAT: LRG3-32K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.02

LampCAT:

Current(A): 0.0620

Lamp flux(lm): -1.0

Power (W): 7.39

Number of Lamps: 1

PF: 0.9944

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 510.20, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 69.00

Central intensity(cd): 833.250, Maximum intensity(cd): 836.374

Angle of maximum intensity: C=157.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=44.4

[C90/270]Total=45.2

Field angle(10%Imax): [C0/180]Total=70.8

[C90/270]Total=69.5

IES Classification : TypeI

Longitudinal Classification : VeryShort

Cut Off Classification : FullCutoff

Max Cd(At 90°Vert) : 0.833

Max Cd(80 to 90°Vert) : 3.515

Street Side UpWard Lumens: - -of Lamp 0.05%of Luminaire

Street Side DownWard Lumens: - -of lamp 49.50%of Luminaire

House Side UpWard Lumens: - -of lamp 0.06%of Luminaire

House Side DownWard Lumens: - -of lamp 50.39%of Luminaire

SLI: --- (C Flash Area: 0.000)

Throw: 96.6 (long), Spread: 10.6 (narrow), Control: --- (limited)

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 58%

Operator: Jarvis

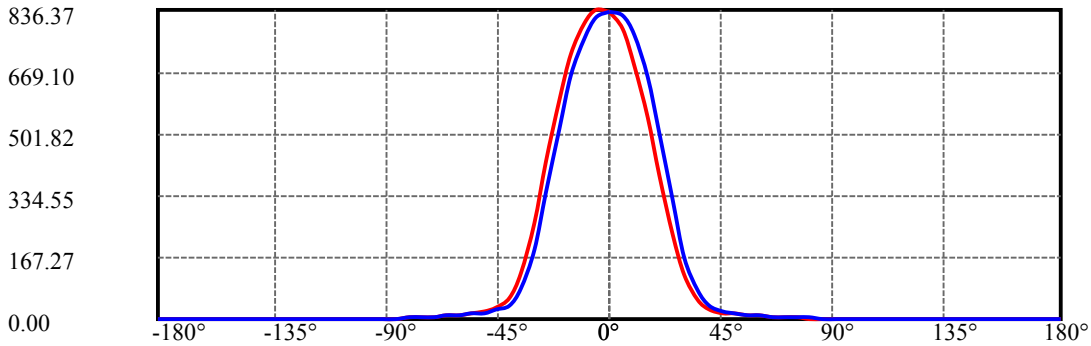
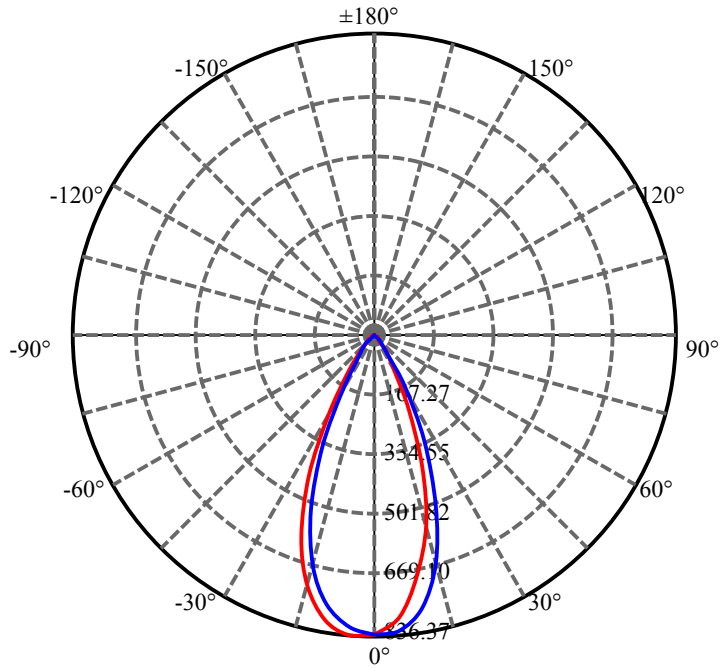
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 833.250 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 814.233 | 19.695 | 19.695 | 0.00% | 3.86% |
| 10.0 | 751.572 | 56.014 | 75.709 | 0.00% | 14.84% |
| 15.0 | 645.704 | 82.885 | 158.594 | 0.00% | 31.08% |
| 20.0 | 498.873 | 94.329 | 252.924 | 0.00% | 49.57% |
| 25.0 | 329.642 | 86.896 | 339.82 | 0.00% | 66.60% |
| 30.0 | 181.477 | 64.683 | 404.502 | 0.00% | 79.28% |
| 35.0 | 83.513 | 39.022 | 443.524 | 0.00% | 86.93% |
| 40.0 | 39.293 | 20.489 | 464.013 | 0.00% | 90.95% |
| 45.0 | 23.678 | 11.660 | 475.673 | 0.00% | 93.23% |
| 50.0 | 16.707 | 8.160 | 483.833 | 0.00% | 94.83% |
| 55.0 | 13.038 | 6.467 | 490.3 | 0.00% | 96.10% |
| 60.0 | 10.289 | 5.392 | 495.693 | 0.00% | 97.16% |
| 65.0 | 7.879 | 4.417 | 500.109 | 0.00% | 98.02% |
| 70.0 | 5.844 | 3.475 | 503.584 | 0.00% | 98.70% |
| 75.0 | 4.082 | 2.595 | 506.178 | 0.00% | 99.21% |
| 80.0 | 2.747 | 1.827 | 508.006 | 0.00% | 99.57% |
| 85.0 | 1.542 | 1.166 | 509.171 | 0.00% | 99.80% |
| 90.0 | 0.259 | 0.493 | 509.664 | 0.00% | 99.89% |
| 95.0 | 0.013 | 0.074 | 509.739 | 0.00% | 99.91% |
| 100.0 | 0.026 | 0.011 | 509.749 | 0.00% | 99.91% |
| 105.0 | 0.039 | 0.017 | 509.767 | 0.00% | 99.91% |
| 110.0 | 0.026 | 0.017 | 509.783 | 0.00% | 99.92% |
| 115.0 | 0.000 | 0.007 | 509.79 | 0.00% | 99.92% |
| 120.0 | 0.000 | 0.000 | 509.79 | 0.00% | 99.92% |
| 125.0 | 0.013 | 0.003 | 509.793 | 0.00% | 99.92% |
| 130.0 | 0.026 | 0.008 | 509.801 | 0.00% | 99.92% |
| 135.0 | 0.039 | 0.013 | 509.814 | 0.00% | 99.92% |
| 140.0 | 0.078 | 0.022 | 509.836 | 0.00% | 99.93% |
| 145.0 | 0.130 | 0.035 | 509.871 | 0.00% | 99.93% |
| 150.0 | 0.207 | 0.050 | 509.92 | 0.00% | 99.94% |
| 155.0 | 0.298 | 0.064 | 509.984 | 0.00% | 99.96% |
| 160.0 | 0.325 | 0.065 | 510.049 | 0.00% | 99.97% |
| 165.0 | 0.402 | 0.060 | 510.109 | 0.00% | 99.98% |
| 170.0 | 0.441 | 0.050 | 510.159 | 0.00% | 99.99% |
| 175.0 | 0.441 | 0.032 | 510.191 | 0.00% | 100.00% |
| 180.0 | 0.513 | 0.011 | 510.202 | 0.00% | 100.00% |

ZONAL LUMEN SUMMARY

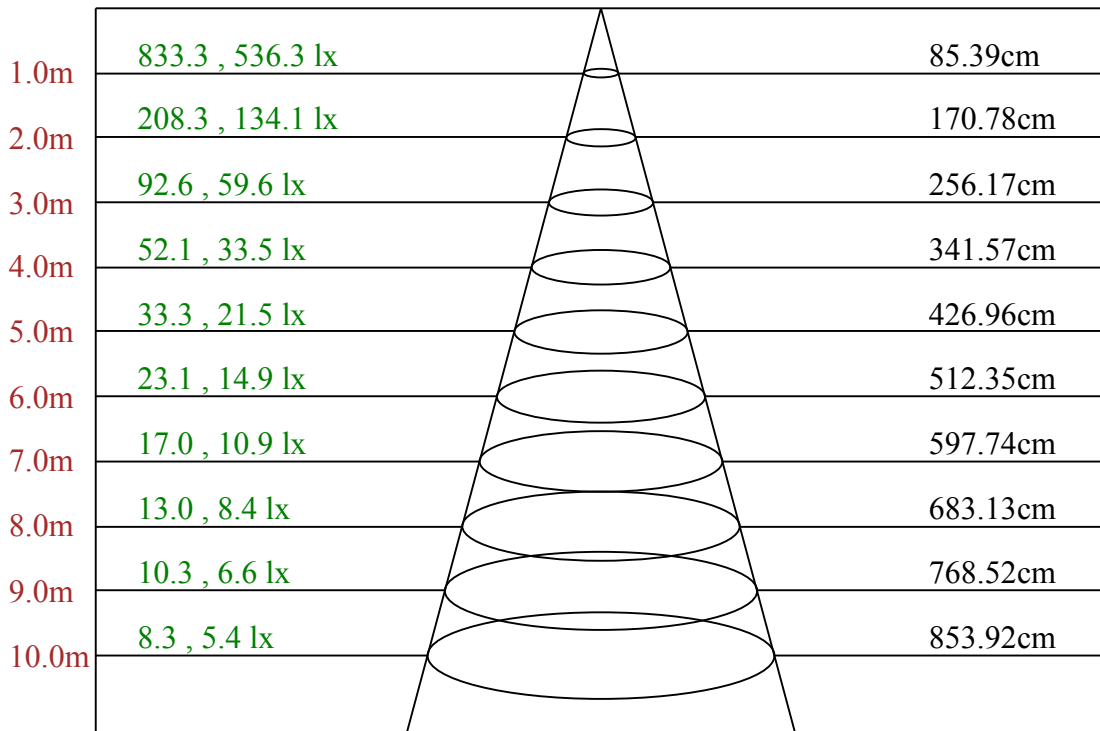
| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|-------|---------|
| 0-30 | 404.50 | N.A. | 79.28% |
| 0-40 | 464.01 | N.A. | 90.95% |
| 0-60 | 495.69 | N.A. | 97.16% |
| 0-90 | 509.66 | N.A. | 99.89% |
| 0-120 | 509.79 | N.A. | 99.92% |
| 0-180 | 510.20 | N.A. | 100.00% |
| 60-90 | 13.97 | N.A. | 2.74% |
| 90-120 | 0.13 | N.A. | 0.02% |
| 90-130 | 0.14 | N.A. | 0.03% |
| 90-150 | 0.26 | N.A. | 0.05% |
| 90-180 | 0.53 | N.A. | 0.10% |
| 0-30.47 | 408.16 | N.A. | 80.00% |

ZONAL LUMEN SUMMARY

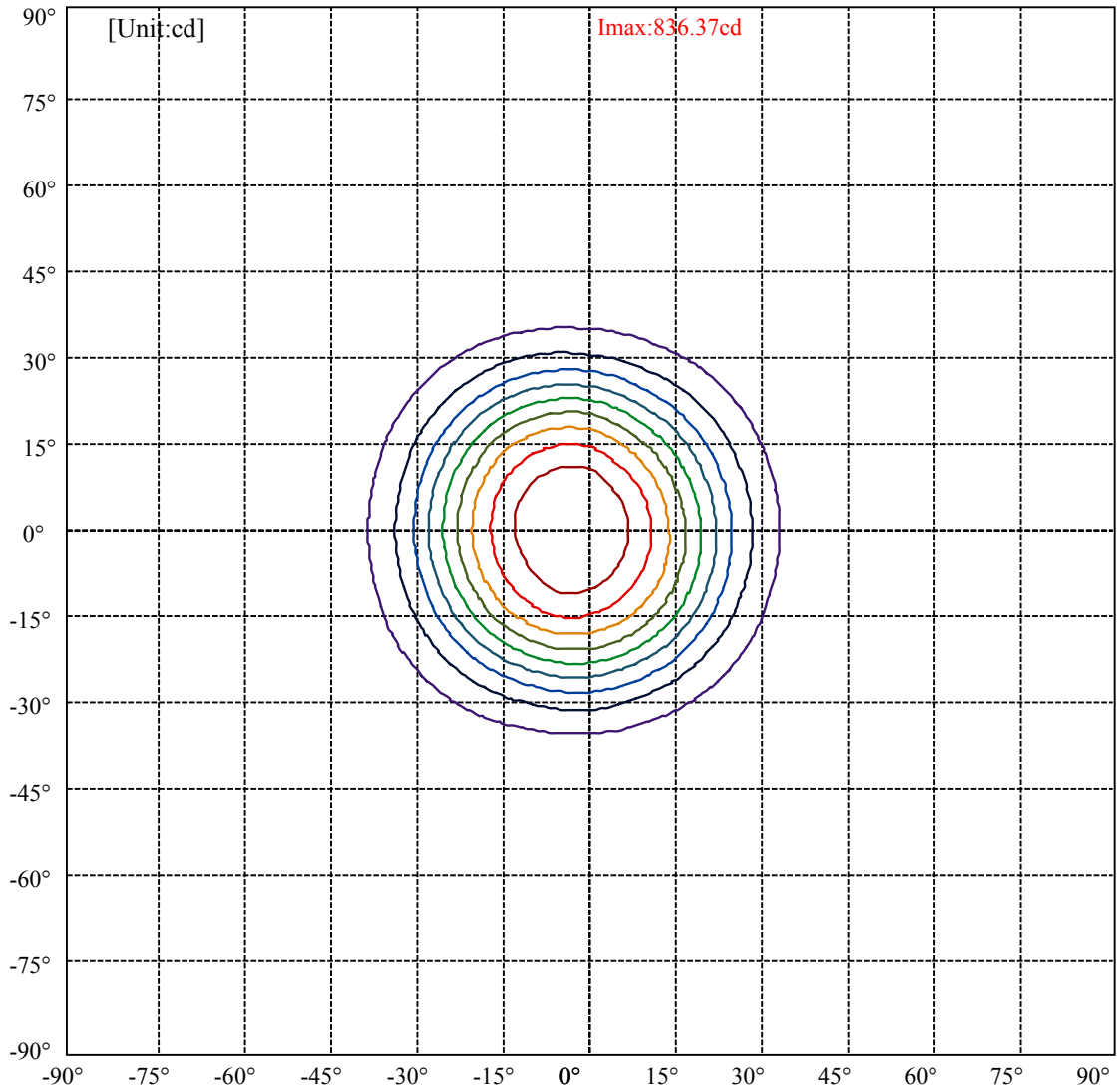
| | |
|---------|--------|
| 0-10 | 75.71 |
| 10-20 | 177.21 |
| 20-30 | 151.58 |
| 30-40 | 59.51 |
| 40-50 | 19.82 |
| 50-60 | 11.86 |
| 60-70 | 7.89 |
| 70-80 | 4.42 |
| 80-90 | 1.66 |
| 90-100 | 0.08 |
| 100-110 | 0.03 |
| 110-120 | 0.01 |
| 120-130 | 0.01 |
| 130-140 | 0.03 |
| 140-150 | 0.08 |
| 150-160 | 0.13 |
| 160-170 | 0.11 |
| 170-180 | 0.03 |



C0/C180: —
C90/C270: —
Field angle(10%Imax):C0/180Left:38.1 Right:32.7
:C90/270Left:34.9 Right:34.6
Beam Angle(50%Imax):C0/180Left:25.3 Right:19.1
:C90/270Left:22.8 Right:22.4



Max , Ave Beam angle of C157.5 plane 46.24



| | |
|-------------------|---|
| (10%Imax) 83.5712 | — |
| (20%Imax) 167.142 | — |
| (30%Imax) 250.713 | — |
| (40%Imax) 334.285 | — |
| (50%Imax) 417.856 | — |
| (60%Imax) 501.427 | — |
| (70%Imax) 584.998 | — |
| (80%Imax) 668.569 | — |
| (90%Imax) 752.14 | — |

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 | 833.25 | 785.70 | 683.35 | 546.89 | 390.16 | 230.95 | 120.75 | 51.48 | 26.88 |
| 22.5 | 833.25 | 787.95 | 691.39 | 547.26 | 385.84 | 235.75 | 117.77 | 53.94 | 27.59 |
| 45.0 | 833.25 | 796.73 | 708.41 | 569.53 | 403.83 | 247.62 | 126.49 | 55.51 | 28.06 |
| 67.5 | 833.25 | 806.58 | 728.42 | 602.50 | 438.75 | 272.10 | 140.81 | 61.20 | 29.77 |
| 90.0 | 833.25 | 822.06 | 766.30 | 655.41 | 503.89 | 323.56 | 167.48 | 76.07 | 35.86 |
| 112.5 | 833.25 | 826.58 | 784.48 | 689.03 | 545.84 | 368.06 | 205.29 | 92.33 | 42.52 |
| 135.0 | 833.25 | 834.30 | 798.94 | 713.59 | 578.02 | 405.01 | 235.35 | 109.83 | 49.37 |
| 157.5 | 833.25 | 836.37 | 803.26 | 722.66 | 592.50 | 423.39 | 252.83 | 122.04 | 54.36 |
| 180.0 | 833.25 | 835.11 | 799.34 | 718.50 | 593.20 | 426.34 | 257.83 | 127.16 | 56.86 |
| 202.5 | 833.25 | 830.99 | 788.57 | 711.57 | 585.56 | 413.43 | 246.66 | 122.51 | 56.83 |
| 225.0 | 833.25 | 828.92 | 787.85 | 709.44 | 572.01 | 393.10 | 229.26 | 109.99 | 49.73 |
| 247.5 | 833.25 | 827.46 | 785.08 | 695.96 | 549.78 | 370.10 | 200.35 | 91.18 | 41.97 |
| 270.0 | 833.25 | 815.42 | 758.42 | 661.42 | 515.70 | 340.76 | 186.34 | 81.67 | 37.93 |
| 292.5 | 833.25 | 806.57 | 736.55 | 628.79 | 479.78 | 305.54 | 157.36 | 68.78 | 33.56 |
| 315.0 | 833.25 | 797.48 | 712.12 | 594.13 | 439.53 | 270.50 | 135.98 | 59.41 | 29.92 |
| 337.5 | 833.25 | 789.52 | 692.67 | 564.59 | 407.57 | 248.04 | 123.08 | 53.11 | 27.49 |
| 360.0 | 833.25 | 785.70 | 683.35 | 546.89 | 390.16 | 230.95 | 120.75 | 51.48 | 26.88 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 17.58 | 13.44 | 10.75 | 8.48 | 6.20 | 4.76 | 3.10 | 2.07 | 1.03 |
| 22.5 | 18.12 | 13.80 | 10.91 | 9.06 | 6.79 | 4.94 | 3.29 | 2.06 | 0.62 |
| 45.0 | 18.57 | 13.83 | 10.73 | 8.25 | 6.60 | 4.54 | 3.30 | 2.27 | 0.83 |
| 67.5 | 19.23 | 13.85 | 10.96 | 8.68 | 6.82 | 5.17 | 3.52 | 2.48 | 1.03 |
| 90.0 | 22.59 | 15.96 | 12.44 | 9.74 | 7.46 | 5.60 | 3.94 | 2.70 | 1.45 |
| 112.5 | 25.22 | 17.92 | 13.55 | 10.42 | 7.71 | 6.04 | 4.17 | 2.71 | 1.67 |
| 135.0 | 28.24 | 19.46 | 15.06 | 11.30 | 8.58 | 6.49 | 4.60 | 2.93 | 1.88 |
| 157.5 | 29.57 | 20.20 | 15.20 | 12.08 | 9.16 | 6.87 | 5.00 | 3.33 | 2.29 |
| 180.0 | 31.01 | 20.26 | 15.51 | 12.61 | 9.72 | 7.44 | 5.17 | 3.52 | 1.86 |
| 202.5 | 31.50 | 20.18 | 15.85 | 12.77 | 10.30 | 7.41 | 5.35 | 3.50 | 2.27 |
| 225.0 | 28.27 | 19.19 | 15.06 | 12.18 | 9.49 | 7.02 | 5.16 | 3.51 | 2.48 |
| 247.5 | 25.02 | 17.78 | 14.47 | 11.37 | 8.68 | 6.20 | 4.55 | 3.31 | 2.27 |
| 270.0 | 23.42 | 16.79 | 13.06 | 10.57 | 7.88 | 5.80 | 4.35 | 2.70 | 1.66 |
| 292.5 | 21.68 | 16.05 | 12.71 | 9.80 | 7.30 | 5.63 | 3.34 | 2.50 | 1.25 |
| 315.0 | 20.29 | 14.85 | 11.51 | 8.79 | 6.90 | 4.81 | 3.35 | 2.30 | 1.05 |
| 337.5 | 18.54 | 13.75 | 10.83 | 8.54 | 6.46 | 4.79 | 3.12 | 2.08 | 1.04 |
| 360.0 | 17.58 | 13.44 | 10.75 | 8.48 | 6.20 | 4.76 | 3.10 | 2.07 | 1.03 |
| 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 | 0.21 | 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 | 0.21 |
| 45.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67.5 | 0.21 | 0.00 | 0.00 | 0.21 | 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 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 157.5 | 0.83 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 0.62 | 0.00 | 0.21 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 202.5 | 0.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 225.0 | 0.83 | 0.21 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.21 | 0.00 |
| 247.5 | 0.21 | 0.00 | 0.21 | 0.00 | 0.21 | 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 | 0.21 |
| 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 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LRG3-32K

Intensity data(cd)

Appendix Page: 8 Total:8

| 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 | 0.21 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| 22.5 | 0.00 | 0.00 | 0.21 | 0.21 | 0.41 | 0.21 | 0.41 | 0.41 | 0.41 |
| 45.0 | 0.00 | 0.21 | 0.21 | 0.41 | 0.41 | 0.41 | 0.41 | 0.62 | 0.41 |
| 67.5 | 0.21 | 0.41 | 0.21 | 0.41 | 0.21 | 0.21 | 0.21 | 0.41 | 0.41 |
| 90.0 | 0.00 | 0.00 | 0.00 | 0.21 | 0.21 | 0.42 | 0.62 | 0.42 | 0.42 |
| 112.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.42 | 0.42 | 0.63 | 0.42 |
| 135.0 | 0.00 | 0.00 | 0.21 | 0.21 | 0.21 | 0.42 | 0.42 | 0.42 | 0.42 |
| 157.5 | 0.00 | 0.00 | 0.00 | 0.21 | 0.21 | 0.42 | 0.42 | 0.42 | 0.42 |
| 180.0 | 0.21 | 0.00 | 0.00 | 0.41 | 0.21 | 0.21 | 0.41 | 0.41 | 0.41 |
| 202.5 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.41 | 0.41 | 0.41 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.21 | 0.41 | 0.21 | 0.41 | 0.41 | 0.41 |
| 247.5 | 0.00 | 0.21 | 0.00 | 0.00 | 0.41 | 0.21 | 0.21 | 0.41 | 0.41 |
| 270.0 | 0.00 | 0.21 | 0.42 | 0.00 | 0.21 | 0.21 | 0.42 | 0.42 | 0.62 |
| 292.5 | 0.00 | 0.00 | 0.21 | 0.21 | 0.21 | 0.42 | 0.42 | 0.42 | 0.63 |
| 315.0 | 0.00 | 0.00 | 0.21 | 0.21 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 |
| 337.5 | 0.00 | 0.00 | 0.21 | 0.21 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 |
| 360.0 | 0.00 | 0.00 | 0.00 | 0.21 | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |

| C/γ(°) | 180.0 |
|--------|-------|
| 0.0 | 0.51 |
| 22.5 | 0.51 |
| 45.0 | 0.51 |
| 67.5 | 0.51 |
| 90.0 | 0.51 |
| 112.5 | 0.51 |
| 135.0 | 0.51 |
| 157.5 | 0.51 |
| 180.0 | 0.51 |
| 202.5 | 0.51 |
| 225.0 | 0.51 |
| 247.5 | 0.51 |
| 270.0 | 0.51 |
| 292.5 | 0.51 |
| 315.0 | 0.51 |
| 337.5 | 0.51 |
| 360.0 | 0.51 |