



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.  
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Client:

LumCAT: LD4R-50K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.11

LampCAT:

Current(A): 0.1240

Lamp flux(lm): -1.0

Power (W): 14.70

Number of Lamps: 1

PF: 0.9867

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 1403.99, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 95.54

Central intensity(cd): 4143.230, Maximum intensity(cd): 4149.954

Angle of maximum intensity: C=90.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=34.2

[C90/270]Total=34.0

Field angle(10%Imax): [C0/180]Total=51.9

[C90/270]Total=51.7

Maximum s/h(1/2): C0\_180=0.61 C90\_270=0.62

Maximum s/h(1/4): C0\_180=0.56 C90\_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.13%

Down flux rate of LUM(%): 99.87%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.925%

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

Date:  
Humidity(%): 59%

Operator: jarvis

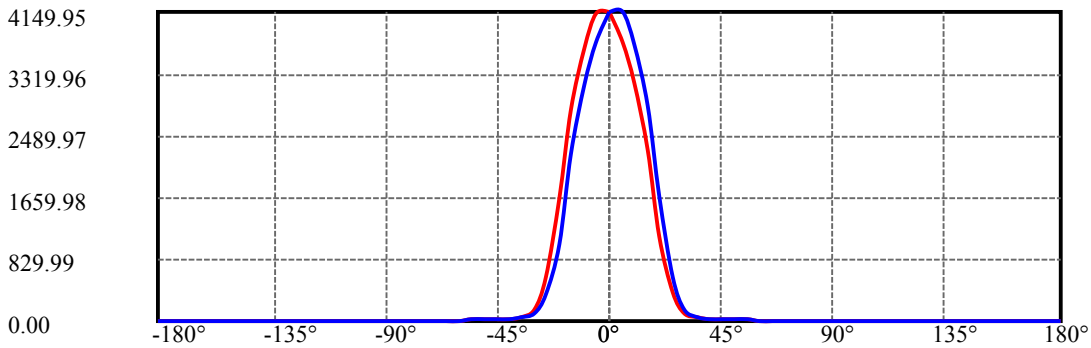
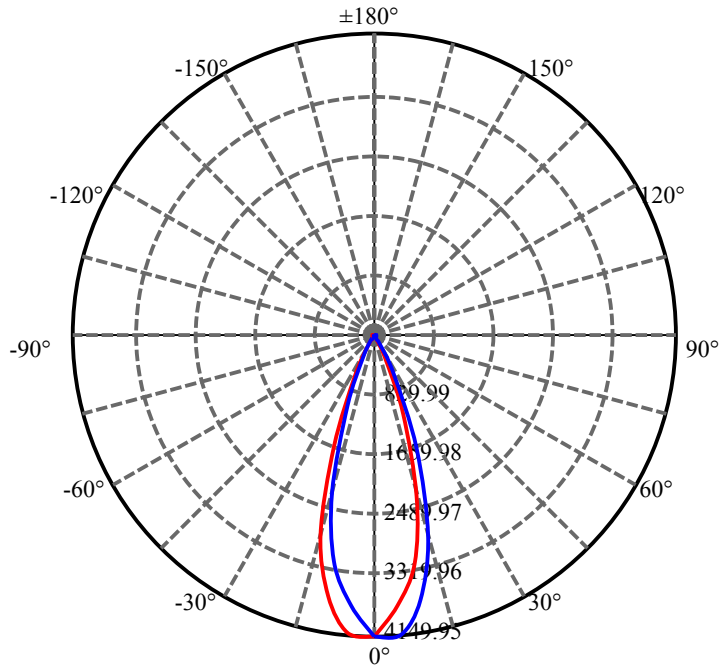
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4143.230	0.000	0	0.00%	0.00%
5.0	3920.253	96.397	96.397	0.00%	6.87%
10.0	3423.073	262.694	359.09	0.00%	25.58%
15.0	2553.451	354.523	713.614	0.00%	50.83%
20.0	1373.455	323.632	1037.246	0.00%	73.88%
25.0	492.272	195.680	1232.926	0.00%	87.82%
30.0	139.883	80.000	1312.926	0.00%	93.51%
35.0	56.541	28.925	1341.851	0.00%	95.57%
40.0	33.536	15.029	1356.88	0.00%	96.64%
45.0	24.095	10.671	1367.55	0.00%	97.40%
50.0	18.015	8.509	1376.059	0.00%	98.01%
55.0	14.232	7.012	1383.071	0.00%	98.51%
60.0	10.999	5.832	1388.903	0.00%	98.93%
65.0	8.141	4.653	1393.556	0.00%	99.26%
70.0	5.763	3.521	1397.076	0.00%	99.51%
75.0	3.830	2.508	1399.584	0.00%	99.69%
80.0	2.097	1.586	1401.17	0.00%	99.80%
85.0	0.785	0.783	1401.953	0.00%	99.86%
90.0	0.012	0.218	1402.171	0.00%	99.87%
95.0	0.000	0.003	1402.174	0.00%	99.87%
100.0	0.000	0.000	1402.174	0.00%	99.87%
105.0	0.012	0.003	1402.177	0.00%	99.87%
110.0	0.023	0.009	1402.186	0.00%	99.87%
115.0	0.023	0.012	1402.198	0.00%	99.87%
120.0	0.035	0.014	1402.212	0.00%	99.87%
125.0	0.035	0.016	1402.229	0.00%	99.87%
130.0	0.059	0.020	1402.249	0.00%	99.88%
135.0	0.082	0.028	1402.277	0.00%	99.88%
140.0	0.211	0.054	1402.331	0.00%	99.88%
145.0	0.457	0.111	1402.443	0.00%	99.89%
150.0	0.785	0.183	1402.626	0.00%	99.90%
155.0	1.230	0.255	1402.881	0.00%	99.92%
160.0	1.663	0.303	1403.184	0.00%	99.94%
165.0	2.120	0.312	1403.496	0.00%	99.96%
170.0	2.308	0.263	1403.759	0.00%	99.98%
175.0	2.425	0.169	1403.928	0.00%	100.00%
180.0	2.646	0.061	1403.988	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1312.93	N.A.	93.51%
0-40	1356.88	N.A.	96.64%
0-60	1388.90	N.A.	98.93%
0-90	1402.17	N.A.	99.87%
0-120	1402.21	N.A.	99.87%
0-180	1403.99	N.A.	100.00%
60-90	13.27	N.A.	0.95%
90-120	0.04	N.A.	0.00%
90-130	0.08	N.A.	0.01%
90-150	0.45	N.A.	0.03%
90-180	1.76	N.A.	0.13%
0-22.20	1123.19	N.A.	80.00%

## ZONAL LUMEN SUMMARY

0-10	359.09
10-20	678.16
20-30	275.68
30-40	43.95
40-50	19.18
50-60	12.84
60-70	8.17
70-80	4.09
80-90	1.00
90-100	0.00
100-110	0.01
110-120	0.03
120-130	0.04
130-140	0.08
140-150	0.29
150-160	0.56
160-170	0.57
170-180	0.17

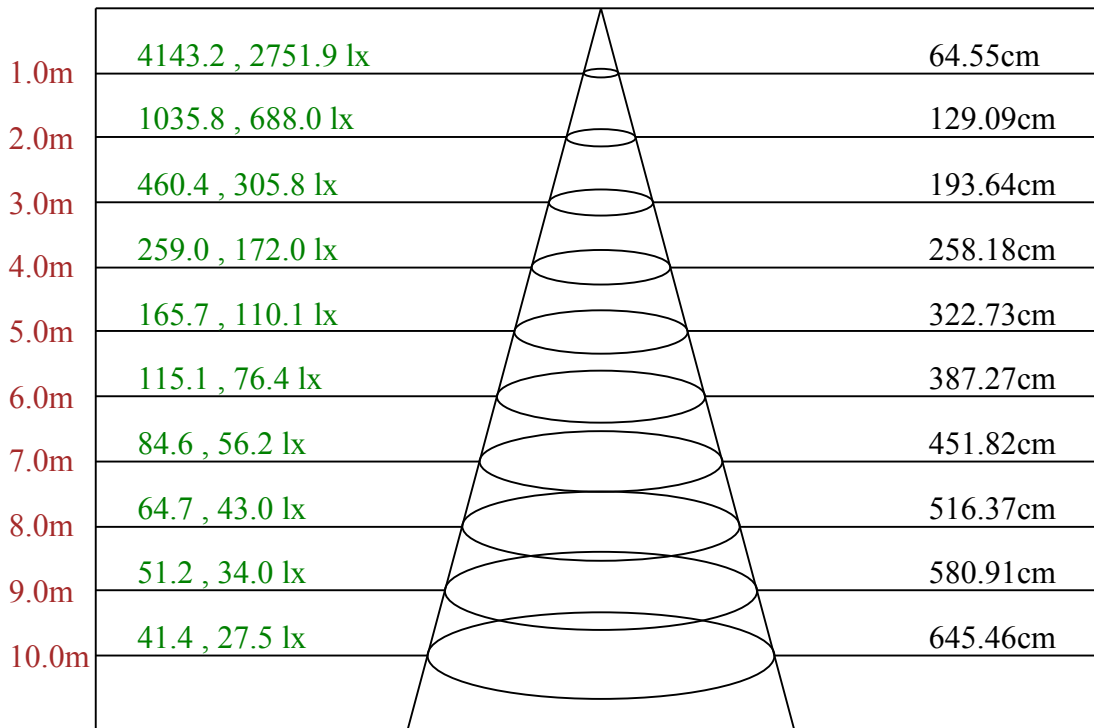


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:27.1 Right:24.8  
:C90/270Left:24.6 Right:27.1

Beam Angle(50%Imax):C0/180Left:18.2 Right:16.0  
:C90/270Left:15.7 Right:18.3



Max , Ave      Beam angle of C90 plane 35.77

## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4143.23	3734.27	3200.51	2289.85	1144.18	390.39	112.26	51.73	29.99
22.5	4143.23	3734.08	3126.10	2144.42	1048.59	332.48	93.90	47.60	30.17
45.0	4143.23	3704.47	3096.49	2130.92	974.94	294.06	86.21	45.36	29.05
67.5	4143.23	3689.85	3053.76	2064.76	950.95	285.81	81.15	46.10	28.68
90.0	4143.23	4149.95	3700.16	2881.15	1672.31	596.36	161.55	59.79	37.67
112.5	4143.23	4133.09	3692.66	2869.90	1636.71	601.98	157.80	58.66	36.55
135.0	4143.23	4121.84	3673.92	2856.78	1662.94	614.16	164.74	60.72	37.30
157.5	4143.23	4099.35	3668.30	2868.03	1642.33	651.65	170.74	61.10	36.17
180.0	4143.23	4112.47	3653.30	2832.42	1638.58	600.86	162.68	61.10	36.92
202.5	4143.23	4101.23	3658.92	2817.43	1616.09	582.11	167.18	61.10	36.73
225.0	4143.23	4099.35	3670.17	2834.29	1653.57	589.61	169.24	59.79	37.86
247.5	4143.23	4116.22	3673.92	2884.90	1758.53	654.27	202.22	66.53	40.11
270.0	4143.23	3734.83	3176.70	2247.87	1043.72	363.21	104.95	52.10	29.61
292.5	4143.23	3735.39	3211.75	2355.45	1133.68	400.88	118.45	55.10	29.24
315.0	4143.23	3722.65	3262.54	2387.12	1191.40	466.67	144.31	59.79	30.36
337.5	4143.23	3735.02	3249.98	2389.93	1206.77	451.86	140.75	58.10	30.17
360.0	4143.23	3734.27	3200.51	2289.85	1144.18	390.39	112.26	51.73	29.99
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.68	16.87	13.31	10.31	7.50	5.44	3.56	1.87	0.56
22.5	22.68	16.68	13.12	10.12	7.31	5.25	3.19	1.87	0.56
45.0	22.30	16.31	13.31	10.12	7.12	5.06	3.37	1.69	0.56
67.5	21.55	16.12	12.93	9.93	7.31	4.87	3.37	1.50	0.56
90.0	25.11	19.30	15.37	12.00	9.00	6.75	4.50	2.62	1.12
112.5	24.93	19.12	15.18	11.81	8.81	6.19	4.31	2.44	0.75
135.0	25.11	19.12	14.99	11.62	8.81	6.37	4.50	2.25	0.94
157.5	25.86	19.12	14.81	11.62	8.62	6.00	4.50	2.44	1.12
180.0	25.86	18.93	14.99	11.43	8.62	6.37	4.31	2.44	0.94
202.5	26.24	19.68	15.18	11.62	8.81	6.19	4.12	2.44	0.94
225.0	26.43	19.49	14.99	11.81	8.81	6.19	4.31	2.44	0.94
247.5	26.43	19.68	15.37	11.81	9.00	6.19	4.12	2.44	0.94
270.0	22.49	17.06	13.68	10.50	7.87	5.44	3.56	1.87	0.75
292.5	22.12	17.06	13.49	10.31	7.50	5.25	3.19	1.69	0.56
315.0	22.68	16.87	13.49	10.50	7.50	5.44	3.00	1.69	0.56
337.5	23.05	16.87	13.49	10.50	7.68	5.25	3.37	1.87	0.75
360.0	22.68	16.87	13.31	10.31	7.50	5.44	3.56	1.87	0.56
C/ $\gamma$ (°)	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	0.19
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	0.19	0.00	0.19
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	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	0.19	0.00	0.00	0.19	0.38	0.19	0.19	0.19	0.38
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19
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	0.19	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19

LD4R-50K

Intensity data(cd)

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C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.19	0.56	0.75	1.50	1.69	2.25	2.44	2.44
22.5	0.38	0.38	0.56	1.12	1.50	1.87	2.44	2.25	2.44
45.0	0.19	0.19	0.75	0.75	1.50	1.87	2.44	2.44	2.62
67.5	0.00	0.19	0.56	0.94	1.50	1.87	2.25	2.25	2.44
90.0	0.00	0.38	0.19	0.75	1.12	1.50	1.87	2.44	2.44
112.5	0.00	0.00	0.19	0.56	1.12	1.31	1.87	2.06	2.25
135.0	0.00	0.19	0.38	0.56	0.94	1.69	1.87	2.25	2.25
157.5	0.00	0.00	0.19	0.75	0.94	1.50	2.06	2.25	2.44
180.0	0.00	0.00	0.19	0.75	1.12	1.31	2.06	2.25	2.25
202.5	0.00	0.00	0.38	0.75	0.94	1.69	1.87	2.25	2.25
225.0	0.00	0.00	0.38	0.75	0.94	1.50	2.06	2.25	2.44
247.5	0.00	0.00	0.38	0.38	0.94	1.31	1.87	2.06	2.44
270.0	0.56	0.75	0.75	1.31	1.50	2.06	2.44	2.81	3.00
292.5	0.19	0.38	0.75	0.75	1.50	1.87	2.06	2.44	2.25
315.0	0.00	0.38	0.56	0.75	1.31	1.69	2.44	2.25	2.44
337.5	0.00	0.38	0.56	0.94	1.31	1.87	2.06	2.25	2.44
360.0	0.00	0.19	0.56	0.75	1.50	1.69	2.25	2.44	2.44

C/γ(°)	180.0
0.0	2.65
22.5	2.65
45.0	2.65
67.5	2.65
90.0	2.65
112.5	2.65
135.0	2.65
157.5	2.65
180.0	2.65
202.5	2.65
225.0	2.65
247.5	2.65
270.0	2.65
292.5	2.65
315.0	2.65
337.5	2.65
360.0	2.65