



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

LumCAT: LD4R-3018K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.1270

Lamp flux(lm): -1.0

Power (W): 15.07

Number of Lamps: 1

PF: 0.9851

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1352.17, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 89.73

Central intensity(cd): 3817.467, Maximum intensity(cd): 3817.467

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=33.9

[C90/270]Total=36.4

Field angle(10%Imax): [C0/180]Total=51.8

[C90/270]Total=53.4

Maximum s/h(1/2): C0_180=0.61 C90_270=0.66

Maximum s/h(1/4): C0_180=0.57 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.49%

Down flux rate of LUM(%): 99.51%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.004%

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

Date:
Humidity(%): 59%

Operator: Tester

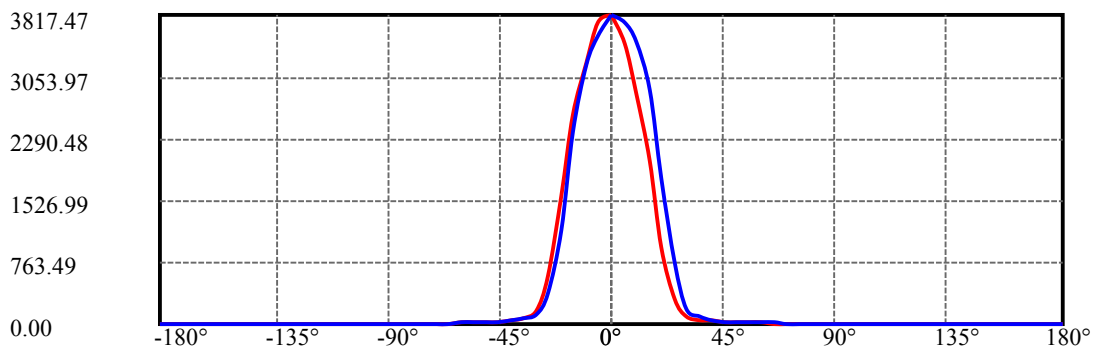
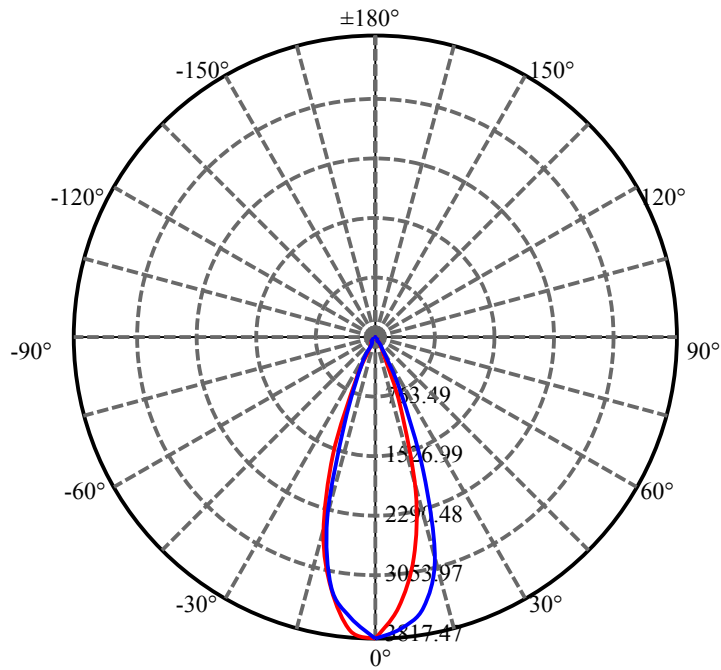
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3817.467	0.000	0	0.00%	0.00%
5.0	3598.943	88.661	88.661	0.00%	6.56%
10.0	3156.035	241.647	330.308	0.00%	24.43%
15.0	2439.448	331.920	662.228	0.00%	48.98%
20.0	1311.021	309.091	971.319	0.00%	71.83%
25.0	477.098	187.541	1158.86	0.00%	85.70%
30.0	131.520	77.021	1235.881	0.00%	91.40%
35.0	66.951	29.226	1265.107	0.00%	93.56%
40.0	41.838	18.151	1283.258	0.00%	94.90%
45.0	30.750	13.440	1296.698	0.00%	95.90%
50.0	23.949	11.053	1307.751	0.00%	96.71%
55.0	19.424	9.431	1317.181	0.00%	97.41%
60.0	15.216	8.007	1325.188	0.00%	98.00%
65.0	11.723	6.549	1331.737	0.00%	98.49%
70.0	8.680	5.166	1336.903	0.00%	98.87%
75.0	6.007	3.839	1340.742	0.00%	99.15%
80.0	3.626	2.577	1343.32	0.00%	99.35%
85.0	1.853	1.489	1344.808	0.00%	99.46%
90.0	0.715	0.703	1345.511	0.00%	99.51%
95.0	0.715	0.391	1345.902	0.00%	99.54%
100.0	0.741	0.395	1346.298	0.00%	99.57%
105.0	0.609	0.361	1346.659	0.00%	99.59%
110.0	0.794	0.367	1347.026	0.00%	99.62%
115.0	0.741	0.389	1347.414	0.00%	99.65%
120.0	0.714	0.354	1347.768	0.00%	99.67%
125.0	0.820	0.355	1348.123	0.00%	99.70%
130.0	0.847	0.363	1348.485	0.00%	99.73%
135.0	0.926	0.358	1348.844	0.00%	99.75%
140.0	1.085	0.372	1349.216	0.00%	99.78%
145.0	1.403	0.415	1349.631	0.00%	99.81%
150.0	1.720	0.460	1350.091	0.00%	99.85%
155.0	2.091	0.482	1350.573	0.00%	99.88%
160.0	2.540	0.486	1351.059	0.00%	99.92%
165.0	2.911	0.449	1351.508	0.00%	99.95%
170.0	3.123	0.358	1351.866	0.00%	99.98%
175.0	3.176	0.225	1352.091	0.00%	99.99%
180.0	3.434	0.079	1352.17	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1235.88	N.A.	91.40%
0-40	1283.26	N.A.	94.90%
0-60	1325.19	N.A.	98.00%
0-90	1345.51	N.A.	99.51%
0-120	1347.77	N.A.	99.67%
0-180	1352.17	N.A.	100.00%
60-90	20.32	N.A.	1.50%
90-120	2.26	N.A.	0.17%
90-130	2.97	N.A.	0.22%
90-150	4.58	N.A.	0.34%
90-180	6.58	N.A.	0.49%
0-22.94	1081.74	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	330.31
10-20	641.01
20-30	264.56
30-40	47.38
40-50	24.49
50-60	17.44
60-70	11.72
70-80	6.42
80-90	2.19
90-100	0.79
100-110	0.73
110-120	0.74
120-130	0.72
130-140	0.73
140-150	0.87
150-160	0.97
160-170	0.81
170-180	0.23



C0/C180: —

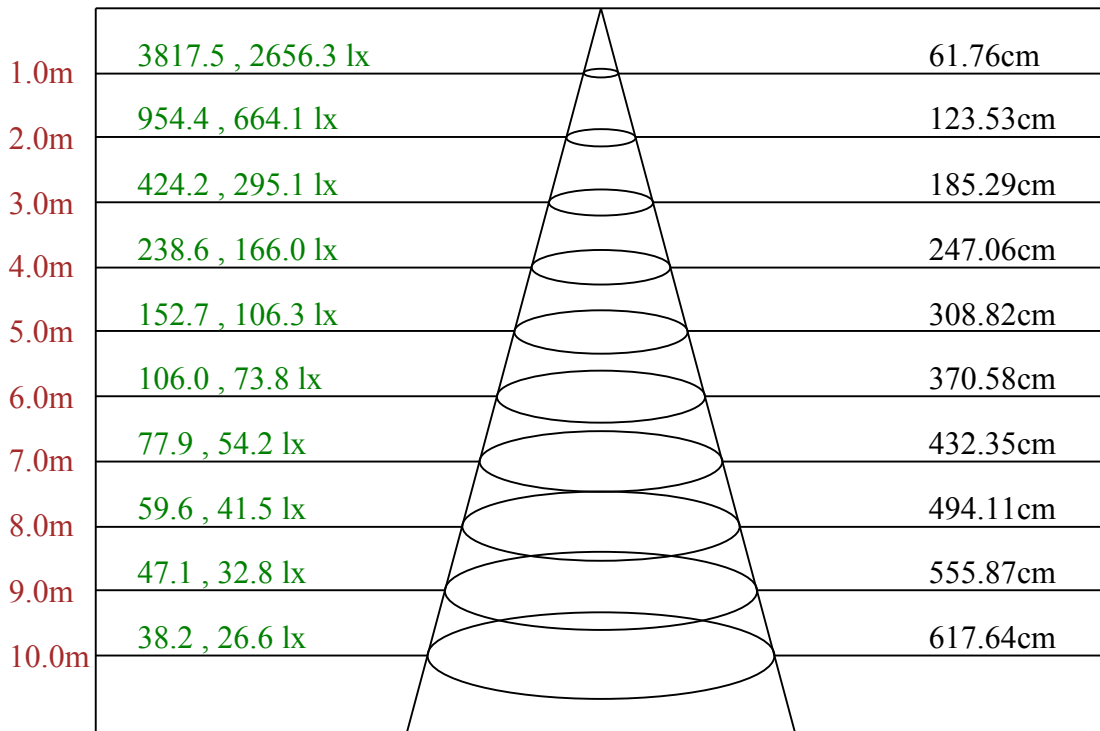
C90/C270: —

Field angle(10%Imax):C0/180Left:27.5 Right:24.3

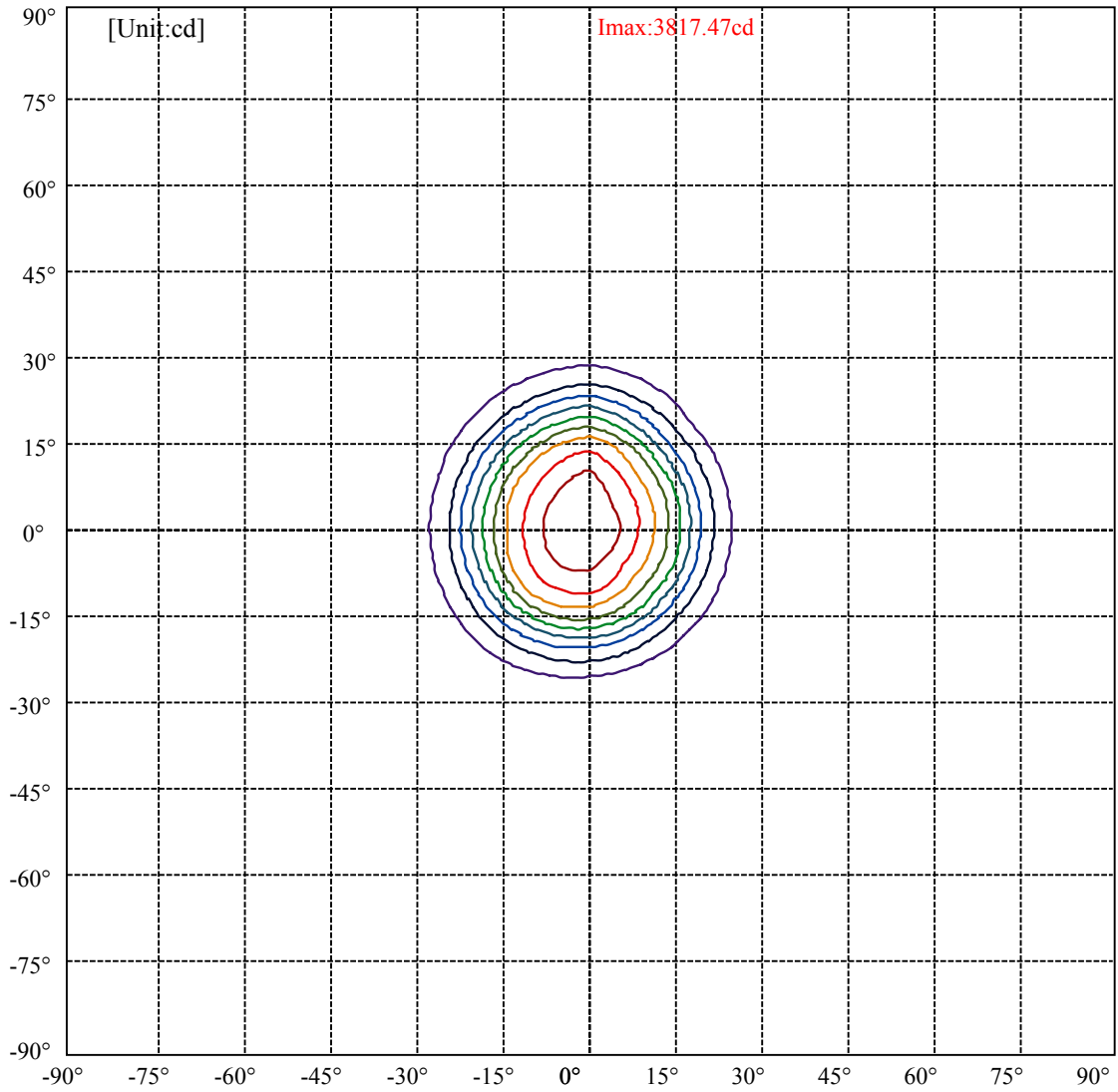
:C90/270Left:25.1 Right:28.3

Beam Angle(50%Imax):C0/180Left:18.4 Right:15.5

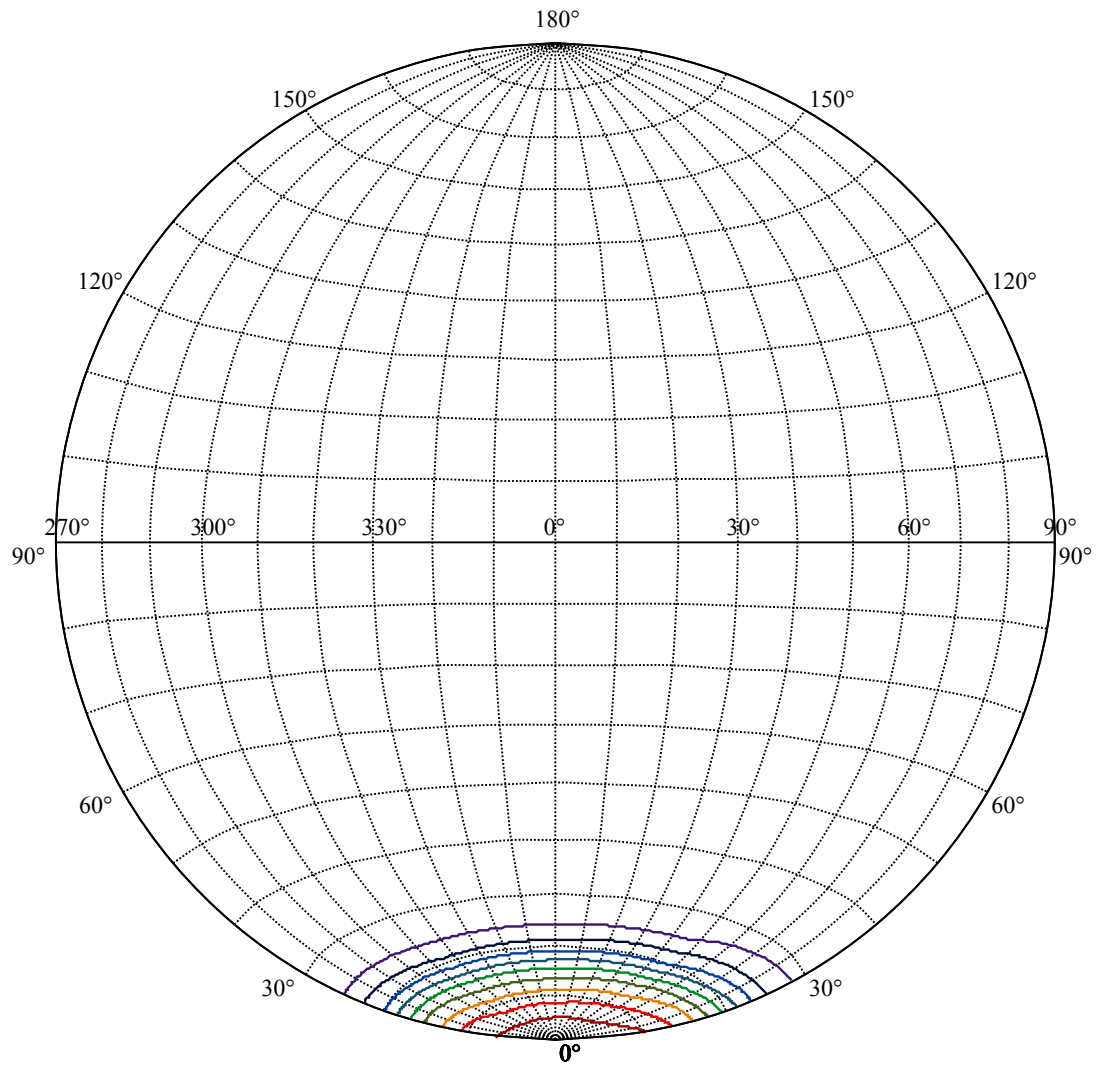
:C90/270Left:16.9 Right:19.5



Max , Ave Beam angle of C0 plane 34.32



(10%Imax)	381.747	—
(20%Imax)	763.493	—
(30%Imax)	1145.24	—
(40%Imax)	1526.99	—
(50%Imax)	1908.73	—
(60%Imax)	2290.48	—
(70%Imax)	2672.23	—
(80%Imax)	3053.97	—
(90%Imax)	3435.72	—



House

[Unit:cd]

Road

Imax:3817.47

(10%Imax)	381.747	—
(20%Imax)	763.493	—
(30%Imax)	1145.24	—
(40%Imax)	1526.99	—
(50%Imax)	1908.73	—
(60%Imax)	2290.48	—
(70%Imax)	2672.23	—
(80%Imax)	3053.97	—
(90%Imax)	3435.72	—

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	3817.47	3450.96	2845.92	2019.01	936.78	296.60	87.01	54.20	36.84
45.0	3817.47	3504.95	3028.19	2256.96	1085.82	364.98	102.68	58.22	38.32
90.0	3817.47	3712.84	3477.64	2897.78	1799.05	760.65	183.33	83.20	50.17
135.0	3817.47	3742.27	3306.16	2700.69	1604.07	616.27	174.23	72.83	47.21
180.0	3817.47	3724.06	3233.97	2576.84	1583.54	595.52	167.03	71.56	46.36
225.0	3817.47	3652.08	3302.35	2681.42	1464.35	535.18	141.42	70.29	41.71
270.0	3817.47	3559.14	3209.41	2360.06	1152.09	386.78	106.91	70.50	37.90
315.0	3817.47	3445.25	2844.65	2022.82	862.48	260.82	89.55	54.83	36.20
360.0	3817.47	3450.96	2845.92	2019.01	936.78	296.60	87.01	54.20	36.84
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	28.58	22.65	18.42	14.61	11.01	8.05	5.50	2.96	1.69
45.0	29.43	23.29	19.48	15.24	11.86	8.68	5.93	3.81	1.91
90.0	32.39	24.98	20.32	16.51	12.70	9.74	6.56	4.02	2.33
135.0	33.24	25.40	20.11	15.67	12.49	9.10	6.56	4.23	1.91
180.0	32.39	24.77	19.69	15.24	11.86	8.68	5.93	3.81	1.69
225.0	31.54	24.35	19.48	15.03	11.64	8.47	5.93	3.39	1.48
270.0	29.85	23.50	19.27	15.03	11.43	8.47	5.93	3.60	2.12
315.0	28.58	22.65	18.63	14.40	10.80	8.26	5.72	3.18	1.69
360.0	28.58	22.65	18.42	14.61	11.01	8.05	5.50	2.96	1.69
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.85	0.64	0.85	0.85	0.85	0.64	0.85	1.06	0.85
45.0	0.85	1.06	0.85	0.85	0.85	0.85	0.64	0.85	0.85
90.0	0.64	0.64	0.64	0.42	0.64	0.64	0.64	0.64	0.85
135.0	0.42	0.42	0.42	0.21	0.64	0.64	0.64	0.42	0.64
180.0	0.42	0.21	0.21	0.21	0.42	0.42	0.42	0.64	0.85
225.0	0.42	0.64	0.64	0.42	0.64	0.42	0.42	0.64	0.64
270.0	1.06	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.06
315.0	1.06	0.85	1.06	0.64	1.06	1.06	0.85	1.06	1.06
360.0	0.85	0.64	0.85	0.85	0.85	0.64	0.85	1.06	0.85
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.06	1.06	1.27	1.91	2.12	2.75	2.96	3.18	3.18
45.0	1.06	1.27	1.48	1.91	1.91	2.54	3.18	3.18	3.18
90.0	0.85	1.06	1.27	1.69	2.12	2.54	2.96	3.18	3.18
135.0	0.42	0.64	1.06	1.48	1.91	2.12	2.75	2.96	2.96
180.0	0.64	0.85	1.27	1.27	1.69	2.33	2.54	2.96	3.18
225.0	0.42	0.85	1.06	1.27	1.69	2.54	2.54	2.75	2.75
270.0	1.69	1.69	2.12	2.54	2.96	3.18	3.39	3.60	3.81
315.0	1.27	1.27	1.69	1.69	2.33	2.33	2.96	3.18	3.18
360.0	1.06	1.06	1.27	1.91	2.12	2.75	2.96	3.18	3.18
C/ γ (°)	180.0								
0.0	3.43								
45.0	3.43								
90.0	3.43								
135.0	3.43								
180.0	3.43								
225.0	3.43								
270.0	3.43								
315.0	3.43								
360.0	3.43								