



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

LumCAT:LD4R-HO-5CCT-4000K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.08

LampCAT:

Current(A): 0.1530

Lamp flux(lm): -1.0

Power (W): 18.10

Number of Lamps: 0

PF: 0.9852

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1739.65, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 96.11

Central intensity(cd): 4581.877, Maximum intensity(cd): 4624.218

Angle of maximum intensity: C=45.0 $\gamma=0.0$

Beam Angle(50%Imax): [C0/180]Total=36.4

[C90/270]Total=36.2

Field angle(10%Imax): [C0/180]Total=53.7

[C90/270]Total=54.4

Maximum s/h(1/2): C0_180=0.67 C90_270=0.63

Maximum s/h(1/4): C0_180=0.62 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.12%

Down flux rate of LUM(%): 99.88%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.750%

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

Date:
Humidity(%): 59%

Operator: Tester

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4595.638	0.000	0	0.00%	0.00%
5.0	4353.636	106.986	106.986	0.00%	6.15%
10.0	3840.283	293.122	400.108	0.00%	23.00%
15.0	3030.706	407.582	807.691	0.00%	46.43%
20.0	1846.496	401.950	1209.641	0.00%	69.53%
25.0	754.587	272.806	1482.446	0.00%	85.22%
30.0	217.762	123.052	1605.498	0.00%	92.29%
35.0	81.611	44.085	1649.583	0.00%	94.82%
40.0	47.792	21.590	1671.173	0.00%	96.06%
45.0	34.772	15.287	1686.46	0.00%	96.94%
50.0	26.542	12.389	1698.85	0.00%	97.65%
55.0	21.118	10.363	1709.212	0.00%	98.25%
60.0	16.486	8.692	1717.904	0.00%	98.75%
65.0	12.200	6.974	1724.878	0.00%	99.15%
70.0	8.654	5.280	1730.158	0.00%	99.45%
75.0	5.610	3.728	1733.886	0.00%	99.67%
80.0	3.017	2.308	1736.195	0.00%	99.80%
85.0	1.006	1.093	1737.288	0.00%	99.86%
90.0	0.000	0.275	1737.563	0.00%	99.88%
95.0	0.000	0.000	1737.563	0.00%	99.88%
100.0	0.000	0.000	1737.563	0.00%	99.88%
105.0	0.000	0.000	1737.563	0.00%	99.88%
110.0	0.000	0.000	1737.563	0.00%	99.88%
115.0	0.027	0.007	1737.57	0.00%	99.88%
120.0	0.000	0.006	1737.576	0.00%	99.88%
125.0	0.000	0.000	1737.576	0.00%	99.88%
130.0	0.053	0.012	1737.588	0.00%	99.88%
135.0	0.106	0.032	1737.62	0.00%	99.88%
140.0	0.291	0.074	1737.693	0.00%	99.89%
145.0	0.582	0.146	1737.839	0.00%	99.90%
150.0	1.006	0.234	1738.073	0.00%	99.91%
155.0	1.509	0.318	1738.391	0.00%	99.93%
160.0	1.958	0.364	1738.754	0.00%	99.95%
165.0	2.249	0.347	1739.101	0.00%	99.97%
170.0	2.593	0.287	1739.389	0.00%	99.99%
175.0	2.726	0.190	1739.579	0.00%	100.00%
180.0	2.911	0.067	1739.646	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}$ C): 25

Date:
Humidity(%): 59%

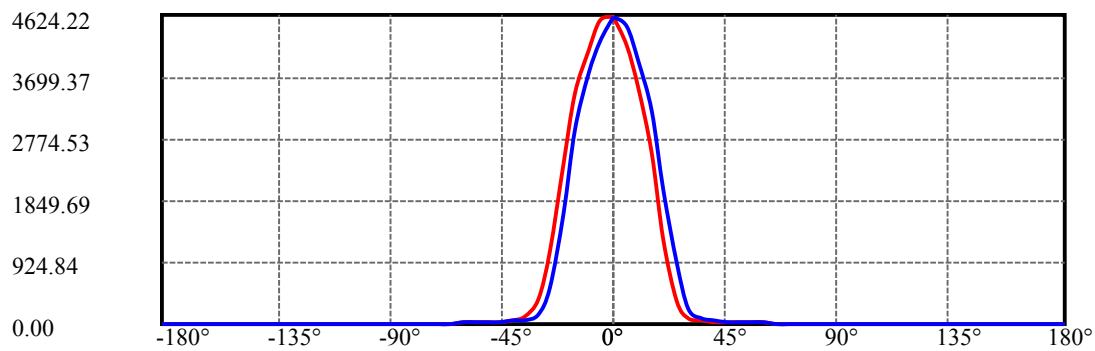
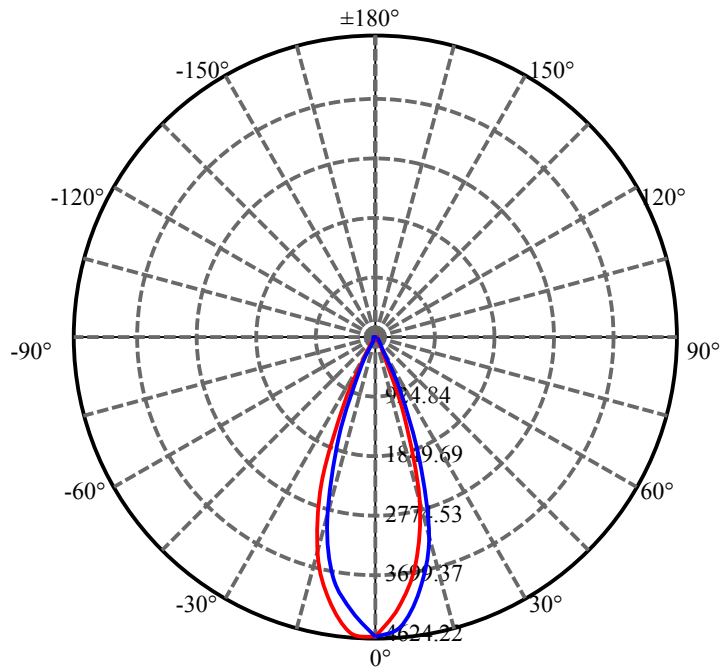
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1605.50	N.A.	92.29%
0-40	1671.17	N.A.	96.06%
0-60	1717.90	N.A.	98.75%
0-90	1737.56	N.A.	99.88%
0-120	1737.58	N.A.	99.88%
0-180	1739.65	N.A.	100.00%
60-90	19.66	N.A.	1.13%
90-120	0.01	N.A.	0.00%
90-130	0.02	N.A.	0.00%
90-150	0.51	N.A.	0.03%
90-180	2.02	N.A.	0.12%
0-23.34	1391.72	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	400.11
10-20	809.53
20-30	395.86
30-40	65.67
40-50	27.68
50-60	19.05
60-70	12.25
70-80	6.04
80-90	1.37
90-100	0.00
100-110	0.00
110-120	0.01
120-130	0.01
130-140	0.11
140-150	0.38
150-160	0.68
160-170	0.63
170-180	0.19

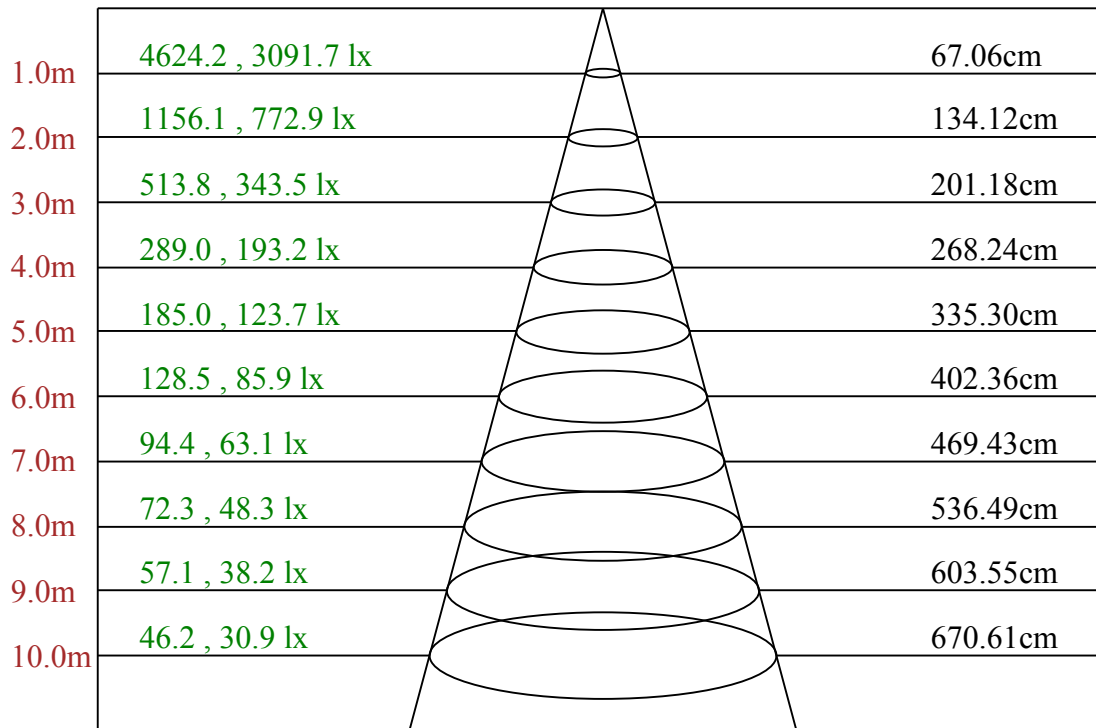


C0/C180: —

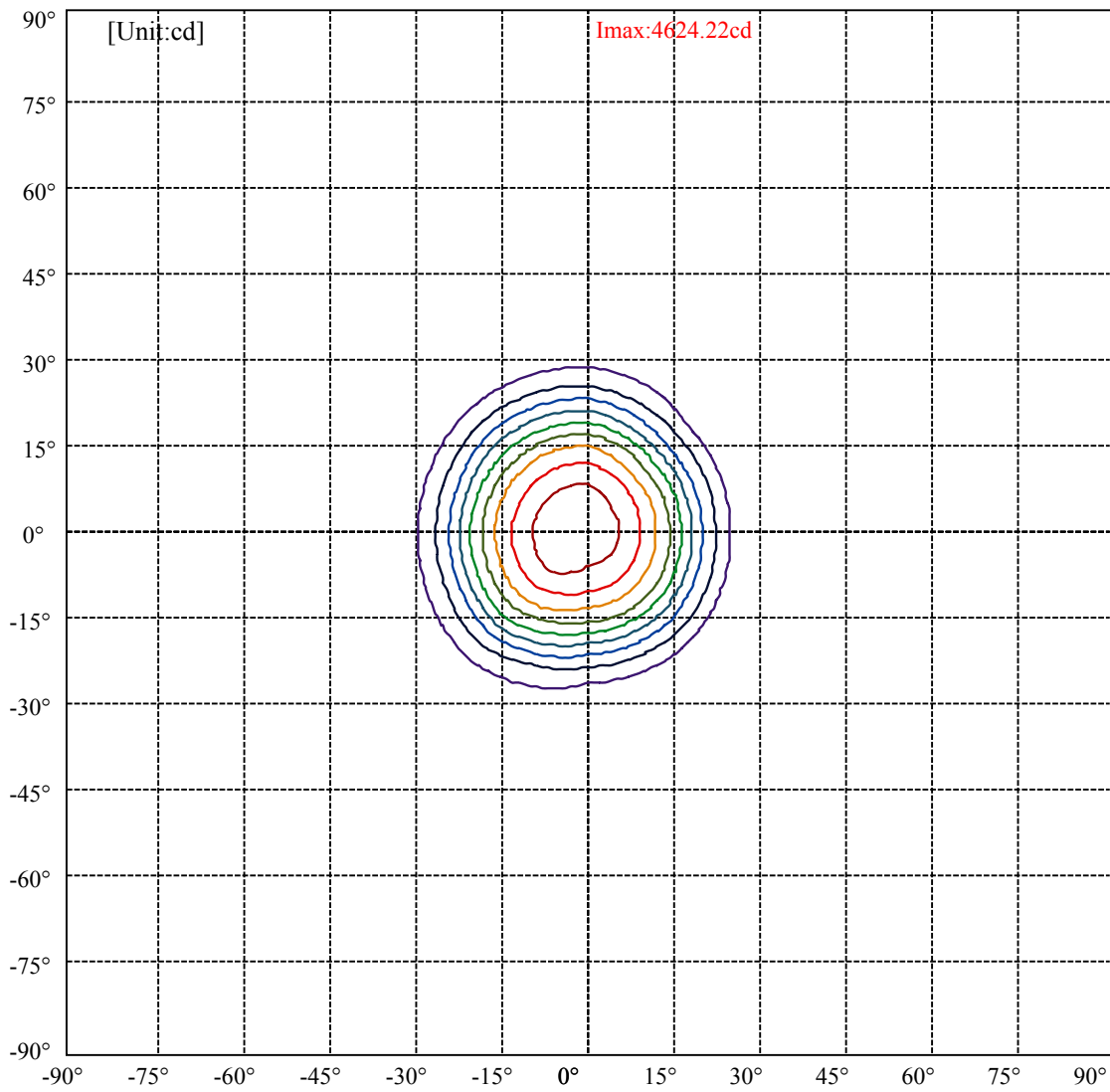
C90/C270: —

Field angle(10%Imax):C0/180Left:29.3 Right:24.4
 :C90/270Left:26.1 Right:28.3

Beam Angle(50%Imax):C0/180Left:20.4 Right:16.0
 :C90/270Left:17.4 Right:18.8



Max , Ave Beam angle of C45 plane 37.07

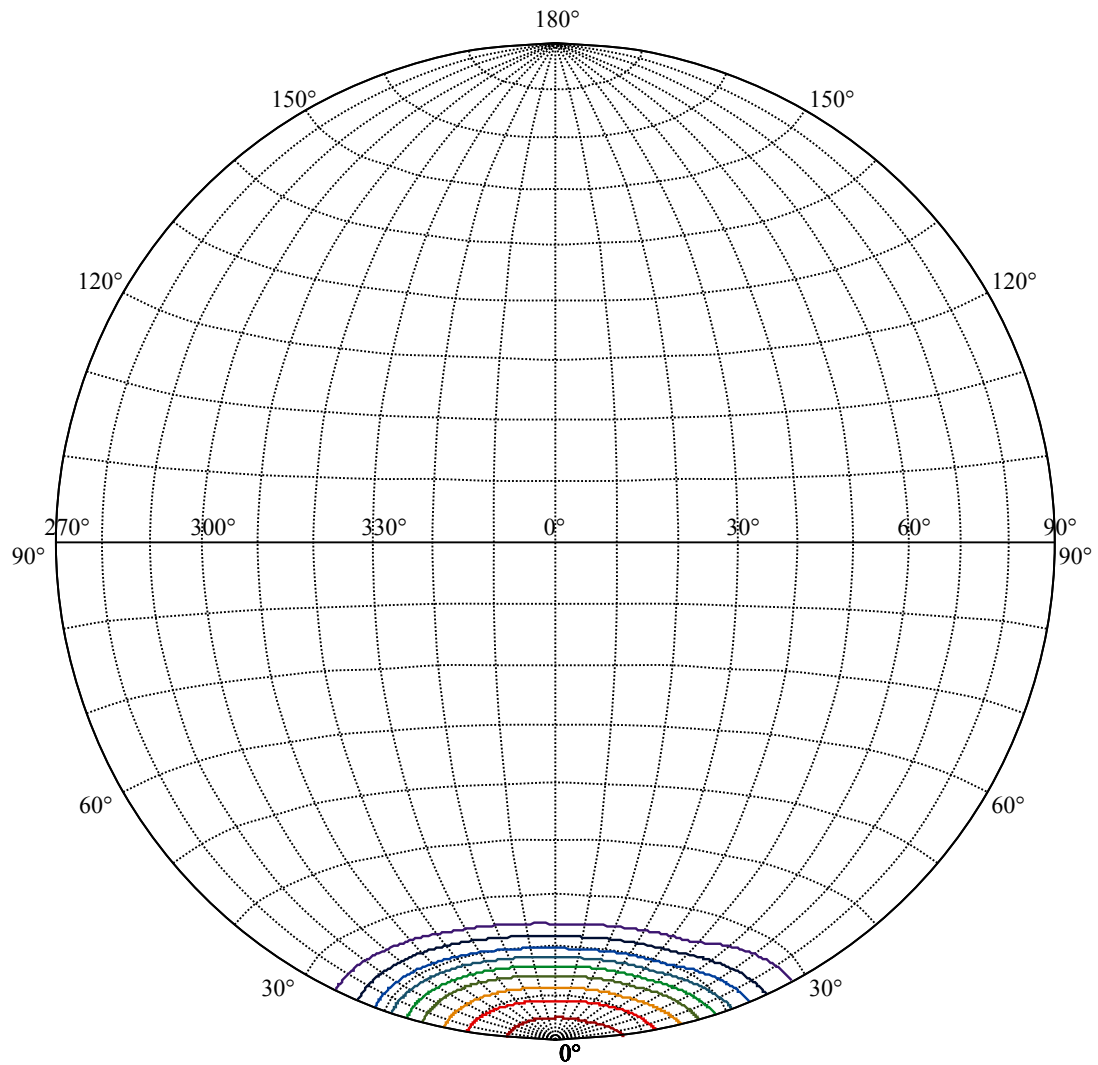


(10%Imax)	459.428	—
(20%Imax)	918.855	—
(30%Imax)	1378.28	—
(40%Imax)	1837.71	—
(50%Imax)	2297.14	—
(60%Imax)	2756.57	—
(70%Imax)	3215.99	—
(80%Imax)	3675.42	—
(90%Imax)	4134.85	—

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

Date:
Humidity(%): 59%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:4624.22

(10%I _{max}) 462.422	—
(20%I _{max}) 924.844	—
(30%I _{max}) 1387.27	—
(40%I _{max}) 1849.69	—
(50%I _{max}) 2312.11	—
(60%I _{max}) 2774.53	—
(70%I _{max}) 3236.95	—
(80%I _{max}) 3699.37	—
(90%I _{max}) 4161.8	—

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	4581.88	4175.62	3525.06	2560.97	1273.18	354.81	98.87	60.55	38.95
45.0	4624.22	4216.69	3643.40	2645.65	1339.23	404.56	106.70	66.69	41.28
90.0	4592.46	4463.32	3948.89	3180.41	2013.93	923.87	223.98	82.14	47.42
135.0	4583.99	4501.43	4039.92	3332.83	2202.34	1071.85	281.99	85.95	54.20
180.0	4581.88	4541.65	4092.84	3440.80	2390.76	1101.49	360.95	106.06	58.22
225.0	4624.22	4518.37	4109.78	3432.33	2409.81	1141.71	402.45	110.30	55.25
270.0	4592.46	4216.48	3728.72	2888.26	1638.15	551.91	142.05	71.13	45.09
315.0	4583.99	4195.52	3633.66	2764.41	1504.57	486.49	125.12	70.07	41.92
360.0	4581.88	4175.62	3525.06	2560.97	1273.18	354.81	98.87	60.55	38.95

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	31.33	24.35	19.48	15.03	10.80	7.41	4.45	2.12	0.42
45.0	32.39	24.98	20.11	15.45	11.43	7.83	4.87	2.54	0.64
90.0	35.99	27.73	22.23	17.57	13.13	9.53	6.14	3.60	1.27
135.0	37.26	29.00	22.65	17.78	13.34	9.53	6.56	3.60	1.48
180.0	37.26	28.58	22.65	18.21	13.34	9.74	6.35	3.60	1.27
225.0	37.47	28.16	22.23	17.57	13.13	9.53	6.35	3.60	1.69
270.0	34.08	25.19	20.11	15.24	11.43	8.05	5.08	2.75	0.64
315.0	32.39	24.35	19.48	15.03	11.01	7.62	5.08	2.33	0.64
360.0	31.33	24.35	19.48	15.03	10.80	7.41	4.45	2.12	0.42

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	0.21	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
90.0	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
180.0	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
270.0	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	0.21
360.0	0.00	0.00	0.00	0.00	0.00	0.21	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	0.21	0.21	0.85	1.27	1.69	2.12	2.33	2.75	2.75
45.0	0.42	0.42	0.64	1.06	1.91	2.12	2.33	2.54	2.75
90.0	0.00	0.21	0.21	1.06	1.48	1.91	2.12	2.54	2.75
135.0	0.00	0.21	0.42	0.85	1.06	1.69	2.12	2.54	2.75
180.0	0.00	0.21	0.42	0.85	1.27	1.69	2.33	2.54	2.54
225.0	0.00	0.21	0.42	0.85	1.27	1.69	1.91	2.33	2.54
270.0	0.21	0.42	0.85	1.06	1.69	2.33	2.54	2.75	2.96
315.0	0.00	0.42	0.85	1.06	1.69	2.12	2.33	2.75	2.75
360.0	0.21	0.21	0.85	1.27	1.69	2.12	2.33	2.75	2.75

C/ γ (°)	180.0
0.0	2.96
45.0	2.75
90.0	2.96
135.0	2.96
180.0	2.96
225.0	2.75
270.0	2.96
315.0	2.96
360.0	2.96