



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LRG2-30K

Luminaire:

Report No:

Voltage(V): 120.02

Test No:

Current(A): 0.0418

LampCAT:

Power (W): 4.7430

Lamp flux(lm): 403.0

PF: 0.9454

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 402.99

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 84.96

Central intensity(cd): 1428.447

Maximum intensity(cd): 1428.447

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.5

[C90/270]Total=22.9

Field angle(10%Imax): [C0/180]Total=52.6

[C90/270]Total=53.1

Maximum s/h(1/2): C0_180=0.40 C90_270=0.42

Maximum s/h(1/4): C0_180=0.58 C90_270=0.44

Up flux rate of lamp(%): 1.39%

Down flux rate of lamp(%): 98.61%

Up flux rate of LUM(%): 1.39%

Down flux rate of LUM(%): 98.61%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.572%

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

Date:
Humidity(%): 58%

Operator: Zac

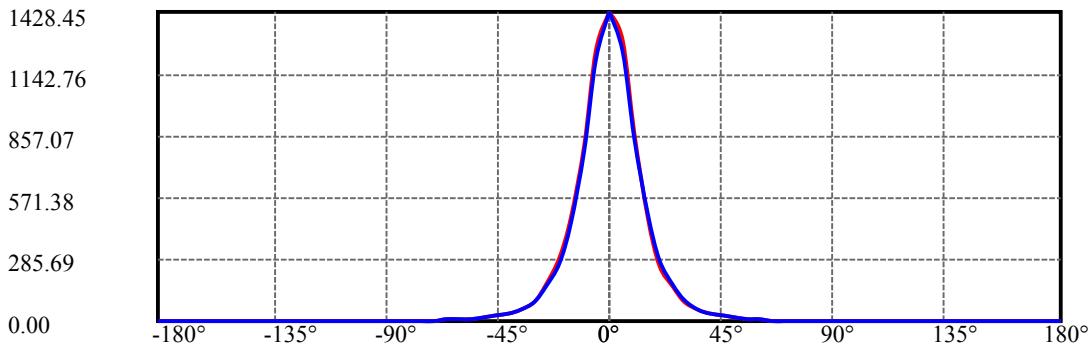
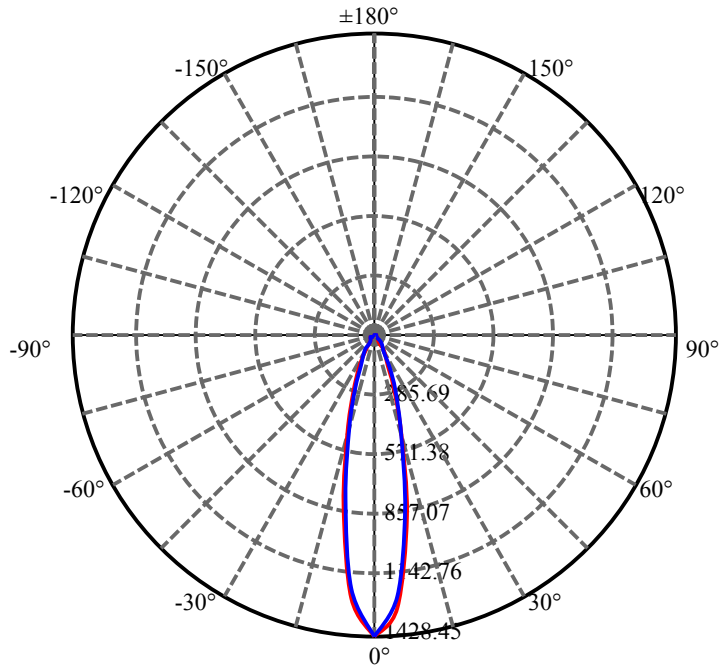
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1428.447	.000	.000	.000%	.000%
5.0	1247.033	31.985	31.985	7.937%	7.937%
10.0	829.607	74.288	106.273	18.434%	26.371%
15.0	475.942	77.444	183.717	19.218%	45.589%
20.0	277.230	62.072	245.789	15.403%	60.992%
25.0	163.141	46.187	291.976	11.461%	72.453%
30.0	91.362	32.208	324.183	7.992%	80.445%
35.0	52.699	21.214	345.397	5.264%	85.709%
40.0	34.057	14.475	359.872	3.592%	89.301%
45.0	24.190	10.785	370.657	2.676%	91.977%
50.0	16.356	8.193	378.850	2.033%	94.010%
55.0	11.196	5.991	384.840	1.487%	95.497%
60.0	7.548	4.332	389.173	1.075%	96.572%
65.0	4.639	2.963	392.135	.735%	97.307%
70.0	2.942	1.920	394.055	.476%	97.783%
75.0	1.833	1.248	395.303	.310%	98.093%
80.0	1.580	.913	396.216	.227%	98.320%
85.0	1.026	.708	396.924	.176%	98.495%
90.0	.689	.470	397.394	.117%	98.612%
95.0	.757	.396	397.790	.098%	98.710%
100.0	.689	.393	398.183	.097%	98.808%
105.0	.790	.396	398.579	.098%	98.906%
110.0	.773	.409	398.987	.101%	99.007%
115.0	.841	.409	399.396	.101%	99.109%
120.0	.807	.401	399.796	.099%	99.208%
125.0	.908	.396	400.193	.098%	99.306%
130.0	.891	.391	400.584	.097%	99.403%
135.0	.908	.364	400.947	.090%	99.494%
140.0	.942	.342	401.290	.085%	99.579%
145.0	.975	.320	401.610	.079%	99.658%
150.0	1.160	.314	401.924	.078%	99.736%
155.0	1.211	.300	402.224	.074%	99.810%
160.0	1.278	.261	402.485	.065%	99.875%
165.0	1.328	.215	402.700	.053%	99.928%
170.0	1.379	.161	402.860	.040%	99.968%
175.0	1.278	.095	402.955	.024%	99.992%
180.0	1.456	.033	402.988	.008%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	324.18	80.44%	80.44%
0-40	359.87	89.30%	89.30%
0-60	389.17	96.57%	96.57%
0-90	397.39	98.61%	98.61%
0-120	399.80	99.21%	99.21%
0-180	402.99	100.00%	100.00%
60-90	12.55	3.12%	3.12%
90-120	2.87	0.71%	0.71%
90-130	3.66	0.91%	0.91%
90-150	5.00	1.24%	1.24%
90-180	6.03	1.50%	1.50%
0-29.72	322.39	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	106.27
10-20	139.52
20-30	78.39
30-40	35.69
40-50	18.98
50-60	10.32
60-70	4.88
70-80	2.16
80-90	1.18
90-100	0.79
100-110	0.80
110-120	0.81
120-130	0.79
130-140	0.71
140-150	0.63
150-160	0.56
160-170	0.38
170-180	0.10

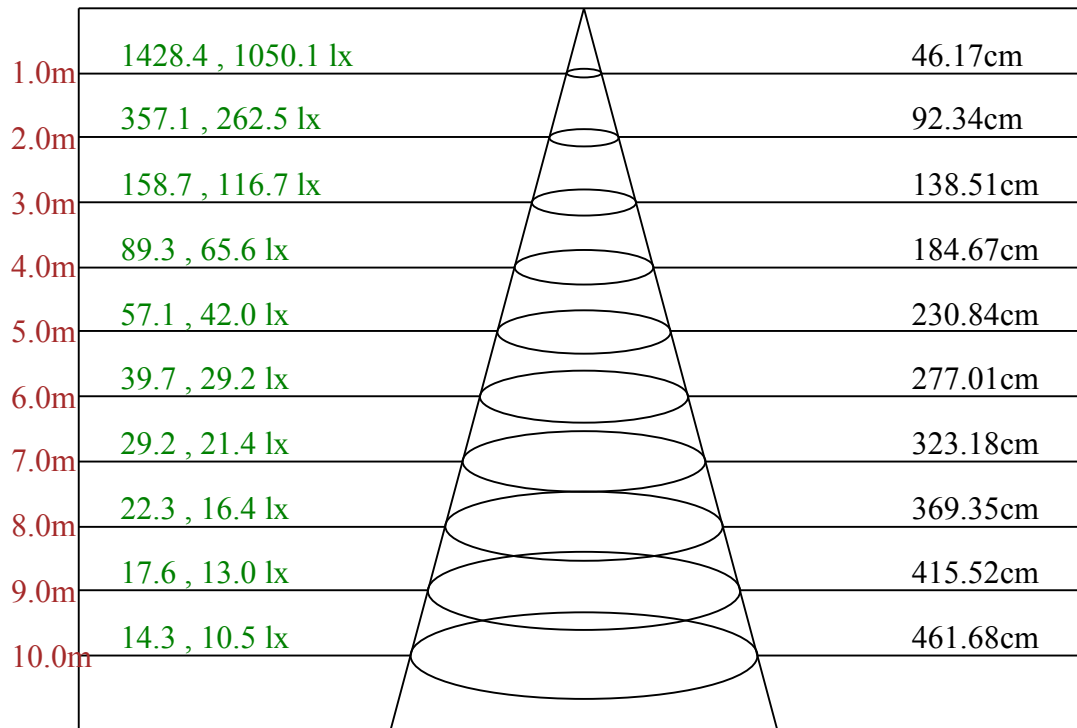


C0/C180: —

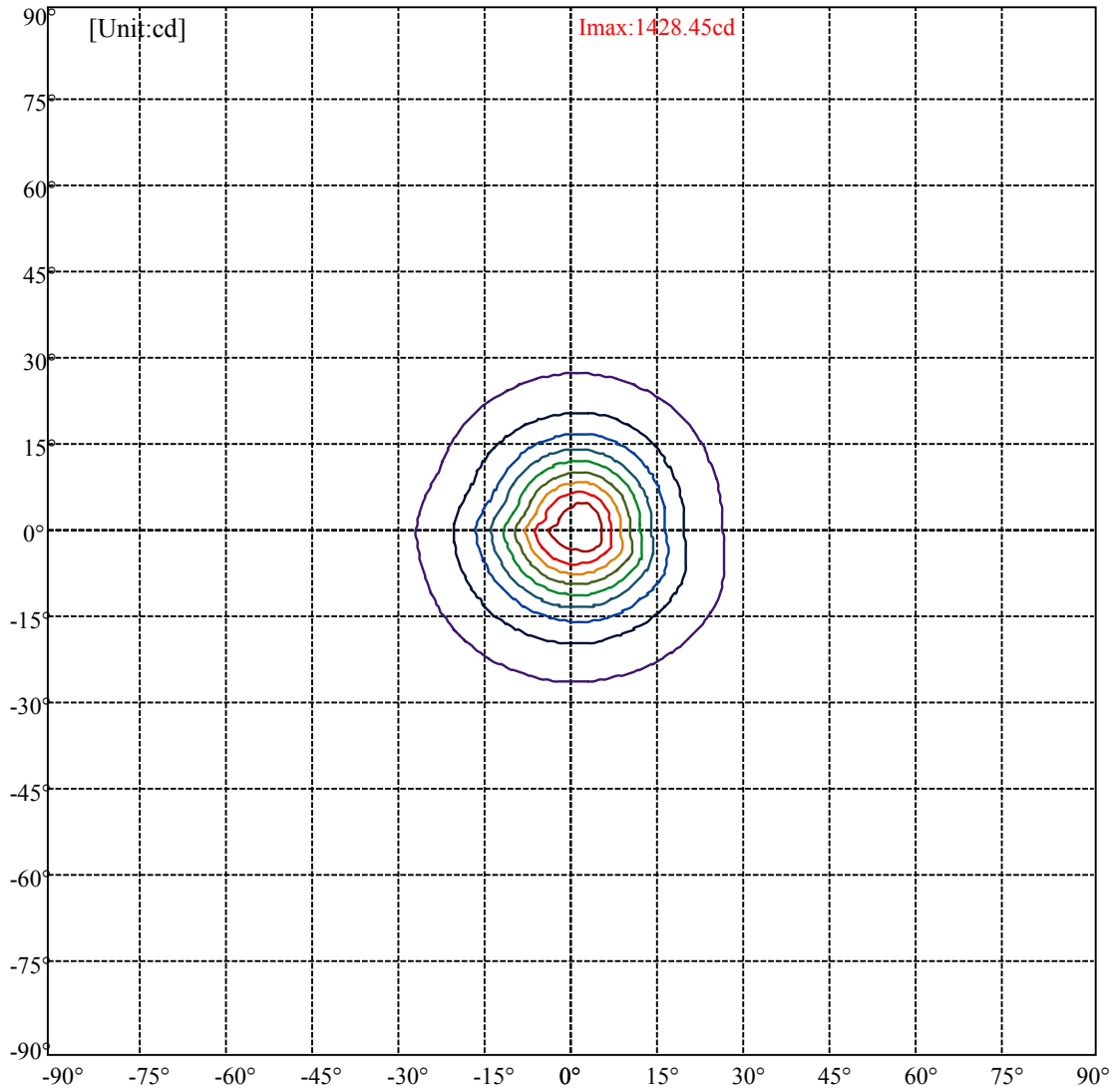
C90/C270: —

Field angle(10%Imax):C0/180Left:26.6 Right:26.0
:C90/270Left:26.1 Right:27.0

Beam Angle(50%Imax):C0/180Left:11.5 Right:12.0
:C90/270Left:11.1 Right:11.9



Max , Ave Beam angle of C0plane26.00



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	1428.45	1298.00	866.05	480.90	259.82	157.07	87.14	50.03	32.81
22.5	1428.45	1323.01	894.56	504.84	279.45	163.80	93.06	53.79	34.97
45.0	1428.45	1328.13	911.51	518.29	292.63	172.94	96.02	57.83	36.58
67.5	1428.45	1307.42	886.76	508.07	299.89	174.56	99.25	58.63	36.85
90.0	1428.45	1242.60	845.61	492.47	285.10	172.13	99.25	56.75	35.77
112.5	1428.45	1204.40	795.58	459.12	272.99	161.11	91.72	52.99	33.62
135.0	1428.45	1181.27	754.97	431.68	255.24	150.89	83.92	47.88	31.74
157.5	1428.45	1129.36	711.40	405.86	239.11	136.63	77.19	45.99	30.39
180.0	1428.45	1250.13	818.71	481.17	291.55	167.02	90.10	52.72	34.97
202.5	1428.45	1212.74	782.41	455.89	276.22	159.76	86.61	49.76	33.08
225.0	1428.45	1195.80	774.07	439.21	269.50	156.00	84.72	47.88	32.28
247.5	1428.45	1204.67	771.38	438.41	262.77	155.73	86.07	48.95	32.54
270.0	1428.45	1209.51	786.71	454.01	266.81	158.15	86.61	50.83	33.08
292.5	1428.45	1235.33	833.51	476.06	275.95	162.18	91.98	52.45	33.62
315.0	1428.45	1286.44	886.22	509.14	294.78	174.02	99.25	55.68	34.97
337.5	1428.45	1343.72	954.27	559.98	313.88	188.27	108.93	61.05	37.65
360.0	1428.45	1298.00	866.05	480.90	259.82	157.07	87.14	50.03	32.81
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	23.40	14.26	9.68	6.19	3.77	2.15	1.35	1.35	0.81
22.5	23.40	14.26	9.68	6.46	3.50	2.15	1.61	1.35	0.54
45.0	24.21	14.52	9.68	6.46	3.50	2.42	1.35	1.08	0.54
67.5	25.01	15.06	9.95	6.46	3.77	2.42	1.08	1.08	1.08
90.0	24.48	14.52	10.22	6.72	3.77	2.15	1.35	1.35	0.54
112.5	23.67	14.52	9.95	6.46	3.77	2.15	1.35	1.35	1.08
135.0	23.13	14.79	9.68	6.99	4.03	2.69	1.61	1.61	0.81
157.5	22.32	15.33	10.49	6.99	4.03	2.69	1.61	1.35	0.81
180.0	25.01	18.29	12.91	8.34	5.38	3.50	2.15	1.88	1.35
202.5	24.21	18.02	12.64	8.61	5.65	3.77	2.42	2.15	1.35
225.0	23.40	17.75	12.64	8.61	5.65	4.03	2.42	1.88	1.35
247.5	23.94	18.02	12.64	8.88	5.92	3.50	2.15	1.88	1.08
270.0	24.48	18.29	12.37	8.61	5.92	3.50	2.15	1.88	1.08
292.5	24.48	18.29	12.37	8.61	5.65	3.50	2.42	1.88	1.35
315.0	25.28	18.02	12.10	8.07	5.11	3.23	2.15	1.61	1.35
337.5	26.63	17.75	12.10	8.34	4.84	3.23	2.15	1.61	1.35
360.0	23.40	14.26	9.68	6.19	3.77	2.15	1.35	1.35	0.81
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.27	0.00	0.27	0.27	0.27	0.27	0.27	0.27	0.54
22.5	0.54	0.54	0.27	0.54	0.54	1.08	0.81	0.81	0.81
45.0	0.54	0.54	0.54	0.81	0.54	0.54	0.81	0.81	0.54
67.5	0.54	0.54	0.27	0.81	0.54	0.54	0.54	1.08	0.54
90.0	0.54	0.54	0.54	1.08	0.54	0.81	0.81	0.81	0.54
112.5	0.54	0.81	0.54	0.54	0.54	0.81	0.81	0.81	0.81
135.0	0.54	0.81	0.81	0.54	0.54	0.54	0.54	0.81	0.81
157.5	0.81	0.81	0.81	0.27	0.54	0.81	0.27	0.81	1.08
180.0	0.81	0.81	0.54	0.81	1.08	1.08	0.81	1.08	1.35
202.5	0.81	0.81	0.54	1.08	1.08	1.08	1.08	1.08	1.35
225.0	0.81	1.08	0.81	1.08	1.08	0.81	1.08	1.08	1.08
247.5	0.54	1.08	0.81	1.08	1.08	1.08	1.08	1.08	0.81
270.0	0.81	1.08	1.08	1.08	1.08	1.08	1.08	0.81	0.81
292.5	0.81	0.81	1.08	0.81	0.81	1.08	1.08	1.08	0.81
315.0	1.08	0.81	1.08	0.81	1.08	0.81	0.81	1.08	1.08
337.5	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.35
360.0	0.27	0.00	0.27	0.27	0.27	0.27	0.27	0.27	0.54

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	0.54	0.54	0.54	0.81	0.81	0.81	1.08	0.81	1.08
22.5	1.08	0.81	0.81	1.08	0.81	1.35	1.35	1.61	1.35
45.0	0.81	1.08	1.08	1.08	1.08	1.35	1.35	1.61	1.35
67.5	0.81	0.81	1.08	0.81	1.08	1.08	1.61	1.35	1.35
90.0	0.81	0.81	0.81	1.08	0.81	1.08	1.08	1.35	1.35
112.5	0.81	0.81	0.81	1.08	1.35	1.35	1.35	1.35	1.35
135.0	0.54	0.54	1.08	1.08	1.35	1.08	1.61	1.35	1.35
157.5	1.08	0.81	0.81	1.08	1.61	1.08	1.35	1.08	1.35
180.0	1.08	1.08	1.08	1.08	1.35	1.35	1.08	1.61	1.08
202.5	0.81	1.08	1.35	1.35	1.08	1.88	1.08	1.35	1.08
225.0	0.81	1.35	1.08	1.35	1.35	1.61	1.35	1.61	1.35
247.5	0.81	1.08	0.81	1.35	1.35	1.35	1.35	1.35	1.35
270.0	1.08	1.08	1.08	1.35	1.08	1.08	1.35	1.35	1.08
292.5	1.35	1.08	1.35	1.35	1.35	1.35	1.61	1.35	1.35
315.0	1.08	1.08	0.81	1.35	1.35	1.35	1.35	1.61	1.35
337.5	1.08	1.08	1.08	1.35	1.61	1.35	1.35	1.35	1.35
360.0	0.54	0.54	0.54	0.81	0.81	0.81	1.08	0.81	1.08

C/γ(°)	180.0
0.0	1.46
22.5	1.46
45.0	1.46
67.5	1.46
90.0	1.46
112.5	1.46
135.0	1.46
157.5	1.46
180.0	1.46
202.5	1.46
225.0	1.46
247.5	1.46
270.0	1.46
292.5	1.46
315.0	1.46
337.5	1.46
360.0	1.46