



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LL4RRG-30K

Luminaire:

Report No:

Voltage(V): 120.06

Test No:

Current(A): 0.1200

LampCAT:

Power (W): 14.1970

Lamp flux(lm): 866.5

PF: 0.9854

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 866.50

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 61.03

Central intensity(cd): 358.847

Maximum intensity(cd): 358.847

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=102.0

[C90/270]Total=101.9

Field angle(10%Imax): [C0/180]Total=149.1

[C90/270]Total=149.2

Maximum s/h(1/2): C0_180=1.24 C90_270=1.20

Maximum s/h(1/4): C0_180=1.77 C90_270=1.30

Up flux rate of lamp(%): 0.78%

Down flux rate of lamp(%): 99.22%

Up flux rate of LUM(%): 0.78%

Down flux rate of LUM(%): 99.22%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 83.904%

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

Date:
Humidity(%): 58%

Operator: Zac

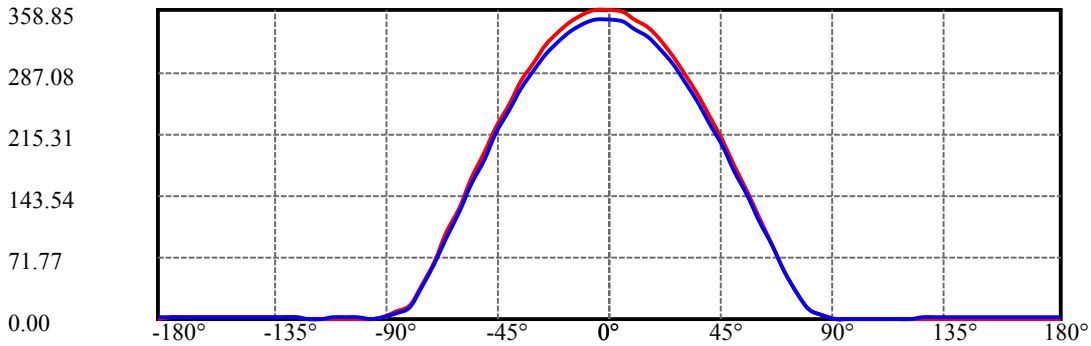
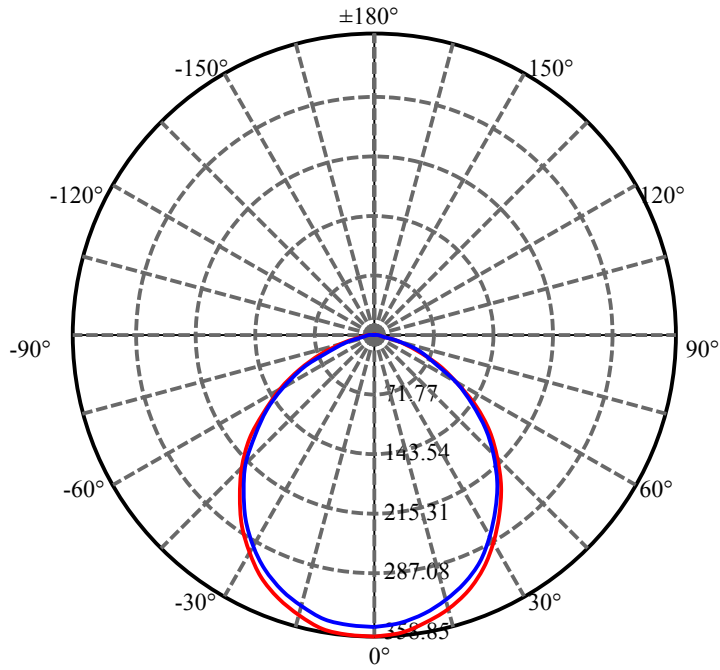
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	349.968	.000	.000	.000%	.000%
5.0	348.193	8.346	8.346	.963%	.963%
10.0	342.731	24.717	33.063	2.852%	3.816%
15.0	333.610	40.120	73.183	4.630%	8.446%
20.0	320.912	53.942	127.125	6.225%	14.671%
25.0	304.371	65.581	192.705	7.568%	22.239%
30.0	284.424	74.512	267.218	8.599%	30.839%
35.0	261.522	80.394	347.612	9.278%	40.117%
40.0	236.649	83.116	430.728	9.592%	49.709%
45.0	209.429	82.595	513.323	9.532%	59.241%
50.0	180.774	78.846	592.169	9.099%	68.340%
55.0	150.927	72.123	664.291	8.323%	76.663%
60.0	120.496	62.738	727.030	7.240%	83.904%
65.0	89.894	51.146	778.176	5.903%	89.806%
70.0	59.950	37.941	816.118	4.379%	94.185%
75.0	32.535	24.174	840.292	2.790%	96.975%
80.0	13.294	12.263	852.554	1.415%	98.390%
85.0	6.093	5.268	857.822	.608%	98.998%
90.0	1.022	1.948	859.770	.225%	99.223%
95.0	.912	.530	860.300	.061%	99.284%
100.0	.949	.506	860.805	.058%	99.342%
105.0	.912	.498	861.303	.057%	99.400%
110.0	1.010	.502	861.806	.058%	99.458%
115.0	.985	.505	862.311	.058%	99.516%
120.0	1.022	.488	862.799	.056%	99.572%
125.0	1.107	.492	863.291	.057%	99.629%
130.0	1.156	.492	863.783	.057%	99.686%
135.0	1.156	.467	864.250	.054%	99.740%
140.0	1.144	.426	864.675	.049%	99.789%
145.0	1.228	.396	865.071	.046%	99.835%
150.0	1.241	.364	865.435	.042%	99.876%
155.0	1.265	.317	865.752	.037%	99.913%
160.0	1.289	.268	866.020	.031%	99.944%
165.0	1.289	.212	866.232	.025%	99.968%
170.0	1.253	.151	866.383	.017%	99.986%
175.0	1.289	.091	866.474	.010%	99.996%
180.0	1.289	.031	866.505	.004%	100.000%

ZONAL LUMEN SUMMARY

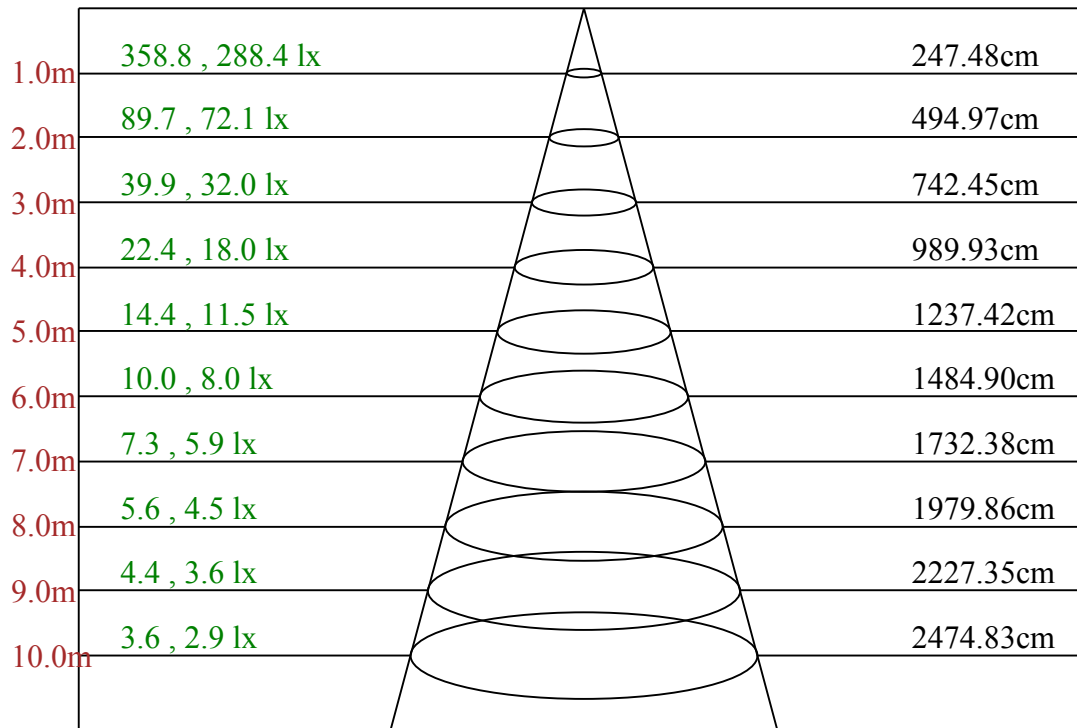
Zone	Lumens	%Lamp	%Fixt
0-30	267.22	30.84%	30.84%
0-40	430.73	49.71%	49.71%
0-60	727.03	83.90%	83.90%
0-90	859.77	99.22%	99.22%
0-120	862.80	99.57%	99.57%
0-180	866.50	100.00%	100.00%
60-90	195.48	22.56%	22.56%
90-120	4.98	0.57%	0.57%
90-130	5.96	0.69%	0.69%
90-150	7.61	0.88%	0.88%
90-180	8.65	1.00%	1.00%
0-57.30	693.20	80.00%	80.00%

ZONAL LUMEN SUMMARY

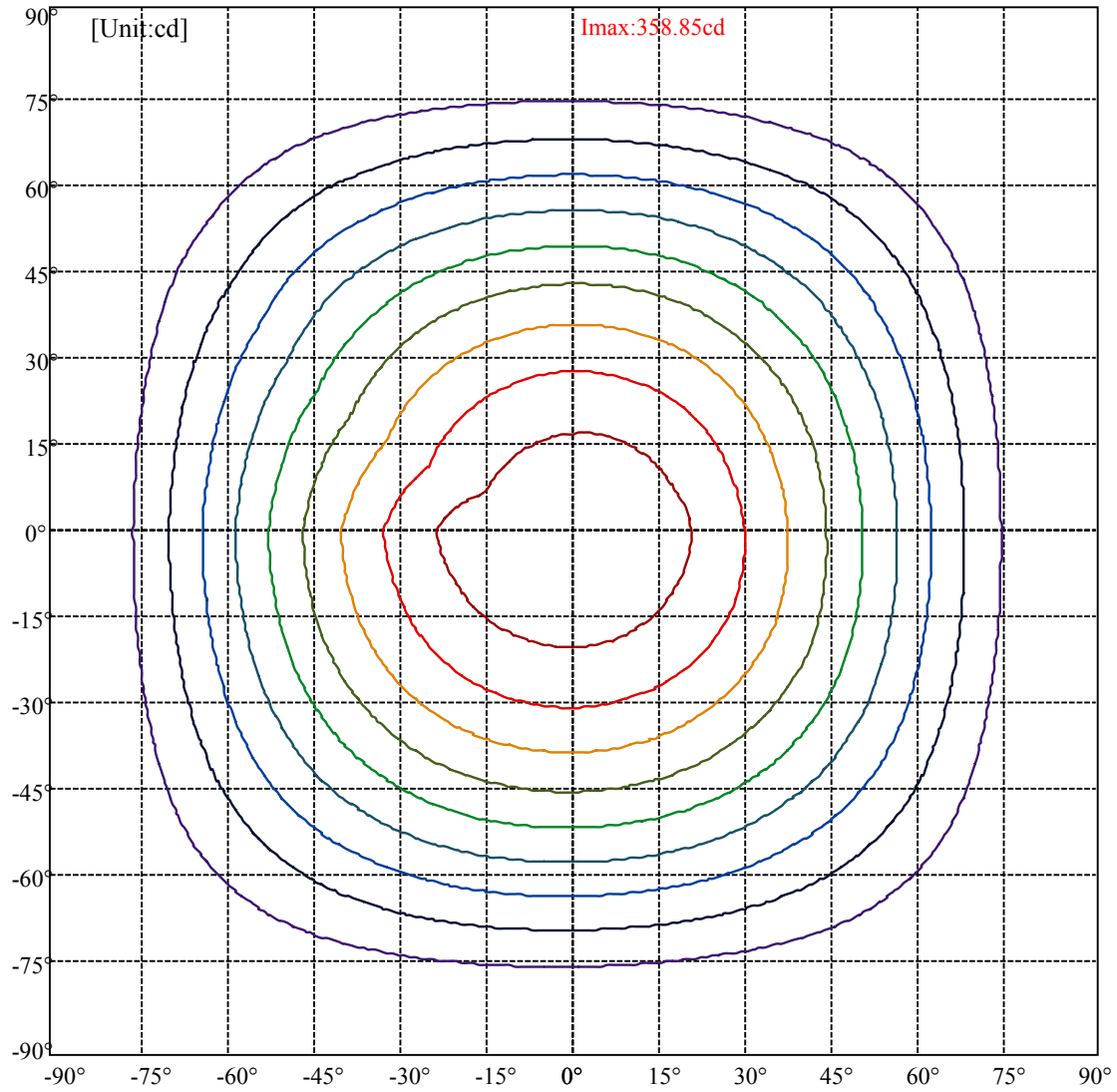
0-10	33.06
10-20	94.06
20-30	140.09
30-40	163.51
40-50	161.44
50-60	134.86
60-70	89.09
70-80	36.44
80-90	7.22
90-100	1.04
100-110	1.00
110-120	0.99
120-130	0.98
130-140	0.89
140-150	0.76
150-160	0.58
160-170	0.36
170-180	0.09



C0/C180: —
C90/C270: —
Field angle(10%Imax):C0/180Left:75.5 Right:73.6
:C90/270Left:70.3 Right:78.9
Beam Angle(50%Imax):C0/180Left:52.3 Right:49.8
:C90/270Left:47.1 Right:54.8



Max , Ave Beam angle of C0plane102.05



(10%Imax) 35.8808	—
(20%Imax) 71.7616	—
(30%Imax) 107.642	—
(40%Imax) 143.523	—
(50%Imax) 179.404	—
(60%Imax) 215.285	—
(70%Imax) 251.166	—
(80%Imax) 287.046	—
(90%Imax) 322.927	—

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	358.85	356.12	348.53	338.61	324.40	306.30	284.70	260.96	235.47
22.5	353.79	350.48	343.47	332.77	319.73	301.83	280.81	257.27	231.97
45.0	349.70	346.59	340.75	330.63	317.20	299.69	278.67	255.32	229.63
67.5	348.53	345.23	338.80	329.07	315.06	297.55	276.73	253.96	228.85
90.0	346.78	344.45	337.64	327.32	313.70	296.38	276.14	252.59	228.27
112.5	346.39	343.28	336.47	326.15	312.34	295.21	275.17	252.01	226.52
135.0	347.56	343.67	336.27	325.96	312.53	294.63	274.39	252.21	227.10
157.5	348.14	344.25	337.25	326.15	312.92	295.02	274.58	251.82	227.30
180.0	358.85	358.65	354.18	345.61	334.13	317.98	298.72	275.56	249.87
202.5	353.79	353.01	348.53	341.72	329.27	313.89	294.43	271.67	247.92
225.0	349.70	349.51	345.42	337.83	325.77	310.98	291.90	269.91	245.59
247.5	348.53	347.17	343.67	335.69	324.21	308.83	290.15	267.58	243.25
270.0	346.78	346.98	342.89	334.52	323.24	307.86	289.18	266.80	242.48
292.5	346.39	346.78	342.70	335.11	323.43	308.06	288.40	266.41	241.31
315.0	347.56	346.98	343.08	334.91	323.04	307.67	288.40	265.05	240.33
337.5	348.14	347.95	344.06	335.69	323.62	308.06	288.40	265.24	240.53
360.0	358.85	356.12	348.53	338.61	324.40	306.30	284.70	260.96	235.47
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	207.06	178.06	148.09	117.15	85.43	54.68	28.22	11.09	4.48
22.5	204.92	175.53	145.17	114.23	84.26	53.91	27.24	11.29	4.87
45.0	202.19	173.78	143.81	113.45	84.07	54.10	28.02	11.29	4.67
67.5	201.80	173.00	144.01	113.84	83.29	53.91	28.80	11.29	5.06
90.0	200.44	172.61	143.23	114.04	84.26	55.27	29.00	10.90	4.67
112.5	200.05	173.39	142.84	113.84	84.26	56.24	29.77	11.48	4.87
135.0	200.64	172.42	144.59	114.82	85.04	56.44	30.75	12.46	5.64
157.5	200.83	173.00	144.01	115.21	85.43	56.82	30.36	12.65	6.03
180.0	223.40	193.44	162.30	130.19	99.25	67.72	38.14	16.54	7.98
202.5	220.10	191.29	160.35	130.00	98.47	67.14	38.92	16.54	7.98
225.0	218.15	188.57	159.77	128.24	96.91	67.14	37.95	15.96	7.78
247.5	216.01	187.99	158.02	126.88	96.13	65.58	36.59	15.37	7.20
270.0	215.23	186.04	156.07	125.71	94.38	63.83	36.00	14.21	6.42
292.5	213.67	185.07	155.29	124.55	93.22	62.66	33.86	13.82	6.42
315.0	212.90	184.68	154.13	122.60	91.85	62.47	34.06	13.82	6.62
337.5	213.48	183.51	153.15	123.18	92.05	61.30	32.89	14.01	6.81
360.0	207.06	178.06	148.09	117.15	85.43	54.68	28.22	11.09	4.48
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.20	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.58
22.5	0.78	0.97	0.58	0.58	0.78	0.78	0.78	0.97	0.97
45.0	0.78	0.78	1.17	0.78	0.97	0.97	1.17	0.97	0.97
67.5	0.97	0.97	0.78	0.97	0.97	0.97	0.97	0.97	1.36
90.0	0.58	0.97	0.97	0.78	0.97	0.78	0.97	1.17	1.17
112.5	0.97	0.78	0.97	0.78	0.78	0.97	0.97	1.17	1.17
135.0	0.78	0.78	0.78	0.78	0.78	0.78	0.97	1.17	0.97
157.5	0.58	0.97	0.78	0.78	0.97	0.97	0.97	1.36	0.78
180.0	1.56	0.97	0.97	0.97	0.97	0.97	0.78	1.17	1.17
202.5	1.56	0.97	0.97	0.97	1.36	1.17	1.36	1.17	1.36
225.0	1.56	1.17	0.97	1.17	1.17	1.17	1.17	1.17	1.17
247.5	1.17	0.97	0.97	1.17	1.36	1.36	1.17	1.17	1.36
270.0	1.17	0.97	1.17	1.17	1.17	0.97	0.97	1.36	1.56
292.5	1.36	1.17	1.17	1.17	1.17	1.17	1.17	0.97	1.36
315.0	1.17	0.97	1.17	0.97	1.17	1.17	1.17	1.36	1.17
337.5	1.17	0.97	1.36	1.17	1.17	1.17	1.36	1.17	1.36
360.0	0.20	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.58

LL4RRG-30K

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	0.58	0.58	0.58	0.58	0.58	0.78	0.58	0.58	0.78
22.5	0.97	0.97	0.97	1.17	1.36	1.17	1.36	1.17	1.17
45.0	1.17	0.97	1.17	1.17	1.36	1.36	1.36	1.36	1.36
67.5	0.97	1.17	1.17	1.17	1.17	1.36	1.36	1.36	1.36
90.0	1.17	1.17	1.36	1.17	1.17	1.36	1.17	1.36	1.36
112.5	1.17	1.36	1.17	0.97	1.17	1.36	1.36	1.17	1.36
135.0	1.17	1.17	1.36	1.36	1.36	1.36	1.36	1.36	1.36
157.5	0.97	1.17	1.36	1.36	1.17	1.17	1.36	1.36	1.36
180.0	1.36	1.17	1.17	1.17	1.36	1.36	1.17	1.17	1.17
202.5	1.36	1.36	1.36	1.17	1.56	1.17	1.36	1.36	1.36
225.0	1.17	1.17	1.17	1.56	1.17	1.36	1.56	1.36	1.36
247.5	1.36	1.17	1.36	1.56	1.36	1.36	1.36	1.17	1.36
270.0	1.36	1.17	1.36	1.56	1.36	1.36	1.17	1.36	1.36
292.5	1.17	1.17	1.36	1.17	1.36	1.36	1.36	1.17	1.17
315.0	1.17	1.17	1.36	1.36	1.56	1.36	1.36	1.36	1.36
337.5	1.36	1.36	1.36	1.36	1.17	1.36	1.36	1.36	1.36
360.0	0.58	0.58	0.58	0.58	0.58	0.78	0.58	0.58	0.78

C/γ(°)	180.0
0.0	0.78
22.5	1.17
45.0	1.56
67.5	1.36
90.0	1.56
112.5	1.36
135.0	1.36
157.5	1.17
180.0	0.78
202.5	1.17
225.0	1.56
247.5	1.36
270.0	1.56
292.5	1.36
315.0	1.36
337.5	1.17
360.0	0.78