



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

LumCAT: LL4G-32K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.01

LampCAT:

Current(A): 0.1250

Lamp flux(lm): -1.0

Power (W): 14.85

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): 912.07, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 61.41

Central intensity(cd): 1421.147, Maximum intensity(cd): 1433.891

Angle of maximum intensity: C=180.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=41.2

[C90/270]Total=41.7

Field angle(10%Imax): [C0/180]Total=74.0

[C90/270]Total=74.1

Maximum s/h(1/2): C0\_180=0.71 C90\_270=0.70

Maximum s/h(1/4): C0\_180=0.74 C90\_270=0.73

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  $\pi$  solid angle : 94.253%

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

Date:  
Humidity(%): 59%

Operator: jarvis

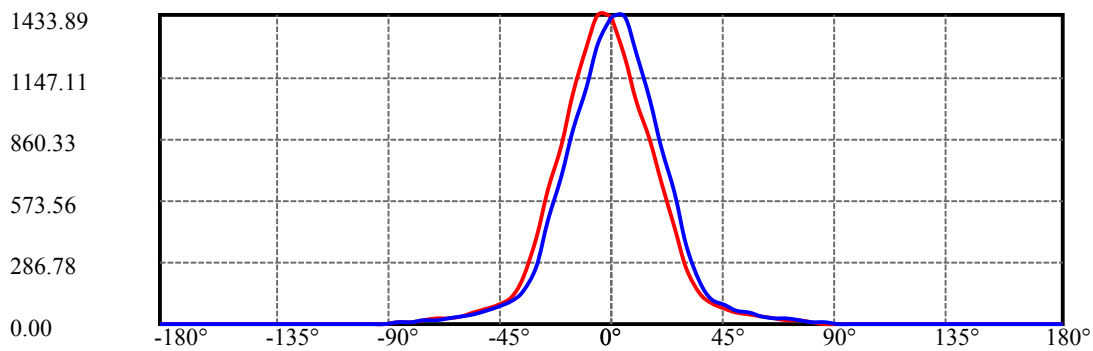
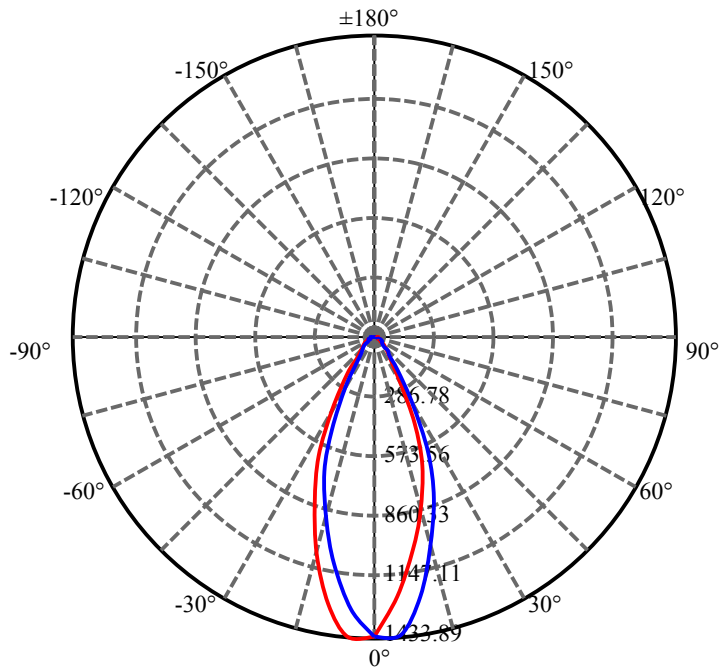
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1421.147	0.000	0	0.00%	0.00%
5.0	1340.441	33.014	33.014	0.00%	3.62%
10.0	1159.781	89.441	122.455	0.00%	13.43%
15.0	957.709	125.608	248.063	0.00%	27.20%
20.0	740.276	139.938	388.001	0.00%	42.54%
25.0	534.500	133.700	521.701	0.00%	57.20%
30.0	325.622	108.849	630.55	0.00%	69.13%
35.0	177.172	74.040	704.59	0.00%	77.25%
40.0	111.299	48.129	752.72	0.00%	82.53%
45.0	82.217	35.831	788.551	0.00%	86.46%
50.0	61.194	28.978	817.529	0.00%	89.63%
55.0	46.094	23.328	840.857	0.00%	92.19%
60.0	35.222	18.796	859.652	0.00%	94.25%
65.0	27.874	15.339	874.991	0.00%	95.93%
70.0	21.852	12.591	887.582	0.00%	97.31%
75.0	16.191	9.944	897.526	0.00%	98.40%
80.0	10.502	7.142	904.669	0.00%	99.19%
85.0	5.860	4.446	909.115	0.00%	99.68%
90.0	0.793	1.822	910.936	0.00%	99.88%
95.0	0.009	0.220	911.156	0.00%	99.90%
100.0	0.009	0.005	911.161	0.00%	99.90%
105.0	0.009	0.005	911.166	0.00%	99.90%
110.0	0.009	0.005	911.17	0.00%	99.90%
115.0	0.009	0.005	911.175	0.00%	99.90%
120.0	0.036	0.011	911.186	0.00%	99.90%
125.0	0.036	0.017	911.202	0.00%	99.90%
130.0	0.072	0.023	911.226	0.00%	99.91%
135.0	0.099	0.035	911.261	0.00%	99.91%
140.0	0.144	0.045	911.306	0.00%	99.92%
145.0	0.297	0.074	911.379	0.00%	99.92%
150.0	0.379	0.100	911.479	0.00%	99.93%
155.0	0.604	0.124	911.603	0.00%	99.95%
160.0	0.721	0.139	911.742	0.00%	99.96%
165.0	0.874	0.131	911.874	0.00%	99.98%
170.0	0.937	0.107	911.981	0.00%	99.99%
175.0	0.974	0.068	912.049	0.00%	100.00%
180.0	1.078	0.025	912.074	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	630.55	N.A.	69.13%
0-40	752.72	N.A.	82.53%
0-60	859.65	N.A.	94.25%
0-90	910.94	N.A.	99.88%
0-120	911.19	N.A.	99.90%
0-180	912.07	N.A.	100.00%
60-90	51.28	N.A.	5.62%
90-120	0.25	N.A.	0.03%
90-130	0.29	N.A.	0.03%
90-150	0.54	N.A.	0.06%
90-180	1.11	N.A.	0.12%
0-37.60	729.66	N.A.	80.00%

## ZONAL LUMEN SUMMARY

0-10	122.45
10-20	265.55
20-30	242.55
30-40	122.17
40-50	64.81
50-60	42.12
60-70	27.93
70-80	17.09
80-90	6.27
90-100	0.22
100-110	0.01
110-120	0.02
120-130	0.04
130-140	0.08
140-150	0.17
150-160	0.26
160-170	0.24
170-180	0.07

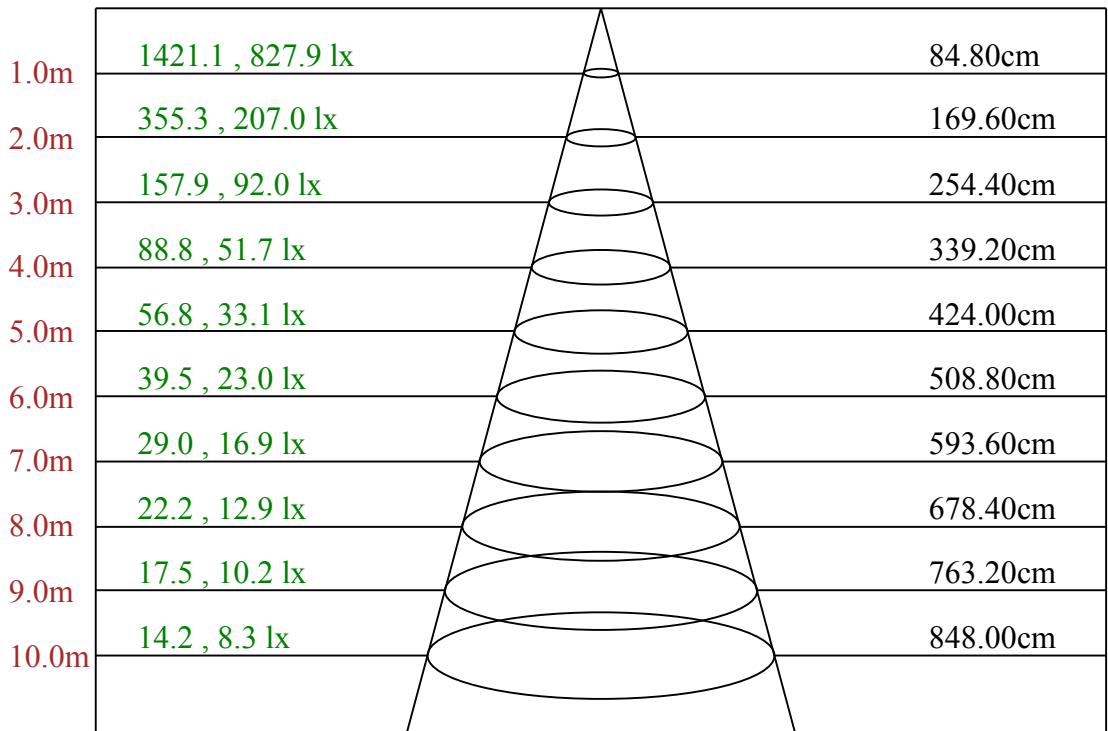


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:39.1 Right:34.9  
:C90/270Left:35.7 Right:38.4

Beam Angle(50%Imax):C0/180Left:22.7 Right:18.5  
:C90/270Left:19.3 Right:22.4



Max , Ave      Beam angle of C180 plane 45.95

## 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	1421.15	1236.43	1031.61	856.79	655.14	449.60	258.62	141.64	96.21
22.5	1421.15	1232.10	1027.42	846.55	643.60	432.00	238.43	133.57	94.48
45.0	1421.15	1231.38	1027.57	841.06	636.53	427.24	236.41	133.13	93.18
67.5	1421.15	1229.21	1037.66	849.29	636.68	429.98	242.32	136.31	93.04
90.0	1421.15	1424.37	1255.47	1038.39	815.39	603.65	369.40	193.57	119.43
112.5	1421.15	1420.48	1261.24	1046.46	823.03	617.20	399.11	212.47	121.74
135.0	1421.15	1427.11	1267.15	1050.36	826.21	629.32	413.54	226.89	127.80
157.5	1421.15	1433.46	1275.37	1052.52	832.41	629.90	413.68	231.07	128.52
180.0	1421.15	1433.89	1285.61	1068.82	831.40	620.67	400.56	215.93	126.93
202.5	1421.15	1432.45	1284.60	1059.73	820.73	612.88	380.22	202.80	125.63
225.0	1421.15	1433.60	1272.78	1046.17	818.71	593.55	369.54	199.63	125.35
247.5	1421.15	1425.24	1266.72	1044.73	808.18	588.93	370.70	201.07	125.06
270.0	1421.15	1300.76	1093.34	898.04	682.26	481.33	269.87	148.57	102.99
292.5	1421.15	1273.93	1077.19	892.27	677.93	481.47	282.13	152.46	101.26
315.0	1421.15	1261.09	1052.23	872.65	674.90	480.18	285.88	155.06	100.39
337.5	1421.15	1251.57	1040.55	859.53	661.34	474.12	279.54	150.59	98.80
360.0	1421.15	1236.43	1031.61	856.79	655.14	449.60	258.62	141.64	96.21
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	72.70	53.95	41.40	32.17	25.53	19.91	14.42	8.94	4.33
22.5	70.82	52.79	40.39	31.44	25.39	19.62	14.14	8.65	4.18
45.0	70.10	51.93	39.81	31.16	25.24	19.62	13.85	8.51	4.18
67.5	69.96	52.22	40.39	31.30	25.24	19.62	13.85	8.51	4.04
90.0	87.84	65.49	49.33	37.94	30.00	23.51	17.89	11.97	7.07
112.5	88.42	66.35	49.62	37.65	29.71	23.37	17.60	11.54	6.92
135.0	89.57	66.93	50.05	37.94	29.71	23.08	17.60	11.68	6.92
157.5	91.02	67.50	50.63	38.08	29.71	23.37	17.89	11.83	7.07
180.0	91.74	68.37	50.77	37.94	29.57	23.66	17.74	11.68	7.21
202.5	93.18	68.66	50.63	38.08	29.71	23.51	17.74	11.97	7.36
225.0	92.75	68.37	50.63	38.22	29.57	23.51	18.03	12.12	7.21
247.5	92.03	68.80	51.06	37.94	29.71	23.66	18.32	12.12	7.36
270.0	78.03	58.13	43.71	33.90	27.12	21.20	15.15	10.10	5.48
292.5	76.88	57.70	43.71	33.75	26.97	20.92	15.15	9.66	4.90
315.0	75.87	56.54	43.27	33.46	26.68	20.63	15.15	9.52	4.90
337.5	74.57	55.39	42.12	32.60	26.11	20.48	14.57	9.23	4.62
360.0	72.70	53.95	41.40	32.17	25.53	19.91	14.42	8.94	4.33
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	0.00	0.00	0.00	0.14
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
90.0	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.14	0.14	0.14	0.14	0.14	0.14	0.43	0.29	0.29
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14

LL4G-32K-HO

Intensity data(cd)

Appendix Page: 7 Total:7

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.14	0.14	0.29	0.43	0.58	0.87	0.87	1.01	0.87
22.5	0.14	0.29	0.29	0.43	0.58	0.72	0.87	1.01	1.01
45.0	0.14	0.14	0.43	0.43	0.72	0.87	1.01	1.01	1.01
67.5	0.14	0.14	0.43	0.43	0.72	0.72	1.01	0.87	1.01
90.0	0.00	0.14	0.29	0.43	0.72	0.87	0.87	1.01	1.01
112.5	0.00	0.00	0.14	0.29	0.43	0.72	0.87	0.87	0.87
135.0	0.00	0.00	0.14	0.14	0.58	0.58	0.87	0.72	1.01
157.5	0.00	0.00	0.14	0.14	0.58	0.58	0.72	0.87	0.72
180.0	0.00	0.14	0.00	0.29	0.43	0.58	0.58	0.87	0.87
202.5	0.00	0.00	0.29	0.29	0.43	0.58	0.72	0.87	0.87
225.0	0.00	0.00	0.00	0.14	0.43	0.58	0.87	1.01	1.01
247.5	0.00	0.00	0.14	0.14	0.43	0.43	0.72	0.87	1.01
270.0	0.58	0.43	0.72	0.87	1.01	1.15	1.30	1.44	1.30
292.5	0.29	0.29	0.43	0.43	0.72	0.87	0.87	0.72	0.87
315.0	0.14	0.29	0.43	0.58	0.58	0.72	0.87	1.01	1.01
337.5	0.00	0.29	0.58	0.58	0.72	0.72	1.01	0.87	1.15
360.0	0.14	0.14	0.29	0.43	0.58	0.87	0.87	1.01	0.87

C/γ(°)	180.0
0.0	1.08
22.5	1.08
45.0	1.08
67.5	1.08
90.0	1.08
112.5	1.08
135.0	1.08
157.5	1.08
180.0	1.08
202.5	1.08
225.0	1.08
247.5	1.08
270.0	1.08
292.5	1.08
315.0	1.08
337.5	1.08
360.0	1.08