



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

LumCAT: LL4G-40K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.1240

Lamp flux(lm): -1.0

Power (W): 14.66

Number of Lamps: 1

PF: 0.9869

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1303.69, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 88.96

Central intensity(cd): 1903.492, Maximum intensity(cd): 2087.203

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=41.0

[C90/270]Total=40.5

Field angle(10%Imax): [C0/180]Total=74.5

[C90/270]Total=73.9

Maximum s/h(1/2): C0_180=0.76 C90_270=0.79

Maximum s/h(1/4): C0_180=0.77 C90_270=0.78

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.15%

Down flux rate of LUM(%): 99.85%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.436%

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

Date:
Humidity(%): 59%

Operator: jarvis

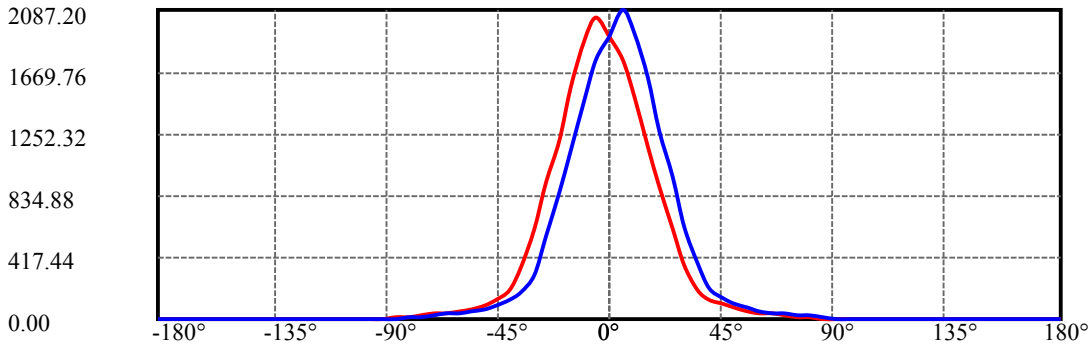
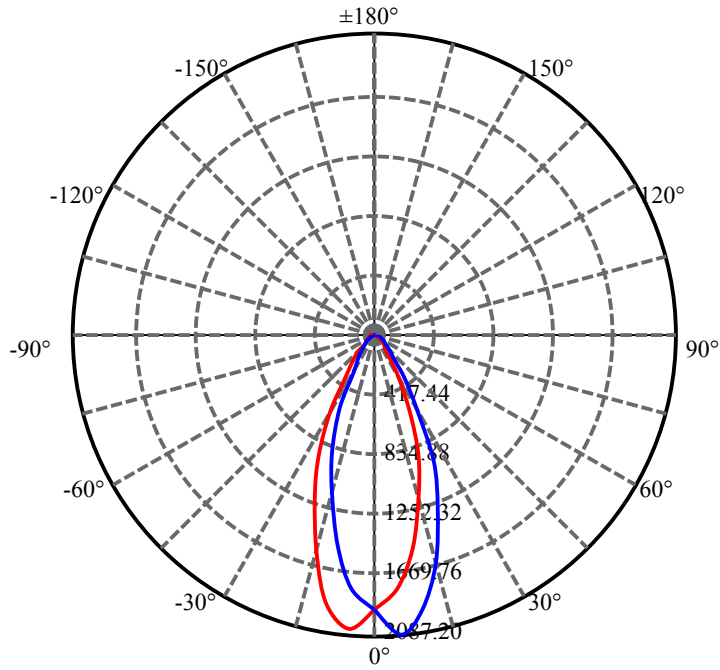
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1903.492	0.000	0	0.00%	0.00%
5.0	1906.710	45.550	45.55	0.00%	3.49%
10.0	1692.567	128.757	174.307	0.00%	13.37%
15.0	1367.237	181.505	355.813	0.00%	27.29%
20.0	1051.347	199.325	555.138	0.00%	42.58%
25.0	759.456	189.920	745.058	0.00%	57.15%
30.0	467.891	155.322	900.38	0.00%	69.06%
35.0	269.818	108.633	1009.012	0.00%	77.40%
40.0	165.609	72.648	1081.66	0.00%	82.97%
45.0	115.565	52.062	1133.721	0.00%	86.96%
50.0	83.182	40.160	1173.881	0.00%	90.04%
55.0	63.025	31.790	1205.671	0.00%	92.48%
60.0	47.187	25.475	1231.146	0.00%	94.44%
65.0	37.643	20.622	1251.769	0.00%	96.02%
70.0	29.689	17.049	1268.818	0.00%	97.33%
75.0	22.166	13.554	1282.372	0.00%	98.36%
80.0	15.117	9.976	1292.348	0.00%	99.13%
85.0	8.302	6.364	1298.711	0.00%	99.62%
90.0	2.520	2.963	1301.674	0.00%	99.85%
95.0	0.012	0.693	1302.367	0.00%	99.90%
100.0	0.012	0.006	1302.374	0.00%	99.90%
105.0	0.012	0.006	1302.38	0.00%	99.90%
110.0	0.023	0.009	1302.389	0.00%	99.90%
115.0	0.023	0.012	1302.401	0.00%	99.90%
120.0	0.058	0.020	1302.421	0.00%	99.90%
125.0	0.035	0.021	1302.442	0.00%	99.90%
130.0	0.093	0.028	1302.47	0.00%	99.91%
135.0	0.163	0.052	1302.522	0.00%	99.91%
140.0	0.256	0.077	1302.599	0.00%	99.92%
145.0	0.406	0.110	1302.709	0.00%	99.92%
150.0	0.615	0.150	1302.86	0.00%	99.94%
155.0	0.848	0.185	1303.045	0.00%	99.95%
160.0	1.033	0.197	1303.242	0.00%	99.97%
165.0	1.150	0.180	1303.422	0.00%	99.98%
170.0	1.231	0.141	1303.563	0.00%	99.99%
175.0	1.324	0.091	1303.655	0.00%	100.00%
180.0	1.399	0.033	1303.687	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	900.38	N.A.	69.06%
0-40	1081.66	N.A.	82.97%
0-60	1231.15	N.A.	94.44%
0-90	1301.67	N.A.	99.85%
0-120	1302.42	N.A.	99.90%
0-180	1303.69	N.A.	100.00%
60-90	70.53	N.A.	5.41%
90-120	0.75	N.A.	0.06%
90-130	0.80	N.A.	0.06%
90-150	1.19	N.A.	0.09%
90-180	1.98	N.A.	0.15%
0-37.34	1042.95	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	174.31
10-20	380.83
20-30	345.24
30-40	181.28
40-50	92.22
50-60	57.27
60-70	37.67
70-80	23.53
80-90	9.33
90-100	0.70
100-110	0.02
110-120	0.03
120-130	0.05
130-140	0.13
140-150	0.26
150-160	0.38
160-170	0.32
170-180	0.09



C0/C180: —

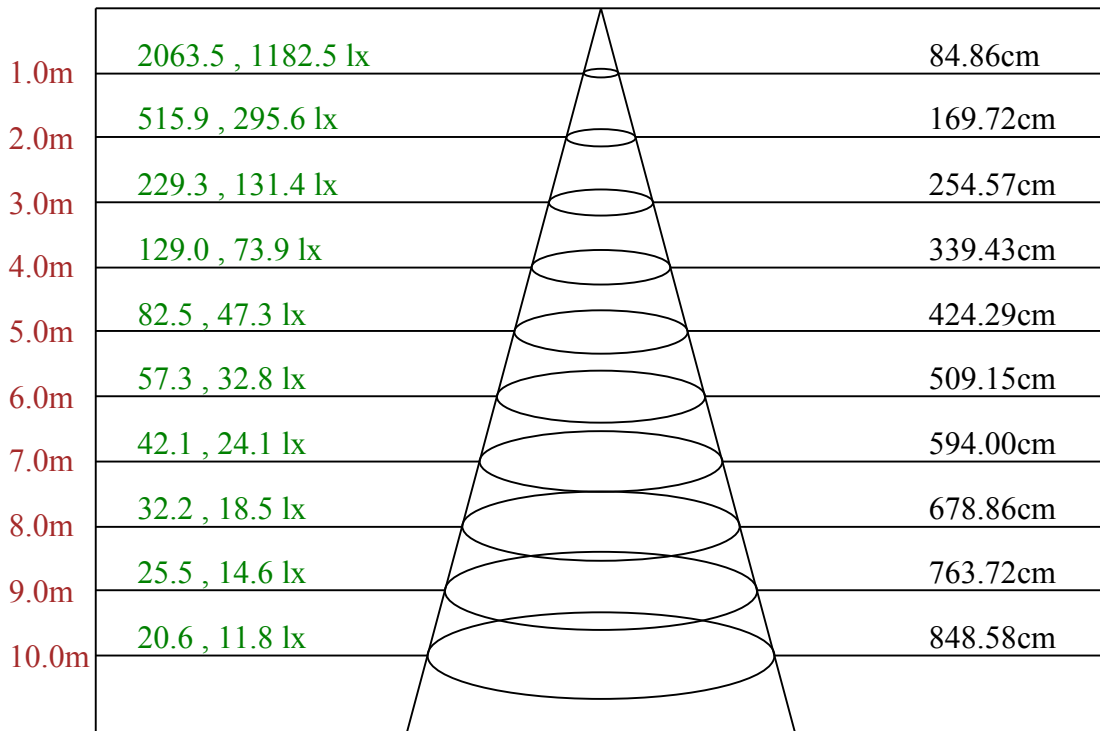
C90/C270: —

Field angle(10%Imax):C0/180Left:39.8 Right:34.7

:C90/270Left:33.8 Right:40.1

Beam Angle(50%Imax):C0/180Left:23.3 Right:17.7

:C90/270Left:16.8 Right:23.7



Max , Ave Beam angle of C90 plane 45.98

LL4G-40K-HO

Appendix Page: 6 Total:7

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	1903.49	1755.41	1500.15	1170.02	898.05	608.98	358.55	193.21	130.79
22.5	1903.49	1790.33	1537.68	1195.85	928.14	616.41	347.59	191.54	135.06
45.0	1903.49	1819.69	1571.12	1224.83	929.63	625.51	363.38	201.38	138.22
67.5	1903.49	1846.07	1595.27	1264.40	970.68	662.30	384.37	218.66	143.79
90.0	1903.49	2087.20	1937.10	1635.02	1267.56	964.55	624.03	374.53	210.30
112.5	1903.49	2078.66	1946.01	1634.09	1284.46	995.21	671.96	399.61	218.29
135.0	1903.49	2074.01	1926.32	1624.06	1274.24	997.81	678.27	416.70	230.18
157.5	1903.49	2058.04	1903.28	1592.48	1246.94	971.61	655.79	398.86	220.89
180.0	1903.49	2041.32	1885.26	1562.76	1205.32	923.50	609.91	355.95	198.22
202.5	1903.49	2016.42	1832.69	1508.69	1146.80	875.20	536.52	302.07	181.13
225.0	1903.49	1999.15	1788.10	1453.33	1105.19	808.13	485.62	272.16	171.66
247.5	1903.49	1979.27	1758.38	1426.40	1061.53	782.31	471.32	261.02	164.23
270.0	1903.49	1756.34	1483.06	1147.17	861.82	556.40	301.70	178.53	125.77
292.5	1903.49	1736.46	1473.21	1146.62	874.27	565.32	311.55	177.60	124.66
315.0	1903.49	1726.80	1467.08	1139.37	881.33	588.73	332.54	183.18	126.51
337.5	1903.49	1742.22	1476.37	1150.70	885.60	609.35	353.16	192.09	130.04
360.0	1903.49	1755.41	1500.15	1170.02	898.05	608.98	358.55	193.21	130.79
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	97.90	71.52	54.80	41.43	33.44	26.01	18.76	12.08	5.76
22.5	100.32	72.64	55.36	42.17	34.37	26.75	19.32	12.45	6.50
45.0	103.29	75.80	56.85	43.10	35.11	27.50	20.06	13.19	6.87
67.5	107.57	77.84	58.89	44.40	36.41	28.05	21.18	13.93	7.62
90.0	142.86	99.76	75.43	55.55	43.10	34.74	26.94	19.69	12.08
112.5	141.75	101.43	76.91	55.92	43.66	34.93	27.12	19.88	12.08
135.0	142.86	101.25	76.35	56.29	44.03	34.74	26.94	19.69	11.89
157.5	137.48	97.90	74.68	54.80	42.36	34.37	26.38	18.95	11.52
180.0	131.34	94.75	70.97	52.58	41.24	33.07	25.27	18.02	10.96
202.5	126.51	89.92	67.25	50.35	39.39	31.77	24.34	17.28	10.40
225.0	119.83	85.46	64.84	47.75	37.71	30.47	23.41	16.35	9.48
247.5	116.85	83.04	62.24	46.82	37.16	29.72	22.67	15.23	8.92
270.0	96.05	70.41	53.50	41.06	34.00	26.01	18.39	11.52	4.83
292.5	94.00	69.11	52.95	40.69	33.25	25.64	17.84	10.96	4.27
315.0	94.19	69.30	53.50	41.06	33.07	25.45	18.02	11.33	4.83
337.5	96.23	70.78	53.88	41.06	34.00	25.82	18.02	11.33	4.83
360.0	97.90	71.52	54.80	41.43	33.44	26.01	18.76	12.08	5.76
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	0.19	0.00	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
90.0	6.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	6.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	5.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	3.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.19	0.19	0.19	0.19	0.37	0.37	0.37	0.37	0.74
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00

Equipment: GMS-3000
Temperature(°C): 25Date:
Humidity(%): 59%

Operator: jarvis

LL4G-40K-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	0.19	0.19	0.56	0.74	0.93	1.12	1.12	1.30	1.49
22.5	0.37	0.37	0.56	0.56	0.93	1.12	1.12	1.12	1.49
45.0	0.19	0.37	0.56	0.93	1.12	0.93	1.12	1.30	1.30
67.5	0.19	0.37	0.37	0.56	0.93	1.12	1.30	1.30	1.49
90.0	0.00	0.37	0.37	0.56	1.12	0.93	1.12	1.30	1.49
112.5	0.00	0.00	0.19	0.37	0.56	0.93	1.12	1.12	1.12
135.0	0.00	0.00	0.19	0.19	0.56	0.74	1.12	0.93	1.12
157.5	0.00	0.19	0.00	0.37	0.56	0.93	1.12	1.12	1.12
180.0	0.00	0.00	0.19	0.37	0.74	0.74	0.74	1.12	1.30
202.5	0.00	0.00	0.37	0.37	0.74	0.93	0.93	0.93	1.12
225.0	0.00	0.00	0.00	0.37	0.56	0.74	0.93	1.12	1.30
247.5	0.00	0.00	0.37	0.56	0.56	0.93	1.12	1.12	1.12
270.0	0.37	0.93	1.12	1.30	1.49	1.67	1.67	1.67	1.67
292.5	0.56	0.37	0.56	0.74	1.12	1.12	1.49	1.30	1.49
315.0	0.37	0.56	0.56	0.93	0.93	1.30	1.12	1.49	1.30
337.5	0.37	0.37	0.56	0.93	0.74	1.30	1.30	1.49	1.30
360.0	0.19	0.19	0.56	0.74	0.93	1.12	1.12	1.30	1.49
C/γ(°)	180.0								
0.0	1.40								
22.5	1.40								
45.0	1.40								
67.5	1.40								
90.0	1.40								
112.5	1.40								
135.0	1.40								
157.5	1.40								
180.0	1.40								
202.5	1.40								
225.0	1.40								
247.5	1.40								
270.0	1.40								
292.5	1.40								
315.0	1.40								
337.5	1.40								
360.0	1.40								