



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

LumCAT: LL4G-50K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.02

LampCAT:

Current(A): 0.0910

Lamp flux(lm): -1.0

Power (W): 10.66

Number of Lamps: 1

PF: 0.9776

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1103.52, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 103.54

Central intensity(cd): 1639.515, Maximum intensity(cd): 1684.868

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=43.1

[C90/270]Total=42.4

Field angle(10%Imax): [C0/180]Total=77.1

[C90/270]Total=76.5

Maximum s/h(1/2): C0_180=0.68 C90_270=0.71

Maximum s/h(1/4): C0_180=0.69 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 π solid angle : 94.271%

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

Date:
Humidity(%): 59%

Operator: jarvis

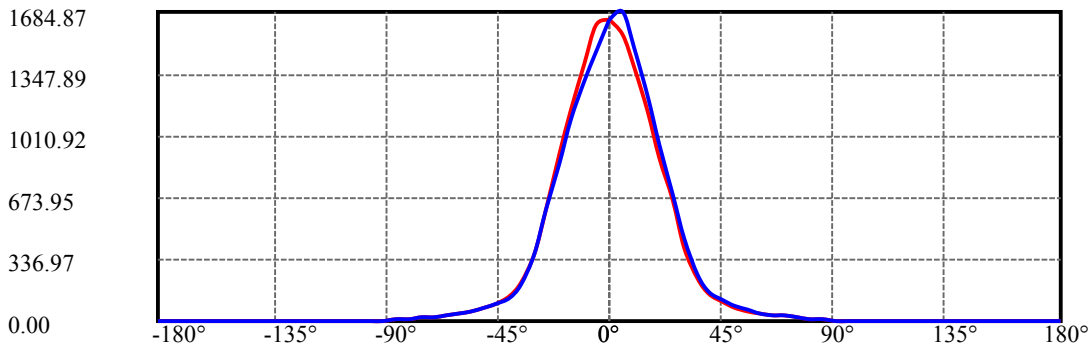
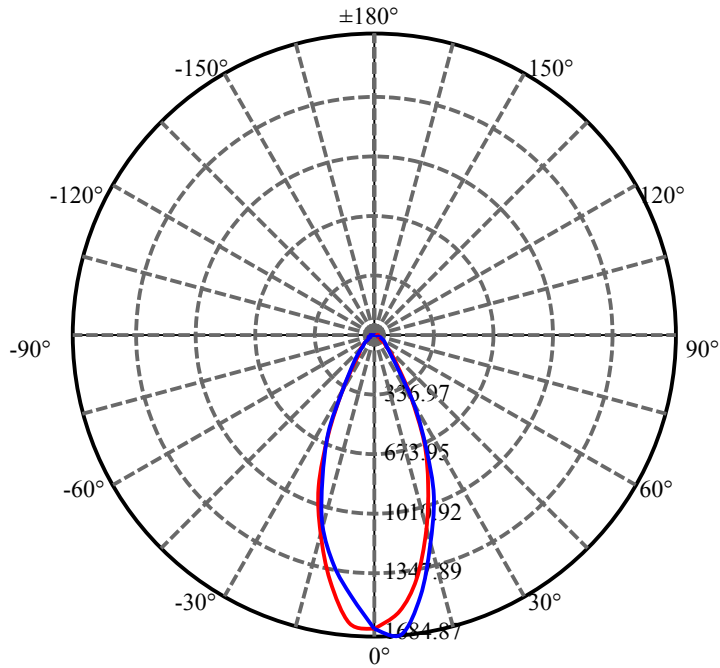
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1639.515	0.000	0	0.00%	0.00%
5.0	1578.859	38.475	38.475	0.00%	3.49%
10.0	1388.975	106.169	144.644	0.00%	13.11%
15.0	1143.241	150.209	294.853	0.00%	26.72%
20.0	896.631	168.114	462.967	0.00%	41.95%
25.0	640.315	161.197	624.164	0.00%	56.56%
30.0	399.847	131.633	755.798	0.00%	68.49%
35.0	224.486	91.937	847.735	0.00%	76.82%
40.0	141.233	61.017	908.753	0.00%	82.35%
45.0	101.400	44.925	953.678	0.00%	86.42%
50.0	74.837	35.611	989.289	0.00%	89.65%
55.0	55.620	28.366	1017.655	0.00%	92.22%
60.0	42.338	22.643	1040.298	0.00%	94.27%
65.0	33.192	18.362	1058.659	0.00%	95.93%
70.0	26.272	15.057	1073.716	0.00%	97.30%
75.0	19.533	11.973	1085.688	0.00%	98.38%
80.0	12.807	8.653	1094.342	0.00%	99.17%
85.0	7.662	5.562	1099.904	0.00%	99.67%
90.0	0.706	2.291	1102.195	0.00%	99.88%
95.0	0.012	0.197	1102.391	0.00%	99.90%
100.0	0.012	0.007	1102.398	0.00%	99.90%
105.0	0.012	0.007	1102.405	0.00%	99.90%
110.0	0.024	0.010	1102.414	0.00%	99.90%
115.0	0.037	0.015	1102.43	0.00%	99.90%
120.0	0.024	0.015	1102.444	0.00%	99.90%
125.0	0.073	0.023	1102.467	0.00%	99.90%
130.0	0.085	0.034	1102.501	0.00%	99.91%
135.0	0.097	0.037	1102.538	0.00%	99.91%
140.0	0.219	0.059	1102.597	0.00%	99.92%
145.0	0.341	0.093	1102.69	0.00%	99.92%
150.0	0.499	0.124	1102.814	0.00%	99.94%
155.0	0.681	0.149	1102.963	0.00%	99.95%
160.0	0.936	0.170	1103.133	0.00%	99.96%
165.0	0.997	0.159	1103.292	0.00%	99.98%
170.0	1.095	0.124	1103.416	0.00%	99.99%
175.0	1.107	0.079	1103.495	0.00%	100.00%
180.0	1.111	0.027	1103.521	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	755.80	N.A.	68.49%
0-40	908.75	N.A.	82.35%
0-60	1040.30	N.A.	94.27%
0-90	1102.19	N.A.	99.88%
0-120	1102.44	N.A.	99.90%
0-180	1103.52	N.A.	100.00%
60-90	61.90	N.A.	5.61%
90-120	0.25	N.A.	0.02%
90-130	0.31	N.A.	0.03%
90-150	0.62	N.A.	0.06%
90-180	1.30	N.A.	0.12%
0-37.87	882.82	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	144.64
10-20	318.32
20-30	292.83
30-40	152.95
40-50	80.54
50-60	51.01
60-70	33.42
70-80	20.63
80-90	7.85
90-100	0.20
100-110	0.02
110-120	0.03
120-130	0.06
130-140	0.10
140-150	0.22
150-160	0.32
160-170	0.28
170-180	0.08

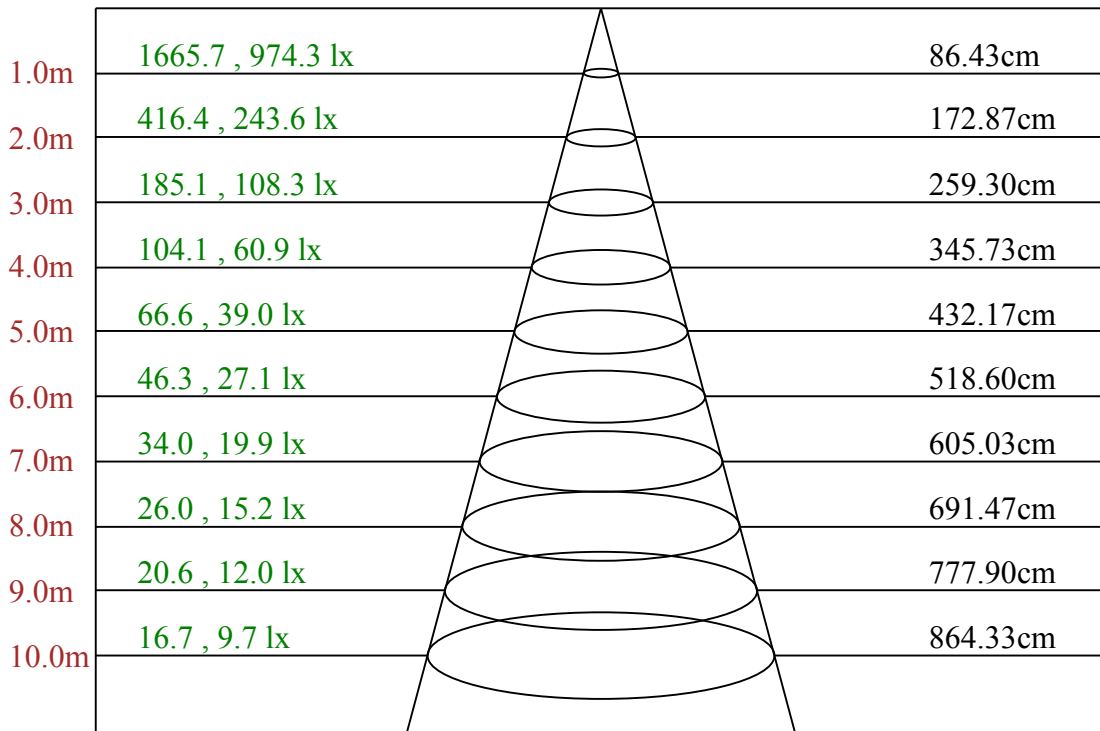


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:38.1 Right:39.0
:C90/270Left:37.2 Right:39.3

Beam Angle(50%Imax):C0/180Left:21.5 Right:21.6
:C90/270Left:20.2 Right:22.2



Max , Ave Beam angle of C90 plane 46.74

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	1639.52	1554.10	1382.65	1135.70	893.23	657.56	402.24	235.08	146.54
22.5	1639.52	1573.56	1386.93	1130.64	877.66	639.66	395.24	227.69	142.84
45.0	1639.52	1572.00	1381.87	1117.99	872.21	630.90	385.70	227.88	142.25
67.5	1639.52	1566.16	1373.70	1114.49	875.32	636.93	386.09	221.26	140.31
90.0	1639.52	1684.87	1483.84	1220.35	961.92	694.54	455.18	247.34	154.71
112.5	1639.52	1660.93	1461.27	1194.67	941.49	685.20	450.70	249.29	153.35
135.0	1639.52	1642.83	1430.13	1170.15	940.13	665.35	434.94	243.84	147.70
157.5	1639.52	1630.38	1423.32	1163.72	912.88	637.71	407.69	223.40	142.25
180.0	1639.52	1611.11	1398.22	1147.38	907.24	611.05	371.11	206.86	137.78
202.5	1639.52	1601.58	1383.82	1135.12	883.50	592.37	354.96	199.47	135.64
225.0	1639.52	1591.65	1383.23	1136.87	878.05	595.29	358.85	203.55	134.28
247.5	1639.52	1598.85	1395.69	1154.19	906.46	619.03	374.03	208.61	136.03
270.0	1639.52	1463.61	1304.42	1101.45	854.11	603.66	366.05	201.02	128.05
292.5	1639.52	1474.31	1323.49	1110.40	873.96	641.22	399.32	219.51	133.89
315.0	1639.52	1503.11	1340.42	1124.02	879.99	667.10	426.76	237.22	140.70
337.5	1639.52	1532.69	1370.59	1134.73	887.97	667.49	428.71	239.75	143.42
360.0	1639.52	1554.10	1382.65	1135.70	893.23	657.56	402.24	235.08	146.54
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	104.70	75.12	56.05	42.42	33.86	26.86	20.04	13.04	7.78
22.5	104.50	75.31	55.66	42.23	33.47	27.05	20.24	13.23	8.17
45.0	103.72	75.31	55.85	41.65	33.08	26.47	20.04	12.84	7.98
67.5	103.53	75.31	54.88	41.06	32.50	26.08	19.46	12.65	7.98
90.0	110.73	82.71	61.69	45.54	34.83	27.63	21.02	14.60	8.95
112.5	107.81	80.96	60.13	45.54	34.25	27.05	20.43	13.82	8.37
135.0	104.11	78.43	58.38	44.37	33.67	26.86	20.04	13.43	7.98
157.5	101.00	77.06	56.24	43.20	33.67	26.27	19.46	13.04	7.78
180.0	99.25	74.34	54.68	42.62	33.08	26.08	19.27	12.84	7.59
202.5	97.30	72.39	53.91	41.84	32.89	25.69	18.88	12.65	7.20
225.0	96.91	72.20	53.13	41.45	32.69	25.69	18.88	12.46	7.20
247.5	97.89	72.20	53.52	41.45	32.89	25.69	18.88	12.65	7.20
270.0	93.80	68.89	52.15	39.89	31.53	24.91	18.29	11.48	6.81
292.5	96.91	70.45	53.32	40.28	31.92	25.10	18.68	11.48	6.81
315.0	99.83	72.59	54.68	41.45	33.08	26.08	19.27	12.07	7.40
337.5	100.42	74.14	55.66	42.42	33.67	26.86	19.66	12.65	7.40
360.0	104.70	75.12	56.05	42.42	33.86	26.86	20.04	13.04	7.78
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
67.5	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
90.0	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	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
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.39	0.20	0.20	0.20	0.39	0.39	0.39	0.58	0.39
292.5	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.39
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20
337.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
360.0	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

LL4G-50K

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.20	0.20	0.58	0.39	0.78	0.78	1.17	1.17	1.17
22.5	0.00	0.20	0.39	0.58	0.97	0.97	0.97	0.97	1.17
45.0	0.00	0.00	0.39	0.58	0.58	0.97	0.78	1.17	1.17
67.5	0.20	0.39	0.39	0.58	0.78	0.97	0.97	1.17	1.17
90.0	0.20	0.20	0.39	0.58	0.58	0.97	1.17	1.17	1.17
112.5	0.00	0.00	0.00	0.20	0.39	0.97	0.78	0.97	1.17
135.0	0.00	0.20	0.00	0.39	0.58	0.78	0.78	1.17	0.97
157.5	0.00	0.00	0.39	0.39	0.58	0.78	0.97	1.17	1.17
180.0	0.00	0.20	0.20	0.39	0.39	0.97	0.97	0.97	0.97
202.5	0.00	0.00	0.39	0.58	0.58	0.78	0.97	0.97	0.97
225.0	0.00	0.00	0.39	0.39	0.39	0.97	0.78	0.97	0.97
247.5	0.00	0.20	0.20	0.39	0.58	0.78	0.97	0.97	0.78
270.0	0.78	0.58	0.78	1.17	1.17	1.56	1.56	1.56	1.56
292.5	0.00	0.58	0.39	0.39	0.78	0.97	1.17	0.97	1.17
315.0	0.20	0.39	0.39	0.58	0.97	0.97	0.97	0.97	1.17
337.5	0.00	0.39	0.20	0.39	0.78	0.78	0.97	1.17	0.97
360.0	0.20	0.20	0.58	0.39	0.78	0.78	1.17	1.17	1.17

C/γ(°)	180.0
0.0	1.11
22.5	1.11
45.0	1.11
67.5	1.11
90.0	1.11
112.5	1.11
135.0	1.11
157.5	1.11
180.0	1.11
202.5	1.11
225.0	1.11
247.5	1.11
270.0	1.11
292.5	1.11
315.0	1.11
337.5	1.11
360.0	1.11