



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

LumCAT: LB4R 32K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 0.0900

Lamp flux(lm): -1.0

Power (W): 10.59

Number of Lamps: 1

PF: 0.9774

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 699.78, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 66.06

Central intensity(cd): 245.363, Maximum intensity(cd): 248.343

Angle of maximum intensity: C=90.0 $\gamma=5.0$

Beam Angle(50%Imax): [C0/180]Total=111.8

[C90/270]Total=112.0

Field angle(10%Imax): [C0/180]Total=162.5

[C90/270]Total=161.5

Maximum s/h(1/2): C0_180=1.27 C90_270=1.27

Maximum s/h(1/4): C0_180=1.39 C90_270=1.38

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.10%

Down flux rate of LUM(%): 99.90%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 78.497%

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

Date:
Humidity(%): 59%

Operator: jarvis

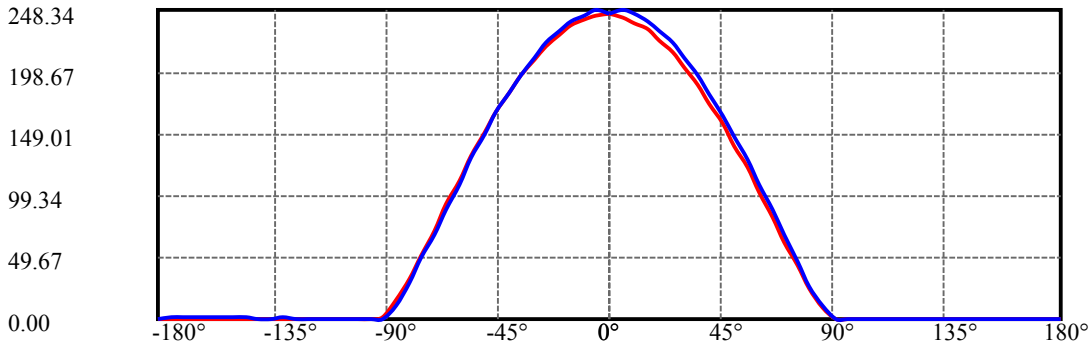
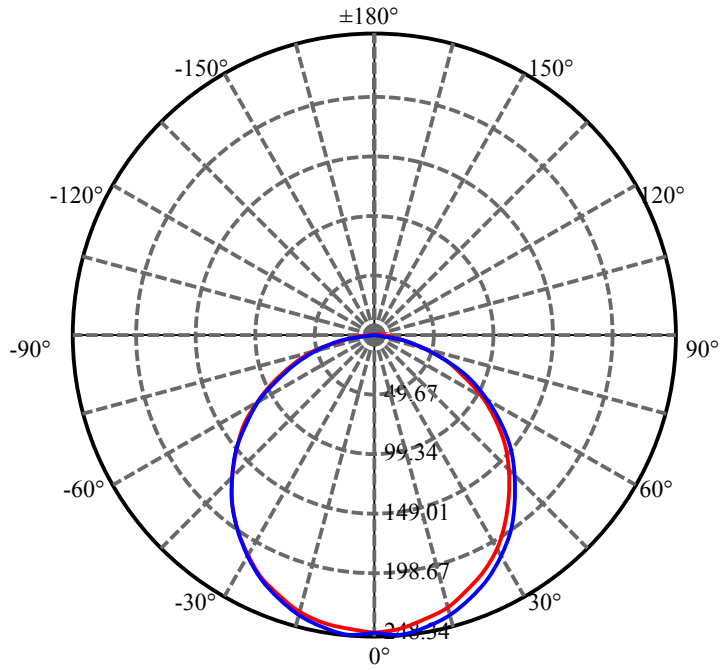
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	245.363	0.000	0	0.00%	0.00%
5.0	244.289	5.854	5.854	0.00%	0.84%
10.0	240.916	17.357	23.211	0.00%	3.32%
15.0	235.176	28.242	51.452	0.00%	7.35%
20.0	227.647	38.143	89.596	0.00%	12.80%
25.0	217.905	46.730	136.326	0.00%	19.48%
30.0	206.527	53.712	190.038	0.00%	27.16%
35.0	193.323	58.881	248.919	0.00%	35.57%
40.0	178.612	62.054	310.973	0.00%	44.44%
45.0	162.434	63.147	374.121	0.00%	53.46%
50.0	145.073	62.136	436.257	0.00%	62.34%
55.0	126.501	59.049	495.306	0.00%	70.78%
60.0	107.118	54.000	549.306	0.00%	78.50%
65.0	87.054	47.204	596.51	0.00%	85.24%
70.0	66.732	38.940	635.45	0.00%	90.81%
75.0	46.886	29.698	665.147	0.00%	95.05%
80.0	27.902	20.011	685.159	0.00%	97.91%
85.0	11.287	10.649	695.807	0.00%	99.43%
90.0	0.656	3.270	699.078	0.00%	99.90%
95.0	0.026	0.187	699.265	0.00%	99.93%
100.0	0.013	0.010	699.275	0.00%	99.93%
105.0	0.013	0.007	699.282	0.00%	99.93%
110.0	0.039	0.013	699.295	0.00%	99.93%
115.0	0.052	0.023	699.318	0.00%	99.93%
120.0	0.064	0.028	699.346	0.00%	99.94%
125.0	0.090	0.036	699.382	0.00%	99.94%
130.0	0.103	0.042	699.424	0.00%	99.95%
135.0	0.129	0.047	699.471	0.00%	99.96%
140.0	0.142	0.050	699.521	0.00%	99.96%
145.0	0.193	0.056	699.577	0.00%	99.97%
150.0	0.155	0.051	699.628	0.00%	99.98%
155.0	0.155	0.039	699.667	0.00%	99.98%
160.0	0.167	0.034	699.701	0.00%	99.99%
165.0	0.232	0.033	699.734	0.00%	99.99%
170.0	0.180	0.024	699.758	0.00%	100.00%
175.0	0.232	0.015	699.773	0.00%	100.00%
180.0	0.218	0.005	699.778	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	190.04	N.A.	27.16%
0-40	310.97	N.A.	44.44%
0-60	549.31	N.A.	78.50%
0-90	699.08	N.A.	99.90%
0-120	699.35	N.A.	99.94%
0-180	699.78	N.A.	100.00%
60-90	149.77	N.A.	21.40%
90-120	0.27	N.A.	0.04%
90-130	0.35	N.A.	0.05%
90-150	0.55	N.A.	0.08%
90-180	0.70	N.A.	0.10%
0-61.11	559.82	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	23.21
10-20	66.38
20-30	100.44
30-40	120.94
40-50	125.28
50-60	113.05
60-70	86.14
70-80	49.71
80-90	13.92
90-100	0.20
100-110	0.02
110-120	0.05
120-130	0.08
130-140	0.10
140-150	0.11
150-160	0.07
160-170	0.06
170-180	0.01

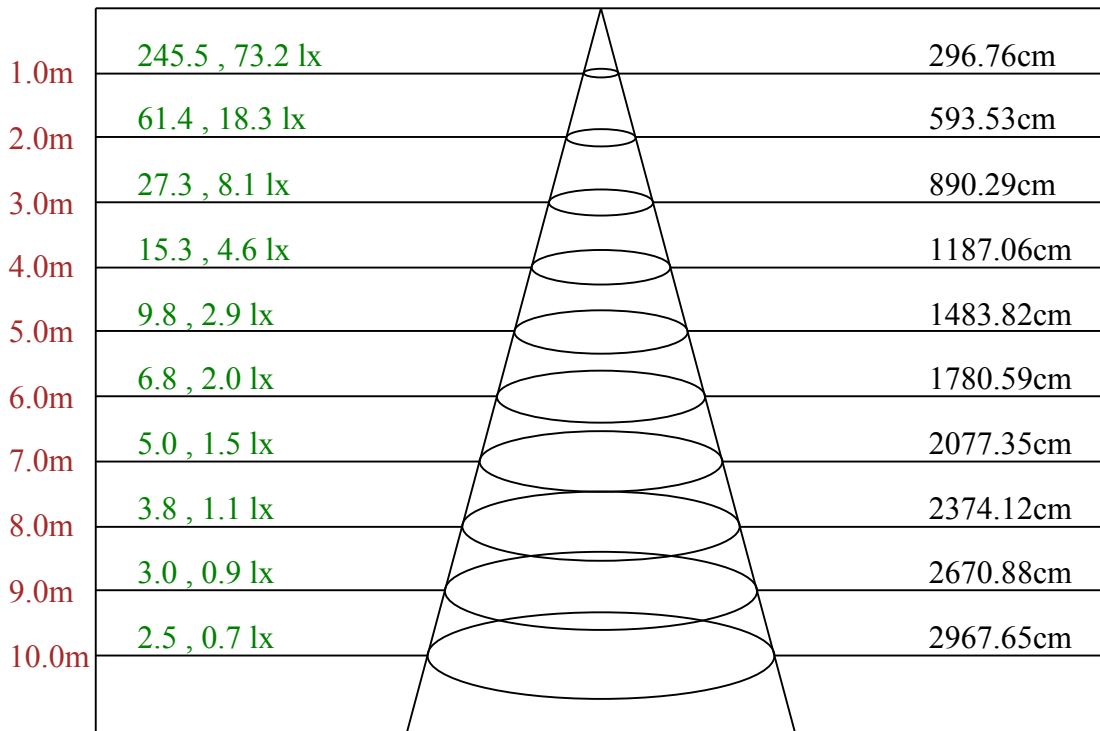


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:82.4 Right:80.1
:C90/270Left:81.1 Right:80.4

Beam Angle(50%Imax):C0/180Left:57.1 Right:54.7
:C90/270Left:56.2 Right:55.8



Max , Ave Beam angle of C90 plane 112.05

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	245.36	242.37	238.25	232.28	224.25	213.95	202.01	188.83	173.39
22.5	245.36	242.58	238.66	232.08	224.25	213.95	202.42	187.18	172.56
45.0	245.36	242.99	238.87	232.49	224.04	213.95	201.60	187.80	172.36
67.5	245.36	243.19	239.28	232.69	224.46	213.95	201.60	188.21	172.77
90.0	245.36	248.34	244.84	239.28	231.05	221.37	209.63	196.04	180.80
112.5	245.36	245.25	241.96	236.19	228.57	218.90	207.36	194.19	178.95
135.0	245.36	243.81	240.72	235.16	228.37	218.69	207.16	194.19	179.77
157.5	245.36	243.61	240.52	235.16	228.37	219.10	208.19	195.63	180.59
180.0	245.36	243.40	240.93	235.78	228.78	219.31	208.81	196.24	182.04
202.5	245.36	243.81	241.34	236.19	229.19	220.75	210.04	197.07	183.48
225.0	245.36	245.05	242.37	237.43	230.43	221.57	211.07	198.30	184.71
247.5	245.36	245.05	242.58	238.05	231.05	221.57	211.48	198.72	184.51
270.0	245.36	248.34	244.43	238.87	231.05	221.37	209.63	196.45	181.62
292.5	245.36	245.05	241.14	235.78	227.75	218.07	206.13	193.57	178.95
315.0	245.36	242.99	239.90	233.10	226.10	215.60	204.28	191.10	176.68
337.5	245.36	242.78	238.87	232.28	224.66	214.37	203.04	189.66	174.62
360.0	245.36	242.37	238.25	232.28	224.25	213.95	202.01	188.83	173.39
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	157.12	139.41	121.49	101.93	81.96	62.19	42.42	24.92	8.65
22.5	156.09	138.17	120.05	100.49	80.72	60.54	41.19	23.27	7.62
45.0	155.68	138.38	119.23	100.28	79.28	59.92	40.57	22.45	6.80
67.5	155.68	138.17	119.44	100.28	80.10	59.31	40.36	22.45	7.00
90.0	163.91	146.41	127.47	107.70	87.72	67.13	46.13	26.15	10.30
112.5	163.30	146.21	127.05	107.90	87.72	66.51	46.13	26.77	10.09
135.0	163.30	146.00	128.50	108.93	88.75	67.34	47.57	28.01	11.12
157.5	164.12	148.26	129.53	109.96	89.99	70.43	50.25	30.68	14.00
180.0	166.39	149.29	130.56	111.61	92.05	71.46	51.48	32.54	16.06
202.5	168.03	150.12	132.20	113.26	93.28	72.49	52.92	33.57	16.68
225.0	169.06	151.35	133.03	113.46	93.49	72.90	52.92	33.98	16.89
247.5	169.27	152.18	133.23	113.88	94.11	73.72	52.92	33.36	17.09
270.0	165.97	148.47	129.11	108.73	88.55	68.37	48.60	28.83	10.91
292.5	162.68	144.56	126.23	106.87	86.49	66.72	47.16	27.39	9.68
315.0	160.00	142.91	124.17	105.23	85.25	64.87	44.89	26.36	8.65
337.5	158.35	141.26	122.73	103.37	83.40	63.84	44.69	25.74	9.06
360.0	157.12	139.41	121.49	101.93	81.96	62.19	42.42	24.92	8.65
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	0.21	0.00	0.21	0.21
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
45.0	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.41	0.21	0.21	0.21	0.41	0.41	0.62	0.41	0.82
292.5	0.21	0.21	0.00	0.00	0.21	0.00	0.21	0.21	0.21
315.0	0.21	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	0.21	0.21	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.21

LB4R 32K

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	0.00	0.21	0.21	0.21	0.21	0.00	0.21	0.00	0.21
22.5	0.21	0.00	0.21	0.21	0.00	0.21	0.21	0.00	0.00
45.0	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.00	0.41
67.5	0.21	0.21	0.21	0.21	0.21	0.00	0.00	0.21	0.00
90.0	0.00	0.21	0.21	0.21	0.41	0.41	0.21	0.41	0.41
112.5	0.00	0.00	0.21	0.00	0.00	0.00	0.21	0.21	0.21
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.21
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
202.5	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.00	0.41
225.0	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.21
270.0	0.62	0.62	0.82	0.82	0.82	0.82	0.82	1.03	1.03
292.5	0.41	0.41	0.62	0.21	0.21	0.21	0.41	0.21	0.21
315.0	0.21	0.21	0.21	0.00	0.00	0.21	0.41	0.41	0.21
337.5	0.21	0.21	0.21	0.41	0.21	0.21	0.41	0.21	0.00
360.0	0.00	0.21	0.21	0.21	0.21	0.00	0.21	0.00	0.21

C/γ(°)	180.0
0.0	0.22
22.5	0.22
45.0	0.22
67.5	0.22
90.0	0.22
112.5	0.22
135.0	0.22
157.5	0.22
180.0	0.22
202.5	0.22
225.0	0.22
247.5	0.22
270.0	0.22
292.5	0.22
315.0	0.22
337.5	0.22
360.0	0.22