



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

Luminaire:

Report No:

Voltage(V): 119.98

Test No:

Current(A): 0.0443

LampCAT:

Power (W): 4.9820

Lamp flux(lm): 438.5

PF: 0.9373

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 438.47

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 88.01

Central intensity(cd): 1662.674

Maximum intensity(cd): 1662.674

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=22.9

[C90/270]Total=23.2

Field angle(10%Imax): [C0/180]Total=52.1

[C90/270]Total=52.5

Maximum s/h(1/2): C0_180=0.34 C90_270=0.40

Maximum s/h(1/4): C0_180=0.49 C90_270=0.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 100.00%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.824%

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

Date:
Humidity(%): 58%

Operator: Zac

Zonal flux distribution table

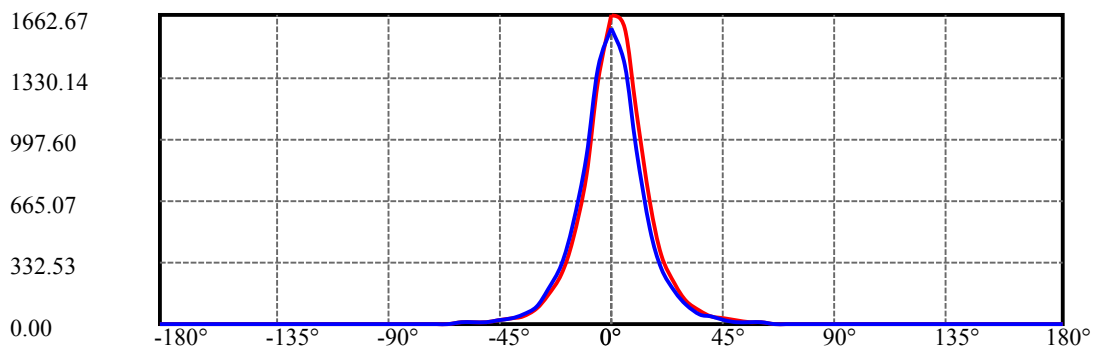
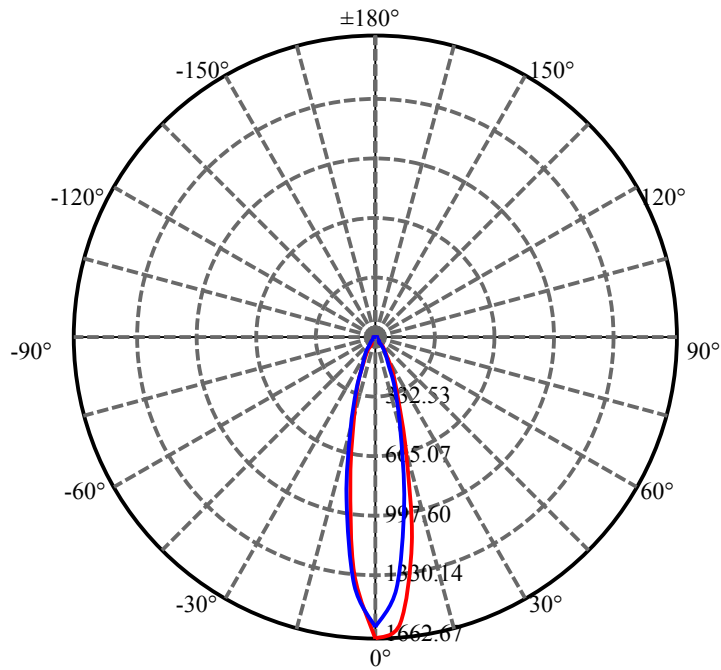
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1601.791	.000	.000	.000%	.000%
5.0	1398.516	35.868	35.868	8.180%	8.180%
10.0	944.372	83.812	119.680	19.115%	27.295%
15.0	550.358	88.666	208.347	20.222%	47.517%
20.0	317.156	71.495	279.842	16.306%	63.822%
25.0	181.804	52.332	332.174	11.935%	75.757%
30.0	99.910	35.651	367.825	8.131%	83.888%
35.0	56.177	22.985	390.810	5.242%	89.130%
40.0	34.817	15.182	405.992	3.462%	92.593%
45.0	22.629	10.637	416.628	2.426%	95.019%
50.0	15.037	7.611	424.239	1.736%	96.754%
55.0	9.724	5.384	429.623	1.228%	97.982%
60.0	6.250	3.692	433.316	.842%	98.824%
65.0	3.805	2.444	435.760	.557%	99.382%
70.0	2.316	1.550	437.310	.353%	99.735%
75.0	.993	.865	438.175	.197%	99.933%
80.0	.055	.280	438.455	.064%	99.997%
85.0	.000	.015	438.470	.003%	100.000%
90.0	.000	.000	438.470	.000%	100.000%
95.0	.000	.000	438.470	.000%	100.000%
100.0	.000	.000	438.470	.000%	100.000%
105.0	.000	.000	438.470	.000%	100.000%
110.0	.000	.000	438.470	.000%	100.000%
115.0	.000	.000	438.470	.000%	100.000%
120.0	.000	.000	438.470	.000%	100.000%
125.0	.000	.000	438.470	.000%	100.000%
130.0	.000	.000	438.470	.000%	100.000%
135.0	.000	.000	438.470	.000%	100.000%
140.0	.000	.000	438.470	.000%	100.000%
145.0	.000	.000	438.470	.000%	100.000%
150.0	.000	.000	438.470	.000%	100.000%
155.0	.000	.000	438.470	.000%	100.000%
160.0	.000	.000	438.470	.000%	100.000%
165.0	.000	.000	438.470	.000%	100.000%
170.0	.000	.000	438.470	.000%	100.000%
175.0	.000	.000	438.470	.000%	100.000%
180.0	.000	.000	438.470	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	367.82	83.89%	83.89%
0-40	405.99	92.59%	92.59%
0-60	433.32	98.82%	98.82%
0-90	438.47	100.00%	100.00%
0-120	438.47	100.00%	100.00%
0-180	438.47	100.00%	100.00%
60-90	8.85	2.02%	2.02%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.61	350.78	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	119.68
10-20	160.16
20-30	87.98
30-40	38.17
40-50	18.25
50-60	9.08
60-70	3.99
70-80	1.15
80-90	0.01
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

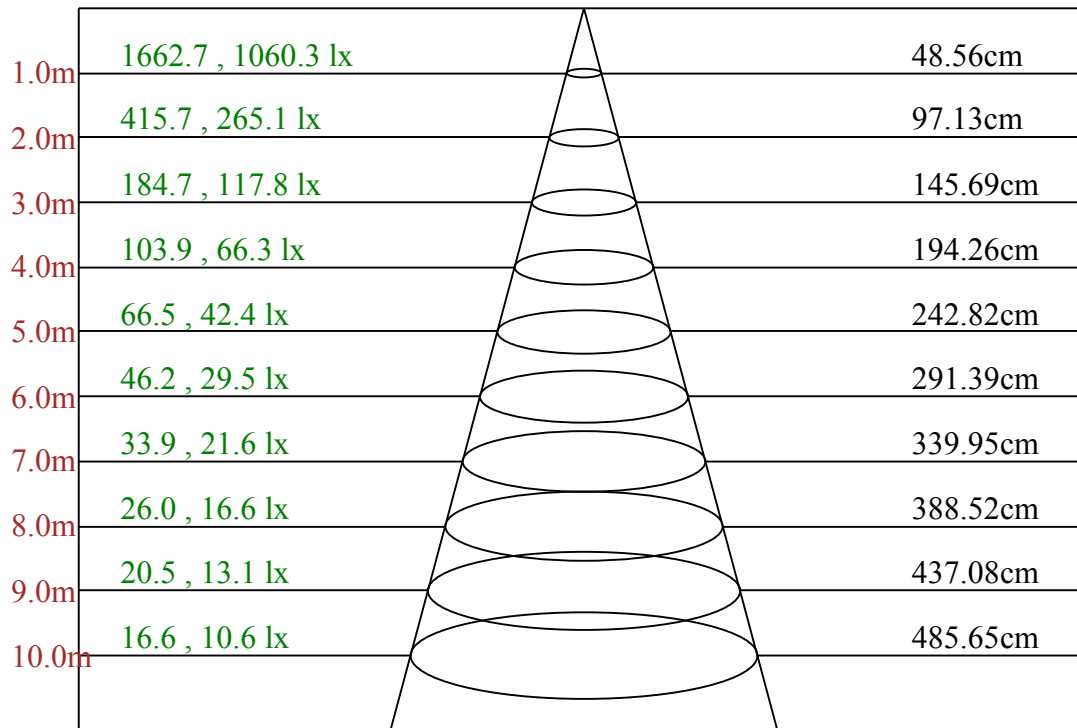


C0/C180: —

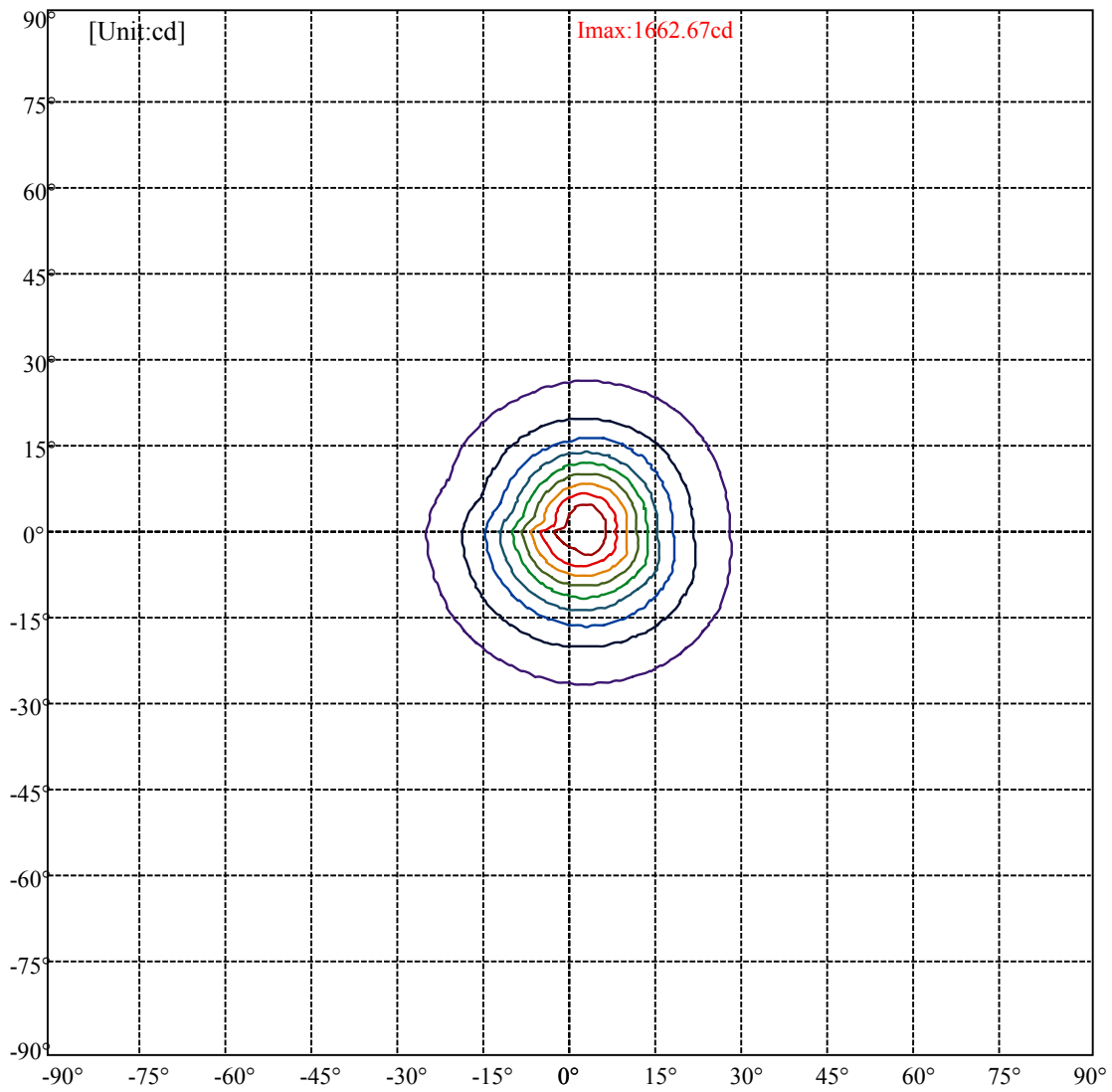
C90/C270: —

Field angle(10%Imax):C0/180Left:24.5 Right:27.6
 :C90/270Left:26.4 Right:26.1

Beam Angle(50%Imax):C0/180Left:9.7 Right:13.3
 :C90/270Left:11.5 Right:11.7



Max , Ave Beam angle of C0plane27.28



(10%Imax) 164.762	—
(20%Imax) 329.523	—
(30%Imax) 494.284	—
(40%Imax) 659.046	—
(50%Imax) 823.807	—
(60%Imax) 988.569	—
(70%Imax) 1153.33	—
(80%Imax) 1318.09	—
(90%Imax) 1482.85	—

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1662.67	1587.38	1145.31	662.36	370.30	215.00	120.59	70.59	41.18
22.5	1650.03	1607.97	1182.37	688.25	376.77	214.42	124.71	70.88	42.94
45.0	1631.20	1577.38	1159.14	674.13	365.01	211.47	120.30	69.41	42.65
67.5	1621.20	1504.44	1055.02	612.95	338.54	195.30	111.18	62.94	40.30
90.0	1594.14	1396.20	939.72	521.19	297.06	177.36	98.24	56.18	37.06
112.5	1572.67	1291.20	817.07	457.07	263.83	150.89	83.53	47.35	32.06
135.0	1549.73	1203.84	726.48	402.07	235.00	135.30	73.53	41.47	27.94
157.5	1532.67	1108.25	666.19	364.71	214.42	118.53	65.00	37.35	25.00
180.0	1662.67	1305.02	799.13	451.48	272.65	154.12	82.06	45.88	28.53
202.5	1650.03	1273.55	779.72	457.07	274.71	151.47	79.41	44.71	27.65
225.0	1631.20	1282.96	803.25	466.77	279.71	154.71	82.65	45.88	28.24
247.5	1621.20	1325.90	842.96	494.13	295.01	166.47	88.53	48.24	30.00
270.0	1594.14	1371.79	903.25	537.95	319.12	183.83	96.18	53.53	33.24
292.5	1572.67	1437.58	985.31	601.48	350.59	203.24	110.00	60.00	36.18
315.0	1549.73	1523.26	1101.20	665.89	390.01	227.36	124.71	67.35	39.41
337.5	1532.67	1579.73	1203.84	748.25	431.77	249.42	137.94	77.06	44.71
360.0	1662.67	1587.38	1145.31	662.36	370.30	215.00	120.59	70.59	41.18
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	26.47	17.35	10.88	6.77	3.82	2.35	1.18	0.00	0.00
22.5	27.06	17.65	11.47	7.35	4.41	2.94	1.47	0.00	0.00
45.0	26.47	17.35	11.18	7.06	4.41	2.65	1.47	0.00	0.00
67.5	25.88	16.77	10.88	7.06	4.41	2.94	1.18	0.00	0.00
90.0	23.53	15.29	9.71	6.47	3.53	2.35	0.88	0.00	0.00
112.5	20.59	12.94	8.53	5.29	3.24	1.77	0.29	0.00	0.00
135.0	18.24	12.06	7.65	4.71	2.35	1.18	0.00	0.00	0.00
157.5	16.18	11.18	7.06	4.12	2.35	1.18	0.00	0.00	0.00
180.0	18.53	12.65	8.24	5.59	3.24	1.77	0.00	0.00	0.00
202.5	18.24	12.06	8.24	5.29	3.24	1.77	0.59	0.00	0.00
225.0	18.82	12.65	8.24	5.29	3.82	1.77	0.59	0.00	0.00
247.5	20.29	13.82	9.12	5.59	3.82	2.35	0.88	0.00	0.00
270.0	22.35	15.00	9.71	6.47	4.12	2.94	1.47	0.00	0.00
292.5	24.12	16.47	10.59	7.06	4.41	2.94	1.77	0.00	0.00
315.0	26.47	17.94	11.18	7.65	4.41	2.94	1.77	0.00	0.00
337.5	28.82	19.41	12.94	8.24	5.29	3.24	2.35	0.88	0.00
360.0	26.47	17.35	10.88	6.77	3.82	2.35	1.18	0.00	0.00
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	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
292.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C/γ(°)	180.0
0.0	0.00
22.5	0.00
45.0	0.00
67.5	0.00
90.0	0.00
112.5	0.00
135.0	0.00
157.5	0.00
180.0	0.00
202.5	0.00
225.0	0.00
247.5	0.00
270.0	0.00
292.5	0.00
315.0	0.00
337.5	0.00
360.0	0.00