Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:
LumCAT:
Luminaire:
Report No:
Ballast type:
Test No:
LampCAT:
Lamp flux(lm): 824.9
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 119.96
Current(A): 0.1320
Power (W): 14.90
PF: 0.9396
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 824.89, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 55.38
Central intensity(cd): 310.023, Maximum intensity(cd): 314.508
Angle of maximum intensity: C=337.5 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=104.5
[C90/270]Total=108.6
Field angle(10%Imax): [C0/180]Total=156.5
[C90/270]Total=160.0
Maximum s/h(1/2): C0_180=1.17 C90_270=1.24
Maximum s/h(1/4): C0_180=1.28 C90_270=1.35
Up flux rate of lamp(%): 0.04%
Down flux rate of lamp(%): 99.96%
Up flux rate of LUM(%): 0.04%
Down flux rate of LUM(%): 99.96%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 80.362%

Zonal flux distribution table

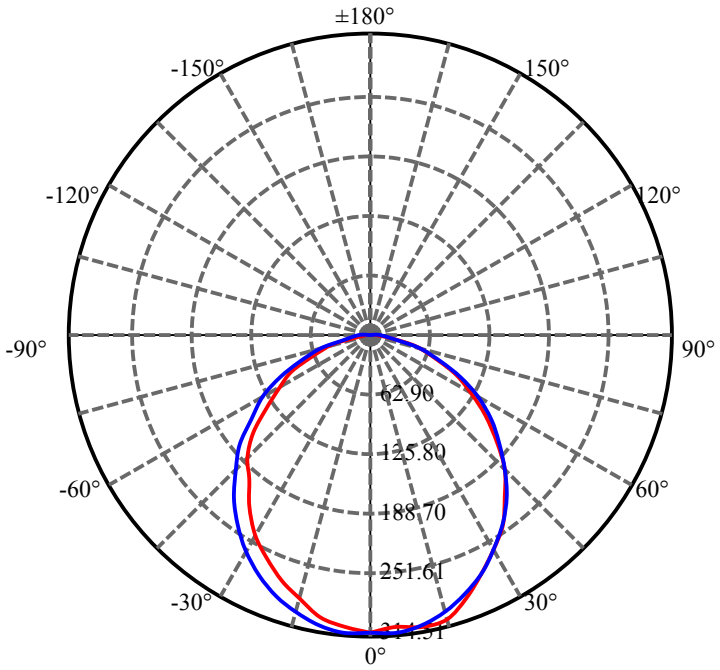
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	310.023	0.000	0	0.00%	0.00%
5.0	309.426	7.405	7.405	0.90%	0.90%
10.0	305.079	21.983	29.388	2.66%	3.56%
15.0	296.892	35.708	65.097	4.33%	7.89%
20.0	285.080	47.963	113.059	5.81%	13.71%
25.0	270.214	58.240	171.299	7.06%	20.77%
30.0	253.269	66.247	237.546	8.03%	28.80%
35.0	234.043	71.760	309.307	8.70%	37.50%
40.0	213.525	74.673	383.98	9.05%	46.55%
45.0	192.208	75.125	459.105	9.11%	55.66%
50.0	169.649	73.118	532.223	8.86%	64.52%
55.0	146.076	68.649	600.872	8.32%	72.84%
60.0	122.275	62.029	662.901	7.52%	80.36%
65.0	98.525	53.677	716.578	6.51%	86.87%
70.0	73.722	43.614	760.192	5.29%	92.16%
75.0	49.452	32.196	792.387	3.90%	96.06%
80.0	26.729	20.384	812.771	2.47%	98.53%
85.0	8.213	9.494	822.266	1.15%	99.68%
90.0	0.241	2.315	824.58	0.28%	99.96%
95.0	0.089	0.090	824.671	0.01%	99.97%
100.0	0.038	0.034	824.705	0.00%	99.98%
105.0	0.025	0.017	824.722	0.00%	99.98%
110.0	0.013	0.010	824.732	0.00%	99.98%
115.0	0.013	0.006	824.738	0.00%	99.98%
120.0	0.013	0.006	824.745	0.00%	99.98%
125.0	0.025	0.009	824.753	0.00%	99.98%
130.0	0.025	0.011	824.764	0.00%	99.98%
135.0	0.038	0.013	824.777	0.00%	99.99%
140.0	0.063	0.019	824.796	0.00%	99.99%
145.0	0.051	0.019	824.815	0.00%	99.99%
150.0	0.089	0.021	824.836	0.00%	99.99%
155.0	0.051	0.018	824.853	0.00%	100.00%
160.0	0.089	0.015	824.868	0.00%	100.00%
165.0	0.063	0.013	824.88	0.00%	100.00%
170.0	0.051	0.007	824.887	0.00%	100.00%
175.0	0.076	0.005	824.892	0.00%	100.00%
180.0	0.095	0.002	824.894	0.00%	100.00%

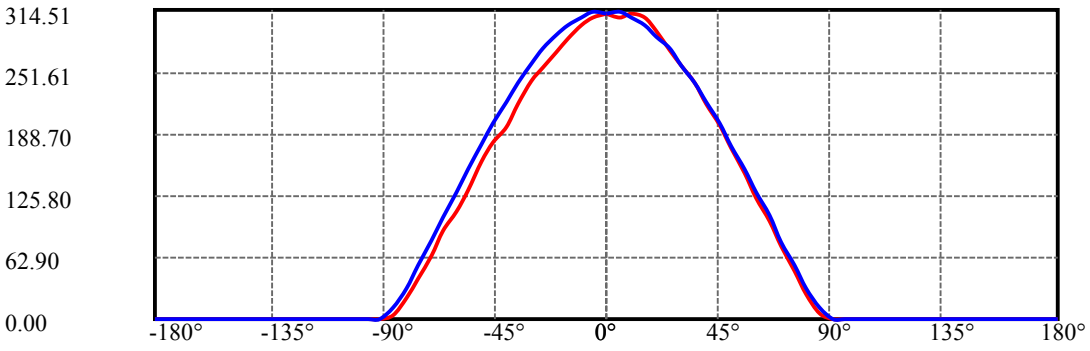
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	237.55	28.80%	28.80%
0-40	383.98	46.55%	46.55%
0-60	662.90	80.36%	80.36%
0-90	824.58	99.96%	99.96%
0-120	824.74	99.98%	99.98%
0-180	824.89	100.00%	100.00%
60-90	161.68	19.60%	19.60%
90-120	0.16	0.02%	0.02%
90-130	0.18	0.02%	0.02%
90-150	0.26	0.03%	0.03%
90-180	0.31	0.04%	0.04%
0-59.76	659.92	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	29.39
10-20	83.67
20-30	124.49
30-40	146.43
40-50	148.24
50-60	130.68
60-70	97.29
70-80	52.58
80-90	11.81
90-100	0.12
100-110	0.03
110-120	0.01
120-130	0.02
130-140	0.03
140-150	0.04
150-160	0.03
160-170	0.02
170-180	0.00



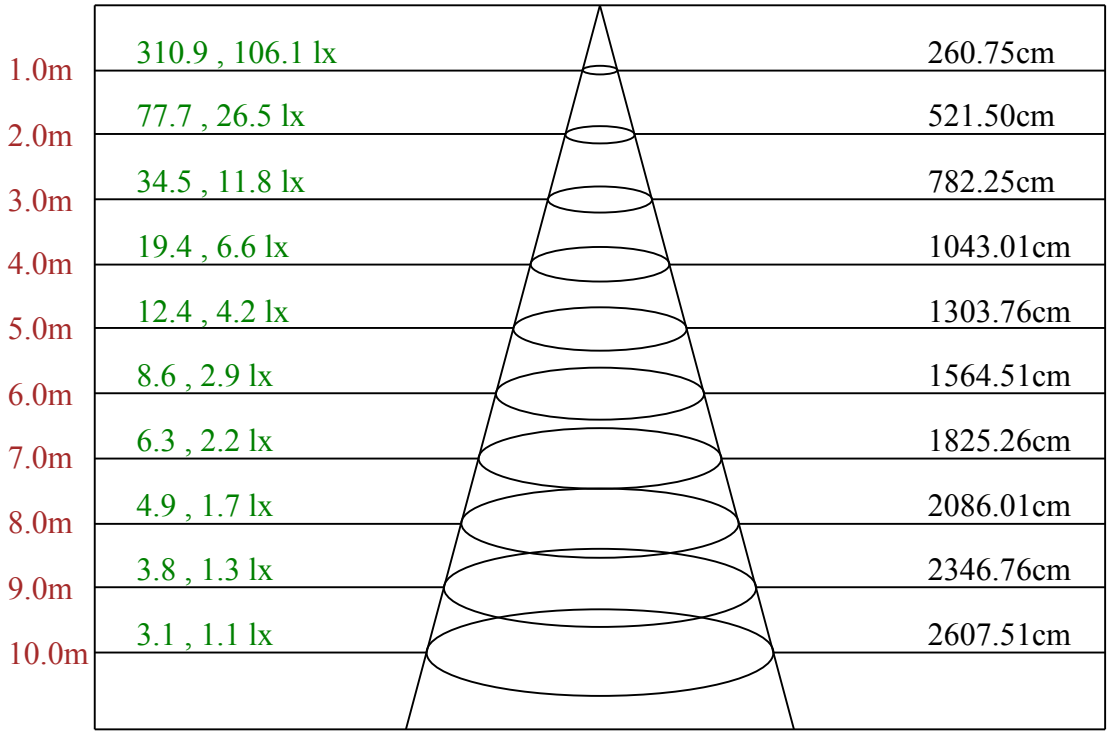


C0/C180:

C90/C270:

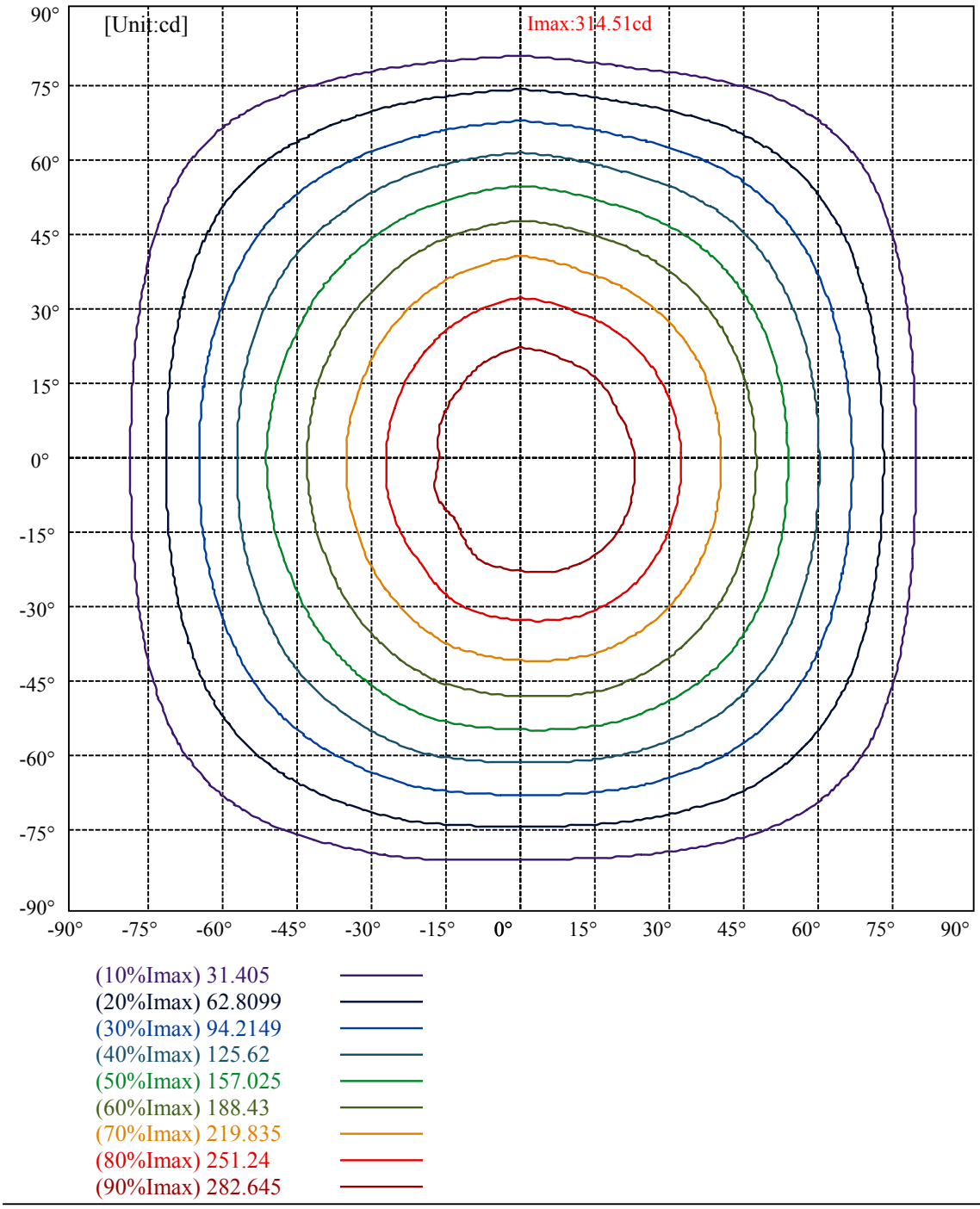
Field angle(10%Imax):C0/180Left:77.7 Right:78.8
:C90/270Left:79.9 Right:80.1

Beam Angle(50%Imax):C0/180Left:50.9 Right:53.6
:C90/270Left:54.3 Right:54.3



Max , Ave

Beam angle of C337.5 plane 105.02


[Unit:cd]
Imax:314.51cd
90°
75°
60°
45°
30°
15°
0°
-15°
-30°
-45°
-60°
-75°
-90°
-90° -75° -60° -45° -30° -15° 0° 15° 30° 45° 60° 75° 90°
(10%Imax) 31.405
(20%Imax) 62.8099
(30%Imax) 94.2149
(40%Imax) 125.62
(50%Imax) 157.025
(60%Imax) 188.43
(70%Imax) 219.835
(80%Imax) 251.24
(90%Imax) 282.645

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	310.02	306.40	309.84	305.99	292.41	274.16	258.34	241.10	219.61
22.5	310.02	308.43	303.96	296.46	286.32	272.94	256.92	238.67	218.59
45.0	310.02	310.45	306.19	298.49	287.34	273.14	255.91	236.44	215.96
67.5	310.02	310.86	306.19	297.48	286.53	272.13	254.89	235.22	214.74
90.0	310.02	311.87	306.60	298.89	287.74	274.76	257.93	239.68	220.42
112.5	310.02	309.44	303.96	295.24	283.28	267.87	251.04	232.38	212.31
135.0	310.02	306.40	300.52	290.78	277.20	261.38	243.94	223.87	202.58
157.5	310.02	307.82	300.52	289.57	274.76	258.54	238.06	217.78	198.11
180.0	310.02	305.79	298.08	285.11	272.13	256.11	241.51	218.39	196.09
202.5	310.02	306.80	301.13	291.80	278.01	260.57	241.71	221.23	199.94
225.0	310.02	306.19	299.30	289.16	277.20	262.60	246.38	228.13	208.05
247.5	310.02	310.66	306.19	298.29	287.94	274.16	257.33	238.67	217.78
270.0	310.02	312.08	307.21	299.50	288.96	275.98	259.56	241.10	221.03
292.5	310.02	312.08	309.64	303.76	293.01	279.63	263.81	245.56	225.29
315.0	310.02	311.06	310.05	304.98	294.64	280.64	264.22	244.96	224.27
337.5	310.02	314.51	311.87	304.78	293.83	278.82	260.77	241.51	221.64
360.0	310.02	306.40	309.84	305.99	292.41	274.16	258.34	241.10	219.61

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	197.71	173.38	147.62	122.68	99.36	74.22	48.87	25.14	6.69
22.5	195.48	172.16	148.03	123.09	97.74	71.58	47.86	24.74	5.88
45.0	193.86	170.94	147.42	123.09	97.94	72.39	47.25	24.54	6.49
67.5	193.25	169.73	146.61	121.67	97.94	72.39	47.45	24.33	6.89
90.0	198.32	175.81	152.89	129.37	104.63	79.08	54.34	31.43	10.75
112.5	190.61	167.90	145.80	122.07	97.54	73.61	49.07	26.77	8.52
135.0	180.88	159.38	136.67	113.96	91.25	67.73	44.61	22.71	6.08
157.5	177.63	155.33	133.43	111.93	88.61	66.11	42.99	22.10	4.87
180.0	180.27	160.19	131.60	108.49	90.44	64.89	41.98	21.29	4.87
202.5	178.24	157.56	135.86	112.95	91.66	68.74	45.42	24.13	6.89
225.0	186.76	164.66	142.15	119.64	96.52	73.00	50.29	28.59	9.53
247.5	196.29	174.59	152.29	129.17	104.84	80.30	56.37	33.26	13.38
270.0	199.33	176.82	152.49	128.56	104.43	79.29	54.34	30.82	11.15
292.5	204.60	181.08	156.54	131.60	107.07	81.11	55.76	31.43	11.36
315.0	202.37	178.85	155.33	130.59	104.84	79.69	53.94	29.81	9.94
337.5	199.74	176.01	152.49	127.55	101.59	75.43	50.69	26.56	8.11
360.0	197.71	173.38	147.62	122.68	99.36	74.22	48.87	25.14	6.69

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	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.41	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.20	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	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.81	0.20	0.20	0.20	0.20	0.20	0.20	0.41	0.41
292.5	0.61	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.41	0.41	0.20	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.20	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00
360.0	0.20	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	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5	0.00	0.00	0.00	0.20	0.00	0.20	0.20	0.00	0.00
45.0	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.20	0.00
67.5	0.00	0.20	0.00	0.20	0.20	0.20	0.00	0.00	0.20
90.0	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20
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	0.20
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	0.41	0.41	0.41	0.61	0.61	0.61	0.61	0.61	0.61
292.5	0.20	0.20	0.20	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	0.20	0.00	0.20	0.20	0.00	0.00
360.0	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C/γ(°)	180.0
0.0	0.10
22.5	0.10
45.0	0.10
67.5	0.10
90.0	0.10
112.5	0.10
135.0	0.10
157.5	0.10
180.0	0.10
202.5	0.10
225.0	0.10
247.5	0.10
270.0	0.10
292.5	0.10
315.0	0.10
337.5	0.10
360.0	0.10