Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LSG3-27K
Luminaire:
Report No:
Test No:
LampCAT:
Lamp flux(lm): 580.4
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.12
Current(A): 0.0625
Power (W): 7.4410
PF: 0.9911
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 580.40
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 78.00
Central intensity(cd): 968.821
Maximum intensity(cd): 1000.264
Angle of maximum intensity: C=180.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=44.0
[C90/270]Total=45.3
Field angle(10%Imax): [C0/180]Total=68.2
[C90/270]Total=68.2
Maximum s/h(1/2): C0_180=0.78 C90_270=0.78
Maximum s/h(1/4): C0_180=1.12 C90_270=0.72
Up flux rate of lamp(%): 0.87%
Down flux rate of lamp(%): 99.13%
Up flux rate of LUM(%): 0.87%
Down flux rate of LUM(%): 99.13%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.259%

Zonal flux distribution table

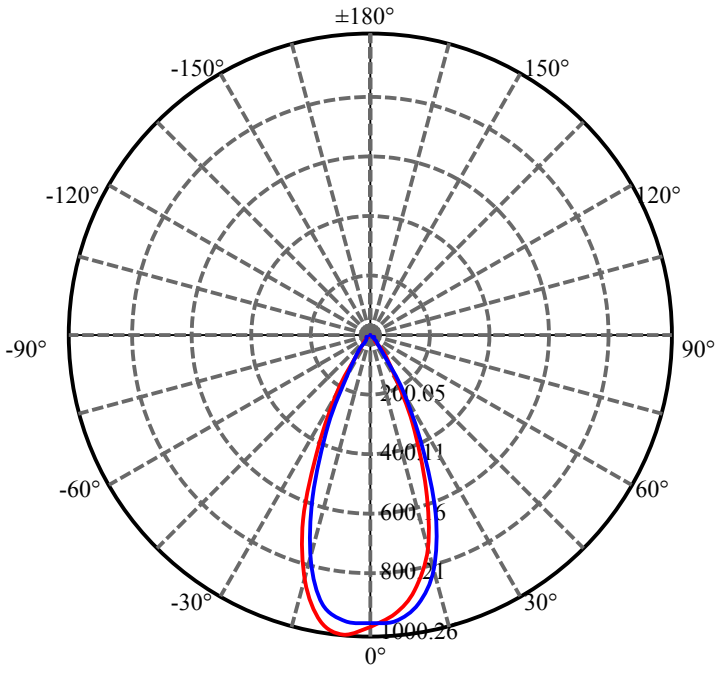
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	956.567	.000	.000	.000%	.000%
5.0	956.498	22.870	22.870	3.940%	3.940%
10.0	907.067	66.666	89.536	11.486%	15.427%
15.0	785.965	100.430	189.965	17.304%	32.730%
20.0	597.652	114.030	303.995	19.647%	52.377%
25.0	370.336	101.524	405.519	17.492%	69.869%
30.0	188.856	70.766	476.285	12.193%	82.062%
35.0	81.949	39.878	516.163	6.871%	88.933%
40.0	36.576	19.775	535.938	3.407%	92.340%
45.0	21.270	10.711	546.649	1.845%	94.185%
50.0	14.681	7.265	553.913	1.252%	95.437%
55.0	11.814	5.761	559.674	.993%	96.429%
60.0	9.028	4.818	564.492	.830%	97.259%
65.0	6.254	3.715	568.207	.640%	97.900%
70.0	4.624	2.754	570.962	.475%	98.374%
75.0	2.451	1.849	572.811	.319%	98.693%
80.0	1.931	1.172	573.983	.202%	98.895%
85.0	1.226	.858	574.841	.148%	99.043%
90.0	.659	.516	575.357	.089%	99.131%
95.0	.647	.358	575.715	.062%	99.193%
100.0	.659	.355	576.070	.061%	99.254%
105.0	.659	.353	576.422	.061%	99.315%
110.0	.671	.348	576.770	.060%	99.375%
115.0	.705	.348	577.118	.060%	99.435%
120.0	.728	.349	577.467	.060%	99.495%
125.0	.717	.334	577.801	.058%	99.553%
130.0	.775	.324	578.125	.056%	99.608%
135.0	.821	.322	578.448	.056%	99.664%
140.0	.867	.313	578.760	.054%	99.718%
145.0	.937	.301	579.061	.052%	99.770%
150.0	1.018	.288	579.349	.050%	99.819%
155.0	1.179	.278	579.627	.048%	99.867%
160.0	1.260	.256	579.883	.044%	99.911%
165.0	1.341	.214	580.097	.037%	99.948%
170.0	1.399	.163	580.260	.028%	99.976%
175.0	1.492	.103	580.363	.018%	99.994%
180.0	1.457	.035	580.398	.006%	100.000%

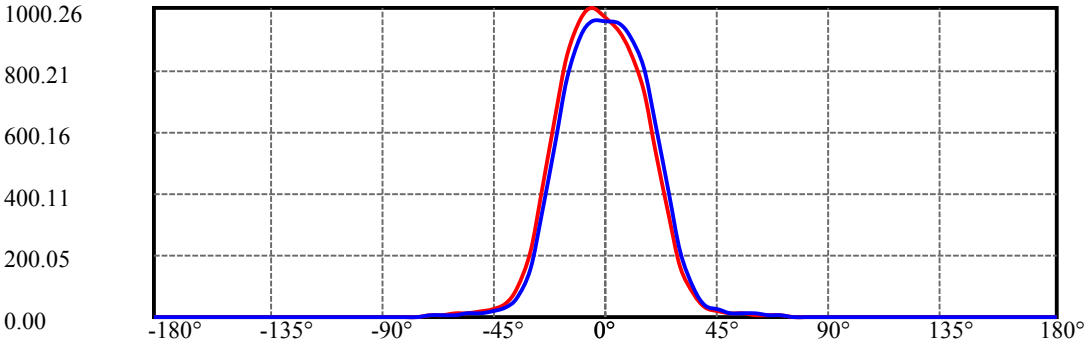
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	476.28	82.06%	82.06%
0-40	535.94	92.34%	92.34%
0-60	564.49	97.26%	97.26%
0-90	575.36	99.13%	99.13%
0-120	577.47	99.49%	99.49%
0-180	580.40	100.00%	100.00%
60-90	15.68	2.70%	2.70%
90-120	2.63	0.45%	0.45%
90-130	3.28	0.57%	0.57%
90-150	4.51	0.78%	0.78%
90-180	5.52	0.95%	0.95%
0-29.15	464.32	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	89.54
10-20	214.46
20-30	172.29
30-40	59.65
40-50	17.98
50-60	10.58
60-70	6.47
70-80	3.02
80-90	1.37
90-100	0.71
100-110	0.70
110-120	0.70
120-130	0.66
130-140	0.63
140-150	0.59
150-160	0.53
160-170	0.38
170-180	0.10





C0/C180:

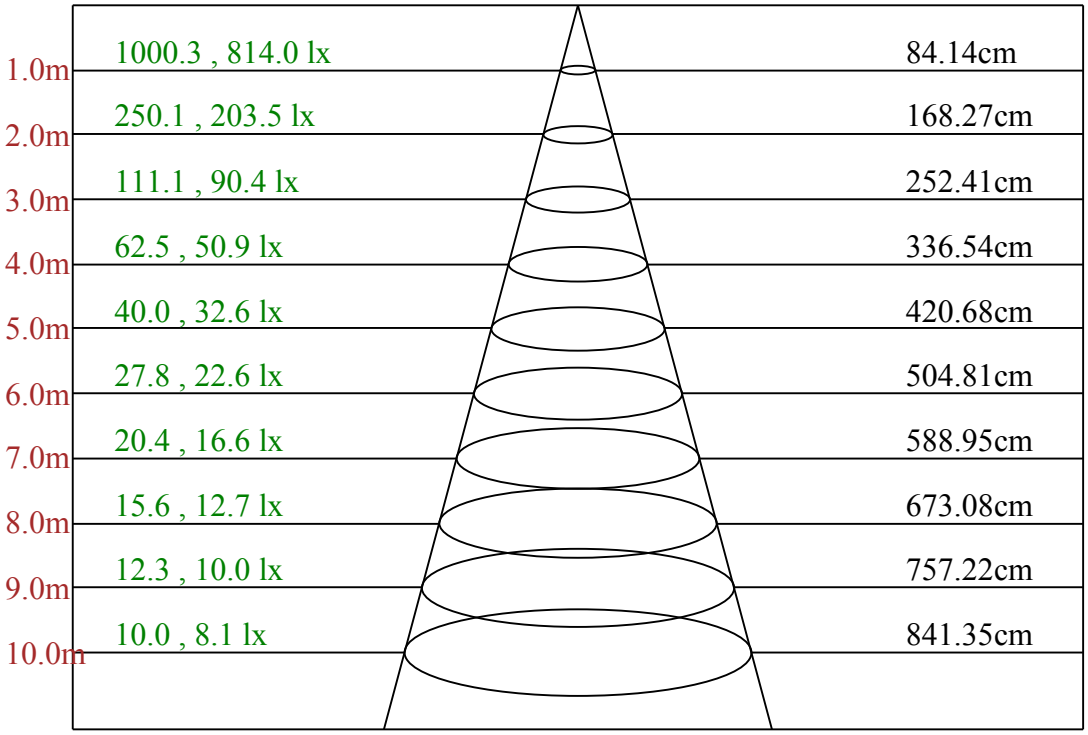
C90/C270:

Field angle(10%Imax):C0/180Left:29.7 Right:38.5

:C90/270Left:28.3 Right:39.9

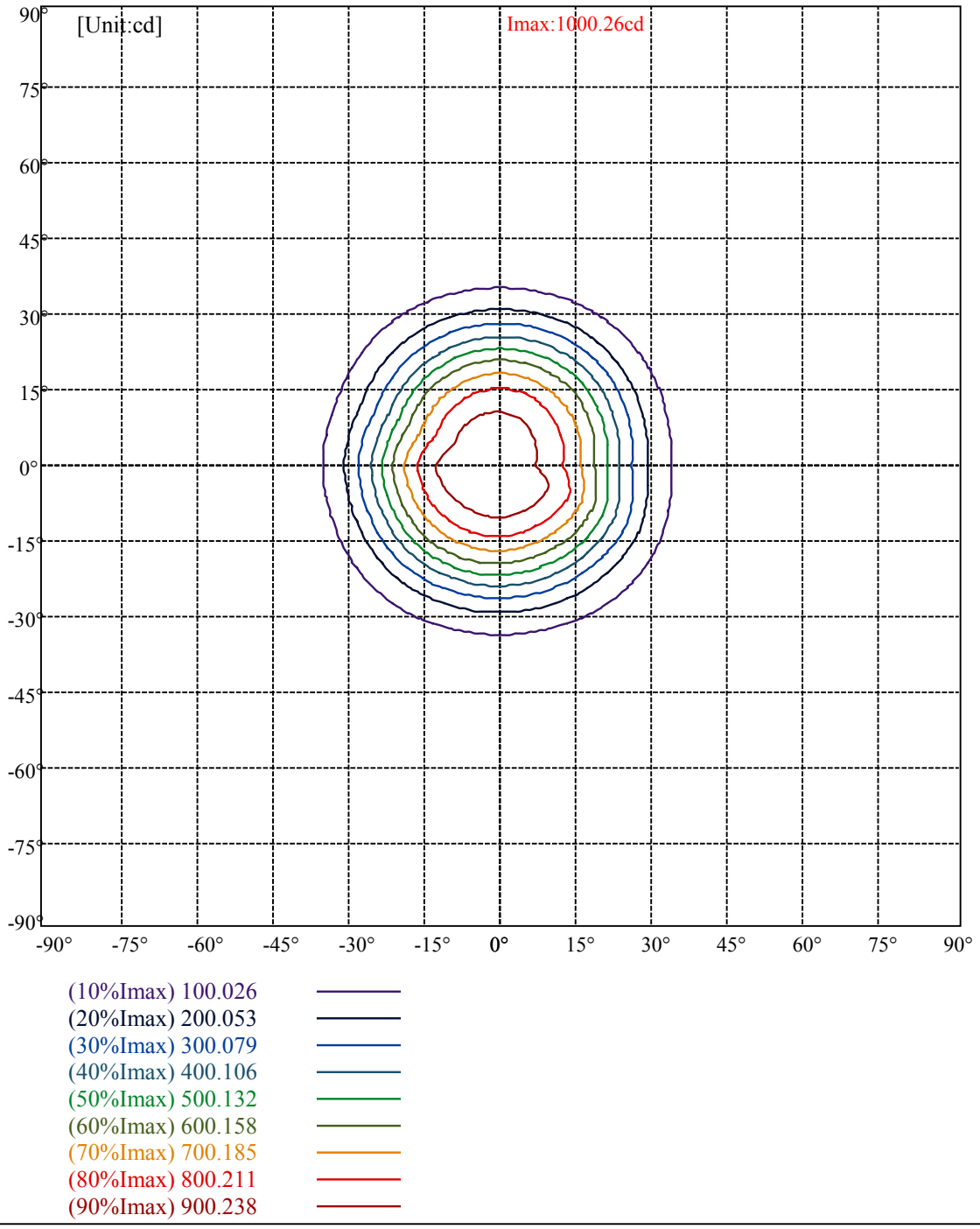
Beam Angle(50%Imax):C0/180Left:18.1 Right:25.9

:C90/270Left:16.9 Right:28.4



Max , Ave

Beam angle of C180plane45.62


[Unit:cd]
Imax:1000.26cd
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) 100.026
(20%Imax) 200.053
(30%Imax) 300.079
(40%Imax) 400.106
(50%Imax) 500.132
(60%Imax) 600.158
(70%Imax) 700.185
(80%Imax) 800.211
(90%Imax) 900.238

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	968.82	928.31	858.21	732.07	540.08	326.45	164.43	73.06	33.11
22.5	965.31	937.75	871.53	760.19	579.48	365.30	187.18	83.05	37.36
45.0	965.86	942.56	888.18	779.24	611.66	392.86	206.97	88.97	39.95
67.5	956.43	950.51	901.13	797.18	623.87	407.10	215.29	92.85	39.58
90.0	953.84	951.99	908.52	805.69	629.97	404.51	212.89	93.59	39.40
112.5	953.47	953.47	913.52	797.36	619.43	400.25	210.30	92.85	39.58
135.0	945.33	954.39	910.93	787.01	605.00	370.48	202.90	89.34	38.10
157.5	943.48	950.14	899.09	767.77	577.63	351.61	181.82	80.46	34.96
180.0	968.82	1000.26	960.87	845.45	651.43	407.47	213.26	92.85	40.88
202.5	965.31	990.46	941.82	818.45	624.43	383.24	194.02	82.12	36.99
225.0	965.86	975.48	919.81	792.92	604.26	365.67	181.08	73.98	34.40
247.5	956.43	968.27	907.41	778.68	583.18	346.06	162.03	68.81	32.00
270.0	953.84	956.06	906.86	772.21	567.09	333.30	157.59	64.37	30.52
292.5	953.47	953.47	905.38	765.00	562.46	338.29	160.73	69.92	33.48
315.0	945.33	945.70	907.60	777.39	579.30	350.68	174.97	79.72	36.44
337.5	943.48	945.15	912.22	798.84	603.16	382.13	196.24	85.27	38.47
360.0	968.82	928.31	858.21	732.07	540.08	326.45	164.43	73.06	33.11

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.57	12.76	10.36	7.58	5.36	3.88	2.04	1.67	0.74
22.5	19.98	13.50	10.91	8.14	5.73	4.07	2.04	1.67	1.11
45.0	21.64	14.24	11.47	8.88	5.92	4.44	2.40	1.67	1.11
67.5	23.12	14.98	12.21	9.25	6.29	4.62	2.40	2.22	1.11
90.0	22.57	15.35	12.21	9.43	6.47	4.99	2.59	2.22	1.11
112.5	22.57	15.72	12.39	9.43	6.66	4.99	2.77	2.04	1.48
135.0	22.01	15.72	12.76	9.99	6.84	5.18	2.59	2.22	1.11
157.5	21.27	15.35	12.39	9.25	6.10	4.62	2.59	1.67	1.11
180.0	24.23	16.65	13.13	10.17	6.84	5.18	2.77	2.22	1.67
202.5	23.31	15.72	12.76	9.62	6.47	4.99	2.77	2.04	1.67
225.0	22.20	15.35	12.21	9.06	6.47	4.62	2.59	1.85	1.48
247.5	19.98	14.43	11.28	8.69	6.10	4.44	2.22	1.85	1.11
270.0	18.68	13.69	10.91	8.14	5.73	3.88	2.40	1.85	1.11
292.5	19.61	13.69	11.28	8.69	6.29	4.62	2.40	1.85	1.11
315.0	20.53	13.69	11.28	9.25	6.47	4.81	2.40	2.04	1.30
337.5	21.09	14.06	11.47	8.88	6.29	4.62	2.22	1.85	1.30
360.0	17.57	12.76	10.36	7.58	5.36	3.88	2.04	1.67	0.74

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.37	0.37	0.56	0.37	0.37	0.37	0.56	0.37	0.56
22.5	0.37	0.37	0.56	0.56	0.56	0.74	0.56	0.56	0.74
45.0	0.56	0.56	0.56	0.74	0.56	0.56	0.56	0.56	0.74
67.5	0.56	0.56	0.74	0.56	0.74	0.37	0.74	0.74	0.56
90.0	0.56	0.74	0.37	0.56	0.37	0.56	0.74	0.56	0.93
112.5	0.56	0.56	0.56	0.56	0.56	0.56	0.74	0.74	0.74
135.0	0.56	0.56	0.56	0.56	0.56	0.56	0.74	0.56	0.56
157.5	0.56	0.56	0.56	0.56	0.56	0.56	0.74	0.56	0.74
180.0	0.93	0.74	0.56	0.74	0.74	0.74	0.74	0.93	0.93
202.5	0.74	0.74	0.74	0.56	0.74	0.93	0.74	0.93	0.74
225.0	0.74	0.74	0.74	0.74	0.93	0.93	0.74	0.93	0.93
247.5	0.93	0.74	0.74	0.93	0.93	0.93	0.74	0.93	0.93
270.0	0.93	0.93	0.74	0.74	0.93	0.93	0.74	0.93	0.74
292.5	0.74	0.74	0.74	0.74	0.74	0.74	0.93	0.74	0.93
315.0	0.56	0.74	0.93	0.74	0.74	0.93	0.93	0.74	0.93
337.5	0.93	0.74	0.93	0.93	0.74	0.93	0.74	0.74	0.74
360.0	0.37	0.37	0.56	0.37	0.37	0.37	0.56	0.37	0.56

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	0.74	0.74	0.56	0.74	1.11	0.93	0.93	1.11	1.30
22.5	0.74	0.74	1.11	1.11	1.11	1.30	1.30	1.30	1.48
45.0	0.93	0.74	0.93	0.56	1.11	1.30	1.30	1.30	1.30
67.5	0.93	0.74	0.74	0.93	0.93	1.30	1.30	1.67	1.67
90.0	0.74	0.93	0.74	1.11	1.11	0.93	1.30	1.30	1.48
112.5	0.74	0.74	0.56	0.93	1.11	1.11	1.48	1.48	1.67
135.0	0.56	0.74	1.11	1.11	1.11	1.30	1.30	1.48	1.48
157.5	0.56	0.93	0.93	0.93	1.11	1.30	1.11	1.48	1.48
180.0	0.74	0.93	0.93	1.11	1.11	1.30	1.30	1.30	1.48
202.5	0.93	0.93	1.11	0.93	1.30	1.11	1.48	1.30	1.48
225.0	0.74	1.11	1.11	1.11	1.30	1.48	1.48	1.30	1.48
247.5	0.93	0.93	0.93	0.93	1.30	1.30	1.30	1.48	1.48
270.0	0.93	0.93	1.11	1.30	1.48	1.30	1.48	1.48	1.48
292.5	0.93	0.93	0.93	1.11	1.30	1.30	1.30	1.48	1.48
315.0	1.11	0.93	1.11	1.30	1.30	1.48	1.67	1.48	1.48
337.5	0.93	0.93	1.11	1.11	1.11	1.48	1.48	1.48	1.67
360.0	0.74	0.74	0.56	0.74	1.11	0.93	0.93	1.11	1.30

C/γ(°)	180.0
0.0	1.48
22.5	1.48
45.0	1.30
67.5	1.48
90.0	1.48
112.5	1.48
135.0	1.48
157.5	1.48
180.0	1.48
202.5	1.48
225.0	1.30
247.5	1.48
270.0	1.48
292.5	1.48
315.0	1.48
337.5	1.48
360.0	1.48