Shenzhen Belling Efficiency Testing Lab Co.,Ltd
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Report No	:	Voltage	: 120.04 V
Test No	:	Current	: 0.1252 A
LumCAT	:	Power	: 14.853 W
Luminaire	: LD4S-27K	PF	: 0.9884
LampCAT	:	Ballast type	:
Lamp flux	: 1157.7 lm	Width	: 0 mm
Number of Lamps	: 1	Length	: 0 mm
Phm Type	: C	Height	: 0 mm

Photometric Results

Lumens(lm)	: 1157.70	Central intensity(cd)	: 3750.806
Efficiency(%)	: 100.00%	Maximum intensity(cd)	: 3799.891
Luminous Efficacy(lm/W)	: 77.94	Angle of maximum intensity	: C=90.0 γ=5.0

Beam Angle(50%Imax)	: [C0/180]Total=32.1 [C90/270]Total=33.2
Field angle(10%Imax)	: [C0/180]Total=47.6 [C90/270]Total=49.1
Maximum s/h(1/2)	: C0_180=0.57 C90_270=0.63
Maximum s/h(1/4)	: C0_180=0.52 C90_270=0.57
Up flux rate of lamp(%)	: 0.03%
Down flux rate of lamp(%)	: 99.97%
Up flux rate of LUM(%)	: 0.03%
Down flux rate of LUM(%)	: 99.97%
CIE Type	: Direct lighting
Output flux ratio in π solid angle :	: 98.776%

Zonal flux distribution table

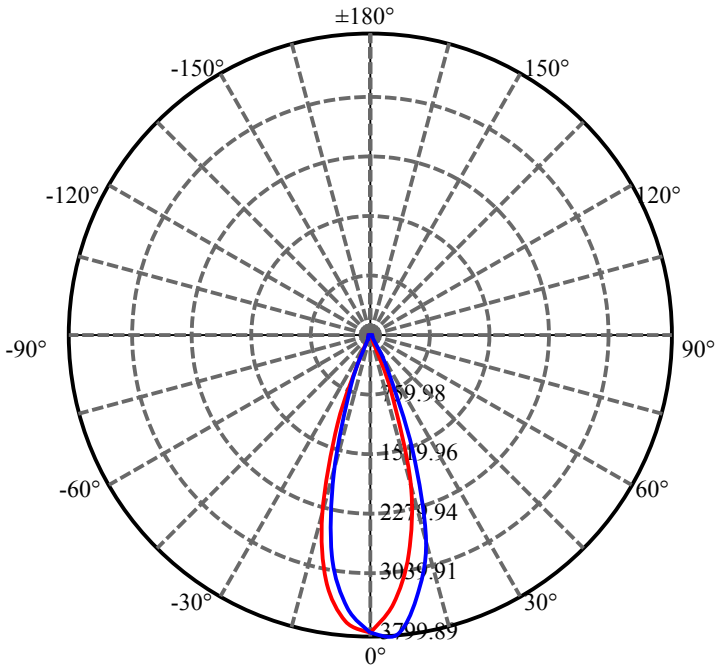
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3750.806	0.000	0	0.00%	0.00%
5.0	3531.439	87.057	87.057	7.52%	7.52%
10.0	3008.108	233.940	320.997	20.21%	27.73%
15.0	2158.150	306.459	627.456	26.47%	54.20%
20.0	1075.929	266.534	893.99	23.02%	77.22%
25.0	304.268	144.757	1038.747	12.50%	89.73%
30.0	74.394	47.920	1086.667	4.14%	93.86%
35.0	39.035	16.703	1103.37	1.44%	95.31%
40.0	26.667	10.962	1114.332	0.95%	96.25%
45.0	20.832	8.795	1123.127	0.76%	97.01%
50.0	17.197	7.684	1130.811	0.66%	97.68%
55.0	14.192	6.825	1137.636	0.59%	98.27%
60.0	11.295	5.891	1143.527	0.51%	98.78%
65.0	8.598	4.836	1148.363	0.42%	99.19%
70.0	6.238	3.757	1152.119	0.32%	99.52%
75.0	4.145	2.714	1154.833	0.23%	99.75%
80.0	2.093	1.669	1156.502	0.14%	99.90%
85.0	0.416	0.682	1157.184	0.06%	99.96%
90.0	0.000	0.114	1157.297	0.01%	99.97%
95.0	0.000	0.000	1157.297	0.00%	99.97%
100.0	0.000	0.000	1157.297	0.00%	99.97%
105.0	0.000	0.000	1157.297	0.00%	99.97%
110.0	0.000	0.000	1157.297	0.00%	99.97%
115.0	0.000	0.000	1157.297	0.00%	99.97%
120.0	0.000	0.000	1157.297	0.00%	99.97%
125.0	0.000	0.000	1157.297	0.00%	99.97%
130.0	0.000	0.000	1157.297	0.00%	99.97%
135.0	0.000	0.000	1157.297	0.00%	99.97%
140.0	0.000	0.000	1157.297	0.00%	99.97%
145.0	0.013	0.002	1157.3	0.00%	99.97%
150.0	0.067	0.012	1157.312	0.00%	99.97%
155.0	0.255	0.041	1157.352	0.00%	99.97%
160.0	0.416	0.070	1157.423	0.01%	99.98%
165.0	0.684	0.091	1157.513	0.01%	99.98%
170.0	0.898	0.094	1157.607	0.01%	99.99%
175.0	0.912	0.065	1157.672	0.01%	100.00%
180.0	1.086	0.024	1157.696	0.00%	100.00%

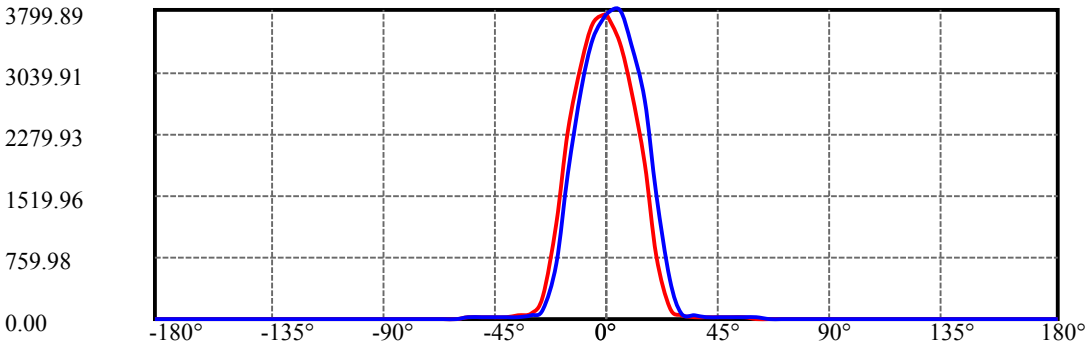
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1086.67	93.86%	93.86%
0-40	1114.33	96.25%	96.25%
0-60	1143.53	98.78%	98.78%
0-90	1157.30	99.97%	99.97%
0-120	1157.30	99.97%	99.97%
0-180	1157.70	100.00%	100.00%
60-90	13.77	1.19%	1.19%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.01	0.00%	0.00%
90-180	0.37	0.03%	0.03%
0-21.11	926.16	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	321.00
10-20	572.99
20-30	192.68
30-40	27.66
40-50	16.48
50-60	12.72
60-70	8.59
70-80	4.38
80-90	0.80
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.01
150-160	0.11
160-170	0.18
170-180	0.06



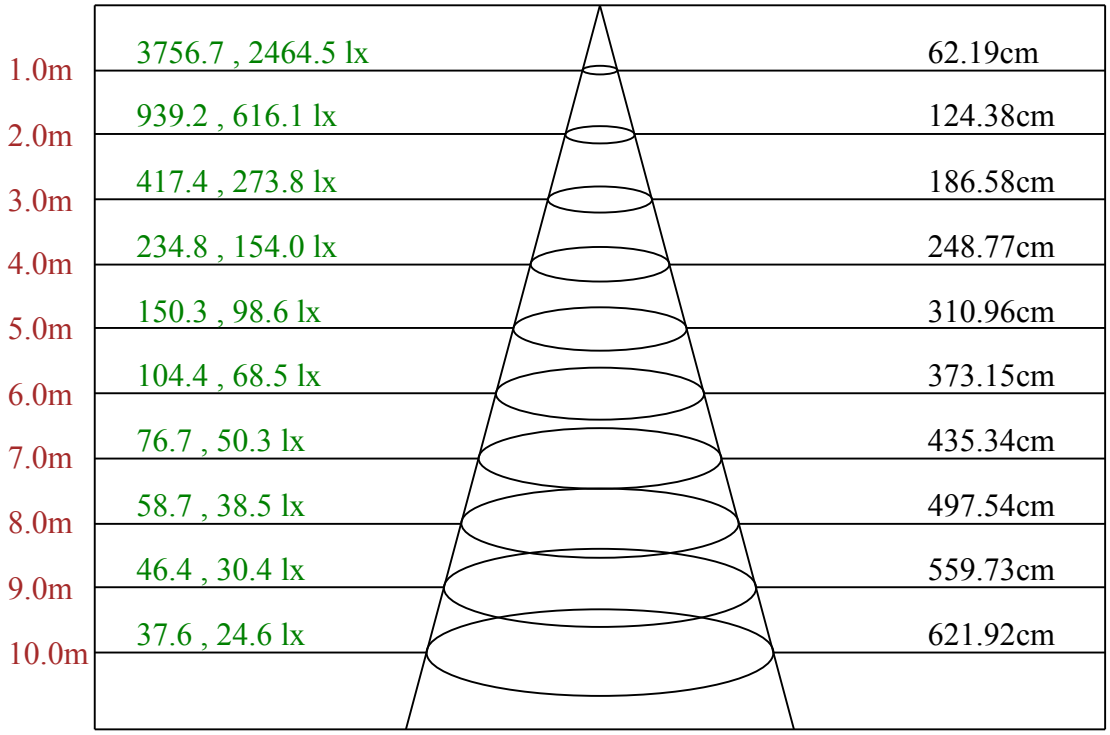


C0/C180:

C90/C270:

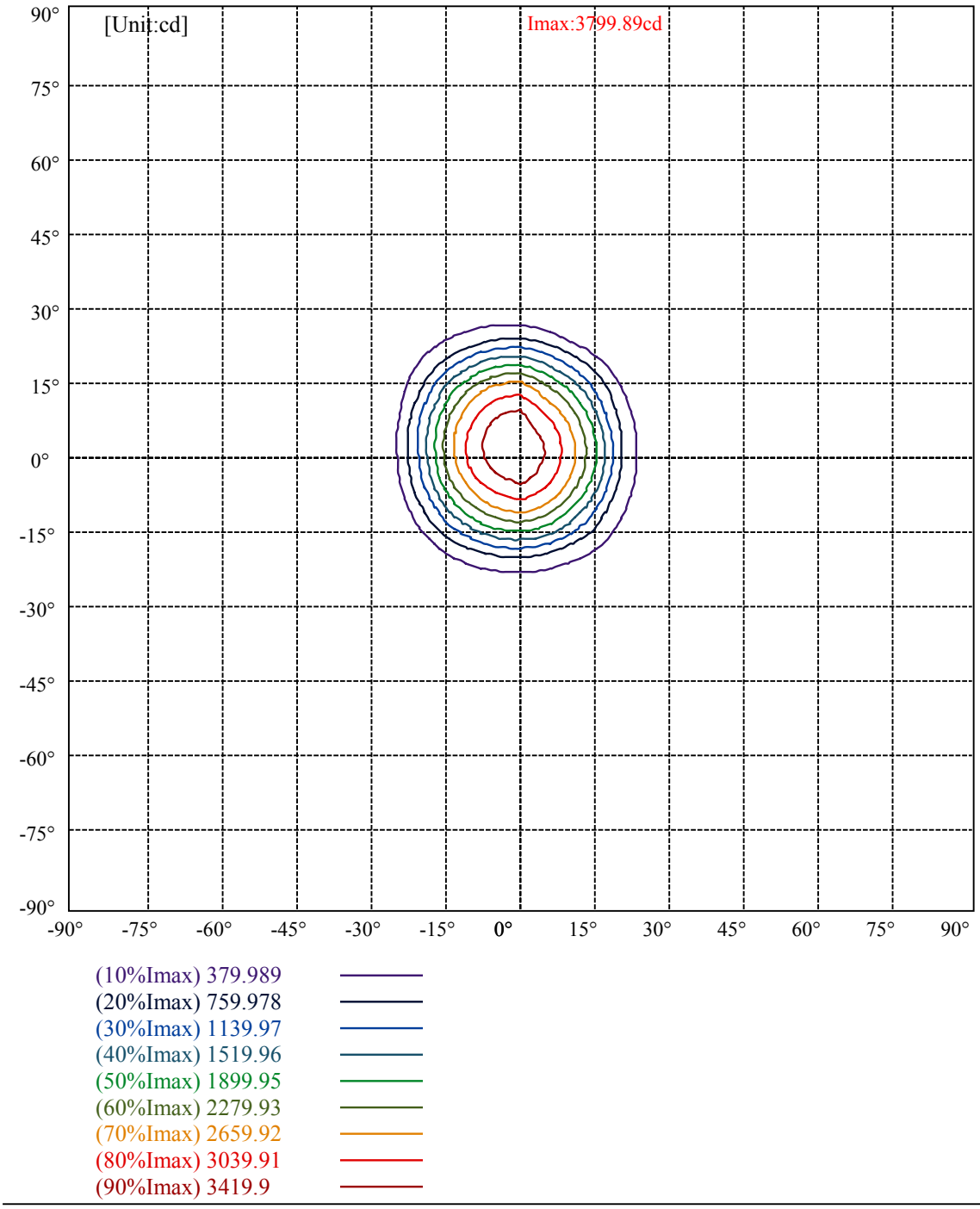
Field angle(10%Imax):C0/180Left:24.5 Right:23.1
:C90/270Left:22.7 Right:26.4

Beam Angle(50%Imax):C0/180Left:16.9 Right:15.2
:C90/270Left:14.7 Right:18.5



Max , Ave

Beam angle of C90 plane 34.55


[Unit:cd]
Imax:3799.89cd
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) 379.989
(20%Imax) 759.978
(30%Imax) 1139.97
(40%Imax) 1519.96
(50%Imax) 1899.95
(60%Imax) 2279.93
(70%Imax) 2659.92
(80%Imax) 3039.91
(90%Imax) 3419.9

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	3750.81	3393.83	2810.48	1917.44	773.50	137.36	50.22	30.91	23.82
22.5	3750.81	3443.40	2885.39	2012.30	888.75	214.19	54.09	32.62	25.11
45.0	3750.81	3498.78	2976.39	2166.83	1132.56	338.89	92.07	45.72	28.12
67.5	3750.81	3563.38	3092.71	2303.33	1291.60	387.61	91.43	42.50	27.26
90.0	3750.81	3799.89	3370.22	2681.71	1537.99	489.55	76.41	42.92	28.97
112.5	3750.81	3761.47	3380.09	2720.98	1635.64	588.07	120.40	50.22	29.62
135.0	3750.81	3747.09	3332.87	2640.93	1628.77	637.00	143.37	54.73	37.77
157.5	3750.81	3693.65	3249.38	2508.72	1434.11	433.11	84.35	45.29	28.55
180.0	3750.81	3626.48	3143.15	2320.71	1176.13	287.38	61.60	37.77	26.18
202.5	3750.81	3546.85	3017.38	2178.42	1076.55	276.65	64.39	37.13	25.97
225.0	3750.81	3462.08	2908.99	2011.44	970.31	231.79	72.97	39.28	25.76
247.5	3750.81	3411.21	2831.94	1895.98	789.38	178.78	54.94	31.12	23.18
270.0	3750.81	3447.48	2826.36	1804.55	680.14	111.39	51.08	30.26	23.82
292.5	3750.81	3388.67	2771.64	1791.45	689.37	160.97	53.01	30.91	23.82
315.0	3750.81	3371.72	2755.54	1747.03	775.86	208.61	65.03	41.64	24.47
337.5	3750.81	3347.04	2777.22	1828.58	734.22	186.94	54.94	31.55	24.25
360.0	3750.81	3393.83	2810.48	1917.44	773.50	137.36	50.22	30.91	23.82

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	19.10	16.31	13.52	10.30	7.73	5.58	3.65	1.72	0.00
22.5	19.96	16.96	13.95	10.95	8.16	6.01	4.08	1.93	0.43
45.0	21.25	16.74	13.95	11.16	8.80	6.65	4.08	2.36	0.64
67.5	21.68	17.60	14.81	12.02	9.23	6.87	4.94	2.79	1.29
90.0	22.54	19.10	15.67	12.88	9.87	7.30	4.94	2.58	1.07
112.5	23.39	19.10	15.88	12.66	9.87	7.08	4.72	2.79	1.07
135.0	22.97	18.46	14.81	12.02	9.44	6.87	4.72	2.79	0.64
157.5	22.32	18.24	15.02	12.02	9.01	6.87	4.51	2.15	0.43
180.0	20.82	17.38	14.59	11.59	8.59	6.22	4.29	2.15	0.43
202.5	21.03	17.17	13.95	11.16	8.37	6.01	4.29	1.72	0.22
225.0	19.75	15.67	13.09	10.52	7.94	5.80	3.65	1.50	0.00
247.5	19.32	16.31	13.52	10.52	7.94	5.37	3.43	1.50	0.00
270.0	20.39	17.60	14.17	11.16	8.59	6.44	4.08	2.15	0.43
292.5	19.32	16.53	13.95	10.95	8.16	5.80	3.86	1.93	0.00
315.0	19.75	15.67	12.88	10.30	7.94	5.37	3.43	1.93	0.00
337.5	19.75	16.31	13.31	10.52	7.94	5.58	3.65	1.50	0.00
360.0	19.10	16.31	13.52	10.30	7.73	5.58	3.65	1.72	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	0.43	0.64	0.43	0.86	0.86
22.5	0.00	0.00	0.00	0.00	0.43	0.43	0.86	1.07	0.86
45.0	0.00	0.00	0.00	0.00	0.22	0.22	0.43	0.86	1.07
67.5	0.00	0.00	0.00	0.00	0.00	0.22	0.64	0.86	0.86
90.0	0.00	0.00	0.00	0.00	0.00	0.22	0.86	0.86	0.86
112.5	0.00	0.00	0.00	0.00	0.00	0.43	0.64	0.86	0.86
135.0	0.00	0.00	0.00	0.00	0.00	0.22	0.43	0.86	0.86
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.86	0.86
180.0	0.00	0.00	0.00	0.00	0.00	0.43	0.43	0.64	0.64
202.5	0.00	0.00	0.00	0.00	0.22	0.22	0.64	0.64	0.86
225.0	0.00	0.00	0.00	0.00	0.00	0.22	0.64	0.64	0.86
247.5	0.00	0.00	0.00	0.00	0.00	0.43	0.43	0.86	0.86
270.0	0.00	0.00	0.22	0.64	1.07	1.07	1.50	1.72	1.50
292.5	0.00	0.00	0.00	0.22	0.43	0.64	1.07	1.07	1.07
315.0	0.00	0.00	0.00	0.00	0.64	0.64	0.64	0.86	1.07
337.5	0.00	0.00	0.00	0.22	0.64	0.64	0.86	0.86	0.64
360.0	0.00	0.00	0.00	0.00	0.43	0.64	0.43	0.86	0.86

C/γ(°)	180.0
0.0	1.09
22.5	1.09
45.0	1.09
67.5	1.09
90.0	1.09
112.5	1.09
135.0	1.09
157.5	1.09
180.0	1.09
202.5	1.09
225.0	1.09
247.5	1.09
270.0	1.09
292.5	1.09
315.0	1.09
337.5	1.09
360.0	1.09