Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LL4S-27K
Luminaire:
Report No:
Test No:
LampCAT:
Lamp flux(lm): 801.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.05
Current(A): 0.1132
Power (W): 13.4210
PF: 0.9876
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 800.96
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 59.68
Central intensity(cd): 307.984
Maximum intensity(cd): 307.984
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=106.1
[C90/270]Total=106.2
Field angle(10%Imax): [C0/180]Total=158.1
[C90/270]Total=157.7
Maximum s/h(1/2): C0_180=1.26 C90_270=1.20
Maximum s/h(1/4): C0_180=1.80 C90_270=1.32
Up flux rate of lamp(%): 0.33%
Down flux rate of lamp(%): 99.67%
Up flux rate of LUM(%): 0.33%
Down flux rate of LUM(%): 99.67%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 80.167%

Zonal flux distribution table

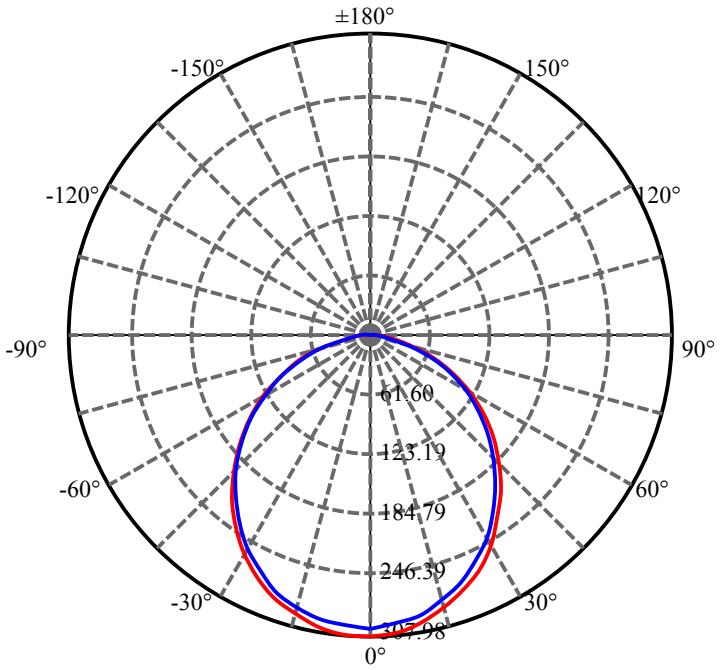
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	300.676	.000	.000	.000%	.000%
5.0	299.018	7.169	7.169	.895%	.895%
10.0	294.216	21.222	28.391	2.650%	3.545%
15.0	286.007	34.418	62.809	4.297%	7.842%
20.0	275.084	46.242	109.051	5.773%	13.615%
25.0	261.382	56.265	165.317	7.025%	20.640%
30.0	245.539	64.151	229.468	8.009%	28.649%
35.0	227.282	69.626	299.094	8.693%	37.342%
40.0	207.354	72.516	371.610	9.054%	46.395%
45.0	186.200	72.870	444.479	9.098%	55.493%
50.0	164.236	70.811	515.290	8.841%	64.334%
55.0	141.881	66.560	581.850	8.310%	72.644%
60.0	118.796	60.255	642.105	7.523%	80.167%
65.0	95.149	52.010	694.115	6.493%	86.660%
70.0	71.163	42.111	736.226	5.258%	91.918%
75.0	47.607	31.044	767.270	3.876%	95.794%
80.0	25.448	19.547	786.818	2.440%	98.234%
85.0	8.235	9.152	795.970	1.143%	99.377%
90.0	.300	2.337	798.307	.292%	99.669%
95.0	.248	.150	798.457	.019%	99.687%
100.0	.235	.131	798.588	.016%	99.704%
105.0	.235	.126	798.714	.016%	99.719%
110.0	.235	.123	798.837	.015%	99.735%
115.0	.365	.152	798.989	.019%	99.754%
120.0	.418	.190	799.179	.024%	99.777%
125.0	.457	.202	799.382	.025%	99.803%
130.0	.509	.210	799.591	.026%	99.829%
135.0	.496	.203	799.795	.025%	99.854%
140.0	.587	.201	799.995	.025%	99.879%
145.0	.626	.202	800.198	.025%	99.905%
150.0	.665	.190	800.388	.024%	99.928%
155.0	.652	.167	800.554	.021%	99.949%
160.0	.691	.141	800.695	.018%	99.967%
165.0	.718	.116	800.812	.014%	99.981%
170.0	.678	.083	800.894	.010%	99.992%
175.0	.731	.050	800.945	.006%	99.998%
180.0	.731	.017	800.962	.002%	100.000%

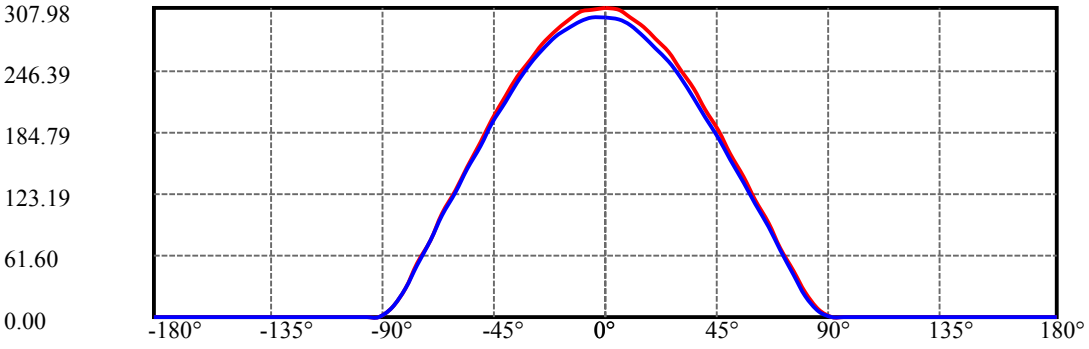
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	229.47	28.65%	28.65%
0-40	371.61	46.40%	46.40%
0-60	642.10	80.17%	80.17%
0-90	798.31	99.67%	99.67%
0-120	799.18	99.78%	99.78%
0-180	800.96	100.00%	100.00%
60-90	216.46	27.02%	27.02%
90-120	3.21	0.40%	0.40%
90-130	3.62	0.45%	0.45%
90-150	4.42	0.55%	0.55%
90-180	4.97	0.62%	0.62%
0-59.89	640.77	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	28.39
10-20	80.66
20-30	120.42
30-40	142.14
40-50	143.68
50-60	126.81
60-70	94.12
70-80	50.59
80-90	11.49
90-100	0.28
100-110	0.25
110-120	0.34
120-130	0.41
130-140	0.40
140-150	0.39
150-160	0.31
160-170	0.20
170-180	0.05



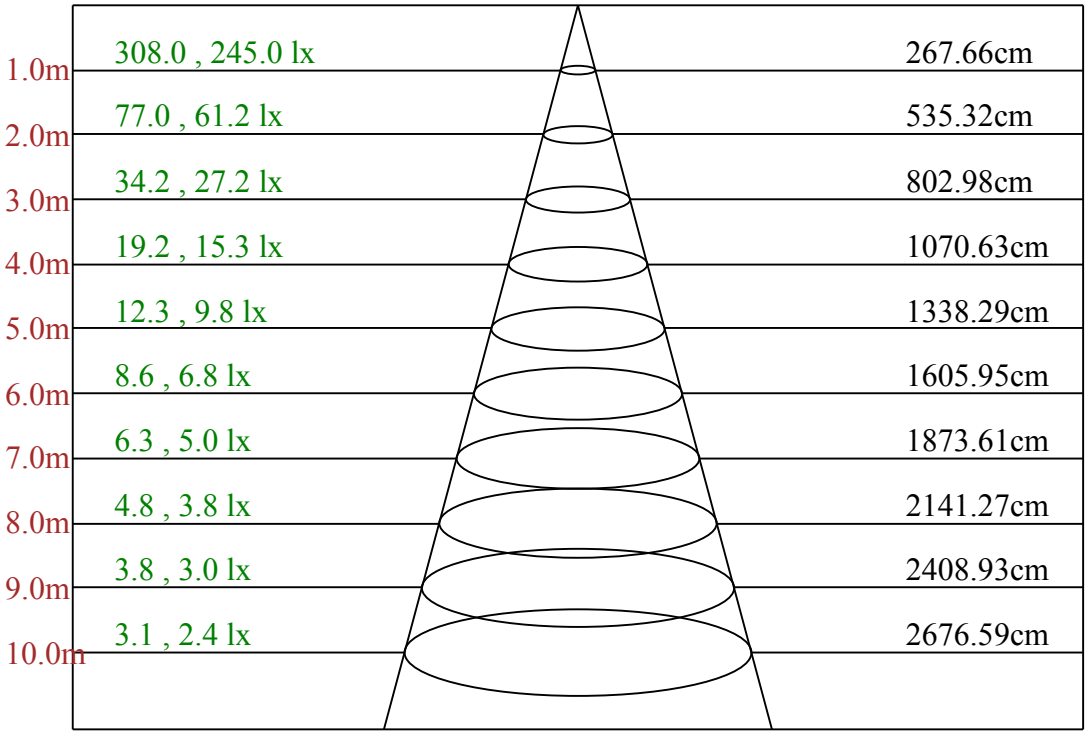


C0/C180:

C90/C270:

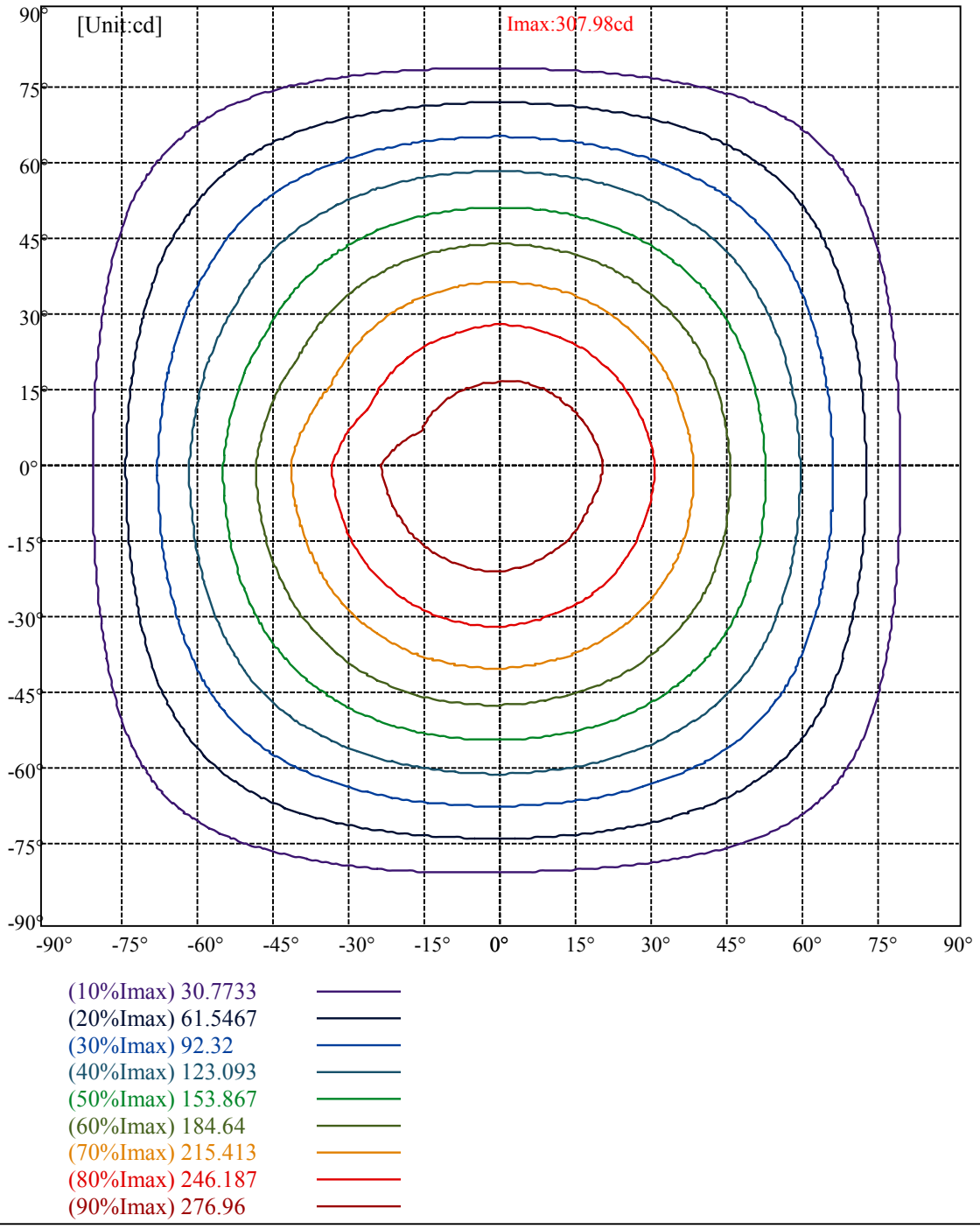
Field angle(10%Imax):C0/180Left:79.7 Right:78.4
:C90/270Left:79.8 Right:77.9

Beam Angle(50%Imax):C0/180Left:54.2 Right:51.9
:C90/270Left:54.7 Right:51.5



Max , Ave

Beam angle of C0plane106.41


[Unit:cd]
Imax:307.98cd
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) 30.7733
(20%Imax) 61.5467
(30%Imax) 92.32
(40%Imax) 123.093
(50%Imax) 153.867
(60%Imax) 184.64
(70%Imax) 215.413
(80%Imax) 246.187
(90%Imax) 276.96

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	307.98	305.69	299.01	288.77	277.50	264.14	247.43	227.39	206.92
22.5	303.60	300.47	295.25	286.06	273.32	258.92	242.00	222.58	201.91
45.0	301.30	299.01	292.12	282.93	270.82	255.37	239.08	219.66	199.41
67.5	299.84	296.71	290.65	281.68	270.19	254.53	237.41	219.24	198.36
90.0	299.21	296.08	290.44	280.00	268.31	254.32	238.24	218.83	198.78
112.5	298.59	294.83	289.40	280.21	267.89	253.49	236.78	219.03	198.15
135.0	297.75	295.46	289.40	280.63	268.52	254.53	237.62	219.45	199.20
157.5	297.13	295.46	290.03	281.26	269.15	255.78	238.66	220.08	200.45
180.0	307.98	306.73	303.39	295.46	285.43	272.49	257.04	238.66	219.45
202.5	303.60	303.60	299.42	292.53	283.14	269.36	254.32	236.78	216.32
225.0	301.30	301.09	298.38	290.65	280.63	267.48	252.44	235.11	215.69
247.5	299.84	299.63	295.87	289.61	279.38	266.64	252.03	234.49	215.07
270.0	299.21	297.75	294.41	287.52	278.75	265.81	251.82	233.86	214.44
292.5	298.59	297.34	293.58	287.10	277.08	264.34	248.89	232.40	212.35
315.0	297.75	297.34	294.41	286.48	275.83	262.67	248.06	229.89	211.10
337.5	297.13	297.13	291.70	285.22	275.41	262.26	246.81	229.06	210.06
360.0	307.98	305.69	299.01	288.77	277.50	264.14	247.43	227.39	206.92

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	184.79	162.66	140.32	117.56	93.13	69.53	45.31	24.01	6.89
22.5	181.45	159.11	136.97	114.22	90.83	67.03	43.43	21.92	6.68
45.0	178.11	155.98	134.68	111.50	88.32	65.56	42.39	21.30	6.06
67.5	177.27	155.77	134.47	111.71	88.32	65.36	42.60	20.25	5.85
90.0	177.69	155.98	134.68	112.13	89.37	66.40	43.01	20.46	5.85
112.5	177.48	155.98	134.89	112.55	89.16	65.98	43.64	21.51	6.26
135.0	178.53	156.81	134.68	112.96	89.79	66.61	44.48	22.97	7.31
157.5	180.20	158.69	137.18	114.42	91.87	68.70	45.31	24.01	8.14
180.0	197.74	174.14	150.13	127.16	102.52	77.26	53.04	29.44	10.44
202.5	195.02	172.47	150.13	126.12	101.69	76.63	52.41	29.86	10.65
225.0	193.98	173.10	149.09	125.07	101.06	76.63	52.62	29.44	11.48
247.5	194.60	172.05	148.88	124.86	101.27	76.21	52.20	30.69	9.81
270.0	193.35	170.80	148.04	125.07	101.06	76.00	52.41	29.02	9.19
292.5	190.64	169.13	147.00	123.40	99.18	75.38	50.74	28.19	8.77
315.0	189.38	168.30	144.70	121.11	97.93	73.29	49.28	27.56	9.40
337.5	188.97	166.83	144.28	120.90	96.88	72.04	48.86	26.52	8.98
360.0	184.79	162.66	140.32	117.56	93.13	69.53	45.31	24.01	6.89

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.21	0.42	0.21	0.21	0.21	0.21	0.42	0.63	0.42
22.5	0.42	0.21	0.42	0.21	0.42	0.63	0.42	0.63	0.63
45.0	0.42	0.63	0.42	0.21	0.42	0.63	0.63	0.42	0.84
67.5	0.42	0.63	0.42	0.42	0.42	0.63	0.84	0.63	0.63
90.0	0.63	0.63	0.42	0.42	0.63	0.42	0.63	0.63	0.63
112.5	0.42	0.42	0.42	0.42	0.42	0.42	0.84	0.63	0.84
135.0	0.21	0.63	0.21	0.42	0.42	0.63	0.63	0.63	0.63
157.5	0.63	0.42	0.63	0.63	0.42	0.63	0.84	0.63	0.63
180.0	0.21	0.00	0.00	0.00	0.00	0.21	0.00	0.42	0.21
202.5	0.21	0.00	0.00	0.00	0.21	0.21	0.21	0.21	0.21
225.0	0.42	0.00	0.21	0.21	0.00	0.21	0.42	0.42	0.42
247.5	0.21	0.00	0.21	0.21	0.00	0.21	0.21	0.21	0.63
270.0	0.00	0.00	0.21	0.00	0.00	0.42	0.00	0.42	0.42
292.5	0.00	0.00	0.00	0.21	0.00	0.21	0.21	0.42	0.42
315.0	0.21	0.00	0.00	0.21	0.00	0.00	0.21	0.21	0.42
337.5	0.21	0.00	0.00	0.00	0.21	0.21	0.21	0.21	0.21
360.0	0.21	0.42	0.21	0.21	0.21	0.21	0.42	0.63	0.42

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	0.42	0.63	0.42	0.63	0.42	0.63	0.63	0.42	0.63
22.5	0.84	0.63	0.63	0.63	0.84	0.84	0.63	0.63	0.84
45.0	0.63	0.63	0.63	0.63	0.84	0.63	0.84	0.84	0.84
67.5	0.63	0.84	0.84	0.84	0.63	0.84	0.84	0.84	0.63
90.0	0.63	0.84	0.63	0.84	0.63	0.63	0.63	0.63	0.84
112.5	0.63	0.84	0.84	0.84	0.63	0.84	0.84	0.84	0.63
135.0	0.63	1.04	0.84	0.63	0.84	0.84	0.63	0.63	0.63
157.5	0.84	0.63	0.84	0.84	0.84	0.84	0.84	0.84	0.84
180.0	0.21	0.21	0.42	0.63	0.42	0.42	0.42	0.63	0.63
202.5	0.21	0.42	0.63	0.42	0.63	0.63	0.84	0.42	0.84
225.0	0.42	0.63	0.63	0.42	0.63	0.42	0.84	0.84	0.84
247.5	0.21	0.42	0.42	0.84	0.63	0.63	0.84	0.63	0.63
270.0	0.42	0.42	0.63	0.63	0.84	0.84	0.63	0.84	0.84
292.5	0.42	0.42	0.42	0.63	0.63	0.63	0.63	0.63	0.84
315.0	0.42	0.42	0.63	0.63	0.42	0.84	0.63	0.63	0.63
337.5	0.42	0.42	0.63	0.63	0.63	0.63	0.84	0.63	0.63
360.0	0.42	0.63	0.42	0.63	0.42	0.63	0.63	0.42	0.63

C/γ(°)	180.0
0.0	0.42
22.5	0.63
45.0	0.84
67.5	0.84
90.0	0.84
112.5	0.63
135.0	0.84
157.5	0.84
180.0	0.42
202.5	0.63
225.0	0.84
247.5	0.84
270.0	0.84
292.5	0.63
315.0	0.84
337.5	0.84
360.0	0.42