Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT:
Luminaire:
Report No:
Test No:
LampCAT:
Lamp flux(lm): 2368.5
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.09
Current(A): 0.1346
Power (W): 15.8460
PF: 0.9801
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2368.49
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 149.47
Central intensity(cd): 842.682
Maximum intensity(cd): 847.518
Angle of maximum intensity: C=180.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=112.4
[C90/270]Total=111.8
Field angle(10%Imax): [C0/180]Total=158.8
[C90/270]Total=157.7
Maximum s/h(1/2): C0_180=1.32 C90_270=1.26
Maximum s/h(1/4): C0_180=1.88 C90_270=1.39
Up flux rate of lamp(%): 0.27%
Down flux rate of lamp(%): 99.73%
Up flux rate of LUM(%): 0.27%
Down flux rate of LUM(%): 99.73%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 80.380%

Zonal flux distribution table

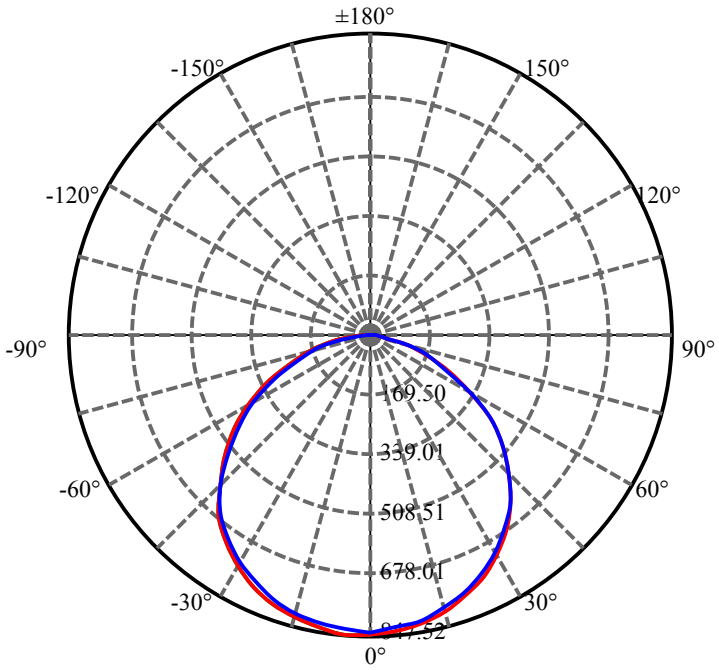
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	834.982	.000	.000	.000%	.000%
5.0	828.556	19.887	19.887	.840%	.840%
10.0	819.686	58.963	78.850	2.489%	3.329%
15.0	805.809	96.423	175.273	4.071%	7.400%
20.0	783.155	130.953	306.226	5.529%	12.929%
25.0	755.941	161.423	467.649	6.815%	19.745%
30.0	722.235	187.064	654.713	7.898%	27.643%
35.0	679.515	206.418	861.131	8.715%	36.358%
40.0	630.172	218.511	1079.642	9.226%	45.584%
45.0	569.278	222.088	1301.730	9.377%	54.960%
50.0	504.114	216.895	1518.625	9.158%	64.118%
55.0	431.762	203.491	1722.115	8.592%	72.709%
60.0	354.206	181.674	1903.789	7.670%	80.380%
65.0	275.901	153.180	2056.969	6.467%	86.847%
70.0	201.485	120.877	2177.846	5.104%	91.951%
75.0	134.416	87.799	2265.646	3.707%	95.658%
80.0	75.099	56.060	2321.706	2.367%	98.025%
85.0	31.459	28.954	2350.660	1.222%	99.247%
90.0	9.895	11.323	2361.983	.478%	99.725%
95.0	3.614	3.699	2365.682	.156%	99.881%
100.0	1.288	1.332	2367.014	.056%	99.938%
105.0	.749	.545	2367.559	.023%	99.961%
110.0	.197	.247	2367.806	.010%	99.971%
115.0	.026	.057	2367.863	.002%	99.974%
120.0	.039	.016	2367.878	.001%	99.974%
125.0	.053	.021	2367.900	.001%	99.975%
130.0	.145	.043	2367.943	.002%	99.977%
135.0	.105	.050	2367.993	.002%	99.979%
140.0	.197	.056	2368.049	.002%	99.981%
145.0	.224	.070	2368.119	.003%	99.984%
150.0	.276	.074	2368.193	.003%	99.987%
155.0	.381	.083	2368.276	.004%	99.991%
160.0	.342	.076	2368.352	.003%	99.994%
165.0	.329	.055	2368.407	.002%	99.997%
170.0	.421	.044	2368.451	.002%	99.998%
175.0	.408	.030	2368.481	.001%	100.000%
180.0	.526	.011	2368.492	.000%	100.000%

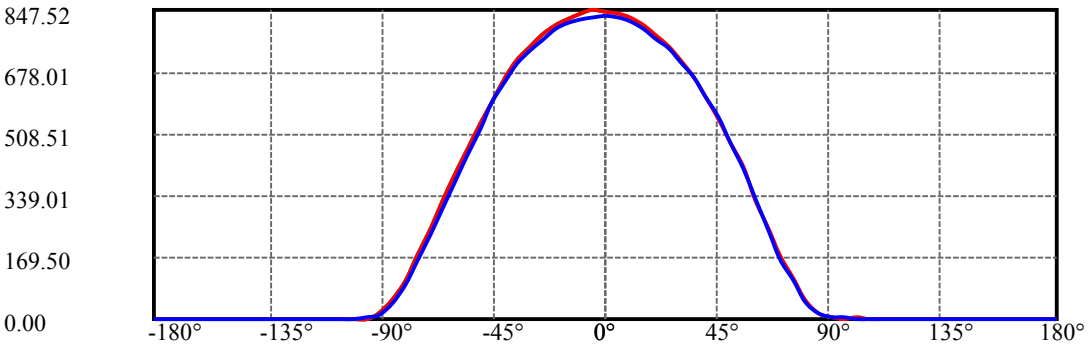
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	654.71	27.64%	27.64%
0-40	1079.64	45.58%	45.58%
0-60	1903.79	80.38%	80.38%
0-90	2361.98	99.73%	99.73%
0-120	2367.88	99.97%	99.97%
0-180	2368.49	100.00%	100.00%
60-90	639.87	27.02%	27.02%
90-120	17.22	0.73%	0.73%
90-130	17.28	0.73%	0.73%
90-150	17.53	0.74%	0.74%
90-180	17.82	0.75%	0.75%
0-59.75	1894.79	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	78.85
10-20	227.38
20-30	348.49
30-40	424.93
40-50	438.98
50-60	385.16
60-70	274.06
70-80	143.86
80-90	40.28
90-100	5.03
100-110	0.79
110-120	0.07
120-130	0.06
130-140	0.11
140-150	0.14
150-160	0.16
160-170	0.10
170-180	0.03

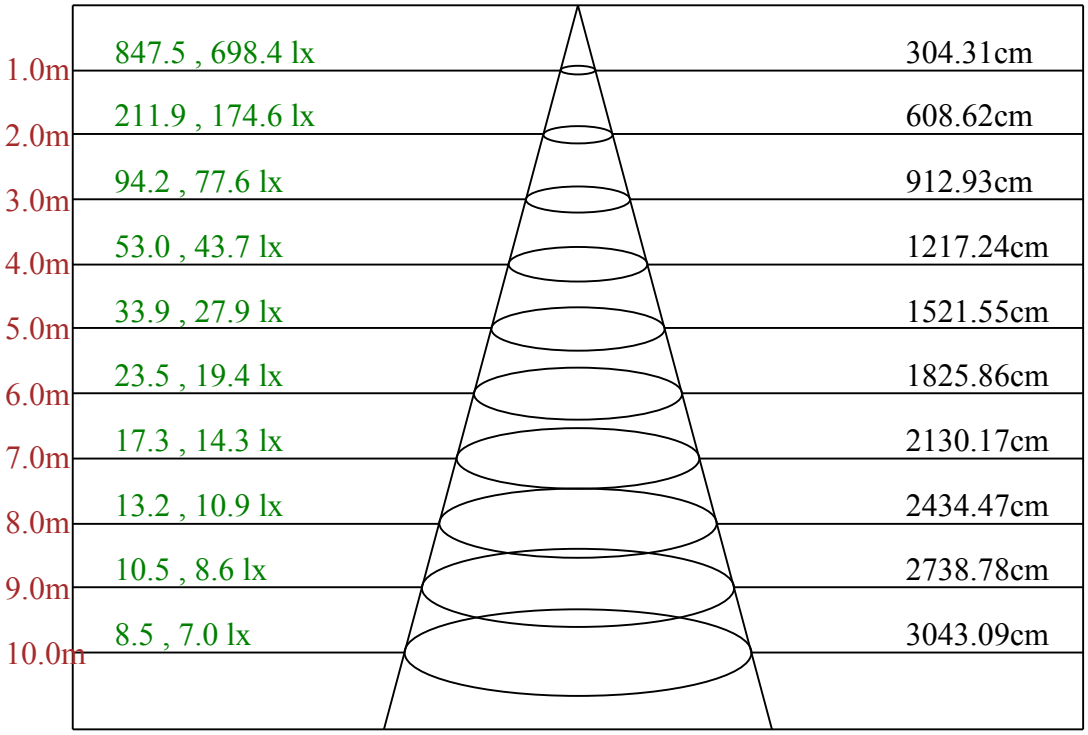




C180(Max):
C0/C180:
C90/C270:

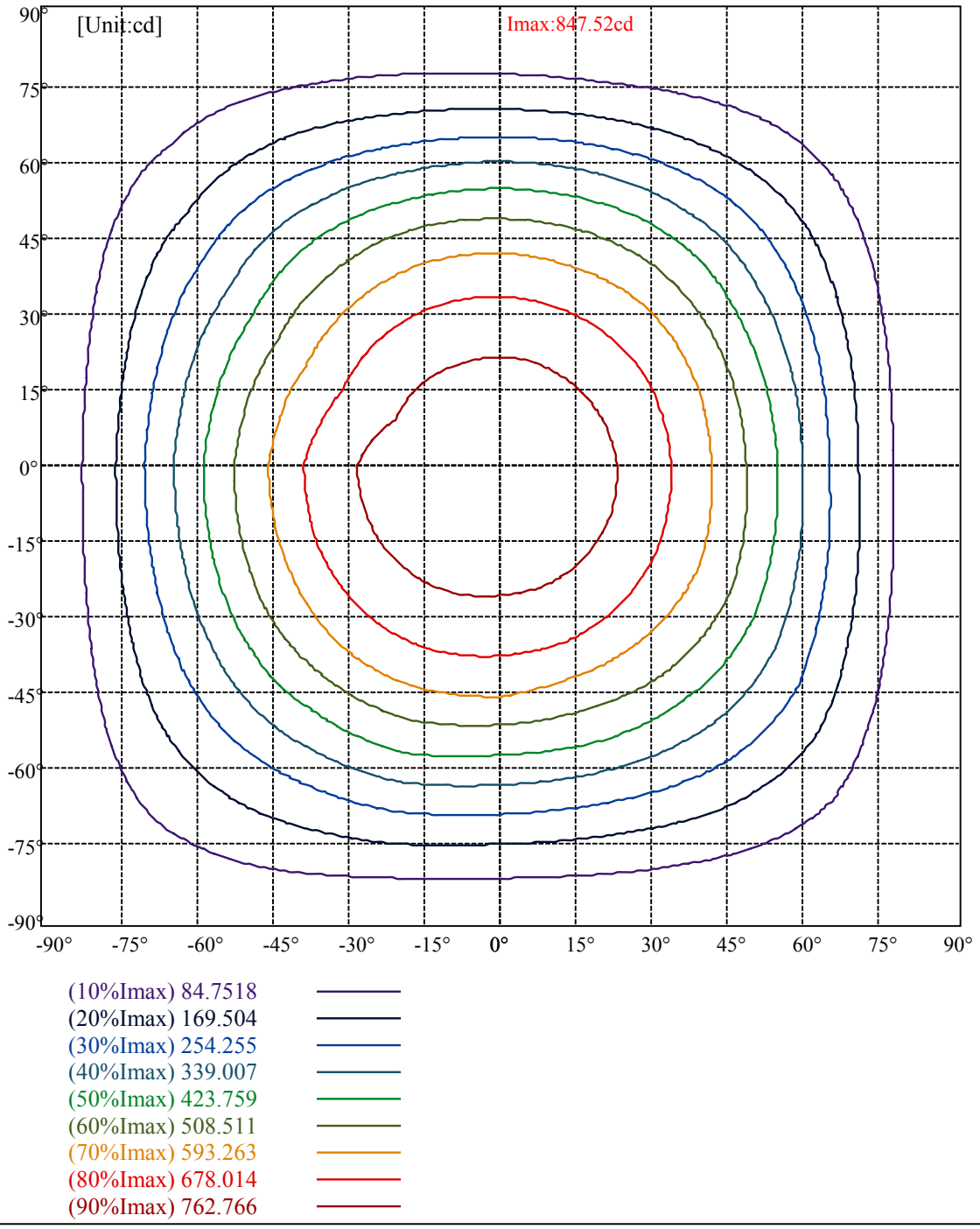
Field angle(10%Imax):C0/180Left:76.8 Right:82.0
:C90/270Left:80.9 Right:76.8

Beam Angle(50%Imax):C0/180Left:53.1 Right:59.3
:C90/270Left:57.1 Right:54.7



Max , Ave

Beam angle of C180plane113.19


[Unit:cd]
Imax:847.52cd
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) 84.7518
(20%Imax) 169.504
(30%Imax) 254.255
(40%Imax) 339.007
(50%Imax) 423.759
(60%Imax) 508.511
(70%Imax) 593.263
(80%Imax) 678.014
(90%Imax) 762.766

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	842.68	837.01	824.81	804.84	780.45	749.96	710.65	663.76	610.57
22.5	839.32	828.60	818.50	800.21	774.14	744.92	708.54	657.66	605.94
45.0	837.43	826.49	811.15	795.80	769.52	739.45	701.82	655.35	607.20
67.5	835.74	826.91	813.46	793.27	769.94	738.40	701.60	656.40	604.47
90.0	834.27	823.97	815.14	794.75	769.94	740.08	703.92	661.03	610.78
112.5	832.17	823.13	810.09	795.59	770.15	741.34	706.02	664.60	612.88
135.0	829.44	820.19	807.99	795.59	773.30	744.92	708.33	665.65	612.04
157.5	828.81	821.87	812.20	797.27	775.61	747.23	712.96	667.12	618.14
180.0	842.68	847.52	835.32	823.76	805.05	781.50	749.54	710.44	662.08
202.5	839.32	838.90	831.75	822.71	804.00	778.35	749.75	711.70	662.50
225.0	837.43	830.70	829.44	819.56	797.48	774.35	746.60	708.54	662.71
247.5	835.74	830.49	829.23	815.98	795.38	771.83	743.23	705.81	662.29
270.0	834.27	826.70	823.76	812.20	792.64	765.31	737.14	699.08	653.04
292.5	832.17	827.33	821.03	810.51	787.60	763.21	733.14	692.35	644.00
315.0	829.44	822.50	817.03	806.73	783.39	758.58	725.15	681.21	628.65
337.5	828.81	824.60	814.09	804.21	781.92	755.64	717.37	671.54	625.49
360.0	842.68	837.01	824.81	804.84	780.45	749.96	710.65	663.76	610.57

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	549.17	485.89	414.40	325.89	245.99	171.56	108.07	50.67	16.40
22.5	546.65	471.17	396.11	315.59	242.42	168.41	101.97	48.99	13.88
45.0	544.97	478.95	405.36	317.06	241.58	157.48	96.08	46.68	14.51
67.5	546.44	483.37	407.89	324.00	240.95	160.00	93.77	43.31	13.46
90.0	552.33	485.05	412.09	330.51	240.95	165.68	103.44	46.68	15.14
112.5	556.32	489.46	409.78	327.36	243.26	171.35	109.96	56.77	18.29
135.0	554.85	486.31	418.40	335.14	254.19	183.34	117.32	62.44	22.29
157.5	556.74	491.99	419.87	345.23	273.12	193.22	127.20	69.17	25.02
180.0	596.90	538.66	465.07	398.00	321.05	248.52	172.41	103.02	51.72
202.5	594.80	538.66	467.81	391.70	309.91	237.16	172.83	108.91	54.03
225.0	603.00	533.40	460.24	389.38	308.44	232.54	171.99	109.54	53.61
247.5	603.84	536.35	469.28	399.90	318.74	242.21	171.56	99.66	47.73
270.0	597.11	520.16	445.52	378.87	298.56	231.28	156.01	92.93	42.89
292.5	567.47	506.28	445.31	366.05	296.45	217.82	151.38	90.83	41.42
315.0	567.47	510.28	434.59	362.68	290.57	222.66	149.28	87.89	39.32
337.5	570.41	509.86	436.48	359.95	288.25	220.55	147.39	84.10	33.64
360.0	549.17	485.89	414.40	325.89	245.99	171.56	108.07	50.67	16.40

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	6.73	0.00	2.94	1.89	0.42	0.00	0.00	0.00	0.00
22.5	7.15	0.00	1.47	0.00	0.21	0.21	0.00	0.42	0.63
45.0	7.57	3.57	0.21	1.05	0.21	0.00	0.00	0.00	0.00
67.5	7.36	5.47	0.21	0.00	0.00	0.00	0.00	0.00	0.42
90.0	6.31	5.26	1.26	0.00	0.21	0.00	0.00	0.00	0.00
112.5	6.52	5.05	0.21	0.00	0.21	0.00	0.00	0.00	0.42
135.0	6.52	2.73	0.84	1.68	0.63	0.21	0.21	0.21	0.42
157.5	6.31	0.21	1.89	1.05	0.00	0.00	0.42	0.21	0.42
180.0	14.51	2.10	2.52	1.47	0.00	0.00	0.00	0.00	0.00
202.5	15.56	0.42	2.10	0.21	0.00	0.00	0.00	0.00	0.00
225.0	16.61	4.84	0.00	1.26	0.00	0.00	0.00	0.00	0.00
247.5	13.04	6.10	0.63	0.00	0.00	0.00	0.00	0.00	0.00
270.0	11.77	5.68	1.47	0.00	0.00	0.00	0.00	0.00	0.00
292.5	11.35	6.73	1.26	0.00	0.63	0.00	0.00	0.00	0.00
315.0	11.14	6.73	0.00	2.31	0.63	0.00	0.00	0.00	0.00
337.5	9.88	2.94	3.57	1.05	0.00	0.00	0.00	0.00	0.00
360.0	6.73	0.00	2.94	1.89	0.42	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	0.21	0.00	0.00	0.21	0.21	0.00	0.00	0.21
22.5	0.21	0.63	0.00	0.00	0.42	0.42	0.00	0.21	0.21
45.0	0.00	0.21	0.21	0.21	0.21	0.42	0.21	0.21	0.21
67.5	0.21	0.21	0.42	0.63	0.42	0.21	0.00	0.42	0.63
90.0	0.00	0.00	0.42	0.21	0.84	0.21	0.42	0.84	0.42
112.5	0.42	0.42	0.42	0.63	0.63	0.84	0.84	0.63	0.63
135.0	0.42	0.42	0.63	0.84	0.63	0.63	0.63	0.63	0.84
157.5	0.42	0.42	0.63	0.63	0.63	0.84	0.63	0.63	0.63
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.21
202.5	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.21	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.21	0.42	0.42	0.42
270.0	0.00	0.00	0.00	0.00	0.42	0.21	0.21	0.63	0.63
292.5	0.00	0.21	0.42	0.42	0.42	0.00	0.63	0.42	0.42
315.0	0.00	0.00	0.21	0.21	0.42	0.63	0.63	0.63	0.42
337.5	0.00	0.42	0.21	0.63	0.63	0.42	0.63	0.63	0.63
360.0	0.00	0.21	0.00	0.00	0.21	0.21	0.00	0.00	0.21

C/γ(°)	180.0
0.0	0.21
22.5	0.00
45.0	0.42
67.5	0.63
90.0	0.84
112.5	0.63
135.0	0.63
157.5	0.84
180.0	0.21
202.5	0.00
225.0	0.42
247.5	0.63
270.0	0.84
292.5	0.63
315.0	0.63
337.5	0.84
360.0	0.21