Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LSG2-40K
Luminaire:
Report No:
Test No:
LampCAT:
Lamp flux(lm): 432.5
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.03
Current(A): 0.0436
Power (W): 4.9450
PF: 0.9451
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 432.49
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 87.46
Central intensity(cd): 1484.176
Maximum intensity(cd): 1514.757
Angle of maximum intensity: C=157.5 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.2
[C90/270]Total=23.5
Field angle(10%Imax): [C0/180]Total=52.8
[C90/270]Total=52.7
Maximum s/h(1/2): C0_180=0.48 C90_270=0.34
Maximum s/h(1/4): C0_180=0.69 C90_270=0.37
Up flux rate of lamp(%): 1.34%
Down flux rate of lamp(%): 98.66%
Up flux rate of LUM(%): 1.34%
Down flux rate of LUM(%): 98.66%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.672%

Zonal flux distribution table

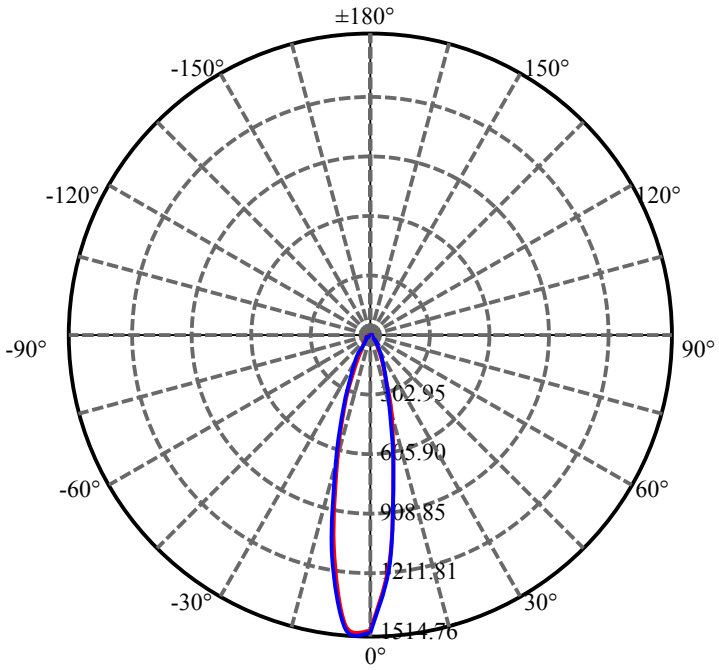
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1498.940	.000	.000	.000%	.000%
5.0	1313.418	33.621	33.621	7.774%	7.774%
10.0	895.065	79.004	112.625	18.267%	26.041%
15.0	519.233	83.895	196.521	19.398%	45.439%
20.0	301.991	67.680	264.201	15.649%	61.088%
25.0	174.808	50.007	314.208	11.563%	72.651%
30.0	97.390	34.447	348.655	7.965%	80.616%
35.0	56.393	22.646	371.301	5.236%	85.852%
40.0	36.631	15.520	386.821	3.589%	89.441%
45.0	26.040	11.604	398.425	2.683%	92.124%
50.0	17.377	8.773	407.198	2.029%	94.152%
55.0	11.749	6.333	413.531	1.464%	95.616%
60.0	7.996	4.564	418.095	1.055%	96.672%
65.0	4.840	3.120	421.216	.721%	97.393%
70.0	3.051	1.998	423.214	.462%	97.855%
75.0	1.964	1.311	424.525	.303%	98.158%
80.0	1.578	.948	425.472	.219%	98.377%
85.0	1.087	.724	426.197	.167%	98.545%
90.0	.702	.490	426.686	.113%	98.658%
95.0	.807	.413	427.099	.095%	98.754%
100.0	.754	.424	427.523	.098%	98.852%
105.0	.824	.422	427.946	.098%	98.949%
110.0	.877	.445	428.390	.103%	99.052%
115.0	.842	.435	428.825	.101%	99.153%
120.0	.894	.422	429.247	.098%	99.250%
125.0	.894	.413	429.661	.096%	99.346%
130.0	.859	.381	430.042	.088%	99.434%
135.0	.947	.365	430.407	.084%	99.518%
140.0	.999	.360	430.767	.083%	99.602%
145.0	1.017	.336	431.104	.078%	99.679%
150.0	1.105	.312	431.416	.072%	99.752%
155.0	1.227	.295	431.711	.068%	99.820%
160.0	1.298	.265	431.976	.061%	99.881%
165.0	1.315	.215	432.192	.050%	99.931%
170.0	1.438	.163	432.355	.038%	99.969%
175.0	1.420	.102	432.457	.024%	99.992%
180.0	1.333	.033	432.490	.008%	100.000%

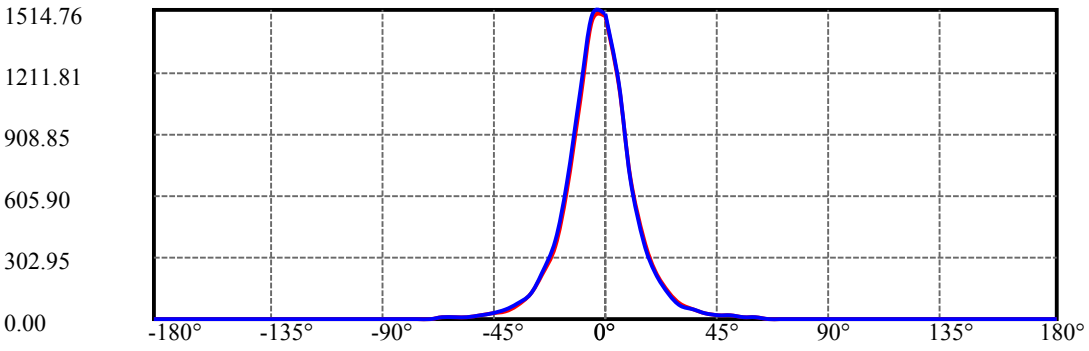
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	348.66	80.62%	80.62%
0-40	386.82	89.44%	89.44%
0-60	418.10	96.67%	96.67%
0-90	426.69	98.66%	98.66%
0-120	429.25	99.25%	99.25%
0-180	432.49	100.00%	100.00%
60-90	13.16	3.04%	3.04%
90-120	3.05	0.71%	0.71%
90-130	3.85	0.89%	0.89%
90-150	5.22	1.21%	1.21%
90-180	6.26	1.45%	1.45%
0-29.61	345.99	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	112.63
10-20	151.58
20-30	84.45
30-40	38.17
40-50	20.38
50-60	10.90
60-70	5.12
70-80	2.26
80-90	1.21
90-100	0.84
100-110	0.87
110-120	0.86
120-130	0.79
130-140	0.73
140-150	0.65
150-160	0.56
160-170	0.38
170-180	0.10





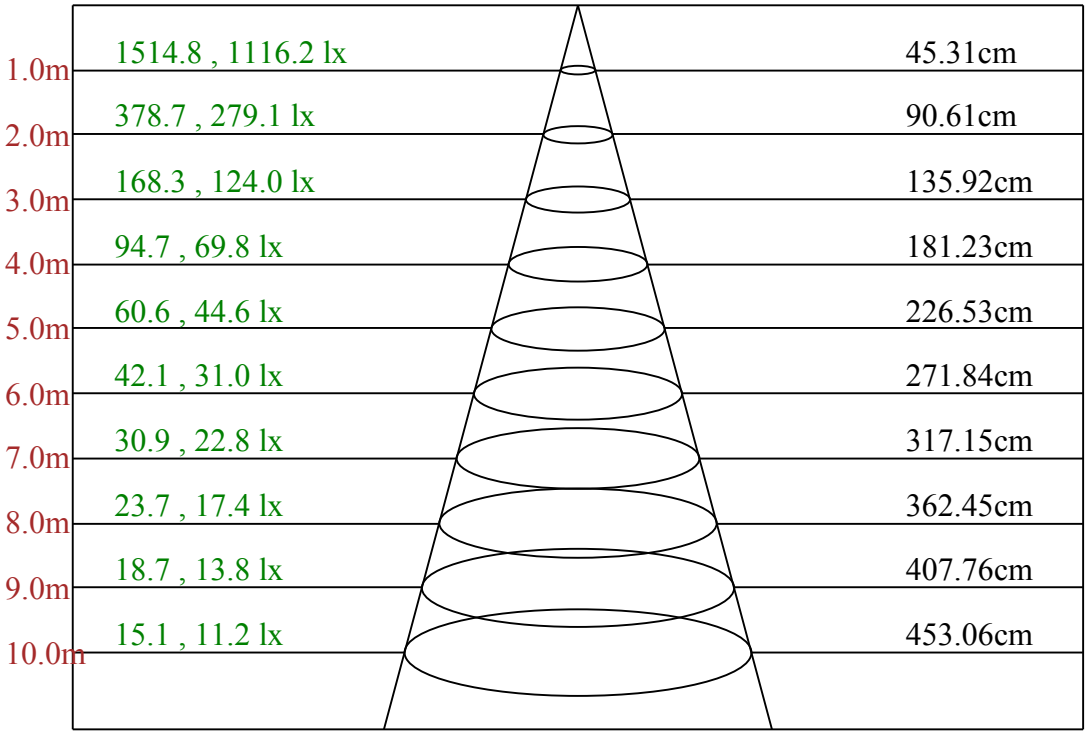
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:28.4 Right:24.4
:C90/270Left:28.9 Right:23.8

Beam Angle(50%Imax):C0/180Left:13.7 Right:9.5
:C90/270Left:14.1 Right:9.4

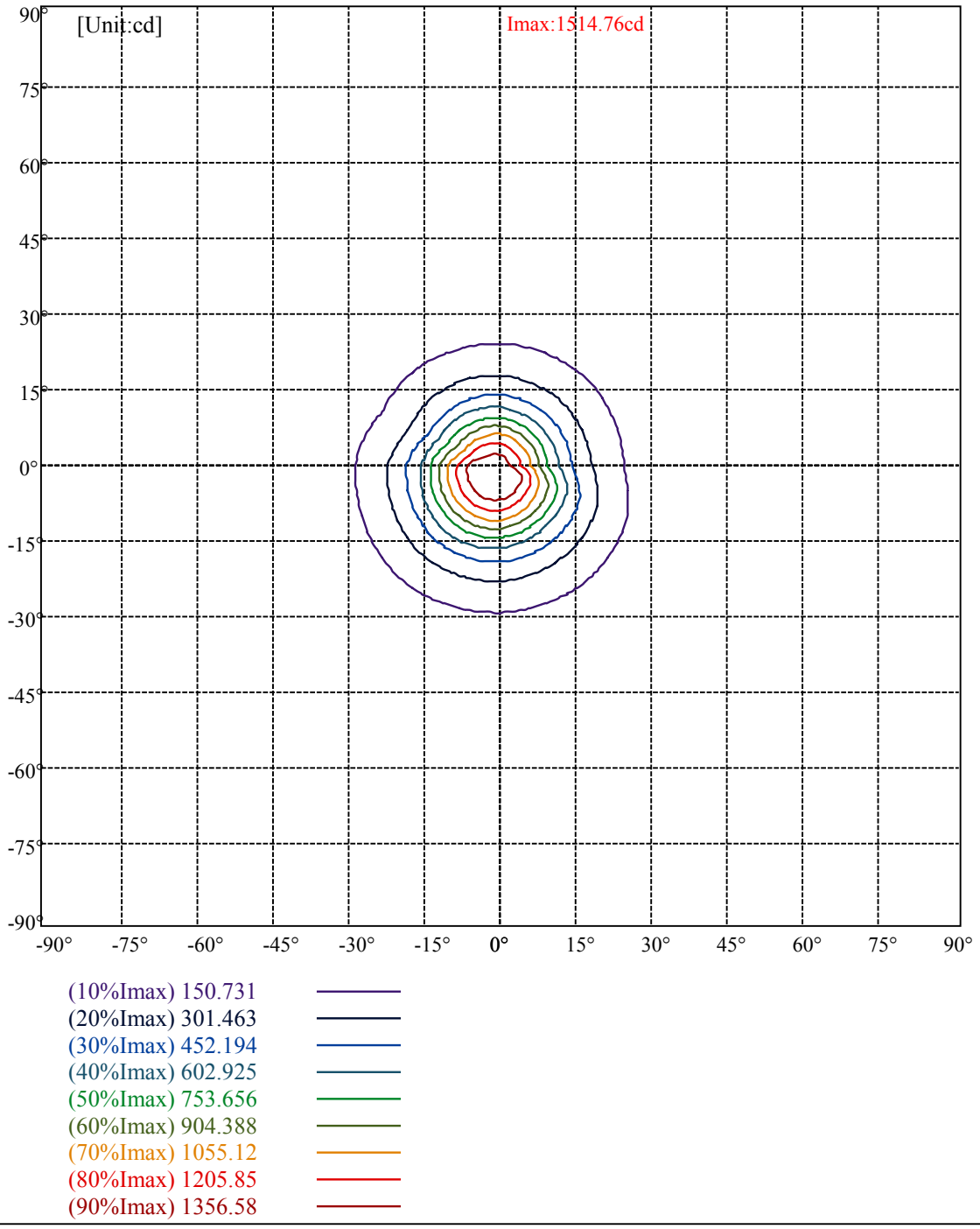
Lux distance Curve



Max , Ave

Beam angle of C157.5plane25.53

Equipment: GMS-3000 Date: Operator: Zac
Temperature(°C): 25 Humidity(%): 58%


[Unit:cd]
Imax:1514.76cd
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) 150.731
(20%Imax) 301.463
(30%Imax) 452.194
(40%Imax) 602.925
(50%Imax) 753.656
(60%Imax) 904.388
(70%Imax) 1055.12
(80%Imax) 1205.85
(90%Imax) 1356.58

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	1484.18	1143.85	694.11	396.15	236.80	135.23	74.63	44.89	30.86
22.5	1485.58	1130.11	669.70	374.27	226.41	129.90	72.67	43.77	29.74
45.0	1486.70	1116.36	659.32	367.82	219.96	124.57	69.86	42.65	29.18
67.5	1499.05	1128.70	656.24	366.42	217.72	125.13	68.74	42.93	29.18
90.0	1497.36	1158.72	688.50	377.64	226.13	125.97	70.42	42.65	29.46
112.5	1510.83	1179.77	719.92	403.17	234.55	133.27	73.51	43.21	30.02
135.0	1513.07	1234.19	776.04	429.54	248.30	143.93	78.84	44.89	31.42
157.5	1514.76	1293.11	839.16	461.53	264.57	154.31	85.57	48.54	32.83
180.0	1484.18	1458.36	1073.43	628.18	358.56	214.07	118.40	66.49	41.24
202.5	1485.58	1490.91	1127.02	666.90	386.34	225.29	124.57	69.86	43.21
225.0	1486.70	1508.02	1150.87	711.51	399.80	232.87	134.11	73.23	45.45
247.5	1499.05	1506.06	1154.80	708.98	402.33	230.90	131.86	74.35	46.29
270.0	1497.36	1482.77	1118.60	671.11	388.30	227.26	126.81	73.51	46.01
292.5	1510.83	1449.11	1064.74	621.73	364.45	212.67	118.68	69.58	42.93
315.0	1513.07	1390.75	1001.33	581.05	339.48	198.64	110.26	63.97	39.84
337.5	1514.76	1343.89	927.26	541.77	318.16	182.93	99.32	57.80	38.44
360.0	1484.18	1143.85	694.11	396.15	236.80	135.23	74.63	44.89	30.86

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.45	15.71	10.94	7.01	4.21	2.53	1.68	1.40	0.84
22.5	21.88	16.27	11.22	7.30	4.77	2.53	1.68	1.68	0.84
45.0	21.04	15.43	11.22	7.58	4.77	3.09	1.96	1.40	0.84
67.5	21.88	15.99	11.50	7.86	4.77	3.09	1.96	1.68	0.84
90.0	22.16	15.99	10.94	7.86	4.49	3.09	1.96	1.40	0.84
112.5	21.88	15.71	10.66	7.30	4.77	2.81	1.96	1.40	0.84
135.0	22.73	15.71	10.38	7.30	4.21	2.53	1.68	1.40	0.84
157.5	24.13	15.15	10.38	7.01	4.21	2.81	1.96	1.40	0.56
180.0	28.90	19.08	12.06	8.42	5.05	3.37	1.96	1.40	1.12
202.5	30.02	17.96	12.06	8.42	5.05	3.09	1.96	1.68	1.40
225.0	30.86	18.52	12.35	8.42	4.77	3.37	1.96	1.96	1.40
247.5	31.98	19.36	12.63	8.42	5.05	3.37	1.96	1.68	1.12
270.0	31.42	19.36	12.63	8.70	5.33	3.09	1.96	1.40	1.40
292.5	30.02	19.08	12.91	8.70	5.05	3.65	1.96	1.68	1.40
315.0	28.34	19.36	12.91	8.70	5.33	3.09	2.25	1.68	1.68
337.5	26.93	19.36	13.19	8.98	5.61	3.37	2.53	1.96	1.40
360.0	22.45	15.71	10.94	7.01	4.21	2.53	1.68	1.40	0.84

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.56	0.00	0.00	0.56	0.56	0.56	0.84	0.00	0.28
22.5	0.56	0.84	0.56	0.56	0.56	0.84	0.56	0.84	0.56
45.0	0.56	0.84	0.56	0.84	0.84	0.84	0.84	0.84	0.84
67.5	0.56	0.56	0.84	0.56	0.56	0.84	0.28	0.56	0.84
90.0	0.56	0.84	0.56	0.56	0.84	0.56	0.56	0.84	0.56
112.5	0.00	0.56	0.56	0.28	0.84	0.28	1.12	0.56	0.84
135.0	0.56	0.84	0.56	0.56	0.84	0.84	0.84	1.12	1.12
157.5	0.56	0.56	0.56	0.56	0.56	0.28	0.56	0.84	0.84
180.0	0.84	0.84	0.84	1.12	1.12	0.84	0.84	1.12	1.12
202.5	0.84	1.12	1.12	1.12	0.84	1.12	1.40	1.12	0.84
225.0	0.84	0.84	0.56	1.12	1.12	0.84	1.40	1.12	1.12
247.5	1.40	0.84	1.12	1.12	1.12	1.12	1.12	1.12	0.56
270.0	0.84	1.12	1.12	1.12	0.84	1.12	0.84	1.12	0.84
292.5	0.84	1.12	0.84	1.12	1.12	1.12	0.84	0.84	1.40
315.0	0.84	1.12	0.84	1.12	1.12	1.12	1.12	1.12	1.12
337.5	0.84	0.84	1.40	0.84	1.12	1.12	1.12	1.12	0.84
360.0	0.56	0.00	0.00	0.56	0.56	0.56	0.84	0.00	0.28

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	0.56	0.28	0.56	0.56	0.84	0.84	1.12	1.40	1.12
22.5	0.56	1.12	0.84	1.12	1.12	1.40	1.12	1.68	1.40
45.0	0.84	1.12	0.84	1.12	1.12	1.40	1.40	1.40	1.68
67.5	0.56	1.12	1.12	1.12	1.40	1.40	1.40	1.40	1.40
90.0	1.12	1.12	1.12	1.40	1.12	1.12	1.40	1.40	1.68
112.5	0.84	0.56	0.84	0.84	1.40	1.12	1.40	1.68	1.12
135.0	0.84	1.12	0.84	1.12	1.12	1.12	1.12	1.40	1.40
157.5	0.84	0.84	0.84	1.12	1.12	1.12	1.12	1.40	1.12
180.0	1.12	1.12	1.12	1.12	1.40	1.40	1.12	1.12	1.40
202.5	1.12	1.12	1.12	1.12	1.12	1.40	1.12	1.68	1.40
225.0	1.12	1.12	1.12	1.12	1.40	1.68	1.68	1.12	1.40
247.5	1.40	1.12	1.12	1.12	1.40	1.40	1.40	1.12	1.40
270.0	0.84	1.12	1.40	1.12	1.40	1.40	1.68	1.68	1.40
292.5	1.12	1.12	1.12	1.12	1.12	1.12	1.40	1.40	1.68
315.0	1.12	1.12	1.40	1.40	1.40	1.68	1.40	1.68	1.40
337.5	1.12	0.84	0.84	1.12	1.12	1.12	1.12	1.40	1.68
360.0	0.56	0.28	0.56	0.56	0.84	0.84	1.12	1.40	1.12

C/γ(°)	180.0
0.0	0.56
22.5	1.40
45.0	1.40
67.5	1.68
90.0	1.40
112.5	1.40
135.0	1.40
157.5	1.40
180.0	0.56
202.5	1.40
225.0	1.40
247.5	1.68
270.0	1.40
292.5	1.40
315.0	1.40
337.5	1.40
360.0	0.56