



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LL4RR-40K

Luminaire:

Report No:

Voltage(V): 120.01

Test No:

Current(A): 0.1217

LampCAT:

Power (W): 14.4180

Lamp flux(lm): 1020.5

PF: 0.9872

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1020.49

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 70.78

Central intensity(cd): 424.834

Maximum intensity(cd): 425.070

Angle of maximum intensity: C=180.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=102.3

[C90/270]Total=102.1

Field angle(10%Imax): [C0/180]Total=148.8

[C90/270]Total=149.0

Maximum s/h(1/2): C0_180=1.26 C90_270=1.18

Maximum s/h(1/4): C0_180=1.80 C90_270=1.30

Up flux rate of lamp(%): 0.34%

Down flux rate of lamp(%): 99.66%

Up flux rate of LUM(%): 0.34%

Down flux rate of LUM(%): 99.66%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 84.331%

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 58%

Operator: Zac

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	411.853	.000	.000	.000%	.000%
5.0	409.946	9.824	9.824	.963%	.963%
10.0	403.604	29.103	38.928	2.852%	3.815%
15.0	393.447	47.281	86.208	4.633%	8.448%
20.0	379.077	63.667	149.875	6.239%	14.687%
25.0	359.828	77.498	227.373	7.594%	22.281%
30.0	336.485	88.119	315.492	8.635%	30.916%
35.0	309.518	95.128	410.620	9.322%	40.238%
40.0	280.246	98.398	509.018	9.642%	49.880%
45.0	248.446	97.892	606.909	9.593%	59.473%
50.0	214.502	93.545	700.455	9.167%	68.639%
55.0	179.271	85.619	786.074	8.390%	77.029%
60.0	143.095	74.514	860.588	7.302%	84.331%
65.0	106.475	60.671	921.259	5.945%	90.277%
70.0	70.801	44.887	966.146	4.399%	94.675%
75.0	38.276	28.511	994.657	2.794%	97.469%
80.0	15.390	14.360	1009.016	1.407%	98.876%
85.0	6.564	5.965	1014.982	.585%	99.461%
90.0	.798	2.016	1016.997	.198%	99.658%
95.0	.266	.291	1017.289	.029%	99.687%
100.0	.311	.157	1017.446	.015%	99.702%
105.0	.281	.158	1017.604	.016%	99.718%
110.0	.400	.178	1017.782	.017%	99.735%
115.0	.459	.217	1017.999	.021%	99.756%
120.0	.532	.241	1018.240	.024%	99.780%
125.0	.503	.239	1018.479	.023%	99.803%
130.0	.606	.241	1018.720	.024%	99.827%
135.0	.621	.248	1018.968	.024%	99.851%
140.0	.754	.255	1019.223	.025%	99.876%
145.0	.828	.264	1019.487	.026%	99.902%
150.0	.843	.246	1019.733	.024%	99.926%
155.0	.843	.213	1019.946	.021%	99.947%
160.0	.917	.185	1020.131	.018%	99.965%
165.0	.917	.151	1020.282	.015%	99.980%
170.0	.991	.113	1020.395	.011%	99.991%
175.0	.902	.068	1020.463	.007%	99.998%
180.0	.946	.022	1020.485	.002%	100.000%

Equipment: GMS-3000
Temperature($^{\circ}\text{C}$): 25

Date:
Humidity(%): 58%

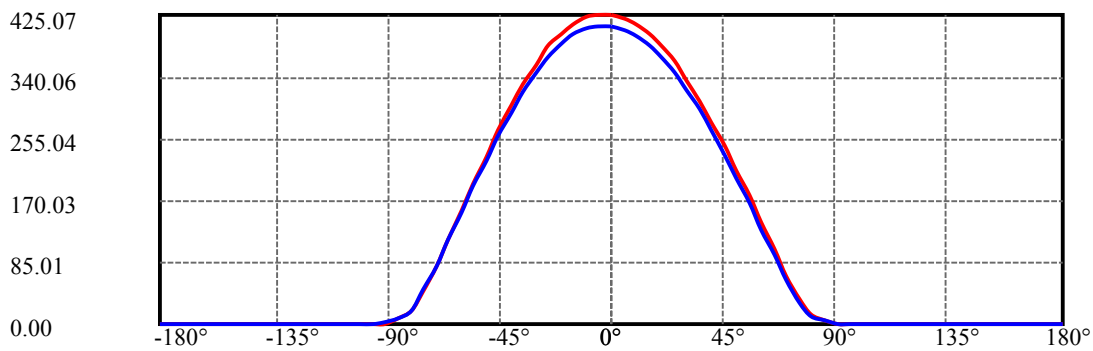
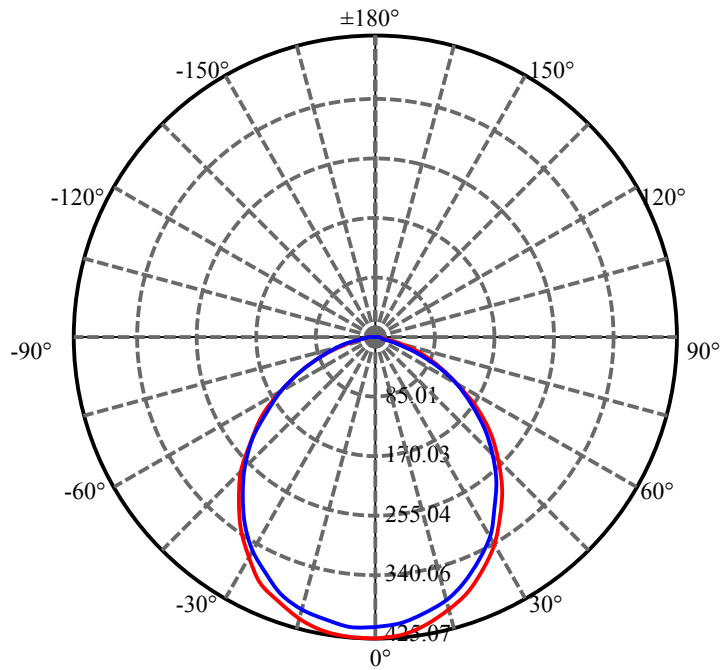
Operator: Zac

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	315.49	30.92%	30.92%
0-40	509.02	49.88%	49.88%
0-60	860.59	84.33%	84.33%
0-90	1017.00	99.66%	99.66%
0-120	1018.24	99.78%	99.78%
0-180	1020.49	100.00%	100.00%
60-90	230.92	22.63%	22.63%
90-120	3.26	0.32%	0.32%
90-130	3.74	0.37%	0.37%
90-150	4.75	0.47%	0.47%
90-180	5.48	0.54%	0.54%
0-57.03	816.39	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	38.93
10-20	110.95
20-30	165.62
30-40	193.53
40-50	191.44
50-60	160.13
60-70	105.56
70-80	42.87
80-90	7.98
90-100	0.45
100-110	0.34
110-120	0.46
120-130	0.48
130-140	0.50
140-150	0.51
150-160	0.40
160-170	0.26
170-180	0.07

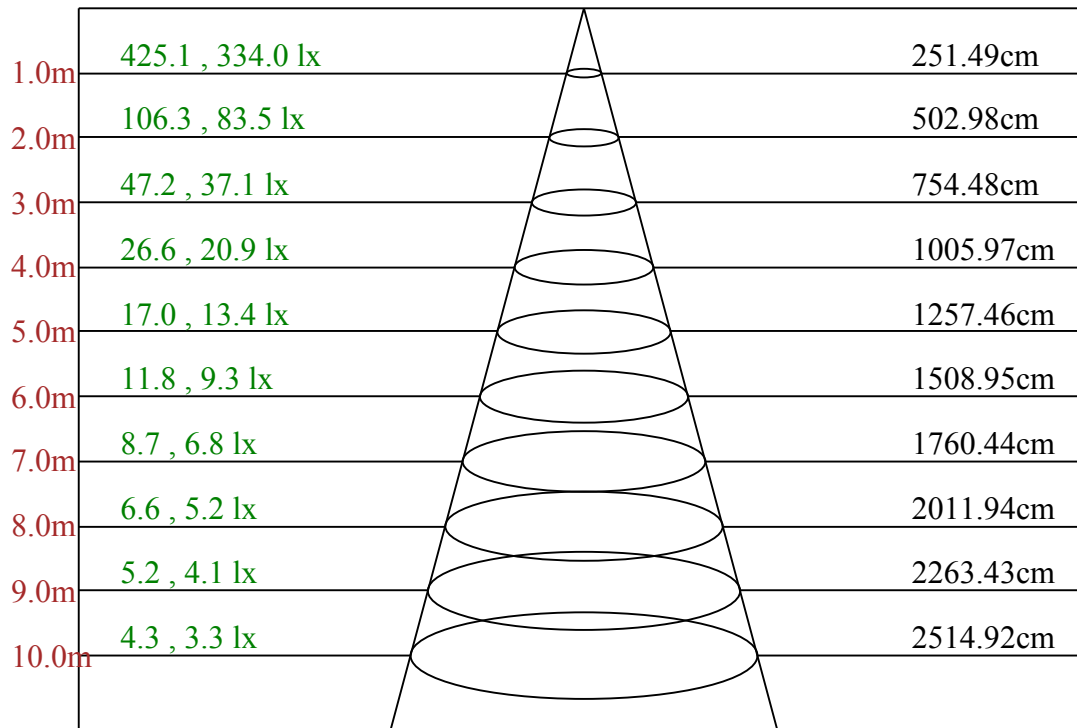


C0/C180: —

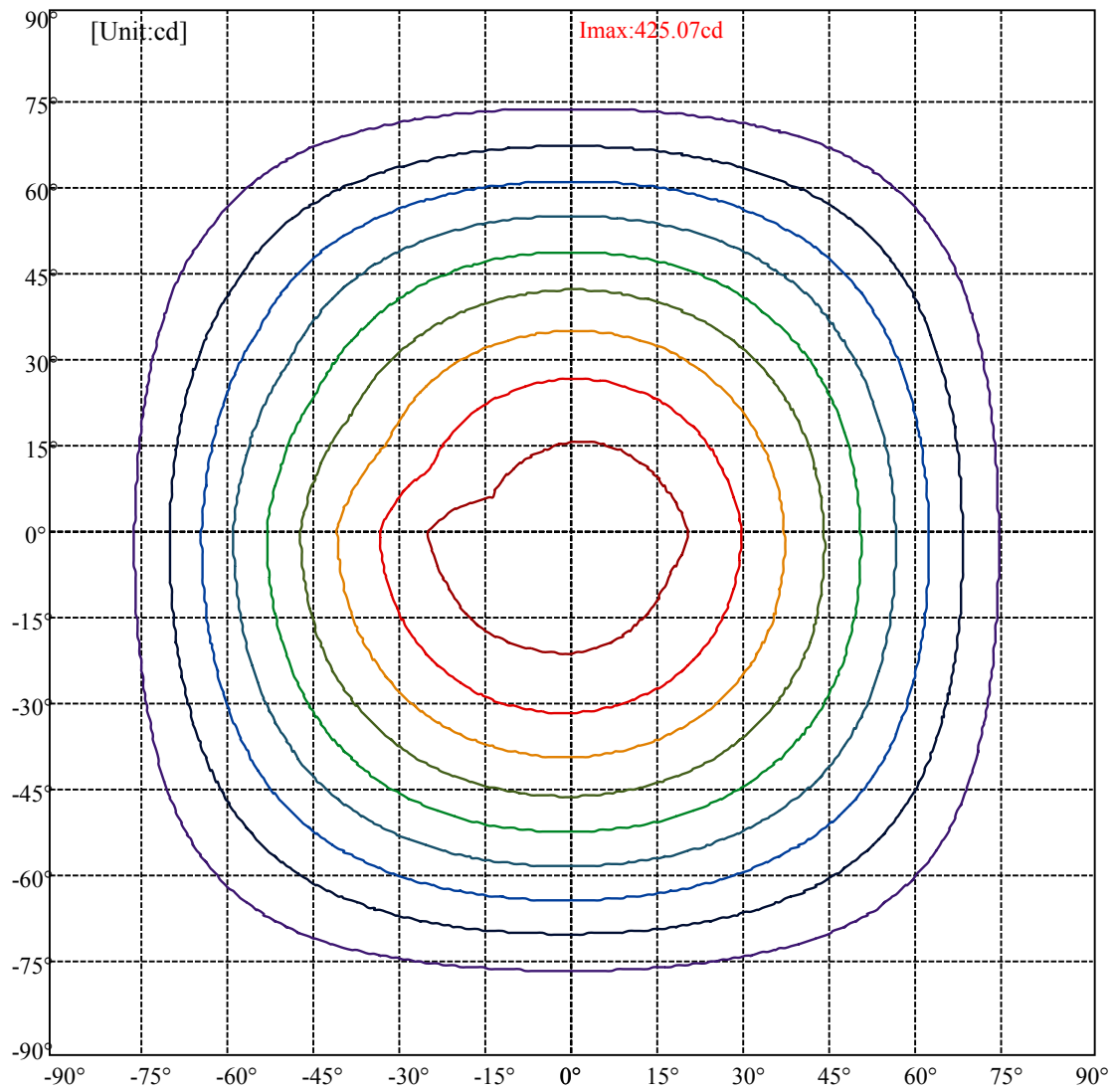
C90/C270: —

Field angle(10%Imax):C0/180Left:70.2 Right:78.6
 :C90/270Left:71.0 Right:78.1

Beam Angle(50%Imax):C0/180Left:47.5 Right:54.8
 :C90/270Left:47.8 Right:54.4



Max , Ave Beam angle of C180plane102.94



(10%Imax) 42.507	—
(20%Imax) 85.014	—
(30%Imax) 127.521	—
(40%Imax) 170.028	—
(50%Imax) 212.535	—
(60%Imax) 255.042	—
(70%Imax) 297.549	—
(80%Imax) 340.056	—
(90%Imax) 382.563	—

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	424.83	420.58	412.06	399.29	382.97	361.44	336.37	307.51	277.94
22.5	418.45	413.48	405.20	391.95	375.87	355.29	329.51	302.07	272.74
45.0	414.66	409.22	400.47	388.17	371.85	350.56	325.72	297.81	268.24
67.5	411.11	406.62	397.63	386.04	369.48	347.72	323.12	296.86	266.11
90.0	409.46	404.96	395.74	383.68	367.83	346.54	322.41	294.97	265.88
112.5	406.62	403.07	394.56	381.55	366.17	345.12	321.94	294.97	264.46
135.0	405.20	400.94	393.61	382.26	365.70	345.83	322.41	296.39	265.64
157.5	404.49	401.89	394.08	382.02	366.88	346.77	323.36	296.63	269.42
180.0	424.83	425.07	421.29	412.77	398.81	381.55	356.71	329.51	299.70
202.5	418.45	419.87	415.37	406.62	394.08	375.87	353.87	326.43	297.34
225.0	414.66	415.37	411.11	403.55	391.01	373.74	350.32	324.54	294.50
247.5	411.11	412.30	407.57	400.47	387.22	370.67	348.90	321.70	292.13
270.0	409.46	409.70	405.44	397.40	385.80	368.06	346.54	319.34	291.42
292.5	406.62	407.33	402.84	395.27	382.97	365.46	343.46	317.21	288.82
315.0	405.20	405.44	401.42	392.90	380.13	362.39	340.86	314.60	285.75
337.5	404.49	403.31	399.29	391.24	378.47	360.26	338.26	311.77	283.85
360.0	424.83	420.58	412.06	399.29	382.97	361.44	336.37	307.51	277.94
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	245.77	211.47	176.23	138.85	102.19	66.00	33.35	13.48	5.91
22.5	240.09	206.50	170.55	135.54	98.88	63.63	32.17	12.77	4.97
45.0	237.25	202.96	168.42	132.23	95.80	61.98	31.22	12.30	5.44
67.5	234.65	201.54	166.53	131.05	95.09	60.08	30.28	11.59	4.73
90.0	233.47	200.59	165.35	130.10	94.85	60.32	29.10	11.12	4.49
112.5	233.47	201.54	166.76	130.81	95.09	61.50	30.51	11.59	4.49
135.0	235.36	202.01	168.66	132.94	96.98	62.21	31.93	12.54	5.20
157.5	237.73	204.14	169.13	135.07	98.88	64.10	32.41	12.77	5.68
180.0	266.59	230.87	193.73	156.83	117.33	79.24	43.76	18.45	7.57
202.5	265.40	229.45	193.26	155.65	117.56	79.95	46.13	19.16	8.28
225.0	262.33	228.03	192.55	154.70	117.56	81.37	47.55	19.16	8.28
247.5	260.20	226.85	190.42	153.99	118.04	80.90	46.36	19.16	8.28
270.0	259.25	224.72	189.00	153.75	116.62	79.95	46.36	17.98	7.81
292.5	256.65	222.83	187.82	151.39	114.96	78.77	45.65	18.45	7.81
315.0	254.52	220.22	185.92	149.26	112.36	77.82	44.00	18.21	8.28
337.5	252.39	218.33	184.03	147.37	111.41	74.99	41.63	17.50	7.81
360.0	245.77	211.47	176.23	138.85	102.19	66.00	33.35	13.48	5.91
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.47	0.47	0.47	0.24	0.24	0.47	0.47	0.71	0.47
22.5	0.71	0.47	0.47	0.47	0.71	0.71	0.95	0.95	0.95
45.0	0.47	0.47	0.47	0.24	0.71	0.71	0.95	0.47	0.95
67.5	0.47	0.47	0.71	0.47	0.71	0.71	0.71	0.71	0.95
90.0	0.24	0.47	0.47	0.71	0.71	0.71	0.71	0.71	0.71
112.5	0.47	0.47	0.47	0.47	0.71	0.47	0.71	0.71	0.95
135.0	0.47	0.47	0.47	0.71	0.47	0.24	0.71	0.47	0.71
157.5	0.47	0.47	0.47	0.47	0.71	0.47	0.71	0.71	0.71
180.0	0.47	0.00	0.00	0.00	0.24	0.47	0.24	0.00	0.47
202.5	1.18	0.24	0.00	0.00	0.00	0.24	0.24	0.47	0.24
225.0	1.66	0.00	0.24	0.24	0.24	0.47	0.47	0.47	0.71
247.5	1.18	0.00	0.00	0.00	0.24	0.24	0.47	0.24	0.24
270.0	1.42	0.24	0.24	0.24	0.24	0.24	0.00	0.24	0.47
292.5	1.18	0.00	0.00	0.00	0.00	0.47	0.47	0.47	0.24
315.0	1.18	0.00	0.47	0.24	0.24	0.24	0.24	0.47	0.47
337.5	0.71	0.00	0.00	0.00	0.24	0.47	0.47	0.24	0.47
360.0	0.47	0.47	0.47	0.24	0.24	0.47	0.47	0.71	0.47

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	0.47	0.71	0.71	0.47	0.71	0.71	0.71	0.47	0.47
22.5	0.71	0.71	0.95	1.18	0.95	0.95	0.95	0.95	1.18
45.0	0.71	0.95	1.18	0.95	0.95	1.18	0.95	1.18	0.71
67.5	0.95	0.71	0.95	0.95	0.95	1.18	0.95	0.95	0.95
90.0	0.71	0.95	0.95	0.95	0.95	0.95	0.95	1.18	1.18
112.5	0.95	1.18	0.95	0.95	0.71	0.95	1.18	1.42	0.95
135.0	0.71	0.95	0.95	0.71	1.18	0.95	0.95	0.95	0.95
157.5	0.95	0.95	0.95	1.18	1.18	0.95	1.18	0.95	0.95
180.0	0.47	0.71	0.71	0.47	0.71	0.71	0.71	0.95	0.95
202.5	0.47	0.71	0.71	0.95	0.71	0.95	0.71	0.71	0.95
225.0	0.47	0.71	0.71	0.71	0.47	0.95	0.95	1.18	0.95
247.5	0.47	0.47	0.71	0.95	0.95	0.71	0.95	1.18	0.95
270.0	0.24	0.47	0.71	0.71	0.71	0.95	0.71	0.95	0.95
292.5	0.71	0.71	0.71	0.71	0.71	0.71	0.95	0.95	0.71
315.0	0.47	0.71	0.71	0.95	0.95	0.95	0.95	0.95	0.71
337.5	0.47	0.47	0.71	0.71	0.71	0.95	0.95	0.95	0.95
360.0	0.47	0.71	0.71	0.47	0.71	0.71	0.71	0.47	0.47

C/γ(°)	180.0
0.0	0.71
22.5	0.95
45.0	0.95
67.5	0.95
90.0	0.95
112.5	0.95
135.0	1.18
157.5	0.95
180.0	0.71
202.5	0.95
225.0	0.95
247.5	0.95
270.0	0.95
292.5	0.95
315.0	1.18
337.5	0.95
360.0	0.71