



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingeel.com

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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.02

LampCAT:

Current(A): 0.0770

Lamp flux(lm): 475.5

Power (W): 8.78

Number of Lamps: 1

PF: 0.9527

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 475.47, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 54.18

Central intensity(cd): 180.534, Maximum intensity(cd): 181.624

Angle of maximum intensity: C=45.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=103.5

[C90/270]Total=107.5

Field angle(10%Imax): [C0/180]Total=156.0

[C90/270]Total=159.6

Maximum s/h(1/2): C0_180=1.18 C90_270=1.22

Maximum s/h(1/4): C0_180=1.29 C90_270=1.34

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 : 80.557%

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

Date:
Humidity(%): 59%

Operator: jarvis

Zonal flux distribution table

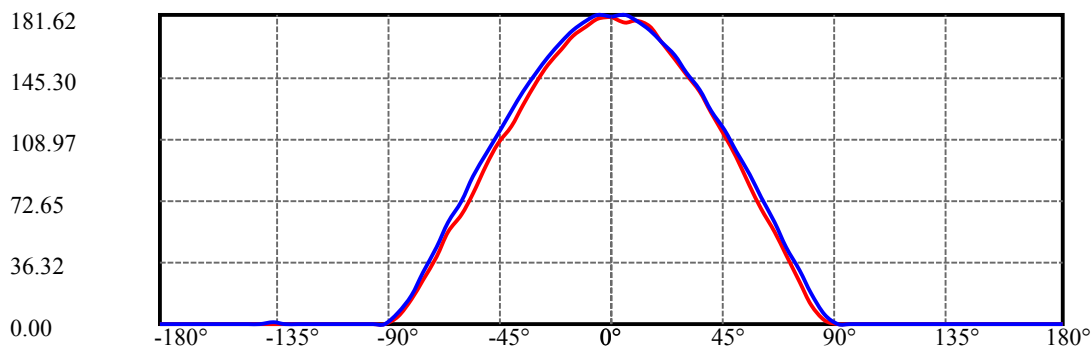
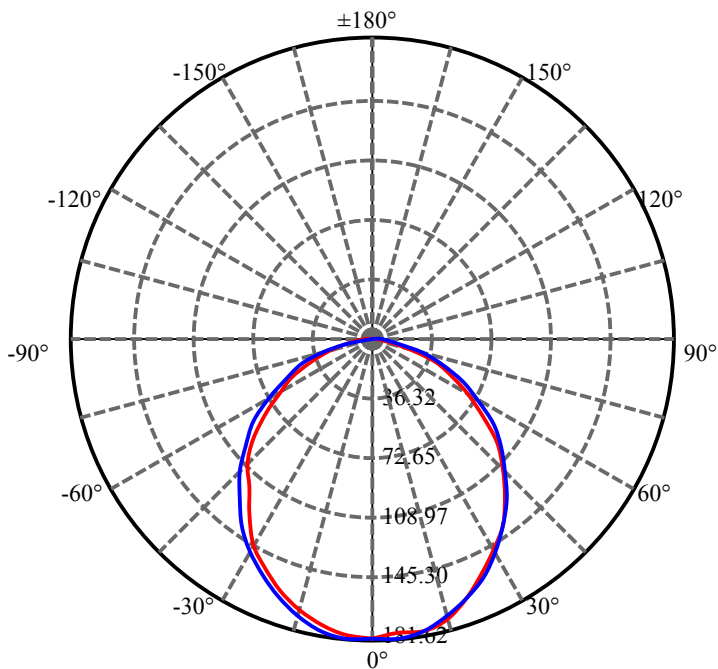
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	180.534	0.000	0	0.00%	0.00%
5.0	179.976	4.310	4.31	0.91%	0.91%
10.0	177.286	12.780	17.09	2.69%	3.59%
15.0	172.344	20.740	37.83	4.36%	7.96%
20.0	165.356	27.831	65.661	5.85%	13.81%
25.0	156.604	33.768	99.429	7.10%	20.91%
30.0	146.668	38.379	137.808	8.07%	28.98%
35.0	135.265	41.517	179.325	8.73%	37.72%
40.0	123.154	43.115	222.44	9.07%	46.78%
45.0	110.709	43.302	265.742	9.11%	55.89%
50.0	97.800	42.132	307.875	8.86%	64.75%
55.0	83.978	39.525	347.399	8.31%	73.06%
60.0	70.155	35.627	383.027	7.49%	80.56%
65.0	56.397	30.765	413.792	6.47%	87.03%
70.0	42.060	24.930	438.722	5.24%	92.27%
75.0	28.186	18.361	457.083	3.86%	96.13%
80.0	15.032	11.564	468.646	2.43%	98.56%
85.0	4.698	5.361	474.008	1.13%	99.69%
90.0	0.129	1.321	475.329	0.28%	99.97%
95.0	0.052	0.049	475.378	0.01%	99.98%
100.0	0.013	0.017	475.396	0.00%	99.98%
105.0	0.000	0.003	475.399	0.00%	99.98%
110.0	0.013	0.003	475.403	0.00%	99.99%
115.0	0.013	0.007	475.409	0.00%	99.99%
120.0	0.013	0.006	475.415	0.00%	99.99%
125.0	0.000	0.003	475.418	0.00%	99.99%
130.0	0.026	0.006	475.424	0.00%	99.99%
135.0	0.039	0.013	475.437	0.00%	99.99%
140.0	0.013	0.010	475.447	0.00%	99.99%
145.0	0.013	0.004	475.451	0.00%	100.00%
150.0	0.026	0.006	475.457	0.00%	100.00%
155.0	0.013	0.005	475.461	0.00%	100.00%
160.0	0.013	0.003	475.464	0.00%	100.00%
165.0	0.026	0.003	475.467	0.00%	100.00%
170.0	0.026	0.003	475.47	0.00%	100.00%
175.0	0.026	0.002	475.472	0.00%	100.00%
180.0	0.024	0.001	475.473	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	137.81	28.98%	28.98%
0-40	222.44	46.78%	46.78%
0-60	383.03	80.56%	80.56%
0-90	475.33	99.97%	99.97%
0-120	475.42	99.99%	99.99%
0-180	475.47	100.00%	100.00%
60-90	92.30	19.41%	19.41%
90-120	0.09	0.02%	0.02%
90-130	0.10	0.02%	0.02%
90-150	0.13	0.03%	0.03%
90-180	0.14	0.03%	0.03%
0-59.63	380.38	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	17.09
10-20	48.57
20-30	72.15
30-40	84.63
40-50	85.43
50-60	75.15
60-70	55.69
70-80	29.92
80-90	6.68
90-100	0.07
100-110	0.01
110-120	0.01
120-130	0.01
130-140	0.02
140-150	0.01
150-160	0.01
160-170	0.01
170-180	0.00

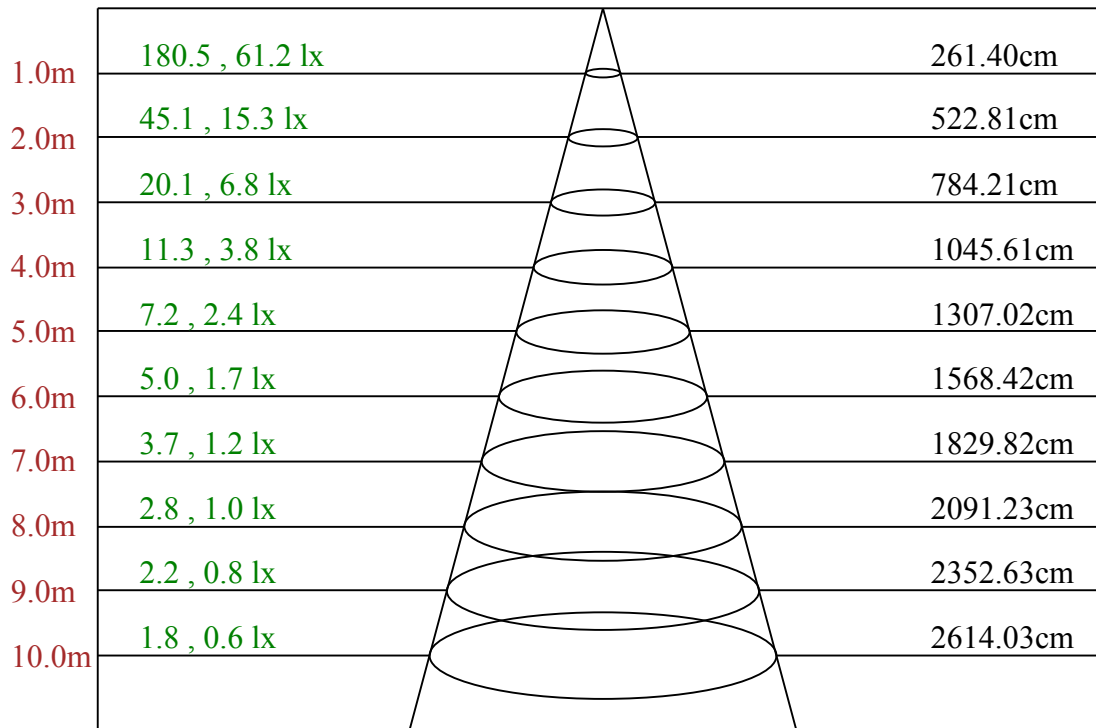


C0/C180: —

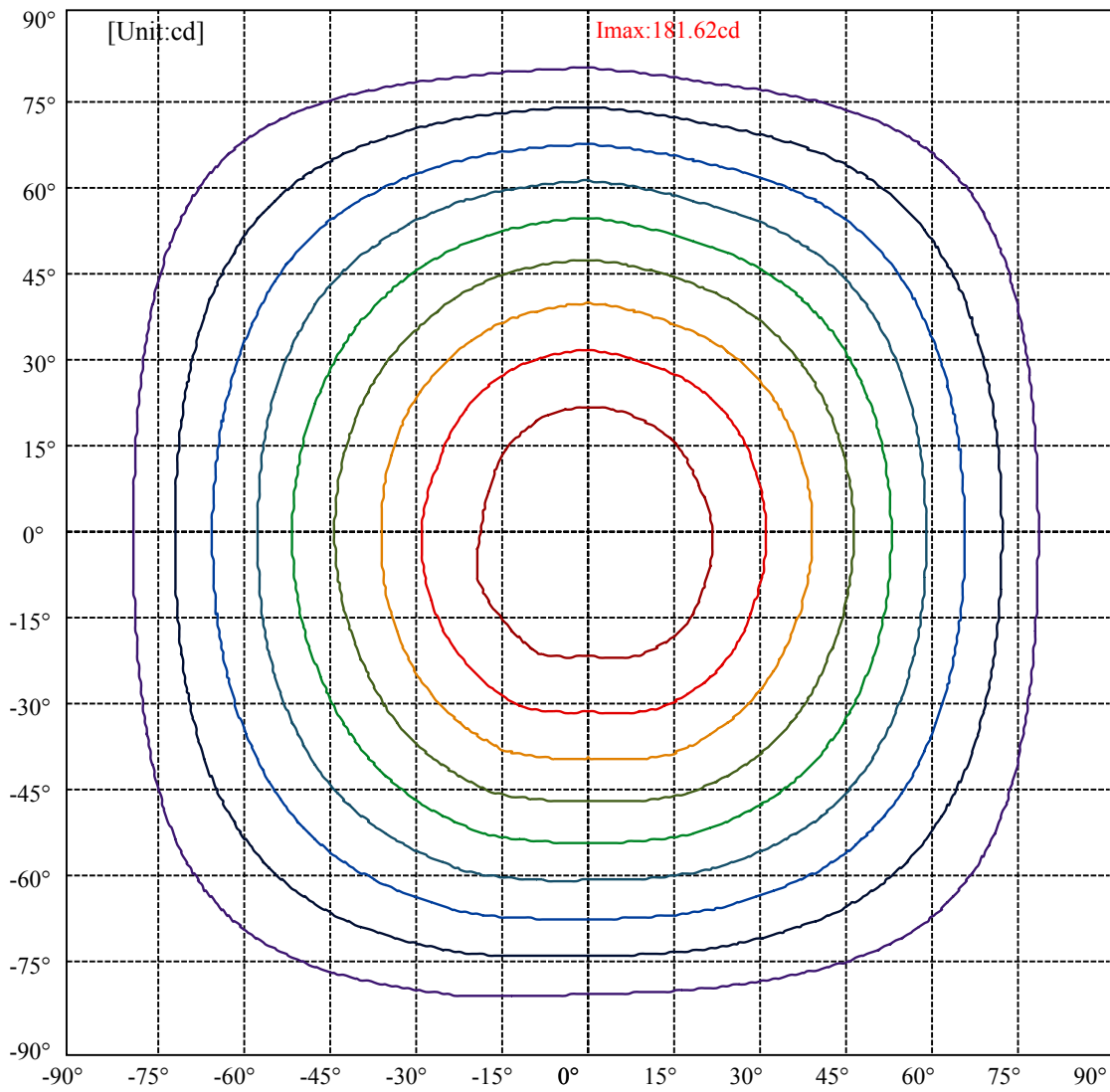
C90/C270: —










Field angle(10%Imax):C0/180Left:78.4 Right:77.6
 :C90/270Left:79.7 Right:79.9

Beam Angle(50%Imax):C0/180Left:51.1 Right:52.4
 :C90/270Left:53.5 Right:54.0



Max , Ave Beam angle of C45 plane 105.16



(10%I _{max}) 18.1624	
(20%I _{max}) 36.3248	
(30%I _{max}) 54.4872	
(40%I _{max}) 72.6496	
(50%I _{max}) 90.812	
(60%I _{max}) 108.974	
(70%I _{max}) 127.137	
(80%I _{max}) 145.299	
(90%I _{max}) 163.462	

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

Date:
Humidity(%): 59%

Operator: jarvis

Intensity data(cd)

C/ γ ($^{\circ}$)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	180.53	177.09	178.12	175.24	166.39	155.47	146.62	136.32	123.76
22.5	180.53	177.51	174.83	170.50	164.33	156.30	146.62	135.91	123.55
45.0	180.53	181.62	177.92	172.15	165.56	156.71	147.24	135.70	123.76
67.5	180.53	180.59	177.92	172.77	165.97	156.71	146.41	135.09	122.94
90.0	180.53	181.62	178.33	172.98	165.97	157.74	148.06	137.14	125.61
112.5	180.53	179.77	176.68	172.36	165.36	156.91	147.24	135.91	123.76
135.0	180.53	178.95	176.27	170.71	163.30	154.44	144.35	132.82	120.67
157.5	180.53	178.54	174.42	168.45	161.03	151.97	141.26	130.14	118.41
180.0	180.53	179.36	175.24	168.65	160.83	152.38	142.70	128.50	115.73
202.5	180.53	178.74	176.48	171.53	164.74	155.06	143.73	130.97	118.61
225.0	180.53	180.80	177.30	171.53	164.94	156.30	146.41	135.09	123.14
247.5	180.53	180.59	178.12	173.80	167.83	159.59	149.91	139.00	127.05
270.0	180.53	181.21	178.12	172.36	165.56	157.33	147.44	136.32	124.79
292.5	180.53	181.01	178.54	174.62	168.03	160.41	150.74	140.03	128.50
315.0	180.53	180.80	178.74	175.03	168.65	160.41	150.32	139.20	126.44
337.5	180.53	181.42	179.56	174.83	167.21	157.94	147.65	136.12	123.76
360.0	180.53	177.09	178.12	175.24	166.39	155.47	146.62	136.32	123.76
C/ γ ($^{\circ}$)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	110.99	98.02	81.75	67.34	54.16	40.16	25.12	11.33	2.27
22.5	110.17	96.58	82.99	68.37	53.75	38.71	25.12	11.74	2.27
45.0	110.58	97.20	83.19	69.19	54.57	39.95	25.12	12.36	2.47
67.5	110.58	97.20	83.40	68.98	55.19	40.57	26.36	12.97	3.71
90.0	113.67	101.11	88.34	73.93	59.51	44.89	31.51	17.92	6.18
112.5	111.61	99.05	85.66	71.66	57.45	43.45	29.45	16.06	5.56
135.0	107.49	95.14	81.96	68.57	54.78	40.98	27.39	15.44	4.74
157.5	105.84	92.67	79.90	66.72	52.92	38.92	26.98	14.42	4.53
180.0	106.46	94.11	77.02	64.66	53.95	39.54	25.95	14.21	4.12
202.5	105.64	93.49	80.31	67.54	54.57	41.19	28.01	15.44	5.56
225.0	110.79	97.61	84.43	71.25	57.66	44.07	30.89	17.92	6.59
247.5	114.49	101.73	88.55	74.96	61.16	46.95	33.15	19.77	7.83
270.0	112.23	100.08	86.90	72.69	59.31	45.10	30.89	17.30	6.80
292.5	115.73	102.34	88.55	73.93	60.13	45.30	30.68	16.27	5.35
315.0	114.29	100.49	86.69	72.69	58.07	42.83	28.42	14.62	4.12
337.5	110.79	98.02	84.02	70.01	55.19	40.36	25.95	12.77	3.09
360.0	110.99	98.02	81.75	67.34	54.16	40.16	25.12	11.33	2.27
C/ γ ($^{\circ}$)	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	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00
67.5	0.21	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	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.41	0.00	0.00	0.00	0.21	0.21	0.21	0.00	0.41
292.5	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
337.5	0.21	0.21	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	0.00	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	0.62	0.21	0.21	0.41	0.21	0.21	0.21	0.41	0.41
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	0.21	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

C/γ(°)	180.0
0.0	0.02
22.5	0.02
45.0	0.02
67.5	0.02
90.0	0.02
112.5	0.02
135.0	0.02
157.5	0.02
180.0	0.02
202.5	0.02
225.0	0.02
247.5	0.02
270.0	0.02
292.5	0.02
315.0	0.02
337.5	0.02
360.0	0.02