



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

Tel:0755-29351191 Fax:0755-29351120

Address:1 F,No.1 building,Meibaoh industrial park,Dalang street,Longhua district,Shenzhen,China

LumCAT: LRG4-30K

Luminaire:

Report No:

Voltage(V): 120.12

Test No:

Current(A): 0.0953

LampCAT:

Power (W): 11.2320

Lamp flux(lm): 1000.6

PF: 0.9816

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1000.56

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 89.08

Central intensity(cd): 1625.217

Maximum intensity(cd): 1625.217

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.8

[C90/270]Total=41.6

Field angle(10%Imax): [C0/180]Total=76.2

[C90/270]Total=76.0

Maximum s/h(1/2): C0_180=0.70 C90_270=0.66

Maximum s/h(1/4): C0_180=1.00 C90_270=0.69

Up flux rate of lamp(%): 0.21%

Down flux rate of lamp(%): 99.79%

Up flux rate of LUM(%): 0.21%

Down flux rate of LUM(%): 99.79%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.403%

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

Date:
Humidity(%): 58%

Operator: Zac

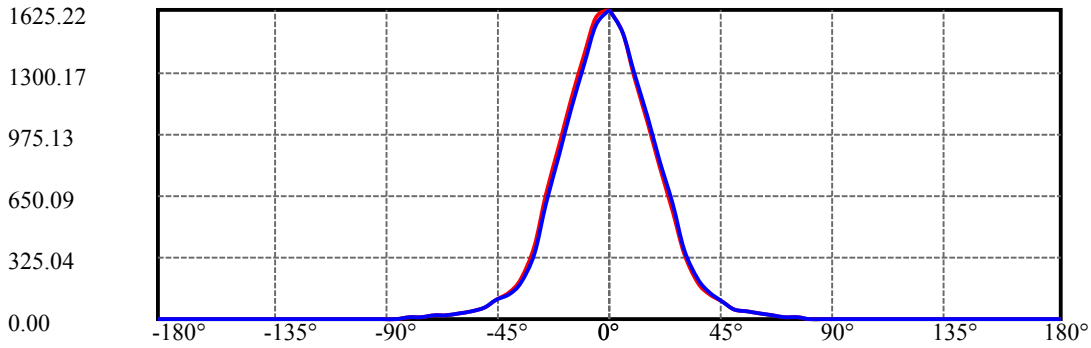
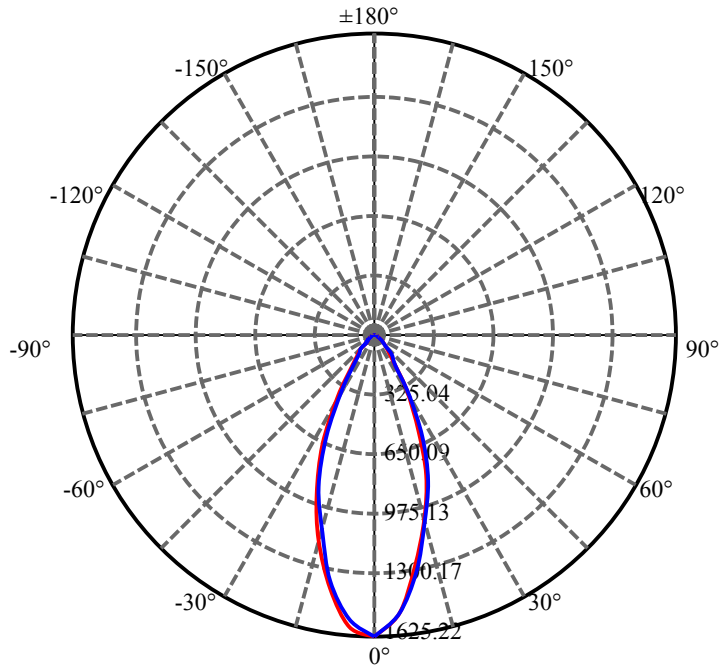
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1625.217	.000	.000	.000%	.000%
5.0	1526.548	37.678	37.678	3.766%	3.766%
10.0	1315.908	101.684	139.362	10.163%	13.928%
15.0	1077.754	141.990	281.353	14.191%	28.120%
20.0	848.306	158.734	440.087	15.865%	43.984%
25.0	602.550	152.168	592.255	15.208%	59.192%
30.0	362.454	122.122	714.377	12.205%	71.398%
35.0	205.347	83.613	797.990	8.357%	79.754%
40.0	136.242	56.992	854.981	5.696%	85.450%
45.0	95.427	42.895	897.877	4.287%	89.738%
50.0	55.474	30.492	928.369	3.047%	92.785%
55.0	38.442	20.421	948.789	2.041%	94.826%
60.0	29.825	15.780	964.569	1.577%	96.403%
65.0	21.943	12.585	977.154	1.258%	97.661%
70.0	15.509	9.483	986.637	.948%	98.609%
75.0	7.615	6.044	992.681	.604%	99.213%
80.0	4.658	3.284	995.965	.328%	99.541%
85.0	2.208	1.866	997.831	.186%	99.727%
90.0	.140	.643	998.474	.064%	99.792%
95.0	.152	.080	998.554	.008%	99.800%
100.0	.178	.090	998.643	.009%	99.809%
105.0	.165	.092	998.735	.009%	99.818%
110.0	.140	.080	998.814	.008%	99.826%
115.0	.165	.077	998.892	.008%	99.833%
120.0	.228	.096	998.987	.010%	99.843%
125.0	.241	.109	999.096	.011%	99.854%
130.0	.254	.108	999.203	.011%	99.865%
135.0	.330	.118	999.321	.012%	99.876%
140.0	.444	.143	999.465	.014%	99.891%
145.0	.495	.157	999.621	.016%	99.906%
150.0	.647	.168	999.789	.017%	99.923%
155.0	.837	.188	999.977	.019%	99.942%
160.0	.939	.186	1000.163	.019%	99.961%
165.0	1.028	.162	1000.325	.016%	99.977%
170.0	1.078	.125	1000.450	.012%	99.989%
175.0	1.142	.079	1000.530	.008%	99.997%
180.0	1.218	.028	1000.558	.003%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	714.38	71.40%	71.40%
0-40	854.98	85.45%	85.45%
0-60	964.57	96.40%	96.40%
0-90	998.47	99.79%	99.79%
0-120	998.99	99.84%	99.84%
0-180	1000.56	100.00%	100.00%
60-90	49.68	4.97%	4.97%
90-120	1.16	0.12%	0.12%
90-130	1.37	0.14%	0.14%
90-150	1.96	0.20%	0.20%
90-180	2.70	0.27%	0.27%
0-35.22	800.45	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	139.36
10-20	300.72
20-30	274.29
30-40	140.60
40-50	73.39
50-60	36.20
60-70	22.07
70-80	9.33
80-90	2.51
90-100	0.17
100-110	0.17
110-120	0.17
120-130	0.22
130-140	0.26
140-150	0.32
150-160	0.37
160-170	0.29
170-180	0.08



C0/C180: —

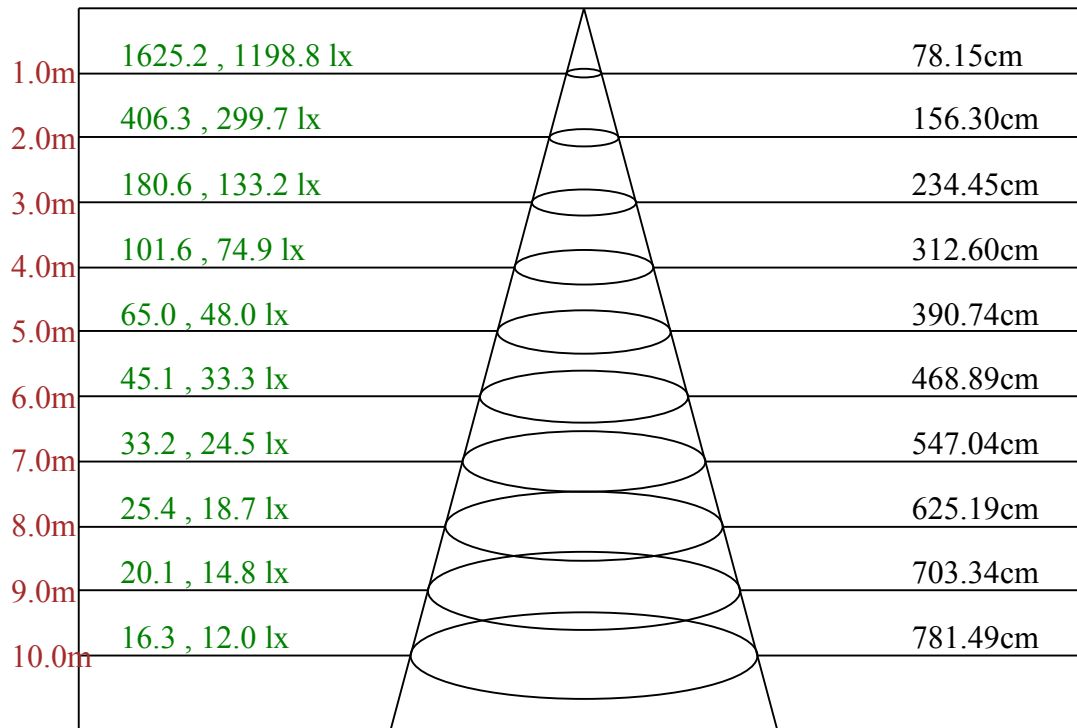
C90/C270: —

Field angle(10%Imax):C0/180Left:38.6 Right:37.5

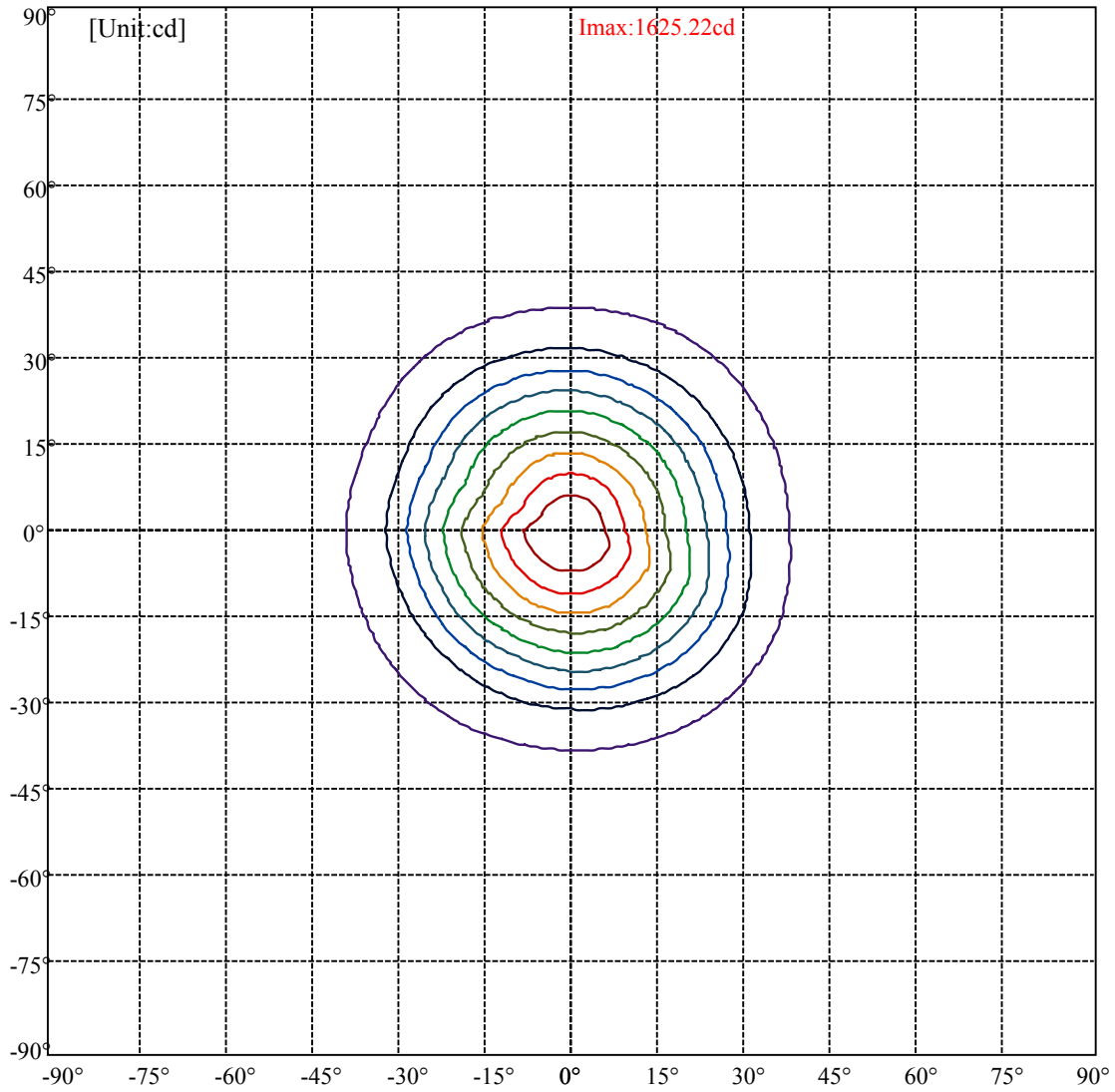
:C90/270Left:37.8 Right:38.2

Beam Angle(50%Imax):C0/180Left:22.0 Right:19.8

:C90/270Left:21.0 Right:20.6



Max , Ave Beam angle of C0plane42.67



(10%Imax) 162.522	—
(20%Imax) 325.043	—
(30%Imax) 487.565	—
(40%Imax) 650.087	—
(50%Imax) 812.609	—
(60%Imax) 975.13	—
(70%Imax) 1137.65	—
(80%Imax) 1300.17	—
(90%Imax) 1462.7	—

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	1625.22	1503.48	1269.55	1027.70	803.72	566.54	343.99	196.36	128.95
22.5	1625.22	1496.17	1260.41	1032.17	799.25	555.99	338.10	193.52	130.37
45.0	1625.22	1499.62	1278.48	1035.21	801.69	563.70	344.80	199.41	134.02
67.5	1625.22	1506.12	1283.56	1038.06	815.91	576.09	350.89	207.33	137.07
90.0	1625.22	1507.13	1289.65	1059.58	838.65	602.69	367.14	207.53	137.88
112.5	1625.22	1497.79	1283.76	1062.63	845.35	612.23	375.26	213.22	136.86
135.0	1625.22	1497.99	1273.00	1037.04	831.54	605.74	376.88	211.79	136.26
157.5	1625.22	1488.85	1265.69	1027.50	804.74	578.93	356.17	198.60	130.16
180.0	1625.22	1580.84	1392.40	1149.94	913.98	655.49	388.05	213.62	143.57
202.5	1625.22	1567.85	1367.22	1118.27	883.73	608.58	344.60	195.55	139.50
225.0	1625.22	1551.60	1347.73	1102.63	851.44	577.10	328.96	193.11	135.65
247.5	1625.22	1544.70	1350.16	1093.49	843.73	571.62	334.04	194.74	134.63
270.0	1625.22	1542.26	1344.07	1099.38	865.66	610.41	347.85	195.96	135.85
292.5	1625.22	1545.51	1346.71	1116.03	884.13	632.95	373.84	209.15	136.66
315.0	1625.22	1546.52	1352.80	1117.66	886.57	655.89	414.86	225.40	139.71
337.5	1625.22	1548.35	1349.35	1126.79	902.82	666.86	413.84	230.27	142.75
360.0	1625.22	1503.48	1269.55	1027.70	803.72	566.54	343.99	196.36	128.95
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	88.94	50.77	35.74	27.62	19.90	13.40	5.48	3.66	1.02
22.5	87.72	51.58	35.54	27.01	19.70	13.61	6.09	3.66	1.42
45.0	88.94	52.19	35.94	27.82	19.90	13.81	6.30	3.66	1.83
67.5	90.77	53.00	36.55	28.02	20.31	13.81	6.30	3.66	1.42
90.0	92.39	54.42	36.75	28.23	20.71	14.01	6.09	3.86	1.42
112.5	89.96	54.62	37.36	28.43	20.71	14.21	6.70	4.06	1.63
135.0	91.99	54.83	37.36	28.84	20.92	14.01	6.70	4.26	1.83
157.5	91.38	53.81	37.16	28.63	21.12	14.62	6.50	4.26	1.83
180.0	104.78	60.31	41.22	31.88	23.96	17.26	9.14	5.48	2.84
202.5	101.33	58.28	41.02	31.88	24.16	17.26	9.14	5.89	3.25
225.0	99.50	56.86	40.82	31.68	23.76	17.46	9.34	5.48	3.25
247.5	99.30	57.67	40.41	31.88	23.96	17.46	9.14	5.48	2.84
270.0	99.30	57.47	39.80	32.08	23.35	17.26	9.14	5.69	2.64
292.5	99.30	56.86	40.41	31.48	23.15	17.06	8.73	5.08	2.64
315.0	99.91	57.67	39.60	30.87	22.95	16.45	8.53	5.08	2.64
337.5	101.33	57.26	39.39	30.87	22.54	16.45	8.53	5.28	2.84
360.0	88.94	50.77	35.74	27.62	19.90	13.40	5.48	3.66	1.02
C/γ(°)	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	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.20	0.20
67.5	0.00	0.00	0.20	0.00	0.00	0.20	0.20	0.20	0.20
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.41
112.5	0.00	0.00	0.20	0.00	0.20	0.00	0.00	0.20	0.20
135.0	0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.20	0.00
157.5	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20
180.0	0.41	0.00	0.00	0.20	0.00	0.20	0.20	0.00	0.20
202.5	0.20	0.41	0.41	0.20	0.20	0.20	0.41	0.41	0.20
225.0	0.41	0.20	0.41	0.41	0.20	0.41	0.20	0.41	0.41
247.5	0.20	0.41	0.00	0.20	0.41	0.20	0.41	0.20	0.41
270.0	0.41	0.20	0.20	0.61	0.41	0.41	0.41	0.61	0.41
292.5	0.20	0.41	0.41	0.20	0.20	0.20	0.20	0.41	0.61
315.0	0.20	0.41	0.41	0.41	0.20	0.20	0.41	0.41	0.00
337.5	0.20	0.41	0.41	0.20	0.20	0.41	0.41	0.61	0.61
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	0.41	0.41	0.41	0.41	0.41
22.5	0.00	0.41	0.41	0.61	0.81	0.81	1.02	0.81	1.02
45.0	0.41	0.20	0.41	0.61	0.61	1.02	1.02	1.22	1.22
67.5	0.20	0.41	0.61	0.61	0.81	1.02	1.02	0.81	1.42
90.0	0.20	0.41	0.41	0.81	0.81	1.02	1.02	1.22	1.42
112.5	0.20	0.61	0.20	0.61	0.81	0.81	1.02	1.22	1.22
135.0	0.41	0.41	0.41	0.61	0.81	1.02	1.22	1.22	1.22
157.5	0.41	0.20	0.41	0.81	1.02	1.02	0.81	1.22	1.22
180.0	0.20	0.41	0.41	0.61	0.61	0.81	1.02	1.02	1.02
202.5	0.61	0.61	0.61	0.41	0.81	1.02	1.22	1.02	1.02
225.0	0.61	0.61	0.81	0.81	1.02	1.02	1.22	1.22	1.22
247.5	0.41	0.61	0.81	0.81	1.02	0.81	1.42	1.02	1.22
270.0	0.61	0.61	0.61	0.81	1.02	1.02	1.02	1.22	1.22
292.5	0.41	0.61	0.61	0.81	0.81	1.02	1.02	1.22	1.02
315.0	0.20	0.41	0.61	0.81	1.02	1.02	1.02	1.22	1.02
337.5	0.41	0.61	0.61	0.61	1.02	1.22	1.02	1.22	1.42
360.0	0.00	0.00	0.00	0.00	0.41	0.41	0.41	0.41	0.41
C/γ(°)	180.0								
0.0	1.22								
22.5	1.22								
45.0	1.22								
67.5	1.22								
90.0	1.22								
112.5	1.22								
135.0	1.22								
157.5	1.22								
180.0	1.22								
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247.5	1.22								
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360.0	1.22								