Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:
LumCAT: LRG4-HO-3018K
Luminaire:
Report No:
Ballast type:

Test No:	Voltage(V): 120.12
LampCAT:	Current(A): 0.1260
Lamp flux(lm): -1.0	Power (W): 14.70
Number of Lamps: 0	PF: 0.9749
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1244.87, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 84.66
Central intensity(cd): 1903.348, Maximum intensity(cd): 2047.147
Angle of maximum intensity: C=90.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=40.4
[C90/270]Total=38.3
Field angle(10%Imax): [C0/180]Total=78.0
[C90/270]Total=79.1
Maximum s/h(1/2): C0_180=0.64 C90_270=0.61
Maximum s/h(1/4): C0_180=0.75 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.09%
Down flux rate of LUM(%): 99.91%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.385%

LRG4-HO-3018K

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1945.324	0.000	0	0.00%	0.00%
5.0	1809.434	44.887	44.887	0.00%	3.61%
10.0	1520.433	119.120	164.007	0.00%	13.17%
15.0	1230.884	163.206	327.213	0.00%	26.28%
20.0	971.703	181.524	508.737	0.00%	40.87%
25.0	728.067	178.275	687.012	0.00%	55.19%
30.0	461.628	150.557	837.569	0.00%	67.28%
35.0	261.817	106.532	944.101	0.00%	75.84%
40.0	184.782	74.511	1018.612	0.00%	81.82%
45.0	139.382	60.022	1078.634	0.00%	86.65%
50.0	93.367	47.030	1125.664	0.00%	90.42%
55.0	66.250	34.706	1160.37	0.00%	93.21%
60.0	50.775	27.050	1187.42	0.00%	95.39%
65.0	36.703	21.266	1208.686	0.00%	97.09%
70.0	25.473	15.743	1224.43	0.00%	98.36%
75.0	13.627	10.220	1234.65	0.00%	99.18%
80.0	7.087	5.542	1240.192	0.00%	99.62%
85.0	2.910	2.716	1242.908	0.00%	99.84%
90.0	0.103	0.825	1243.733	0.00%	99.91%
95.0	0.000	0.028	1243.762	0.00%	99.91%
100.0	0.034	0.009	1243.771	0.00%	99.91%
105.0	0.034	0.018	1243.789	0.00%	99.91%
110.0	0.034	0.018	1243.807	0.00%	99.91%
115.0	0.034	0.017	1243.824	0.00%	99.92%
120.0	0.034	0.017	1243.841	0.00%	99.92%
125.0	0.103	0.032	1243.873	0.00%	99.92%
130.0	0.069	0.037	1243.91	0.00%	99.92%
135.0	0.103	0.035	1243.945	0.00%	99.93%
140.0	0.137	0.044	1243.989	0.00%	99.93%
145.0	0.240	0.063	1244.052	0.00%	99.93%
150.0	0.480	0.106	1244.158	0.00%	99.94%
155.0	0.719	0.152	1244.309	0.00%	99.96%
160.0	0.856	0.165	1244.475	0.00%	99.97%
165.0	1.096	0.161	1244.636	0.00%	99.98%
170.0	1.027	0.126	1244.762	0.00%	99.99%
175.0	1.164	0.078	1244.84	0.00%	100.00%
180.0	1.301	0.029	1244.869	0.00%	100.00%

Equipment: GMS-3000 Date: Operator: Tester
Temperature(°C): 25 Humidity(%): 59%

Zonal flux distribution table

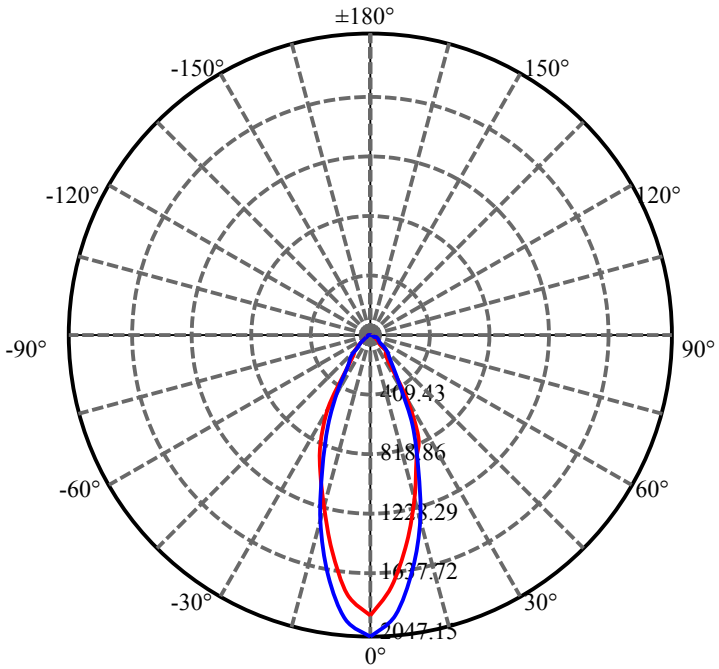
ZONAL LUMEN SUMMARY

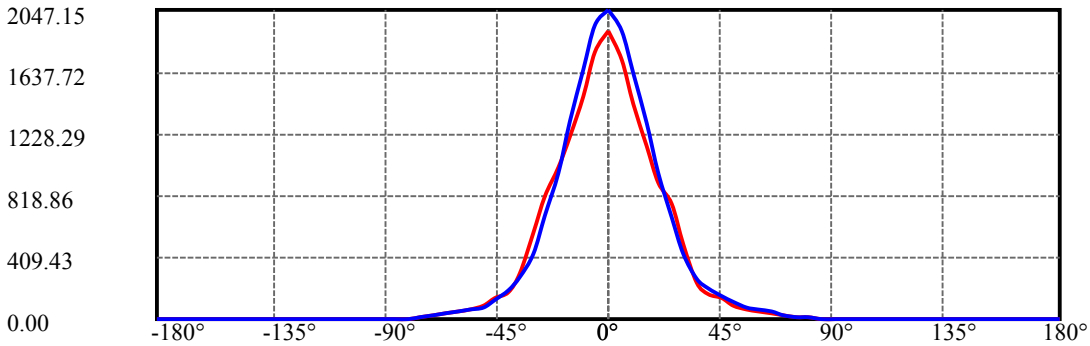
Zone	Lumens	%Lamp	%Fixt
0-30	837.57	N.A.	67.28%
0-40	1018.61	N.A.	81.82%
0-60	1187.42	N.A.	95.39%
0-90	1243.73	N.A.	99.91%
0-120	1243.84	N.A.	99.92%
0-180	1244.87	N.A.	100.00%
60-90	56.31	N.A.	4.52%
90-120	0.11	N.A.	0.01%
90-130	0.18	N.A.	0.01%
90-150	0.42	N.A.	0.03%
90-180	1.11	N.A.	0.09%
0-38.48	995.90	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	164.01
10-20	344.73
20-30	328.83
30-40	181.04
40-50	107.05
50-60	61.76
60-70	37.01
70-80	15.76
80-90	3.54
90-100	0.04
100-110	0.04
110-120	0.03
120-130	0.07
130-140	0.08
140-150	0.17
150-160	0.32
160-170	0.29
170-180	0.08

Light Distribution Curve [Unit:cd]





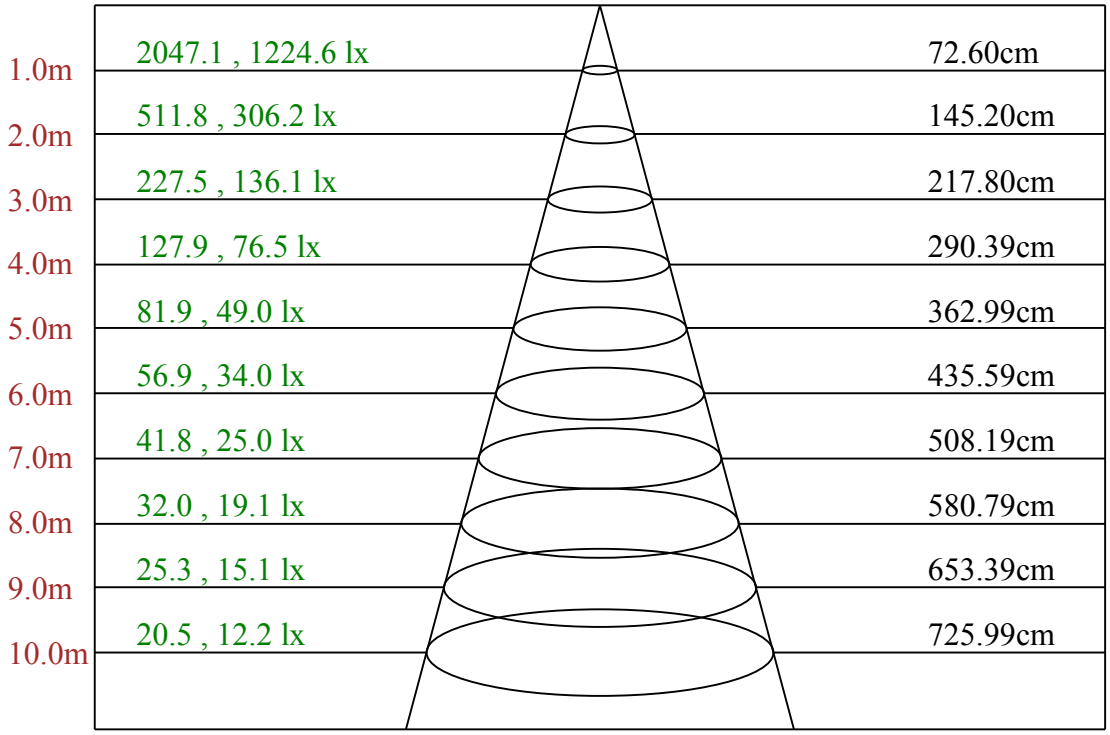
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:39.7 Right:38.3
:C90/270Left:39.4 Right:39.7

Beam Angle(50%Imax):C0/180Left:21.3 Right:19.1
:C90/270Left:19.2 Right:19.1

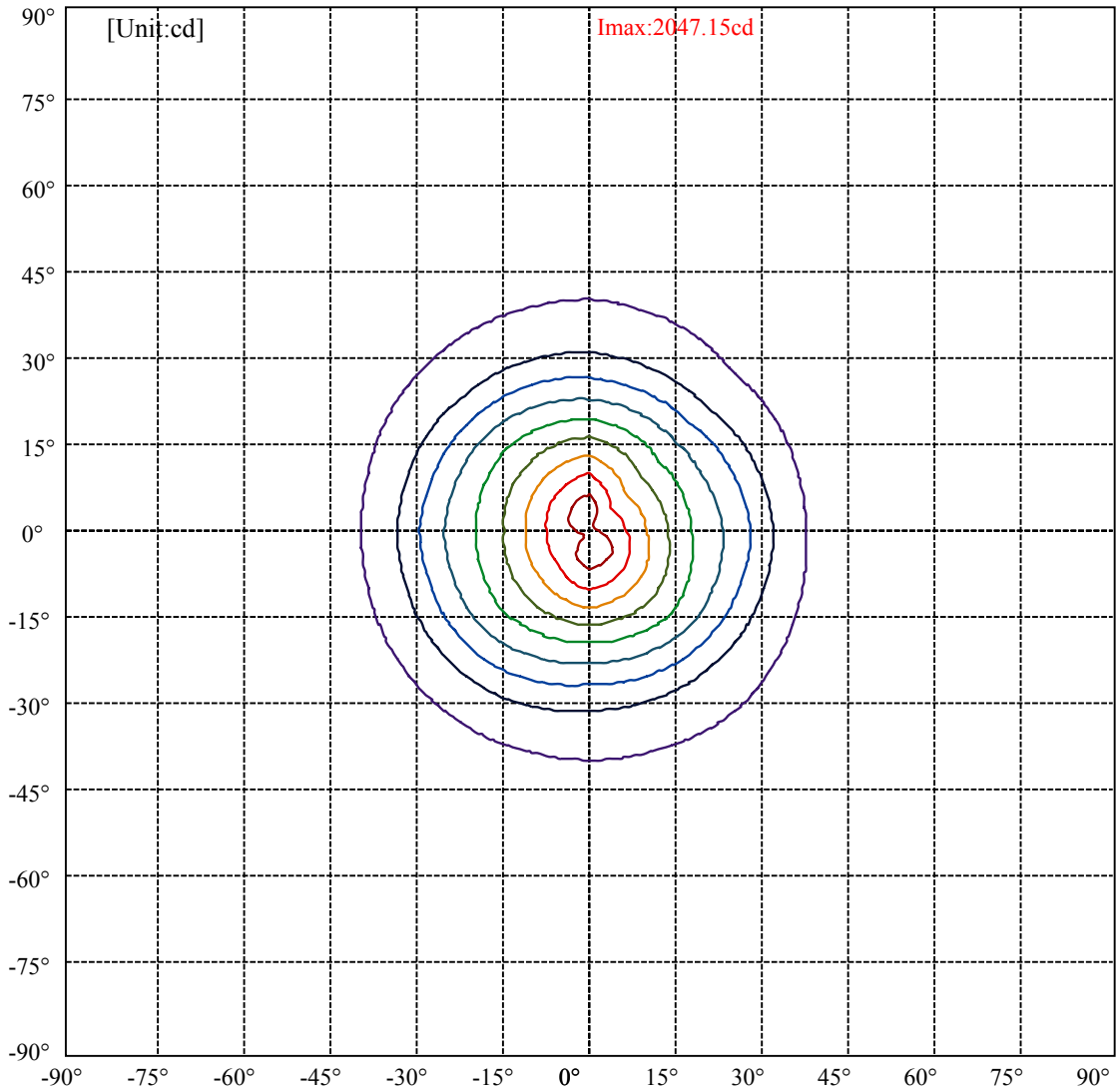
Lux distance Curve



Max , Ave

Beam angle of C90 plane 39.90

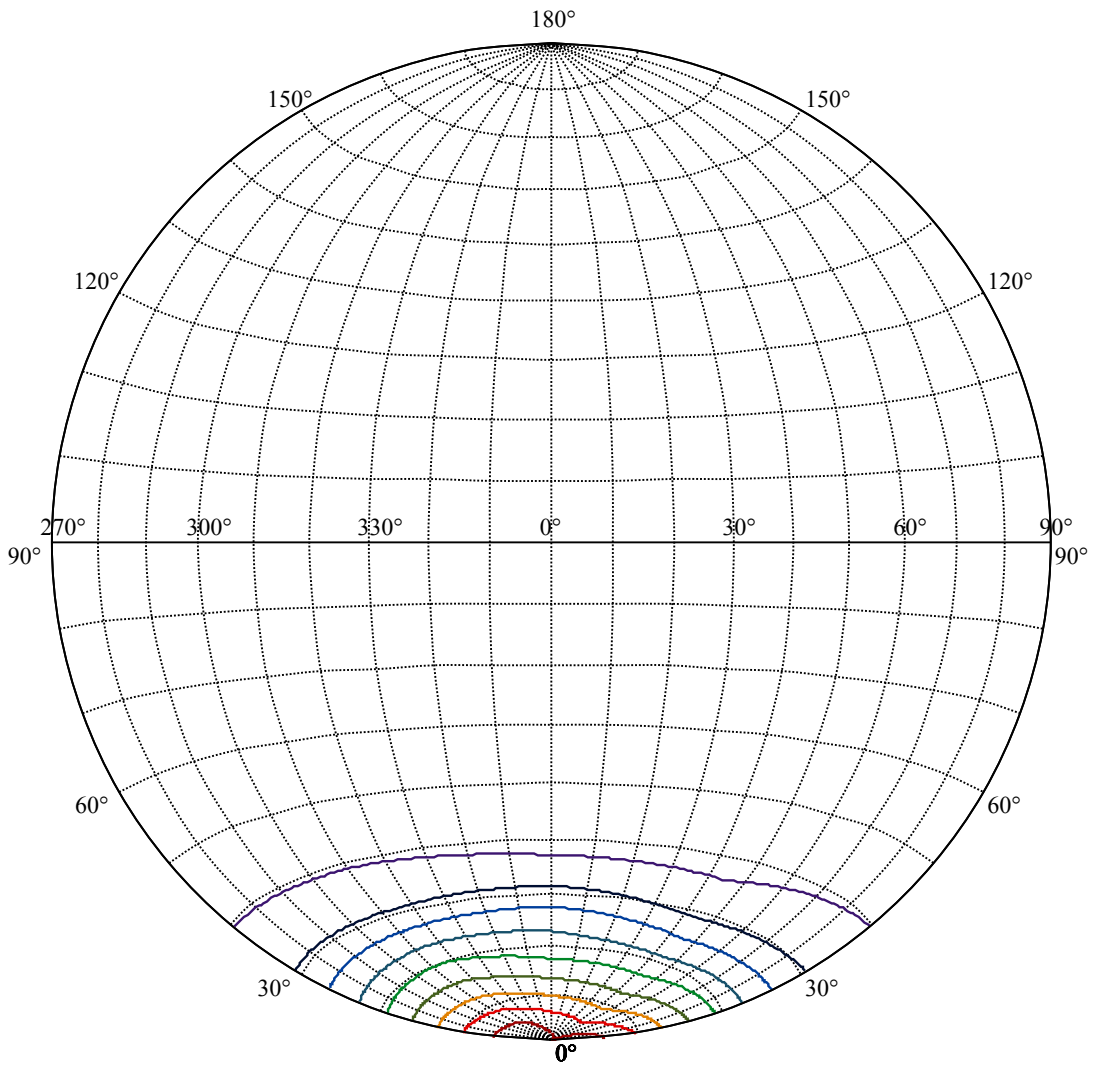
ISO-Intensity(V-H)



(10%Imax) 204.715
(20%Imax) 409.429
(30%Imax) 614.144
(40%Imax) 818.859
(50%Imax) 1023.57
(60%Imax) 1228.29
(70%Imax) 1433
(80%Imax) 1637.72
(90%Imax) 1842.43

Equipment: GMS-3000 Date: Operator: Tester
Temperature(°C): 25 Humidity(%): 59%

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:2047.15

(10%Imax) 204.715
(20%Imax) 409.429
(30%Imax) 614.144
(40%Imax) 818.859
(50%Imax) 1023.57
(60%Imax) 1228.29
(70%Imax) 1433
(80%Imax) 1637.72
(90%Imax) 1842.43

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	1903.35	1718.46	1424.02	1140.80	907.44	760.90	492.20	238.30	164.62
45.0	1840.08	1651.36	1368.69	1113.41	872.65	611.62	351.42	214.19	168.45
90.0	2047.15	1909.92	1621.23	1294.46	967.70	671.88	428.93	268.42	200.50
135.0	1990.72	1831.04	1537.42	1253.38	1012.34	752.14	451.12	259.39	191.73
180.0	1903.35	1772.97	1479.90	1208.18	998.92	816.50	572.18	300.20	184.34
225.0	1840.08	1776.26	1525.09	1258.03	1026.31	795.41	517.95	281.30	182.69
270.0	2047.15	1941.97	1648.62	1306.24	967.70	682.84	437.42	275.00	195.02
315.0	1990.72	1873.49	1558.51	1272.55	1020.56	733.24	441.81	257.74	190.91
360.0	1903.35	1718.46	1424.02	1140.80	907.44	760.90	492.20	238.30	164.62

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	138.60	92.31	64.92	50.67	36.16	24.65	13.97	7.12	2.74
45.0	134.21	88.74	63.27	49.85	36.70	26.57	13.97	7.12	3.01
90.0	157.49	117.23	79.71	59.99	45.19	31.77	18.08	9.04	4.38
135.0	150.37	104.36	73.41	54.51	40.54	27.66	15.07	8.49	4.11
180.0	140.51	90.11	64.92	49.58	35.06	23.56	11.78	6.03	2.19
225.0	132.30	82.17	58.07	44.10	30.68	21.36	10.96	5.48	2.19
270.0	129.83	81.62	61.08	47.39	33.69	24.10	11.78	6.30	1.92
315.0	131.75	90.39	64.64	50.12	35.61	24.10	13.42	7.12	2.74
360.0	138.60	92.31	64.92	50.67	36.16	24.65	13.97	7.12	2.74

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
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.27	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
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.55	0.55
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.27	0.27	0.82	0.55	0.82	1.10	0.82	1.10
45.0	0.00	0.00	0.27	0.82	0.82	0.82	0.82	1.10	1.10
90.0	0.00	0.00	0.27	0.27	0.55	1.10	1.37	1.10	1.37
135.0	0.00	0.00	0.00	0.27	0.55	0.55	0.82	0.82	0.82
180.0	0.00	0.00	0.00	0.00	0.82	0.55	1.10	0.82	0.82
225.0	0.00	0.00	0.00	0.00	0.27	0.55	0.82	0.82	0.82
270.0	0.55	0.55	0.82	1.10	1.10	1.37	1.64	1.64	1.92
315.0	0.27	0.27	0.27	0.55	1.10	1.10	1.10	1.10	1.37
360.0	0.00	0.27	0.27	0.82	0.55	0.82	1.10	0.82	1.10

C/γ(°)	180.0
0.0	1.37
45.0	1.10
90.0	1.64
135.0	1.10
180.0	1.37
225.0	1.10
270.0	1.64
315.0	1.10
360.0	1.37