Shenzhen Belling Efficiency Testing Lab Co.,Ltd
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Client:
LumCAT: LD4R-32K
Luminaire:
Report No:
Ballast type:

Test No:	Voltage(V): 120.01
LampCAT:	Current(A): 0.1260
Lamp flux(lm): 921.7	Power (W): 14.96
Number of Lamps: 1	PF: 0.9902
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 921.67, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 61.60
Central intensity(cd): 2912.768, Maximum intensity(cd): 2916.789
Angle of maximum intensity: C=90.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=32.7
[C90/270]Total=33.1
Field angle(10%Imax): [C0/180]Total=49.9
[C90/270]Total=51.0
IES Classification : TypeI
Longitudinal Classification : VeryShort
Cut Off Classification : FullCutoff
Max Cd(At 90°Vert) : 0
Max Cd(80 to 90°Vert) : 1.103
Street Side UpWard Lumens: 0.02%of Lamp 0.02%of Luminaire
Street Side DownWard Lumens: 54.82%of Lamp 54.82%of Luminaire
House Side UpWard Lumens: 0.02%of Lamp 0.02%of Luminaire
House Side DownWard Lumens: 45.14%of Lamp 45.14%of Luminaire
SLI: --- (C Flash Area: 0.000)
Throw: 94.6 (long), Spread: 9.2 (narrow), Control: --- (limited)

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2912.768	0.000	0	0.00%	0.00%
5.0	2740.219	67.580	67.58	7.33%	7.33%
10.0	2341.678	181.795	249.375	19.72%	27.06%
15.0	1680.335	238.583	487.958	25.89%	52.94%
20.0	870.133	210.194	698.153	22.81%	75.75%
25.0	290.474	121.726	819.879	13.21%	88.96%
30.0	81.803	47.112	866.991	5.11%	94.07%
35.0	35.015	17.202	884.193	1.87%	95.93%
40.0	21.460	9.422	893.615	1.02%	96.96%
45.0	15.514	6.846	900.461	0.74%	97.70%
50.0	11.429	5.444	905.906	0.59%	98.29%
55.0	8.929	4.426	910.332	0.48%	98.77%
60.0	6.763	3.627	913.959	0.39%	99.16%
65.0	4.962	2.850	916.809	0.31%	99.47%
70.0	3.386	2.114	918.923	0.23%	99.70%
75.0	1.969	1.400	920.323	0.15%	99.85%
80.0	0.857	0.756	921.079	0.08%	99.94%
85.0	0.030	0.241	921.32	0.03%	99.96%
90.0	0.000	0.008	921.328	0.00%	99.96%
95.0	0.000	0.000	921.328	0.00%	99.96%
100.0	0.000	0.000	921.328	0.00%	99.96%
105.0	0.000	0.000	921.328	0.00%	99.96%
110.0	0.000	0.000	921.328	0.00%	99.96%
115.0	0.000	0.000	921.328	0.00%	99.96%
120.0	0.000	0.000	921.328	0.00%	99.96%
125.0	0.000	0.000	921.328	0.00%	99.96%
130.0	0.000	0.000	921.328	0.00%	99.96%
135.0	0.000	0.000	921.328	0.00%	99.96%
140.0	0.000	0.000	921.328	0.00%	99.96%
145.0	0.020	0.003	921.331	0.00%	99.96%
150.0	0.049	0.010	921.341	0.00%	99.96%
155.0	0.207	0.032	921.374	0.00%	99.97%
160.0	0.424	0.066	921.44	0.01%	99.98%
165.0	0.551	0.080	921.52	0.01%	99.98%
170.0	0.699	0.074	921.594	0.01%	99.99%
175.0	0.827	0.055	921.649	0.01%	100.00%
180.0	0.778	0.019	921.668	0.00%	100.00%

Zonal flux distribution table

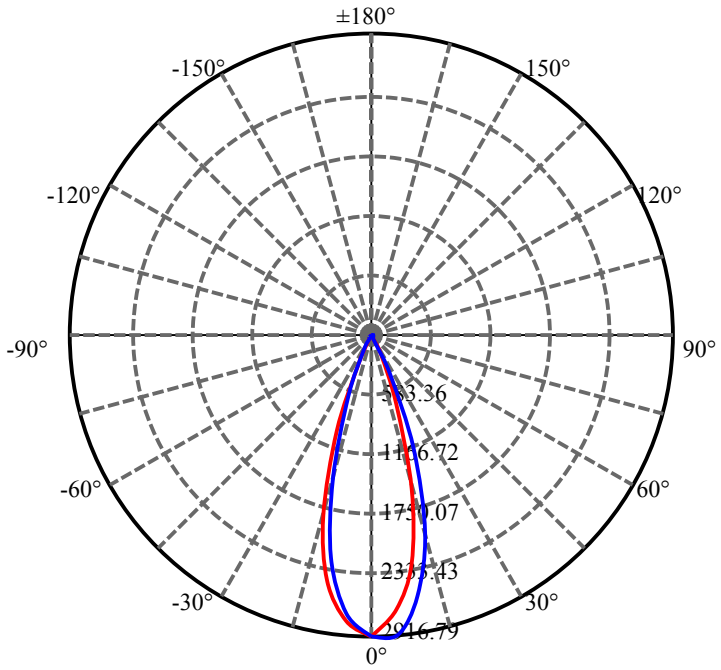
ZONAL LUMEN SUMMARY

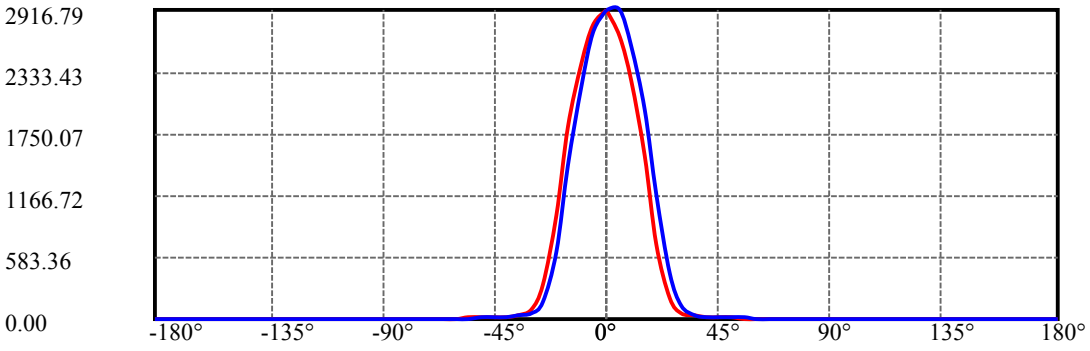
Zone	Lumens	%Lamp	%Fixt
0-30	866.99	94.07%	94.07%
0-40	893.62	96.96%	96.96%
0-60	913.96	99.16%	99.16%
0-90	921.33	99.96%	99.96%
0-120	921.33	99.96%	99.96%
0-180	921.67	100.00%	100.00%
60-90	7.37	0.80%	0.80%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.01	0.00%	0.00%
90-180	0.32	0.03%	0.03%
0-21.61	737.33	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	249.38
10-20	448.78
20-30	168.84
30-40	26.62
40-50	12.29
50-60	8.05
60-70	4.96
70-80	2.16
80-90	0.25
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.01
150-160	0.10
160-170	0.15
170-180	0.05

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:25.8 Right:24.1

:C90/270Left:23.7 Right:27.3

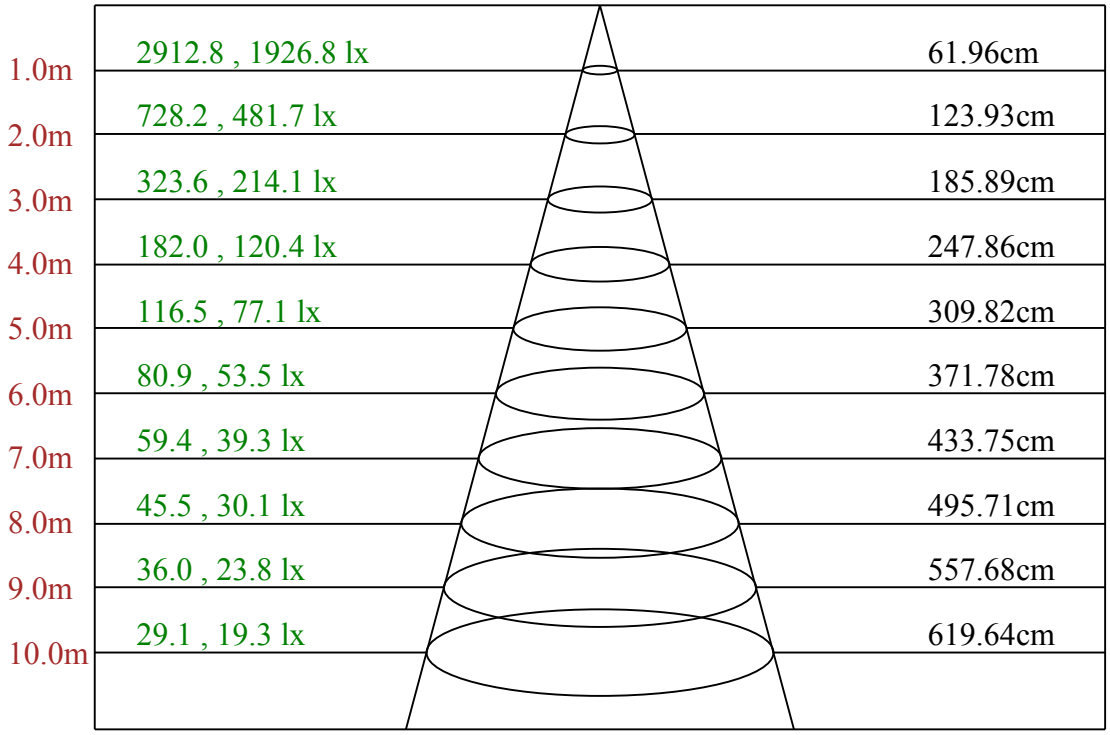
Beam Angle(50%Imax):C0/180Left:17.2 Right:15.5

:C90/270Left:14.9 Right:18.2

Equipment: GMS-3000 Date: Operator: Jarvis

Temperature(°C): 25 Humidity(%): 58%

Lux distance Curve



Max , Ave

Beam angle of C90 plane 34.43

Equipment: GMS-3000 Date: Operator: Jarvis
Temperature(°C): 25 Humidity(%): 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	2912.77	2669.83	2254.18	1531.24	704.35	199.24	53.39	30.87	19.06
22.5	2912.77	2693.14	2266.78	1572.03	747.82	225.70	57.02	31.03	19.85
45.0	2912.77	2714.71	2318.91	1655.82	847.99	266.65	69.77	32.92	20.32
67.5	2912.77	2748.58	2359.23	1750.80	958.72	327.92	87.89	36.38	21.26
90.0	2912.77	2916.79	2573.28	1983.11	1169.30	429.35	124.58	43.79	25.36
112.5	2912.77	2885.76	2581.31	2057.77	1231.51	495.50	162.39	48.98	27.41
135.0	2912.77	2864.50	2567.45	2031.00	1214.66	515.03	169.95	50.56	28.35
157.5	2912.77	2823.55	2499.72	1919.80	1126.14	423.21	122.38	41.42	25.20
180.0	2912.77	2771.73	2413.41	1816.79	982.03	326.98	91.51	35.28	22.05
202.5	2912.77	2720.70	2315.60	1662.60	851.46	281.93	66.94	30.71	20.48
225.0	2912.77	2679.75	2257.48	1573.45	771.29	226.80	57.49	30.24	19.69
247.5	2912.77	2637.69	2214.96	1495.64	695.37	198.14	50.87	28.51	18.74
270.0	2912.77	2705.89	2194.80	1443.51	629.70	167.58	47.57	28.67	19.22
292.5	2912.77	2675.18	2202.52	1446.50	632.06	168.37	47.25	28.82	18.59
315.0	2912.77	2666.99	2208.19	1454.06	665.61	192.94	49.14	31.34	18.74
337.5	2912.77	2668.72	2239.06	1491.23	694.11	202.23	50.72	30.71	19.06
360.0	2912.77	2669.83	2254.18	1531.24	704.35	199.24	53.39	30.87	19.06

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	14.49	10.55	8.35	6.30	4.57	2.99	1.73	0.63	0.00
22.5	15.12	10.71	8.51	6.46	4.57	3.31	1.73	0.79	0.00
45.0	15.59	11.03	8.82	6.46	4.73	3.31	2.21	0.95	0.00
67.5	15.75	11.34	9.14	6.77	5.04	3.47	2.21	1.10	0.16
90.0	17.17	12.76	9.77	7.40	5.51	3.62	2.21	0.95	0.16
112.5	17.48	13.23	9.92	7.40	5.36	3.78	2.05	1.10	0.00
135.0	17.48	13.23	9.77	7.40	5.36	3.47	2.21	0.95	0.00
157.5	16.85	12.44	9.61	7.40	5.36	3.47	2.21	0.95	0.00
180.0	16.22	11.97	9.29	7.09	5.20	3.47	1.89	0.63	0.00
202.5	15.59	11.18	8.98	6.77	5.04	3.47	1.73	0.79	0.00
225.0	14.81	11.03	8.66	6.62	4.73	3.15	1.89	0.79	0.00
247.5	14.18	10.55	8.51	6.30	4.57	3.15	1.58	0.63	0.00
270.0	14.49	11.03	8.82	6.77	5.20	3.62	2.05	1.10	0.16
292.5	14.18	10.87	8.51	6.46	4.88	3.47	2.05	0.79	0.00
315.0	14.33	10.40	8.19	6.30	4.73	3.31	2.05	0.79	0.00
337.5	14.49	10.55	8.03	6.30	4.57	3.15	1.73	0.79	0.00
360.0	14.49	10.55	8.35	6.30	4.57	2.99	1.73	0.63	0.00

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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	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

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	0.16	0.32	0.63	0.47	0.63	0.95
22.5	0.00	0.00	0.00	0.00	0.16	0.47	0.63	0.63	0.95
45.0	0.00	0.00	0.00	0.00	0.16	0.47	0.47	0.79	0.79
67.5	0.00	0.00	0.00	0.00	0.00	0.47	0.63	0.79	0.79
90.0	0.00	0.00	0.00	0.00	0.16	0.32	0.47	0.79	0.79
112.5	0.00	0.00	0.00	0.00	0.16	0.16	0.63	0.79	0.79
135.0	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.63	0.79
157.5	0.00	0.00	0.00	0.00	0.16	0.47	0.32	0.47	0.79
180.0	0.00	0.00	0.00	0.00	0.16	0.16	0.32	0.63	0.79
202.5	0.00	0.00	0.00	0.00	0.16	0.32	0.47	0.47	0.63
225.0	0.00	0.00	0.00	0.00	0.16	0.32	0.63	0.63	0.79
247.5	0.00	0.00	0.00	0.00	0.00	0.32	0.47	0.47	0.79
270.0	0.00	0.00	0.16	0.47	0.63	0.95	0.95	1.10	1.26
292.5	0.00	0.00	0.00	0.16	0.47	0.47	0.79	0.79	0.79
315.0	0.00	0.00	0.16	0.00	0.47	0.47	0.63	0.79	0.79
337.5	0.00	0.00	0.00	0.00	0.16	0.47	0.63	0.79	0.79
360.0	0.00	0.00	0.00	0.16	0.32	0.63	0.47	0.63	0.95

C/γ(°)	180.0
0.0	0.78
22.5	0.78
45.0	0.78
67.5	0.78
90.0	0.78
112.5	0.78
135.0	0.78
157.5	0.78
180.0	0.78
202.5	0.78
225.0	0.78
247.5	0.78
270.0	0.78
292.5	0.78
315.0	0.78
337.5	0.78
360.0	0.78