



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:

LumCAT: LD4S-50K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.1460

Lamp flux(lm): -1.0

Power (W): 17.31

Number of Lamps: 1

PF: 0.9876

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1709.65, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 98.77

Central intensity(cd): 5047.182, Maximum intensity(cd): 5243.230

Angle of maximum intensity: C=247.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=34.0

[C90/270]Total=34.2

Field angle(10%Imax): [C0/180]Total=49.9

[C90/270]Total=49.5

Maximum s/h(1/2): C0_180=0.62 C90_270=0.56

Maximum s/h(1/4): C0_180=0.56 C90_270=0.50

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.15%

Down flux rate of LUM(%): 99.85%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.415%

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

Date:
Humidity(%): 59%

Operator: jarvis

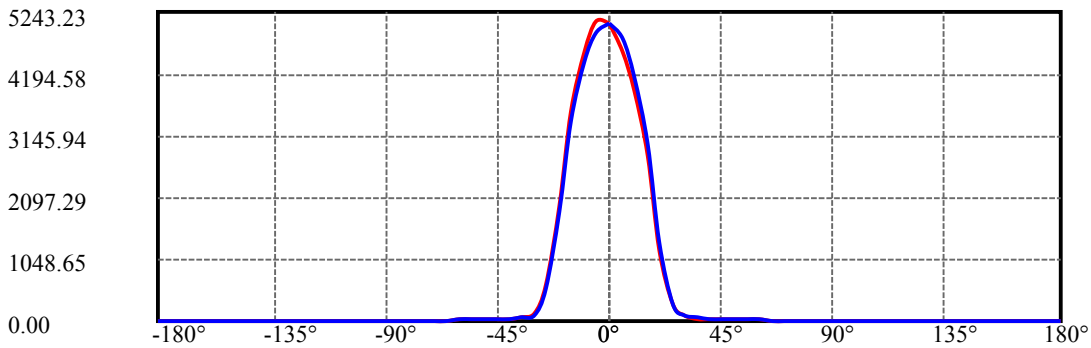
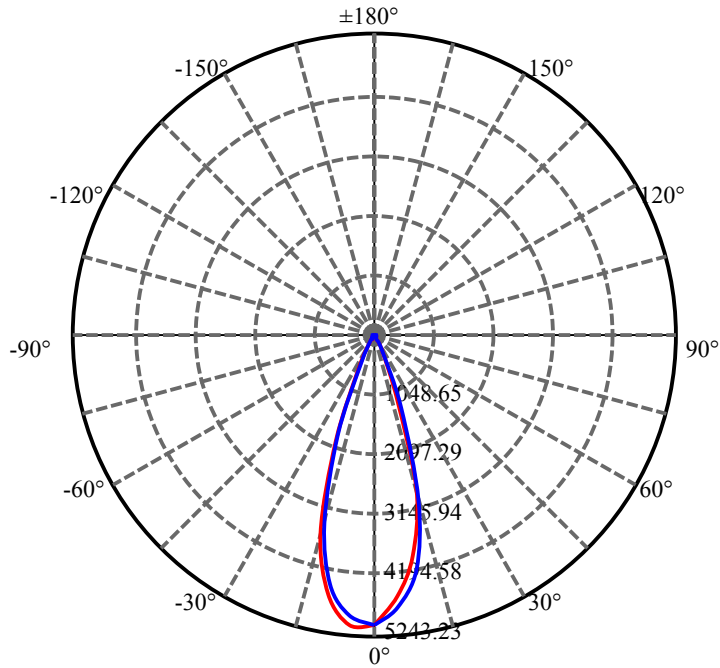
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5047.182	0.000	0	0.00%	0.00%
5.0	4825.522	118.025	118.025	0.00%	6.90%
10.0	4233.578	324.073	442.098	0.00%	25.86%
15.0	3159.877	438.575	880.673	0.00%	51.51%
20.0	1650.188	396.417	1277.09	0.00%	74.70%
25.0	531.551	228.824	1505.914	0.00%	88.08%
30.0	133.703	84.189	1590.102	0.00%	93.01%
35.0	63.668	29.064	1619.167	0.00%	94.71%
40.0	41.943	17.620	1636.787	0.00%	95.74%
45.0	32.448	13.774	1650.561	0.00%	96.54%
50.0	26.829	11.978	1662.539	0.00%	97.24%
55.0	22.302	10.683	1673.221	0.00%	97.87%
60.0	18.095	9.338	1682.559	0.00%	98.42%
65.0	14.144	7.837	1690.396	0.00%	98.87%
70.0	10.624	6.271	1696.668	0.00%	99.24%
75.0	7.496	4.736	1701.404	0.00%	99.52%
80.0	4.551	3.223	1704.627	0.00%	99.71%
85.0	1.987	1.777	1706.404	0.00%	99.81%
90.0	0.209	0.601	1707.005	0.00%	99.85%
95.0	0.012	0.060	1707.066	0.00%	99.85%
100.0	0.025	0.010	1707.076	0.00%	99.85%
105.0	0.074	0.026	1707.102	0.00%	99.85%
110.0	0.037	0.029	1707.131	0.00%	99.85%
115.0	0.110	0.037	1707.168	0.00%	99.85%
120.0	0.061	0.042	1707.21	0.00%	99.86%
125.0	0.074	0.031	1707.241	0.00%	99.86%
130.0	0.110	0.040	1707.281	0.00%	99.86%
135.0	0.184	0.059	1707.34	0.00%	99.86%
140.0	0.356	0.100	1707.44	0.00%	99.87%
145.0	0.712	0.178	1707.618	0.00%	99.88%
150.0	1.092	0.266	1707.884	0.00%	99.90%
155.0	1.619	0.343	1708.227	0.00%	99.92%
160.0	2.147	0.395	1708.622	0.00%	99.94%
165.0	2.699	0.399	1709.021	0.00%	99.96%
170.0	2.981	0.337	1709.358	0.00%	99.98%
175.0	3.104	0.218	1709.576	0.00%	100.00%
180.0	3.291	0.076	1709.652	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1590.10	N.A.	93.01%
0-40	1636.79	N.A.	95.74%
0-60	1682.56	N.A.	98.42%
0-90	1707.01	N.A.	99.85%
0-120	1707.21	N.A.	99.86%
0-180	1709.65	N.A.	100.00%
60-90	24.45	N.A.	1.43%
90-120	0.20	N.A.	0.01%
90-130	0.28	N.A.	0.02%
90-150	0.88	N.A.	0.05%
90-180	2.57	N.A.	0.15%
0-21.98	1367.72	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	442.10
10-20	834.99
20-30	313.01
30-40	46.68
40-50	25.75
50-60	20.02
60-70	14.11
70-80	7.96
80-90	2.38
90-100	0.07
100-110	0.06
110-120	0.08
120-130	0.07
130-140	0.16
140-150	0.44
150-160	0.74
160-170	0.74
170-180	0.22

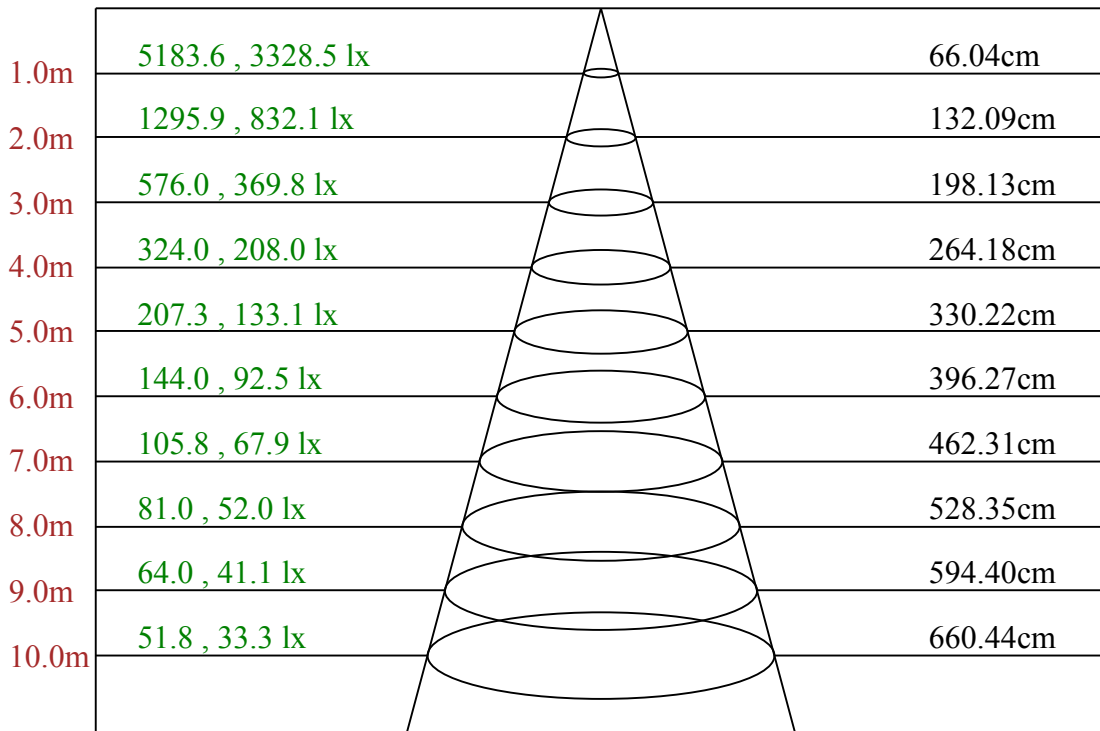


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:26.1 Right:23.8
:C90/270Left:25.5 Right:24.0

Beam Angle(50%Imax):C0/180Left:18.2 Right:15.8
:C90/270Left:17.8 Right:16.4



Max , Ave Beam angle of C247.5 plane 36.55

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	5047.18	4562.14	3897.53	2796.01	1197.90	281.27	83.62	48.68	36.90
22.5	5047.18	4501.29	3843.16	2657.63	1173.36	309.53	85.58	47.30	36.31
45.0	5047.18	4436.52	3695.37	2564.20	1113.10	382.35	105.80	58.88	37.69
67.5	5047.18	4446.33	3595.46	2432.70	1017.71	282.45	90.68	51.62	36.70
90.0	5047.18	4774.12	4151.91	2980.12	1333.33	301.49	87.74	53.98	39.65
112.5	5047.18	4813.38	4142.10	2934.98	1407.92	307.57	87.74	54.37	39.85
135.0	5047.18	4868.34	4252.02	3090.04	1627.75	463.61	139.75	65.56	42.40
157.5	5047.18	4968.44	4377.64	3284.36	1863.29	565.29	155.65	70.47	44.95
180.0	5047.18	5074.43	4573.92	3549.33	1951.61	618.48	122.87	68.70	42.99
202.5	5047.18	5164.72	4701.50	3782.91	2155.74	1001.62	142.70	72.43	45.14
225.0	5047.18	5227.53	4778.05	3904.60	2412.87	989.84	280.48	88.72	52.60
247.5	5047.18	5243.23	4774.12	3888.90	2456.05	1015.36	269.69	88.33	50.84
270.0	5047.18	4889.93	4405.12	3377.78	1859.56	543.89	109.52	61.63	42.20
292.5	5047.18	4842.82	4303.05	3228.22	1739.83	492.86	101.08	57.90	41.61
315.0	5047.18	4746.64	4338.38	3117.52	1660.14	506.01	151.53	71.05	41.42
337.5	5047.18	4648.50	3907.94	2968.74	1432.85	443.20	124.83	59.08	39.85
360.0	5047.18	4562.14	3897.53	2796.01	1197.90	281.27	83.62	48.68	36.90
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	30.23	25.91	21.40	17.08	12.95	9.62	6.67	3.73	1.57
22.5	29.64	25.52	20.61	16.68	12.76	9.03	6.48	3.53	1.57
45.0	29.64	23.95	20.02	16.10	12.17	9.03	6.09	3.34	1.18
67.5	29.05	23.95	19.82	15.90	12.37	8.64	6.09	3.14	0.98
90.0	31.21	26.50	22.18	17.67	13.54	10.21	7.07	3.93	1.57
112.5	30.82	26.50	22.38	17.67	13.54	10.21	6.87	3.93	1.37
135.0	32.98	26.30	21.98	17.67	13.94	10.80	7.46	4.51	1.96
157.5	33.96	26.69	22.77	18.84	14.92	10.99	8.05	4.91	2.16
180.0	33.37	28.66	23.95	19.43	15.70	12.17	8.64	5.30	2.75
202.5	34.55	29.05	24.14	20.22	15.90	12.17	8.83	5.89	2.94
225.0	37.10	29.44	23.55	19.63	15.90	12.37	8.83	6.09	3.34
247.5	36.51	29.44	23.95	19.82	15.70	11.97	8.83	5.69	2.75
270.0	33.37	28.26	23.75	19.24	15.11	11.38	8.24	5.10	2.36
292.5	32.58	27.28	22.97	18.65	14.33	10.80	7.66	4.71	1.96
315.0	32.78	26.11	21.59	17.67	13.94	10.60	7.26	4.51	1.77
337.5	31.41	25.71	21.79	17.27	13.54	10.01	6.87	4.51	1.57
360.0	30.23	25.91	21.40	17.08	12.95	9.62	6.67	3.73	1.57
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	0.20	0.20	0.00	0.00	0.20
22.5	0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.20	0.20
45.0	0.00	0.00	0.00	0.20	0.00	0.20	0.20	0.00	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	0.00	0.00	0.20
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	0.20
180.0	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.59	0.20	0.20	0.39	0.20	0.39	0.20	0.39	0.20
292.5	0.00	0.00	0.00	0.20	0.20	0.20	0.00	0.00	0.20
315.0	0.00	0.00	0.00	0.20	0.00	0.20	0.20	0.20	0.20
337.5	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.20	0.00
360.0	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.20

LD4S-50K-HO

Intensity data(cd)

Appendix Page: 7 Total:7

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.39	0.59	0.98	1.37	1.96	2.36	2.75	3.14	3.34
22.5	0.20	0.59	0.98	1.37	1.96	2.36	2.75	3.14	3.34
45.0	0.39	0.39	0.98	1.57	1.77	2.55	2.94	3.14	3.14
67.5	0.20	0.59	0.98	1.37	2.16	2.55	2.94	3.14	2.94
90.0	0.20	0.39	0.79	1.37	1.77	2.36	2.75	2.94	3.14
112.5	0.20	0.39	0.59	0.98	1.77	2.36	2.75	2.75	3.14
135.0	0.00	0.20	0.59	0.98	1.57	2.16	2.75	3.14	3.14
157.5	0.00	0.20	0.39	0.79	1.37	1.96	2.55	2.94	2.94
180.0	0.00	0.00	0.59	0.79	1.37	1.96	2.55	2.94	2.94
202.5	0.00	0.20	0.39	0.79	1.37	1.77	2.55	2.75	2.75
225.0	0.00	0.20	0.59	0.79	1.18	1.57	2.55	2.75	2.75
247.5	0.00	0.00	0.39	0.59	1.18	1.77	2.36	2.55	2.94
270.0	0.39	0.59	0.98	1.37	1.57	2.55	2.75	3.34	3.53
292.5	0.39	0.39	0.59	0.98	1.57	1.77	2.75	2.94	3.14
315.0	0.20	0.59	0.79	1.18	1.57	1.96	2.75	2.94	3.14
337.5	0.39	0.39	0.79	1.18	1.77	2.36	2.75	3.14	3.34
360.0	0.39	0.59	0.98	1.37	1.96	2.36	2.75	3.14	3.34
C/γ(°)	180.0								
0.0	3.29								
22.5	3.29								
45.0	3.29								
67.5	3.29								
90.0	3.29								
112.5	3.29								
135.0	3.29								
157.5	3.29								
180.0	3.29								
202.5	3.29								
225.0	3.29								
247.5	3.29								
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315.0	3.29								
337.5	3.29								
360.0	3.29								