



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.11

LampCAT:

Current(A): 0.3310

Lamp flux(lm): -1.0

Power (W): 39.55

Number of Lamps: 1

PF: 0.9939

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 4442.05, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 112.32

Central intensity(cd): 1520.564, Maximum intensity(cd): 1556.262

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=111.7

[C90/270]Total=112.8

Field angle(10%Imax): [C0/180]Total=162.9

[C90/270]Total=163.5

Maximum s/h(1/2): C0_180=1.26 C90_270=1.31

Maximum s/h(1/4): C0_180=1.39 C90_270=1.42

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 : 77.768%

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1520.564	0.000	0	0.00%	0.00%
5.0	1518.129	36.327	36.327	0.00%	0.82%
10.0	1500.152	107.973	144.3	0.00%	3.25%
15.0	1468.015	176.070	320.37	0.00%	7.21%
20.0	1422.765	238.241	558.611	0.00%	12.58%
25.0	1365.474	292.435	851.045	0.00%	19.16%
30.0	1296.010	336.813	1187.858	0.00%	26.74%
35.0	1215.264	369.803	1557.661	0.00%	35.07%
40.0	1124.680	390.402	1948.063	0.00%	43.86%
45.0	1024.717	397.978	2346.041	0.00%	52.81%
50.0	916.024	392.155	2738.196	0.00%	61.64%
55.0	801.695	373.489	3111.686	0.00%	70.05%
60.0	681.467	342.829	3454.514	0.00%	77.77%
65.0	557.975	301.311	3755.825	0.00%	84.55%
70.0	432.280	250.739	4006.564	0.00%	90.20%
75.0	309.210	193.814	4200.378	0.00%	94.56%
80.0	191.101	133.869	4334.247	0.00%	97.57%
85.0	84.022	74.757	4409.005	0.00%	99.26%
90.0	12.017	26.296	4435.301	0.00%	99.85%
95.0	0.157	3.333	4438.634	0.00%	99.92%
100.0	0.193	0.095	4438.729	0.00%	99.93%
105.0	0.265	0.122	4438.851	0.00%	99.93%
110.0	0.301	0.148	4438.999	0.00%	99.93%
115.0	0.422	0.183	4439.182	0.00%	99.94%
120.0	0.530	0.231	4439.414	0.00%	99.94%
125.0	0.638	0.270	4439.684	0.00%	99.95%
130.0	0.735	0.298	4439.982	0.00%	99.95%
135.0	0.831	0.316	4440.298	0.00%	99.96%
140.0	0.867	0.314	4440.613	0.00%	99.97%
145.0	0.915	0.297	4440.91	0.00%	99.97%
150.0	0.999	0.282	4441.192	0.00%	99.98%
155.0	1.048	0.259	4441.451	0.00%	99.99%
160.0	0.999	0.215	4441.666	0.00%	99.99%
165.0	1.096	0.173	4441.838	0.00%	100.00%
170.0	0.951	0.121	4441.96	0.00%	100.00%
175.0	1.024	0.071	4442.031	0.00%	100.00%
180.0	0.963	0.024	4442.054	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}\text{C}$): 25

Date:
Humidity(%): 59%

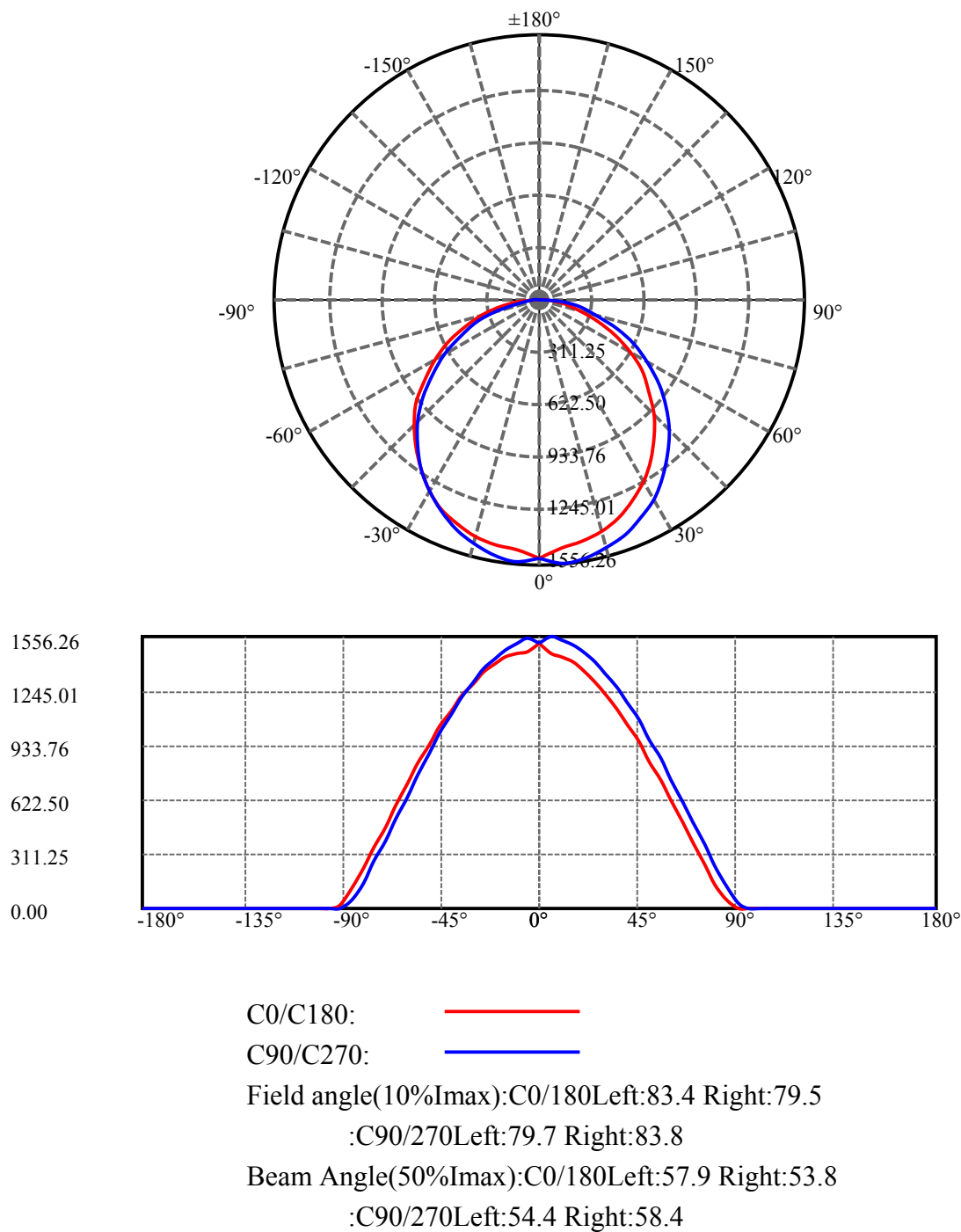
Operator: jarvis

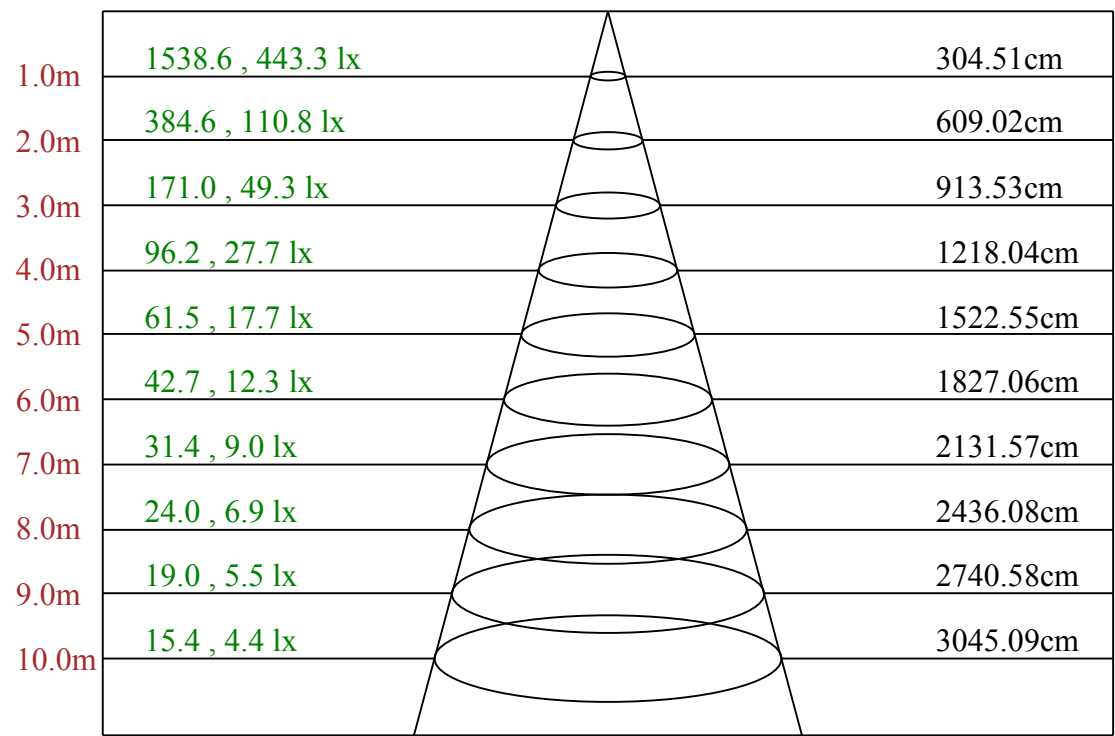
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1187.86	N.A.	26.74%
0-40	1948.06	N.A.	43.86%
0-60	3454.51	N.A.	77.77%
0-90	4435.30	N.A.	99.85%
0-120	4439.41	N.A.	99.94%
0-180	4442.05	N.A.	100.00%
60-90	980.79	N.A.	22.08%
90-120	4.11	N.A.	0.09%
90-130	4.68	N.A.	0.11%
90-150	5.89	N.A.	0.13%
90-180	6.73	N.A.	0.15%
0-61.64	3553.64	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	144.30
10-20	414.31
20-30	629.25
30-40	760.20
40-50	790.13
50-60	716.32
60-70	552.05
70-80	327.68
80-90	101.05
90-100	3.43
100-110	0.27
110-120	0.41
120-130	0.57
130-140	0.63
140-150	0.58
150-160	0.47
160-170	0.29
170-180	0.07





Max , Ave Beam angle of C112.5 plane 113.41

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	1520.56	1464.37	1442.21	1407.73	1359.18	1297.72	1225.28	1144.95	1054.01
22.5	1520.56	1491.72	1470.15	1432.19	1382.30	1320.84	1248.79	1166.14	1073.47
45.0	1520.56	1520.43	1496.73	1458.01	1409.65	1346.27	1271.90	1189.83	1095.43
67.5	1520.56	1541.04	1516.77	1478.43	1427.57	1366.69	1291.94	1206.02	1109.50
90.0	1520.56	1554.53	1538.35	1508.48	1467.64	1412.16	1344.92	1268.24	1178.47
112.5	1520.56	1556.26	1541.04	1512.34	1470.15	1414.08	1348.97	1269.98	1180.39
135.0	1520.56	1533.53	1518.50	1489.60	1450.88	1400.02	1330.47	1253.41	1167.87
157.5	1520.56	1496.54	1485.56	1459.55	1421.40	1371.31	1307.55	1231.45	1146.49
180.0	1520.56	1470.34	1463.02	1437.59	1399.44	1352.24	1289.82	1215.65	1131.27
202.5	1520.56	1495.58	1486.33	1462.44	1423.72	1372.66	1309.67	1232.22	1148.99
225.0	1520.56	1525.05	1511.57	1486.52	1443.56	1392.12	1327.97	1250.71	1161.71
247.5	1520.56	1548.17	1531.80	1503.09	1460.13	1404.45	1336.64	1259.19	1169.41
270.0	1520.56	1545.47	1520.43	1482.09	1430.46	1368.62	1291.94	1204.67	1109.50
292.5	1520.56	1544.51	1519.47	1481.51	1428.92	1362.07	1290.78	1203.71	1105.84
315.0	1520.56	1518.89	1496.15	1459.74	1410.42	1347.04	1272.87	1185.98	1092.93
337.5	1520.56	1483.63	1464.37	1428.92	1378.83	1319.30	1246.67	1162.09	1069.62
360.0	1520.56	1464.37	1442.21	1407.73	1359.18	1297.72	1225.28	1144.95	1054.01

C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	954.03	843.83	733.24	620.16	497.05	372.40	251.99	140.06	44.70
22.5	973.10	862.32	750.20	631.33	506.49	384.73	263.36	148.92	50.28
45.0	990.63	879.47	768.31	646.36	520.75	394.36	275.69	159.13	53.94
67.5	1003.92	894.88	776.40	652.14	529.99	404.00	281.66	164.14	59.92
90.0	1079.44	970.79	859.05	737.48	611.87	489.34	364.12	241.78	127.92
112.5	1080.98	976.37	860.20	738.64	617.07	493.97	363.54	245.06	130.43
135.0	1071.16	964.24	854.62	734.40	609.94	483.95	361.03	239.08	125.42
157.5	1052.09	947.28	839.78	721.30	601.27	476.24	350.63	230.99	122.72
180.0	1042.45	938.81	827.07	713.59	592.41	466.03	346.01	227.53	117.33
202.5	1053.63	948.82	838.82	719.76	594.53	468.92	350.63	226.56	115.02
225.0	1063.84	960.58	845.56	724.96	606.86	475.28	347.93	226.37	116.17
247.5	1068.65	959.61	846.33	723.80	599.16	471.23	348.32	226.37	112.32
270.0	1002.77	887.37	762.33	640.00	516.12	389.16	265.86	148.34	44.70
292.5	999.11	888.33	767.15	640.00	511.88	388.39	264.13	146.80	40.65
315.0	989.09	875.61	755.98	636.34	509.57	382.23	258.16	145.07	41.42
337.5	970.59	858.08	742.11	623.24	502.64	376.25	254.30	141.41	41.42
360.0	954.03	843.83	733.24	620.16	497.05	372.40	251.99	140.06	44.70

C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.39	0.19	0.19	0.39	0.39	0.39	0.77	0.58	0.58
22.5	0.39	0.19	0.39	0.39	0.39	0.77	0.77	0.58	0.77
45.0	0.58	0.19	0.39	0.58	0.58	0.58	0.77	0.96	0.96
67.5	0.39	0.19	0.39	0.58	0.39	0.77	0.96	0.96	1.16
90.0	29.48	0.00	0.39	0.19	0.39	0.58	0.58	0.77	0.96
112.5	28.13	0.00	0.00	0.19	0.19	0.39	0.58	0.58	0.77
135.0	26.39	0.00	0.00	0.00	0.00	0.00	0.19	0.39	0.77
157.5	26.20	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.39
180.0	23.31	0.00	0.00	0.00	0.00	0.00	0.19	0.39	0.19
202.5	22.54	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.19
225.0	18.30	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.39
247.5	13.87	0.00	0.00	0.00	0.00	0.19	0.19	0.39	0.58
270.0	0.77	0.58	0.58	0.77	0.96	1.35	1.16	1.35	1.54
292.5	0.39	0.39	0.39	0.58	0.58	0.77	0.77	0.96	0.96
315.0	0.58	0.39	0.19	0.39	0.58	0.39	0.58	0.77	0.77
337.5	0.58	0.39	0.19	0.19	0.39	0.58	0.58	0.77	0.77
360.0	0.39	0.19	0.19	0.39	0.39	0.39	0.77	0.58	0.58

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	0.77	0.77	0.96	0.77	0.77	0.77	0.96	0.77	0.77
22.5	0.96	0.77	0.96	0.96	0.77	0.96	1.16	0.96	0.96
45.0	0.96	1.16	1.16	1.35	1.35	1.16	1.16	1.16	1.35
67.5	1.16	1.16	1.16	1.16	1.35	1.35	1.35	1.16	1.16
90.0	0.96	1.16	1.16	1.35	1.16	1.16	1.54	1.16	1.16
112.5	0.96	0.77	0.96	1.16	1.16	1.35	1.16	1.16	1.16
135.0	0.58	0.77	0.77	0.77	0.96	0.96	0.96	0.77	0.96
157.5	0.39	0.58	0.58	0.77	0.77	0.77	0.77	0.58	0.77
180.0	0.39	0.39	0.58	0.58	0.77	0.77	0.77	0.77	0.77
202.5	0.58	0.58	0.58	0.58	0.58	0.58	0.77	0.77	0.77
225.0	0.58	0.58	0.77	0.96	0.96	0.96	0.96	0.77	0.96
247.5	0.77	0.77	0.77	0.96	0.96	0.96	1.16	1.16	1.16
270.0	1.35	1.54	1.35	1.54	1.73	1.54	1.73	1.54	1.35
292.5	0.96	1.16	1.16	0.96	1.35	1.16	1.16	0.77	0.96
315.0	0.96	0.96	0.77	1.16	1.16	0.96	0.96	0.77	0.96
337.5	0.96	0.77	0.96	0.96	0.96	0.58	0.96	0.96	1.16
360.0	0.77	0.77	0.96	0.77	0.77	0.77	0.96	0.77	0.77
C/γ(°)	180.0								
0.0	0.96								
22.5	0.96								
45.0	0.96								
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