



Shenzhen Belling Efficiency Testing Lab Co.,Ltd
www.bellingeel.com

Tel:0755-21038430

Address:1Floor, No.1 Building,Meibaohe Industrial Park,Dalang Street,Longhua District,Shenzhen,Guangdong Prov.518101 China

ASD Lighting Corp.

Report No	:	Voltage	:	120.08 V
Test No	:	Current	:	0.3984 A
LumCAT	:	Power	:	47.580 W
Luminaire	:	PF	:	0.9946
LampCAT	:	Ballast type	:	
Lamp flux	:	Width	:	0 mm
Number of Lamps	:	Length	:	0 mm
Phm Type	:	Height	:	0 mm

Photometric Results

Lumens(lm)	:	5009.02	Central intensity(cd)	:	1891.566
Efficiency(%)	:	100.00%	Maximum intensity(cd)	:	2134.718
Luminous Efficacy(lm/W)	:	105.28	Angle of maximum intensity	:	C=112.5 γ =0.0
Beam Angle(50%Imax)	:	[C0/180]Total=95.1 [C90/270]Total=99.7			
Field angle(10%Imax)	:	[C0/180]Total=160.3 [C90/270]Total=155.9			
Maximum s/h(1/2)	:	C0_180=1.15 C90_270=1.19			
Maximum s/h(1/4)	:	C0_180=1.26 C90_270=1.30			
Up flux rate of lamp(%)	:	0.85%			
Down flux rate of lamp(%)	:	99.15%			
Up flux rate of LUM(%)	:	0.85%			
Down flux rate of LUM(%)	:	99.15%			
CIE Type	:	Direct lighting			
Output flux ratio in π solid angle	:	80.003%			

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

Date:
Humidity(%): 59%

Operator: Zac

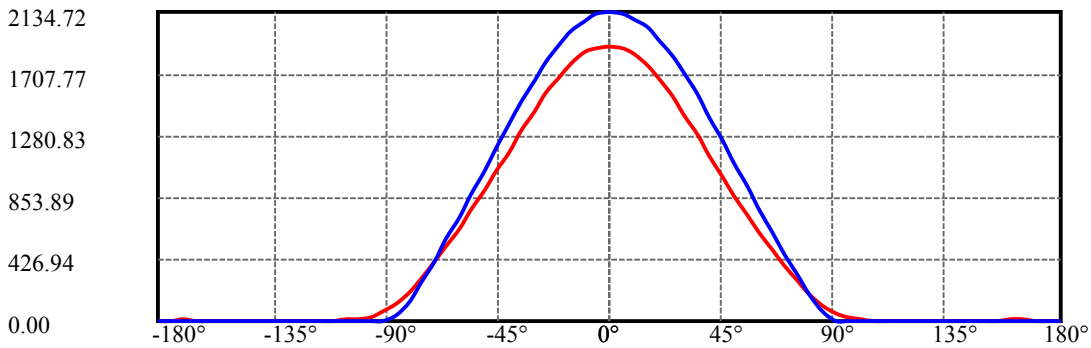
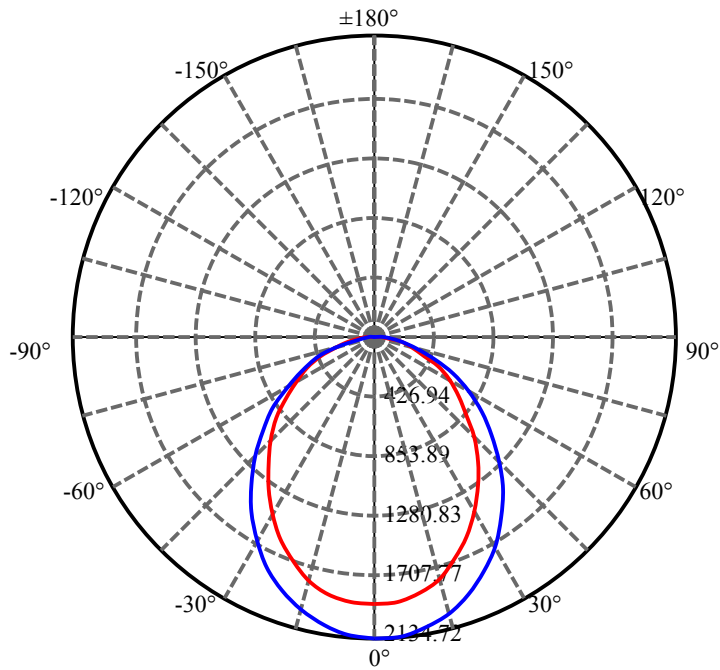
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2029.637	0.000	0	0.00%	0.00%
5.0	2017.266	48.380	48.38	0.97%	0.97%
10.0	1976.241	142.860	191.24	2.85%	3.82%
15.0	1906.235	230.306	421.546	4.60%	8.42%
20.0	1811.428	306.388	727.933	6.12%	14.53%
25.0	1696.915	367.960	1095.894	7.35%	21.88%
30.0	1565.793	412.898	1508.792	8.24%	30.12%
35.0	1422.027	439.977	1948.77	8.78%	38.91%
40.0	1274.552	449.904	2398.674	8.98%	47.89%
45.0	1122.625	443.857	2842.53	8.86%	56.75%
50.0	972.838	423.419	3265.949	8.45%	65.20%
55.0	828.159	391.597	3657.546	7.82%	73.02%
60.0	685.279	349.827	4007.373	6.98%	80.00%
65.0	549.333	300.136	4307.509	5.99%	86.00%
70.0	416.199	244.479	4551.988	4.88%	90.88%
75.0	290.798	184.798	4736.786	3.69%	94.57%
80.0	177.042	125.181	4861.967	2.50%	97.06%
85.0	86.901	71.720	4933.687	1.43%	98.50%
90.0	33.262	32.902	4966.588	0.66%	99.15%
95.0	12.571	12.550	4979.138	0.25%	99.40%
100.0	5.965	5.037	4984.175	0.10%	99.50%
105.0	3.210	2.455	4986.63	0.05%	99.55%
110.0	3.482	1.749	4988.379	0.03%	99.59%
115.0	3.739	1.828	4990.207	0.04%	99.62%
120.0	3.967	1.873	4992.08	0.04%	99.66%
125.0	4.224	1.893	4993.974	0.04%	99.70%
130.0	4.666	1.933	4995.907	0.04%	99.74%
135.0	5.223	1.998	4997.905	0.04%	99.78%
140.0	5.736	2.029	4999.934	0.04%	99.82%
145.0	6.050	1.966	5001.9	0.04%	99.86%
150.0	6.179	1.801	5003.701	0.04%	99.89%
155.0	6.464	1.600	5005.301	0.03%	99.93%
160.0	6.378	1.347	5006.648	0.03%	99.95%
165.0	6.464	1.058	5007.706	0.02%	99.97%
170.0	6.050	0.742	5008.449	0.01%	99.99%
175.0	5.850	0.426	5008.874	0.01%	100.00%
180.0	6.050	0.142	5009.017	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1508.79	30.12%	30.12%
0-40	2398.67	47.89%	47.89%
0-60	4007.37	80.00%	80.00%
0-90	4966.59	99.15%	99.15%
0-120	4992.08	99.66%	99.66%
0-180	5009.02	100.00%	100.00%
60-90	959.22	19.15%	19.15%
90-120	25.49	0.51%	0.51%
90-130	29.32	0.59%	0.59%
90-150	37.11	0.74%	0.74%
90-180	42.29	0.84%	0.84%
0-60.00	4007.21	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	191.24
10-20	536.69
20-30	780.86
30-40	889.88
40-50	867.28
50-60	741.42
60-70	544.62
70-80	309.98
80-90	104.62
90-100	17.59
100-110	4.20
110-120	3.70
120-130	3.83
130-140	4.03
140-150	3.77
150-160	2.95
160-170	1.80
170-180	0.43



C0/C180: —

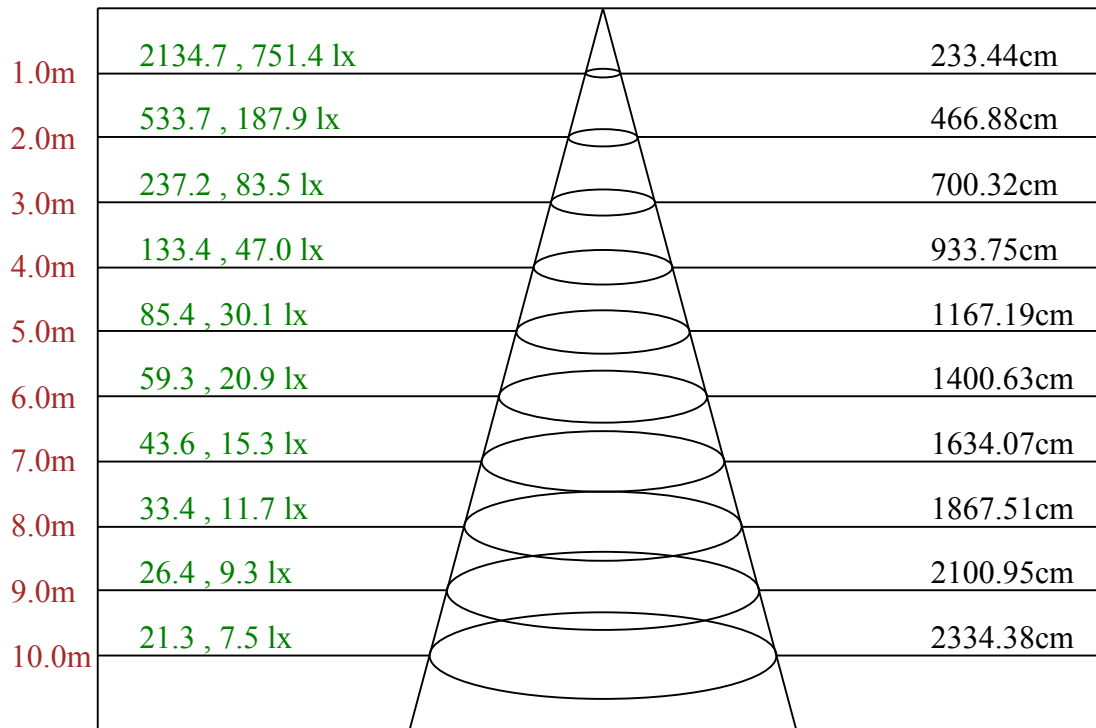
C90/C270: —

Field angle(10%Imax):C0/180Left:80.8 Right:79.5

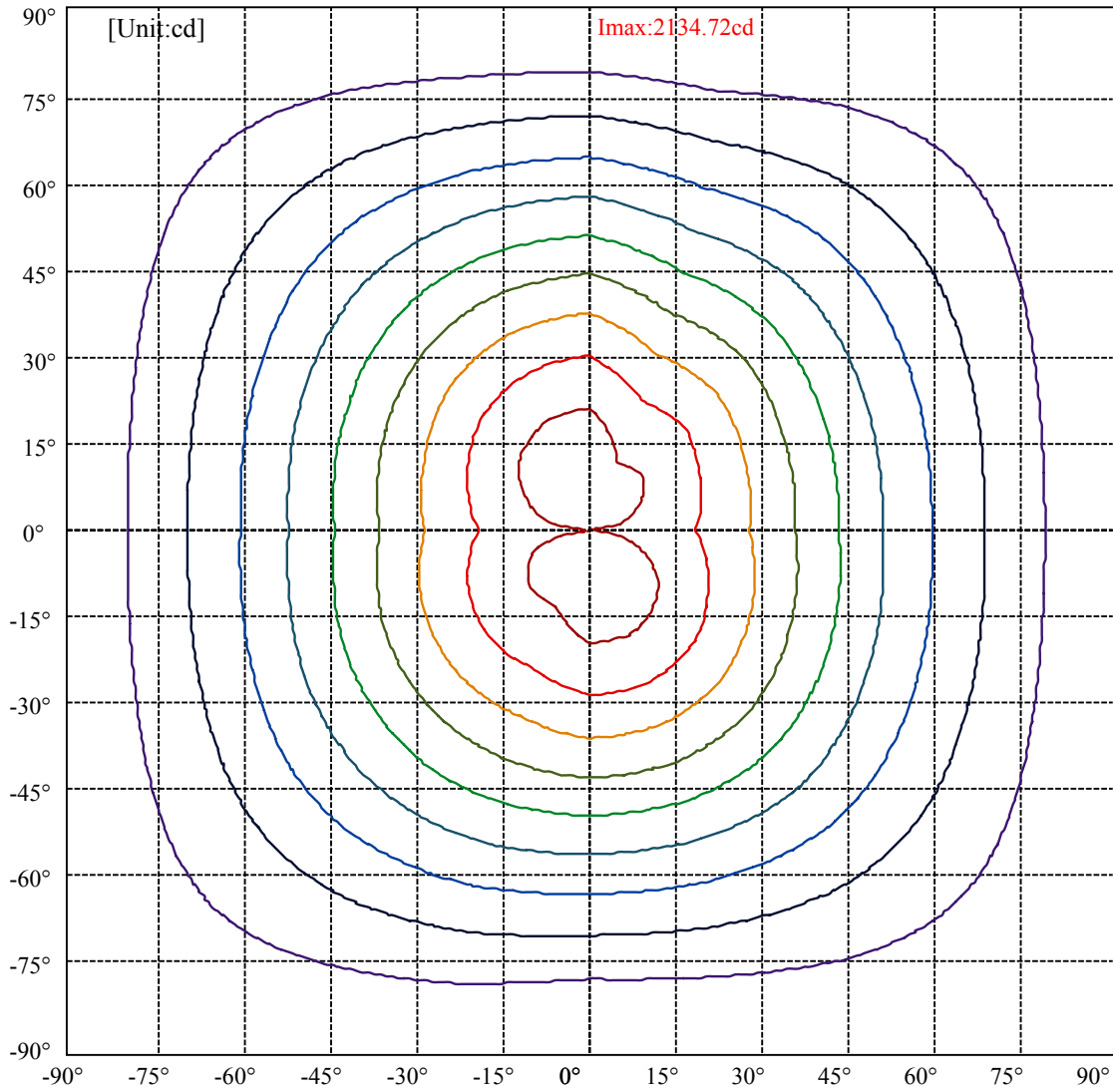
:C90/270Left:77.1 Right:78.8

Beam Angle(50%Imax):C0/180Left:48.2 Right:46.9

:C90/270Left:49.1 Right:50.6



Max , Ave Beam angle of C112.5 plane 98.82



(10%Imax) 213.198	—
(20%Imax) 426.396	—
(30%Imax) 639.593	—
(40%Imax) 852.791	—
(50%Imax) 1065.99	—
(60%Imax) 1279.19	—
(70%Imax) 1492.38	—
(80%Imax) 1705.58	—
(90%Imax) 1918.78	—

Intensity data(cd)

Appendix Page: 7 Total:8

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1891.57	1883.35	1840.42	1768.28	1667.59	1554.12	1422.84	1285.63	1144.99
22.5	1976.04	1959.37	1902.53	1822.39	1722.84	1600.24	1464.39	1321.01	1174.67
45.0	2030.84	2012.57	1965.08	1892.94	1794.76	1675.35	1540.42	1394.53	1245.90
67.5	2015.54	1997.05	1953.21	1883.80	1794.08	1680.83	1550.47	1407.54	1261.65
90.0	2131.98	2123.07	2086.54	2023.53	1937.69	1828.78	1705.04	1561.43	1407.09
112.5	2134.72	2122.62	2082.66	2015.77	1922.62	1806.41	1677.18	1527.64	1375.12
135.0	2085.86	2071.70	2030.15	1962.11	1861.66	1746.82	1611.88	1465.08	1311.20
157.5	1970.56	1979.92	1935.17	1860.29	1770.10	1654.12	1515.08	1381.06	1233.80
180.0	1891.57	1887.00	1856.86	1780.83	1687.68	1576.04	1450.24	1308.91	1171.47
202.5	1976.04	1949.10	1929.69	1864.63	1768.05	1658.23	1530.15	1383.57	1240.65
225.0	2030.84	2018.28	1979.69	1910.52	1815.99	1703.89	1576.50	1433.34	1284.71
247.5	2015.54	2006.86	1971.93	1910.29	1827.41	1721.93	1597.73	1461.20	1322.38
270.0	2131.98	2114.86	2070.33	2000.24	1905.49	1793.39	1660.29	1513.94	1361.65
292.5	2134.72	2118.05	2073.07	2000.93	1902.98	1782.20	1650.47	1501.15	1343.85
315.0	2085.86	2068.28	2021.48	1946.13	1850.01	1730.61	1595.45	1449.33	1299.55
337.5	1970.56	1964.17	1921.02	1857.09	1753.89	1637.68	1504.58	1357.09	1214.16
360.0	1891.57	1883.35	1840.42	1768.28	1667.59	1554.12	1422.84	1285.63	1144.99
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	999.09	858.23	730.83	609.37	492.93	378.31	272.15	179.68	103.88
22.5	1028.77	886.54	756.86	627.63	505.71	385.85	275.34	176.94	98.17
45.0	1092.02	941.79	801.15	659.82	522.15	390.87	270.55	161.87	78.77
67.5	1108.23	956.86	807.31	661.19	522.38	382.19	248.63	128.08	47.49
90.0	1247.73	1085.85	927.86	765.99	609.82	462.33	316.67	179.45	64.84
112.5	1210.97	1056.40	899.09	744.30	597.04	449.09	308.45	179.45	76.48
135.0	1160.51	1006.40	856.40	714.62	575.35	440.19	313.70	195.21	100.00
157.5	1088.59	944.07	808.91	671.92	544.52	423.52	305.48	201.14	115.75
180.0	1032.88	897.72	768.50	639.27	520.10	404.57	294.07	202.74	118.27
202.5	1094.76	953.20	816.22	681.28	548.41	423.52	307.31	202.51	115.98
225.0	1135.40	992.24	846.81	704.57	570.55	436.99	309.36	193.61	105.25
247.5	1173.52	1022.38	875.58	725.12	580.60	438.82	306.40	185.85	80.59
270.0	1199.32	1035.17	872.84	713.02	563.93	414.62	271.01	134.93	39.27
292.5	1181.97	1024.67	864.62	709.59	560.96	416.21	280.60	154.57	57.76
315.0	1141.33	986.31	839.96	688.13	550.23	413.02	289.27	175.34	86.30
337.5	1066.90	917.59	777.63	648.64	524.66	399.09	283.79	181.28	101.60
360.0	999.09	858.23	730.83	609.37	492.93	378.31	272.15	179.68	103.88
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	51.14	22.15	10.96	2.51	3.20	5.02	3.88	4.34	4.57
22.5	46.58	18.49	9.13	2.51	5.02	4.34	4.34	4.34	4.57
45.0	27.63	10.27	3.20	4.57	4.11	3.88	4.57	5.02	5.48
67.5	9.59	2.97	2.97	3.43	3.65	3.88	4.80	5.25	5.71
90.0	5.71	1.60	2.06	2.51	2.97	3.43	3.88	3.88	4.11
112.5	17.35	4.11	2.06	2.28	2.97	3.20	3.43	4.11	4.80
135.0	40.64	13.47	6.16	2.28	2.97	2.74	3.43	3.88	4.57
157.5	57.31	23.52	9.82	2.51	2.28	2.74	2.97	3.20	3.88
180.0	60.50	26.71	11.19	7.31	2.51	3.88	3.20	2.97	3.88
202.5	58.22	23.74	10.05	2.74	2.74	3.43	2.97	3.43	3.88
225.0	41.55	13.70	6.62	2.51	2.74	2.51	3.43	3.88	4.34
247.5	19.41	4.34	2.06	2.51	3.20	3.65	4.11	4.57	4.80
270.0	1.83	1.83	2.97	3.20	3.88	3.65	4.57	3.88	4.11
292.5	12.79	2.97	3.20	3.43	3.88	4.57	5.25	5.48	5.71
315.0	32.88	11.42	3.20	3.88	4.34	4.11	4.57	5.02	5.25
337.5	49.09	19.86	9.82	3.20	5.25	4.80	4.11	4.34	5.02
360.0	51.14	22.15	10.96	2.51	3.20	5.02	3.88	4.34	4.57

Intensity data(cd)

Appendix Page: 8 Total:8

C/\u03b3(\u00b0)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	5.02	5.48	5.71	6.39	6.62	6.85	6.85	6.62	5.02
22.5	5.25	5.48	5.94	6.39	6.62	6.16	5.25	4.80	5.71
45.0	6.16	6.39	7.08	6.62	6.16	6.16	7.31	6.16	6.16
67.5	6.39	7.31	6.62	5.25	5.71	6.16	5.71	6.16	6.16
90.0	4.80	5.02	4.80	4.57	5.02	5.25	5.94	6.16	6.39
112.5	5.48	6.39	6.39	5.94	5.48	5.48	5.94	6.16	6.16
135.0	4.80	5.48	5.94	6.16	6.16	5.25	6.16	5.48	5.94
157.5	4.11	4.57	5.02	5.94	6.39	6.85	5.48	5.02	5.02
180.0	4.34	4.57	5.25	5.71	6.16	6.39	6.62	7.08	5.25
202.5	4.57	4.80	5.48	6.16	6.39	7.08	6.16	6.39	5.48
225.0	5.02	5.48	5.94	6.16	7.31	7.08	8.22	5.94	5.94
247.5	5.48	6.16	7.08	6.62	7.31	6.16	6.16	5.71	5.94
270.0	4.80	5.25	4.80	4.80	5.02	5.71	5.48	5.94	6.16
292.5	6.16	6.85	7.53	7.31	8.45	6.62	6.62	6.85	6.39
315.0	5.71	6.39	6.85	7.76	7.53	7.31	8.68	5.94	6.16
337.5	5.48	6.16	6.39	7.08	7.08	7.53	6.85	6.39	5.71
360.0	5.02	5.48	5.71	6.39	6.62	6.85	6.85	6.62	5.02
C/\u03b3(\u00b0)	180.0								
0.0	4.80								
22.5	5.94								
45.0	6.16								
67.5	6.16								
90.0	6.39								
112.5	6.62								
135.0	6.16								
157.5	6.16								
180.0	4.80								
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360.0	4.80								