



**CENTRE OF TESTING SERVICE  
INTERNATIONAL**

**OPERATE ACCORDING TO ISO/IEC 17025**

# **TEST REPORT**

**REPORT No.: CNB3150812-0012-P**



CTS (Ningbo) Testing Service Technology Co., Ltd.  
Fl.2 South, HuoJu Building, No.181 CangHai Rd., Jiangdong Hi-tech Park  
Ningbo, China

Report No.: CNB3150812-0012-P

Page 1 of 17

Date: 18 August 2015

## TEST REPORT

Applicant.....: NINGBO BEST LAMPS CO., LTD

Address.....: NO.99 ZHENXING WEST ROAD,YUYAO CITY,ZHEJIANG PROVINCE,CHINA

Sample Description.....: LED GARDEN LIGHT

Trade Mark.....: ---

Model/Type.....: BST-2170B-L60

Taking/Receiving Date.....: 12 August 2015

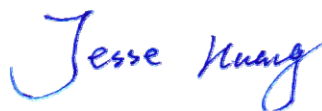
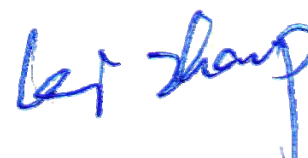
Test Date.....: 18 August 2015

Test Item.....: Photometry Testing

Test location.....: CTS (Ningbo) Testing Service Technology Co., Ltd.

Address.....: Fl. 2 South Huoju Building No. 181. Canghai Rd. Jiangdong High-tech. Park,Ningbo China  
<http://www.cts-lab.com>

Note.....: This report shall not be copied partly without the written confirmation.

**Tested by:**EngineerDate:  
18 August 2015**Reviewed by:**SupervisorDate:  
18 August 2015**Approved by:**Deputy ManagerDate:  
18 August 2015

## TEST REPORT

**Manufacturer data**

Manufacturer	NINGBO BEST LAMPS CO., LTD
Address	NO.99 ZHENXING WEST ROAD,YUYAO CITY,ZHEJIANG PROVINCE,CHINA
Contact person	WENDY RUAN

**Factory data**

Factory	NINGBO BEST LAMPS CO., LTD
Address	NO.99 ZHENXING WEST ROAD,YUYAO CITY,ZHEJIANG PROVINCE,CHINA
Contact Person	WENDY RUAN

**Tested sample data**

Type	LED GARDEN LIGHT
Model	BST-2170B-L60
Description	While conducting test, this unit is operated at AC230V 50Hz .
Lamp type	Non-replaceable LED
Sample status	New sample

**Measurement electrical parameters**

Test voltage	230.1V
Test frequency	50Hz
Measured Power	60.39W
Power Factor	0.9629
Number of sample tested	1 set

## TEST REPORT

### Spectroradiometric Parameters:

Luminous Flux:  $\Phi = 5793.4$  (lm)

Luminous Efficacy:  $\Phi/W = 95.93$  (lm/W)

Correlated Color:  $T_c = 3771$  (K)

Rending Index:  $R_a = 72.9$

Chromaticity Coordinate:  $x=0.3937$   $y=0.3914$   $u'=0.2280$   $v'=0.5098$

Dominant wavelength:  $\lambda = 578.5\text{nm}$  Purity=35.6%

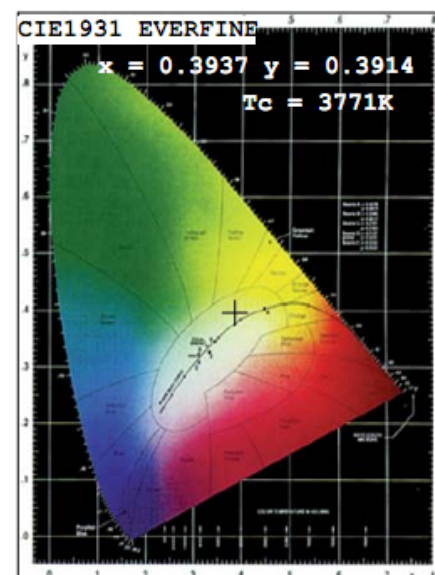
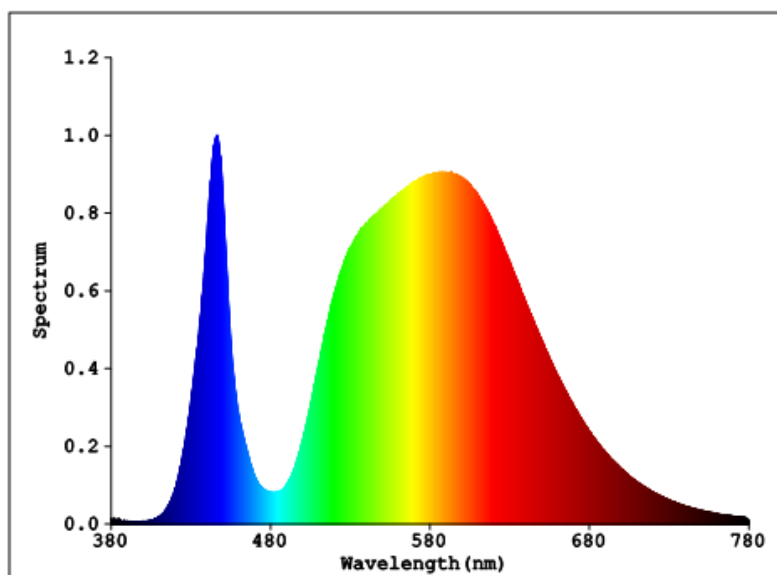
Peak wavelength:  $\lambda_p = 446.6\text{nm}$  HWL: 19.2nm

R1 - R15:  $R1 = 72$   $R2 = 77$   $R3 = 81$   $R4 = 74$   $R5 = 70$   $R6 = 68$   $R7 = 82$

$R8 = 59$   $R9 = 0$   $R10 = 45$   $R11 = 71$   $R12 = 40$   $R13 = 72$   $R14 = 89$   
 $R15 = 66$

Color ratio:  $R=19.4\%$   $G=79.0\%$   $B=1.6\%$

Spectral Distribution and Chromaticity Coordinate



## TEST REPORT

### LUMINAIRE PHOTOMETRIC TEST

Test distance: 26 meters between the lamp and the photometric sensor head

Test method: Test in accordance with CIE publication 121, tested using Goniophotometer test system.

Burning position: The lampshade is downward.

Sampling : No sampling but provided by the applicant.

Special notice: The intensity values contained in this report are absolute ones.

This report is free of corrections.

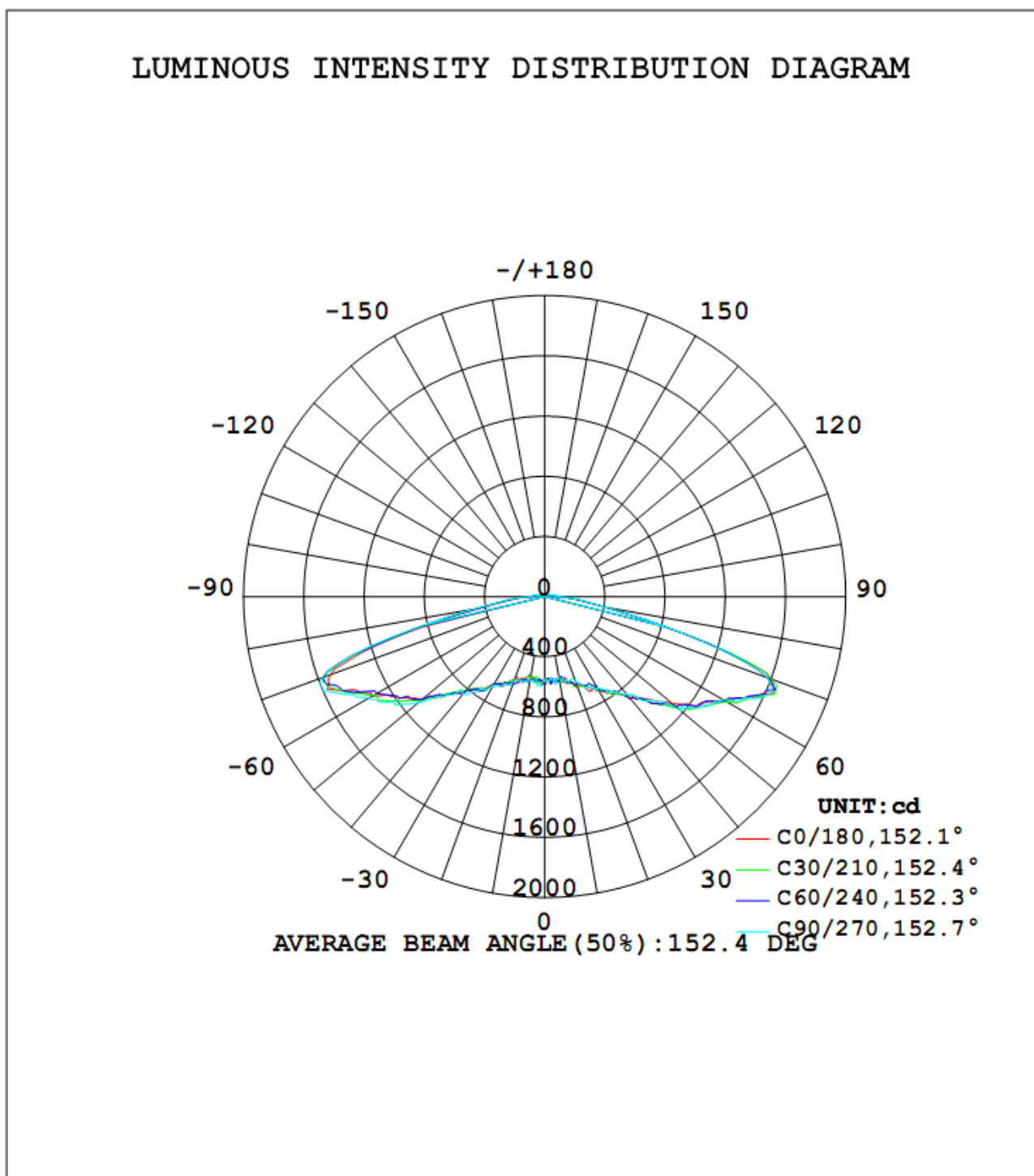
Ambient temperature: 25.3°C.

### Photometric data for lamp and luminaire

PHOTOMETRIC DATA			Eff: 95.93 lm/W
Imax (cd)	1678	S/MH (C0/180)	2.52
LOR (%)	100.0	S/MH (C90/270)	2.55
TOTAL FLUX (lm)	5793.4	$\eta$ UP, DN (C0-180)	1.1, 48.8
CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	1.2, 48.9
$\eta$ up (%)	2.3	CIBSE SHR NOM	2.00
$\eta$ down (%)	97.7	CIBSE SHR MAX	0.00

## TEST REPORT

### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



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## TEST REPORT

### PHOTOMETRIC DATA TABLE [cd]

Photometric Data Table [cd]										
G/C	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
0.0	556.2	555.7	554.2	554.5	554.0	555.0	557.5	558.6	561.4	564.2
3.0	568.5	552.4	559.6	560.1	549.5	528.1	543.0	586.3	575.3	566.0
6.0	567.1	548.6	564.3	561.7	552.9	536.7	546.1	549.3	545.4	549.0
9.0	557.8	541.1	552.2	554.7	541.3	552.5	574.2	550.8	556.3	558.0
12.0	581.7	564.8	571.9	548.4	585.6	582.2	545.5	547.7	567.2	571.5
15.0	578.1	592.1	555.1	595.0	591.3	595.7	586.8	588.0	591.8	579.0
18.0	607.8	601.5	618.5	627.2	596.4	601.1	601.9	593.3	607.3	581.5
21.0	634.6	618.1	639.7	628.6	629.1	618.7	614.8	640.1	632.1	612.5
24.0	668.9	658.2	656.7	648.9	635.0	660.5	650.2	652.6	649.2	666.2
27.0	692.7	678.5	672.6	679.7	667.4	697.7	646.4	693.7	681.6	677.6
30.0	708.2	695.7	718.9	710.2	712.6	701.4	700.4	688.2	722.2	702.8
33.0	765.3	730.1	761.3	761.7	755.7	742.8	744.9	747.7	746.6	739.0
36.0	795.0	817.8	780.8	799.7	807.8	811.3	776.8	807.2	796.5	784.2
39.0	843.1	842.0	849.4	855.5	841.0	831.6	846.3	854.0	832.9	838.6
42.0	905.1	903.5	916.4	882.3	913.9	909.6	917.8	918.9	914.4	875.3
45.0	962.8	976.4	974.9	999.7	963.4	999.3	1002	960.8	962.5	976.6
48.0	1047	1070	1066	1079	1058	1031	1062	1050	1067	1048
51.0	1138	1170	1165	1166	1146	1168	1145	1175	1145	1176
54.0	1246	1278	1228	1262	1206	1222	1238	1248	1215	1262
57.0	1284	1353	1290	1317	1302	1322	1276	1320	1282	1315
60.0	1382	1437	1399	1397	1368	1390	1381	1426	1367	1371
63.0	1484	1513	1507	1500	1488	1472	1487	1512	1477	1486
66.0	1590	1621	1626	1612	1600	1615	1588	1608	1577	1609
69.0	1624	1642	1640	1650	1629	1654	1616	1661	1600	1602
72.0	1428	1426	1407	1435	1419	1442	1392	1417	1382	1382
75.0	975.2	997.3	969.9	969.3	961.8	966.1	961.2	960.8	945.1	952.1
78.0	565.1	576.3	568.0	577.3	553.1	580.6	553.6	566.1	561.8	562.3
81.0	342.9	351.8	343.7	354.6	334.5	348.7	339.0	354.0	347.2	347.2
84.0	229.1	240.1	231.5	240.8	230.7	241.3	230.3	241.0	231.5	237.0
87.0	130.5	142.4	136.6	144.2	140.0	148.1	136.3	148.7	134.8	140.2
90.0	86.36	90.28	89.17	92.90	86.63	89.43	84.01	90.45	88.89	90.09
93.0	53.00	48.97	44.26	57.79	68.56	79.45	76.66	86.77	87.09	92.89
96.0	44.22	45.48	40.48	45.87	50.34	59.18	61.63	66.83	66.94	68.71
99.0	39.27	33.09	34.35	30.23	36.84	41.89	47.44	52.51	52.91	53.73
102.0	37.71	28.27	44.92	25.64	27.65	35.44	42.01	43.34	43.17	43.87
105.0	41.58	28.84	38.25	25.28	20.47	31.31	35.91	35.31	35.71	35.12
108.0	35.23	25.02	32.29	27.16	17.18	27.72	31.61	32.35	31.16	31.27
111.0	31.64	21.95	27.79	23.98	17.05	17.17	24.32	26.11	26.43	26.81
114.0	26.10	18.18	21.97	19.23	17.89	14.86	19.01	20.32	21.43	21.60
117.0	19.84	13.83	16.76	15.21	15.91	16.61	15.73	15.73	16.17	16.54
120.0	6.740	2.490	11.70	10.99	15.19	19.34	14.86	11.31	11.07	11.33
123.0	4.725	6.344	6.791	8.548	14.06	18.91	15.70	10.79	8.390	8.068
126.0	2.594	2.665	4.203	7.355	12.03	14.93	13.65	11.27	8.884	8.289
129.0	1.300	1.408	3.314	5.910	8.660	9.613	9.605	8.854	7.855	7.605
132.0	1.103	1.255	2.137	3.676	4.780	4.841	4.977	4.977	4.739	4.714
135.0	1.007	1.011	1.160	1.943	2.095	2.146	2.182	2.232	2.382	2.406
138.0	0.9536	0.8920	0.8487	0.9461	0.9848	1.007	1.039	1.027	0.9926	1.021
141.0	0.8788	0.8508	0.7984	0.8219	0.8308	0.8431	0.8367	0.8516	0.8040	0.8050
144.0	0.8164	0.8223	0.7465	0.7583	0.7724	0.7737	0.7637	0.7765	0.7967	0.7849
147.0	0.7795	0.7833	0.7002	0.6876	0.6993	0.7116	0.7274	0.6920	0.7205	0.6933
150.0	0.7401	0.7332	0.6610	0.6311	0.6364	0.6541	0.6444	0.6273	0.6489	0.6397
153.0	0.7027	0.6925	0.6314	0.6082	0.5892	0.5987	0.5809	0.5849	0.5966	0.6117
156.0	0.6735	0.6697	0.6336	0.5811	0.5648	0.5455	0.5461	0.5592	0.5566	0.5555
159.0	0.6558	0.6474	0.6295	0.5697	0.5427	0.5176	0.5185	0.5228	0.5183	0.5237
162.0	0.6455	0.6363	0.6288	0.5693	0.5440	0.5117	0.5031	0.5084	0.4972	0.5081
165.0	0.6398	0.6299	0.6104	0.5692	0.5493	0.5092	0.5011	0.4952	0.4874	0.4989
168.0	0.6355	0.6280	0.6168	0.5828	0.5575	0.5278	0.5246	0.5158	0.5181	0.5157
171.0	0.6430	0.6374	0.6243	0.5976	0.5801	0.5690	0.5610	0.5652	0.5682	0.5522
174.0	0.6597	0.6555	0.6441	0.6154	0.6135	0.5954	0.5982	0.6033	0.6069	0.5864
177.0	0.6744	0.6872	0.6784	0.6633	0.6602	0.6711	0.6889	0.6857	0.6968	0.6668
180.0	0.7070	0.7038	0.7132	0.7133	0.7243	0.7525	0.7385	0.7285	0.7261	0.7117
G/C	100.0	110.0	120.0	130.0	140.0	150.0	160.0	170.0	180.0	190.0
0.0	566.4	569.3	571.7	572.5	574.8	576.9	578.9	581.0	556.2	555.7
3.0	560.3	555.1	559.5	556.4	539.3	547.6	550.3	573.0	558.1	538.9
6.0	572.1	561.6	543.1	571.8	551.0	564.5	550.1	536.0	563.6	566.4
9.0	535.7	529.4	561.5	552.7	538.1	563.5	567.8	543.8	543.6	544.3
12.0	566.2	589.6	546.2	558.0	531.0	549.3	548.3	548.9	547.1	572.2
15.0	576.9	578.9	585.6	572.9	590.7	583.7	573.0	573.6	568.2	575.6
18.0	613.4	601.7	581.6	578.0	595.1	573.0	574.8	579.0	578.9	582.5
21.0	618.6	606.3	626.3	599.7	602.1	603.6	620.8	611.9	596.5	597.9
24.0	630.8	638.7	638.9	653.8	623.5	639.8	619.7	624.6	632.9	631.1
27.0	654.6	681.8	649.2	645.5	649.8	663.4	652.0	670.5	662.5	660.6
30.0	711.8	704.6	704.8	691.0	711.6	689.1	695.1	678.4	673.5	662.9

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# TEST REPORT

## Photometric Data Table [cd]

33.0	758.5	731.2	746.0	738.3	716.8	705.5	743.2	710.8	726.4	716.0
36.0	785.4	794.9	770.2	777.1	778.4	756.7	750.7	750.1	765.6	762.9
39.0	836.5	829.6	848.4	829.0	825.0	818.2	814.7	815.1	792.8	813.2
42.0	890.8	895.6	897.0	870.8	876.6	885.4	859.7	864.5	864.0	839.3
45.0	975.5	978.8	938.4	931.8	927.9	933.5	917.6	936.2	929.1	927.3
48.0	1054	1084	1078	1051	1048	1034	1038	1032	987.0	996.7
51.0	1141	1156	1119	1142	1120	1119	1094	1098	1082	1110
54.0	1193	1215	1218	1221	1185	1173	1156	1149	1145	1177
57.0	1281	1294	1250	1281	1250	1276	1208	1240	1217	1259
60.0	1353	1347	1337	1364	1360	1346	1302	1314	1322	1347
63.0	1463	1467	1448	1451	1421	1436	1419	1428	1392	1446
66.0	1579	1574	1575	1557	1504	1520	1514	1521	1524	1524
69.0	1601	1597	1580	1582	1550	1568	1553	1574	1541	1591
72.0	1360	1400	1348	1394	1364	1381	1368	1392	1372	1420
75.0	931.1	936.6	927.2	967.9	958.9	958.0	947.4	990.7	1002	1011
78.0	550.7	564.3	547.9	573.7	556.9	574.4	559.1	598.0	615.4	633.3
81.0	342.6	349.7	338.5	355.6	345.7	354.7	341.2	362.3	358.5	377.0
84.0	229.3	239.5	233.0	247.5	240.0	243.0	234.1	242.6	242.5	249.7
87.0	133.6	144.3	145.1	156.7	152.5	155.0	147.5	153.2	151.4	165.2
90.0	84.79	88.88	84.57	91.13	85.77	90.10	83.83	89.35	86.52	90.91
93.0	82.99	84.99	79.20	79.96	65.70	55.27	47.50	55.43	57.16	58.89
96.0	65.78	65.63	63.58	55.12	48.08	44.04	37.68	44.92	43.42	41.78
99.0	52.06	52.70	47.37	41.40	36.28	29.98	29.83	33.35	44.43	33.84
102.0	43.20	43.07	38.17	32.76	27.89	30.25	44.22	35.96	38.47	28.62
105.0	35.75	35.45	36.45	27.82	18.48	31.64	38.85	38.64	42.69	28.62
108.0	31.47	32.32	31.12	23.77	17.17	29.76	32.25	32.15	35.26	23.86
111.0	26.42	26.07	23.29	15.96	18.05	25.97	28.68	29.23	31.94	21.89
114.0	21.29	20.33	18.55	14.31	19.39	20.78	23.32	24.77	27.26	18.38
117.0	16.29	15.86	15.84	15.94	16.59	16.81	17.76	19.70	21.07	13.90
120.0	11.22	12.10	16.79	17.80	13.71	12.37	11.96	1.850	5.521	1.869
123.0	8.911	12.21	17.34	18.28	12.39	8.550	6.546	9.336	5.120	7.140
126.0	9.438	12.14	14.97	15.51	11.16	6.724	3.808	4.673	3.413	3.730
129.0	8.239	9.597	10.56	10.87	8.900	5.770	2.950	2.170	1.655	1.636
132.0	5.050	5.516	5.759	5.896	5.764	4.071	2.028	1.493	1.185	1.460
135.0	2.492	2.599	2.731	2.676	2.808	2.387	1.142	1.061	0.9909	1.035
138.0	1.019	1.057	1.137	1.196	1.236	1.217	0.8850	0.9344	0.9150	0.8485
141.0	0.7770	0.8107	0.8243	0.8757	0.8994	0.8767	0.8406	0.8988	0.9178	0.8760
144.0	0.7585	0.7726	0.7663	0.8088	0.8273	0.7826	0.7931	0.8437	0.9108	0.8809
147.0	0.7221	0.7276	0.7143	0.7357	0.7368	0.7083	0.7404	0.7807	0.8775	0.8788
150.0	0.6771	0.6886	0.6840	0.6721	0.6661	0.6579	0.7011	0.7327	0.8415	0.8338
153.0	0.6403	0.6487	0.6458	0.6172	0.6153	0.6505	0.6759	0.6917	0.7869	0.7802
156.0	0.5947	0.5856	0.5854	0.5816	0.6019	0.6314	0.6639	0.6659	0.7536	0.7467
159.0	0.5204	0.5443	0.5526	0.5629	0.5991	0.6215	0.6469	0.6474	0.7309	0.7258
162.0	0.4955	0.5336	0.5553	0.5758	0.6045	0.6372	0.6481	0.6463	0.7020	0.6995
165.0	0.5214	0.5479	0.5651	0.5825	0.6202	0.6394	0.6472	0.6462	0.6690	0.6689
168.0	0.5306	0.5702	0.5883	0.6045	0.6322	0.6461	0.6506	0.6514	0.6454	0.6472
171.0	0.5643	0.5832	0.6165	0.6290	0.6509	0.6601	0.6649	0.6649	0.6636	0.6635
174.0	0.5958	0.5978	0.6320	0.6299	0.6631	0.6729	0.6764	0.6764	0.6760	0.6756
177.0	0.6815	0.6805	0.6931	0.6913	0.6861	0.6989	0.7026	0.6865	0.6962	0.6971
180.0	0.7182	0.7508	0.7695	0.7647	0.7838	0.7073	0.7221	0.7004	0.6978	0.6976
G/C	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0
0.0	554.2	554.5	554.0	555.0	557.5	558.6	561.4	564.2	566.4	569.3
3.0	545.2	550.7	595.0	578.0	559.6	548.9	568.8	597.7	542.9	530.3
6.0	549.1	532.4	530.2	542.3	561.7	544.8	549.1	562.7	554.5	565.7
9.0	553.3	560.8	556.3	541.4	560.1	577.4	541.9	564.5	548.0	530.5
12.0	537.9	535.4	539.0	558.2	567.4	550.2	551.8	580.4	567.9	544.7
15.0	560.8	563.9	572.3	556.1	568.3	573.7	566.2	591.8	584.3	590.6
18.0	601.6	586.4	607.5	586.8	597.2	603.3	616.1	585.7	598.9	598.2
21.0	603.0	608.9	594.2	598.6	615.4	629.3	618.2	621.6	648.5	602.6
24.0	613.6	628.2	629.2	630.8	630.2	643.6	622.1	632.1	640.9	646.2
27.0	658.2	647.2	649.0	661.6	651.9	669.2	662.5	672.2	660.5	675.7
30.0	681.5	695.1	656.3	686.4	669.3	701.2	714.9	683.2	690.2	688.8
33.0	709.1	734.5	727.7	709.6	743.2	714.9	722.6	733.5	744.0	722.7
36.0	752.0	772.3	759.3	771.0	754.2	763.2	762.0	787.0	788.8	808.3
39.0	771.0	788.8	799.8	810.0	794.6	825.2	793.9	835.5	828.6	834.3
42.0	853.6	831.3	853.6	837.4	860.3	850.6	871.2	845.7	885.0	884.0
45.0	918.1	909.3	949.1	927.0	924.2	930.4	937.8	929.3	925.8	936.9
48.0	1000	1005	979.7	995.4	988.4	989.5	1008	1010	1026	1034
51.0	1093	1096	1083	1102	1085	1105	1079	1126	1103	1129
54.0	1164	1181	1128	1152	1125	1167	1172	1228	1179	1194
57.0	1239	1268	1189	1222	1205	1259	1241	1293	1249	1271
60.0	1312	1312	1273	1299	1287	1309	1318	1352	1313	1359
63.0	1416	1418	1355	1413	1398	1398	1404	1433	1432	1449
66.0	1483	1514	1481	1499	1490	1500	1533	1555	1522	1577

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# TEST REPORT

## Photometric Data Table [cd]

69.0	1521	1577	1576	1608	1569	1559	1559	1605	1617	1630
72.0	1413	1429	1395	1448	1439	1449	1434	1450	1458	1483
75.0	1020	1042	1039	1056	1041	1069	1064	1079	1057	1063
78.0	632.7	663.9	657.7	662.0	658.0	662.2	649.9	666.3	652.8	670.7
81.0	371.4	398.2	383.2	400.4	384.2	402.6	402.1	401.4	383.3	393.2
84.0	250.0	261.5	253.4	268.0	260.2	270.8	271.5	269.7	257.7	264.8
87.0	166.5	177.2	176.9	191.4	178.4	185.8	175.5	178.5	172.7	177.2
90.0	87.94	92.47	86.62	90.19	84.72	92.43	87.91	92.26	83.86	91.39
93.0	53.90	69.26	75.54	88.48	85.29	90.66	86.99	90.66	82.74	88.71
96.0	36.90	45.60	52.62	65.69	66.85	77.02	72.04	77.45	71.84	72.93
99.0	34.11	32.98	38.86	46.18	51.41	58.25	57.90	56.65	55.85	53.94
102.0	43.56	24.90	29.54	37.45	44.39	46.15	45.93	45.82	46.09	44.91
105.0	39.38	24.79	22.61	32.59	37.54	37.12	38.16	38.17	38.02	37.12
108.0	32.24	26.38	18.54	30.81	34.01	33.66	32.79	32.98	33.33	33.34
111.0	28.40	24.86	17.08	19.47	25.36	27.31	28.39	28.84	28.08	26.52
114.0	22.70	19.98	18.59	16.50	20.25	21.36	22.53	22.83	21.82	20.49
117.0	17.44	16.33	17.26	16.94	16.78	16.81	17.29	17.33	16.86	15.96
120.0	12.96	12.65	16.88	20.37	15.51	12.59	12.54	12.50	12.12	12.82
123.0	8.496	10.14	16.16	20.39	16.38	11.40	9.239	8.919	9.521	12.70
126.0	5.669	8.875	14.04	16.86	14.72	11.95	9.421	8.762	10.06	12.45
129.0	4.256	7.420	10.61	11.40	11.06	9.896	8.652	8.291	8.785	9.768
132.0	2.860	5.048	6.382	6.476	6.414	6.128	5.715	5.460	5.604	5.764
135.0	1.537	2.655	2.769	2.717	2.654	2.566	2.514	2.451	2.392	2.291
138.0	0.9310	1.215	1.193	1.144	1.068	1.030	0.9999	0.9904	0.9338	0.9839
141.0	0.8678	0.8743	0.8753	0.8510	0.8027	0.7493	0.7515	0.7405	0.7212	0.7928
144.0	0.8563	0.8582	0.8768	0.8588	0.8349	0.7569	0.7536	0.7451	0.7537	0.8004
147.0	0.8261	0.8110	0.8501	0.8448	0.8373	0.7640	0.7555	0.7264	0.7580	0.7700
150.0	0.7889	0.7646	0.7893	0.8107	0.8008	0.7510	0.7513	0.6990	0.7323	0.7225
153.0	0.7434	0.7268	0.7244	0.7613	0.7502	0.7464	0.7254	0.6786	0.6835	0.6750
156.0	0.7402	0.7055	0.6942	0.6966	0.7015	0.7244	0.6936	0.6681	0.6572	0.6529
159.0	0.7198	0.6972	0.6743	0.6662	0.6600	0.6741	0.6562	0.6479	0.6411	0.6344
162.0	0.6958	0.7047	0.6602	0.6423	0.6460	0.6386	0.6303	0.6132	0.6367	0.6019
165.0	0.6680	0.6657	0.6652	0.6423	0.6230	0.6220	0.6049	0.5946	0.6085	0.6055
168.0	0.6481	0.6424	0.6468	0.6459	0.6230	0.6275	0.5998	0.5981	0.5998	0.6088
171.0	0.6665	0.6616	0.6535	0.6424	0.6331	0.6191	0.6224	0.6065	0.6215	0.6266
174.0	0.6762	0.6687	0.6507	0.6474	0.6447	0.6251	0.6339	0.6316	0.6099	0.6339
177.0	0.6960	0.6956	0.6833	0.6653	0.6872	0.6774	0.6958	0.7065	0.6795	0.7084
180.0	0.6999	0.7047	0.6952	0.6960	0.7088	0.7051	0.7069	0.7086	0.7051	0.6980
G/C	300.0	310.0	320.0	330.0	340.0	350.0				
0.0	571.7	572.5	574.8	576.9	578.9	581.0				
3.0	548.6	533.9	515.5	547.9	581.6	574.9				
6.0	566.0	580.8	566.5	566.8	560.3	554.4				
9.0	586.7	554.2	559.1	558.1	543.8	595.8				
12.0	568.5	562.7	559.7	583.9	576.8	566.2				
15.0	564.5	574.3	570.7	587.7	584.8	604.2				
18.0	608.3	614.4	610.9	609.8	607.8	606.3				
21.0	632.2	596.4	621.3	618.9	635.2	616.1				
24.0	638.8	657.6	640.2	667.7	667.0	665.5				
27.0	682.1	665.5	677.4	690.7	671.1	695.1				
30.0	691.1	700.0	702.5	706.3	717.9	720.3				
33.0	728.8	736.9	742.7	720.3	741.8	731.3				
36.0	784.3	781.8	794.7	809.7	793.9	808.4				
39.0	821.2	819.5	836.1	844.3	844.2	849.4				
42.0	890.8	875.8	907.1	899.0	895.9	891.3				
45.0	943.5	959.8	956.2	968.1	978.7	974.3				
48.0	1021	1048	1047	1073	1063	1067				
51.0	1134	1146	1130	1169	1164	1161				
54.0	1191	1238	1234	1238	1203	1236				
57.0	1223	1310	1299	1301	1293	1315				
60.0	1349	1387	1389	1402	1376	1389				
63.0	1451	1511	1468	1497	1463	1499				
66.0	1563	1586	1601	1607	1554	1588				
69.0	1621	1642	1608	1633	1645	1678				
72.0	1473	1480	1482	1490	1462	1469				
75.0	1040	1065	1053	1050	1008	1031				
78.0	651.3	660.3	635.1	649.1	621.0	626.7				
81.0	375.0	392.7	377.6	381.3	365.1	367.0				
84.0	252.3	260.1	252.1	254.7	239.2	242.3				
87.0	172.2	177.8	157.9	158.2	147.1	144.3				
90.0	87.41	91.33	89.26	90.83	86.40	92.89				
93.0	84.40	84.42	68.91	58.22	53.08	58.08				
96.0	63.93	58.30	48.80	41.21	41.99	42.04				
99.0	48.37	42.46	36.20	29.65	28.19	35.88				
102.0	40.90	35.42	27.10	31.30	35.85	36.58				

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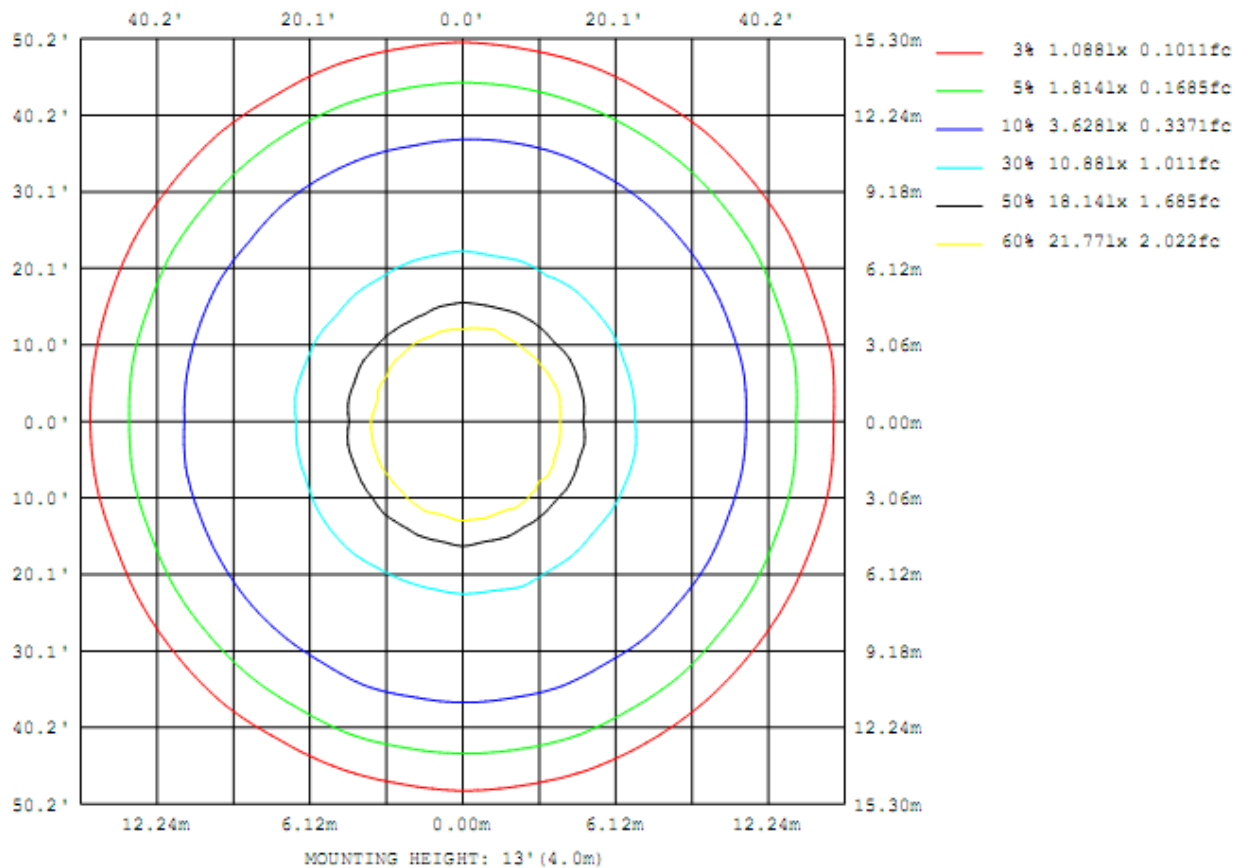
## TEST REPORT

### Photometric Data Table [cd]

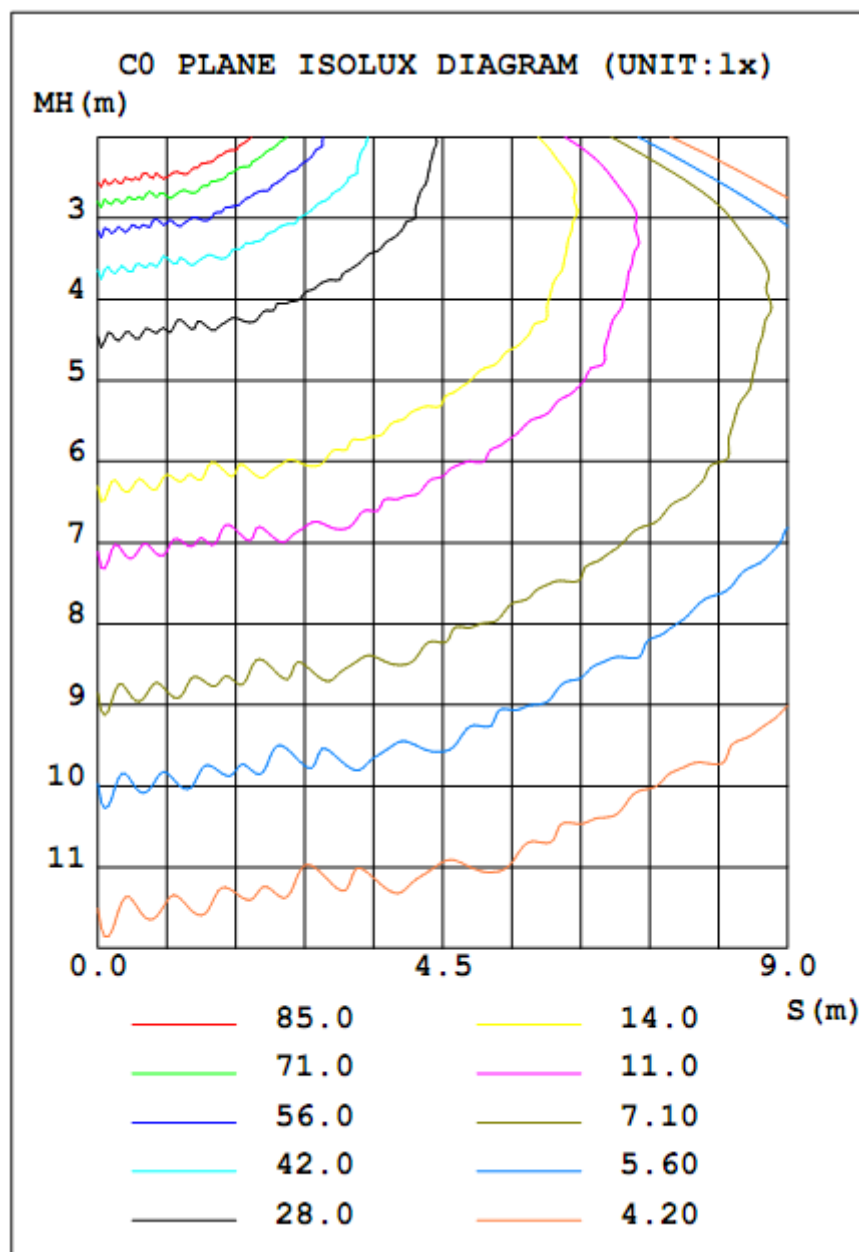
105.0	37.14	29.37	18.83	32.25	35.53	40.07
108.0	32.53	27.02	17.70	30.53	29.06	34.28
111.0	22.84	16.06	19.07	24.94	24.80	30.76
114.0	19.03	15.23	19.33	20.02	19.33	25.39
117.0	17.05	18.08	16.21	15.94	14.68	19.24
120.0	17.60	20.05	14.65	11.32	9.524	5.280
123.0	17.51	19.53	13.51	8.301	5.300	7.775
126.0	14.72	15.36	11.66	7.072	3.543	3.492
129.0	10.28	9.975	8.791	5.601	2.596	1.721
132.0	5.542	5.304	4.980	3.546	1.424	1.161
135.0	2.185	2.130	2.075	1.795	0.9421	0.9191
138.0	0.9675	1.025	1.010	0.9816	0.8737	0.8959
141.0	0.8148	0.8838	0.8908	0.9092	0.8605	0.9087
144.0	0.8217	0.8661	0.8743	0.8797	0.8549	0.9006
147.0	0.8165	0.8277	0.8506	0.8386	0.8508	0.8917
150.0	0.7821	0.7722	0.7938	0.7871	0.8277	0.8581
153.0	0.7291	0.7237	0.7367	0.7431	0.8025	0.8030
156.0	0.6926	0.6809	0.7052	0.7337	0.7745	0.7726
159.0	0.6676	0.6437	0.6927	0.7251	0.7522	0.7507
162.0	0.6324	0.6191	0.6652	0.6948	0.7207	0.7181
165.0	0.5961	0.5936	0.6362	0.6640	0.6787	0.6766
168.0	0.5899	0.5804	0.6073	0.6257	0.6500	0.6518
171.0	0.6243	0.6129	0.6197	0.6389	0.6533	0.6537
174.0	0.6501	0.6394	0.6386	0.6585	0.6586	0.6698
177.0	0.7165	0.7180	0.7133	0.7061	0.7020	0.6978
180.0	0.7169	0.7360	0.7353	0.7320	0.7220	0.6993

## TEST REPORT

### ISOLUX DIAGRAM

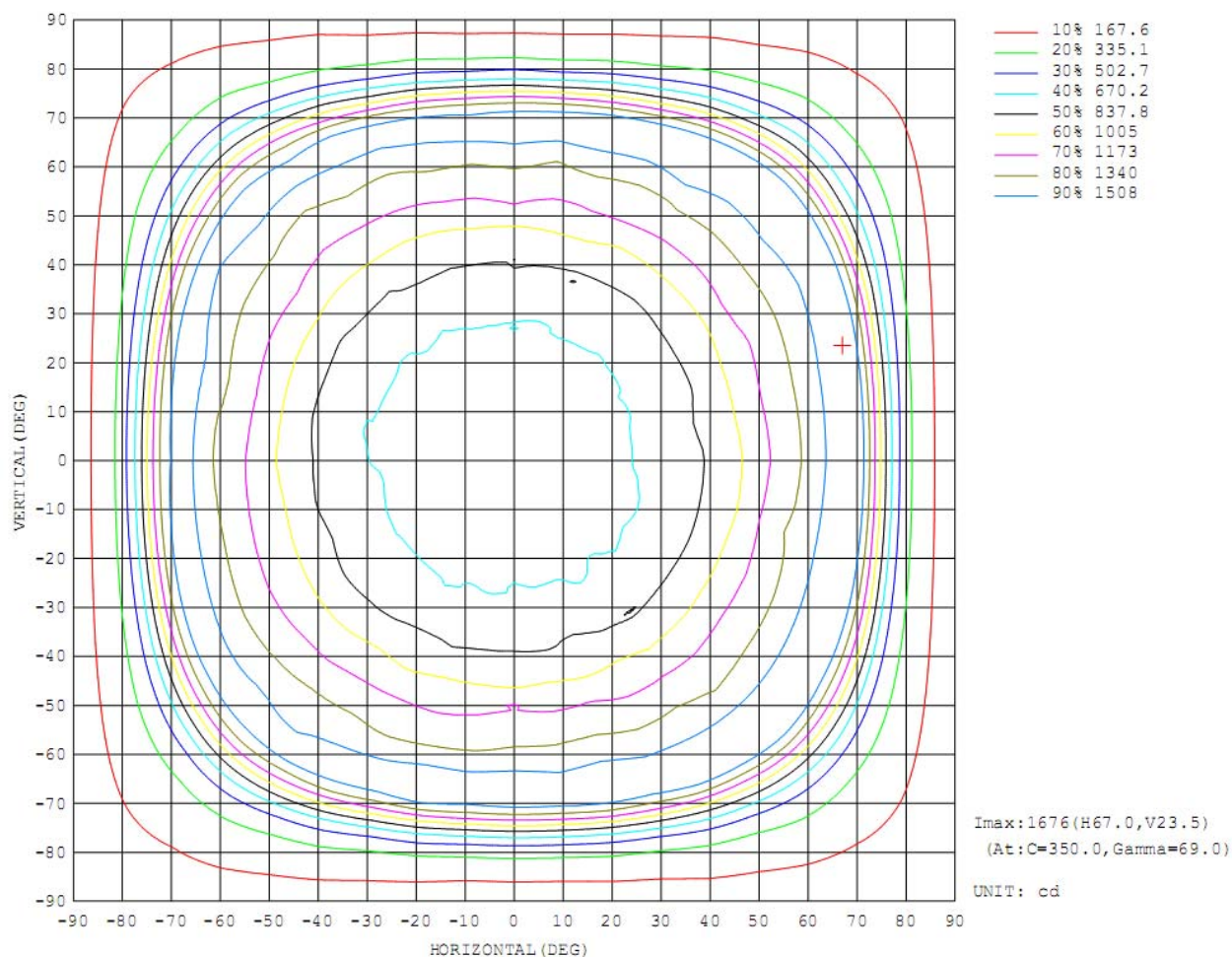


## TEST REPORT



## TEST REPORT

### ISOCANDELA DIAGRAM



## TEST REPORT

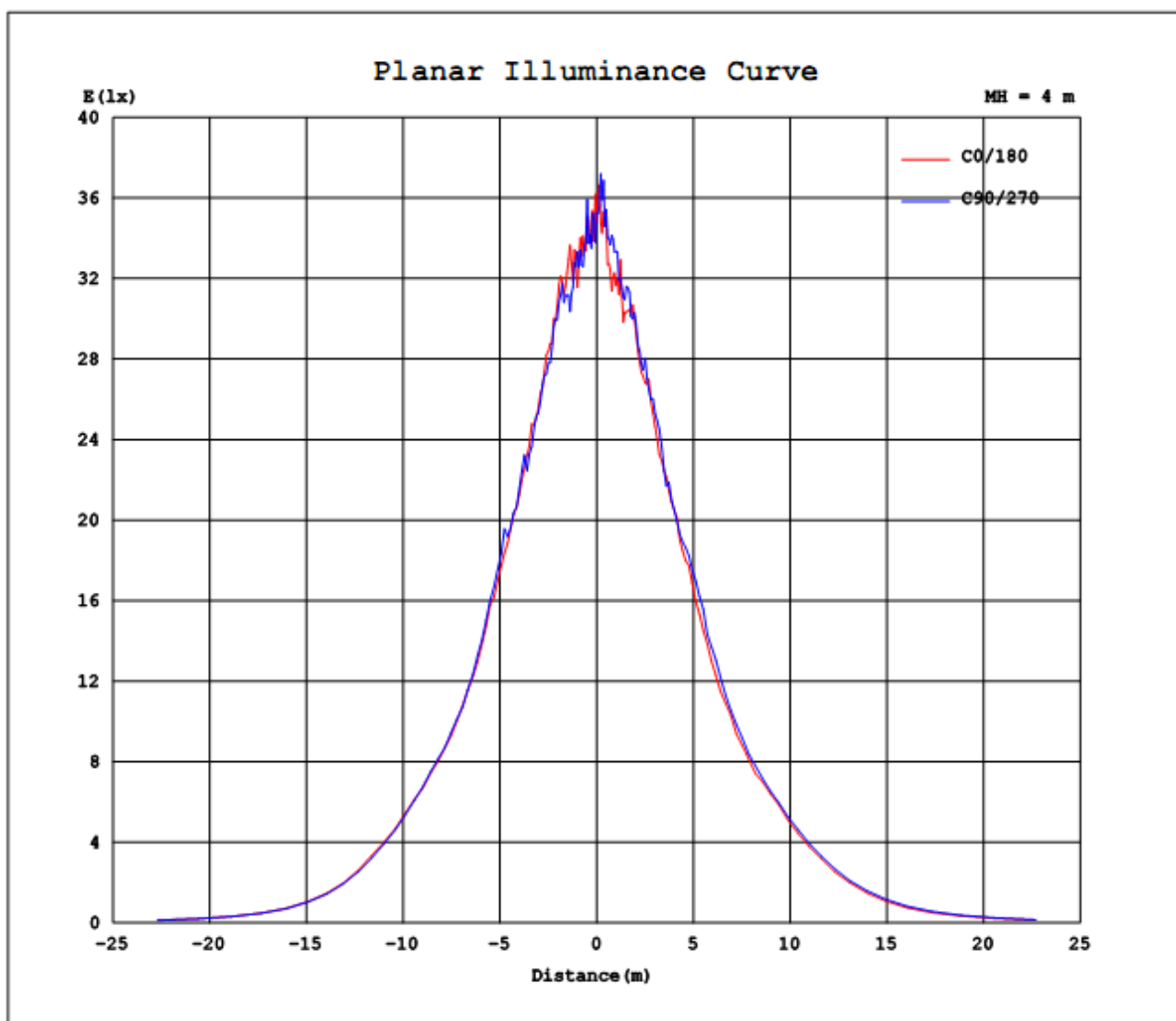
### ZONAL FLUX DIAGRAM

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	571.5	575.2	546.1	531.6	542.8	557.5	564.2	566.3	0- 10	53.17	53.17	0.92, 0.92
20	635.6	608.2	601.3	595.6	584.8	606.9	597.0	604.1	10- 20	165.2	218.3	3.77, 3.77
30	708.2	707.0	702.8	701.3	673.5	671.4	683.2	701.2	20- 30	302.8	521.1	8.99, 8.99
40	882.1	858.3	841.4	836.9	817.8	817.9	843.2	842.1	30- 40	483.5	1005	17.3, 17.3
50	1108	1130	1179	1099	1070	1069	1099	1118	40- 50	745.3	1750	30.2, 30.2
60	1382	1379	1371	1362	1322	1286	1352	1388	50- 60	1103	2853	49.2, 49.2
70	1606	1590	1571	1544	1513	1551	1572	1621	60- 70	1500	4352	75.1, 75.1
80	405.5	406.4	397.5	407.7	421.5	460.5	489.2	454.2	70- 80	1062	5414	93.5, 93.5
90	86.36	88.03	90.09	88.45	86.52	88.41	92.26	90.30	80- 90	245.0	5659	97.7, 97.7
100	34.61	36.48	49.65	35.26	34.22	38.35	52.79	36.63	90-100	67.56	5727	98.9, 98.9
110	33.02	18.52	29.19	18.05	33.25	19.79	31.00	18.90	100-110	35.33	5762	99.5, 99.5
120	6.740	17.27	11.33	15.76	5.521	18.63	12.50	17.35	110-120	19.17	5781	99.8, 99.8
130	1.209	7.577	6.758	8.578	1.402	9.469	7.557	7.892	120-130	8.814	5790	99.9, 99.9
140	0.9094	0.8556	0.8278	0.9207	0.9201	0.8885	0.7545	0.8885	130-140	2.045	5792	100, 100
150	0.7401	0.6453	0.6397	0.6691	0.8415	0.8000	0.6990	0.7830	140-150	0.5015	5793	100, 100
160	0.6491	0.5283	0.5172	0.5837	0.7202	0.6612	0.6364	0.6608	150-160	0.3109	5793	100, 100
170	0.6399	0.5647	0.5365	0.6324	0.6646	0.6491	0.6066	0.6112	160-170	0.1730	5793	100, 100
180	0.7070	0.7384	0.7117	0.7743	0.6978	0.6956	0.7086	0.7357	170-180	0.0613	5793	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



## TEST REPORT

### PLANAR ILLUMINANCE CURVE





## TEST REPORT

### EQUIPMENT USED

No.	Name	Model
1	Moving Mirror Goniophotometer	GO-R5000
2	Power meter	PF2010A
3	Power supply	--
4	Temperature recorder	7210-00
5	High accuracy array spectra-radio meter	HASS2000

## TEST REPORT

### Product Photos



Figure 1 (External View – front)



Figure 2 (External View – top )

## TEST REPORT



Figure 3 (External View – rear )



Figure 4 (External View – LED )

-----End of report-----