

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P155586

Luminaire Tested: **TLM-F02-LED-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155586
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33672)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F02-LED-E1-T3-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5224.6 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

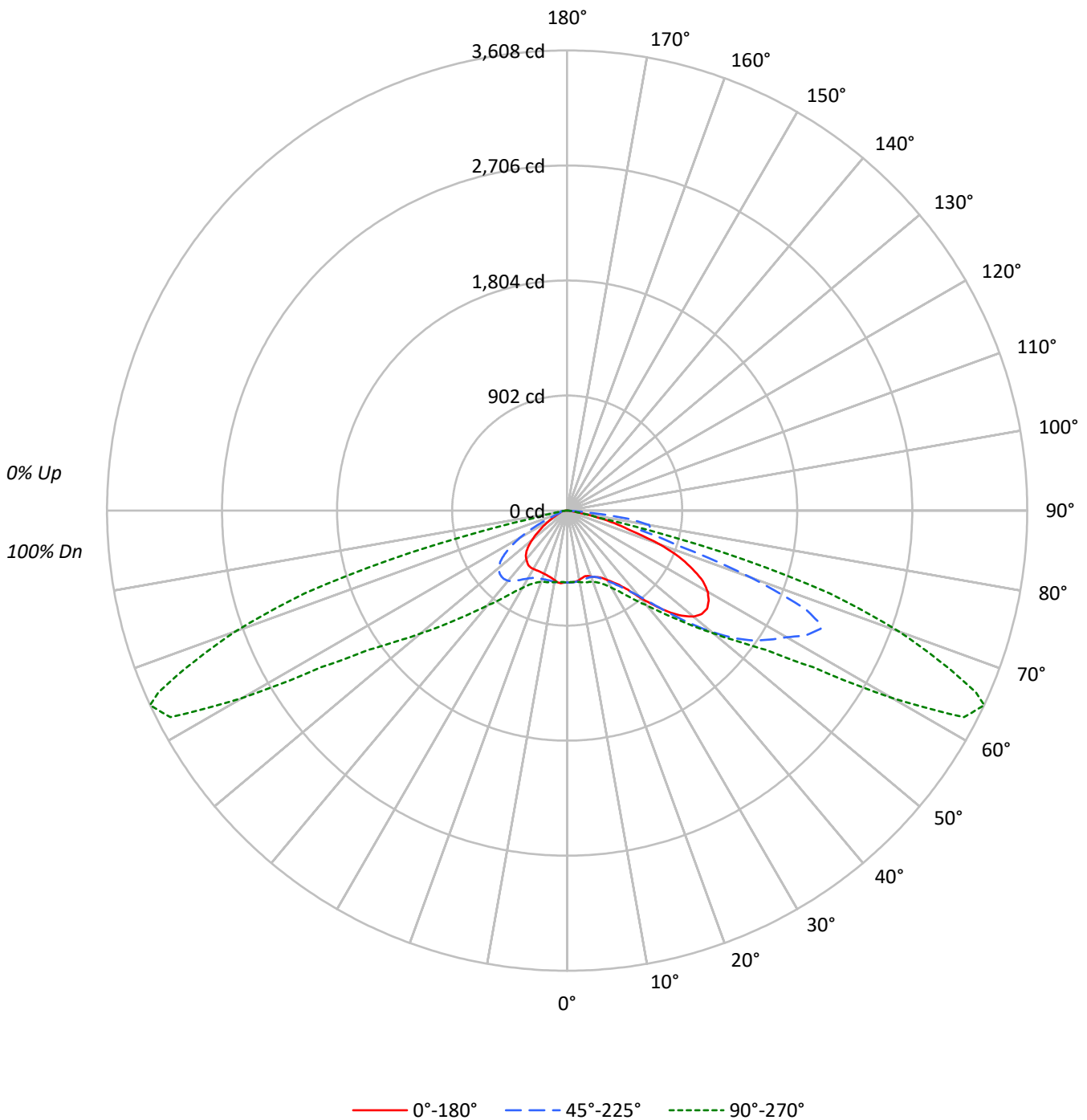
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

Luminous Intensity Polar Plot





TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	105	99	94	89	102	97	92	87	92	88	84	88	85	82	85	82	79	77
2	92	82	73	65	89	80	71	64	76	69	63	72	66	61	69	64	60	57
3	81	68	57	49	79	66	56	49	63	55	48	60	53	47	57	51	46	43
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36	33
5	65	49	38	30	63	48	38	30	46	37	29	44	35	29	42	34	29	26
6	59	43	32	24	57	42	32	24	40	31	24	38	30	24	36	29	23	21
7	54	38	28	20	52	37	27	20	35	27	20	34	26	20	32	25	20	17
8	50	34	24	17	48	33	24	17	32	23	17	30	23	17	29	22	17	14
9	46	31	21	15	45	30	21	15	29	20	15	28	20	15	27	20	14	12
10	43	28	19	13	42	27	19	13	26	18	13	25	18	13	24	18	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	18364	18364	18364
5°	18434	18418	18712
10°	18273	18836	18386
15°	18002	19660	18117
20°	19112	20639	18289
25°	20730	22641	18862
30°	23630	26331	19928
35°	28331	32289	20957
40°	37943	41332	21209
45°	51839	55041	20763
50°	65592	75995	18253
55°	76208	108191	14518
60°	83039	191343	11018
65°	83818	278506	8328
70°	73462	263789	6943
75°	48533	159637	7120
80°	17713	16229	8378
85°	2957	10778	9281



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.0
10°-20°	159.1	3.0
20°-30°	273.5	5.2
30°-40°	444.1	8.5
40°-50°	741.5	14.2
50°-60°	1167.5	22.3
60°-70°	1592.1	30.5
70°-80°	689.2	13.2
80°-90°	103.6	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	486.6	9.3
0°-40°	930.7	17.8
0°-60°	2839.7	54.4
0°-90°	5224.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5224.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	563	563	563	563	563	
5°	563	564	562	569	572	53
15°	533	555	582	565	536	153
25°	576	579	629	584	524	270
35°	712	727	811	668	526	461
45°	1124	1138	1193	730	450	864
55°	1340	1775	1902	601	255	1182
65°	1086	2194	3608	211	108	1054
75°	385	600	1267	57	56	412
85°	8	133	29	40	25	21
90°	0	0	0	0	0	



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
2.5°	565.3	567.5	565.3	565.8	566.4	565.8	565.3	565.3	563.6	564.7	565.8
5°	563.0	564.7	564.2	564.7	565.3	564.7	564.2	564.7	563.6	564.2	565.8
7.5°	560.2	559.6	560.2	561.3	562.5	562.5	562.5	563.0	562.5	562.5	564.2
10°	551.7	552.3	553.4	555.1	555.7	557.4	557.4	559.1	559.6	560.8	563.0
12.5°	541.0	541.6	542.7	543.8	546.6	549.5	549.5	553.4	555.1	557.9	561.9
15°	533.1	533.7	534.8	535.9	538.2	541.0	542.7	547.2	550.0	555.1	560.8
17.5°	537.6	537.0	538.2	538.7	538.7	541.0	541.0	544.4	547.8	552.3	559.6
20°	550.6	550.6	551.7	551.7	551.2	552.3	550.0	550.0	550.6	552.9	557.9
22.5°	563.6	563.0	565.3	566.4	567.0	568.7	566.4	565.8	563.0	561.3	563.0
25°	576.0	575.4	578.3	580.0	582.8	584.5	584.5	584.5	582.2	579.4	577.7
27.5°	595.2	595.2	598.0	599.7	602.0	605.4	607.1	607.1	607.6	603.7	600.9
30°	627.4	628.0	628.5	630.8	633.0	634.2	636.4	638.1	639.8	637.6	633.0
32.5°	665.8	662.4	662.4	665.8	668.6	672.0	673.1	675.4	678.8	677.1	676.5
35°	711.5	710.4	709.3	710.4	713.8	717.8	722.3	726.2	724.0	727.4	725.7
37.5°	779.3	780.4	781.0	781.0	780.4	781.6	783.8	787.8	786.7	787.8	790.0
40°	891.1	887.2	883.2	883.8	878.1	879.3	870.2	874.2	874.7	870.8	872.5
42.5°	1002.9	1005.2	1006.9	1011.4	1007.5	1005.2	996.7	996.7	992.2	988.3	987.1
45°	1123.8	1128.3	1128.9	1137.9	1134.5	1141.9	1148.1	1146.4	1139.0	1138.5	1130.6
47.5°	1220.4	1227.7	1235.6	1246.3	1254.8	1271.2	1290.4	1300.0	1305.6	1310.1	1301.1
50°	1292.6	1296.0	1316.4	1333.3	1351.9	1379.0	1405.6	1440.0	1467.7	1480.7	1493.1
52.5°	1331.6	1340.1	1362.1	1388.6	1421.4	1462.1	1505.0	1559.7	1607.2	1638.8	1667.0
55°	1340.1	1348.5	1373.4	1407.3	1451.9	1506.7	1568.2	1642.8	1713.9	1774.9	1834.2
57.5°	1316.4	1326.0	1352.5	1391.5	1444.0	1510.6	1588.0	1685.7	1783.9	1882.8	1970.3
60°	1272.9	1284.7	1309.0	1347.4	1405.6	1480.7	1573.3	1695.8	1833.6	1985.0	2152.7
62.5°	1201.2	1213.6	1236.2	1278.5	1338.4	1421.4	1528.7	1681.2	1876.0	2114.3	2411.9
65°	1086.0	1091.6	1119.3	1162.2	1215.3	1306.8	1424.8	1608.9	1862.4	2193.9	2603.9
66°	1034.0	1043.6	1060.5	1095.0	1145.8	1231.6	1350.2	1537.2	1811.0	2166.3	2598.8
67.5°	952.7	960.0	971.3	994.5	1025.5	1088.8	1201.2	1377.9	1654.1	2026.2	2491.0
70°	770.3	773.7	788.9	796.8	807.5	828.4	869.1	970.7	1185.9	1535.5	2010.4
72.5°	525.2	534.8	551.2	573.8	603.1	631.4	650.6	663.5	709.8	916.0	1339.5
75°	385.1	395.3	416.2	446.1	497.5	556.2	617.2	645.5	626.3	599.7	746.0
77.5°	223.6	237.2	254.7	283.5	330.9	408.9	513.3	605.9	668.6	672.6	638.7
80°	94.3	96.0	106.7	121.4	150.8	205.6	286.9	420.1	559.1	652.8	674.8
82.5°	21.5	26.5	33.9	40.1	49.1	67.8	100.5	167.2	302.1	473.8	617.8
85°	7.9	7.9	10.7	15.8	18.1	20.3	26.5	42.4	72.3	133.3	277.8
87.5°	0.0	0.6	1.1	1.1	2.3	2.8	4.5	6.2	5.6	5.1	16.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
2.5°	564.7	564.2	563.0	563.0	563.0	563.0	561.9	562.5	561.3	561.9	561.9
5°	564.2	564.2	563.6	562.5	563.0	563.0	563.6	562.5	562.5	563.0	562.5
7.5°	564.2	563.6	563.6	563.6	564.2	563.6	564.2	564.2	564.2	564.7	564.7
10°	564.2	564.2	565.3	565.8	565.8	566.4	568.1	568.1	568.7	569.2	570.4
12.5°	564.7	567.0	568.7	570.4	570.9	572.1	574.9	574.9	576.0	577.7	578.3
15°	565.3	568.7	572.1	573.2	574.3	576.6	579.4	580.5	582.2	583.9	585.0
17.5°	564.7	569.2	573.2	574.9	576.6	579.4	582.8	583.9	586.2	588.4	590.7
20°	564.2	570.4	576.6	578.8	581.1	585.0	589.6	592.4	594.6	598.0	600.3
22.5°	567.5	574.9	583.4	586.7	590.7	595.8	602.0	605.4	608.2	611.6	613.3
25°	578.3	583.9	594.1	599.7	604.8	613.3	621.8	625.7	629.1	631.9	632.5
27.5°	596.3	598.0	610.5	617.8	625.1	638.7	648.9	651.7	657.9	660.2	659.6
30°	625.7	622.9	633.0	644.3	655.1	673.7	686.1	693.5	699.1	699.1	694.6
32.5°	668.1	663.5	666.4	679.4	691.8	718.9	733.6	743.2	747.1	746.0	736.4
35°	723.4	720.6	718.9	729.0	748.8	780.4	799.6	804.7	810.9	809.8	797.4
37.5°	788.9	786.7	786.7	798.5	817.7	864.6	885.5	888.9	888.3	879.3	856.1
40°	866.3	865.1	860.1	866.8	883.2	944.2	972.4	977.0	970.7	956.1	929.0
42.5°	977.5	970.7	954.9	958.9	971.3	1030.6	1067.3	1079.7	1073.5	1058.8	1014.8
45°	1122.7	1115.3	1088.8	1085.4	1092.2	1144.1	1191.6	1194.4	1193.2	1174.6	1122.7
47.5°	1293.2	1281.9	1253.7	1244.6	1242.4	1290.4	1336.1	1340.6	1337.8	1310.1	1240.7
50°	1477.9	1461.5	1442.9	1436.6	1427.6	1462.1	1508.4	1508.9	1497.6	1459.2	1394.3
52.5°	1675.0	1669.3	1665.9	1659.7	1655.8	1685.7	1713.9	1697.0	1680.0	1639.9	1583.5
55°	1873.7	1896.9	1920.6	1922.9	1929.6	1961.8	1961.3	1915.0	1902.5	1880.5	1824.6
57.5°	2084.9	2170.8	2245.3	2268.5	2291.1	2350.9	2345.3	2299.5	2283.7	2256.6	2210.3
60°	2372.4	2603.9	2819.1	2870.5	2906.0	2977.8	2971.0	2900.4	2933.1	2930.9	2871.0
62.5°	2775.0	3160.2	3482.6	3561.7	3586.5	3594.4	3551.5	3475.3	3507.5	3543.6	3359.5
65°	3047.8	3500.7	3831.6	3892.6	3896.0	3801.7	3706.2	3616.4	3608.5	3577.5	3314.3
66°	3054.0	3517.6	3849.7	3909.0	3888.1	3759.3	3638.5	3548.1	3509.2	3440.8	3168.1
67.5°	2944.4	3412.0	3769.5	3832.2	3786.4	3604.0	3437.4	3321.1	3244.9	3134.2	2893.6
70°	2472.9	2936.5	3377.0	3493.9	3508.6	3236.4	3005.4	2868.8	2766.0	2614.1	2406.8
72.5°	1838.7	2257.7	2646.3	2758.1	2815.1	2597.7	2402.9	2299.0	2158.3	1998.5	1851.1
75°	1152.6	1448.5	1708.8	1787.3	1733.7	1565.4	1448.5	1405.0	1266.7	1171.2	1104.0
77.5°	659.0	751.6	772.5	742.6	679.4	520.1	369.9	273.9	237.7	263.2	290.3
80°	643.2	589.6	469.8	413.4	374.4	257.5	151.3	103.9	86.4	88.7	96.0
82.5°	696.9	747.7	615.5	502.0	421.3	284.6	157.0	83.6	56.5	66.6	75.1
85°	452.9	630.2	567.5	478.3	387.4	243.4	129.3	43.5	28.8	37.8	52.0
87.5°	45.7	50.3	42.9	58.2	43.5	20.3	10.2	6.2	5.6	6.8	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
2.5°	562.5	562.5	563.0	563.6	564.2	564.7	564.7	564.7	564.7	565.8	565.3
5°	563.6	564.7	565.8	566.4	567.5	567.5	569.2	568.7	568.7	570.4	570.9
7.5°	565.8	567.5	569.8	569.2	571.5	570.9	572.1	572.1	570.4	570.9	569.8
10°	570.9	573.2	574.3	572.6	573.2	570.9	570.4	567.5	564.2	562.5	560.2
12.5°	579.4	581.7	581.7	578.8	575.4	570.4	566.4	560.2	555.1	552.3	549.5
15°	586.7	589.0	588.4	583.9	578.8	570.9	565.3	557.9	550.6	546.1	543.3
17.5°	592.4	593.5	591.8	585.6	580.0	572.6	567.0	559.1	550.6	545.0	539.9
20°	600.9	599.7	595.8	587.9	581.7	574.9	570.4	563.6	554.0	546.6	539.3
22.5°	613.3	608.8	601.4	593.0	586.7	580.5	576.0	568.7	559.1	550.0	541.6
25°	629.7	620.6	610.5	601.4	595.8	589.0	583.9	576.0	565.8	555.7	545.5
27.5°	653.4	637.6	624.6	616.7	610.5	602.0	595.8	585.6	574.9	563.0	551.7
30°	679.9	658.5	646.0	639.8	633.0	624.0	614.4	601.4	589.0	576.0	562.5
32.5°	714.4	688.4	676.5	670.3	661.3	650.0	638.7	624.0	606.5	589.6	573.2
35°	759.5	733.0	720.6	711.0	698.6	683.9	667.5	647.7	624.0	601.4	580.5
37.5°	808.1	779.3	767.5	757.3	738.6	719.4	696.3	667.5	635.3	605.4	579.4
40°	869.7	843.1	827.9	810.4	788.3	755.0	718.9	677.1	635.9	599.2	568.7
42.5°	947.6	921.1	898.5	870.8	832.4	781.0	729.6	675.4	625.7	583.9	551.2
45°	1050.9	1018.7	979.8	931.2	869.1	797.4	730.2	664.7	606.5	560.2	525.2
47.5°	1177.4	1128.3	1064.5	982.6	893.4	801.9	721.1	643.2	576.6	526.3	487.4
50°	1327.6	1250.3	1145.2	1025.0	905.8	795.1	698.6	611.0	534.2	480.6	434.3
52.5°	1499.3	1372.8	1218.1	1055.5	905.2	772.5	660.2	562.5	478.9	419.0	375.0
55°	1700.9	1512.9	1293.2	1078.0	889.4	730.7	601.4	494.1	410.5	355.2	314.5
57.5°	1996.3	1739.9	1424.2	1113.1	857.8	666.4	521.8	412.2	338.8	286.3	251.9
60°	2536.1	2118.8	1660.3	1183.6	809.2	572.1	428.6	324.7	263.2	220.8	197.7
62.5°	2942.7	2411.9	1787.9	1167.8	711.5	455.7	317.9	236.6	193.7	164.9	150.2
65°	2884.6	2321.0	1651.8	1005.8	557.9	321.3	211.2	160.9	133.3	119.7	111.2
66°	2753.0	2202.4	1533.8	905.2	482.3	267.1	173.9	135.0	114.6	105.0	99.4
67.5°	2503.4	1982.2	1322.6	742.0	370.5	193.7	131.0	106.7	93.2	89.2	85.3
70°	2081.0	1580.6	928.4	432.0	189.2	107.9	83.0	74.5	71.2	70.6	69.5
72.5°	1594.8	1118.7	546.6	204.4	98.3	71.7	64.4	61.6	60.4	60.4	61.0
75°	977.5	628.5	241.7	100.0	68.9	60.4	57.0	55.9	55.3	55.9	55.3
77.5°	326.4	199.9	103.3	75.7	62.7	55.9	53.6	52.5	52.5	52.5	52.5
80°	100.0	87.0	79.1	70.0	59.3	53.1	49.7	49.1	49.7	50.3	48.6
82.5°	75.1	71.2	66.6	62.1	53.6	47.4	46.3	46.3	46.3	44.6	42.4
85°	55.3	54.8	45.2	42.4	39.5	39.5	39.5	39.5	37.8	35.0	32.8
87.5°	10.2	9.6	10.2	10.7	15.8	16.9	16.9	18.1	19.8	18.6	18.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P155586

CATALOG NUMBER: TLM-F02-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	563.0	563.0	563.0	563.0	563.0
2.5°	565.3	564.7	566.4	565.3	565.8
5°	570.4	569.8	570.9	569.8	571.5
7.5°	568.7	567.5	567.0	567.5	568.1
10°	556.8	555.7	555.1	554.6	555.1
12.5°	546.6	544.4	544.4	543.3	543.8
15°	539.3	537.6	537.0	535.9	536.5
17.5°	535.9	533.1	532.0	530.8	530.8
20°	533.7	530.3	528.6	527.4	526.9
22.5°	533.7	528.6	526.3	525.2	524.6
25°	535.9	529.7	526.3	524.6	524.1
27.5°	540.4	532.5	528.6	526.3	526.3
30°	548.3	538.2	532.5	529.7	529.1
32.5°	556.2	542.7	534.8	531.4	530.3
35°	560.2	542.7	533.1	527.4	526.3
37.5°	555.7	535.4	523.5	515.0	513.3
40°	541.6	520.1	507.1	499.2	498.1
42.5°	522.9	502.0	486.8	481.1	479.4
45°	497.5	472.7	457.4	449.5	450.1
47.5°	454.0	428.6	415.1	407.7	408.9
50°	402.6	377.8	365.9	358.0	359.7
52.5°	346.2	323.6	312.3	308.3	307.2
55°	286.9	269.4	261.5	256.9	255.3
57.5°	232.7	220.2	214.6	208.9	209.5
60°	183.5	177.3	175.6	169.4	168.9
62.5°	144.6	140.6	138.9	134.4	135.0
65°	109.6	108.4	109.6	106.7	107.9
66°	98.8	99.4	99.4	97.7	98.8
67.5°	85.3	86.4	88.1	86.4	87.5
70°	70.6	71.7	72.8	72.8	72.8
72.5°	61.6	62.7	63.2	63.2	63.2
75°	56.5	57.0	57.6	56.5	56.5
77.5°	53.1	53.1	52.0	51.4	50.8
80°	48.0	47.4	45.7	44.6	44.6
82.5°	40.1	39.0	37.8	36.1	36.1
85°	30.5	29.4	28.2	26.0	24.8
87.5°	15.8	16.4	15.8	13.0	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)