

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: P152366

Luminaire Tested: **TLM-F02-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152366
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
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-SL4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5004.7 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

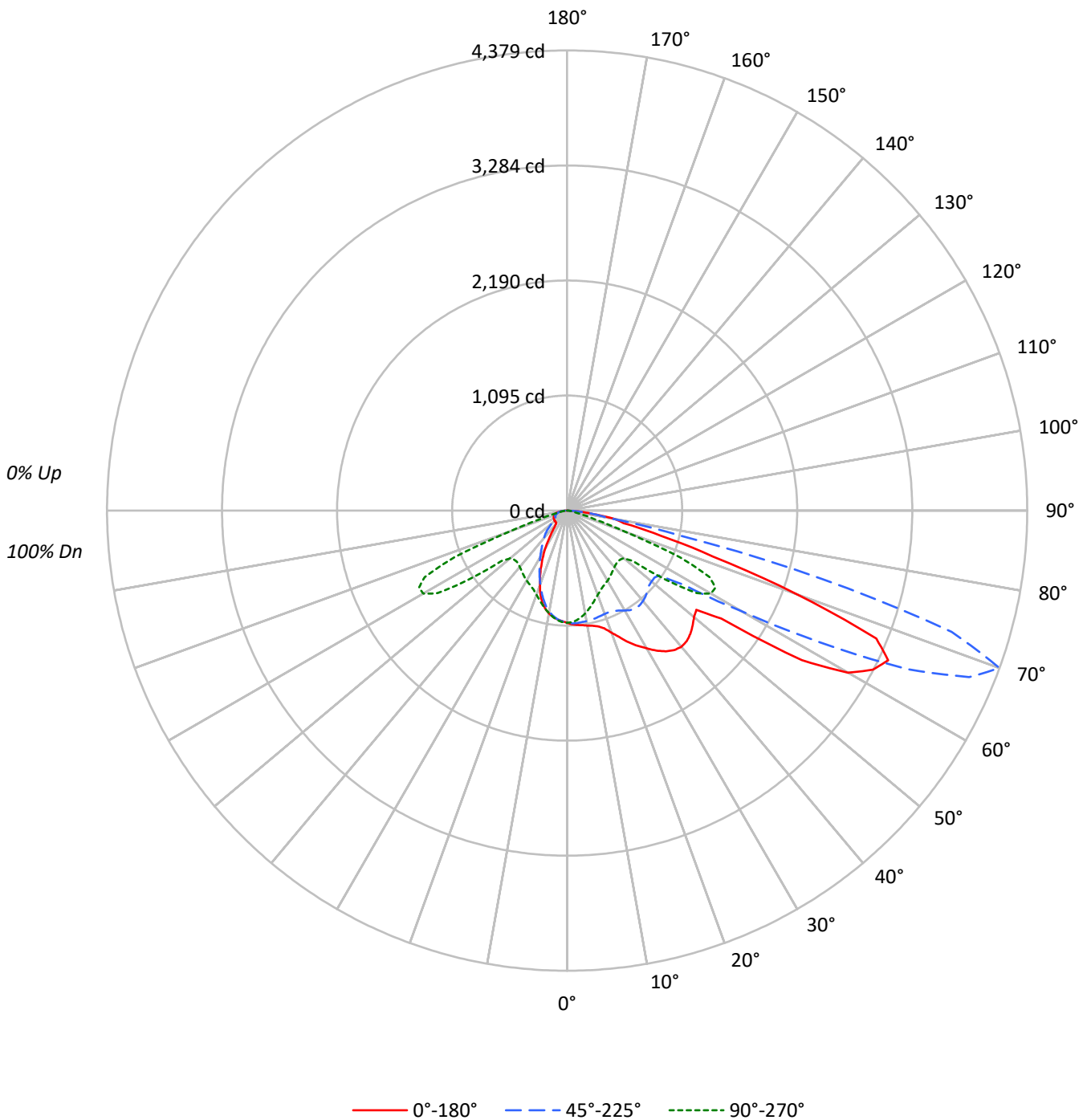
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	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					100			
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34833	34833	34833
5°	35761	34301	34078
10°	36811	32883	32939
15°	38540	31141	30682
20°	42889	29560	26287
25°	49734	28821	21015
30°	57001	28990	15698
35°	65076	29211	10210
40°	72015	29814	7047
45°	76509	31492	7035
50°	80009	35790	7825
55°	101804	65511	8542
60°	201253	103040	9577
65°	260160	115501	10767
70°	221350	54608	12121
75°	116360	20076	14947
80°	86556	10932	16229
85°	50074	10554	16280



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	2.0
10°-20°	273.1	5.5
20°-30°	404.3	8.1
30°-40°	510.9	10.2
40°-50°	577.8	11.5
50°-60°	822.3	16.4
60°-70°	1531.4	30.6
70°-80°	701.8	14.0
80°-90°	83.3	1.7
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°	777.2	15.5
0°-40°	1288.1	25.7
0°-60°	2688.2	53.7
0°-90°	5004.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5004.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1068	1068	1068	1068	1068	
5°	1092	1074	1048	1039	1041	105
15°	1141	1059	922	873	909	328
25°	1382	1053	801	624	584	642
35°	1634	1137	734	418	256	1022
45°	1659	1080	683	273	152	1276
55°	1790	1074	1152	139	150	1881
65°	3371	3570	1496	124	140	3108
75°	923	2510	159	98	119	1135
85°	134	118	28	45	44	168
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9
2.5°	1084.3	1087.1	1083.7	1083.1	1083.1	1082.6	1079.2	1078.6	1074.1	1074.7	1075.8
5°	1092.2	1093.3	1091.0	1090.5	1089.3	1087.1	1084.3	1080.9	1077.5	1074.1	1071.3
7.5°	1100.1	1098.9	1097.2	1097.2	1095.6	1092.2	1086.5	1082.0	1074.7	1070.7	1065.6
10°	1111.4	1109.7	1107.4	1106.3	1103.5	1098.4	1090.5	1084.3	1075.2	1067.3	1058.8
12.5°	1122.1	1121.5	1118.1	1116.4	1111.9	1106.8	1097.2	1087.6	1075.8	1063.4	1052.1
15°	1141.3	1139.0	1135.6	1132.3	1124.9	1118.1	1103.5	1092.2	1075.2	1058.8	1041.3
17.5°	1174.6	1170.7	1167.3	1159.9	1150.9	1139.0	1117.6	1098.4	1075.2	1051.5	1031.7
20°	1235.6	1227.1	1222.6	1213.0	1197.2	1175.7	1142.4	1111.4	1076.9	1046.4	1019.9
22.5°	1304.5	1298.8	1292.6	1286.4	1261.6	1230.5	1185.3	1139.0	1087.1	1044.2	1010.3
25°	1381.9	1374.5	1371.1	1360.4	1337.3	1301.7	1240.1	1175.7	1110.2	1053.2	1010.3
27.5°	1450.8	1448.5	1447.9	1435.5	1413.5	1371.7	1298.8	1221.5	1141.9	1071.8	1018.7
30°	1513.4	1511.2	1510.1	1503.3	1477.9	1428.2	1349.1	1262.1	1176.3	1097.8	1034.6
32.5°	1580.1	1572.7	1569.3	1556.4	1527.6	1469.4	1379.0	1288.7	1203.4	1123.2	1052.1
35°	1634.3	1628.1	1621.3	1602.7	1562.0	1493.1	1392.0	1297.7	1214.1	1137.3	1061.1
37.5°	1673.8	1667.6	1658.0	1634.3	1584.0	1501.0	1391.5	1294.9	1210.2	1135.1	1062.8
40°	1691.3	1685.1	1675.0	1645.0	1588.0	1496.5	1380.7	1281.9	1198.3	1123.2	1056.0
42.5°	1684.6	1680.0	1667.0	1638.2	1575.6	1476.2	1359.3	1257.6	1175.7	1104.0	1040.8
45°	1658.6	1655.2	1642.8	1612.3	1547.3	1443.4	1327.6	1227.1	1148.6	1080.3	1020.4
47.5°	1619.6	1618.5	1606.1	1576.1	1511.7	1410.7	1294.9	1197.2	1121.5	1057.2	1003.5
50°	1576.7	1571.0	1564.8	1537.2	1478.4	1382.4	1271.2	1178.6	1106.3	1048.7	996.2
52.5°	1549.6	1547.9	1542.2	1517.4	1460.9	1366.1	1260.4	1171.8	1105.2	1047.0	992.2
55°	1790.2	1794.1	1742.2	1634.3	1539.4	1411.2	1292.6	1206.2	1132.8	1074.1	1034.0
57.5°	2648.0	2630.5	2541.2	2327.2	2085.5	1766.4	1536.6	1397.1	1306.2	1316.4	1336.7
60°	3085.0	3081.7	3065.3	2982.3	2821.3	2578.5	2309.1	2000.2	1902.0	1912.7	1920.6
62.5°	3280.4	3285.5	3297.9	3266.9	3224.5	3153.9	3019.5	2895.3	2763.7	2714.6	2583.0
65°	3370.8	3379.8	3408.1	3425.6	3442.0	3454.4	3507.5	3653.2	3749.2	3569.6	3151.7
67.5°	3183.9	3227.4	3320.5	3411.5	3492.8	3608.5	3788.1	4126.4	4361.9	4141.1	3535.1
70°	2321.0	2380.3	2487.0	2768.2	3068.7	3331.3	3679.1	4194.2	4549.4	4378.8	3630.0
72.5°	1455.3	1471.7	1519.1	1622.4	1845.5	2182.6	2790.8	3563.4	3973.3	3837.3	3068.1
75°	923.3	929.0	927.3	951.0	988.8	1062.2	1302.8	2104.7	2721.9	2509.6	1710.0
77.5°	550.0	558.5	561.9	569.2	587.3	613.3	633.0	716.1	1141.3	1108.0	620.6
80°	460.8	467.6	461.9	460.2	449.0	441.0	450.6	441.0	409.4	394.2	363.1
82.5°	244.0	243.4	241.7	258.1	291.4	317.4	337.1	332.6	301.0	256.4	217.4
85°	133.8	138.4	138.4	144.0	138.9	139.5	144.0	151.9	140.6	117.5	96.0
87.5°	11.3	17.5	14.1	17.5	23.7	16.9	16.4	16.4	14.1	10.2	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9
2.5°	1073.0	1071.8	1069.6	1067.9	1067.9	1065.1	1063.4	1062.2	1061.7	1059.4	1059.4
5°	1069.6	1065.6	1061.7	1058.8	1057.2	1054.3	1049.8	1047.6	1044.7	1042.5	1041.3
7.5°	1062.2	1054.9	1048.7	1044.2	1038.5	1034.0	1028.3	1023.3	1018.2	1015.9	1014.8
10°	1050.9	1041.3	1031.7	1023.3	1015.4	1007.5	1000.1	992.8	986.6	982.0	977.5
12.5°	1040.2	1025.5	1013.1	1000.7	988.3	978.7	968.5	957.8	948.7	940.3	938.0
15°	1025.5	1008.6	992.8	977.5	962.3	946.5	934.0	922.2	907.5	897.9	890.6
17.5°	1012.0	991.6	972.4	954.4	935.7	919.4	900.7	884.9	870.2	855.5	844.8
20°	997.3	975.3	954.9	934.6	914.3	893.4	871.9	851.6	833.5	816.0	798.5
22.5°	984.3	961.7	941.9	919.9	897.3	873.6	848.8	823.4	802.5	779.9	759.5
25°	976.4	951.5	931.2	909.8	884.9	858.9	830.7	800.8	775.4	749.4	725.1
27.5°	976.4	944.2	923.3	901.9	876.4	848.8	817.7	785.0	756.2	727.4	697.4
30°	984.9	945.3	917.1	894.5	868.5	838.6	804.2	769.7	738.1	704.2	675.4
32.5°	992.8	947.6	912.6	883.8	853.9	824.5	789.5	752.8	717.8	685.6	655.1
35°	997.9	947.6	904.1	867.4	833.5	804.7	770.3	733.6	698.0	666.4	638.1
37.5°	998.4	943.1	890.6	848.8	813.2	783.3	750.5	716.1	682.2	652.8	629.1
40°	992.8	934.0	877.0	829.0	791.7	761.2	731.3	700.2	669.8	645.5	625.1
42.5°	982.6	924.4	864.0	813.2	774.2	742.6	714.9	688.4	661.8	641.0	624.0
45°	967.4	911.5	852.2	803.6	765.2	731.9	704.8	682.7	660.2	642.6	625.7
47.5°	953.8	906.9	856.1	809.8	769.7	735.3	707.6	689.0	671.4	659.6	636.4
50°	951.0	904.7	857.8	814.9	774.2	739.2	714.9	705.3	700.2	692.9	657.3
52.5°	943.1	904.1	870.2	846.5	820.5	804.2	778.7	787.8	782.1	756.2	691.8
55°	1026.1	1037.4	1069.0	1114.2	1156.0	1165.6	1162.8	1152.0	1095.0	941.9	774.8
57.5°	1410.7	1474.5	1534.3	1560.9	1557.5	1527.6	1506.1	1462.6	1380.2	1193.8	938.6
60°	1944.9	1955.1	1923.4	1876.6	1797.5	1731.4	1660.8	1579.5	1459.8	1277.4	1039.1
62.5°	2436.8	2300.1	2159.5	2027.3	1907.0	1802.0	1703.8	1590.2	1434.4	1244.1	1026.1
65°	2784.1	2494.9	2273.0	2083.2	1913.3	1766.4	1643.9	1496.5	1320.9	1149.2	951.0
67.5°	2963.1	2519.8	2179.2	1915.0	1673.8	1470.5	1307.3	1163.9	1033.4	958.3	832.4
70°	2763.2	2138.6	1664.2	1365.5	1076.9	863.5	682.2	572.6	534.8	605.9	630.2
72.5°	2059.0	1392.0	989.9	765.8	586.7	467.6	358.6	281.8	229.3	240.6	312.3
75°	973.6	600.9	424.7	323.0	256.9	212.9	173.9	159.3	133.3	110.7	103.9
77.5°	378.9	276.1	228.1	167.2	118.6	95.4	81.3	78.5	80.2	77.9	76.8
80°	288.6	195.4	122.5	89.8	77.4	68.3	60.4	58.2	59.3	62.1	64.9
82.5°	160.9	100.5	74.5	64.9	58.2	49.7	45.2	41.8	42.4	45.7	52.0
85°	62.1	48.6	44.6	42.9	40.1	32.2	27.7	28.2	32.2	38.4	38.4
87.5°	6.8	6.8	9.0	6.8	6.8	6.8	6.2	7.3	7.9	10.2	11.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9	1067.9
2.5°	1058.3	1058.3	1058.3	1057.2	1057.7	1055.5	1055.5	1053.8	1056.6	1054.9	1054.3
5°	1041.9	1041.3	1039.1	1039.1	1039.1	1039.1	1040.8	1036.3	1039.6	1039.6	1037.9
7.5°	1014.2	1014.2	1008.0	1011.4	1010.3	1012.0	1014.2	1012.0	1015.4	1017.6	1015.9
10°	975.8	975.8	970.7	974.7	973.0	977.0	980.9	978.7	980.9	984.3	985.4
12.5°	933.5	931.2	926.7	928.4	928.4	930.7	932.3	935.2	938.0	942.5	944.8
15°	884.3	881.0	875.3	875.3	871.9	873.1	876.4	877.6	883.2	889.4	896.8
17.5°	834.1	825.6	819.4	812.1	806.4	810.9	814.9	817.7	822.2	831.8	836.9
20°	786.7	769.7	757.9	748.3	742.0	744.9	749.9	753.3	757.3	759.5	761.2
22.5°	739.8	720.6	704.2	692.3	682.2	685.0	682.7	681.0	683.9	676.5	676.0
25°	699.1	676.5	654.5	640.4	628.0	624.0	612.2	609.3	601.4	595.2	590.7
27.5°	669.8	640.4	616.1	599.7	580.0	565.3	550.0	534.8	526.3	516.2	511.1
30°	646.6	615.5	586.7	559.1	533.1	510.5	490.2	470.4	456.9	442.2	432.6
32.5°	625.1	596.3	561.3	523.5	488.5	463.1	436.5	413.9	392.5	373.3	359.2
35°	610.5	578.3	533.7	487.4	447.8	417.9	389.7	357.5	331.5	306.6	291.4
37.5°	602.6	563.0	508.2	456.9	412.8	378.9	343.9	306.6	275.0	251.9	228.7
40°	596.3	547.8	485.7	429.7	383.4	342.8	302.1	258.1	223.1	198.8	180.7
42.5°	589.6	530.8	465.9	408.3	356.9	309.5	260.3	213.5	180.1	163.2	155.3
45°	582.2	516.2	447.3	388.0	330.9	273.3	216.9	173.4	153.6	148.0	148.0
47.5°	580.5	506.6	433.7	368.2	301.6	231.5	176.8	149.7	144.0	145.1	147.4
50°	587.3	503.7	421.8	345.0	262.6	187.5	149.7	140.6	141.7	145.1	148.5
52.5°	603.7	506.0	409.4	312.9	216.3	154.7	138.4	137.8	141.2	146.3	149.7
55°	631.4	506.0	385.7	264.9	172.8	138.9	134.4	136.7	141.2	145.7	148.5
57.5°	690.6	500.9	343.9	211.8	144.6	133.3	133.3	136.1	140.0	144.6	146.8
60°	761.2	494.1	285.2	163.8	130.4	128.8	132.7	136.1	139.5	143.4	145.7
62.5°	765.8	476.6	225.9	135.5	123.1	125.9	132.1	136.7	137.8	140.6	143.4
65°	703.6	415.6	179.6	121.4	119.7	124.2	130.4	133.8	134.4	135.5	138.4
67.5°	616.1	338.8	145.1	114.6	116.3	121.4	124.8	127.6	129.3	132.1	132.7
70°	506.0	272.2	124.2	107.9	109.6	115.2	118.0	120.8	124.2	127.6	125.9
72.5°	358.6	211.8	109.0	100.5	102.8	107.9	111.2	113.5	116.3	119.7	117.5
75°	152.5	148.0	94.3	90.9	94.3	97.7	101.1	104.5	107.3	109.0	109.0
77.5°	77.9	87.0	81.3	81.3	83.6	87.0	89.8	93.2	94.9	96.6	98.8
80°	66.1	67.2	68.3	70.6	72.8	76.2	79.1	81.9	82.4	83.0	84.1
82.5°	54.8	57.0	58.2	61.6	63.2	64.4	66.1	66.1	67.2	67.2	65.5
85°	39.5	42.4	44.0	44.6	44.0	44.6	45.2	46.3	49.1	49.1	46.9
87.5°	11.3	10.7	13.6	14.1	15.2	17.5	19.8	23.7	24.8	26.0	26.0
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: P152366

CATALOG NUMBER: TLM-F02-LED-E1-SL4-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1067.9	1067.9	1067.9	1067.9
2.5°	1053.8	1054.9	1052.6	1053.2
5°	1037.9	1040.2	1037.4	1040.8
7.5°	1017.6	1021.0	1020.4	1019.9
10°	988.3	992.8	992.8	994.5
12.5°	951.0	953.8	956.1	957.2
15°	900.7	905.8	908.6	908.6
17.5°	840.3	843.7	845.4	843.1
20°	763.5	762.4	762.9	757.3
22.5°	674.8	676.5	671.4	672.6
25°	587.9	585.0	587.3	583.9
27.5°	503.7	504.3	498.1	500.9
30°	423.5	420.7	412.8	416.8
32.5°	346.2	338.8	330.4	325.3
35°	273.3	262.0	258.1	256.4
37.5°	214.6	202.2	198.2	193.7
40°	170.5	166.0	164.3	165.5
42.5°	153.0	153.0	154.2	154.7
45°	148.5	150.2	151.9	152.5
47.5°	149.1	150.8	153.0	153.6
50°	150.2	151.9	153.6	154.2
52.5°	150.8	150.8	151.9	152.5
55°	149.7	149.1	149.7	150.2
57.5°	147.4	146.3	146.8	148.5
60°	146.3	144.6	145.7	146.8
62.5°	143.4	142.9	144.0	144.6
65°	137.2	137.8	139.5	139.5
67.5°	131.6	132.1	132.7	133.3
70°	124.8	125.4	126.5	127.1
72.5°	116.9	119.2	120.8	123.1
75°	110.7	112.9	116.3	118.6
77.5°	100.0	101.6	105.6	108.4
80°	84.7	84.1	84.7	86.4
82.5°	64.9	64.9	64.4	63.8
85°	45.7	45.2	43.5	43.5
87.5°	24.8	24.3	23.7	22.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)