

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: P152361

Luminaire Tested: **TLM-E02-LED-E1-SL4-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P152361  
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-E02-LED-E1-SL4-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

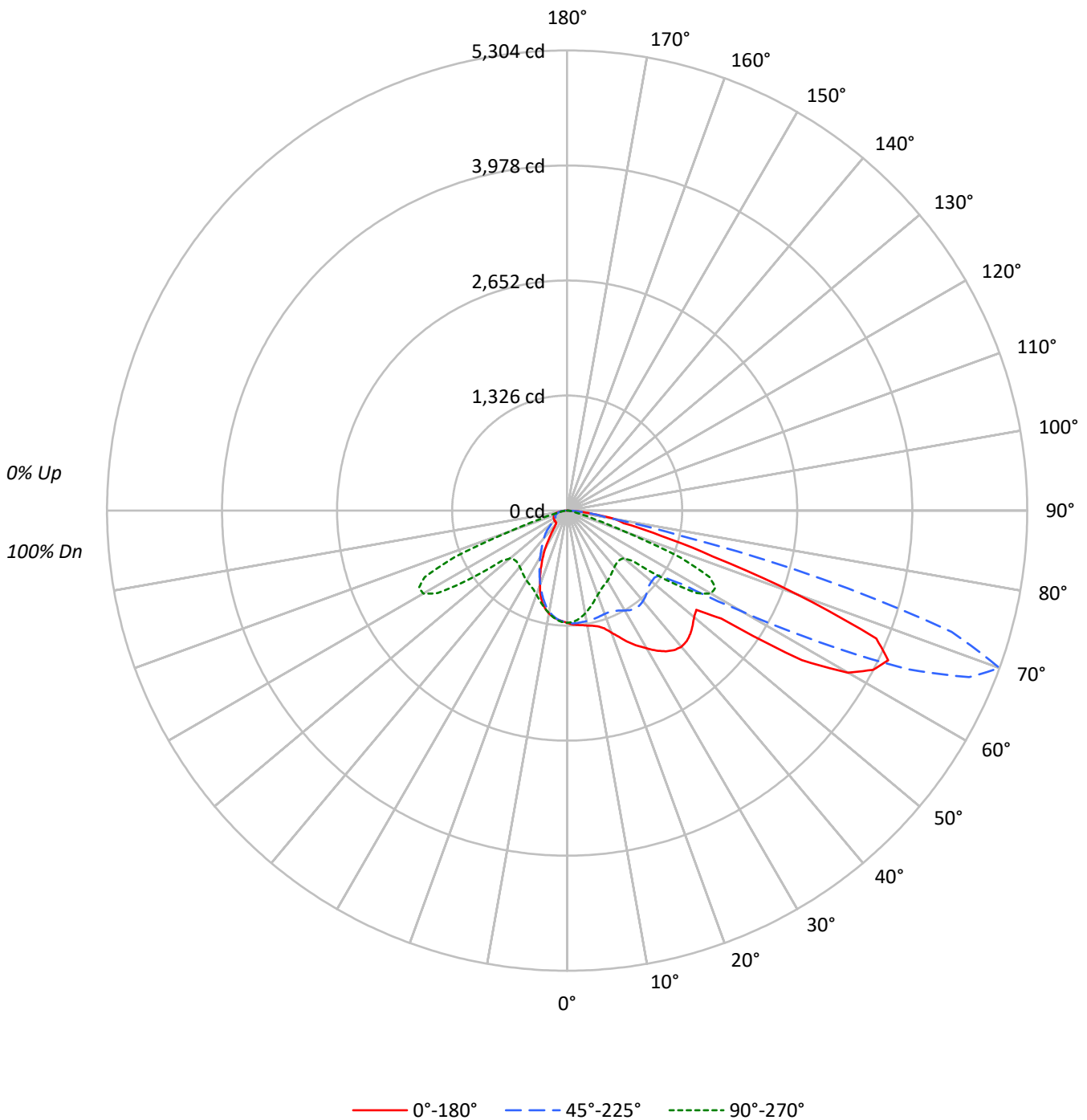
Lumens per Lamp: N/A  
Luminaire Lumens: 6062.5 lumens  
Efficiency: N/A  
Efficacy: 116.4 lumens/watt  
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 52.1  
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°	42195	42195	42195
5°	43318	41550	41278
10°	44591	39831	39898
15°	46685	37723	37169
20°	51952	35808	31841
25°	60243	34910	25456
30°	69049	35118	19013
35°	78830	35383	12368
40°	87237	36116	8533
45°	92677	38148	8520
50°	96917	43356	9479
55°	123317	79359	10350
60°	243793	124816	11605
65°	315144	139913	13044
70°	268128	66148	14677
75°	140960	24310	18110
80°	104852	13243	19667
85°	60666	12799	19723



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.8	2.0
10°-20°	330.8	5.5
20°-30°	489.7	8.1
30°-40°	618.9	10.2
40°-50°	700.0	11.5
50°-60°	996.0	16.4
60°-70°	1855.0	30.6
70°-80°	850.2	14.0
80°-90°	100.9	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°	941.4	15.5
0°-40°	1560.3	25.7
0°-60°	3256.3	53.7
0°-90°	6062.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6062.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1294	1294	1294	1294	1294	
5°	1323	1301	1269	1259	1261	127
15°	1382	1283	1117	1058	1101	398
25°	1674	1276	970	756	707	777
35°	1980	1378	889	506	311	1237
45°	2009	1309	827	331	185	1546
55°	2168	1301	1396	168	182	2278
65°	4083	4324	1813	150	169	3765
75°	1118	3040	193	118	144	1375
85°	162	142	34	54	53	204
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°	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6
2.5°	1313.4	1316.8	1312.7	1312.0	1312.0	1311.4	1307.3	1306.6	1301.1	1301.8	1303.2
5°	1323.0	1324.4	1321.6	1320.9	1319.6	1316.8	1313.4	1309.3	1305.2	1301.1	1297.7
7.5°	1332.6	1331.2	1329.1	1329.1	1327.1	1323.0	1316.2	1310.7	1301.8	1297.0	1290.8
10°	1346.3	1344.2	1341.5	1340.1	1336.7	1330.5	1320.9	1313.4	1302.5	1292.9	1282.6
12.5°	1359.2	1358.6	1354.5	1352.4	1346.9	1340.8	1329.1	1317.5	1303.2	1288.1	1274.4
15°	1382.5	1379.8	1375.7	1371.6	1362.7	1354.5	1336.7	1323.0	1302.5	1282.6	1261.4
17.5°	1422.9	1418.1	1414.0	1405.1	1394.1	1379.8	1353.8	1330.5	1302.5	1273.7	1249.8
20°	1496.7	1486.5	1481.0	1469.4	1450.2	1424.2	1383.9	1346.3	1304.5	1267.6	1235.4
22.5°	1580.2	1573.4	1565.8	1558.3	1528.2	1490.6	1435.9	1379.8	1316.8	1264.8	1223.8
25°	1673.9	1665.0	1660.9	1647.9	1619.9	1576.8	1502.2	1424.2	1344.9	1275.8	1223.8
27.5°	1757.4	1754.6	1754.0	1738.9	1712.2	1661.6	1573.4	1479.6	1383.2	1298.4	1234.1
30°	1833.3	1830.6	1829.2	1821.0	1790.2	1730.0	1634.2	1528.9	1424.9	1329.8	1253.2
32.5°	1914.0	1905.1	1901.0	1885.3	1850.4	1780.0	1670.5	1561.0	1457.8	1360.6	1274.4
35°	1979.7	1972.2	1964.0	1941.4	1892.1	1808.7	1686.2	1572.0	1470.8	1377.7	1285.4
37.5°	2027.6	2020.1	2008.4	1979.7	1918.8	1818.3	1685.5	1568.6	1466.0	1375.0	1287.4
40°	2048.8	2041.3	2029.0	1992.7	1923.6	1812.8	1672.6	1552.8	1451.6	1360.6	1279.2
42.5°	2040.6	2035.1	2019.4	1984.5	1908.6	1788.2	1646.6	1523.4	1424.2	1337.4	1260.7
45°	2009.1	2005.0	1990.0	1953.0	1874.4	1748.5	1608.2	1486.5	1391.4	1308.6	1236.1
47.5°	1961.9	1960.5	1945.5	1909.2	1831.3	1708.8	1568.6	1450.2	1358.6	1280.6	1215.6
50°	1909.9	1903.1	1895.6	1862.0	1790.9	1674.6	1539.8	1427.7	1340.1	1270.3	1206.7
52.5°	1877.1	1875.0	1868.2	1838.1	1769.7	1654.8	1526.8	1419.4	1338.7	1268.3	1201.9
55°	2168.5	2173.3	2110.4	1979.7	1864.8	1709.5	1565.8	1461.2	1372.2	1301.1	1252.5
57.5°	3207.6	3186.4	3078.3	2819.1	2526.3	2139.8	1861.4	1692.4	1582.3	1594.6	1619.2
60°	3737.1	3733.0	3713.1	3612.6	3417.6	3123.5	2797.2	2423.0	2303.9	2316.9	2326.5
62.5°	3973.8	3979.9	3995.0	3957.3	3906.0	3820.5	3657.7	3507.2	3347.8	3288.3	3128.9
65°	4083.2	4094.2	4128.4	4149.6	4169.4	4184.5	4248.8	4425.3	4541.5	4324.0	3817.8
67.5°	3856.8	3909.5	4022.3	4132.5	4231.0	4371.2	4588.7	4998.5	5283.8	5016.3	4282.3
70°	2811.5	2883.4	3012.6	3353.3	3717.2	4035.3	4456.7	5080.6	5510.9	5304.3	4397.2
72.5°	1762.8	1782.7	1840.1	1965.3	2235.5	2643.9	3380.7	4316.5	4813.1	4648.3	3716.6
75°	1118.5	1125.3	1123.2	1152.0	1197.8	1286.7	1578.2	2549.5	3297.2	3040.0	2071.4
77.5°	666.3	676.5	680.6	689.5	711.4	742.9	766.8	867.4	1382.5	1342.1	751.8
80°	558.2	566.4	559.6	557.5	543.8	534.3	545.9	534.3	496.0	477.5	439.9
82.5°	295.5	294.8	292.8	312.6	353.0	384.4	408.4	402.9	364.6	310.6	263.4
85°	162.1	167.6	167.6	174.4	168.3	169.0	174.4	184.0	170.3	142.3	116.3
87.5°	13.7	21.2	17.1	21.2	28.7	20.5	19.8	19.8	17.1	12.3	10.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6
2.5°	1299.7	1298.4	1295.6	1293.6	1293.6	1290.2	1288.1	1286.7	1286.1	1283.3	1283.3
5°	1295.6	1290.8	1286.1	1282.6	1280.6	1277.2	1271.7	1269.0	1265.5	1262.8	1261.4
7.5°	1286.7	1277.8	1270.3	1264.8	1258.0	1252.5	1245.7	1239.5	1233.4	1230.6	1229.3
10°	1273.1	1261.4	1249.8	1239.5	1230.0	1220.4	1211.5	1202.6	1195.1	1189.6	1184.1
12.5°	1260.1	1242.3	1227.2	1212.2	1197.1	1185.5	1173.2	1160.2	1149.2	1139.0	1136.2
15°	1242.3	1221.7	1202.6	1184.1	1165.7	1146.5	1131.5	1117.1	1099.3	1087.7	1078.8
17.5°	1225.9	1201.2	1178.0	1156.1	1133.5	1113.7	1091.1	1071.9	1054.2	1036.4	1023.4
20°	1208.1	1181.4	1156.8	1132.1	1107.5	1082.2	1056.2	1031.6	1009.7	988.5	967.3
22.5°	1192.3	1165.0	1141.0	1114.4	1087.0	1058.3	1028.2	997.4	972.1	944.7	920.1
25°	1182.8	1152.7	1128.0	1102.0	1071.9	1040.5	1006.3	970.0	939.2	907.8	878.3
27.5°	1182.8	1143.8	1118.5	1092.5	1061.7	1028.2	990.5	950.9	916.0	881.1	844.8
30°	1193.0	1145.1	1110.9	1083.6	1052.1	1015.8	974.1	932.4	894.1	853.0	818.1
32.5°	1202.6	1147.9	1105.5	1070.6	1034.3	998.7	956.3	911.9	869.5	830.5	793.5
35°	1208.8	1147.9	1095.2	1050.7	1009.7	974.8	933.1	888.6	845.5	807.2	773.0
37.5°	1209.4	1142.4	1078.8	1028.2	985.1	948.8	909.1	867.4	826.4	790.8	762.1
40°	1202.6	1131.5	1062.4	1004.2	959.1	922.1	885.9	848.2	811.3	781.9	757.3
42.5°	1190.3	1119.8	1046.6	985.1	937.9	899.6	866.0	833.9	801.7	776.4	755.9
45°	1171.8	1104.1	1032.3	973.4	926.9	886.6	853.7	827.0	799.7	778.5	757.9
47.5°	1155.4	1098.6	1037.1	981.0	932.4	890.7	857.1	834.6	813.4	799.0	770.9
50°	1152.0	1095.9	1039.1	987.1	937.9	895.4	866.0	854.4	848.2	839.4	796.3
52.5°	1142.4	1095.2	1054.2	1025.4	994.0	974.1	943.3	954.3	947.4	916.0	838.0
55°	1243.0	1256.6	1294.9	1349.7	1400.3	1411.9	1408.5	1395.5	1326.4	1141.0	938.5
57.5°	1708.8	1786.1	1858.6	1890.8	1886.7	1850.4	1824.4	1771.7	1671.9	1446.1	1136.9
60°	2355.9	2368.3	2329.9	2273.2	2177.4	2097.4	2011.9	1913.3	1768.3	1547.4	1258.7
62.5°	2951.8	2786.2	2615.9	2455.8	2310.1	2182.9	2063.8	1926.3	1737.5	1507.0	1243.0
65°	3372.5	3022.2	2753.4	2523.5	2317.6	2139.8	1991.3	1812.8	1600.0	1392.1	1152.0
67.5°	3589.3	3052.3	2639.8	2319.7	2027.6	1781.3	1583.6	1409.9	1251.8	1160.9	1008.3
70°	3347.2	2590.6	2016.0	1654.1	1304.5	1045.9	826.4	693.6	647.8	734.0	763.4
72.5°	2494.1	1686.2	1199.2	927.6	710.7	566.4	434.4	341.4	277.7	291.4	378.3
75°	1179.3	727.9	514.4	391.3	311.3	257.9	210.7	192.9	161.4	134.1	125.9
77.5°	459.0	334.5	276.4	202.5	143.7	115.6	98.5	95.1	97.1	94.4	93.0
80°	349.6	236.7	148.4	108.8	93.7	82.8	73.2	70.5	71.8	75.2	78.7
82.5°	195.0	121.8	90.3	78.7	70.5	60.2	54.7	50.6	51.3	55.4	62.9
85°	75.2	58.8	54.0	52.0	48.6	39.0	33.5	34.2	39.0	46.5	46.5
87.5°	8.2	8.2	10.9	8.2	8.2	8.2	7.5	8.9	9.6	12.3	14.4
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°	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6
2.5°	1281.9	1281.9	1281.9	1280.6	1281.3	1278.5	1278.5	1276.5	1279.9	1277.8	1277.2
5°	1262.1	1261.4	1258.7	1258.7	1258.7	1258.7	1260.7	1255.3	1259.4	1259.4	1257.3
7.5°	1228.6	1228.6	1221.1	1225.2	1223.8	1225.9	1228.6	1225.9	1230.0	1232.7	1230.6
10°	1182.1	1182.1	1175.9	1180.7	1178.7	1183.4	1188.2	1185.5	1188.2	1192.3	1193.7
12.5°	1130.8	1128.0	1122.6	1124.6	1124.6	1127.3	1129.4	1132.8	1136.2	1141.7	1144.4
15°	1071.3	1067.1	1060.3	1060.3	1056.2	1057.6	1061.7	1063.0	1069.9	1077.4	1086.3
17.5°	1010.4	1000.1	992.6	983.7	976.9	982.3	987.1	990.5	996.0	1007.6	1013.8
20°	952.9	932.4	918.0	906.4	898.9	902.3	908.4	912.5	917.3	920.1	922.1
22.5°	896.1	872.9	853.0	838.7	826.4	829.8	827.0	825.0	828.4	819.5	818.8
25°	846.9	819.5	792.8	775.7	760.7	755.9	741.5	738.1	728.5	721.0	715.5
27.5°	811.3	775.7	746.3	726.5	702.5	684.8	666.3	647.8	637.6	625.2	619.1
30°	783.3	745.6	710.7	677.2	645.8	618.4	593.8	569.8	553.4	535.6	524.0
32.5°	757.3	722.4	680.0	634.1	591.7	560.9	528.8	501.4	475.4	452.2	435.1
35°	739.5	700.5	646.4	590.4	542.5	506.2	472.0	433.0	401.5	371.5	353.0
37.5°	729.9	682.0	615.7	553.4	500.1	459.0	416.6	371.5	333.1	305.1	277.0
40°	722.4	663.5	588.3	520.6	464.5	415.2	366.0	312.6	270.2	240.8	218.9
42.5°	714.2	643.0	564.4	494.6	432.3	374.9	315.4	258.6	218.2	197.7	188.1
45°	705.3	625.2	541.8	470.0	400.9	331.1	262.7	210.0	186.1	179.2	179.2
47.5°	703.2	613.6	525.4	446.0	365.3	280.5	214.1	181.3	174.4	175.8	178.5
50°	711.4	610.2	511.0	418.0	318.1	227.1	181.3	170.3	171.7	175.8	179.9
52.5°	731.3	612.9	496.0	379.0	262.0	187.4	167.6	166.9	171.0	177.2	181.3
55°	764.8	612.9	467.2	320.8	209.3	168.3	162.8	165.5	171.0	176.5	179.9
57.5°	836.6	606.8	416.6	256.5	175.1	161.4	161.4	164.9	169.6	175.1	177.9
60°	922.1	598.6	345.5	198.4	158.0	156.0	160.8	164.9	169.0	173.8	176.5
62.5°	927.6	577.4	273.6	164.2	149.1	152.5	160.1	165.5	166.9	170.3	173.8
65°	852.4	503.5	217.5	147.1	145.0	150.5	158.0	162.1	162.8	164.2	167.6
67.5°	746.3	410.4	175.8	138.9	140.9	147.1	151.2	154.6	156.7	160.1	160.8
70°	612.9	329.7	150.5	130.7	132.7	139.6	143.0	146.4	150.5	154.6	152.5
72.5°	434.4	256.5	132.0	121.8	124.5	130.7	134.8	137.5	140.9	145.0	142.3
75°	184.7	179.2	114.2	110.1	114.2	118.3	122.4	126.6	130.0	132.0	132.0
77.5°	94.4	105.3	98.5	98.5	101.2	105.3	108.8	112.9	114.9	117.0	119.7
80°	80.0	81.4	82.8	85.5	88.2	92.3	95.8	99.2	99.9	100.6	101.9
82.5°	66.4	69.1	70.5	74.6	76.6	78.0	80.0	80.0	81.4	81.4	79.4
85°	47.9	51.3	53.4	54.0	53.4	54.0	54.7	56.1	59.5	59.5	56.8
87.5°	13.7	13.0	16.4	17.1	18.5	21.2	23.9	28.7	30.1	31.5	31.5
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: P152361

CATALOG NUMBER: TLM-E02-LED-E1-SL4-7050

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1293.6	1293.6	1293.6	1293.6
2.5°	1276.5	1277.8	1275.1	1275.8
5°	1257.3	1260.1	1256.6	1260.7
7.5°	1232.7	1236.8	1236.1	1235.4
10°	1197.1	1202.6	1202.6	1204.6
12.5°	1152.0	1155.4	1158.1	1159.5
15°	1091.1	1097.2	1100.7	1100.7
17.5°	1017.9	1022.0	1024.1	1021.3
20°	924.9	923.5	924.2	917.3
22.5°	817.5	819.5	813.4	814.7
25°	712.1	708.7	711.4	707.3
27.5°	610.2	610.9	603.4	606.8
30°	513.1	509.6	500.1	504.8
32.5°	419.3	410.4	400.2	394.0
35°	331.1	317.4	312.6	310.6
37.5°	259.9	244.9	240.1	234.6
40°	206.6	201.1	199.1	200.4
42.5°	185.4	185.4	186.8	187.4
45°	179.9	182.0	184.0	184.7
47.5°	180.6	182.6	185.4	186.1
50°	182.0	184.0	186.1	186.8
52.5°	182.6	182.6	184.0	184.7
55°	181.3	180.6	181.3	182.0
57.5°	178.5	177.2	177.9	179.9
60°	177.2	175.1	176.5	177.9
62.5°	173.8	173.1	174.4	175.1
65°	166.2	166.9	169.0	169.0
67.5°	159.4	160.1	160.8	161.4
70°	151.2	151.9	153.2	153.9
72.5°	141.6	144.3	146.4	149.1
75°	134.1	136.8	140.9	143.7
77.5°	121.1	123.1	127.9	131.3
80°	102.6	101.9	102.6	104.7
82.5°	78.7	78.7	78.0	77.3
85°	55.4	54.7	52.7	52.7
87.5°	30.1	29.4	28.7	27.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)