

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: P155591

Luminaire Tested: **TLM-E03-LED-E1-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P155591  
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-E03-LED-E1-T3-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (63) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9493.3 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

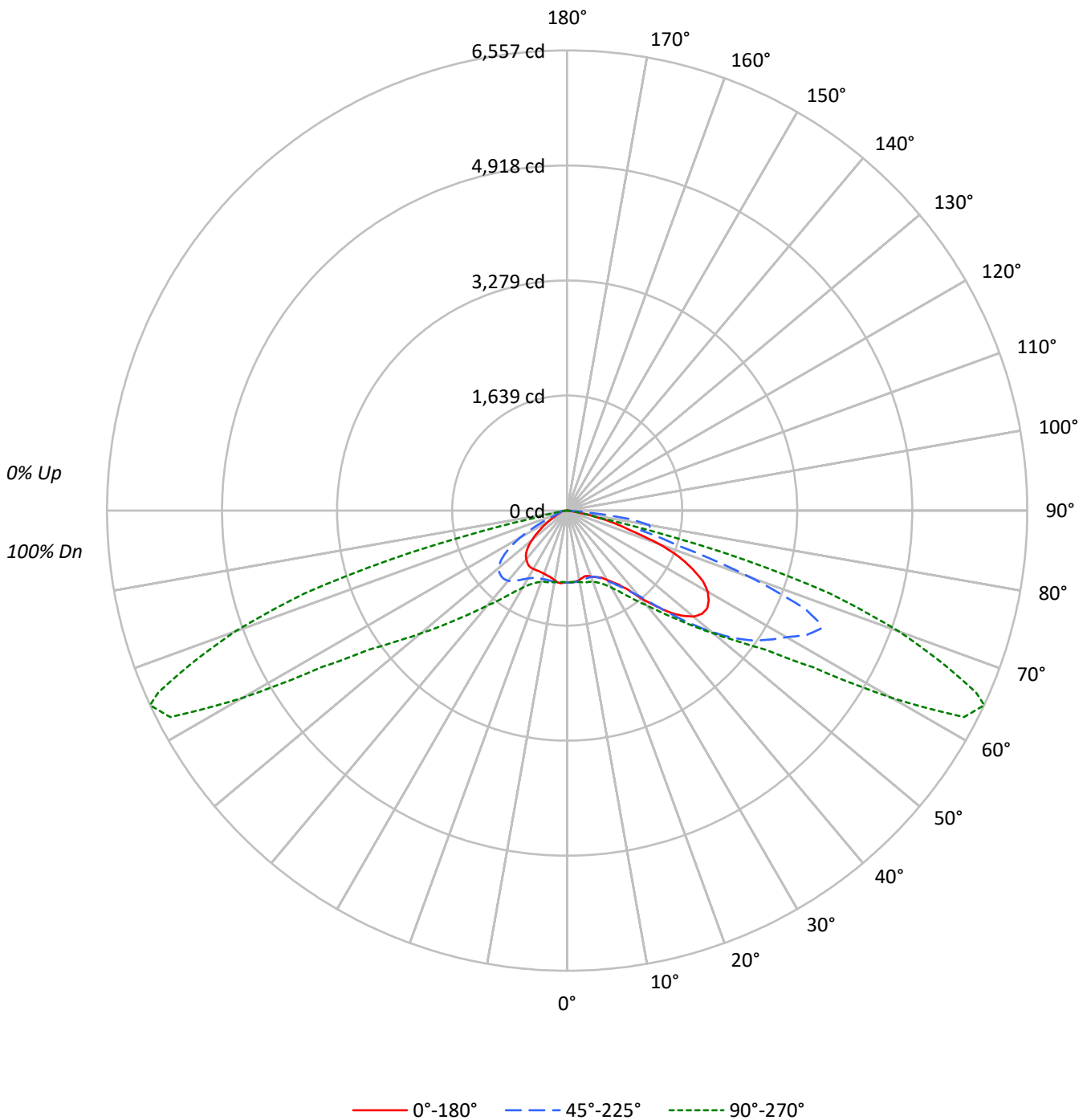
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: TLM-E03-LED-E1-T3-7050

### 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	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°	22023	22023	22023
5°	22107	22085	22440
10°	21915	22588	22050
15°	21587	23578	21726
20°	22921	24754	21933
25°	24860	27152	22618
30°	28338	31577	23901
35°	33978	38725	25132
40°	45504	49570	25433
45°	62166	66011	24898
50°	78665	91137	21890
55°	91388	129747	17408
60°	99579	229469	13209
65°	100513	333998	9984
70°	88095	316346	8334
75°	58207	191441	8534
80°	21249	19464	10054
85°	3557	12918	11140



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.0	1.0
10°-20°	289.2	3.0
20°-30°	497.0	5.2
30°-40°	807.0	8.5
40°-50°	1347.3	14.2
50°-60°	2121.4	22.3
60°-70°	2892.8	30.5
70°-80°	1252.3	13.2
80°-90°	188.3	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°	884.2	9.3
0°-40°	1691.2	17.8
0°-60°	5159.9	54.4
0°-90°	9493.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9493.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1023	1023	1023	1023	1023	
5°	1023	1025	1022	1034	1038	97
15°	969	1009	1058	1027	975	278
25°	1047	1053	1143	1061	952	490
35°	1293	1322	1474	1213	956	838
45°	2042	2069	2168	1327	818	1570
55°	2435	3225	3457	1093	464	2148
65°	1973	3986	6557	384	196	1916
75°	700	1090	2302	104	103	748
85°	14	242	52	72	45	38
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°	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0
2.5°	1027.1	1031.2	1027.1	1028.2	1029.2	1028.2	1027.1	1027.1	1024.1	1026.1	1028.2
5°	1023.0	1026.1	1025.1	1026.1	1027.1	1026.1	1025.1	1026.1	1024.1	1025.1	1028.2
7.5°	1017.9	1016.9	1017.9	1019.9	1022.0	1022.0	1022.0	1023.0	1022.0	1022.0	1025.1
10°	1002.5	1003.5	1005.6	1008.7	1009.7	1012.8	1012.8	1015.8	1016.9	1018.9	1023.0
12.5°	983.0	984.0	986.1	988.1	993.3	998.4	998.4	1005.6	1008.7	1013.8	1021.0
15°	968.6	969.7	971.7	973.8	977.9	983.0	986.1	994.3	999.4	1008.7	1018.9
17.5°	976.9	975.8	977.9	978.9	978.9	983.0	983.0	989.2	995.3	1003.5	1016.9
20°	1000.5	1000.5	1002.5	1002.5	1001.5	1003.5	999.4	999.4	1000.5	1004.6	1013.8
22.5°	1024.1	1023.0	1027.1	1029.2	1030.2	1033.3	1029.2	1028.2	1023.0	1019.9	1023.0
25°	1046.6	1045.6	1050.7	1053.8	1058.9	1062.0	1062.0	1062.0	1057.9	1052.8	1049.7
27.5°	1081.5	1081.5	1086.6	1089.7	1093.8	1100.0	1103.1	1103.1	1104.1	1096.9	1091.8
30°	1140.0	1141.0	1142.1	1146.2	1150.3	1152.3	1156.4	1159.5	1162.6	1158.5	1150.3
32.5°	1209.8	1203.6	1203.6	1209.8	1214.9	1221.1	1223.1	1227.2	1233.4	1230.3	1229.3
35°	1292.9	1290.8	1288.8	1290.8	1297.0	1304.2	1312.4	1319.6	1315.5	1321.6	1318.5
37.5°	1416.0	1418.1	1419.1	1419.1	1418.1	1420.1	1424.2	1431.4	1429.4	1431.4	1435.5
40°	1619.2	1612.0	1604.8	1605.9	1595.6	1597.6	1581.2	1588.4	1589.4	1582.3	1585.3
42.5°	1822.4	1826.5	1829.5	1837.8	1830.6	1826.5	1811.1	1811.1	1802.9	1795.7	1793.6
45°	2041.9	2050.2	2051.2	2067.6	2061.4	2074.8	2086.1	2083.0	2069.7	2068.6	2054.3
47.5°	2217.4	2230.8	2245.1	2264.6	2280.0	2309.8	2344.7	2362.1	2372.4	2380.6	2364.1
50°	2348.8	2354.9	2391.9	2422.6	2456.5	2505.7	2554.0	2616.6	2666.8	2690.4	2713.0
52.5°	2419.6	2434.9	2475.0	2523.2	2582.7	2656.6	2734.6	2834.1	2920.3	2977.8	3029.1
55°	2434.9	2450.3	2495.5	2557.1	2638.1	2737.6	2849.5	2984.9	3114.2	3225.0	3332.8
57.5°	2391.9	2409.3	2457.5	2528.3	2623.8	2744.8	2885.4	3062.9	3241.5	3421.0	3580.1
60°	2312.8	2334.4	2378.5	2448.3	2554.0	2690.4	2858.7	3081.4	3331.8	3606.8	3911.5
62.5°	2182.5	2205.1	2246.1	2323.1	2431.9	2582.7	2777.7	3054.7	3408.7	3841.7	4382.5
65°	1973.2	1983.5	2033.7	2111.7	2208.2	2374.4	2588.9	2923.4	3384.1	3986.4	4731.4
66°	1878.8	1896.2	1927.0	1989.6	2082.0	2237.9	2453.4	2793.1	3290.7	3936.1	4722.1
67.5°	1731.0	1744.4	1764.9	1807.0	1863.4	1978.3	2182.5	2503.7	3005.5	3681.7	4526.2
70°	1399.6	1405.8	1433.5	1447.8	1467.3	1505.3	1579.2	1763.9	2154.8	2790.0	3652.9
72.5°	954.3	971.7	1001.5	1042.5	1095.9	1147.2	1182.1	1205.7	1289.8	1664.3	2433.9
75°	699.8	718.3	756.2	810.6	904.0	1010.7	1121.5	1172.8	1138.0	1089.7	1355.5
77.5°	406.3	431.0	462.8	515.1	601.3	742.9	932.7	1101.0	1214.9	1222.1	1160.5
80°	171.4	174.4	193.9	220.6	274.0	373.5	521.3	763.4	1015.8	1186.2	1226.2
82.5°	39.0	48.2	61.6	72.9	89.3	123.1	182.6	303.7	549.0	860.9	1122.6
85°	14.4	14.4	19.5	28.7	32.8	36.9	48.2	77.0	131.3	242.2	504.8
87.5°	0.0	1.0	2.1	2.1	4.1	5.1	8.2	11.3	10.3	9.2	30.8
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0
2.5°	1026.1	1025.1	1023.0	1023.0	1023.0	1023.0	1021.0	1022.0	1019.9	1021.0	1021.0
5°	1025.1	1025.1	1024.1	1022.0	1023.0	1023.0	1024.1	1022.0	1022.0	1023.0	1022.0
7.5°	1025.1	1024.1	1024.1	1024.1	1025.1	1024.1	1025.1	1025.1	1025.1	1026.1	1026.1
10°	1025.1	1025.1	1027.1	1028.2	1028.2	1029.2	1032.3	1032.3	1033.3	1034.3	1036.4
12.5°	1026.1	1030.2	1033.3	1036.4	1037.4	1039.4	1044.6	1044.6	1046.6	1049.7	1050.7
15°	1027.1	1033.3	1039.4	1041.5	1043.5	1047.7	1052.8	1054.8	1057.9	1061.0	1063.0
17.5°	1026.1	1034.3	1041.5	1044.6	1047.7	1052.8	1058.9	1061.0	1065.1	1069.2	1073.3
20°	1025.1	1036.4	1047.7	1051.8	1055.9	1063.0	1071.3	1076.4	1080.5	1086.6	1090.8
22.5°	1031.2	1044.6	1060.0	1066.1	1073.3	1082.5	1093.8	1100.0	1105.1	1111.3	1114.4
25°	1050.7	1061.0	1079.5	1089.7	1099.0	1114.4	1129.7	1136.9	1143.1	1148.2	1149.2
27.5°	1083.6	1086.6	1109.2	1122.6	1135.9	1160.5	1179.0	1184.1	1195.4	1199.5	1198.5
30°	1136.9	1131.8	1150.3	1170.8	1190.3	1224.1	1246.7	1260.1	1270.3	1270.3	1262.1
32.5°	1213.9	1205.7	1210.8	1234.4	1257.0	1306.2	1332.9	1350.4	1357.5	1355.5	1338.0
35°	1314.4	1309.3	1306.2	1324.7	1360.6	1418.1	1453.0	1462.2	1473.5	1471.4	1448.9
37.5°	1433.5	1429.4	1429.4	1450.9	1485.8	1571.0	1608.9	1615.1	1614.1	1597.6	1555.6
40°	1574.0	1572.0	1562.8	1575.1	1604.8	1715.6	1767.0	1775.2	1763.9	1737.2	1687.9
42.5°	1776.2	1763.9	1735.1	1742.3	1764.9	1872.6	1939.3	1961.9	1950.6	1923.9	1843.9
45°	2039.9	2026.6	1978.3	1972.2	1984.5	2078.9	2165.1	2170.2	2168.2	2134.3	2039.9
47.5°	2349.8	2329.3	2278.0	2261.5	2257.4	2344.7	2427.8	2436.0	2430.8	2380.6	2254.4
50°	2685.3	2655.6	2621.7	2610.4	2594.0	2656.6	2740.7	2741.8	2721.2	2651.5	2533.5
52.5°	3043.4	3033.2	3027.0	3015.7	3008.5	3062.9	3114.2	3083.4	3052.7	2979.8	2877.2
55°	3404.6	3446.7	3489.8	3493.9	3506.2	3564.7	3563.7	3479.5	3456.9	3416.9	3315.3
57.5°	3788.4	3944.3	4079.8	4121.9	4162.9	4271.7	4261.4	4178.3	4149.6	4100.3	4016.2
60°	4310.7	4731.4	5122.3	5215.7	5280.3	5410.7	5398.3	5270.1	5329.6	5325.5	5216.7
62.5°	5042.3	5742.1	6328.0	6471.6	6516.8	6531.2	6453.2	6314.7	6373.1	6438.8	6104.3
65°	5537.9	6360.8	6962.1	7072.9	7079.1	6907.7	6734.3	6571.2	6556.8	6500.4	6022.2
66°	5549.2	6391.6	6995.0	7102.7	7064.7	6830.8	6611.2	6447.0	6376.2	6252.1	5756.5
67.5°	5350.1	6199.7	6849.3	6963.2	6880.0	6548.6	6245.9	6034.5	5896.0	5694.9	5257.8
70°	4493.3	5335.7	6136.1	6348.5	6375.2	5880.6	5460.9	5212.6	5025.9	4749.8	4373.3
72.5°	3341.0	4102.4	4808.3	5011.5	5115.1	4720.1	4366.1	4177.3	3921.8	3631.4	3363.6
75°	2094.3	2632.0	3105.0	3247.6	3150.1	2844.4	2632.0	2553.0	2301.6	2128.1	2006.0
77.5°	1197.5	1365.7	1403.7	1349.3	1234.4	945.0	672.1	497.7	432.0	478.2	527.4
80°	1168.7	1071.3	853.7	751.1	680.3	467.9	275.0	188.8	157.0	161.1	174.4
82.5°	1266.2	1358.6	1118.5	912.2	765.5	517.2	285.3	151.9	102.6	121.1	136.5
85°	822.9	1145.1	1031.2	869.1	703.9	442.3	235.0	79.0	52.3	68.7	94.4
87.5°	83.1	91.3	78.0	105.7	79.0	36.9	18.5	11.3	10.3	12.3	18.5
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0	1023.0
2.5°	1022.0	1022.0	1023.0	1024.1	1025.1	1026.1	1026.1	1026.1	1026.1	1028.2	1027.1
5°	1024.1	1026.1	1028.2	1029.2	1031.2	1031.2	1034.3	1033.3	1033.3	1036.4	1037.4
7.5°	1028.2	1031.2	1035.3	1034.3	1038.4	1037.4	1039.4	1039.4	1036.4	1037.4	1035.3
10°	1037.4	1041.5	1043.5	1040.5	1041.5	1037.4	1036.4	1031.2	1025.1	1022.0	1017.9
12.5°	1052.8	1056.9	1056.9	1051.8	1045.6	1036.4	1029.2	1017.9	1008.7	1003.5	998.4
15°	1066.1	1070.2	1069.2	1061.0	1051.8	1037.4	1027.1	1013.8	1000.5	992.2	987.1
17.5°	1076.4	1078.4	1075.4	1064.1	1053.8	1040.5	1030.2	1015.8	1000.5	990.2	981.0
20°	1091.8	1089.7	1082.5	1068.2	1056.9	1044.6	1036.4	1024.1	1006.6	993.3	979.9
22.5°	1114.4	1106.1	1092.8	1077.4	1066.1	1054.8	1046.6	1033.3	1015.8	999.4	984.0
25°	1144.1	1127.7	1109.2	1092.8	1082.5	1070.2	1061.0	1046.6	1028.2	1009.7	991.2
27.5°	1187.2	1158.5	1134.9	1120.5	1109.2	1093.8	1082.5	1064.1	1044.6	1023.0	1002.5
30°	1235.4	1196.4	1173.9	1162.6	1150.3	1133.8	1116.4	1092.8	1070.2	1046.6	1022.0
32.5°	1298.0	1250.8	1229.3	1218.0	1201.6	1181.0	1160.5	1133.8	1102.0	1071.3	1041.5
35°	1380.1	1331.9	1309.3	1291.9	1269.3	1242.6	1212.9	1176.9	1133.8	1092.8	1054.8
37.5°	1468.4	1416.0	1394.5	1376.0	1342.1	1307.3	1265.2	1212.9	1154.4	1100.0	1052.8
40°	1580.2	1532.0	1504.3	1472.5	1432.4	1371.9	1306.2	1230.3	1155.4	1088.7	1033.3
42.5°	1721.8	1673.6	1632.5	1582.3	1512.5	1419.1	1325.7	1227.2	1136.9	1061.0	1001.5
45°	1909.6	1851.1	1780.3	1692.0	1579.2	1448.9	1326.8	1207.7	1102.0	1017.9	954.3
47.5°	2139.4	2050.2	1934.2	1785.4	1623.3	1457.1	1310.3	1168.7	1047.7	956.3	885.5
50°	2412.4	2271.8	2080.9	1862.4	1645.9	1444.8	1269.3	1110.2	970.7	873.2	789.1
52.5°	2724.3	2494.5	2213.3	1917.8	1644.8	1403.7	1199.5	1022.0	870.1	761.4	681.3
55°	3090.6	2748.9	2349.8	1958.8	1616.1	1327.8	1092.8	897.8	746.0	645.4	571.5
57.5°	3627.3	3161.4	2587.8	2022.5	1558.7	1210.8	948.1	749.1	615.7	520.2	457.6
60°	4608.2	3849.9	3016.8	2150.7	1470.4	1039.4	778.8	590.0	478.2	401.2	359.1
62.5°	5347.0	4382.5	3248.6	2122.0	1292.9	828.1	577.7	429.9	352.0	299.6	272.9
65°	5241.3	4217.3	3001.4	1827.5	1013.8	583.9	383.8	292.4	242.2	217.5	202.1
66°	5002.3	4001.8	2786.9	1644.8	876.3	485.3	316.0	245.2	208.3	190.9	180.6
67.5°	4548.7	3601.6	2403.1	1348.3	673.1	352.0	238.1	193.9	169.3	162.1	154.9
70°	3781.2	2872.1	1686.9	785.0	343.7	196.0	150.8	135.4	129.3	128.3	126.2
72.5°	2897.7	2032.7	993.3	371.5	178.5	130.3	117.0	111.8	109.8	109.8	110.8
75°	1776.2	1142.1	439.2	181.6	125.2	109.8	103.6	101.6	100.6	101.6	100.6
77.5°	593.1	363.2	187.8	137.5	113.9	101.6	97.5	95.4	95.4	95.4	95.4
80°	181.6	158.0	143.7	127.2	107.7	96.5	90.3	89.3	90.3	91.3	88.2
82.5°	136.5	129.3	121.1	112.9	97.5	86.2	84.1	84.1	84.1	81.1	77.0
85°	100.6	99.5	82.1	77.0	71.8	71.8	71.8	71.8	68.7	63.6	59.5
87.5°	18.5	17.4	18.5	19.5	28.7	30.8	30.8	32.8	35.9	33.9	33.9
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: P155591

CATALOG NUMBER: TLM-E03-LED-E1-T3-7050

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1023.0	1023.0	1023.0	1023.0	1023.0
2.5°	1027.1	1026.1	1029.2	1027.1	1028.2
5°	1036.4	1035.3	1037.4	1035.3	1038.4
7.5°	1033.3	1031.2	1030.2	1031.2	1032.3
10°	1011.7	1009.7	1008.7	1007.6	1008.7
12.5°	993.3	989.2	989.2	987.1	988.1
15°	979.9	976.9	975.8	973.8	974.8
17.5°	973.8	968.6	966.6	964.5	964.5
20°	969.7	963.5	960.4	958.4	957.4
22.5°	969.7	960.4	956.3	954.3	953.3
25°	973.8	962.5	956.3	953.3	952.2
27.5°	982.0	967.6	960.4	956.3	956.3
30°	996.3	977.9	967.6	962.5	961.5
32.5°	1010.7	986.1	971.7	965.6	963.5
35°	1017.9	986.1	968.6	958.4	956.3
37.5°	1009.7	972.7	951.2	935.8	932.7
40°	984.0	945.0	921.4	907.1	905.0
42.5°	950.2	912.2	884.5	874.2	871.2
45°	904.0	858.9	831.1	816.8	817.8
47.5°	825.0	778.8	754.2	740.8	742.9
50°	731.6	686.5	664.9	650.6	653.6
52.5°	629.0	588.0	567.4	560.3	558.2
55°	521.3	489.5	475.1	466.9	463.8
57.5°	422.8	400.2	389.9	379.7	380.7
60°	333.5	322.2	319.1	307.8	306.8
62.5°	262.7	255.5	252.4	244.2	245.2
65°	199.1	197.0	199.1	193.9	196.0
66°	179.6	180.6	180.6	177.5	179.6
67.5°	154.9	157.0	160.1	157.0	159.0
70°	128.3	130.3	132.4	132.4	132.4
72.5°	111.8	113.9	114.9	114.9	114.9
75°	102.6	103.6	104.7	102.6	102.6
77.5°	96.5	96.5	94.4	93.4	92.3
80°	87.2	86.2	83.1	81.1	81.1
82.5°	72.9	70.8	68.7	65.7	65.7
85°	55.4	53.4	51.3	47.2	45.1
87.5°	28.7	29.8	28.7	23.6	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)