

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: P156628

Luminaire Tested: **TLM-E03-LED-E1-T4-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P156628  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33673)  
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-T4-8030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (63) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7651.7 lumens  
Efficiency: N/A  
Efficacy: 101.8 lumens/watt  
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

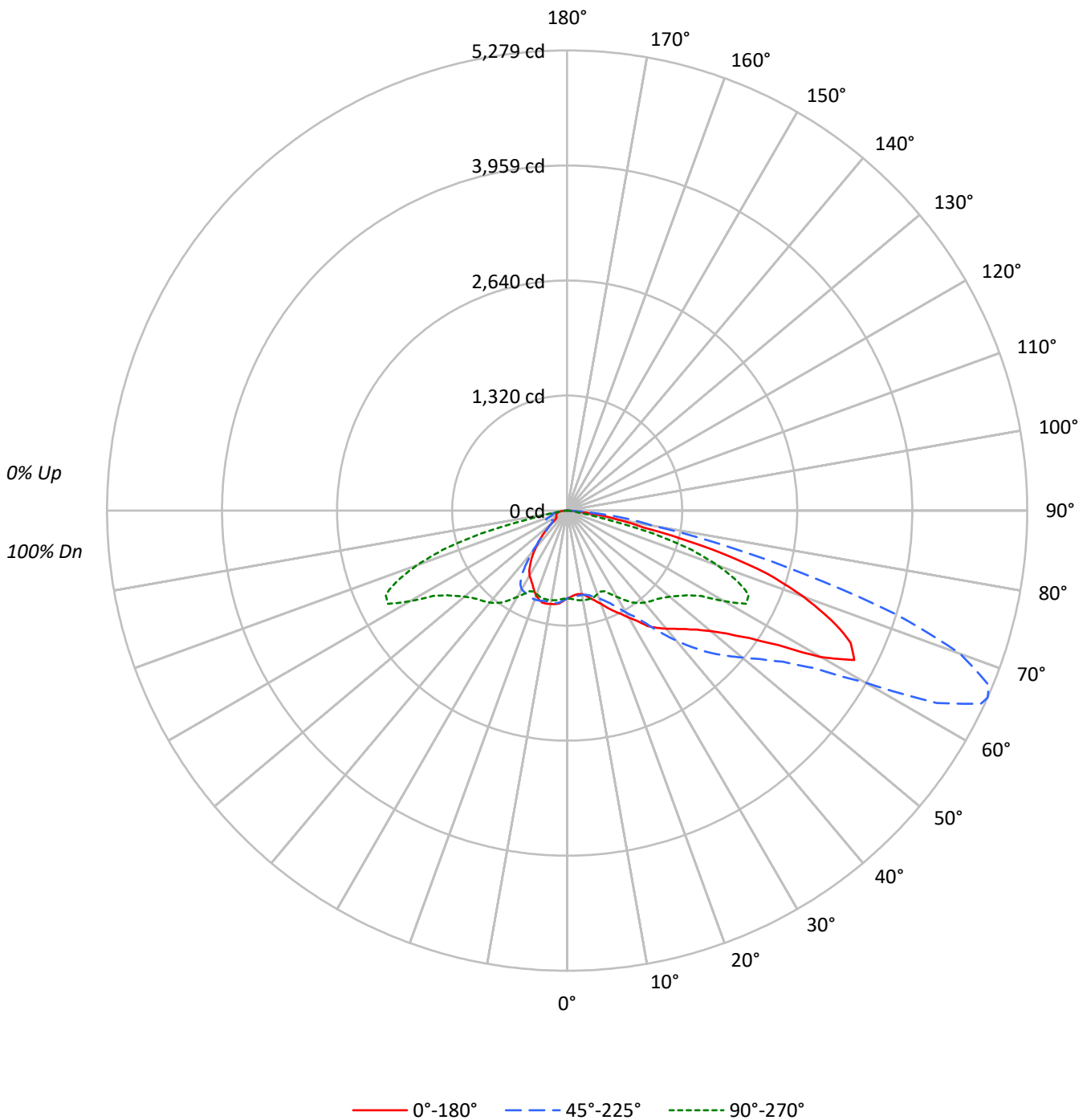
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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	105	99	93	88	102	96	91	87	92	88	84	88	84	81	84	81	79	76					76			
2	92	81	72	65	89	79	71	64	76	69	62	72	66	61	69	64	59	57					57			
3	82	68	58	49	79	66	57	49	63	55	48	60	53	47	57	51	46	43					43			
4	73	58	47	39	70	57	46	38	54	45	38	51	43	37	49	42	36	34					34			
5	66	50	39	31	64	49	39	31	47	38	31	45	36	30	42	35	30	27					27			
6	60	44	34	26	58	43	33	26	41	32	25	39	31	25	38	30	25	22					22			
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19					19			
8	51	35	26	19	49	35	25	19	33	25	19	32	24	18	31	23	18	16					16			
9	47	32	23	16	46	31	23	16	30	22	16	29	22	16	28	21	16	14					14			
10	44	29	21	15	43	29	20	15	28	20	14	27	19	14	26	19	14	12					12			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	21713	21713	21713
5°	21011	22178	23127
10°	21254	22841	23781
15°	23288	23306	24398
20°	26103	23356	23782
25°	30212	24278	22273
30°	35246	28428	21420
35°	42519	33760	19274
40°	49691	38756	15914
45°	58561	43862	12102
50°	71993	51446	7747
55°	95761	63483	5799
60°	144590	89465	6105
65°	182846	116941	7050
70°	181364	115545	8397
75°	143838	85573	10322
80°	72934	18001	12868
85°	10621	14796	16475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.9	1.3
10°-20°	297.4	3.9
20°-30°	512.2	6.7
30°-40°	774.9	10.1
40°-50°	1004.4	13.1
50°-60°	1384.7	18.1
60°-70°	2151.4	28.1
70°-80°	1251.0	16.3
80°-90°	177.9	2.3
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°	907.5	11.9
0°-40°	1682.4	22.0
0°-60°	4071.4	53.2
0°-90°	7651.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7651.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1009	1009	1009	1009	1009	
5°	972	987	1026	1060	1070	93
15°	1045	1009	1046	1073	1095	299
25°	1272	1176	1022	1068	938	593
35°	1618	1581	1285	906	733	1011
45°	1924	2302	1441	380	398	1503
55°	2551	3022	1691	196	154	2363
65°	3590	5240	2296	277	138	3397
75°	1729	2817	1029	174	124	1781
85°	43	294	60	71	67	186
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°	
0°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	990.0	993.4	990.8	991.7	991.7	992.5	992.5	993.4	992.5	995.1	996.8	996.8
5°	972.3	974.0	973.1	974.8	976.5	979.9	979.0	983.2	984.1	986.6	990.8	990.8
7.5°	965.5	963.8	964.7	967.2	968.9	970.6	972.3	975.7	978.2	984.1	987.5	987.5
10°	972.3	971.4	972.3	974.0	974.0	974.8	973.1	976.5	978.2	983.2	986.6	986.6
12.5°	1000.1	1000.1	998.4	998.4	996.8	995.1	990.8	988.3	987.5	988.3	990.0	990.0
15°	1044.9	1043.2	1039.8	1037.3	1033.9	1028.0	1022.1	1017.0	1013.6	1008.6	1006.9	1006.9
17.5°	1088.7	1086.2	1082.8	1079.5	1075.2	1069.3	1060.1	1054.1	1044.9	1039.0	1035.6	1035.6
20°	1139.4	1134.3	1130.1	1125.9	1117.4	1115.8	1106.5	1096.3	1085.4	1071.9	1070.2	1070.2
22.5°	1205.2	1196.8	1191.7	1189.2	1180.7	1178.2	1163.0	1148.7	1135.2	1117.4	1113.2	1113.2
25°	1271.9	1263.5	1260.9	1257.5	1251.6	1248.3	1233.9	1217.9	1200.2	1175.7	1170.6	1170.6
27.5°	1336.9	1337.7	1331.0	1333.5	1331.8	1325.9	1311.6	1295.5	1282.0	1253.3	1247.4	1247.4
30°	1417.9	1412.8	1409.5	1414.5	1408.6	1409.5	1396.8	1388.4	1366.4	1349.5	1337.7	1337.7
32.5°	1502.3	1501.5	1506.5	1509.9	1509.1	1507.4	1497.2	1488.8	1469.4	1444.9	1439.8	1439.8
35°	1617.9	1623.0	1627.2	1642.4	1642.4	1653.4	1643.3	1633.1	1610.3	1580.8	1570.7	1570.7
37.5°	1696.4	1698.1	1715.0	1735.2	1760.6	1784.2	1790.9	1793.5	1784.2	1762.3	1747.1	1747.1
40°	1768.2	1771.5	1798.5	1829.8	1866.9	1913.3	1941.2	1953.8	1956.4	1946.2	1913.3	1913.3
42.5°	1839.9	1845.0	1872.8	1918.4	1969.9	2029.0	2077.9	2109.1	2126.9	2126.9	2107.4	2107.4
45°	1923.5	1930.2	1960.6	2010.4	2070.3	2144.6	2212.1	2272.0	2300.7	2302.4	2283.8	2283.8
47.5°	2022.2	2028.1	2063.6	2114.2	2175.8	2250.9	2336.2	2404.5	2457.7	2461.1	2445.9	2445.9
50°	2149.6	2158.1	2187.6	2233.2	2296.5	2372.5	2457.7	2553.1	2608.8	2622.3	2606.2	2606.2
52.5°	2318.4	2320.1	2344.6	2386.8	2448.4	2521.0	2611.3	2715.1	2788.5	2799.5	2773.4	2773.4
55°	2551.4	2548.9	2564.9	2610.5	2656.9	2713.4	2807.1	2923.6	3005.5	3022.3	2995.3	2995.3
57.5°	2867.9	2865.3	2878.9	2889.8	2976.8	3031.6	3123.6	3235.0	3314.4	3363.3	3316.9	3316.9
60°	3358.2	3355.7	3377.7	3441.8	3506.8	3587.0	3676.4	3809.8	3921.2	3935.5	3890.0	3890.0
62.5°	3713.6	3726.2	3774.3	3849.4	3981.1	4138.1	4301.8	4477.4	4706.1	4778.7	4756.7	4756.7
65°	3589.5	3614.8	3681.5	3795.4	3971.0	4187.9	4444.5	4762.6	5069.0	5240.3	5235.3	5235.3
66°	3478.1	3505.9	3587.8	3697.5	3883.2	4120.4	4400.6	4747.4	5090.1	5279.2	5291.0	5291.0
67.5°	3275.5	3306.8	3386.9	3516.9	3697.5	3949.9	4251.2	4628.4	5015.8	5236.1	5267.3	5267.3
70°	2881.4	2916.8	2975.1	3082.3	3260.3	3485.7	3803.0	4140.6	4546.6	4798.9	4836.9	4836.9
72.5°	2408.8	2440.0	2505.0	2592.7	2738.8	2880.5	3129.5	3378.5	3668.8	3956.6	3928.8	3928.8
75°	1729.3	1742.8	1781.7	1877.0	1955.5	2083.0	2283.0	2487.2	2685.6	2817.2	2835.8	2835.8
77.5°	898.9	934.3	989.2	1094.7	1179.9	1294.7	1424.7	1578.3	1723.4	1844.1	1811.2	1811.2
80°	588.3	603.5	652.4	706.4	768.9	842.3	929.2	986.6	1005.2	997.6	1005.2	1005.2
82.5°	339.3	367.1	432.1	473.5	519.9	545.2	614.4	680.3	717.4	671.0	654.1	654.1
85°	43.0	55.7	175.6	221.1	253.2	291.2	312.3	351.9	328.3	293.7	357.9	357.9
87.5°	9.3	8.4	11.8	25.3	26.2	21.9	41.4	43.9	27.0	13.5	16.9	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	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	998.4	999.3	1001.0	1003.5	1005.2	1006.9	1008.6	1011.1	1012.8	1014.5	1017.9
5°	994.2	997.6	1001.0	1004.3	1008.6	1015.3	1019.5	1022.9	1026.3	1033.0	1035.6
7.5°	991.7	997.6	1002.7	1008.6	1015.3	1021.2	1028.8	1033.0	1038.1	1042.3	1047.4
10°	990.0	998.4	1003.5	1011.9	1019.5	1025.4	1033.9	1039.0	1044.9	1049.9	1052.5
12.5°	993.4	997.6	1002.7	1011.1	1020.4	1028.8	1038.1	1042.3	1047.4	1051.6	1052.5
15°	1007.7	1007.7	1008.6	1015.3	1024.6	1031.4	1039.0	1043.2	1045.7	1048.2	1048.2
17.5°	1033.9	1028.0	1023.8	1024.6	1030.5	1034.7	1039.0	1039.0	1037.3	1036.4	1034.7
20°	1064.3	1056.7	1048.2	1042.3	1040.6	1037.3	1034.7	1026.3	1019.5	1013.6	1009.4
22.5°	1108.2	1096.3	1084.5	1073.6	1063.4	1050.8	1036.4	1019.5	1003.5	992.5	985.8
25°	1162.2	1152.9	1138.5	1121.7	1109.0	1085.4	1066.8	1042.3	1022.1	1007.7	995.9
27.5°	1239.0	1228.0	1214.5	1199.3	1180.7	1154.6	1131.8	1103.1	1078.6	1057.5	1042.3
30°	1334.3	1320.0	1309.9	1291.3	1278.6	1249.1	1226.3	1190.9	1143.6	1109.8	1088.7
32.5°	1432.3	1416.2	1407.8	1393.4	1379.1	1361.4	1326.8	1271.9	1211.1	1156.3	1120.0
35°	1563.1	1546.2	1531.0	1518.3	1497.2	1464.3	1433.9	1368.1	1284.6	1207.8	1147.0
37.5°	1727.6	1699.8	1661.8	1629.7	1592.6	1545.3	1498.9	1431.4	1336.0	1236.4	1155.4
40°	1903.2	1854.2	1800.2	1740.3	1676.2	1607.8	1554.6	1486.3	1379.1	1260.9	1149.5
42.5°	2086.3	2008.7	1933.6	1849.2	1759.7	1678.7	1609.5	1534.4	1411.2	1267.7	1125.9
45°	2267.8	2180.9	2066.9	1956.4	1843.3	1742.8	1665.2	1580.8	1440.7	1270.2	1094.7
47.5°	2418.0	2328.6	2198.6	2060.2	1926.0	1812.0	1720.9	1629.7	1480.4	1287.9	1087.1
50°	2576.7	2467.8	2323.5	2159.8	2007.9	1880.4	1783.4	1688.8	1536.1	1333.5	1111.5
52.5°	2749.7	2624.8	2456.0	2272.9	2106.6	1964.0	1858.5	1761.4	1607.0	1397.6	1158.0
55°	2960.7	2808.0	2624.8	2418.0	2240.0	2082.1	1965.7	1850.9	1691.4	1473.6	1216.2
57.5°	3283.1	3095.8	2889.8	2654.4	2456.9	2270.3	2131.1	1998.6	1822.2	1586.7	1295.5
60°	3866.3	3666.3	3398.8	3113.5	2881.4	2663.6	2459.4	2294.8	2077.9	1809.5	1471.1
62.5°	4701.9	4436.0	4079.0	3679.8	3376.0	3062.0	2831.6	2586.8	2317.6	2028.1	1677.9
65°	5166.1	4843.7	4366.0	3902.6	3511.8	3170.9	2878.0	2594.4	2295.7	2018.8	1726.0
66°	5223.5	4887.6	4391.3	3903.5	3493.3	3143.0	2835.0	2541.3	2235.7	1971.6	1705.7
67.5°	5199.8	4856.3	4344.9	3830.0	3413.1	3036.7	2718.5	2413.8	2109.1	1862.7	1638.2
70°	4812.4	4486.7	3984.5	3485.7	3089.9	2718.5	2414.7	2115.0	1835.7	1624.7	1459.3
72.5°	3996.3	3717.8	3281.4	2889.8	2579.2	2272.9	2015.5	1729.3	1493.0	1336.9	1239.0
75°	2884.8	2716.0	2318.4	2093.9	1821.3	1617.9	1368.1	1198.5	1028.8	952.9	936.0
77.5°	1822.2	1595.1	1342.8	1105.6	909.0	753.7	586.6	498.0	415.2	406.8	491.2
80°	922.5	830.5	639.7	509.8	428.7	346.9	274.3	207.6	145.2	174.7	209.3
82.5°	604.3	503.9	395.0	324.9	282.7	234.6	182.3	126.6	92.8	104.7	143.5
85°	326.6	278.5	224.5	177.2	143.5	128.3	86.1	60.8	59.9	64.1	81.9
87.5°	23.6	23.6	18.6	16.9	20.3	16.9	15.2	15.2	14.3	15.2	20.3
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°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	1019.5	1022.1	1022.9	1027.1	1029.7	1031.4	1033.0	1033.0	1033.9	1036.4	1037.3
5°	1039.0	1043.2	1048.2	1051.6	1053.3	1058.4	1060.1	1060.1	1061.7	1065.1	1067.6
7.5°	1050.8	1056.7	1061.7	1063.4	1066.8	1068.5	1071.0	1072.7	1072.7	1076.1	1077.8
10°	1055.0	1058.4	1063.4	1063.4	1066.8	1066.8	1069.3	1070.2	1070.2	1073.6	1076.1
12.5°	1055.0	1056.7	1060.9	1060.9	1063.4	1064.3	1067.6	1070.2	1071.0	1075.2	1078.6
15°	1049.9	1051.6	1055.0	1055.8	1061.7	1065.1	1072.7	1077.8	1077.8	1082.0	1083.7
17.5°	1035.6	1039.8	1046.5	1053.3	1064.3	1071.9	1081.2	1085.4	1082.0	1079.5	1076.9
20°	1011.9	1019.5	1035.6	1052.5	1071.9	1082.0	1087.1	1082.8	1071.0	1059.2	1051.6
22.5°	988.3	1003.5	1030.5	1055.8	1077.8	1084.5	1082.0	1066.8	1047.4	1033.0	1022.9
25°	999.3	1017.0	1043.2	1066.0	1080.3	1078.6	1068.5	1047.4	1026.3	1007.7	990.8
27.5°	1044.9	1064.3	1078.6	1086.2	1084.5	1072.7	1056.7	1033.0	1007.7	983.2	959.6
30°	1087.9	1098.0	1101.4	1095.5	1082.0	1062.6	1042.3	1015.3	981.6	951.2	924.2
32.5°	1107.3	1097.2	1081.2	1065.1	1043.2	1026.3	998.4	968.9	926.7	890.4	863.4
35°	1107.3	1066.8	1026.3	992.5	959.6	938.5	906.4	866.8	828.0	797.6	776.5
37.5°	1082.8	1005.2	938.5	883.7	842.3	819.5	771.4	736.0	703.0	692.9	679.4
40°	1038.1	923.3	827.1	755.4	703.0	669.3	621.2	596.7	584.0	579.0	576.4
42.5°	978.2	832.2	703.9	615.3	558.7	520.7	488.7	473.5	472.6	471.8	471.8
45°	914.0	734.3	584.0	478.5	428.7	395.0	379.8	373.9	379.0	378.1	379.0
47.5°	874.4	660.0	474.3	362.1	324.1	302.1	294.6	297.1	301.3	299.6	299.6
50°	869.3	622.0	400.9	281.9	253.2	242.2	240.5	240.5	243.1	241.4	240.5
52.5°	887.9	616.1	362.9	242.2	219.4	210.2	208.5	207.6	206.8	201.7	197.5
55°	920.0	629.6	351.9	232.1	208.5	198.3	195.8	194.1	190.7	184.0	176.4
57.5°	984.1	671.8	362.1	237.2	211.8	203.4	200.9	200.9	194.1	183.1	172.2
60°	1138.5	779.0	403.4	256.6	227.9	219.4	221.1	220.3	210.2	194.1	177.2
62.5°	1337.7	919.1	457.4	283.6	248.1	246.4	254.9	253.2	236.3	211.8	187.4
65°	1429.7	984.9	472.6	289.5	252.4	259.9	276.8	275.1	254.0	220.3	189.1
66°	1431.4	984.9	465.9	284.4	246.4	255.7	272.6	271.8	250.7	216.9	185.7
67.5°	1396.8	957.9	446.5	274.3	234.6	241.4	256.6	255.7	236.3	208.5	178.9
70°	1266.8	857.5	396.7	256.6	218.6	215.2	220.3	216.9	204.2	184.8	164.6
72.5°	1085.4	719.9	346.0	243.1	207.6	194.1	190.7	188.2	178.1	167.1	154.5
75°	855.0	569.7	303.8	232.9	197.5	179.8	173.9	170.5	163.7	156.1	146.0
77.5°	527.5	407.6	265.0	219.4	189.9	172.2	168.0	162.9	152.8	143.5	135.9
80°	235.5	252.4	217.7	191.6	169.6	153.6	146.9	139.3	129.1	123.2	119.0
82.5°	157.0	162.9	157.8	143.5	128.3	115.6	105.5	105.5	103.8	98.7	97.1
85°	100.4	101.3	97.9	88.6	82.7	75.1	70.9	71.7	75.1	74.3	73.4
87.5°	22.8	22.8	27.0	25.3	29.5	31.2	33.8	36.3	41.4	41.4	43.9
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: P156628

CATALOG NUMBER: TLM-E03-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	1038.1	1039.8	1041.5	1039.0	1039.8
5°	1067.6	1066.8	1071.0	1068.5	1070.2
7.5°	1076.9	1077.8	1081.2	1081.2	1082.0
10°	1077.8	1079.5	1083.7	1086.2	1087.9
12.5°	1082.0	1085.4	1092.1	1093.8	1093.8
15°	1085.4	1087.1	1091.3	1093.0	1094.7
17.5°	1073.6	1070.2	1071.9	1072.7	1071.9
20°	1044.0	1040.6	1039.8	1036.4	1038.1
22.5°	1011.9	1002.7	996.8	990.0	990.0
25°	973.1	958.8	947.0	935.1	937.7
27.5°	936.8	918.3	906.4	898.9	897.2
30°	901.4	882.0	871.0	861.7	861.7
32.5°	842.3	828.8	814.5	808.5	807.7
35°	760.4	752.0	740.2	737.6	733.4
37.5°	668.4	665.9	655.8	654.9	650.7
40°	572.2	573.9	570.5	568.8	566.3
42.5°	476.0	484.5	482.8	481.9	480.2
45°	384.0	389.9	390.8	393.3	397.5
47.5°	302.1	303.8	305.5	304.7	305.5
50°	236.3	232.1	231.3	228.7	231.3
52.5°	190.7	184.0	180.6	177.2	175.6
55°	168.0	161.2	157.8	156.1	154.5
57.5°	162.0	155.3	150.2	146.9	146.0
60°	163.7	153.6	146.9	142.6	141.8
62.5°	168.0	154.5	145.2	140.9	140.1
65°	167.1	152.8	144.3	139.3	138.4
66°	164.6	151.1	142.6	138.4	137.6
67.5°	160.4	148.5	140.9	137.6	135.9
70°	152.8	145.2	139.3	135.0	133.4
72.5°	146.0	140.1	135.0	130.8	130.0
75°	138.4	133.4	128.3	124.9	124.1
77.5°	129.1	124.1	120.7	118.2	117.3
80°	113.9	110.6	107.2	103.8	103.8
82.5°	94.5	92.0	88.6	86.1	85.2
85°	72.6	72.6	70.1	67.5	66.7
87.5°	43.0	42.2	42.2	39.7	39.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)