

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: P155580

Luminaire Tested: **TLM-E02-LED-E1-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P155580  
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-E02-LED-E1-T3  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (42) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

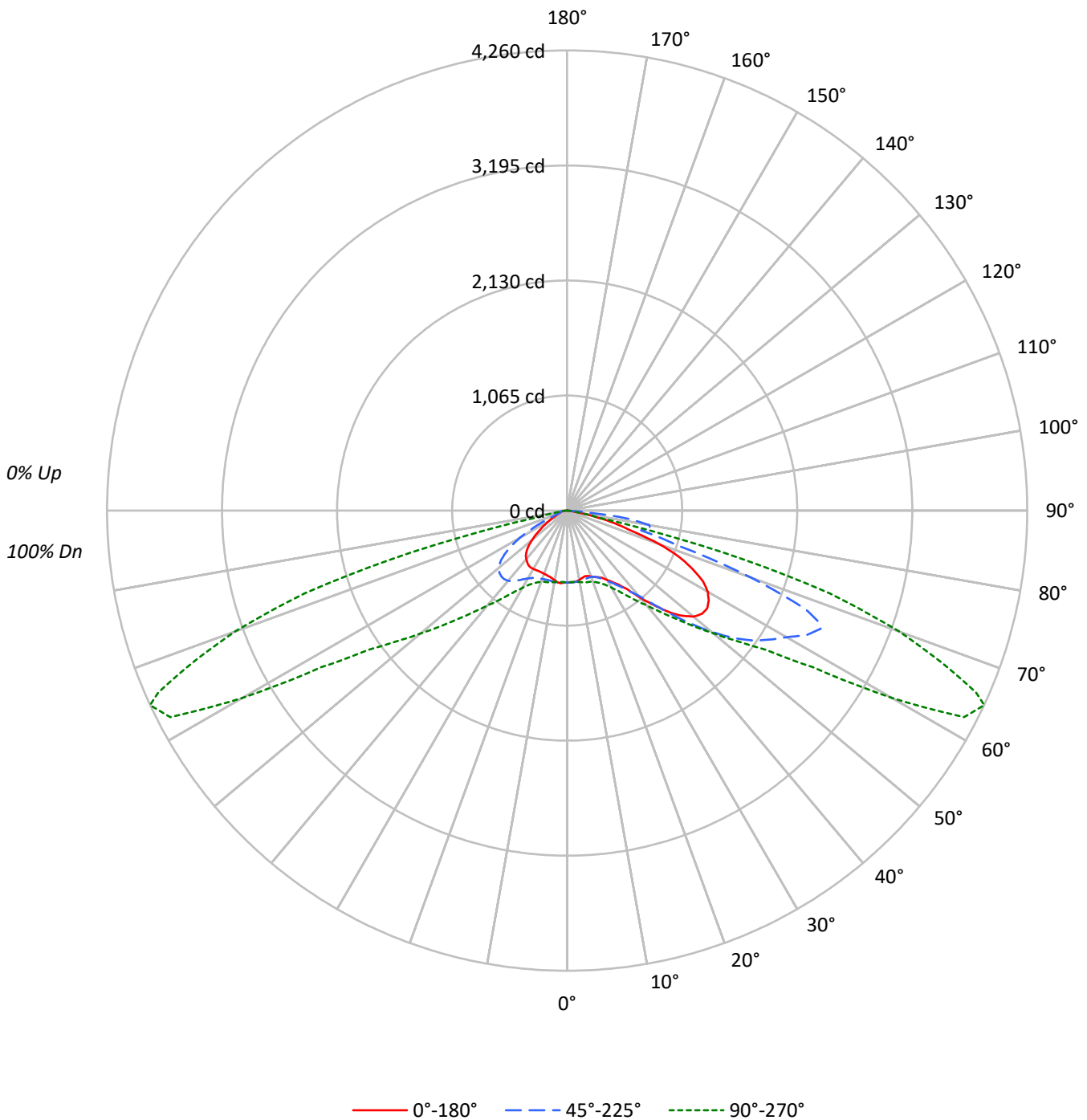
Lumens per Lamp: N/A  
Luminaire Lumens: 6167.8 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: TLM-E02-LED-E1-T3

### 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°	21681	21681	21681
5°	21764	21741	22091
10°	21572	22234	21704
15°	21251	23209	21386
20°	22562	24367	21590
25°	24473	26730	22267
30°	27898	31084	23529
35°	33448	38119	24740
40°	44794	48796	25037
45°	61199	64982	24508
50°	77436	89716	21551
55°	89965	127725	17134
60°	98030	225892	13002
65°	98946	328789	9825
70°	86719	311407	8202
75°	57304	188447	8406
80°	20906	19160	9899
85°	3481	12724	10965



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.7	1.0
10°-20°	187.9	3.0
20°-30°	322.9	5.2
30°-40°	524.3	8.5
40°-50°	875.3	14.2
50°-60°	1378.3	22.3
60°-70°	1879.5	30.5
70°-80°	813.6	13.2
80°-90°	122.3	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°	574.4	9.3
0°-40°	1098.8	17.8
0°-60°	3352.4	54.4
0°-90°	6167.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6167.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	665	665	665	665	665	
5°	665	666	664	672	675	63
15°	629	655	687	667	633	181
25°	680	684	743	689	619	319
35°	840	859	957	788	621	544
45°	1327	1344	1409	862	531	1020
55°	1582	2095	2246	710	301	1395
65°	1282	2590	4260	249	127	1245
75°	455	708	1495	67	67	486
85°	9	157	34	47	29	24
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°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	667.3	670.0	667.3	668.0	668.7	668.0	667.3	667.3	665.3	666.7	668.0
5°	664.7	666.7	666.0	666.7	667.3	666.7	666.0	666.7	665.3	666.0	668.0
7.5°	661.3	660.7	661.3	662.7	664.0	664.0	664.0	664.7	664.0	664.0	666.0
10°	651.3	652.0	653.3	655.3	656.0	658.0	658.0	660.0	660.7	662.0	664.7
12.5°	638.7	639.3	640.7	642.0	645.3	648.7	648.7	653.3	655.3	658.7	663.3
15°	629.3	630.0	631.3	632.7	635.3	638.7	640.7	646.0	649.3	655.3	662.0
17.5°	634.7	634.0	635.3	636.0	636.0	638.7	638.7	642.7	646.7	652.0	660.7
20°	650.0	650.0	651.3	651.3	650.7	652.0	649.3	649.3	650.0	652.7	658.7
22.5°	665.3	664.7	667.3	668.7	669.3	671.3	668.7	668.0	664.7	662.7	664.7
25°	680.0	679.3	682.7	684.7	688.0	690.0	690.0	690.0	687.3	684.0	682.0
27.5°	702.7	702.7	706.0	708.0	710.7	714.7	716.7	716.7	717.3	712.7	709.3
30°	740.7	741.3	742.0	744.7	747.3	748.7	751.3	753.3	755.3	752.7	747.3
32.5°	786.0	782.0	782.0	786.0	789.3	793.3	794.7	797.3	801.3	799.3	798.7
35°	840.0	838.7	837.3	838.7	842.7	847.3	852.7	857.3	854.7	858.7	856.7
37.5°	920.0	921.3	922.0	922.0	921.3	922.7	925.3	930.0	928.7	930.0	932.7
40°	1052.0	1047.3	1042.7	1043.3	1036.7	1038.0	1027.3	1032.0	1032.7	1028.0	1030.0
42.5°	1184.0	1186.7	1188.7	1194.0	1189.3	1186.7	1176.7	1176.7	1171.3	1166.7	1165.3
45°	1326.7	1332.0	1332.7	1343.3	1339.3	1348.0	1355.3	1353.3	1344.7	1344.0	1334.7
47.5°	1440.7	1449.3	1458.7	1471.3	1481.3	1500.7	1523.3	1534.7	1541.3	1546.7	1536.0
50°	1526.0	1530.0	1554.0	1574.0	1596.0	1628.0	1659.3	1700.0	1732.7	1748.0	1762.7
52.5°	1572.0	1582.0	1608.0	1639.3	1678.0	1726.0	1776.7	1841.3	1897.3	1934.7	1968.0
55°	1582.0	1592.0	1621.3	1661.3	1714.0	1778.7	1851.3	1939.3	2023.3	2095.3	2165.3
57.5°	1554.0	1565.3	1596.7	1642.7	1704.7	1783.3	1874.7	1990.0	2106.0	2222.7	2326.0
60°	1502.7	1516.7	1545.3	1590.7	1659.3	1748.0	1857.3	2002.0	2164.7	2343.3	2541.3
62.5°	1418.0	1432.7	1459.3	1509.3	1580.0	1678.0	1804.7	1984.7	2214.7	2496.0	2847.3
65°	1282.0	1288.7	1321.3	1372.0	1434.7	1542.7	1682.0	1899.3	2198.7	2590.0	3074.0
66°	1220.7	1232.0	1252.0	1292.7	1352.7	1454.0	1594.0	1814.7	2138.0	2557.3	3068.0
67.5°	1124.7	1133.3	1146.7	1174.0	1210.7	1285.3	1418.0	1626.7	1952.7	2392.0	2940.7
70°	909.3	913.3	931.3	940.7	953.3	978.0	1026.0	1146.0	1400.0	1812.7	2373.3
72.5°	620.0	631.3	650.7	677.3	712.0	745.3	768.0	783.3	838.0	1081.3	1581.3
75°	454.7	466.7	491.3	526.7	587.3	656.7	728.7	762.0	739.3	708.0	880.7
77.5°	264.0	280.0	300.7	334.7	390.7	482.7	606.0	715.3	789.3	794.0	754.0
80°	111.3	113.3	126.0	143.3	178.0	242.7	338.7	496.0	660.0	770.7	796.7
82.5°	25.3	31.3	40.0	47.3	58.0	80.0	118.7	197.3	356.7	559.3	729.3
85°	9.3	9.3	12.7	18.7	21.3	24.0	31.3	50.0	85.3	157.3	328.0
87.5°	0.0	0.7	1.3	1.3	2.7	3.3	5.3	7.3	6.7	6.0	20.0
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	666.7	666.0	664.7	664.7	664.7	664.7	663.3	664.0	662.7	663.3	663.3
5°	666.0	666.0	665.3	664.0	664.7	664.7	665.3	664.0	664.0	664.7	664.0
7.5°	666.0	665.3	665.3	665.3	666.0	665.3	666.0	666.0	666.0	666.7	666.7
10°	666.0	666.0	667.3	668.0	668.0	668.7	670.7	670.7	671.3	672.0	673.3
12.5°	666.7	669.3	671.3	673.3	674.0	675.3	678.7	678.7	680.0	682.0	682.7
15°	667.3	671.3	675.3	676.7	678.0	680.7	684.0	685.3	687.3	689.3	690.7
17.5°	666.7	672.0	676.7	678.7	680.7	684.0	688.0	689.3	692.0	694.7	697.3
20°	666.0	673.3	680.7	683.3	686.0	690.7	696.0	699.3	702.0	706.0	708.7
22.5°	670.0	678.7	688.7	692.7	697.3	703.3	710.7	714.7	718.0	722.0	724.0
25°	682.7	689.3	701.3	708.0	714.0	724.0	734.0	738.7	742.7	746.0	746.7
27.5°	704.0	706.0	720.7	729.3	738.0	754.0	766.0	769.3	776.7	779.3	778.7
30°	738.7	735.3	747.3	760.7	773.3	795.3	810.0	818.7	825.3	825.3	820.0
32.5°	788.7	783.3	786.7	802.0	816.7	848.7	866.0	877.3	882.0	880.7	869.3
35°	854.0	850.7	848.7	860.7	884.0	921.3	944.0	950.0	957.3	956.0	941.3
37.5°	931.3	928.7	928.7	942.7	965.3	1020.7	1045.3	1049.3	1048.7	1038.0	1010.7
40°	1022.7	1021.3	1015.3	1023.3	1042.7	1114.7	1148.0	1153.3	1146.0	1128.7	1096.7
42.5°	1154.0	1146.0	1127.3	1132.0	1146.7	1216.7	1260.0	1274.7	1267.3	1250.0	1198.0
45°	1325.3	1316.7	1285.3	1281.3	1289.3	1350.7	1406.7	1410.0	1408.7	1386.7	1325.3
47.5°	1526.7	1513.3	1480.0	1469.3	1466.7	1523.3	1577.3	1582.7	1579.3	1546.7	1464.7
50°	1744.7	1725.3	1703.3	1696.0	1685.3	1726.0	1780.7	1781.3	1768.0	1722.7	1646.0
52.5°	1977.3	1970.7	1966.7	1959.3	1954.7	1990.0	2023.3	2003.3	1983.3	1936.0	1869.3
55°	2212.0	2239.3	2267.3	2270.0	2278.0	2316.0	2315.3	2260.7	2246.0	2220.0	2154.0
57.5°	2461.3	2562.7	2650.7	2678.0	2704.7	2775.3	2768.7	2714.7	2696.0	2664.0	2609.3
60°	2800.7	3074.0	3328.0	3388.7	3430.7	3515.3	3507.3	3424.0	3462.7	3460.0	3389.3
62.5°	3276.0	3730.7	4111.3	4204.7	4234.0	4243.3	4192.7	4102.7	4140.7	4183.3	3966.0
65°	3598.0	4132.7	4523.3	4595.3	4599.3	4488.0	4375.3	4269.3	4260.0	4223.3	3912.7
66°	3605.3	4152.7	4544.7	4614.7	4590.0	4438.0	4295.3	4188.7	4142.7	4062.0	3740.0
67.5°	3476.0	4028.0	4450.0	4524.0	4470.0	4254.7	4058.0	3920.7	3830.7	3700.0	3416.0
70°	2919.3	3466.7	3986.7	4124.7	4142.0	3820.7	3548.0	3386.7	3265.3	3086.0	2841.3
72.5°	2170.7	2665.3	3124.0	3256.0	3323.3	3066.7	2836.7	2714.0	2548.0	2359.3	2185.3
75°	1360.7	1710.0	2017.3	2110.0	2046.7	1848.0	1710.0	1658.7	1495.3	1382.7	1303.3
77.5°	778.0	887.3	912.0	876.7	802.0	614.0	436.7	323.3	280.7	310.7	342.7
80°	759.3	696.0	554.7	488.0	442.0	304.0	178.7	122.7	102.0	104.7	113.3
82.5°	822.7	882.7	726.7	592.7	497.3	336.0	185.3	98.7	66.7	78.7	88.7
85°	534.7	744.0	670.0	564.7	457.3	287.3	152.7	51.3	34.0	44.7	61.3
87.5°	54.0	59.3	50.7	68.7	51.3	24.0	12.0	7.3	6.7	8.0	12.0
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	664.0	664.0	664.7	665.3	666.0	666.7	666.7	666.7	666.7	668.0	667.3
5°	665.3	666.7	668.0	668.7	670.0	670.0	672.0	671.3	671.3	673.3	674.0
7.5°	668.0	670.0	672.7	672.0	674.7	674.0	675.3	675.3	673.3	674.0	672.7
10°	674.0	676.7	678.0	676.0	676.7	674.0	673.3	670.0	666.0	664.0	661.3
12.5°	684.0	686.7	686.7	683.3	679.3	673.3	668.7	661.3	655.3	652.0	648.7
15°	692.7	695.3	694.7	689.3	683.3	674.0	667.3	658.7	650.0	644.7	641.3
17.5°	699.3	700.7	698.7	691.3	684.7	676.0	669.3	660.0	650.0	643.3	637.3
20°	709.3	708.0	703.3	694.0	686.7	678.7	673.3	665.3	654.0	645.3	636.7
22.5°	724.0	718.7	710.0	700.0	692.7	685.3	680.0	671.3	660.0	649.3	639.3
25°	743.3	732.7	720.7	710.0	703.3	695.3	689.3	680.0	668.0	656.0	644.0
27.5°	771.3	752.7	737.3	728.0	720.7	710.7	703.3	691.3	678.7	664.7	651.3
30°	802.7	777.3	762.7	755.3	747.3	736.7	725.3	710.0	695.3	680.0	664.0
32.5°	843.3	812.7	798.7	791.3	780.7	767.3	754.0	736.7	716.0	696.0	676.7
35°	896.7	865.3	850.7	839.3	824.7	807.3	788.0	764.7	736.7	710.0	685.3
37.5°	954.0	920.0	906.0	894.0	872.0	849.3	822.0	788.0	750.0	714.7	684.0
40°	1026.7	995.3	977.3	956.7	930.7	891.3	848.7	799.3	750.7	707.3	671.3
42.5°	1118.7	1087.3	1060.7	1028.0	982.7	922.0	861.3	797.3	738.7	689.3	650.7
45°	1240.7	1202.7	1156.7	1099.3	1026.0	941.3	862.0	784.7	716.0	661.3	620.0
47.5°	1390.0	1332.0	1256.7	1160.0	1054.7	946.7	851.3	759.3	680.7	621.3	575.3
50°	1567.3	1476.0	1352.0	1210.0	1069.3	938.7	824.7	721.3	630.7	567.3	512.7
52.5°	1770.0	1620.7	1438.0	1246.0	1068.7	912.0	779.3	664.0	565.3	494.7	442.7
55°	2008.0	1786.0	1526.7	1272.7	1050.0	862.7	710.0	583.3	484.7	419.3	371.3
57.5°	2356.7	2054.0	1681.3	1314.0	1012.7	786.7	616.0	486.7	400.0	338.0	297.3
60°	2994.0	2501.3	1960.0	1397.3	955.3	675.3	506.0	383.3	310.7	260.7	233.3
62.5°	3474.0	2847.3	2110.7	1378.7	840.0	538.0	375.3	279.3	228.7	194.7	177.3
65°	3405.3	2740.0	1950.0	1187.3	658.7	379.3	249.3	190.0	157.3	141.3	131.3
66°	3250.0	2600.0	1810.7	1068.7	569.3	315.3	205.3	159.3	135.3	124.0	117.3
67.5°	2955.3	2340.0	1561.3	876.0	437.3	228.7	154.7	126.0	110.0	105.3	100.7
70°	2456.7	1866.0	1096.0	510.0	223.3	127.3	98.0	88.0	84.0	83.3	82.0
72.5°	1882.7	1320.7	645.3	241.3	116.0	84.7	76.0	72.7	71.3	71.3	72.0
75°	1154.0	742.0	285.3	118.0	81.3	71.3	67.3	66.0	65.3	66.0	65.3
77.5°	385.3	236.0	122.0	89.3	74.0	66.0	63.3	62.0	62.0	62.0	62.0
80°	118.0	102.7	93.3	82.7	70.0	62.7	58.7	58.0	58.7	59.3	57.3
82.5°	88.7	84.0	78.7	73.3	63.3	56.0	54.7	54.7	54.7	52.7	50.0
85°	65.3	64.7	53.3	50.0	46.7	46.7	46.7	46.7	44.7	41.3	38.7
87.5°	12.0	11.3	12.0	12.7	18.7	20.0	20.0	21.3	23.3	22.0	22.0
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: P155580

CATALOG NUMBER: TLM-E02-LED-E1-T3

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	664.7	664.7	664.7	664.7	664.7
2.5°	667.3	666.7	668.7	667.3	668.0
5°	673.3	672.7	674.0	672.7	674.7
7.5°	671.3	670.0	669.3	670.0	670.7
10°	657.3	656.0	655.3	654.7	655.3
12.5°	645.3	642.7	642.7	641.3	642.0
15°	636.7	634.7	634.0	632.7	633.3
17.5°	632.7	629.3	628.0	626.7	626.7
20°	630.0	626.0	624.0	622.7	622.0
22.5°	630.0	624.0	621.3	620.0	619.3
25°	632.7	625.3	621.3	619.3	618.7
27.5°	638.0	628.7	624.0	621.3	621.3
30°	647.3	635.3	628.7	625.3	624.7
32.5°	656.7	640.7	631.3	627.3	626.0
35°	661.3	640.7	629.3	622.7	621.3
37.5°	656.0	632.0	618.0	608.0	606.0
40°	639.3	614.0	598.7	589.3	588.0
42.5°	617.3	592.7	574.7	568.0	566.0
45°	587.3	558.0	540.0	530.7	531.3
47.5°	536.0	506.0	490.0	481.3	482.7
50°	475.3	446.0	432.0	422.7	424.7
52.5°	408.7	382.0	368.7	364.0	362.7
55°	338.7	318.0	308.7	303.3	301.3
57.5°	274.7	260.0	253.3	246.7	247.3
60°	216.7	209.3	207.3	200.0	199.3
62.5°	170.7	166.0	164.0	158.7	159.3
65°	129.3	128.0	129.3	126.0	127.3
66°	116.7	117.3	117.3	115.3	116.7
67.5°	100.7	102.0	104.0	102.0	103.3
70°	83.3	84.7	86.0	86.0	86.0
72.5°	72.7	74.0	74.7	74.7	74.7
75°	66.7	67.3	68.0	66.7	66.7
77.5°	62.7	62.7	61.3	60.7	60.0
80°	56.7	56.0	54.0	52.7	52.7
82.5°	47.3	46.0	44.7	42.7	42.7
85°	36.0	34.7	33.3	30.7	29.3
87.5°	18.7	19.3	18.7	15.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)