

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: P151801

Luminaire Tested: **TLM-E03-LED-E1-SL4-HSS-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P151801  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)  
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-SL4-HSS-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (63) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

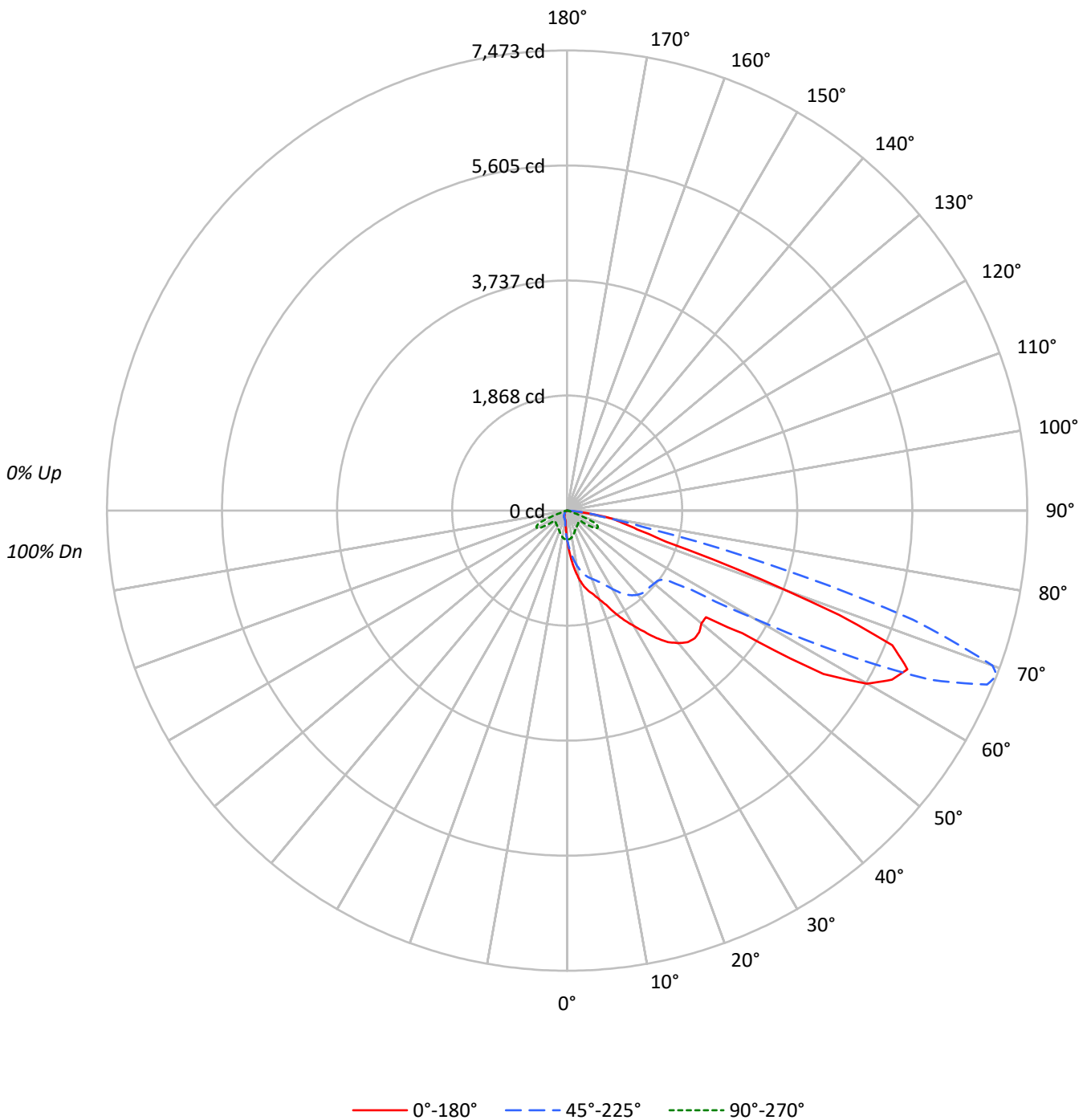
Lumens per Lamp: N/A  
Luminaire Lumens: 6263.8 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P151801  
CATALOG NUMBER: TLM-E03-LED-E1-SL4-HSS-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	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	93	88	102	96	91	86	92	87	83	88	84	81	84	81	78	76				
2	91	80	71	63	88	78	70	62	74	67	61	71	65	59	68	62	58	55				
3	80	66	55	47	77	64	54	46	61	52	45	58	51	44	55	49	43	41				
4	71	56	44	36	68	54	44	35	51	42	35	49	41	34	46	39	33	31				
5	64	48	36	28	61	46	36	28	44	35	27	42	33	27	40	32	27	24				
6	58	42	31	23	56	40	30	22	38	29	22	37	28	22	35	27	22	19				
7	53	37	26	19	51	36	26	19	34	25	18	32	24	18	31	24	18	16				
8	49	33	23	16	47	32	22	16	31	22	16	29	21	15	28	21	15	13				
9	45	30	20	14	44	29	20	14	28	19	13	27	19	13	25	18	13	11				
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10				

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

	0°	90°	180°
0°	10183	10183	10183
5°	17407	10044	5344
10°	24785	9601	3432
15°	30141	8828	3111
20°	35168	8227	2820
25°	43530	7872	2487
30°	53719	7704	2118
35°	66393	7632	1779
40°	78982	7756	1644
45°	89283	8092	1687
50°	95400	8902	1547
55°	130366	15403	923
60°	242059	24430	663
65°	310581	26397	627
70°	234514	10914	711
75°	97642	4184	857
80°	89174	3942	1141
85°	7855	3557	2025



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.6	0.8
10°-20°	167.6	2.7
20°-30°	320.8	5.1
30°-40°	533.6	8.5
40°-50°	722.0	11.5
50°-60°	1129.1	18.0
60°-70°	2321.5	37.1
70°-80°	934.1	14.9
80°-90°	86.4	1.4
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°	537.1	8.6
0°-40°	1070.7	17.1
0°-60°	2921.8	46.6
0°-90°	6263.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6263.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	473	473	473	473	473	
5°	806	685	465	296	247	87
15°	1352	1072	396	147	140	386
25°	1833	1291	331	117	105	858
35°	2526	1666	290	83	68	1584
45°	2933	1824	266	54	55	2241
55°	3473	1939	410	36	25	3502
65°	6097	6501	518	17	12	5586
75°	1174	3423	50	7	10	1574
85°	32	138	14	5	8	197
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°	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0
2.5°	631.1	623.9	615.7	615.7	605.4	605.4	599.2	582.8	580.8	571.5	562.3
5°	805.5	799.3	789.1	779.8	771.6	757.3	747.0	727.5	706.0	685.4	667.0
7.5°	975.8	972.7	954.3	951.2	937.9	914.3	893.7	865.0	828.1	799.3	765.5
10°	1133.8	1126.7	1122.6	1105.1	1085.6	1060.0	1028.2	993.3	950.2	905.0	856.8
12.5°	1259.0	1254.9	1236.5	1229.3	1208.8	1183.1	1143.1	1097.9	1054.8	996.3	939.9
15°	1352.4	1345.2	1332.9	1321.6	1297.0	1274.4	1237.5	1188.2	1135.9	1072.3	1004.6
17.5°	1430.4	1417.1	1414.0	1396.5	1370.9	1344.2	1303.2	1258.0	1196.4	1132.8	1058.9
20°	1535.1	1516.6	1510.4	1484.8	1455.0	1418.1	1370.9	1314.4	1249.8	1180.0	1104.1
22.5°	1658.2	1644.8	1631.5	1608.9	1571.0	1518.6	1449.9	1388.3	1306.2	1229.3	1147.2
25°	1832.6	1821.3	1799.8	1769.0	1721.8	1659.2	1576.1	1485.8	1389.3	1290.8	1194.4
27.5°	2001.9	1991.7	1976.3	1952.7	1899.3	1830.6	1728.0	1613.0	1490.9	1371.9	1265.2
30°	2161.0	2151.7	2136.4	2112.8	2065.6	1997.8	1881.9	1758.7	1606.9	1468.4	1340.1
32.5°	2332.3	2329.3	2311.8	2278.0	2236.9	2145.6	2019.4	1887.0	1733.1	1573.0	1423.2
35°	2526.3	2502.7	2486.3	2452.4	2382.6	2285.1	2137.4	1992.7	1830.6	1666.4	1499.1
37.5°	2690.4	2667.9	2647.4	2604.3	2519.1	2394.9	2227.7	2068.6	1901.4	1734.1	1563.8
40°	2810.5	2799.2	2774.6	2718.2	2622.7	2475.0	2294.4	2121.0	1952.7	1784.4	1616.1
42.5°	2899.8	2882.3	2854.6	2796.1	2683.3	2515.0	2321.1	2142.5	1976.3	1815.2	1650.0
45°	2932.6	2918.2	2892.6	2829.0	2706.9	2526.3	2320.0	2136.4	1977.3	1824.4	1672.6
47.5°	2913.1	2898.7	2876.2	2816.7	2696.6	2512.9	2301.6	2118.9	1967.0	1827.5	1693.1
50°	2848.5	2840.3	2822.8	2772.5	2664.8	2487.3	2285.1	2109.7	1965.0	1842.9	1721.8
52.5°	2842.3	2837.2	2815.6	2765.4	2655.6	2479.1	2283.1	2114.8	1982.4	1862.4	1742.3
55°	3473.4	3400.5	3237.4	3098.8	2871.0	2600.2	2386.7	2197.9	2056.3	1939.3	1855.2
57.5°	4936.6	4827.8	4613.4	4349.7	3826.3	3312.3	2900.8	2603.2	2456.5	2403.1	2434.9
60°	5622.0	5602.5	5568.7	5443.5	5175.7	4733.4	4240.9	3708.3	3494.9	3476.4	3541.1
62.5°	5947.3	5935.0	5945.3	5929.9	5846.7	5717.5	5575.9	5346.0	5134.6	4998.2	4708.8
65°	6097.1	6105.3	6163.8	6210.0	6220.3	6254.1	6357.7	6644.0	6853.4	6501.4	5698.0
67.5°	5716.4	5764.7	5899.1	6067.4	6264.4	6455.2	6763.1	7366.4	7796.3	7382.8	6241.8
69°	4732.4	4756.0	5084.4	5401.4	5882.7	6219.2	6665.6	7456.7	7940.0	7473.1	6198.7
70°	3725.8	3747.3	4099.3	4530.3	5344.0	5777.0	6360.8	7303.8	7805.6	7353.1	5977.1
72.5°	1680.8	1650.0	1774.1	2005.0	2889.5	3577.0	4598.0	5917.6	6439.8	5890.9	4471.8
75°	1173.9	1160.5	1173.9	1174.9	1312.4	1693.1	2136.4	3207.6	3966.9	3423.1	2136.4
77.5°	909.1	899.9	890.7	880.4	896.8	1004.6	1047.7	1138.0	1477.6	1397.6	814.7
80°	719.3	711.1	733.7	726.5	726.5	738.8	730.6	696.7	633.1	586.9	525.4
82.5°	334.5	336.6	336.6	365.3	440.2	514.1	537.7	503.8	447.4	380.7	306.8
85°	31.8	35.9	60.5	93.4	185.7	209.3	210.4	174.4	174.4	137.5	110.8
87.5°	0.0	1.0	1.0	1.0	9.2	25.7	21.5	6.2	3.1	3.1	5.1
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°	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0
2.5°	545.9	542.8	530.5	518.2	506.9	494.6	483.3	472.0	459.7	450.5	439.2
5°	638.2	615.7	590.0	565.4	540.8	515.1	488.4	464.8	440.2	417.6	396.1
7.5°	731.6	687.5	652.6	608.5	568.5	528.4	491.5	453.5	418.7	385.8	355.0
10°	810.6	757.3	702.9	646.4	589.0	535.6	484.3	439.2	393.0	353.0	315.0
12.5°	875.3	807.5	740.8	670.0	605.4	537.7	474.1	419.7	365.3	320.1	281.2
15°	933.8	855.8	775.7	693.6	611.6	534.6	463.8	396.1	340.7	289.4	245.2
17.5°	981.0	891.7	801.4	709.0	620.8	530.5	450.5	379.7	315.0	261.7	218.6
20°	1022.0	928.6	831.1	727.5	627.0	529.5	439.2	359.1	292.4	236.0	193.9
22.5°	1060.0	966.6	861.9	751.1	636.2	528.4	428.9	343.7	272.9	216.5	174.4
25°	1103.1	1004.6	894.8	775.7	652.6	532.5	422.8	331.4	255.5	198.0	159.0
27.5°	1151.3	1047.7	933.8	806.5	674.2	540.8	420.7	318.1	240.1	180.6	146.7
30°	1219.0	1099.0	972.7	837.3	693.6	550.0	418.7	309.9	224.7	167.3	134.4
32.5°	1278.5	1149.2	1015.8	869.1	715.2	559.2	417.6	298.6	210.4	153.9	125.2
35°	1341.1	1195.4	1052.8	899.9	733.7	569.5	416.6	290.4	197.0	140.6	115.9
37.5°	1395.5	1234.4	1081.5	926.6	754.2	578.7	417.6	283.2	184.7	129.3	107.7
40°	1441.7	1274.4	1113.3	951.2	775.7	593.1	418.7	276.0	172.4	119.0	100.6
42.5°	1482.7	1312.4	1147.2	978.9	800.4	609.5	424.8	269.9	162.1	109.8	93.4
45°	1514.5	1347.3	1184.1	1017.9	840.4	636.2	436.1	265.8	151.9	101.6	87.2
47.5°	1547.4	1398.6	1246.7	1079.5	898.9	678.3	455.6	264.7	143.7	95.4	82.1
50°	1592.5	1449.9	1302.1	1142.1	952.2	721.4	479.2	265.8	133.4	89.3	77.0
52.5°	1625.4	1502.2	1374.0	1250.8	1079.5	852.7	570.5	284.2	128.3	84.1	70.8
55°	1819.3	1797.7	1800.8	1821.3	1689.0	1450.9	954.3	410.4	150.8	95.4	69.8
57.5°	2565.3	2641.2	2685.3	2684.3	2465.7	2045.0	1281.6	527.4	168.3	110.8	83.1
60°	3546.2	3488.8	3407.7	3207.6	2917.2	2334.4	1433.5	567.4	145.7	88.2	75.9
62.5°	4413.3	4076.7	3778.1	3453.9	3073.2	2434.9	1464.3	564.4	127.2	66.7	53.4
65°	4954.0	4348.6	3866.4	3460.0	3011.6	2350.8	1385.2	518.2	107.7	54.4	44.1
67.5°	5083.3	4201.9	3519.5	3001.4	2516.0	1829.5	1016.9	389.9	84.1	45.1	39.0
69°	4801.1	3735.0	2916.2	2328.2	1830.6	1213.9	629.0	246.3	64.6	41.0	35.9
70°	4416.4	3248.6	2375.4	1868.5	1355.5	852.7	440.2	173.4	52.3	38.0	32.8
72.5°	2841.3	1706.4	1167.7	812.7	559.2	339.6	172.4	78.0	40.0	31.8	26.7
75°	1102.0	631.1	457.6	347.8	271.9	188.8	104.7	50.3	33.9	26.7	20.5
77.5°	542.8	415.6	339.6	232.9	135.4	84.1	56.4	39.0	27.7	19.5	13.3
80°	428.9	285.3	170.3	105.7	80.0	60.5	43.1	31.8	20.5	12.3	9.2
82.5°	219.6	120.1	88.2	71.8	59.5	47.2	34.9	22.6	13.3	8.2	7.2
85°	68.7	50.3	45.1	44.1	41.0	33.9	24.6	14.4	8.2	5.1	5.1
87.5°	5.1	7.2	9.2	7.2	8.2	7.2	9.2	6.2	4.1	4.1	3.1
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°	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0	473.0
2.5°	431.0	418.7	407.4	400.2	386.8	381.7	376.6	374.5	365.3	367.3	359.1
5°	376.6	355.0	338.6	322.2	306.8	295.5	286.3	275.0	265.8	261.7	253.4
7.5°	327.3	299.6	278.1	260.6	242.2	227.8	215.5	207.3	199.1	190.9	186.8
10°	284.2	254.5	229.8	212.4	195.0	182.6	173.4	167.3	162.1	159.0	158.0
12.5°	244.2	215.5	192.9	177.5	164.2	158.0	153.9	150.8	149.8	148.8	148.8
15°	213.4	184.7	167.3	156.0	149.8	146.7	145.7	143.7	141.6	140.6	140.6
17.5°	184.7	163.2	150.8	144.7	141.6	139.6	137.5	135.4	133.4	132.4	132.4
20°	165.2	147.8	141.6	137.5	134.4	132.4	129.3	127.2	126.2	125.2	124.2
22.5°	149.8	138.5	134.4	131.3	127.2	124.2	122.1	120.1	118.0	117.0	115.9
25°	138.5	131.3	128.3	124.2	120.1	117.0	113.9	110.8	108.8	107.7	105.7
27.5°	130.3	125.2	121.1	115.9	111.8	108.8	105.7	102.6	100.6	98.5	97.5
30°	123.1	118.0	112.9	108.8	103.6	100.6	96.5	93.4	92.3	90.3	88.2
32.5°	115.9	110.8	105.7	100.6	95.4	91.3	89.3	85.2	83.1	82.1	80.0
35°	107.7	102.6	96.5	92.3	87.2	83.1	80.0	77.0	74.9	72.9	71.8
37.5°	100.6	94.4	88.2	83.1	79.0	74.9	71.8	68.7	66.7	64.6	63.6
40°	92.3	86.2	80.0	74.9	70.8	67.7	64.6	61.6	59.5	58.5	58.5
42.5°	85.2	78.0	71.8	67.7	64.6	60.5	57.5	54.4	53.4	52.3	53.4
45°	78.0	70.8	65.7	61.6	58.5	54.4	51.3	49.3	48.2	49.3	50.3
47.5°	71.8	64.6	59.5	56.4	53.4	50.3	47.2	45.1	45.1	47.2	49.3
50°	65.7	58.5	54.4	52.3	49.3	46.2	42.1	41.0	42.1	44.1	46.2
52.5°	59.5	51.3	48.2	47.2	44.1	41.0	38.0	36.9	38.0	40.0	39.0
55°	53.4	45.1	44.1	43.1	40.0	35.9	32.8	32.8	32.8	31.8	29.8
57.5°	51.3	40.0	39.0	38.0	34.9	30.8	28.7	26.7	25.7	22.6	21.5
60°	53.4	35.9	35.9	33.9	30.8	26.7	23.6	20.5	18.5	16.4	16.4
62.5°	43.1	32.8	31.8	29.8	25.7	21.5	18.5	15.4	14.4	13.3	13.3
65°	34.9	29.8	27.7	24.6	21.5	17.4	14.4	12.3	11.3	11.3	12.3
67.5°	31.8	26.7	23.6	20.5	17.4	13.3	11.3	10.3	10.3	11.3	11.3
69°	29.8	24.6	21.5	18.5	15.4	12.3	10.3	10.3	10.3	10.3	11.3
70°	27.7	23.6	20.5	17.4	13.3	10.3	9.2	9.2	10.3	10.3	11.3
72.5°	21.5	18.5	17.4	14.4	10.3	9.2	8.2	9.2	9.2	10.3	10.3
75°	16.4	13.3	13.3	11.3	8.2	7.2	7.2	8.2	8.2	9.2	9.2
77.5°	11.3	9.2	9.2	8.2	7.2	6.2	6.2	7.2	8.2	8.2	9.2
80°	8.2	7.2	6.2	7.2	6.2	5.1	6.2	7.2	7.2	8.2	8.2
82.5°	6.2	6.2	6.2	6.2	5.1	5.1	6.2	6.2	7.2	8.2	8.2
85°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.2	6.2	7.2	7.2
87.5°	3.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1	6.2	6.2
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: P151801

CATALOG NUMBER: TLM-E03-LED-E1-SL4-HSS-7050

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	473.0	473.0	473.0	473.0
2.5°	357.1	356.1	352.0	353.0
5°	250.4	244.2	248.3	247.3
7.5°	183.7	182.6	181.6	183.7
10°	157.0	157.0	156.0	157.0
12.5°	147.8	147.8	147.8	147.8
15°	140.6	140.6	139.6	139.6
17.5°	132.4	132.4	132.4	131.3
20°	124.2	123.1	123.1	123.1
22.5°	114.9	113.9	113.9	113.9
25°	105.7	104.7	104.7	104.7
27.5°	96.5	95.4	94.4	94.4
30°	87.2	86.2	85.2	85.2
32.5°	78.0	77.0	75.9	75.9
35°	69.8	69.8	68.7	67.7
37.5°	62.6	62.6	62.6	62.6
40°	57.5	58.5	58.5	58.5
42.5°	54.4	55.4	56.4	57.5
45°	52.3	54.4	55.4	55.4
47.5°	51.3	52.3	53.4	53.4
50°	47.2	46.2	46.2	46.2
52.5°	38.0	35.9	34.9	33.9
55°	27.7	26.7	24.6	24.6
57.5°	19.5	19.5	18.5	18.5
60°	15.4	15.4	14.4	15.4
62.5°	13.3	13.3	13.3	13.3
65°	12.3	12.3	12.3	12.3
67.5°	12.3	12.3	12.3	12.3
69°	11.3	11.3	11.3	11.3
70°	11.3	11.3	11.3	11.3
72.5°	10.3	10.3	10.3	10.3
75°	9.2	10.3	10.3	10.3
77.5°	9.2	9.2	9.2	9.2
80°	8.2	8.2	9.2	9.2
82.5°	8.2	8.2	8.2	8.2
85°	7.2	7.2	8.2	8.2
87.5°	6.2	6.2	7.2	7.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)