

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: P151789

Luminaire Tested: **TLM-E02-LED-E1-SL4-HSS-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P151789  
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-E02-LED-E1-SL4-HSS-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (42) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3717.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
CIE Type: Direct

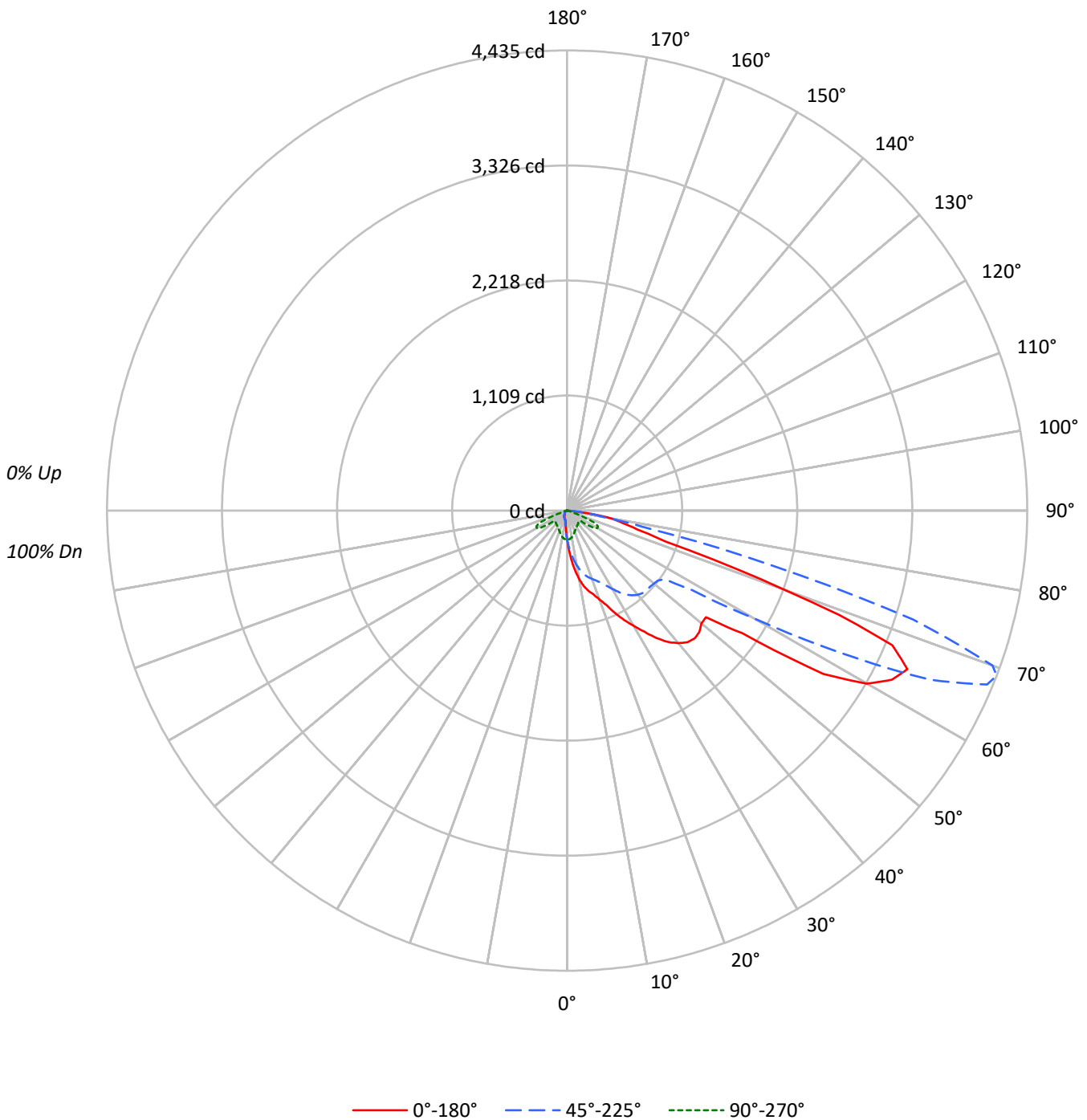
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: TLM-E02-LED-E1-SL4-HSS-7030

### 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	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°	9156	9156	9156
5°	15651	9030	4803
10°	22284	8631	3087
15°	27099	7936	2796
20°	31618	7397	2537
25°	39139	7079	2235
30°	48296	6926	1902
35°	59693	6861	1601
40°	71014	6975	1478
45°	80273	7274	1518
50°	85773	8002	1390
55°	117210	13853	830
60°	217640	21965	594
65°	279247	23733	563
70°	210850	9813	639
75°	87790	3756	769
80°	80170	3550	1033
85°	7073	3181	1834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.9	0.8
10°-20°	99.5	2.7
20°-30°	190.4	5.1
30°-40°	316.6	8.5
40°-50°	428.4	11.5
50°-60°	670.0	18.0
60°-70°	1377.6	37.1
70°-80°	554.3	14.9
80°-90°	51.3	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°	318.7	8.6
0°-40°	635.3	17.1
0°-60°	1733.8	46.6
0°-90°	3717.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3717.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	478	407	276	175	147	51
15°	802	636	235	87	83	229
25°	1088	766	197	69	62	509
35°	1499	989	172	49	40	940
45°	1740	1083	158	32	33	1330
55°	2061	1151	244	21	15	2078
65°	3618	3858	308	10	7	3315
75°	697	2031	30	4	6	934
85°	19	82	8	3	5	117
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°	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7
2.5°	374.5	370.2	365.3	365.3	359.3	359.3	355.6	345.9	344.6	339.2	333.7
5°	478.0	474.3	468.2	462.8	457.9	449.4	443.3	431.7	418.9	406.7	395.8
7.5°	579.1	577.2	566.3	564.5	556.5	542.5	530.4	513.3	491.4	474.3	454.2
10°	672.8	668.6	666.1	655.8	644.2	629.0	610.1	589.4	563.8	537.0	508.4
12.5°	747.1	744.7	733.7	729.5	717.3	702.1	678.3	651.5	625.9	591.2	557.8
15°	802.5	798.3	791.0	784.3	769.6	756.3	734.3	705.1	674.1	636.3	596.1
17.5°	848.8	840.9	839.1	828.7	813.5	797.7	773.3	746.5	710.0	672.2	628.4
20°	910.9	900.0	896.3	881.1	863.4	841.5	813.5	780.0	741.6	700.2	655.2
22.5°	984.0	976.1	968.2	954.8	932.2	901.2	860.4	823.8	775.1	729.5	680.8
25°	1087.5	1080.8	1068.0	1049.7	1021.7	984.6	935.3	881.7	824.5	766.0	708.8
27.5°	1188.0	1181.9	1172.7	1158.7	1127.1	1086.3	1025.4	957.2	884.7	814.1	750.8
30°	1282.3	1276.9	1267.7	1253.7	1225.7	1185.5	1116.7	1043.7	953.5	871.3	795.2
32.5°	1384.0	1382.2	1371.9	1351.8	1327.4	1273.2	1198.3	1119.8	1028.4	933.4	844.5
35°	1499.1	1485.1	1475.4	1455.3	1413.9	1356.0	1268.3	1182.5	1086.3	988.9	889.6
37.5°	1596.5	1583.1	1571.0	1545.4	1494.9	1421.2	1321.9	1227.5	1128.3	1029.0	928.0
40°	1667.8	1661.1	1646.5	1613.0	1556.3	1468.7	1361.5	1258.6	1158.7	1058.9	959.0
42.5°	1720.8	1710.4	1694.0	1659.3	1592.3	1492.4	1377.3	1271.4	1172.7	1077.1	979.1
45°	1740.2	1731.7	1716.5	1678.7	1606.3	1499.1	1376.7	1267.7	1173.4	1082.6	992.5
47.5°	1728.7	1720.1	1706.7	1671.4	1600.2	1491.2	1365.8	1257.4	1167.3	1084.5	1004.7
50°	1690.3	1685.4	1675.1	1645.2	1581.3	1476.0	1356.0	1251.9	1166.0	1093.6	1021.7
52.5°	1686.7	1683.6	1670.8	1641.0	1575.8	1471.1	1354.8	1254.9	1176.4	1105.2	1033.9
55°	2061.1	2017.9	1921.1	1838.9	1703.7	1543.0	1416.3	1304.3	1220.2	1150.8	1100.9
57.5°	2929.4	2864.9	2737.6	2581.1	2270.6	1965.5	1721.4	1544.8	1457.7	1426.0	1444.9
60°	3336.2	3324.6	3304.5	3230.2	3071.3	2808.9	2516.6	2200.6	2073.9	2063.0	2101.3
62.5°	3529.2	3521.9	3528.0	3518.8	3469.5	3392.8	3308.8	3172.4	3046.9	2966.0	2794.2
65°	3618.1	3623.0	3657.7	3685.1	3691.2	3711.2	3772.7	3942.6	4066.8	3858.0	3381.2
67.5°	3392.2	3420.8	3500.6	3600.4	3717.3	3830.6	4013.3	4371.3	4626.4	4381.0	3703.9
69°	2808.2	2822.3	3017.1	3205.3	3490.8	3690.5	3955.4	4424.9	4711.7	4434.6	3678.4
70°	2210.9	2223.7	2432.6	2688.3	3171.2	3428.1	3774.6	4334.2	4631.9	4363.4	3546.8
72.5°	997.4	979.1	1052.8	1189.8	1714.7	2122.6	2728.5	3511.5	3821.5	3495.7	2653.6
75°	696.6	688.7	696.6	697.2	778.8	1004.7	1267.7	1903.4	2354.0	2031.3	1267.7
77.5°	539.5	534.0	528.5	522.4	532.2	596.1	621.7	675.3	876.8	829.3	483.5
80°	426.8	422.0	435.4	431.1	431.1	438.4	433.5	413.4	375.7	348.3	311.8
82.5°	198.5	199.7	199.7	216.8	261.2	305.1	319.1	299.0	265.5	225.9	182.1
85°	18.9	21.3	35.9	55.4	110.2	124.2	124.8	103.5	103.5	81.6	65.8
87.5°	0.0	0.6	0.6	0.6	5.5	15.2	12.8	3.7	1.8	1.8	3.0
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°	70°	75°	80°	85°	90°	95°	100°	105°
0°	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7
2.5°	323.9	322.1	314.8	307.5	300.8	293.5	286.8	280.1	272.8	267.3	260.6
5°	378.7	365.3	350.1	335.5	320.9	305.7	289.8	275.8	261.2	247.8	235.0
7.5°	434.1	408.0	387.3	361.1	337.3	313.6	291.7	269.1	248.4	228.9	210.7
10°	481.0	449.4	417.1	383.6	349.5	317.8	287.4	260.6	233.2	209.5	186.9
12.5°	519.4	479.2	439.6	397.6	359.3	319.1	281.3	249.0	216.8	190.0	166.8
15°	554.1	507.8	460.3	411.6	362.9	317.2	275.2	235.0	202.2	171.7	145.5
17.5°	582.1	529.1	475.6	420.8	368.4	314.8	267.3	225.3	186.9	155.3	129.7
20°	606.5	551.1	493.2	431.7	372.0	314.2	260.6	213.1	173.5	140.0	115.1
22.5°	629.0	573.6	511.5	445.7	377.5	313.6	254.5	204.0	162.0	128.5	103.5
25°	654.6	596.1	531.0	460.3	387.3	316.0	250.9	196.7	151.6	117.5	94.4
27.5°	683.2	621.7	554.1	478.6	400.0	320.9	249.6	188.8	142.5	107.2	87.1
30°	723.4	652.1	577.2	496.9	411.6	326.4	248.4	183.9	133.3	99.3	79.8
32.5°	758.7	682.0	602.8	515.7	424.4	331.9	247.8	177.2	124.8	91.3	74.3
35°	795.8	709.4	624.7	534.0	435.4	337.9	247.2	172.3	116.9	83.4	68.8
37.5°	828.1	732.5	641.8	549.8	447.5	343.4	247.8	168.1	109.6	76.7	63.9
40°	855.5	756.3	660.7	564.5	460.3	351.9	248.4	163.8	102.3	70.6	59.7
42.5°	879.9	778.8	680.8	580.9	474.9	361.7	252.1	160.1	96.2	65.2	55.4
45°	898.7	799.5	702.7	604.0	498.7	377.5	258.8	157.7	90.1	60.3	51.8
47.5°	918.2	829.9	739.8	640.6	533.4	402.5	270.4	157.1	85.2	56.6	48.7
50°	945.0	860.4	772.7	677.7	565.1	428.1	284.4	157.7	79.2	53.0	45.7
52.5°	964.5	891.4	815.3	742.2	640.6	506.0	338.5	168.7	76.1	49.9	42.0
55°	1079.6	1066.8	1068.6	1080.8	1002.2	861.0	566.3	243.6	89.5	56.6	41.4
57.5°	1522.3	1567.3	1593.5	1592.9	1463.2	1213.5	760.5	313.0	99.9	65.8	49.3
60°	2104.4	2070.3	2022.2	1903.4	1731.1	1385.2	850.6	336.7	86.5	52.4	45.1
62.5°	2618.9	2419.2	2242.0	2049.6	1823.7	1444.9	868.9	334.9	75.5	39.6	31.7
65°	2939.8	2580.5	2294.3	2053.2	1787.1	1395.0	822.0	307.5	63.9	32.3	26.2
67.5°	3016.5	2493.4	2088.5	1781.0	1493.0	1085.7	603.4	231.4	49.9	26.8	23.1
69°	2849.0	2216.4	1730.5	1381.6	1086.3	720.3	373.3	146.1	38.4	24.4	21.3
70°	2620.7	1927.8	1409.6	1108.8	804.4	506.0	261.2	102.9	31.1	22.5	19.5
72.5°	1686.0	1012.6	692.9	482.2	331.9	201.5	102.3	46.3	23.7	18.9	15.8
75°	654.0	374.5	271.6	206.4	161.4	112.0	62.1	29.8	20.1	15.8	12.2
77.5°	322.1	246.6	201.5	138.2	80.4	49.9	33.5	23.1	16.4	11.6	7.9
80°	254.5	169.3	101.1	62.7	47.5	35.9	25.6	18.9	12.2	7.3	5.5
82.5°	130.3	71.2	52.4	42.6	35.3	28.0	20.7	13.4	7.9	4.9	4.3
85°	40.8	29.8	26.8	26.2	24.4	20.1	14.6	8.5	4.9	3.0	3.0
87.5°	3.0	4.3	5.5	4.3	4.9	4.3	5.5	3.7	2.4	2.4	1.8
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7	280.7
2.5°	255.7	248.4	241.7	237.5	229.6	226.5	223.5	222.2	216.8	218.0	213.1
5°	223.5	210.7	200.9	191.2	182.1	175.4	169.9	163.2	157.7	155.3	150.4
7.5°	194.2	177.8	165.0	154.7	143.7	135.2	127.9	123.0	118.1	113.3	110.8
10°	168.7	151.0	136.4	126.0	115.7	108.4	102.9	99.3	96.2	94.4	93.8
12.5°	144.9	127.9	114.5	105.3	97.4	93.8	91.3	89.5	88.9	88.3	88.3
15°	126.7	109.6	99.3	92.6	88.9	87.1	86.5	85.2	84.0	83.4	83.4
17.5°	109.6	96.8	89.5	85.9	84.0	82.8	81.6	80.4	79.2	78.5	78.5
20°	98.0	87.7	84.0	81.6	79.8	78.5	76.7	75.5	74.9	74.3	73.7
22.5°	88.9	82.2	79.8	77.9	75.5	73.7	72.5	71.2	70.0	69.4	68.8
25°	82.2	77.9	76.1	73.7	71.2	69.4	67.6	65.8	64.5	63.9	62.7
27.5°	77.3	74.3	71.9	68.8	66.4	64.5	62.7	60.9	59.7	58.5	57.8
30°	73.1	70.0	67.0	64.5	61.5	59.7	57.2	55.4	54.8	53.6	52.4
32.5°	68.8	65.8	62.7	59.7	56.6	54.2	53.0	50.5	49.3	48.7	47.5
35°	63.9	60.9	57.2	54.8	51.8	49.3	47.5	45.7	44.4	43.2	42.6
37.5°	59.7	56.0	52.4	49.3	46.9	44.4	42.6	40.8	39.6	38.4	37.8
40°	54.8	51.1	47.5	44.4	42.0	40.2	38.4	36.5	35.3	34.7	34.7
42.5°	50.5	46.3	42.6	40.2	38.4	35.9	34.1	32.3	31.7	31.1	31.7
45°	46.3	42.0	39.0	36.5	34.7	32.3	30.4	29.2	28.6	29.2	29.8
47.5°	42.6	38.4	35.3	33.5	31.7	29.8	28.0	26.8	26.8	28.0	29.2
50°	39.0	34.7	32.3	31.1	29.2	27.4	25.0	24.4	25.0	26.2	27.4
52.5°	35.3	30.4	28.6	28.0	26.2	24.4	22.5	21.9	22.5	23.7	23.1
55°	31.7	26.8	26.2	25.6	23.7	21.3	19.5	19.5	19.5	18.9	17.7
57.5°	30.4	23.7	23.1	22.5	20.7	18.3	17.0	15.8	15.2	13.4	12.8
60°	31.7	21.3	21.3	20.1	18.3	15.8	14.0	12.2	11.0	9.7	9.7
62.5°	25.6	19.5	18.9	17.7	15.2	12.8	11.0	9.1	8.5	7.9	7.9
65°	20.7	17.7	16.4	14.6	12.8	10.4	8.5	7.3	6.7	6.7	7.3
67.5°	18.9	15.8	14.0	12.2	10.4	7.9	6.7	6.1	6.1	6.7	6.7
69°	17.7	14.6	12.8	11.0	9.1	7.3	6.1	6.1	6.1	6.1	6.7
70°	16.4	14.0	12.2	10.4	7.9	6.1	5.5	5.5	6.1	6.1	6.7
72.5°	12.8	11.0	10.4	8.5	6.1	5.5	4.9	5.5	5.5	6.1	6.1
75°	9.7	7.9	7.9	6.7	4.9	4.3	4.3	4.9	4.9	5.5	5.5
77.5°	6.7	5.5	5.5	4.9	4.3	3.7	3.7	4.3	4.9	4.9	5.5
80°	4.9	4.3	3.7	4.3	3.7	3.0	3.7	4.3	4.3	4.9	4.9
82.5°	3.7	3.7	3.7	3.7	3.0	3.0	3.7	3.7	4.3	4.9	4.9
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.7	3.7	4.3	4.3
87.5°	1.8	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0	3.7	3.7
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: P151789

CATALOG NUMBER: TLM-E02-LED-E1-SL4-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	280.7	280.7	280.7	280.7
2.5°	211.9	211.3	208.9	209.5
5°	148.6	144.9	147.4	146.7
7.5°	109.0	108.4	107.8	109.0
10°	93.2	93.2	92.6	93.2
12.5°	87.7	87.7	87.7	87.7
15°	83.4	83.4	82.8	82.8
17.5°	78.5	78.5	78.5	77.9
20°	73.7	73.1	73.1	73.1
22.5°	68.2	67.6	67.6	67.6
25°	62.7	62.1	62.1	62.1
27.5°	57.2	56.6	56.0	56.0
30°	51.8	51.1	50.5	50.5
32.5°	46.3	45.7	45.1	45.1
35°	41.4	41.4	40.8	40.2
37.5°	37.1	37.1	37.1	37.1
40°	34.1	34.7	34.7	34.7
42.5°	32.3	32.9	33.5	34.1
45°	31.1	32.3	32.9	32.9
47.5°	30.4	31.1	31.7	31.7
50°	28.0	27.4	27.4	27.4
52.5°	22.5	21.3	20.7	20.1
55°	16.4	15.8	14.6	14.6
57.5°	11.6	11.6	11.0	11.0
60°	9.1	9.1	8.5	9.1
62.5°	7.9	7.9	7.9	7.9
65°	7.3	7.3	7.3	7.3
67.5°	7.3	7.3	7.3	7.3
69°	6.7	6.7	6.7	6.7
70°	6.7	6.7	6.7	6.7
72.5°	6.1	6.1	6.1	6.1
75°	5.5	6.1	6.1	6.1
77.5°	5.5	5.5	5.5	5.5
80°	4.9	4.9	5.5	5.5
82.5°	4.9	4.9	4.9	4.9
85°	4.3	4.3	4.9	4.9
87.5°	3.7	3.7	4.3	4.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)