

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: P150649

Luminaire Tested: **TLM-E02-LED-E1-SL3-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150649
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 3167.2 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

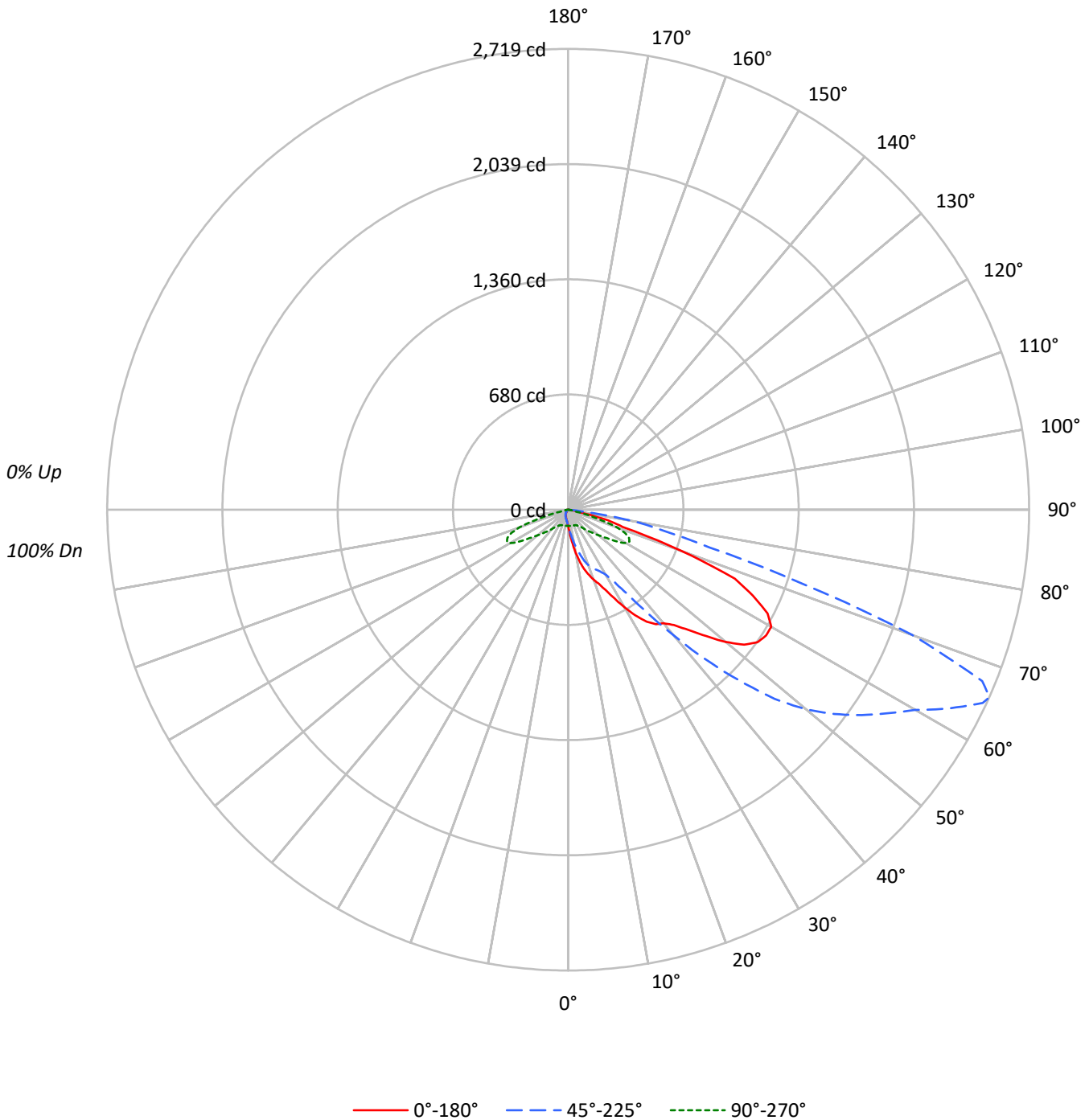
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3118	3118	3118
5°	5222	3140	2292
10°	8572	3166	1914
15°	12234	3299	1624
20°	15217	3412	1395
25°	18823	3615	1184
30°	25020	4049	1009
35°	32102	4788	848
40°	37232	6300	673
45°	46230	8511	507
50°	61578	11867	492
55°	77562	17347	552
60°	90208	25739	594
65°	92725	30571	656
70°	67769	29354	753
75°	30536	12779	996
80°	5485	3203	1484
85°	449	2844	2732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.7	0.3
10°-20°	45.4	1.4
20°-30°	97.9	3.1
30°-40°	209.0	6.6
40°-50°	462.2	14.6
50°-60°	783.3	24.7
60°-70°	1045.2	33.0
70°-80°	460.4	14.5
80°-90°	53.0	1.7
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°	153.9	4.9
0°-40°	363.0	11.5
0°-60°	1608.5	50.8
0°-90°	3167.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3167.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	96	96	96	96	96	
5°	160	135	96	72	70	18
15°	362	276	98	52	48	104
25°	523	390	100	38	33	250
35°	806	604	120	26	21	500
45°	1002	1422	184	15	11	792
55°	1364	2113	305	7	10	1202
65°	1201	2697	396	6	8	1147
75°	242	863	101	4	8	267
85°	1	18	8	4	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
2.5°	120.6	120.0	117.5	117.5	113.9	111.4	108.4	105.3	105.3	104.7	104.1
5°	159.5	155.9	155.3	148.6	143.1	135.2	127.9	118.1	116.9	115.7	115.1
7.5°	202.8	202.2	196.7	188.8	177.8	163.2	148.6	132.7	130.3	129.1	126.7
10°	258.8	255.7	248.4	235.0	218.6	199.1	175.4	150.4	147.4	144.9	143.7
12.5°	312.4	306.9	302.6	285.6	264.9	236.3	207.6	171.7	169.3	166.2	161.4
15°	362.3	357.4	350.1	335.5	312.4	276.4	243.0	199.1	193.0	188.8	185.1
17.5°	401.3	398.2	389.7	373.3	348.3	316.6	276.4	227.1	222.2	216.8	210.1
20°	438.4	434.1	420.8	398.2	371.4	347.1	316.0	263.7	257.0	250.3	243.0
22.5°	473.7	469.5	447.5	410.4	381.8	371.4	360.5	305.1	294.7	289.2	281.9
25°	523.0	513.9	479.8	420.8	382.4	390.3	409.2	358.6	348.9	341.0	329.4
27.5°	589.4	577.2	523.7	436.0	384.8	411.0	465.2	423.8	413.4	404.3	391.5
30°	664.3	656.4	592.5	472.5	402.5	441.5	527.9	506.6	494.4	483.5	468.2
32.5°	739.8	728.9	665.5	541.9	450.0	500.5	606.5	602.8	587.0	576.6	560.2
35°	806.2	800.7	753.8	655.8	558.4	604.0	711.2	715.5	701.5	690.5	672.2
37.5°	851.2	851.2	842.1	778.2	730.7	764.8	865.2	865.9	851.9	826.9	817.8
40°	874.4	881.1	914.0	926.1	923.7	967.5	1067.4	1056.4	1044.9	1032.1	1001.6
42.5°	921.9	928.0	998.0	1082.0	1136.8	1194.7	1263.5	1259.8	1245.8	1222.7	1194.7
45°	1002.2	1010.2	1093.6	1226.9	1339.6	1421.8	1465.6	1448.6	1434.6	1412.6	1398.0
47.5°	1104.5	1119.8	1214.1	1379.2	1514.9	1650.7	1696.4	1651.3	1639.2	1622.1	1598.4
50°	1213.5	1228.2	1328.6	1517.4	1670.8	1832.8	1908.9	1832.8	1815.1	1809.7	1782.9
52.5°	1307.9	1320.1	1416.9	1623.9	1790.2	1980.1	2091.0	1990.5	1977.7	1959.4	1940.0
55°	1363.9	1373.7	1464.4	1675.1	1871.2	2112.9	2266.9	2178.6	2159.8	2152.5	2124.5
57.5°	1382.8	1392.6	1474.1	1681.8	1915.0	2234.1	2480.7	2483.7	2461.2	2435.0	2426.5
60°	1382.8	1393.8	1462.6	1665.3	1957.6	2363.1	2765.6	3019.5	2970.8	2966.0	2934.9
62.5°	1325.6	1335.9	1405.3	1614.8	2014.9	2537.3	3162.6	3610.8	3596.8	3565.1	3514.0
65°	1201.4	1207.4	1275.6	1485.7	1992.9	2697.4	3506.7	4004.1	3981.6	3919.5	3853.7
66°	1145.3	1150.2	1214.1	1412.0	1921.1	2719.3	3567.5	4053.4	4016.3	3963.9	3889.7
67.5°	1064.4	1072.9	1117.9	1275.0	1748.8	2643.2	3529.2	4018.7	3986.5	3923.1	3848.9
70°	710.6	704.5	863.4	978.5	1332.3	2153.7	3166.3	3608.3	3609.0	3579.1	3549.3
72.5°	337.3	341.0	387.3	602.2	871.9	1438.8	2520.2	2880.1	2921.5	2867.9	2830.8
75°	242.3	247.8	275.8	368.4	520.0	863.4	1633.7	2014.2	2015.5	1920.5	1835.8
77.5°	70.6	73.7	103.5	227.1	389.7	582.7	938.3	1119.8	1093.6	1025.4	961.5
80°	29.2	29.2	30.4	72.5	156.5	395.8	656.4	862.2	859.2	833.0	795.2
82.5°	11.0	11.6	14.6	29.8	37.1	97.4	437.8	748.3	746.5	709.4	682.6
85°	1.2	1.2	3.7	12.8	14.0	18.3	87.7	330.0	328.2	330.0	289.2
87.5°	0.0	0.0	0.6	1.2	1.8	2.4	3.7	12.8	14.0	13.4	12.2
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
2.5°	104.1	102.9	102.9	102.3	102.3	102.3	101.7	101.1	101.1	100.5	99.9
5°	113.9	112.6	112.0	110.8	110.2	109.6	108.4	107.8	106.6	105.9	105.3
7.5°	125.4	123.0	122.4	120.6	118.7	117.5	116.3	114.5	113.3	110.8	110.2
10°	140.0	137.0	134.6	132.1	130.3	127.3	125.4	123.0	120.6	118.7	116.9
12.5°	158.9	154.7	151.0	148.6	144.3	140.7	137.0	135.2	130.3	127.9	124.8
15°	179.6	174.8	170.5	165.6	162.6	156.5	151.6	146.1	143.7	139.4	134.6
17.5°	206.4	198.5	191.8	186.9	180.8	174.8	169.3	163.8	156.5	151.6	145.5
20°	235.0	228.3	219.2	210.7	203.4	196.1	188.2	180.8	174.1	166.2	158.9
22.5°	271.6	261.8	250.9	242.3	232.6	224.7	213.7	204.0	193.0	182.7	174.1
25°	317.8	305.1	294.7	282.5	271.0	258.8	245.4	233.2	219.2	209.5	194.8
27.5°	375.1	362.9	348.9	333.1	321.5	303.2	285.6	270.4	253.9	238.7	222.2
30°	448.2	430.5	415.9	400.7	377.5	359.9	339.2	318.5	295.9	280.7	255.7
32.5°	535.8	517.0	495.0	473.1	451.8	426.8	401.3	375.7	350.7	322.7	297.1
35°	643.0	620.5	595.5	571.8	538.9	512.1	479.8	444.5	416.5	384.2	351.9
37.5°	784.9	747.7	725.8	700.8	656.4	619.9	583.9	548.6	499.3	465.2	419.5
40°	962.7	940.8	904.8	864.6	824.5	776.3	727.6	680.8	623.5	576.0	523.0
42.5°	1171.5	1139.3	1102.7	1044.9	1004.1	947.4	892.0	829.9	759.9	699.0	636.9
45°	1367.6	1329.2	1301.2	1243.4	1200.8	1133.8	1066.8	1001.0	920.0	841.5	769.6
47.5°	1579.5	1547.8	1501.5	1454.7	1411.4	1335.9	1263.5	1183.7	1098.5	1005.3	912.1
50°	1765.8	1740.8	1709.2	1652.6	1604.5	1541.1	1455.9	1368.8	1261.0	1168.5	1062.5
52.5°	1924.1	1904.6	1860.2	1820.0	1776.8	1717.1	1641.0	1557.6	1441.3	1339.6	1219.0
55°	2111.1	2097.1	2058.1	2033.1	1994.8	1937.5	1866.3	1788.9	1666.0	1555.1	1418.7
57.5°	2417.3	2406.4	2372.3	2361.9	2324.2	2274.2	2186.6	2103.8	1960.0	1822.4	1666.6
60°	2924.5	2902.6	2852.7	2827.1	2747.4	2680.4	2566.5	2452.7	2279.1	2103.8	1916.2
62.5°	3467.7	3406.2	3311.2	3229.6	3116.4	3000.1	2847.8	2673.7	2470.3	2262.1	2046.5
65°	3760.6	3655.8	3535.9	3406.2	3259.4	3088.3	2896.5	2687.7	2469.1	2249.3	2021.5
66°	3794.1	3675.9	3548.7	3404.4	3241.2	3059.1	2864.3	2645.1	2417.9	2203.6	1975.9
67.5°	3752.0	3628.4	3493.9	3333.7	3157.1	2968.4	2763.8	2536.1	2317.5	2100.1	1878.5
70°	3457.9	3334.9	3215.0	3046.3	2858.2	2668.2	2474.6	2220.1	2013.0	1813.3	1616.0
72.5°	2761.4	2677.9	2559.2	2414.9	2231.6	2008.8	1847.4	1619.7	1440.0	1246.4	1093.6
75°	1725.6	1608.1	1461.4	1277.5	1137.4	956.6	862.2	689.3	587.0	497.5	411.0
77.5°	882.3	794.0	691.1	587.6	488.3	389.7	301.4	213.1	143.7	99.9	74.3
80°	728.9	650.9	565.7	471.3	383.6	297.8	214.3	146.1	93.2	60.9	47.5
82.5°	602.2	536.4	460.3	372.6	296.5	233.8	162.6	105.9	65.8	42.6	33.5
85°	256.3	232.6	179.6	142.5	107.2	79.2	55.4	37.1	26.2	21.3	19.5
87.5°	11.0	12.2	11.6	9.1	6.7	6.7	6.1	4.9	4.9	4.9	4.9
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
2.5°	99.9	99.3	98.6	98.6	98.0	97.4	93.8	90.7	87.1	84.6	82.2
5°	104.1	103.5	102.3	101.7	100.5	99.9	91.9	85.2	79.8	75.5	72.5
7.5°	108.4	107.8	105.9	104.1	103.5	102.3	89.5	81.0	73.7	68.8	65.8
10°	113.9	112.0	110.2	107.8	105.9	104.1	87.1	76.1	68.2	63.9	60.9
12.5°	121.8	118.7	115.7	112.6	110.2	107.2	85.9	71.9	63.9	59.1	56.0
15°	130.9	126.7	123.0	119.3	115.1	112.0	83.4	68.2	60.3	55.4	51.8
17.5°	139.4	134.6	129.1	123.6	119.3	115.1	81.0	64.5	56.6	51.8	48.1
20°	151.6	144.3	137.6	130.9	124.8	119.3	77.3	60.9	53.6	48.1	44.4
22.5°	165.0	156.5	148.0	138.8	130.9	123.6	74.3	57.8	50.5	45.1	40.8
25°	182.1	171.7	160.1	148.6	139.4	129.7	71.2	54.8	47.5	42.0	37.8
27.5°	205.8	191.2	178.4	163.8	149.8	138.8	68.8	52.4	44.4	39.0	34.7
30°	238.1	216.8	196.7	180.8	164.4	148.6	66.4	49.3	42.0	35.9	31.1
32.5°	274.0	249.0	225.9	202.2	181.5	163.2	63.9	46.9	39.0	32.9	28.6
35°	318.5	286.8	255.7	228.3	203.4	179.0	61.5	44.4	36.5	29.8	25.6
37.5°	382.4	342.8	302.0	266.7	234.4	202.2	59.7	42.0	33.5	26.8	22.5
40°	470.1	418.9	369.0	320.9	278.9	238.7	57.2	39.6	31.1	24.4	20.1
42.5°	565.1	503.0	437.2	383.0	325.2	274.6	54.8	37.1	28.6	21.9	17.7
45°	683.2	605.9	526.1	452.4	381.8	316.6	52.4	34.7	25.6	19.5	15.2
47.5°	812.3	713.6	623.5	531.0	446.9	369.0	49.3	32.9	23.1	17.0	13.4
50°	945.0	840.9	727.0	621.7	521.8	421.4	46.3	29.8	20.7	15.2	11.0
52.5°	1088.1	965.1	848.8	717.9	601.6	490.2	43.2	27.4	18.9	13.4	9.1
55°	1270.2	1132.6	996.2	849.4	709.4	569.9	40.2	24.4	16.4	11.6	7.3
57.5°	1499.1	1335.9	1168.5	1002.9	833.0	674.7	37.8	21.3	14.0	9.7	6.1
60°	1715.3	1524.7	1321.9	1131.3	939.5	755.0	34.1	18.9	12.2	7.9	6.1
62.5°	1827.3	1609.9	1391.3	1181.3	976.7	783.7	30.4	15.8	10.4	6.7	5.5
65°	1799.9	1578.3	1366.4	1154.5	954.1	765.4	26.8	14.0	9.1	6.1	5.5
66°	1760.3	1541.1	1328.0	1126.5	935.3	745.9	25.0	13.4	8.5	6.1	4.9
67.5°	1673.9	1462.0	1258.6	1071.1	883.5	708.8	22.5	12.2	7.9	5.5	4.9
70°	1429.7	1237.3	1074.7	907.9	755.0	597.3	18.3	10.4	6.7	4.9	4.9
72.5°	946.2	815.3	706.9	608.3	508.4	394.6	15.2	8.5	5.5	4.9	4.3
75°	356.8	322.7	277.0	249.0	217.4	190.6	12.2	5.5	4.3	4.3	4.3
77.5°	63.3	58.5	51.8	47.5	43.8	40.2	9.7	3.7	3.7	4.3	4.3
80°	42.6	39.6	35.9	32.9	30.4	27.4	6.7	3.0	3.7	3.7	4.3
82.5°	30.4	28.6	26.8	24.4	22.5	20.1	4.3	3.0	3.7	3.7	3.7
85°	18.3	17.0	15.8	14.6	12.8	12.2	3.0	3.0	3.0	3.7	3.7
87.5°	4.9	4.3	4.9	4.9	3.7	4.3	2.4	2.4	2.4	3.0	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



TEST NUMBER: P150649

CATALOG NUMBER: TLM-E02-LED-E1-SL3-HSS-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	95.6	95.6	95.6	95.6	95.6
2.5°	81.0	81.0	79.8	81.6	81.6
5°	70.0	70.0	69.4	70.0	70.0
7.5°	63.9	63.3	63.3	63.3	63.9
10°	58.5	57.8	57.8	57.8	57.8
12.5°	53.6	53.0	52.4	53.0	53.0
15°	49.3	48.1	48.1	48.1	48.1
17.5°	45.7	44.4	43.8	43.8	43.8
20°	42.0	40.2	40.2	40.2	40.2
22.5°	38.4	36.5	36.5	36.5	36.5
25°	34.7	32.9	32.9	32.9	32.9
27.5°	31.7	29.8	29.8	29.8	29.8
30°	28.0	26.8	26.8	27.4	26.8
32.5°	25.6	23.7	23.7	24.4	24.4
35°	22.5	21.3	21.3	21.3	21.3
37.5°	19.5	18.3	18.3	18.3	18.3
40°	17.0	15.8	15.2	15.8	15.8
42.5°	14.6	13.4	12.8	12.8	12.8
45°	12.8	11.0	10.4	11.0	11.0
47.5°	10.4	9.1	9.1	9.7	9.7
50°	7.9	7.9	8.5	9.7	9.7
52.5°	7.3	7.3	8.5	9.7	9.7
55°	6.7	7.3	8.5	9.1	9.7
57.5°	6.1	7.3	8.5	9.1	9.1
60°	6.1	6.7	7.9	9.1	9.1
62.5°	5.5	6.1	7.3	8.5	8.5
65°	5.5	6.1	7.3	8.5	8.5
66°	5.5	6.1	7.3	8.5	8.5
67.5°	5.5	6.1	7.3	8.5	8.5
70°	5.5	6.1	7.3	7.9	7.9
72.5°	4.9	5.5	6.7	7.9	7.9
75°	4.9	5.5	6.7	7.9	7.9
77.5°	4.9	5.5	6.7	7.9	7.9
80°	4.9	5.5	6.7	7.3	7.9
82.5°	4.3	5.5	6.1	7.3	7.3
85°	4.3	4.9	6.1	6.7	7.3
87.5°	3.7	4.3	4.9	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)