

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: P150648

Luminaire Tested: **TLM-E02-LED-E1-SL3-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150648
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-8030
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, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2926.7 lumens
Efficiency: N/A
Efficacy: 56.2 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

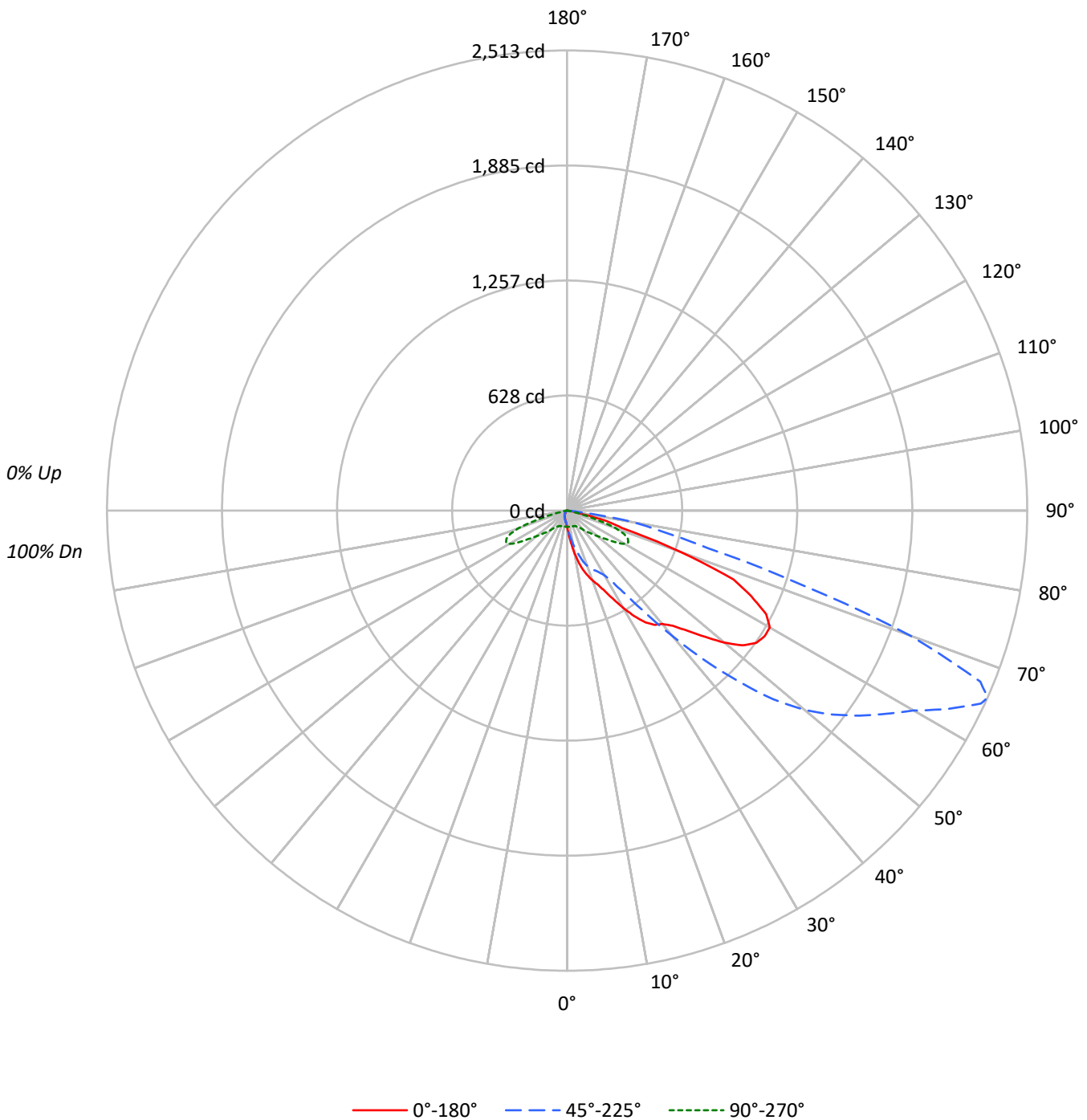
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P150648

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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°	2880	2880	2880
5°	4826	2903	2118
10°	7919	2926	1772
15°	11306	3049	1503
20°	14062	3155	1288
25°	17394	3340	1094
30°	23122	3740	934
35°	29665	4424	784
40°	34404	5823	622
45°	42720	7865	466
50°	56905	10966	457
55°	71676	16031	512
60°	83358	23785	548
65°	85678	28252	610
70°	62619	27128	696
75°	28217	11809	920
80°	5072	2958	1371
85°	412	2638	2545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.9	0.3
10°-20°	41.9	1.4
20°-30°	90.4	3.1
30°-40°	193.1	6.6
40°-50°	427.1	14.6
50°-60°	723.8	24.7
60°-70°	965.9	33.0
70°-80°	425.5	14.5
80°-90°	49.0	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°	142.3	4.9
0°-40°	335.4	11.5
0°-60°	1486.3	50.8
0°-90°	2926.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2926.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	88	88	88	88	88	
5°	147	125	89	67	65	17
15°	335	255	90	48	44	96
25°	483	361	93	35	30	231
35°	745	558	111	24	20	462
45°	926	1314	170	14	10	732
55°	1260	1952	282	7	9	1111
65°	1110	2493	366	5	8	1060
75°	224	798	94	4	7	247
85°	1	17	7	3	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°	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
2.5°	111.4	110.8	108.6	108.6	105.2	103.0	100.2	97.3	97.3	96.8	96.2
5°	147.4	144.0	143.5	137.3	132.2	124.9	118.2	109.2	108.0	106.9	106.3
7.5°	187.4	186.8	181.7	174.4	164.3	150.8	137.3	122.7	120.4	119.3	117.0
10°	239.1	236.3	229.6	217.2	202.0	184.0	162.0	139.0	136.2	133.9	132.8
12.5°	288.6	283.6	279.6	263.9	244.8	218.3	191.9	158.7	156.4	153.6	149.1
15°	334.8	330.3	323.5	310.0	288.6	255.4	224.5	184.0	178.4	174.4	171.0
17.5°	370.8	368.0	360.1	344.9	321.8	292.6	255.4	209.9	205.4	200.3	194.1
20°	405.1	401.2	388.8	368.0	343.2	320.7	292.0	243.6	237.4	231.3	224.5
22.5°	437.7	433.8	413.6	379.2	352.8	343.2	333.1	281.9	272.3	267.3	260.5
25°	483.3	474.9	443.4	388.8	353.4	360.7	378.1	331.4	322.4	315.1	304.4
27.5°	544.7	533.4	483.9	402.9	355.6	379.8	429.9	391.6	382.0	373.6	361.8
30°	613.9	606.5	547.5	436.6	371.9	407.9	487.8	468.1	456.9	446.8	432.7
32.5°	683.6	673.5	615.0	500.8	415.8	462.5	560.4	557.0	542.4	532.8	517.6
35°	745.0	739.9	696.6	606.0	516.0	558.2	657.2	661.1	648.2	638.1	621.2
37.5°	786.6	786.6	778.2	719.1	675.2	706.7	799.5	800.1	787.2	764.1	755.7
40°	808.0	814.2	844.6	855.8	853.6	894.1	986.3	976.2	965.5	953.7	925.6
42.5°	851.9	857.5	922.2	999.8	1050.5	1103.9	1167.5	1164.1	1151.2	1129.8	1103.9
45°	926.1	933.5	1010.5	1133.8	1237.9	1313.8	1354.3	1338.6	1325.6	1305.4	1291.9
47.5°	1020.7	1034.7	1121.9	1274.4	1399.9	1525.4	1567.6	1525.9	1514.7	1498.9	1477.0
50°	1121.4	1134.9	1227.7	1402.2	1543.9	1693.6	1763.9	1693.6	1677.3	1672.2	1647.5
52.5°	1208.6	1219.8	1309.3	1500.6	1654.2	1829.8	1932.2	1839.3	1827.5	1810.6	1792.6
55°	1260.4	1269.4	1353.2	1547.9	1729.1	1952.4	2094.8	2013.2	1995.8	1989.0	1963.1
57.5°	1277.8	1286.8	1362.2	1554.1	1769.6	2064.4	2292.3	2295.1	2274.3	2250.1	2242.2
60°	1277.8	1287.9	1351.5	1538.9	1809.0	2183.7	2555.6	2790.2	2745.2	2740.7	2712.0
62.5°	1224.9	1234.5	1298.6	1492.2	1861.8	2344.6	2922.5	3336.6	3323.6	3294.4	3247.1
65°	1110.1	1115.8	1178.8	1372.9	1841.6	2492.6	3240.4	3700.1	3679.2	3621.8	3561.1
66°	1058.4	1062.9	1121.9	1304.8	1775.2	2512.8	3296.6	3745.6	3711.3	3662.9	3594.3
67.5°	983.5	991.4	1033.0	1178.2	1616.0	2442.5	3261.2	3713.6	3683.7	3625.2	3556.6
70°	656.6	651.0	797.9	904.2	1231.1	1990.1	2925.8	3334.3	3334.9	3307.3	3279.7
72.5°	311.7	315.1	357.9	556.5	805.7	1329.6	2328.9	2661.4	2699.6	2650.1	2615.8
75°	223.9	229.0	254.9	340.4	480.5	797.9	1509.6	1861.3	1862.4	1774.6	1696.4
77.5°	65.3	68.1	95.7	209.9	360.1	538.5	867.1	1034.7	1010.5	947.5	888.4
80°	27.0	27.0	28.1	67.0	144.6	365.7	606.5	796.7	793.9	769.7	734.8
82.5°	10.1	10.7	13.5	27.6	34.3	90.0	404.6	691.5	689.8	655.5	630.7
85°	1.1	1.1	3.4	11.8	12.9	16.9	81.0	305.0	303.3	305.0	267.3
87.5°	0.0	0.0	0.6	1.1	1.7	2.3	3.4	11.8	12.9	12.4	11.3
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: P150648

CATALOG NUMBER: TLM-E02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
2.5°	96.2	95.1	95.1	94.5	94.5	94.5	94.0	93.4	93.4	92.8	92.3
5°	105.2	104.1	103.5	102.4	101.8	101.3	100.2	99.6	98.5	97.9	97.3
7.5°	115.9	113.7	113.1	111.4	109.7	108.6	107.5	105.8	104.7	102.4	101.8
10°	129.4	126.6	124.3	122.1	120.4	117.6	115.9	113.7	111.4	109.7	108.0
12.5°	146.9	142.9	139.5	137.3	133.4	130.0	126.6	124.9	120.4	118.2	115.3
15°	166.0	161.5	157.5	153.0	150.2	144.6	140.1	135.0	132.8	128.8	124.3
17.5°	190.7	183.4	177.2	172.7	167.1	161.5	156.4	151.4	144.6	140.1	134.5
20°	217.2	211.0	202.6	194.7	187.9	181.2	173.9	167.1	160.9	153.6	146.9
22.5°	250.9	241.9	231.8	223.9	214.9	207.6	197.5	188.5	178.4	168.8	160.9
25°	293.7	281.9	272.3	261.1	250.4	239.1	226.8	215.5	202.6	193.6	180.1
27.5°	346.6	335.3	322.4	307.8	297.1	280.2	263.9	249.8	234.6	220.6	205.4
30°	414.1	397.8	384.3	370.2	348.8	332.5	313.4	294.3	273.5	259.4	236.3
32.5°	495.1	477.7	457.4	437.2	417.5	394.4	370.8	347.2	324.1	298.2	274.6
35°	594.2	573.4	550.3	528.3	498.0	473.2	443.4	410.7	384.9	355.0	325.2
37.5°	725.3	690.9	670.7	647.6	606.5	572.8	539.6	507.0	461.4	429.9	387.7
40°	889.6	869.3	836.1	799.0	761.8	717.4	672.4	629.1	576.2	532.3	483.3
42.5°	1082.6	1052.7	1019.0	965.5	927.8	875.5	824.3	766.9	702.2	645.9	588.5
45°	1263.7	1228.3	1202.4	1149.0	1109.6	1047.7	985.8	925.0	850.2	777.6	711.2
47.5°	1459.5	1430.3	1387.5	1344.2	1304.2	1234.5	1167.5	1093.8	1015.0	929.0	842.9
50°	1631.7	1608.6	1579.4	1527.1	1482.6	1424.1	1345.3	1264.9	1165.3	1079.7	981.8
52.5°	1778.0	1760.0	1718.9	1681.8	1641.8	1586.7	1516.4	1439.3	1331.8	1237.9	1126.4
55°	1950.7	1937.8	1901.8	1878.7	1843.3	1790.4	1724.6	1653.1	1539.4	1437.0	1311.0
57.5°	2233.8	2223.6	2192.1	2182.6	2147.7	2101.5	2020.5	1944.0	1811.2	1684.0	1540.0
60°	2702.5	2682.2	2636.1	2612.4	2538.7	2476.8	2371.6	2266.4	2106.0	1944.0	1770.7
62.5°	3204.4	3147.5	3059.7	2984.4	2879.7	2772.2	2631.6	2470.6	2282.7	2090.3	1891.1
65°	3475.0	3378.2	3267.4	3147.5	3011.9	2853.8	2676.6	2483.6	2281.6	2078.5	1868.0
66°	3505.9	3396.8	3279.2	3145.8	2995.0	2826.8	2646.8	2444.2	2234.3	2036.3	1825.8
67.5°	3467.1	3352.9	3228.5	3080.6	2917.4	2743.0	2553.9	2343.5	2141.5	1940.6	1735.8
70°	3195.3	3081.7	2970.8	2815.0	2641.1	2465.6	2286.7	2051.5	1860.2	1675.6	1493.3
72.5°	2551.7	2474.6	2364.9	2231.5	2062.2	1856.2	1707.1	1496.7	1330.7	1151.8	1010.5
75°	1594.6	1486.0	1350.4	1180.5	1051.1	883.9	796.7	636.9	542.4	459.7	379.8
77.5°	815.3	733.7	638.6	543.0	451.3	360.1	278.5	196.9	132.8	92.3	68.6
80°	673.5	601.5	522.7	435.5	354.5	275.1	198.1	135.0	86.1	56.3	43.9
82.5°	556.5	495.7	425.4	344.3	274.0	216.1	150.2	97.9	60.8	39.4	30.9
85°	236.9	214.9	166.0	131.7	99.0	73.1	51.2	34.3	24.2	19.7	18.0
87.5°	10.1	11.3	10.7	8.4	6.2	6.2	5.6	4.5	4.5	4.5	4.5
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: P150648

CATALOG NUMBER: TLM-E02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
2.5°	92.3	91.7	91.2	91.2	90.6	90.0	86.6	83.8	80.5	78.2	76.0
5°	96.2	95.7	94.5	94.0	92.8	92.3	85.0	78.8	73.7	69.8	67.0
7.5°	100.2	99.6	97.9	96.2	95.7	94.5	82.7	74.8	68.1	63.6	60.8
10°	105.2	103.5	101.8	99.6	97.9	96.2	80.5	70.3	63.0	59.1	56.3
12.5°	112.5	109.7	106.9	104.1	101.8	99.0	79.3	66.4	59.1	54.6	51.8
15°	121.0	117.0	113.7	110.3	106.3	103.5	77.1	63.0	55.7	51.2	47.8
17.5°	128.8	124.3	119.3	114.2	110.3	106.3	74.8	59.6	52.3	47.8	44.5
20°	140.1	133.4	127.2	121.0	115.3	110.3	71.5	56.3	49.5	44.5	41.1
22.5°	152.5	144.6	136.7	128.3	121.0	114.2	68.6	53.5	46.7	41.6	37.7
25°	168.2	158.7	148.0	137.3	128.8	119.8	65.8	50.6	43.9	38.8	34.9
27.5°	190.2	176.7	164.9	151.4	138.4	128.3	63.6	48.4	41.1	36.0	32.1
30°	220.0	200.3	181.7	167.1	151.9	137.3	61.3	45.6	38.8	33.2	28.7
32.5°	253.2	230.1	208.7	186.8	167.7	150.8	59.1	43.3	36.0	30.4	26.4
35°	294.3	265.0	236.3	211.0	187.9	165.4	56.8	41.1	33.8	27.6	23.6
37.5°	353.4	316.8	279.1	246.4	216.6	186.8	55.1	38.8	30.9	24.8	20.8
40°	434.4	387.1	341.0	296.5	257.7	220.6	52.9	36.6	28.7	22.5	18.6
42.5°	522.1	464.8	404.0	353.9	300.5	253.8	50.6	34.3	26.4	20.3	16.3
45°	631.3	559.8	486.1	418.1	352.8	292.6	48.4	32.1	23.6	18.0	14.1
47.5°	750.6	659.4	576.2	490.6	413.0	341.0	45.6	30.4	21.4	15.8	12.4
50°	873.2	777.0	671.8	574.5	482.2	389.4	42.8	27.6	19.1	14.1	10.1
52.5°	1005.5	891.8	784.3	663.4	555.9	452.9	39.9	25.3	17.4	12.4	8.4
55°	1173.7	1046.5	920.5	784.9	655.5	526.7	37.1	22.5	15.2	10.7	6.8
57.5°	1385.3	1234.5	1079.7	926.7	769.7	623.4	34.9	19.7	12.9	9.0	5.6
60°	1585.0	1408.9	1221.5	1045.4	868.2	697.7	31.5	17.4	11.3	7.3	5.6
62.5°	1688.5	1487.7	1285.7	1091.6	902.5	724.1	28.1	14.6	9.6	6.2	5.1
65°	1663.2	1458.4	1262.6	1066.8	881.7	707.3	24.8	12.9	8.4	5.6	5.1
66°	1626.7	1424.1	1227.2	1040.9	864.2	689.3	23.1	12.4	7.9	5.6	4.5
67.5°	1546.8	1350.9	1163.0	989.7	816.4	654.9	20.8	11.3	7.3	5.1	4.5
70°	1321.1	1143.3	993.1	838.9	697.7	552.0	16.9	9.6	6.2	4.5	4.5
72.5°	874.4	753.4	653.2	562.1	469.8	364.6	14.1	7.9	5.1	4.5	3.9
75°	329.7	298.2	256.0	230.1	200.9	176.1	11.3	5.1	3.9	3.9	3.9
77.5°	58.5	54.0	47.8	43.9	40.5	37.1	9.0	3.4	3.4	3.9	3.9
80°	39.4	36.6	33.2	30.4	28.1	25.3	6.2	2.8	3.4	3.4	3.9
82.5°	28.1	26.4	24.8	22.5	20.8	18.6	3.9	2.8	3.4	3.4	3.4
85°	16.9	15.8	14.6	13.5	11.8	11.3	2.8	2.8	2.8	3.4	3.4
87.5°	4.5	3.9	4.5	4.5	3.4	3.9	2.3	2.3	2.3	2.8	2.8
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: P150648

CATALOG NUMBER: TLM-E02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	88.3	88.3	88.3	88.3	88.3
2.5°	74.8	74.8	73.7	75.4	75.4
5°	64.7	64.7	64.1	64.7	64.7
7.5°	59.1	58.5	58.5	58.5	59.1
10°	54.0	53.5	53.5	53.5	53.5
12.5°	49.5	49.0	48.4	49.0	49.0
15°	45.6	44.5	44.5	44.5	44.5
17.5°	42.2	41.1	40.5	40.5	40.5
20°	38.8	37.1	37.1	37.1	37.1
22.5°	35.4	33.8	33.8	33.8	33.8
25°	32.1	30.4	30.4	30.4	30.4
27.5°	29.3	27.6	27.6	27.6	27.6
30°	25.9	24.8	24.8	25.3	24.8
32.5°	23.6	21.9	21.9	22.5	22.5
35°	20.8	19.7	19.7	19.7	19.7
37.5°	18.0	16.9	16.9	16.9	16.9
40°	15.8	14.6	14.1	14.6	14.6
42.5°	13.5	12.4	11.8	11.8	11.8
45°	11.8	10.1	9.6	10.1	10.1
47.5°	9.6	8.4	8.4	9.0	9.0
50°	7.3	7.3	7.9	9.0	9.0
52.5°	6.8	6.8	7.9	9.0	9.0
55°	6.2	6.8	7.9	8.4	9.0
57.5°	5.6	6.8	7.9	8.4	8.4
60°	5.6	6.2	7.3	8.4	8.4
62.5°	5.1	5.6	6.8	7.9	7.9
65°	5.1	5.6	6.8	7.9	7.9
66°	5.1	5.6	6.8	7.9	7.9
67.5°	5.1	5.6	6.8	7.9	7.9
70°	5.1	5.6	6.8	7.3	7.3
72.5°	4.5	5.1	6.2	7.3	7.3
75°	4.5	5.1	6.2	7.3	7.3
77.5°	4.5	5.1	6.2	7.3	7.3
80°	4.5	5.1	6.2	6.8	7.3
82.5°	3.9	5.1	5.6	6.8	6.8
85°	3.9	4.5	5.6	6.2	6.8
87.5°	3.4	3.9	4.5	5.6	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)