

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: P150671

Luminaire Tested: **TLM-E04-LED-E1-SL3-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150671
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-E04-LED-E1-SL3-HSS-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7116.3 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

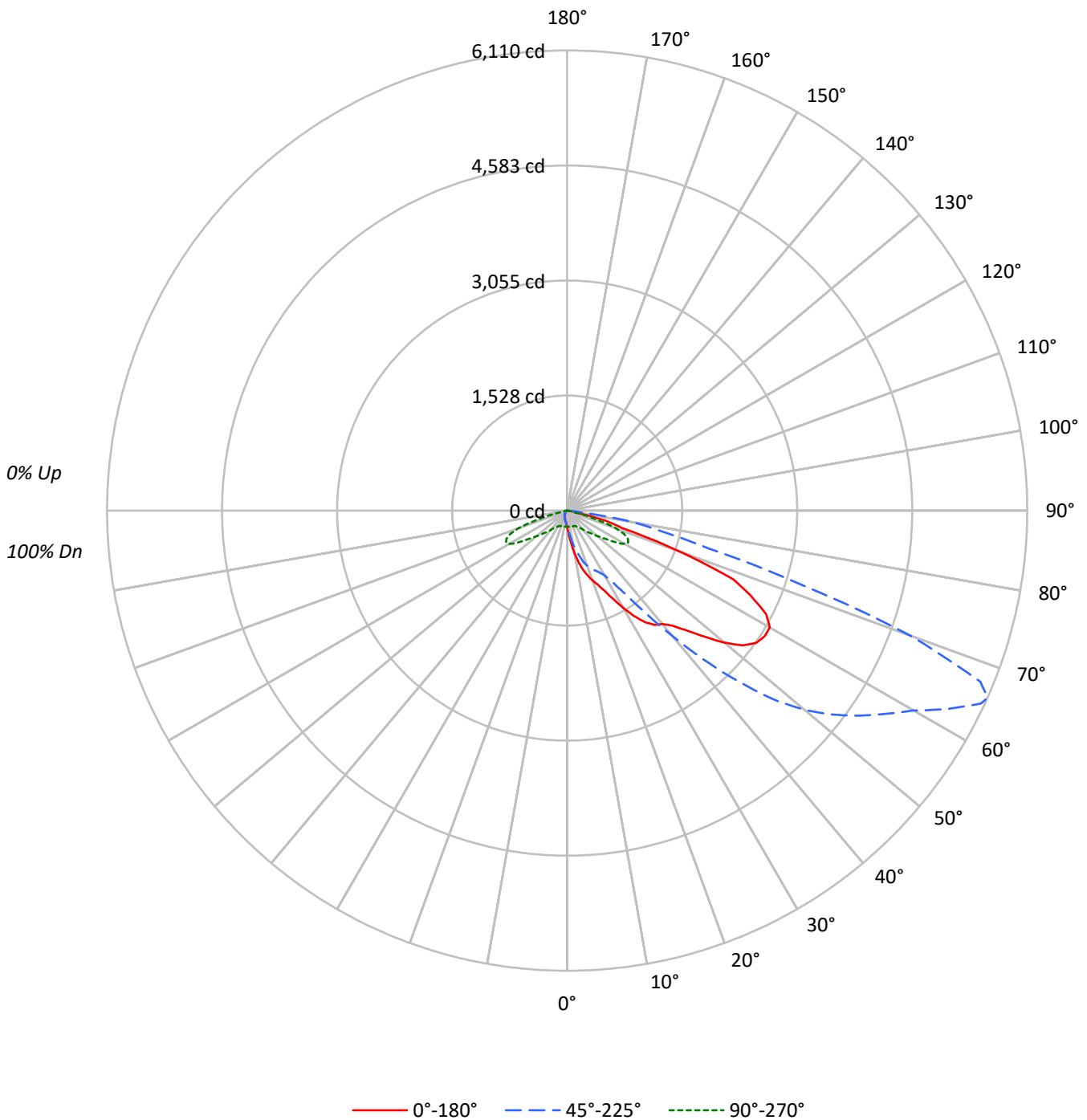
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3451	3451	3451
5°	5781	3475	2537
10°	9486	3504	2121
15°	13539	3652	1798
20°	16842	3778	1544
25°	20832	4002	1310
30°	27689	4479	1117
35°	35526	5299	939
40°	41202	6972	747
45°	51166	9419	559
50°	68150	13132	547
55°	85838	19199	613
60°	99831	28486	659
65°	102612	33833	730
70°	74996	32484	836
75°	33798	14140	1105
80°	6078	3543	1647
85°	498	3152	3023



TEST NUMBER: P150671

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-7050

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	0.3
10°-20°	102.0	1.4
20°-30°	219.9	3.1
30°-40°	469.6	6.6
40°-50°	1038.5	14.6
50°-60°	1760.0	24.7
60°-70°	2348.6	33.0
70°-80°	1034.5	14.5
80°-90°	119.2	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°	345.9	4.9
0°-40°	815.5	11.5
0°-60°	3614.1	50.8
0°-90°	7116.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7116.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	215	215	215	215	215	
5°	358	304	216	163	157	41
15°	814	621	220	116	108	233
25°	1175	877	226	85	74	563
35°	1811	1357	270	58	48	1123
45°	2252	3195	415	34	25	1780
55°	3065	4747	685	16	22	2701
65°	2699	6061	890	12	19	2577
75°	544	1940	228	10	18	601
85°	3	41	17	8	16	16
90°	0	0	0	0	0	



TEST NUMBER: P150671

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8
2.5°	270.9	269.5	264.1	264.1	255.8	250.4	243.5	236.7	236.7	235.3	234.0
5°	358.5	350.2	348.9	333.8	321.5	303.7	287.3	265.4	262.7	259.9	258.6
7.5°	455.6	454.2	441.9	424.1	399.5	366.7	333.8	298.3	292.8	290.0	284.6
10°	581.5	574.6	558.2	528.1	491.2	447.4	394.0	337.9	331.1	325.6	322.9
12.5°	701.9	689.5	680.0	641.7	595.1	530.8	466.5	385.8	380.3	373.5	362.6
15°	814.0	803.1	786.7	753.8	701.9	621.1	545.9	447.4	433.7	424.1	415.9
17.5°	901.6	894.8	875.6	838.7	782.6	711.4	621.1	510.3	499.4	487.1	472.0
20°	985.1	975.5	945.4	894.8	834.6	779.8	710.1	592.4	577.4	562.3	545.9
22.5°	1064.4	1054.8	1005.6	922.1	857.8	834.6	809.9	685.4	662.2	649.9	633.4
25°	1175.2	1154.7	1078.1	945.4	859.2	877.0	919.4	805.8	783.9	766.2	740.2
27.5°	1324.4	1297.0	1176.6	979.6	864.7	923.5	1045.3	952.2	929.0	908.4	879.7
30°	1492.6	1474.9	1331.2	1061.7	904.3	991.9	1186.2	1138.3	1110.9	1086.3	1052.1
32.5°	1662.3	1637.7	1495.4	1217.6	1011.1	1124.6	1362.7	1354.5	1318.9	1295.6	1258.7
35°	1811.4	1799.1	1693.8	1473.5	1254.6	1357.2	1598.0	1607.6	1576.1	1551.5	1510.4
37.5°	1912.7	1912.7	1892.1	1748.5	1641.8	1718.4	1944.1	1945.5	1914.0	1857.9	1837.4
40°	1964.6	1979.7	2053.6	2080.9	2075.5	2174.0	2398.4	2373.7	2347.7	2319.0	2250.6
42.5°	2071.4	2085.0	2242.4	2431.2	2554.3	2684.3	2838.9	2830.7	2799.2	2747.2	2684.3
45°	2252.0	2269.7	2457.2	2756.8	3009.9	3194.6	3293.1	3254.8	3223.3	3174.1	3141.3
47.5°	2481.8	2516.0	2728.1	3098.8	3403.9	3709.0	3811.6	3710.4	3683.0	3644.7	3591.4
50°	2726.7	2759.5	2985.3	3409.4	3754.2	4118.1	4289.1	4118.1	4078.4	4066.1	4005.9
52.5°	2938.8	2966.1	3183.7	3648.8	4022.3	4449.2	4698.2	4472.5	4443.7	4402.7	4358.9
55°	3064.6	3086.5	3290.4	3763.8	4204.3	4747.4	5093.6	4895.2	4852.8	4836.4	4773.4
57.5°	3107.0	3128.9	3312.3	3778.8	4302.8	5019.7	5573.8	5580.6	5530.0	5471.2	5452.0
60°	3107.0	3131.7	3286.3	3741.9	4398.6	5309.8	6214.1	6784.6	6675.2	6664.2	6594.4
62.5°	2978.4	3001.7	3157.7	3628.3	4527.2	5701.0	7106.1	8113.1	8081.6	8010.5	7895.5
65°	2699.3	2713.0	2866.3	3338.3	4477.9	6060.9	7879.1	8996.9	8946.3	8806.7	8659.0
66°	2573.5	2584.4	2728.1	3172.7	4316.5	6110.1	8015.9	9107.7	9024.3	8906.6	8739.7
67.5°	2391.5	2410.7	2511.9	2864.9	3929.3	5939.1	7929.7	9029.7	8957.2	8814.9	8648.0
70°	1596.6	1582.9	1940.0	2198.6	2993.5	4839.1	7114.3	8107.6	8109.0	8041.9	7974.9
72.5°	757.9	766.2	870.1	1353.1	1959.2	3232.9	5662.7	6471.3	6564.3	6443.9	6360.5
75°	544.5	556.8	619.8	827.7	1168.4	1940.0	3670.7	4525.8	4528.5	4315.1	4124.9
77.5°	158.7	165.5	232.6	510.3	875.6	1309.3	2108.3	2516.0	2457.2	2303.9	2160.3
80°	65.7	65.7	68.4	162.8	351.6	889.3	1474.9	1937.3	1930.4	1871.6	1786.8
82.5°	24.6	26.0	32.8	67.0	83.5	218.9	983.7	1681.4	1677.3	1593.9	1533.7
85°	2.7	2.7	8.2	28.7	31.5	41.0	197.0	741.5	737.4	741.5	649.9
87.5°	0.0	0.0	1.4	2.7	4.1	5.5	8.2	28.7	31.5	30.1	27.4
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: P150671

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8
2.5°	234.0	231.2	231.2	229.8	229.8	229.8	228.5	227.1	227.1	225.7	224.4
5°	255.8	253.1	251.7	249.0	247.6	246.3	243.5	242.2	239.4	238.1	236.7
7.5°	281.8	276.4	275.0	270.9	266.8	264.1	261.3	257.2	254.5	249.0	247.6
10°	314.7	307.8	302.4	296.9	292.8	285.9	281.8	276.4	270.9	266.8	262.7
12.5°	357.1	347.5	339.3	333.8	324.2	316.0	307.8	303.7	292.8	287.3	280.5
15°	403.6	392.7	383.1	372.1	365.3	351.6	340.7	328.4	322.9	313.3	302.4
17.5°	463.8	446.0	431.0	420.0	406.3	392.7	380.3	368.0	351.6	340.7	327.0
20°	528.1	513.1	492.5	473.4	457.0	440.5	422.8	406.3	391.3	373.5	357.1
22.5°	610.2	588.3	563.7	544.5	522.6	504.8	480.2	458.3	433.7	410.4	391.3
25°	714.2	685.4	662.2	634.8	608.8	581.5	551.4	524.0	492.5	470.6	437.8
27.5°	842.8	815.4	783.9	748.4	722.4	681.3	641.7	607.5	570.5	536.3	499.4
30°	1007.0	967.3	934.4	900.2	848.2	808.6	762.1	715.5	664.9	630.7	574.6
32.5°	1204.0	1161.6	1112.3	1063.0	1015.2	959.1	901.6	844.1	788.0	725.1	667.7
35°	1444.8	1394.1	1338.0	1284.7	1210.8	1150.6	1078.1	998.7	935.8	863.3	790.8
37.5°	1763.5	1680.1	1630.8	1574.7	1474.9	1392.8	1312.0	1232.7	1121.9	1045.3	942.6
40°	2163.0	2113.8	2033.1	1942.8	1852.5	1744.4	1634.9	1529.6	1401.0	1294.3	1175.2
42.5°	2632.3	2559.8	2477.7	2347.7	2256.1	2128.8	2004.3	1864.8	1707.4	1570.6	1431.1
45°	3072.8	2986.7	2923.7	2793.7	2698.0	2547.5	2397.0	2249.2	2067.3	1890.8	1729.3
47.5°	3549.0	3477.8	3373.8	3268.5	3171.3	3001.7	2838.9	2659.7	2468.1	2258.8	2049.5
50°	3967.6	3911.5	3840.4	3713.1	3605.1	3462.8	3271.2	3075.6	2833.4	2625.5	2387.4
52.5°	4323.3	4279.5	4179.7	4089.4	3992.2	3858.2	3687.1	3499.7	3238.4	3009.9	2739.0
55°	4743.3	4711.9	4624.3	4568.2	4482.0	4353.4	4193.4	4019.6	3743.2	3494.2	3187.8
57.5°	5431.5	5406.9	5330.3	5307.0	5222.2	5110.0	4913.0	4726.9	4404.0	4094.8	3744.6
60°	6571.2	6521.9	6409.7	6352.3	6173.1	6022.6	5766.7	5510.9	5121.0	4726.9	4305.5
62.5°	7791.6	7653.4	7439.9	7256.6	7002.1	6740.8	6398.8	6007.5	5550.5	5082.6	4598.3
65°	8449.6	8214.3	7944.8	7653.4	7323.7	6939.2	6508.2	6039.0	5547.8	5053.9	4542.2
66°	8524.9	8259.5	7973.5	7649.3	7282.6	6873.5	6435.7	5943.2	5432.9	4951.3	4439.6
67.5°	8430.5	8152.7	7850.4	7490.6	7093.8	6669.7	6210.0	5698.3	5207.1	4718.7	4220.7
70°	7769.7	7493.3	7223.8	6844.8	6422.1	5995.2	5560.1	4988.2	4523.1	4074.3	3631.0
72.5°	6204.5	6017.1	5750.3	5426.0	5014.2	4513.5	4150.9	3639.3	3235.7	2800.6	2457.2
75°	3877.3	3613.3	3283.5	2870.4	2555.7	2149.3	1937.3	1548.7	1318.9	1117.8	923.5
77.5°	1982.4	1784.1	1552.8	1320.3	1097.2	875.6	677.2	478.8	322.9	224.4	166.9
80°	1637.7	1462.5	1271.0	1058.9	861.9	669.0	481.6	328.4	209.3	136.8	106.7
82.5°	1353.1	1205.3	1034.3	837.3	666.3	525.4	365.3	238.1	147.8	95.8	75.2
85°	576.0	522.6	403.6	320.1	240.8	177.9	124.5	83.5	58.8	47.9	43.8
87.5°	24.6	27.4	26.0	20.5	15.0	15.0	13.7	10.9	10.9	10.9	10.9
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: P150671

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8	214.8
2.5°	224.4	223.0	221.6	221.6	220.3	218.9	210.7	203.9	195.6	190.2	184.7
5°	234.0	232.6	229.8	228.5	225.7	224.4	206.6	191.5	179.2	169.6	162.8
7.5°	243.5	242.2	238.1	234.0	232.6	229.8	201.1	182.0	165.5	154.6	147.8
10°	255.8	251.7	247.6	242.2	238.1	234.0	195.6	171.0	153.2	143.7	136.8
12.5°	273.6	266.8	259.9	253.1	247.6	240.8	192.9	161.4	143.7	132.7	125.9
15°	294.2	284.6	276.4	268.2	258.6	251.7	187.4	153.2	135.4	124.5	116.3
17.5°	313.3	302.4	290.0	277.7	268.2	258.6	182.0	145.0	127.2	116.3	108.1
20°	340.7	324.2	309.2	294.2	280.5	268.2	173.8	136.8	120.4	108.1	99.9
22.5°	370.8	351.6	332.5	311.9	294.2	277.7	166.9	130.0	113.6	101.2	91.7
25°	409.1	385.8	359.8	333.8	313.3	291.4	160.1	123.1	106.7	94.4	84.8
27.5°	462.4	429.6	400.9	368.0	336.6	311.9	154.6	117.7	99.9	87.6	78.0
30°	534.9	487.1	441.9	406.3	369.4	333.8	149.1	110.8	94.4	80.7	69.8
32.5°	615.7	559.6	507.6	454.2	407.7	366.7	143.7	105.3	87.6	73.9	64.3
35°	715.5	644.4	574.6	513.1	457.0	402.2	138.2	99.9	82.1	67.0	57.5
37.5°	859.2	770.3	678.6	599.2	526.7	454.2	134.1	94.4	75.2	60.2	50.6
40°	1056.2	941.3	829.1	721.0	626.6	536.3	128.6	88.9	69.8	54.7	45.1
42.5°	1269.6	1130.1	982.3	860.6	730.6	617.0	123.1	83.5	64.3	49.3	39.7
45°	1535.1	1361.3	1182.1	1016.5	857.8	711.4	117.7	78.0	57.5	43.8	34.2
47.5°	1825.1	1603.5	1401.0	1193.0	1004.2	829.1	110.8	73.9	52.0	38.3	30.1
50°	2123.4	1889.4	1633.6	1396.9	1172.5	946.8	104.0	67.0	46.5	34.2	24.6
52.5°	2444.9	2168.5	1907.2	1613.0	1351.7	1101.4	97.1	61.6	42.4	30.1	20.5
55°	2853.9	2544.7	2238.3	1908.6	1593.9	1280.6	90.3	54.7	36.9	26.0	16.4
57.5°	3368.4	3001.7	2625.5	2253.3	1871.6	1515.9	84.8	47.9	31.5	21.9	13.7
60°	3854.1	3425.8	2970.2	2542.0	2111.0	1696.5	76.6	42.4	27.4	17.8	13.7
62.5°	4105.8	3617.4	3126.2	2654.2	2194.5	1760.8	68.4	35.6	23.3	15.0	12.3
65°	4044.2	3546.2	3070.1	2594.0	2143.9	1719.8	60.2	31.5	20.5	13.7	12.3
66°	3955.3	3462.8	2983.9	2531.1	2101.5	1676.0	56.1	30.1	19.2	13.7	10.9
67.5°	3761.0	3284.9	2827.9	2406.6	1985.2	1592.5	50.6	27.4	17.8	12.3	10.9
70°	3212.4	2780.1	2414.8	2039.9	1696.5	1342.1	41.0	23.3	15.0	10.9	10.9
72.5°	2126.1	1831.9	1588.4	1366.8	1142.4	886.6	34.2	19.2	12.3	10.9	9.6
75°	801.7	725.1	622.5	559.6	488.4	428.2	27.4	12.3	9.6	9.6	9.6
77.5°	142.3	131.3	116.3	106.7	98.5	90.3	21.9	8.2	8.2	9.6	9.6
80°	95.8	88.9	80.7	73.9	68.4	61.6	15.0	6.8	8.2	8.2	9.6
82.5°	68.4	64.3	60.2	54.7	50.6	45.1	9.6	6.8	8.2	8.2	8.2
85°	41.0	38.3	35.6	32.8	28.7	27.4	6.8	6.8	6.8	8.2	8.2
87.5°	10.9	9.6	10.9	10.9	8.2	9.6	5.5	5.5	5.5	6.8	6.8
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: P150671

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	214.8	214.8	214.8	214.8	214.8
2.5°	182.0	182.0	179.2	183.3	183.3
5°	157.3	157.3	156.0	157.3	157.3
7.5°	143.7	142.3	142.3	142.3	143.7
10°	131.3	130.0	130.0	130.0	130.0
12.5°	120.4	119.0	117.7	119.0	119.0
15°	110.8	108.1	108.1	108.1	108.1
17.5°	102.6	99.9	98.5	98.5	98.5
20°	94.4	90.3	90.3	90.3	90.3
22.5°	86.2	82.1	82.1	82.1	82.1
25°	78.0	73.9	73.9	73.9	73.9
27.5°	71.1	67.0	67.0	67.0	67.0
30°	62.9	60.2	60.2	61.6	60.2
32.5°	57.5	53.4	53.4	54.7	54.7
35°	50.6	47.9	47.9	47.9	47.9
37.5°	43.8	41.0	41.0	41.0	41.0
40°	38.3	35.6	34.2	35.6	35.6
42.5°	32.8	30.1	28.7	28.7	28.7
45°	28.7	24.6	23.3	24.6	24.6
47.5°	23.3	20.5	20.5	21.9	21.9
50°	17.8	17.8	19.2	21.9	21.9
52.5°	16.4	16.4	19.2	21.9	21.9
55°	15.0	16.4	19.2	20.5	21.9
57.5°	13.7	16.4	19.2	20.5	20.5
60°	13.7	15.0	17.8	20.5	20.5
62.5°	12.3	13.7	16.4	19.2	19.2
65°	12.3	13.7	16.4	19.2	19.2
66°	12.3	13.7	16.4	19.2	19.2
67.5°	12.3	13.7	16.4	19.2	19.2
70°	12.3	13.7	16.4	17.8	17.8
72.5°	10.9	12.3	15.0	17.8	17.8
75°	10.9	12.3	15.0	17.8	17.8
77.5°	10.9	12.3	15.0	17.8	17.8
80°	10.9	12.3	15.0	16.4	17.8
82.5°	9.6	12.3	13.7	16.4	16.4
85°	9.6	10.9	13.7	15.0	16.4
87.5°	8.2	9.6	10.9	13.7	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)