

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: P151818

Luminaire Tested: **TLM-E05-LED-E1-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151818
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-E05-LED-E1-SL4-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

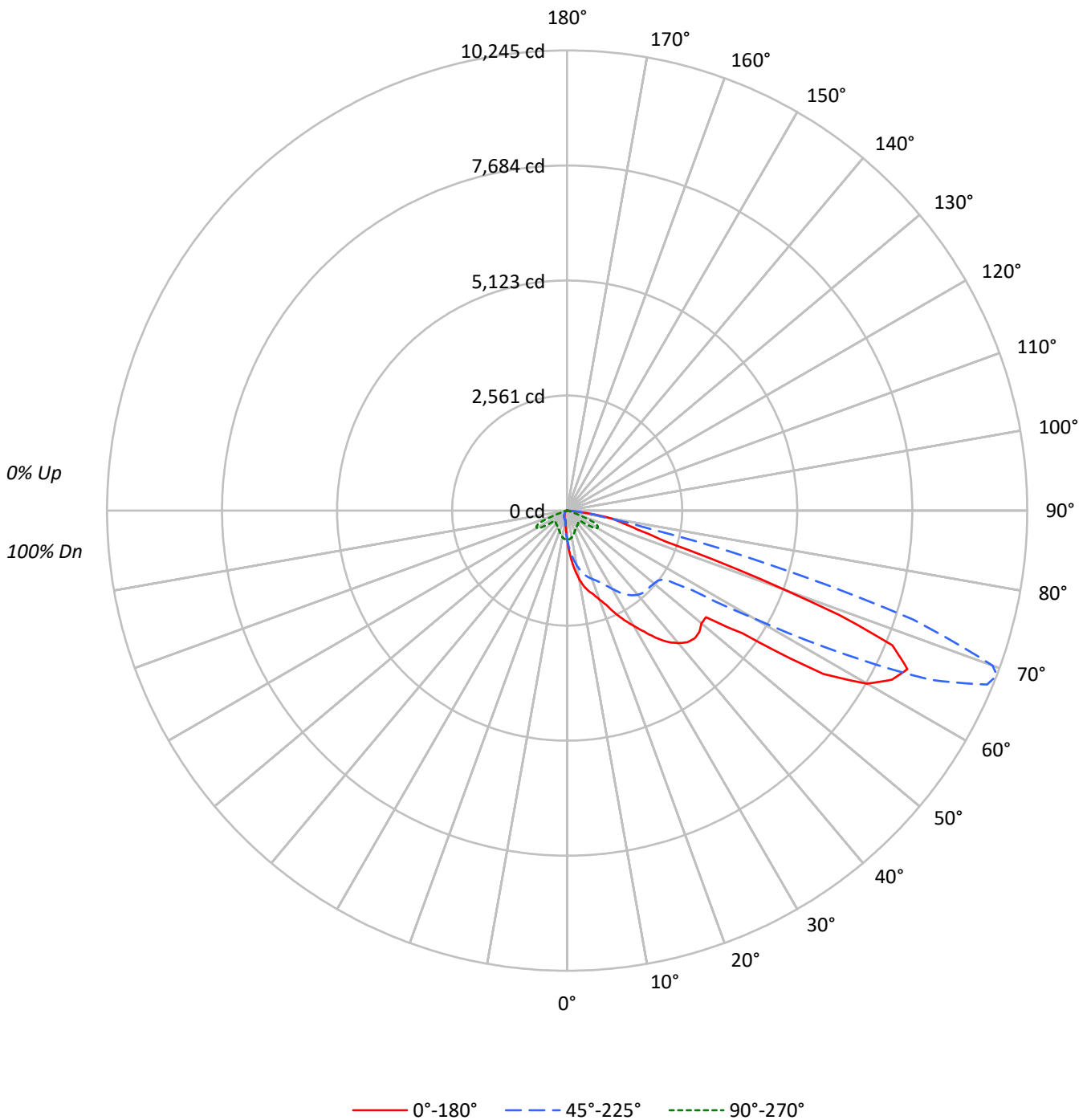
Lumens per Lamp: N/A
Luminaire Lumens: 8586.8 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 127.3
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: P151818
CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

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°	8410	8410	8410
5°	14375	8295	4413
10°	20468	7928	2834
15°	24892	7290	2568
20°	29043	6794	2330
25°	35949	6501	2053
30°	44361	6361	1749
35°	54828	6303	1469
40°	65225	6406	1358
45°	73732	6681	1394
50°	78783	7350	1277
55°	107658	12723	764
60°	199898	20177	547
65°	256485	21800	519
70°	193668	9013	588
75°	80632	3452	707
80°	73645	3256	948
85°	6488	2931	1681



TEST NUMBER: P151818

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	0.8
10°-20°	229.8	2.7
20°-30°	439.8	5.1
30°-40°	731.4	8.5
40°-50°	989.8	11.5
50°-60°	1547.9	18.0
60°-70°	3182.4	37.1
70°-80°	1280.6	14.9
80°-90°	118.4	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°	736.3	8.6
0°-40°	1467.7	17.1
0°-60°	4005.4	46.6
0°-90°	8586.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8586.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	648	648	648	648	648	
5°	1104	940	637	405	339	119
15°	1854	1470	543	201	191	530
25°	2512	1770	454	160	144	1177
35°	3463	2284	398	114	93	2172
45°	4020	2501	364	75	76	3073
55°	4762	2659	563	49	34	4801
65°	8358	8912	710	24	17	7657
75°	1609	4693	69	10	14	2157
85°	44	188	20	7	11	270
90°	0	0	0	0	0	



TEST NUMBER: P151818

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5
2.5°	865.1	855.2	844.0	844.0	829.9	829.9	821.5	799.0	796.2	783.5	770.8
5°	1104.2	1095.8	1081.7	1069.1	1057.8	1038.1	1024.0	997.3	967.8	939.6	914.3
7.5°	1337.7	1333.5	1308.2	1304.0	1285.7	1253.3	1225.2	1185.8	1135.2	1095.8	1049.4
10°	1554.3	1544.5	1538.9	1515.0	1488.2	1453.1	1409.5	1361.6	1302.6	1240.7	1174.6
12.5°	1726.0	1720.3	1695.0	1685.2	1657.0	1621.9	1567.0	1505.1	1446.0	1365.9	1288.5
15°	1854.0	1844.1	1827.2	1811.8	1778.0	1747.1	1696.4	1628.9	1557.2	1470.0	1377.1
17.5°	1960.9	1942.6	1938.4	1914.5	1879.3	1842.7	1786.4	1724.6	1640.2	1552.9	1451.7
20°	2104.4	2079.0	2070.6	2035.4	1994.6	1944.0	1879.3	1801.9	1713.3	1617.6	1513.6
22.5°	2273.1	2254.9	2236.6	2205.6	2153.6	2081.8	1987.6	1903.2	1790.7	1685.2	1572.6
25°	2512.3	2496.8	2467.3	2425.1	2360.4	2274.6	2160.6	2036.8	1904.6	1769.6	1637.3
27.5°	2744.4	2730.3	2709.2	2676.9	2603.7	2509.5	2368.8	2211.3	2043.9	1880.7	1734.4
30°	2962.4	2949.7	2928.6	2896.3	2831.6	2738.8	2579.8	2411.0	2202.8	2012.9	1837.1
32.5°	3197.3	3193.1	3169.2	3122.8	3066.5	2941.3	2768.3	2586.8	2375.8	2156.4	1951.0
35°	3463.2	3430.8	3408.3	3361.9	3266.2	3132.6	2930.1	2731.7	2509.5	2284.4	2055.1
37.5°	3688.2	3657.3	3629.2	3570.1	3453.3	3283.1	3053.8	2835.8	2606.5	2377.2	2143.7
40°	3852.8	3837.3	3803.6	3726.2	3595.4	3392.8	3145.3	2907.5	2676.9	2446.2	2215.5
42.5°	3975.2	3951.3	3913.3	3833.1	3678.4	3447.7	3181.8	2937.1	2709.2	2488.4	2261.9
45°	4020.2	4000.5	3965.4	3878.1	3710.7	3463.2	3180.4	2928.6	2710.6	2501.0	2292.8
47.5°	3993.5	3973.8	3942.8	3861.3	3696.7	3444.9	3155.1	2904.7	2696.6	2505.2	2321.0
50°	3904.9	3893.6	3869.7	3800.8	3653.1	3409.7	3132.6	2892.1	2693.7	2526.3	2360.4
52.5°	3896.4	3889.4	3859.9	3790.9	3640.4	3398.5	3129.8	2899.1	2717.7	2553.1	2388.5
55°	4761.5	4661.6	4438.0	4248.1	3935.8	3564.5	3271.9	3013.0	2818.9	2658.6	2543.2
57.5°	6767.4	6618.3	6324.3	5962.8	5245.4	4540.7	3976.6	3568.7	3367.5	3294.4	3338.0
60°	7707.0	7680.3	7633.9	7462.3	7095.2	6488.9	5813.7	5083.6	4791.1	4765.7	4854.4
62.5°	8153.0	8136.1	8150.1	8129.0	8015.1	7837.9	7643.7	7328.7	7038.9	6851.8	6455.1
65°	8358.3	8369.6	8449.8	8513.1	8527.1	8573.5	8715.6	9108.1	9395.0	8912.5	7811.1
67.5°	7836.5	7902.6	8086.8	8317.5	8587.6	8849.2	9271.2	10098.4	10687.7	10120.9	8556.7
69°	6487.5	6519.8	6970.0	7404.6	8064.3	8525.7	9137.6	10222.1	10884.7	10244.6	8497.6
70°	5107.6	5137.1	5619.6	6210.4	7325.8	7919.4	8719.8	10012.5	10700.4	10080.1	8193.7
72.5°	2304.1	2261.9	2432.1	2748.6	3961.1	4903.6	6303.2	8112.2	8828.1	8075.6	6130.2
75°	1609.2	1590.9	1609.2	1610.6	1799.1	2321.0	2928.6	4397.2	5438.1	4692.6	2928.6
77.5°	1246.3	1233.6	1221.0	1206.9	1229.4	1377.1	1436.2	1560.0	2025.6	1915.9	1116.9
80°	986.1	974.8	1005.8	995.9	995.9	1012.8	1001.5	955.1	867.9	804.6	720.2
82.5°	458.6	461.4	461.4	500.8	603.5	704.7	737.1	690.7	613.3	521.9	420.6
85°	43.6	49.2	83.0	128.0	254.6	287.0	288.4	239.1	239.1	188.5	151.9
87.5°	0.0	1.4	1.4	1.4	12.7	35.2	29.5	8.4	4.2	4.2	7.0
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: P151818

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5
2.5°	748.3	744.1	727.2	710.4	694.9	678.0	662.5	647.1	630.2	617.5	602.0
5°	874.9	844.0	808.8	775.1	741.3	706.1	669.6	637.2	603.5	572.5	543.0
7.5°	1002.9	942.5	894.6	834.1	779.3	724.4	673.8	621.7	573.9	528.9	486.7
10°	1111.3	1038.1	963.6	886.2	807.4	734.3	663.9	602.0	538.7	483.9	431.8
12.5°	1199.9	1107.0	1015.6	918.5	829.9	737.1	649.9	575.3	500.8	438.9	385.4
15°	1280.1	1173.1	1063.4	950.9	838.4	732.9	635.8	543.0	467.0	396.7	336.2
17.5°	1344.8	1222.4	1098.6	972.0	851.0	727.2	617.5	520.5	431.8	358.7	299.6
20°	1401.0	1273.0	1139.4	997.3	859.5	725.8	602.0	492.3	400.9	323.5	265.9
22.5°	1453.1	1325.1	1181.6	1029.7	872.1	724.4	588.0	471.2	374.2	296.8	239.1
25°	1512.2	1377.1	1226.6	1063.4	894.6	730.1	579.5	454.3	350.3	271.5	218.0
27.5°	1578.3	1436.2	1280.1	1105.6	924.2	741.3	576.7	436.1	329.2	247.6	201.2
30°	1671.1	1506.5	1333.5	1147.8	950.9	754.0	573.9	424.8	308.1	229.3	184.3
32.5°	1752.7	1575.4	1392.6	1191.4	980.4	766.6	572.5	409.3	288.4	211.0	171.6
35°	1838.5	1638.7	1443.2	1233.6	1005.8	780.7	571.1	398.1	270.1	192.7	159.0
37.5°	1913.0	1692.2	1482.6	1270.2	1033.9	793.4	572.5	388.2	253.2	177.2	147.7
40°	1976.3	1747.1	1526.2	1304.0	1063.4	813.0	573.9	378.4	236.3	163.2	137.9
42.5°	2032.6	1799.1	1572.6	1341.9	1097.2	835.6	582.4	369.9	222.3	150.5	128.0
45°	2076.2	1846.9	1623.3	1395.4	1152.0	872.1	597.8	364.3	208.2	139.3	119.6
47.5°	2121.2	1917.3	1709.1	1479.8	1232.2	929.8	624.6	362.9	196.9	130.8	112.5
50°	2183.1	1987.6	1785.0	1565.6	1305.4	988.9	656.9	364.3	182.9	122.4	105.5
52.5°	2228.1	2059.3	1883.5	1714.7	1479.8	1168.9	782.1	389.6	175.8	115.3	97.1
55°	2494.0	2464.5	2468.7	2496.8	2315.3	1989.0	1308.2	562.7	206.8	130.8	95.7
57.5°	3516.6	3620.7	3681.2	3679.8	3380.2	2803.5	1756.9	723.0	230.7	151.9	113.9
60°	4861.4	4782.6	4671.5	4397.2	3999.1	3200.1	1965.1	777.9	199.7	121.0	104.1
62.5°	6050.0	5588.6	5179.3	4734.8	4212.9	3338.0	2007.3	773.7	174.4	91.4	73.1
65°	6791.3	5961.4	5300.3	4743.2	4128.5	3222.6	1899.0	710.4	147.7	74.6	60.5
67.5°	6968.6	5760.2	4824.8	4114.5	3449.1	2508.1	1394.0	534.5	115.3	61.9	53.5
69°	6581.7	5120.2	3997.7	3191.7	2509.5	1664.1	862.3	337.6	88.6	56.3	49.2
70°	6054.2	4453.5	3256.4	2561.5	1858.2	1168.9	603.5	237.7	71.7	52.0	45.0
72.5°	3895.0	2339.3	1600.8	1114.1	766.6	465.6	236.3	106.9	54.9	43.6	36.6
75°	1510.7	865.1	627.4	476.9	372.8	258.8	143.5	68.9	46.4	36.6	28.1
77.5°	744.1	569.7	465.6	319.3	185.7	115.3	77.4	53.5	38.0	26.7	18.3
80°	588.0	391.0	233.5	144.9	109.7	83.0	59.1	43.6	28.1	16.9	12.7
82.5°	301.0	164.6	121.0	98.5	81.6	64.7	47.8	30.9	18.3	11.3	9.8
85°	94.2	68.9	61.9	60.5	56.3	46.4	33.8	19.7	11.3	7.0	7.0
87.5°	7.0	9.8	12.7	9.8	11.3	9.8	12.7	8.4	5.6	5.6	4.2
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: P151818

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5
2.5°	590.8	573.9	558.4	548.6	530.3	523.3	516.2	513.4	500.8	503.6	492.3
5°	516.2	486.7	464.2	441.7	420.6	405.1	392.5	377.0	364.3	358.7	347.4
7.5°	448.7	410.7	381.2	357.3	332.0	312.3	295.4	284.1	272.9	261.6	256.0
10°	389.6	348.8	315.1	291.2	267.3	250.4	237.7	229.3	222.3	218.0	216.6
12.5°	334.8	295.4	264.5	243.4	225.1	216.6	211.0	206.8	205.4	204.0	204.0
15°	292.6	253.2	229.3	213.8	205.4	201.2	199.7	196.9	194.1	192.7	192.7
17.5°	253.2	223.7	206.8	198.3	194.1	191.3	188.5	185.7	182.9	181.5	181.5
20°	226.5	202.6	194.1	188.5	184.3	181.5	177.2	174.4	173.0	171.6	170.2
22.5°	205.4	189.9	184.3	180.1	174.4	170.2	167.4	164.6	161.8	160.4	159.0
25°	189.9	180.1	175.8	170.2	164.6	160.4	156.1	151.9	149.1	147.7	144.9
27.5°	178.6	171.6	166.0	159.0	153.3	149.1	144.9	140.7	137.9	135.0	133.6
30°	168.8	161.8	154.7	149.1	142.1	137.9	132.2	128.0	126.6	123.8	121.0
32.5°	159.0	151.9	144.9	137.9	130.8	125.2	122.4	116.8	113.9	112.5	109.7
35°	147.7	140.7	132.2	126.6	119.6	113.9	109.7	105.5	102.7	99.9	98.5
37.5°	137.9	129.4	121.0	113.9	108.3	102.7	98.5	94.2	91.4	88.6	87.2
40°	126.6	118.2	109.7	102.7	97.1	92.8	88.6	84.4	81.6	80.2	80.2
42.5°	116.8	106.9	98.5	92.8	88.6	83.0	78.8	74.6	73.1	71.7	73.1
45°	106.9	97.1	90.0	84.4	80.2	74.6	70.3	67.5	66.1	67.5	68.9
47.5°	98.5	88.6	81.6	77.4	73.1	68.9	64.7	61.9	61.9	64.7	67.5
50°	90.0	80.2	74.6	71.7	67.5	63.3	57.7	56.3	57.7	60.5	63.3
52.5°	81.6	70.3	66.1	64.7	60.5	56.3	52.0	50.6	52.0	54.9	53.5
55°	73.1	61.9	60.5	59.1	54.9	49.2	45.0	45.0	45.0	43.6	40.8
57.5°	70.3	54.9	53.5	52.0	47.8	42.2	39.4	36.6	35.2	30.9	29.5
60°	73.1	49.2	49.2	46.4	42.2	36.6	32.4	28.1	25.3	22.5	22.5
62.5°	59.1	45.0	43.6	40.8	35.2	29.5	25.3	21.1	19.7	18.3	18.3
65°	47.8	40.8	38.0	33.8	29.5	23.9	19.7	16.9	15.5	15.5	16.9
67.5°	43.6	36.6	32.4	28.1	23.9	18.3	15.5	14.1	14.1	15.5	15.5
69°	40.8	33.8	29.5	25.3	21.1	16.9	14.1	14.1	14.1	14.1	15.5
70°	38.0	32.4	28.1	23.9	18.3	14.1	12.7	12.7	14.1	14.1	15.5
72.5°	29.5	25.3	23.9	19.7	14.1	12.7	11.3	12.7	12.7	14.1	14.1
75°	22.5	18.3	18.3	15.5	11.3	9.8	9.8	11.3	11.3	12.7	12.7
77.5°	15.5	12.7	12.7	11.3	9.8	8.4	8.4	9.8	11.3	11.3	12.7
80°	11.3	9.8	8.4	9.8	8.4	7.0	8.4	9.8	9.8	11.3	11.3
82.5°	8.4	8.4	8.4	8.4	7.0	7.0	8.4	8.4	9.8	11.3	11.3
85°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.4	8.4	9.8	9.8
87.5°	4.2	4.2	4.2	5.6	5.6	7.0	7.0	7.0	7.0	8.4	8.4
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: P151818

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	648.5	648.5	648.5	648.5
2.5°	489.5	488.1	482.5	483.9
5°	343.2	334.8	340.4	339.0
7.5°	251.8	250.4	249.0	251.8
10°	215.2	215.2	213.8	215.2
12.5°	202.6	202.6	202.6	202.6
15°	192.7	192.7	191.3	191.3
17.5°	181.5	181.5	181.5	180.1
20°	170.2	168.8	168.8	168.8
22.5°	157.5	156.1	156.1	156.1
25°	144.9	143.5	143.5	143.5
27.5°	132.2	130.8	129.4	129.4
30°	119.6	118.2	116.8	116.8
32.5°	106.9	105.5	104.1	104.1
35°	95.7	95.7	94.2	92.8
37.5°	85.8	85.8	85.8	85.8
40°	78.8	80.2	80.2	80.2
42.5°	74.6	76.0	77.4	78.8
45°	71.7	74.6	76.0	76.0
47.5°	70.3	71.7	73.1	73.1
50°	64.7	63.3	63.3	63.3
52.5°	52.0	49.2	47.8	46.4
55°	38.0	36.6	33.8	33.8
57.5°	26.7	26.7	25.3	25.3
60°	21.1	21.1	19.7	21.1
62.5°	18.3	18.3	18.3	18.3
65°	16.9	16.9	16.9	16.9
67.5°	16.9	16.9	16.9	16.9
69°	15.5	15.5	15.5	15.5
70°	15.5	15.5	15.5	15.5
72.5°	14.1	14.1	14.1	14.1
75°	12.7	14.1	14.1	14.1
77.5°	12.7	12.7	12.7	12.7
80°	11.3	11.3	12.7	12.7
82.5°	11.3	11.3	11.3	11.3
85°	9.8	9.8	11.3	11.3
87.5°	8.4	8.4	9.8	9.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)