

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: P151823

Luminaire Tested: **TLM-F05-LED-E1-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151823
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-F05-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: (35) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

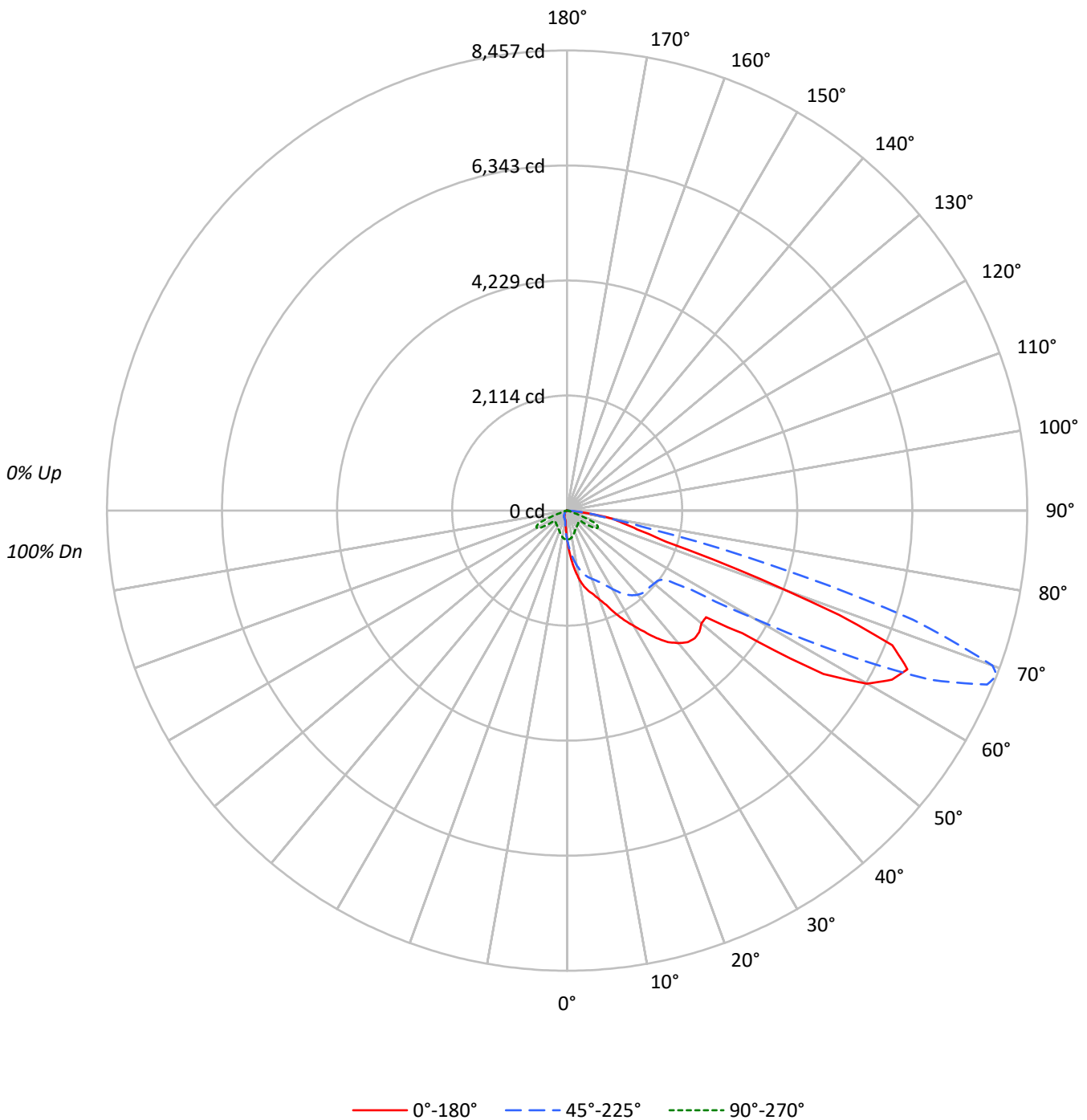
Lumens per Lamp: N/A
Luminaire Lumens: 7088.6 lumens
Efficiency: N/A
Efficacy: 53.2 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 133.3
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



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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	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°	6942	6942	6942
5°	11867	6848	3644
10°	16898	6545	2340
15°	20549	6018	2120
20°	23975	5609	1922
25°	29676	5367	1694
30°	36621	5252	1444
35°	45261	5202	1213
40°	53845	5289	1121
45°	60868	5517	1150
50°	65038	6069	1055
55°	88873	10502	631
60°	165022	16657	451
65°	211735	17994	427
70°	159876	7439	485
75°	66562	2851	581
80°	60792	2689	784
85°	5357	2425	1384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	0.8
10°-20°	189.7	2.7
20°-30°	363.1	5.1
30°-40°	603.8	8.5
40°-50°	817.1	11.5
50°-60°	1277.8	18.0
60°-70°	2627.2	37.1
70°-80°	1057.1	14.9
80°-90°	97.8	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°	607.8	8.6
0°-40°	1211.6	17.1
0°-60°	3306.5	46.6
0°-90°	7088.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7088.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	535	535	535	535	535	
5°	912	776	526	334	280	98
15°	1530	1214	448	166	158	437
25°	2074	1461	375	132	118	971
35°	2859	1886	329	94	77	1793
45°	3319	2065	301	62	63	2537
55°	3931	2195	464	41	28	3963
65°	6900	7358	586	20	14	6321
75°	1328	3874	57	8	12	1781
85°	36	156	16	6	9	223
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°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3
2.5°	714.2	706.0	696.7	696.7	685.1	685.1	678.2	659.6	657.3	646.8	636.4
5°	911.6	904.6	893.0	882.5	873.2	857.0	845.4	823.3	798.9	775.7	754.8
7.5°	1104.3	1100.8	1079.9	1076.5	1061.4	1034.7	1011.4	978.9	937.1	904.6	866.3
10°	1283.2	1275.0	1270.4	1250.6	1228.6	1199.5	1163.5	1124.1	1075.3	1024.2	969.6
12.5°	1424.8	1420.2	1399.3	1391.1	1367.9	1338.9	1293.6	1242.5	1193.7	1127.6	1063.7
15°	1530.5	1522.4	1508.4	1495.7	1467.8	1442.2	1400.4	1344.7	1285.5	1213.5	1136.8
17.5°	1618.7	1603.7	1600.2	1580.4	1551.4	1521.2	1474.8	1423.7	1354.0	1282.0	1198.4
20°	1737.2	1716.3	1709.3	1680.3	1646.6	1604.8	1551.4	1487.5	1414.4	1335.4	1249.5
22.5°	1876.5	1861.4	1846.3	1820.8	1777.8	1718.6	1640.8	1571.1	1478.2	1391.1	1298.3
25°	2073.9	2061.2	2036.8	2002.0	1948.5	1877.7	1783.6	1681.5	1572.3	1460.8	1351.7
27.5°	2265.6	2253.9	2236.5	2209.8	2149.4	2071.6	1955.5	1825.4	1687.3	1552.6	1431.8
30°	2445.5	2435.1	2417.7	2391.0	2337.5	2260.9	2129.7	1990.3	1818.5	1661.7	1516.6
32.5°	2639.5	2636.0	2616.2	2577.9	2531.5	2428.1	2285.3	2135.5	1961.3	1780.2	1610.6
35°	2858.9	2832.2	2813.7	2775.3	2696.4	2586.1	2418.8	2255.1	2071.6	1885.8	1696.6
37.5°	3044.7	3019.2	2996.0	2947.2	2850.8	2710.3	2521.0	2341.0	2151.8	1962.5	1769.7
40°	3180.6	3167.8	3140.0	3076.1	2968.1	2800.9	2596.5	2400.3	2209.8	2019.4	1828.9
42.5°	3281.6	3261.9	3230.5	3164.3	3036.6	2846.2	2626.7	2424.6	2236.5	2054.2	1867.3
45°	3318.8	3302.5	3273.5	3201.5	3063.3	2858.9	2625.5	2417.7	2237.7	2064.7	1892.8
47.5°	3296.7	3280.5	3254.9	3187.6	3051.7	2843.8	2604.6	2397.9	2226.1	2068.1	1916.0
50°	3223.6	3214.3	3194.5	3137.6	3015.7	2814.8	2586.1	2387.5	2223.7	2085.6	1948.5
52.5°	3216.6	3210.8	3186.4	3129.5	3005.3	2805.5	2583.7	2393.3	2243.5	2107.6	1971.8
55°	3930.7	3848.3	3663.7	3506.9	3249.1	2942.5	2701.0	2487.3	2327.1	2194.7	2099.5
57.5°	5586.7	5463.6	5220.9	4922.4	4330.2	3748.4	3282.8	2946.0	2780.0	2719.6	2755.6
60°	6362.4	6340.3	6302.0	6160.3	5857.2	5356.7	4799.3	4196.7	3955.1	3934.2	4007.4
62.5°	6730.5	6716.5	6728.1	6710.7	6616.7	6470.4	6310.1	6050.0	5810.8	5656.3	5328.9
65°	6900.0	6909.3	6975.5	7027.7	7039.4	7077.7	7195.0	7518.9	7755.8	7357.5	6448.3
67.5°	6469.2	6523.8	6675.9	6866.3	7089.3	7305.3	7653.6	8336.4	8823.0	8355.0	7063.7
69°	5355.6	5382.3	5753.9	6112.7	6657.3	7038.2	7543.3	8438.6	8985.6	8457.2	7015.0
70°	4216.4	4240.8	4639.1	5126.8	6047.7	6537.7	7198.4	8265.6	8833.4	8321.3	6764.1
72.5°	1902.1	1867.3	2007.8	2269.0	3270.0	4048.0	5203.5	6696.8	7287.9	6666.6	5060.6
75°	1328.4	1313.3	1328.4	1329.6	1485.2	1916.0	2417.7	3630.0	4489.3	3873.8	2417.7
77.5°	1028.8	1018.4	1007.9	996.3	1014.9	1136.8	1185.6	1287.8	1672.2	1581.6	922.0
80°	814.0	804.7	830.3	822.1	822.1	836.1	826.8	788.5	716.5	664.2	594.5
82.5°	378.6	380.9	380.9	413.4	498.2	581.8	608.5	570.2	506.3	430.8	347.2
85°	36.0	40.6	68.5	105.7	210.2	236.9	238.1	197.4	197.4	155.6	125.4
87.5°	0.0	1.2	1.2	1.2	10.5	29.0	24.4	7.0	3.5	3.5	5.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3
2.5°	617.8	614.3	600.4	586.4	573.6	559.7	546.9	534.2	520.2	509.8	497.0
5°	722.3	696.7	667.7	639.8	612.0	582.9	552.7	526.0	498.2	472.6	448.2
7.5°	828.0	778.0	738.5	688.6	643.3	598.0	556.2	513.3	473.8	436.6	401.8
10°	917.4	857.0	795.4	731.6	666.5	606.2	548.1	497.0	444.7	399.5	356.5
12.5°	990.5	913.9	838.4	758.3	685.1	608.5	536.5	474.9	413.4	362.3	318.2
15°	1056.7	968.5	877.9	785.0	692.1	605.0	524.9	448.2	385.5	327.5	277.5
17.5°	1110.1	1009.1	906.9	802.4	702.5	600.4	509.8	429.7	356.5	296.1	247.3
20°	1156.6	1050.9	940.6	823.3	709.5	599.2	497.0	406.4	330.9	267.1	219.5
22.5°	1199.5	1093.9	975.4	850.0	720.0	598.0	485.4	389.0	308.9	245.0	197.4
25°	1248.3	1136.8	1012.6	877.9	738.5	602.7	478.4	375.1	289.1	224.1	180.0
27.5°	1302.9	1185.6	1056.7	912.7	762.9	612.0	476.1	360.0	271.7	204.4	166.1
30°	1379.5	1243.7	1100.8	947.6	785.0	622.4	473.8	350.7	254.3	189.3	152.1
32.5°	1446.9	1300.6	1149.6	983.6	809.4	632.9	472.6	337.9	238.1	174.2	141.7
35°	1517.7	1352.8	1191.4	1018.4	830.3	644.5	471.5	328.6	223.0	159.1	131.2
37.5°	1579.3	1397.0	1223.9	1048.6	853.5	654.9	472.6	320.5	209.0	146.3	121.9
40°	1631.5	1442.2	1259.9	1076.5	877.9	671.2	473.8	312.4	195.1	134.7	113.8
42.5°	1678.0	1485.2	1298.3	1107.8	905.8	689.8	480.7	305.4	183.5	124.3	105.7
45°	1714.0	1524.7	1340.1	1151.9	951.0	720.0	493.5	300.8	171.9	115.0	98.7
47.5°	1751.1	1582.8	1410.9	1221.6	1017.2	767.6	515.6	299.6	162.6	108.0	92.9
50°	1802.2	1640.8	1473.6	1292.4	1077.6	816.3	542.3	300.8	151.0	101.0	87.1
52.5°	1839.4	1700.0	1554.9	1415.5	1221.6	965.0	645.6	321.7	145.2	95.2	80.1
55°	2058.9	2034.5	2038.0	2061.2	1911.4	1642.0	1079.9	464.5	170.7	108.0	79.0
57.5°	2903.1	2989.0	3038.9	3037.8	2790.4	2314.3	1450.4	596.9	190.4	125.4	94.1
60°	4013.2	3948.2	3856.4	3630.0	3301.4	2641.8	1622.2	642.2	164.9	99.9	85.9
62.5°	4994.4	4613.6	4275.6	3908.7	3477.9	2755.6	1657.1	638.7	144.0	75.5	60.4
65°	5606.4	4921.3	4375.5	3915.7	3408.2	2660.4	1567.7	586.4	121.9	61.5	49.9
67.5°	5752.7	4755.2	3983.0	3396.6	2847.3	2070.5	1150.8	441.3	95.2	51.1	44.1
69°	5433.4	4226.9	3300.2	2634.8	2071.6	1373.7	711.8	278.7	73.2	46.4	40.6
70°	4997.9	3676.4	2688.2	2114.6	1534.0	965.0	498.2	196.2	59.2	43.0	37.2
72.5°	3215.4	1931.1	1321.5	919.7	632.9	384.4	195.1	88.3	45.3	36.0	30.2
75°	1247.2	714.2	517.9	393.7	307.7	213.7	118.4	56.9	38.3	30.2	23.2
77.5°	614.3	470.3	384.4	263.6	153.3	95.2	63.9	44.1	31.4	22.1	15.1
80°	485.4	322.8	192.8	119.6	90.6	68.5	48.8	36.0	23.2	13.9	10.5
82.5°	248.5	135.9	99.9	81.3	67.4	53.4	39.5	25.5	15.1	9.3	8.1
85°	77.8	56.9	51.1	49.9	46.4	38.3	27.9	16.3	9.3	5.8	5.8
87.5°	5.8	8.1	10.5	8.1	9.3	8.1	10.5	7.0	4.6	4.6	3.5
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°	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3	535.3
2.5°	487.7	473.8	461.0	452.9	437.8	432.0	426.2	423.8	413.4	415.7	406.4
5°	426.2	401.8	383.2	364.6	347.2	334.4	324.0	311.2	300.8	296.1	286.8
7.5°	370.4	339.1	314.7	295.0	274.0	257.8	243.9	234.6	225.3	216.0	211.3
10°	321.7	288.0	260.1	240.4	220.6	206.7	196.2	189.3	183.5	180.0	178.8
12.5°	276.4	243.9	218.3	200.9	185.8	178.8	174.2	170.7	169.5	168.4	168.4
15°	241.5	209.0	189.3	176.5	169.5	166.1	164.9	162.6	160.2	159.1	159.1
17.5°	209.0	184.6	170.7	163.7	160.2	157.9	155.6	153.3	151.0	149.8	149.8
20°	187.0	167.2	160.2	155.6	152.1	149.8	146.3	144.0	142.8	141.7	140.5
22.5°	169.5	156.8	152.1	148.6	144.0	140.5	138.2	135.9	133.5	132.4	131.2
25°	156.8	148.6	145.2	140.5	135.9	132.4	128.9	125.4	123.1	121.9	119.6
27.5°	147.5	141.7	137.0	131.2	126.6	123.1	119.6	116.1	113.8	111.5	110.3
30°	139.3	133.5	127.7	123.1	117.3	113.8	109.2	105.7	104.5	102.2	99.9
32.5°	131.2	125.4	119.6	113.8	108.0	103.3	101.0	96.4	94.1	92.9	90.6
35°	121.9	116.1	109.2	104.5	98.7	94.1	90.6	87.1	84.8	82.4	81.3
37.5°	113.8	106.8	99.9	94.1	89.4	84.8	81.3	77.8	75.5	73.2	72.0
40°	104.5	97.5	90.6	84.8	80.1	76.6	73.2	69.7	67.4	66.2	66.2
42.5°	96.4	88.3	81.3	76.6	73.2	68.5	65.0	61.5	60.4	59.2	60.4
45°	88.3	80.1	74.3	69.7	66.2	61.5	58.1	55.7	54.6	55.7	56.9
47.5°	81.3	73.2	67.4	63.9	60.4	56.9	53.4	51.1	51.1	53.4	55.7
50°	74.3	66.2	61.5	59.2	55.7	52.3	47.6	46.4	47.6	49.9	52.3
52.5°	67.4	58.1	54.6	53.4	49.9	46.4	43.0	41.8	43.0	45.3	44.1
55°	60.4	51.1	49.9	48.8	45.3	40.6	37.2	37.2	37.2	36.0	33.7
57.5°	58.1	45.3	44.1	43.0	39.5	34.8	32.5	30.2	29.0	25.5	24.4
60°	60.4	40.6	40.6	38.3	34.8	30.2	26.7	23.2	20.9	18.6	18.6
62.5°	48.8	37.2	36.0	33.7	29.0	24.4	20.9	17.4	16.3	15.1	15.1
65°	39.5	33.7	31.4	27.9	24.4	19.7	16.3	13.9	12.8	12.8	13.9
67.5°	36.0	30.2	26.7	23.2	19.7	15.1	12.8	11.6	11.6	12.8	12.8
69°	33.7	27.9	24.4	20.9	17.4	13.9	11.6	11.6	11.6	11.6	12.8
70°	31.4	26.7	23.2	19.7	15.1	11.6	10.5	10.5	11.6	11.6	12.8
72.5°	24.4	20.9	19.7	16.3	11.6	10.5	9.3	10.5	10.5	11.6	11.6
75°	18.6	15.1	15.1	12.8	9.3	8.1	8.1	9.3	9.3	10.5	10.5
77.5°	12.8	10.5	10.5	9.3	8.1	7.0	7.0	8.1	9.3	9.3	10.5
80°	9.3	8.1	7.0	8.1	7.0	5.8	7.0	8.1	8.1	9.3	9.3
82.5°	7.0	7.0	7.0	7.0	5.8	5.8	7.0	7.0	8.1	9.3	9.3
85°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	7.0	7.0	8.1	8.1
87.5°	3.5	3.5	3.5	4.6	4.6	5.8	5.8	5.8	5.8	7.0	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: P151823

CATALOG NUMBER: TLM-F05-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	535.3	535.3	535.3	535.3
2.5°	404.1	402.9	398.3	399.5
5°	283.3	276.4	281.0	279.9
7.5°	207.9	206.7	205.5	207.9
10°	177.7	177.7	176.5	177.7
12.5°	167.2	167.2	167.2	167.2
15°	159.1	159.1	157.9	157.9
17.5°	149.8	149.8	149.8	148.6
20°	140.5	139.3	139.3	139.3
22.5°	130.1	128.9	128.9	128.9
25°	119.6	118.4	118.4	118.4
27.5°	109.2	108.0	106.8	106.8
30°	98.7	97.5	96.4	96.4
32.5°	88.3	87.1	85.9	85.9
35°	79.0	79.0	77.8	76.6
37.5°	70.8	70.8	70.8	70.8
40°	65.0	66.2	66.2	66.2
42.5°	61.5	62.7	63.9	65.0
45°	59.2	61.5	62.7	62.7
47.5°	58.1	59.2	60.4	60.4
50°	53.4	52.3	52.3	52.3
52.5°	43.0	40.6	39.5	38.3
55°	31.4	30.2	27.9	27.9
57.5°	22.1	22.1	20.9	20.9
60°	17.4	17.4	16.3	17.4
62.5°	15.1	15.1	15.1	15.1
65°	13.9	13.9	13.9	13.9
67.5°	13.9	13.9	13.9	13.9
69°	12.8	12.8	12.8	12.8
70°	12.8	12.8	12.8	12.8
72.5°	11.6	11.6	11.6	11.6
75°	10.5	11.6	11.6	11.6
77.5°	10.5	10.5	10.5	10.5
80°	9.3	9.3	10.5	10.5
82.5°	9.3	9.3	9.3	9.3
85°	8.1	8.1	9.3	9.3
87.5°	7.0	7.0	8.1	8.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)