

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: P152363

Luminaire Tested: **TLM-F02-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152363
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F02-LED-E1-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

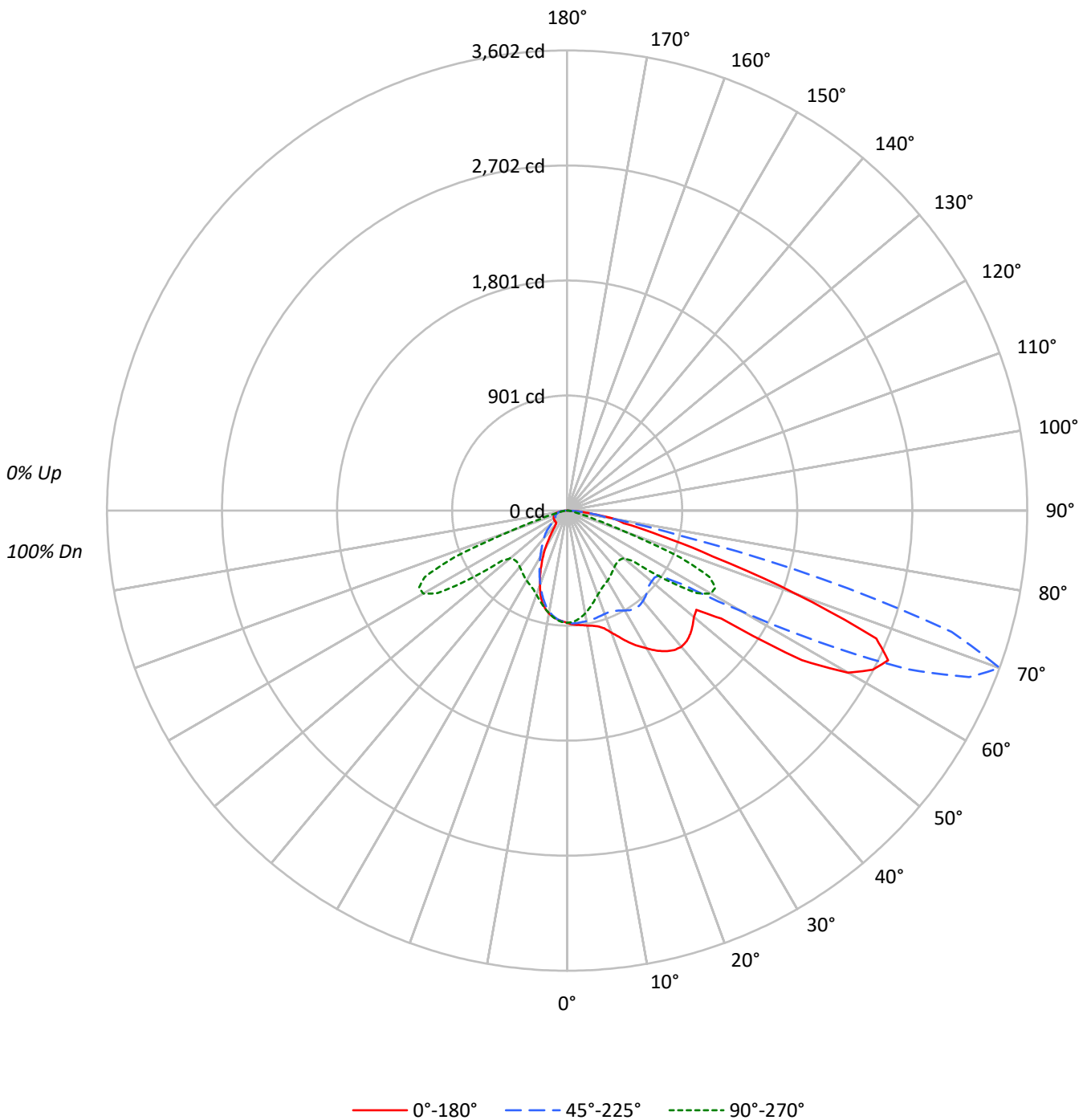
Lumens per Lamp: N/A
Luminaire Lumens: 4116.5 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): 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	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					100			
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	28652	28652	28652
5°	29413	28211	28031
10°	30276	27047	27093
15°	31699	25613	25239
20°	35277	24315	21622
25°	40906	23703	17286
30°	46884	23845	12911
35°	53525	24027	8398
40°	59233	24526	5795
45°	62929	25906	5785
50°	65811	29437	6434
55°	83732	53888	7029
60°	165536	84754	7880
65°	213983	95002	8853
70°	182068	44919	9966
75°	95704	16509	12288
80°	71191	8979	13355
85°	41205	8683	13398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	2.0
10°-20°	224.6	5.5
20°-30°	332.5	8.1
30°-40°	420.2	10.2
40°-50°	475.3	11.5
50°-60°	676.3	16.4
60°-70°	1259.6	30.6
70°-80°	577.3	14.0
80°-90°	68.5	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°	639.2	15.5
0°-40°	1059.5	25.7
0°-60°	2211.1	53.7
0°-90°	4116.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4116.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	878	878	878	878	878	
5°	898	884	862	855	856	86
15°	939	871	758	718	747	270
25°	1137	866	659	513	480	528
35°	1344	936	603	344	211	840
45°	1364	889	562	225	125	1049
55°	1472	884	948	114	124	1547
65°	2772	2936	1231	102	115	2557
75°	759	2064	131	80	98	934
85°	110	97	23	37	36	138
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°	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4
2.5°	891.8	894.1	891.4	890.9	890.9	890.4	887.6	887.2	883.5	883.9	884.9
5°	898.3	899.3	897.4	896.9	896.0	894.1	891.8	889.0	886.2	883.5	881.1
7.5°	904.8	903.9	902.5	902.5	901.1	898.3	893.7	890.0	883.9	880.7	876.5
10°	914.1	912.7	910.9	909.9	907.6	903.4	896.9	891.8	884.4	877.9	870.9
12.5°	922.9	922.5	919.7	918.3	914.6	910.4	902.5	894.6	884.9	874.6	865.3
15°	938.7	936.9	934.1	931.3	925.3	919.7	907.6	898.3	884.4	870.9	856.5
17.5°	966.1	962.9	960.1	954.1	946.6	936.9	919.2	903.4	884.4	864.9	848.6
20°	1016.3	1009.3	1005.6	997.7	984.7	967.1	939.7	914.1	885.8	860.7	838.9
22.5°	1073.0	1068.3	1063.2	1058.1	1037.7	1012.1	975.0	936.9	894.1	858.8	831.0
25°	1136.6	1130.6	1127.8	1119.0	1099.9	1070.7	1020.0	967.1	913.2	866.3	831.0
27.5°	1193.3	1191.4	1191.0	1180.7	1162.6	1128.2	1068.3	1004.7	939.2	881.6	837.9
30°	1244.8	1243.0	1242.0	1236.5	1215.6	1174.7	1109.7	1038.1	967.5	903.0	850.9
32.5°	1299.6	1293.6	1290.8	1280.1	1256.4	1208.6	1134.3	1060.0	989.8	923.9	865.3
35°	1344.2	1339.1	1333.6	1318.2	1284.8	1228.1	1145.0	1067.4	998.7	935.5	872.8
37.5°	1376.7	1371.6	1363.7	1344.2	1302.9	1234.6	1144.5	1065.1	995.4	933.6	874.2
40°	1391.1	1386.0	1377.7	1353.1	1306.1	1230.9	1135.7	1054.4	985.6	923.9	868.6
42.5°	1385.6	1381.9	1371.2	1347.5	1295.9	1214.2	1118.0	1034.4	967.1	908.1	856.1
45°	1364.2	1361.4	1351.2	1326.1	1272.7	1187.2	1092.0	1009.3	944.8	888.6	839.3
47.5°	1332.2	1331.2	1321.0	1296.4	1243.4	1160.3	1065.1	984.7	922.5	869.5	825.4
50°	1296.9	1292.2	1287.1	1264.3	1216.0	1137.1	1045.6	969.4	909.9	862.6	819.4
52.5°	1274.6	1273.2	1268.5	1248.1	1201.6	1123.6	1036.7	963.8	909.0	861.2	816.1
55°	1472.4	1475.7	1433.0	1344.2	1266.2	1160.8	1063.2	992.2	931.8	883.5	850.5
57.5°	2178.0	2163.6	2090.2	1914.2	1715.4	1452.9	1263.9	1149.1	1074.4	1082.7	1099.4
60°	2537.5	2534.7	2521.3	2453.0	2320.6	2120.9	1899.3	1645.2	1564.4	1573.2	1579.7
62.5°	2698.2	2702.4	2712.6	2687.1	2652.2	2594.2	2483.6	2381.4	2273.2	2232.8	2124.6
65°	2772.5	2780.0	2803.2	2817.6	2831.1	2841.3	2884.9	3004.8	3083.8	2936.0	2592.3
67.5°	2618.8	2654.6	2731.2	2806.0	2872.9	2968.1	3115.8	3394.0	3587.7	3406.1	2907.7
70°	1909.1	1957.8	2045.6	2276.9	2524.0	2740.0	3026.2	3449.8	3741.9	3601.7	2985.7
72.5°	1197.0	1210.5	1249.5	1334.5	1518.0	1795.3	2295.5	2930.9	3268.2	3156.2	2523.6
75°	759.4	764.1	762.7	782.2	813.3	873.7	1071.6	1731.2	2238.8	2064.2	1406.5
77.5°	452.4	459.4	462.2	468.2	483.1	504.4	520.7	589.0	938.7	911.3	510.5
80°	379.0	384.6	380.0	378.6	369.3	362.8	370.7	362.8	336.8	324.2	298.7
82.5°	200.7	200.2	198.8	212.3	239.7	261.0	277.3	273.6	247.6	210.9	178.8
85°	110.1	113.8	113.8	118.4	114.3	114.7	118.4	124.9	115.7	96.6	79.0
87.5°	9.3	14.4	11.6	14.4	19.5	13.9	13.5	13.5	11.6	8.4	7.4
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°	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4
2.5°	882.5	881.6	879.7	878.4	878.4	876.0	874.6	873.7	873.2	871.4	871.4
5°	879.7	876.5	873.2	870.9	869.5	867.2	863.5	861.6	859.3	857.4	856.5
7.5°	873.7	867.7	862.6	858.8	854.2	850.5	845.8	841.7	837.5	835.6	834.7
10°	864.4	856.5	848.6	841.7	835.2	828.7	822.6	816.6	811.5	807.7	804.0
12.5°	855.6	843.5	833.3	823.1	812.9	805.0	796.6	787.8	780.3	773.4	771.5
15°	843.5	829.6	816.6	804.0	791.5	778.5	768.3	758.5	746.4	738.5	732.5
17.5°	832.4	815.6	799.9	785.0	769.7	756.2	740.9	727.9	715.8	703.7	694.9
20°	820.3	802.2	785.5	768.7	752.0	734.8	717.2	700.5	685.6	671.2	656.8
22.5°	809.6	791.0	774.8	756.7	738.1	718.6	698.1	677.2	660.0	641.5	624.7
25°	803.1	782.7	765.9	748.3	727.9	706.5	683.3	658.6	637.7	616.4	596.4
27.5°	803.1	776.6	759.4	741.8	720.9	698.1	672.6	645.6	622.0	598.3	573.6
30°	810.1	777.6	754.3	735.8	714.4	689.8	661.4	633.1	607.1	579.2	555.5
32.5°	816.6	779.4	750.6	726.9	702.3	678.2	649.4	619.2	590.4	563.9	538.8
35°	820.8	779.4	743.6	713.5	685.6	661.9	633.6	603.4	574.1	548.1	524.9
37.5°	821.2	775.7	732.5	698.1	668.9	644.2	617.3	589.0	561.1	537.0	517.4
40°	816.6	768.3	721.4	681.9	651.2	626.1	601.5	576.0	550.9	530.9	514.2
42.5°	808.2	760.4	710.7	668.9	636.8	610.8	588.0	566.2	544.4	527.2	513.3
45°	795.7	749.7	700.9	661.0	629.4	602.0	579.7	561.6	543.0	528.6	514.7
47.5°	784.5	746.0	704.2	666.1	633.1	604.8	582.0	566.7	552.3	542.5	523.5
50°	782.2	744.1	705.6	670.3	636.8	608.0	588.0	580.1	576.0	569.9	540.7
52.5°	775.7	743.6	715.8	696.3	674.9	661.4	640.5	648.0	643.3	622.0	569.0
55°	844.0	853.3	879.3	916.4	950.8	958.7	956.4	947.6	900.6	774.8	637.3
57.5°	1160.3	1212.8	1262.0	1283.9	1281.1	1256.4	1238.8	1203.0	1135.2	981.9	772.0
60°	1599.7	1608.1	1582.1	1543.5	1478.5	1424.1	1366.1	1299.2	1200.7	1050.7	854.7
62.5°	2004.3	1891.9	1776.2	1667.5	1568.6	1482.2	1401.4	1308.0	1179.8	1023.3	844.0
65°	2289.9	2052.1	1869.6	1713.5	1573.7	1452.9	1352.1	1230.9	1086.4	945.2	782.2
67.5°	2437.2	2072.6	1792.5	1575.1	1376.7	1209.5	1075.3	957.3	850.0	788.2	684.7
70°	2272.8	1759.0	1368.9	1123.1	885.8	710.2	561.1	471.0	439.9	498.4	518.4
72.5°	1693.5	1145.0	814.3	629.8	482.6	384.6	295.0	231.8	188.6	197.9	256.9
75°	800.8	494.2	349.3	265.7	211.3	175.1	143.1	131.0	109.6	91.0	85.5
77.5°	311.7	227.1	187.7	137.5	97.5	78.5	66.9	64.6	66.0	64.1	63.2
80°	237.4	160.7	100.8	73.9	63.6	56.2	49.7	47.8	48.8	51.1	53.4
82.5°	132.4	82.7	61.3	53.4	47.8	40.9	37.2	34.4	34.8	37.6	42.7
85°	51.1	39.9	36.7	35.3	33.0	26.5	22.8	23.2	26.5	31.6	31.6
87.5°	5.6	5.6	7.4	5.6	5.6	5.6	5.1	6.0	6.5	8.4	9.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4
2.5°	870.5	870.5	870.5	869.5	870.0	868.1	868.1	866.7	869.1	867.7	867.2
5°	857.0	856.5	854.7	854.7	854.7	854.7	856.1	852.3	855.1	855.1	853.7
7.5°	834.2	834.2	829.1	831.9	831.0	832.4	834.2	832.4	835.2	837.0	835.6
10°	802.6	802.6	798.5	801.7	800.3	803.6	806.8	805.0	806.8	809.6	810.5
12.5°	767.8	765.9	762.2	763.6	763.6	765.5	766.9	769.2	771.5	775.2	777.1
15°	727.4	724.6	720.0	720.0	717.2	718.1	720.9	721.8	726.5	731.6	737.6
17.5°	686.1	679.1	674.0	667.9	663.3	667.0	670.3	672.6	676.3	684.2	688.4
20°	647.0	633.1	623.3	615.4	610.3	612.7	616.8	619.6	622.9	624.7	626.1
22.5°	608.5	592.7	579.2	569.5	561.1	563.4	561.6	560.2	562.5	556.5	556.0
25°	575.0	556.5	538.3	526.7	516.5	513.3	503.5	501.2	494.7	489.6	485.9
27.5°	550.9	526.7	506.8	493.3	477.0	465.0	452.4	439.9	432.9	424.5	420.4
30°	531.8	506.3	482.6	459.8	438.5	419.9	403.2	386.9	375.8	363.7	355.8
32.5°	514.2	490.5	461.7	430.6	401.8	380.9	359.1	340.5	322.8	307.0	295.4
35°	502.1	475.6	438.9	400.9	368.3	343.7	320.5	294.0	272.7	252.2	239.7
37.5°	495.6	463.1	418.0	375.8	339.5	311.7	282.9	252.2	226.2	207.2	188.1
40°	490.5	450.6	399.5	353.5	315.4	281.9	248.5	212.3	183.5	163.5	148.6
42.5°	484.9	436.6	383.2	335.8	293.6	254.5	214.1	175.6	148.2	134.2	127.7
45°	478.9	424.5	367.9	319.1	272.2	224.8	178.4	142.6	126.3	121.7	121.7
47.5°	477.5	416.6	356.7	302.8	248.0	190.4	145.4	123.1	118.4	119.4	121.2
50°	483.1	414.3	347.0	283.8	216.0	154.2	123.1	115.7	116.6	119.4	122.2
52.5°	496.5	416.2	336.8	257.3	177.9	127.3	113.8	113.3	116.1	120.3	123.1
55°	519.3	416.2	317.2	217.8	142.1	114.3	110.5	112.4	116.1	119.8	122.2
57.5°	568.1	412.0	282.9	174.2	118.9	109.6	109.6	111.9	115.2	118.9	120.8
60°	626.1	406.4	234.6	134.7	107.3	105.9	109.2	111.9	114.7	118.0	119.8
62.5°	629.8	392.0	185.8	111.5	101.3	103.6	108.7	112.4	113.3	115.7	118.0
65°	578.8	341.9	147.7	99.9	98.5	102.2	107.3	110.1	110.5	111.5	113.8
67.5°	506.8	278.7	119.4	94.3	95.7	99.9	102.7	105.0	106.4	108.7	109.2
70°	416.2	223.9	102.2	88.7	90.1	94.8	97.1	99.4	102.2	105.0	103.6
72.5°	295.0	174.2	89.6	82.7	84.5	88.7	91.5	93.4	95.7	98.5	96.6
75°	125.4	121.7	77.6	74.8	77.6	80.4	83.1	85.9	88.3	89.6	89.6
77.5°	64.1	71.5	66.9	66.9	68.7	71.5	73.9	76.6	78.0	79.4	81.3
80°	54.3	55.3	56.2	58.1	59.9	62.7	65.0	67.4	67.8	68.3	69.2
82.5°	45.1	46.9	47.8	50.6	52.0	53.0	54.3	54.3	55.3	55.3	53.9
85°	32.5	34.8	36.2	36.7	36.2	36.7	37.2	38.1	40.4	40.4	38.6
87.5°	9.3	8.8	11.1	11.6	12.5	14.4	16.3	19.5	20.4	21.4	21.4
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: P152363

CATALOG NUMBER: TLM-F02-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	878.4	878.4	878.4	878.4
2.5°	866.7	867.7	865.8	866.3
5°	853.7	855.6	853.3	856.1
7.5°	837.0	839.8	839.3	838.9
10°	812.9	816.6	816.6	818.0
12.5°	782.2	784.5	786.4	787.3
15°	740.9	745.0	747.4	747.4
17.5°	691.2	693.9	695.3	693.5
20°	628.0	627.1	627.5	622.9
22.5°	555.1	556.5	552.3	553.2
25°	483.5	481.2	483.1	480.3
27.5°	414.3	414.8	409.7	412.0
30°	348.4	346.0	339.5	342.8
32.5°	284.7	278.7	271.7	267.5
35°	224.8	215.5	212.3	210.9
37.5°	176.5	166.3	163.0	159.3
40°	140.3	136.6	135.2	136.1
42.5°	125.9	125.9	126.8	127.3
45°	122.2	123.6	124.9	125.4
47.5°	122.6	124.0	125.9	126.3
50°	123.6	124.9	126.3	126.8
52.5°	124.0	124.0	124.9	125.4
55°	123.1	122.6	123.1	123.6
57.5°	121.2	120.3	120.8	122.2
60°	120.3	118.9	119.8	120.8
62.5°	118.0	117.5	118.4	118.9
65°	112.9	113.3	114.7	114.7
67.5°	108.2	108.7	109.2	109.6
70°	102.7	103.1	104.0	104.5
72.5°	96.1	98.0	99.4	101.3
75°	91.0	92.9	95.7	97.5
77.5°	82.2	83.6	86.9	89.2
80°	69.7	69.2	69.7	71.1
82.5°	53.4	53.4	53.0	52.5
85°	37.6	37.2	35.8	35.8
87.5°	20.4	20.0	19.5	18.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)