

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: P151806

Luminaire Tested: **TLM-F03-LED-E1-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151806
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-F03-LED-E1-SL4-HSS-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5170.9 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

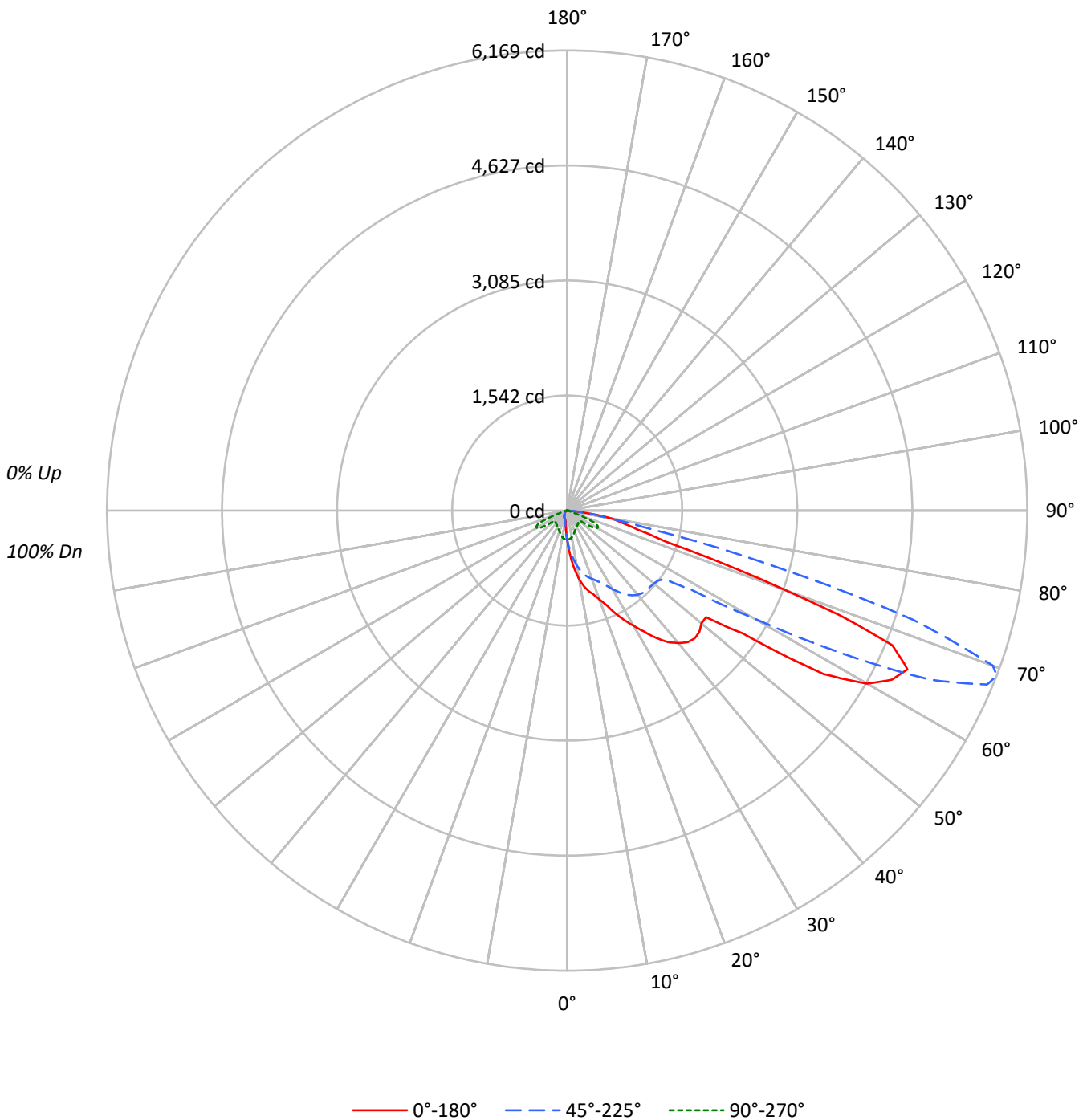
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8407	8407	8407
5°	14371	8292	4411
10°	20461	7924	2833
15°	24881	7288	2567
20°	29031	6793	2328
25°	35936	6499	2052
30°	44345	6359	1748
35°	54808	6299	1469
40°	65201	6405	1357
45°	73704	6680	1391
50°	78755	7348	1276
55°	107621	12716	762
60°	199826	20167	547
65°	256392	21792	520
70°	193594	9013	585
75°	80607	3452	707
80°	73616	3261	942
85°	6496	2939	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	0.8
10°-20°	138.4	2.7
20°-30°	264.9	5.1
30°-40°	440.5	8.5
40°-50°	596.0	11.5
50°-60°	932.1	18.0
60°-70°	1916.4	37.1
70°-80°	771.1	14.9
80°-90°	71.3	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°	443.4	8.6
0°-40°	883.9	17.1
0°-60°	2412.0	46.6
0°-90°	5170.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5170.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	390	390	390	390	390	
5°	665	566	384	244	204	72
15°	1116	885	327	121	115	319
25°	1513	1066	274	97	86	709
35°	2086	1376	240	69	56	1308
45°	2421	1506	219	45	46	1850
55°	2867	1601	339	30	20	2891
65°	5033	5367	428	14	10	4611
75°	969	2826	42	6	8	1299
85°	26	114	12	4	7	163
90°	0	0	0	0	0	



TEST NUMBER: P151806

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5
2.5°	521.0	515.0	508.2	508.2	499.8	499.8	494.7	481.1	479.4	471.8	464.2
5°	665.0	659.9	651.4	643.8	637.0	625.1	616.7	600.6	582.8	565.8	550.6
7.5°	805.6	803.0	787.8	785.2	774.2	754.7	737.8	714.1	683.6	659.9	631.9
10°	936.0	930.1	926.7	912.3	896.2	875.0	848.8	820.0	784.4	747.1	707.3
12.5°	1039.4	1036.0	1020.7	1014.8	997.9	976.7	943.6	906.4	870.8	822.5	775.9
15°	1116.4	1110.5	1100.4	1091.0	1070.7	1052.1	1021.6	980.9	937.7	885.2	829.3
17.5°	1180.8	1169.8	1167.3	1152.9	1131.7	1109.7	1075.8	1038.5	987.7	935.2	874.2
20°	1267.2	1252.0	1246.9	1225.7	1201.2	1170.7	1131.7	1085.1	1031.7	974.1	911.5
22.5°	1368.9	1357.9	1346.9	1328.2	1296.9	1253.7	1196.9	1146.1	1078.3	1014.8	947.0
25°	1512.9	1503.6	1485.8	1460.4	1421.4	1369.7	1301.1	1226.6	1146.9	1065.6	986.0
27.5°	1652.6	1644.2	1631.5	1612.0	1567.9	1511.2	1426.5	1331.6	1230.8	1132.5	1044.4
30°	1783.9	1776.3	1763.6	1744.1	1705.2	1649.3	1553.5	1451.9	1326.5	1212.2	1106.3
32.5°	1925.4	1922.9	1908.5	1880.5	1846.6	1771.2	1667.0	1557.8	1430.7	1298.6	1174.9
35°	2085.5	2066.0	2052.5	2024.5	1966.9	1886.4	1764.5	1645.0	1511.2	1375.7	1237.6
37.5°	2221.0	2202.4	2185.5	2149.9	2079.6	1977.1	1839.0	1707.7	1569.6	1431.6	1290.9
40°	2320.1	2310.8	2290.5	2243.9	2165.1	2043.1	1894.1	1750.9	1612.0	1473.1	1334.1
42.5°	2393.8	2379.4	2356.6	2308.3	2215.1	2076.2	1916.1	1768.7	1631.5	1498.5	1362.1
45°	2420.9	2409.1	2387.9	2335.4	2234.6	2085.5	1915.2	1763.6	1632.3	1506.1	1380.7
47.5°	2404.8	2393.0	2374.4	2325.2	2226.1	2074.5	1900.0	1749.2	1623.8	1508.6	1397.7
50°	2351.5	2344.7	2330.3	2288.8	2199.9	2053.3	1886.4	1741.6	1622.1	1521.3	1421.4
52.5°	2346.4	2342.2	2324.4	2282.9	2192.2	2046.5	1884.7	1745.8	1636.6	1537.4	1438.3
55°	2867.4	2807.2	2672.5	2558.2	2370.1	2146.5	1970.3	1814.4	1697.5	1601.0	1531.5
57.5°	4075.3	3985.5	3808.5	3590.8	3158.7	2734.4	2394.7	2149.0	2027.9	1983.9	2010.1
60°	4641.1	4625.0	4597.1	4493.7	4272.6	3907.6	3501.0	3061.3	2885.1	2869.9	2923.3
62.5°	4909.7	4899.5	4908.0	4895.2	4826.6	4719.9	4603.0	4413.3	4238.8	4126.1	3887.2
65°	5033.3	5040.1	5088.4	5126.5	5135.0	5162.9	5248.5	5484.8	5657.6	5367.1	4703.8
67.5°	4719.1	4758.9	4869.8	5008.8	5171.4	5329.0	5583.1	6081.2	6436.1	6094.7	5152.8
69°	3906.7	3926.2	4197.3	4459.0	4856.3	5134.1	5502.6	6155.7	6554.7	6169.3	5117.2
70°	3075.7	3093.5	3384.1	3739.8	4411.6	4769.0	5251.0	6029.5	6443.7	6070.1	4934.2
72.5°	1387.5	1362.1	1464.6	1655.2	2385.4	2952.9	3795.7	4885.1	5316.2	4863.1	3691.6
75°	969.1	958.0	969.1	969.9	1083.4	1397.7	1763.6	2648.0	3274.8	2825.8	1763.6
77.5°	750.5	742.9	735.3	726.8	740.3	829.3	864.9	939.4	1219.8	1153.7	672.6
80°	593.8	587.0	605.7	599.7	599.7	609.9	603.1	575.2	522.6	484.5	433.7
82.5°	276.1	277.8	277.8	301.6	363.4	424.4	443.9	415.9	369.3	314.3	253.3
85°	26.3	29.6	50.0	77.1	153.3	172.8	173.7	144.0	144.0	113.5	91.5
87.5°	0.0	0.8	0.8	0.8	7.6	21.2	17.8	5.1	2.5	2.5	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



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CATALOG NUMBER: TLM-F03-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5
2.5°	450.6	448.1	437.9	427.8	418.5	408.3	399.0	389.7	379.5	371.9	362.5
5°	526.9	508.2	487.1	466.7	446.4	425.2	403.2	383.7	363.4	344.8	327.0
7.5°	604.0	567.5	538.7	502.3	469.3	436.2	405.7	374.4	345.6	318.5	293.1
10°	669.2	625.1	580.2	533.7	486.2	442.2	399.8	362.5	324.4	291.4	260.1
12.5°	722.6	666.6	611.6	553.1	499.8	443.9	391.3	346.5	301.6	264.3	232.1
15°	770.8	706.5	640.4	572.6	504.9	441.3	382.9	327.0	281.2	238.9	202.5
17.5°	809.8	736.1	661.6	585.3	512.5	437.9	371.9	313.4	260.1	216.0	180.4
20°	843.7	766.6	686.1	600.6	517.6	437.1	362.5	296.5	241.4	194.8	160.1
22.5°	875.0	797.9	711.5	620.1	525.2	436.2	354.1	283.8	225.3	178.7	144.0
25°	910.6	829.3	738.6	640.4	538.7	439.6	349.0	273.6	210.9	163.5	131.3
27.5°	950.4	864.9	770.8	665.8	556.5	446.4	347.3	262.6	198.2	149.1	121.1
30°	1006.3	907.2	803.0	691.2	572.6	454.0	345.6	255.8	185.5	138.1	111.0
32.5°	1055.5	948.7	838.6	717.5	590.4	461.7	344.8	246.5	173.7	127.1	103.3
35°	1107.1	986.8	869.1	742.9	605.7	470.1	343.9	239.7	162.6	116.0	95.7
37.5°	1152.0	1019.0	892.8	764.9	622.6	477.8	344.8	233.8	152.5	106.7	88.9
40°	1190.1	1052.1	919.1	785.2	640.4	489.6	345.6	227.9	142.3	98.3	83.0
42.5°	1224.0	1083.4	947.0	808.1	660.7	503.2	350.7	222.8	133.8	90.6	77.1
45°	1250.3	1112.2	977.5	840.3	693.8	525.2	360.0	219.4	125.4	83.9	72.0
47.5°	1277.4	1154.6	1029.2	891.1	742.0	559.9	376.1	218.5	118.6	78.8	67.8
50°	1314.7	1196.9	1074.9	942.8	786.1	595.5	395.6	219.4	110.1	73.7	63.5
52.5°	1341.8	1240.1	1134.2	1032.6	891.1	703.9	471.0	234.6	105.9	69.5	58.4
55°	1501.9	1484.1	1486.6	1503.6	1394.3	1197.8	787.8	338.8	124.5	78.8	57.6
57.5°	2117.7	2180.4	2216.8	2215.9	2035.5	1688.2	1058.0	435.4	138.9	91.5	68.6
60°	2927.5	2880.1	2813.1	2648.0	2408.2	1927.1	1183.4	468.4	120.3	72.8	62.7
62.5°	3643.3	3365.4	3118.9	2851.3	2537.0	2010.1	1208.8	465.9	105.0	55.1	44.0
65°	4089.7	3589.9	3191.8	2856.3	2486.2	1940.7	1143.6	427.8	88.9	44.9	36.4
67.5°	4196.4	3468.8	2905.5	2477.7	2077.0	1510.3	839.5	321.9	69.5	37.3	32.2
69°	3963.5	3083.4	2407.4	1922.0	1511.2	1002.1	519.3	203.3	53.4	33.9	29.6
70°	3645.8	2681.8	1961.0	1542.5	1119.0	703.9	363.4	143.2	43.2	31.3	27.1
72.5°	2345.6	1408.7	964.0	670.9	461.7	280.4	142.3	64.4	33.0	26.3	22.0
75°	909.8	521.0	377.8	287.2	224.5	155.9	86.4	41.5	28.0	22.0	16.9
77.5°	448.1	343.1	280.4	192.3	111.8	69.5	46.6	32.2	22.9	16.1	11.0
80°	354.1	235.5	140.6	87.2	66.1	50.0	35.6	26.3	16.9	10.2	7.6
82.5°	181.3	99.1	72.8	59.3	49.1	39.0	28.8	18.6	11.0	6.8	5.9
85°	56.8	41.5	37.3	36.4	33.9	28.0	20.3	11.9	6.8	4.2	4.2
87.5°	4.2	5.9	7.6	5.9	6.8	5.9	7.6	5.1	3.4	3.4	2.5
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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CATALOG NUMBER: TLM-F03-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5	390.5
2.5°	355.8	345.6	336.3	330.4	319.3	315.1	310.9	309.2	301.6	303.3	296.5
5°	310.9	293.1	279.5	266.0	253.3	244.0	236.3	227.0	219.4	216.0	209.2
7.5°	270.2	247.3	229.6	215.2	199.9	188.1	177.9	171.1	164.3	157.6	154.2
10°	234.6	210.1	189.7	175.3	160.9	150.8	143.2	138.1	133.8	131.3	130.4
12.5°	201.6	177.9	159.3	146.5	135.5	130.4	127.1	124.5	123.7	122.8	122.8
15°	176.2	152.5	138.1	128.8	123.7	121.1	120.3	118.6	116.9	116.0	116.0
17.5°	152.5	134.7	124.5	119.4	116.9	115.2	113.5	111.8	110.1	109.3	109.3
20°	136.4	122.0	116.9	113.5	111.0	109.3	106.7	105.0	104.2	103.3	102.5
22.5°	123.7	114.4	111.0	108.4	105.0	102.5	100.8	99.1	97.4	96.6	95.7
25°	114.4	108.4	105.9	102.5	99.1	96.6	94.0	91.5	89.8	88.9	87.2
27.5°	107.6	103.3	100.0	95.7	92.3	89.8	87.2	84.7	83.0	81.3	80.5
30°	101.6	97.4	93.2	89.8	85.6	83.0	79.6	77.1	76.2	74.5	72.8
32.5°	95.7	91.5	87.2	83.0	78.8	75.4	73.7	70.3	68.6	67.8	66.1
35°	88.9	84.7	79.6	76.2	72.0	68.6	66.1	63.5	61.8	60.1	59.3
37.5°	83.0	77.9	72.8	68.6	65.2	61.8	59.3	56.8	55.1	53.4	52.5
40°	76.2	71.2	66.1	61.8	58.4	55.9	53.4	50.8	49.1	48.3	48.3
42.5°	70.3	64.4	59.3	55.9	53.4	50.0	47.4	44.9	44.0	43.2	44.0
45°	64.4	58.4	54.2	50.8	48.3	44.9	42.4	40.7	39.8	40.7	41.5
47.5°	59.3	53.4	49.1	46.6	44.0	41.5	39.0	37.3	37.3	39.0	40.7
50°	54.2	48.3	44.9	43.2	40.7	38.1	34.7	33.9	34.7	36.4	38.1
52.5°	49.1	42.4	39.8	39.0	36.4	33.9	31.3	30.5	31.3	33.0	32.2
55°	44.0	37.3	36.4	35.6	33.0	29.6	27.1	27.1	27.1	26.3	24.6
57.5°	42.4	33.0	32.2	31.3	28.8	25.4	23.7	22.0	21.2	18.6	17.8
60°	44.0	29.6	29.6	28.0	25.4	22.0	19.5	16.9	15.2	13.6	13.6
62.5°	35.6	27.1	26.3	24.6	21.2	17.8	15.2	12.7	11.9	11.0	11.0
65°	28.8	24.6	22.9	20.3	17.8	14.4	11.9	10.2	9.3	9.3	10.2
67.5°	26.3	22.0	19.5	16.9	14.4	11.0	9.3	8.5	8.5	9.3	9.3
69°	24.6	20.3	17.8	15.2	12.7	10.2	8.5	8.5	8.5	8.5	9.3
70°	22.9	19.5	16.9	14.4	11.0	8.5	7.6	7.6	8.5	8.5	9.3
72.5°	17.8	15.2	14.4	11.9	8.5	7.6	6.8	7.6	7.6	8.5	8.5
75°	13.6	11.0	11.0	9.3	6.8	5.9	5.9	6.8	6.8	7.6	7.6
77.5°	9.3	7.6	7.6	6.8	5.9	5.1	5.1	5.9	6.8	6.8	7.6
80°	6.8	5.9	5.1	5.9	5.1	4.2	5.1	5.9	5.9	6.8	6.8
82.5°	5.1	5.1	5.1	5.1	4.2	4.2	5.1	5.1	5.9	6.8	6.8
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5.1	5.1	5.9	5.9
87.5°	2.5	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2	5.1	5.1
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: P151806

CATALOG NUMBER: TLM-F03-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	390.5	390.5	390.5	390.5
2.5°	294.8	293.9	290.5	291.4
5°	206.7	201.6	205.0	204.1
7.5°	151.6	150.8	149.9	151.6
10°	129.6	129.6	128.8	129.6
12.5°	122.0	122.0	122.0	122.0
15°	116.0	116.0	115.2	115.2
17.5°	109.3	109.3	109.3	108.4
20°	102.5	101.6	101.6	101.6
22.5°	94.9	94.0	94.0	94.0
25°	87.2	86.4	86.4	86.4
27.5°	79.6	78.8	77.9	77.9
30°	72.0	71.2	70.3	70.3
32.5°	64.4	63.5	62.7	62.7
35°	57.6	57.6	56.8	55.9
37.5°	51.7	51.7	51.7	51.7
40°	47.4	48.3	48.3	48.3
42.5°	44.9	45.7	46.6	47.4
45°	43.2	44.9	45.7	45.7
47.5°	42.4	43.2	44.0	44.0
50°	39.0	38.1	38.1	38.1
52.5°	31.3	29.6	28.8	28.0
55°	22.9	22.0	20.3	20.3
57.5°	16.1	16.1	15.2	15.2
60°	12.7	12.7	11.9	12.7
62.5°	11.0	11.0	11.0	11.0
65°	10.2	10.2	10.2	10.2
67.5°	10.2	10.2	10.2	10.2
69°	9.3	9.3	9.3	9.3
70°	9.3	9.3	9.3	9.3
72.5°	8.5	8.5	8.5	8.5
75°	7.6	8.5	8.5	8.5
77.5°	7.6	7.6	7.6	7.6
80°	6.8	6.8	7.6	7.6
82.5°	6.8	6.8	6.8	6.8
85°	5.9	5.9	6.8	6.8
87.5°	5.1	5.1	5.9	5.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)