

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: P151826

Luminaire Tested: **TLM-F05-LED-E1-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151826
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-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8618.2 lumens
Efficiency: N/A
Efficacy: 64.7 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

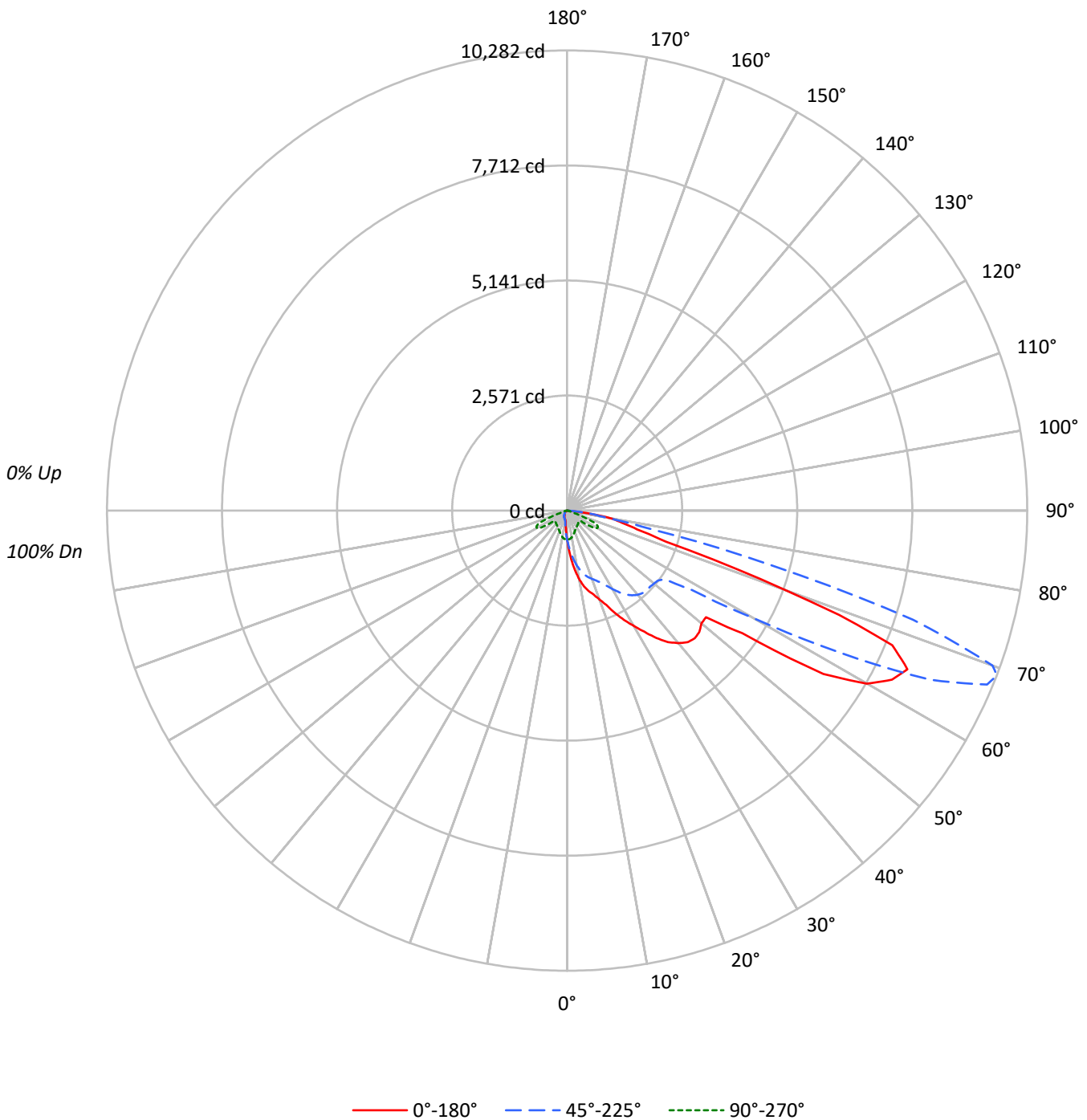
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8440	8440	8440
5°	14428	8325	4429
10°	20543	7956	2844
15°	24982	7317	2578
20°	29147	6819	2338
25°	36081	6525	2061
30°	44523	6385	1755
35°	55028	6325	1476
40°	65464	6430	1363
45°	74001	6707	1398
50°	79070	7378	1281
55°	108051	12768	766
60°	200629	20249	550
65°	257424	21879	519
70°	194373	9047	588
75°	80927	3467	707
80°	73914	3271	948
85°	6517	2946	1681



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	0.8
10°-20°	230.6	2.7
20°-30°	441.4	5.1
30°-40°	734.1	8.5
40°-50°	993.4	11.5
50°-60°	1553.5	18.0
60°-70°	3194.0	37.1
70°-80°	1285.2	14.9
80°-90°	118.9	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°	739.0	8.6
0°-40°	1473.1	17.1
0°-60°	4020.0	46.6
0°-90°	8618.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8618.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	651	651	651	651	651	
5°	1108	943	640	407	340	119
15°	1861	1475	545	202	192	532
25°	2522	1776	456	161	144	1181
35°	3476	2293	400	114	93	2180
45°	4035	2510	366	75	76	3084
55°	4779	2668	565	49	34	4819
65°	8389	8945	713	24	17	7685
75°	1615	4710	69	10	14	2165
85°	44	189	20	7	11	271
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°	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8
2.5°	868.3	858.4	847.1	847.1	833.0	833.0	824.5	801.9	799.1	786.4	773.7
5°	1108.3	1099.8	1085.7	1073.0	1061.7	1041.9	1027.8	1001.0	971.3	943.1	917.7
7.5°	1342.6	1338.4	1313.0	1308.7	1290.4	1257.9	1229.7	1190.1	1139.3	1099.8	1053.2
10°	1560.0	1550.1	1544.5	1520.5	1493.7	1458.4	1414.6	1366.6	1307.3	1245.2	1178.8
12.5°	1732.3	1726.6	1701.2	1691.3	1663.1	1627.8	1572.7	1510.6	1451.3	1370.9	1293.2
15°	1860.7	1850.9	1833.9	1818.4	1784.5	1753.4	1702.6	1634.9	1562.9	1475.3	1382.1
17.5°	1968.0	1949.7	1945.5	1921.4	1886.2	1849.4	1793.0	1730.9	1646.2	1558.6	1457.0
20°	2112.0	2086.6	2078.2	2042.9	2001.9	1951.1	1886.2	1808.5	1719.6	1623.6	1519.1
22.5°	2281.5	2263.1	2244.8	2213.7	2161.5	2089.5	1994.9	1910.2	1797.2	1691.3	1578.4
25°	2521.5	2505.9	2476.3	2433.9	2369.0	2282.9	2168.5	2044.3	1911.6	1776.0	1643.3
27.5°	2754.4	2740.3	2719.1	2686.6	2613.2	2518.6	2377.5	2219.3	2051.3	1887.6	1740.7
30°	2973.2	2960.5	2939.4	2906.9	2841.9	2748.8	2589.2	2419.8	2210.9	2020.3	1843.8
32.5°	3209.0	3204.8	3180.8	3134.2	3077.7	2952.1	2778.4	2596.3	2384.5	2164.3	1958.2
35°	3475.8	3443.4	3420.8	3374.2	3278.2	3144.1	2940.8	2741.7	2518.6	2292.8	2062.6
37.5°	3701.7	3670.7	3642.4	3583.1	3466.0	3295.1	3065.0	2846.2	2616.1	2385.9	2151.6
40°	3866.9	3851.4	3817.5	3739.8	3608.5	3405.2	3156.8	2918.2	2686.6	2455.1	2223.6
42.5°	3989.7	3965.7	3927.6	3847.1	3691.8	3460.3	3193.5	2947.8	2719.1	2497.5	2270.2
45°	4034.9	4015.1	3979.8	3892.3	3724.3	3475.8	3192.1	2939.4	2720.5	2510.2	2301.2
47.5°	4008.1	3988.3	3957.3	3875.4	3710.2	3457.5	3166.7	2915.4	2706.4	2514.4	2329.5
50°	3919.1	3907.8	3883.8	3814.7	3666.4	3422.2	3144.1	2902.6	2703.6	2535.6	2369.0
52.5°	3910.7	3903.6	3874.0	3804.8	3653.7	3410.9	3141.2	2909.7	2727.6	2562.4	2397.2
55°	4778.9	4678.7	4454.2	4263.6	3950.2	3577.5	3283.8	3024.1	2829.2	2668.3	2552.5
57.5°	6792.1	6642.5	6347.4	5984.6	5264.6	4557.3	3991.1	3581.7	3379.8	3306.4	3350.2
60°	7735.2	7708.4	7661.8	7489.6	7121.1	6512.6	5834.9	5102.2	4808.6	4783.2	4872.1
62.5°	8182.8	8165.8	8179.9	8158.7	8044.4	7866.5	7671.7	7355.4	7064.6	6876.8	6478.7
65°	8388.9	8400.2	8480.6	8544.2	8558.3	8604.9	8747.5	9141.4	9429.4	8945.1	7839.7
67.5°	7865.1	7931.5	8116.4	8347.9	8619.0	8881.6	9305.1	10135.3	10726.8	10157.8	8587.9
69°	6511.2	6543.7	6995.4	7431.7	8093.8	8556.9	9171.0	10259.5	10924.5	10282.1	8528.6
70°	5126.2	5155.9	5640.1	6233.1	7352.6	7948.4	8751.7	10049.1	10739.5	10116.9	8223.7
72.5°	2312.5	2270.2	2441.0	2758.6	3975.6	4921.5	6326.2	8141.8	8860.4	8105.1	6152.6
75°	1615.1	1596.7	1615.1	1616.5	1805.7	2329.5	2939.4	4413.3	5458.0	4709.7	2939.4
77.5°	1250.8	1238.1	1225.4	1211.3	1233.9	1382.1	1441.4	1565.7	2033.0	1922.9	1121.0
80°	989.7	978.4	1009.4	999.5	999.5	1016.5	1005.2	958.6	871.1	807.5	722.8
82.5°	460.2	463.1	463.1	502.6	605.7	707.3	739.8	693.2	615.5	523.8	422.1
85°	43.8	49.4	83.3	128.5	255.5	288.0	289.4	240.0	240.0	189.2	152.5
87.5°	0.0	1.4	1.4	1.4	12.7	35.3	29.6	8.5	4.2	4.2	7.1
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°	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8
2.5°	751.1	746.8	729.9	713.0	697.4	680.5	665.0	649.4	632.5	619.8	604.2
5°	878.1	847.1	811.8	777.9	744.0	708.7	672.0	639.5	605.7	574.6	545.0
7.5°	1006.6	945.9	897.9	837.2	782.1	727.1	676.2	624.0	576.0	530.8	488.5
10°	1115.3	1041.9	967.1	889.4	810.4	737.0	666.4	604.2	540.7	485.7	433.4
12.5°	1204.3	1111.1	1019.3	921.9	833.0	739.8	652.2	577.4	502.6	440.5	386.8
15°	1284.7	1177.4	1067.3	954.4	841.4	735.5	638.1	545.0	468.7	398.1	337.4
17.5°	1349.7	1226.8	1102.6	975.5	854.1	729.9	619.8	522.4	433.4	360.0	300.7
20°	1406.1	1277.7	1143.6	1001.0	862.6	728.5	604.2	494.1	402.4	324.7	266.8
22.5°	1458.4	1329.9	1185.9	1033.4	875.3	727.1	590.1	473.0	375.5	297.9	240.0
25°	1517.7	1382.1	1231.1	1067.3	897.9	732.7	581.7	456.0	351.5	272.5	218.8
27.5°	1584.0	1441.4	1284.7	1109.7	927.5	744.0	578.8	437.7	330.4	248.5	201.9
30°	1677.2	1512.0	1338.4	1152.0	954.4	756.7	576.0	426.4	309.2	230.1	184.9
32.5°	1759.1	1581.2	1397.7	1195.8	984.0	769.4	574.6	410.8	289.4	211.8	172.2
35°	1845.2	1644.7	1448.5	1238.1	1009.4	783.5	573.2	399.5	271.1	193.4	159.5
37.5°	1920.0	1698.4	1488.0	1274.8	1037.7	796.3	574.6	389.7	254.1	177.9	148.2
40°	1983.6	1753.4	1531.8	1308.7	1067.3	816.0	576.0	379.8	237.2	163.8	138.4
42.5°	2040.0	1805.7	1578.4	1346.9	1101.2	838.6	584.5	371.3	223.1	151.1	128.5
45°	2083.8	1853.7	1629.2	1400.5	1156.3	875.3	600.0	365.7	208.9	139.8	120.0
47.5°	2129.0	1924.3	1715.3	1485.2	1236.7	933.2	626.8	364.2	197.7	131.3	112.9
50°	2191.1	1994.9	1791.6	1571.3	1310.1	992.5	659.3	365.7	183.5	122.8	105.9
52.5°	2236.3	2066.9	1890.4	1721.0	1485.2	1173.2	785.0	391.1	176.5	115.8	97.4
55°	2503.1	2473.5	2477.7	2505.9	2323.8	1996.3	1313.0	564.7	207.5	131.3	96.0
57.5°	3529.5	3634.0	3694.7	3693.2	3392.5	2813.7	1763.3	725.7	231.5	152.5	114.4
60°	4879.2	4800.1	4688.6	4413.3	4013.7	3211.8	1972.3	780.7	200.5	121.4	104.5
62.5°	6072.1	5609.1	5198.2	4752.1	4228.3	3350.2	2014.6	776.5	175.1	91.8	73.4
65°	6816.1	5983.2	5319.6	4760.6	4143.6	3234.4	1905.9	713.0	148.2	74.8	60.7
67.5°	6994.0	5781.3	4842.4	4129.5	3461.7	2517.2	1399.1	536.5	115.8	62.1	53.6
69°	6605.8	5138.9	4012.3	3203.4	2518.6	1670.2	865.4	338.8	88.9	56.5	49.4
70°	6076.4	4469.7	3268.3	2570.9	1865.0	1173.2	605.7	238.6	72.0	52.2	45.2
72.5°	3909.3	2347.8	1606.6	1118.1	769.4	467.3	237.2	107.3	55.1	43.8	36.7
75°	1516.3	868.3	629.7	478.6	374.1	259.8	144.0	69.2	46.6	36.7	28.2
77.5°	746.8	571.8	467.3	320.5	186.4	115.8	77.6	53.6	38.1	26.8	18.4
80°	590.1	392.5	234.4	145.4	110.1	83.3	59.3	43.8	28.2	16.9	12.7
82.5°	302.1	165.2	121.4	98.8	81.9	64.9	48.0	31.1	18.4	11.3	9.9
85°	94.6	69.2	62.1	60.7	56.5	46.6	33.9	19.8	11.3	7.1	7.1
87.5°	7.1	9.9	12.7	9.9	11.3	9.9	12.7	8.5	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8	650.8
2.5°	593.0	576.0	560.5	550.6	532.2	525.2	518.1	515.3	502.6	505.4	494.1
5°	518.1	488.5	465.9	443.3	422.1	406.6	393.9	378.4	365.7	360.0	348.7
7.5°	450.4	412.2	382.6	358.6	333.2	313.4	296.5	285.2	273.9	262.6	256.9
10°	391.1	350.1	316.2	292.2	268.2	251.3	238.6	230.1	223.1	218.8	217.4
12.5°	336.0	296.5	265.4	244.2	225.9	217.4	211.8	207.5	206.1	204.7	204.7
15°	293.7	254.1	230.1	214.6	206.1	201.9	200.5	197.7	194.8	193.4	193.4
17.5°	254.1	224.5	207.5	199.1	194.8	192.0	189.2	186.4	183.5	182.1	182.1
20°	227.3	203.3	194.8	189.2	184.9	182.1	177.9	175.1	173.7	172.2	170.8
22.5°	206.1	190.6	184.9	180.7	175.1	170.8	168.0	165.2	162.4	160.9	159.5
25°	190.6	180.7	176.5	170.8	165.2	160.9	156.7	152.5	149.7	148.2	145.4
27.5°	179.3	172.2	166.6	159.5	153.9	149.7	145.4	141.2	138.4	135.5	134.1
30°	169.4	162.4	155.3	149.7	142.6	138.4	132.7	128.5	127.1	124.2	121.4
32.5°	159.5	152.5	145.4	138.4	131.3	125.6	122.8	117.2	114.4	112.9	110.1
35°	148.2	141.2	132.7	127.1	120.0	114.4	110.1	105.9	103.1	100.2	98.8
37.5°	138.4	129.9	121.4	114.4	108.7	103.1	98.8	94.6	91.8	88.9	87.5
40°	127.1	118.6	110.1	103.1	97.4	93.2	88.9	84.7	81.9	80.5	80.5
42.5°	117.2	107.3	98.8	93.2	88.9	83.3	79.1	74.8	73.4	72.0	73.4
45°	107.3	97.4	90.4	84.7	80.5	74.8	70.6	67.8	66.4	67.8	69.2
47.5°	98.8	88.9	81.9	77.6	73.4	69.2	64.9	62.1	62.1	64.9	67.8
50°	90.4	80.5	74.8	72.0	67.8	63.5	57.9	56.5	57.9	60.7	63.5
52.5°	81.9	70.6	66.4	64.9	60.7	56.5	52.2	50.8	52.2	55.1	53.6
55°	73.4	62.1	60.7	59.3	55.1	49.4	45.2	45.2	45.2	43.8	40.9
57.5°	70.6	55.1	53.6	52.2	48.0	42.4	39.5	36.7	35.3	31.1	29.6
60°	73.4	49.4	49.4	46.6	42.4	36.7	32.5	28.2	25.4	22.6	22.6
62.5°	59.3	45.2	43.8	40.9	35.3	29.6	25.4	21.2	19.8	18.4	18.4
65°	48.0	40.9	38.1	33.9	29.6	24.0	19.8	16.9	15.5	15.5	16.9
67.5°	43.8	36.7	32.5	28.2	24.0	18.4	15.5	14.1	14.1	15.5	15.5
69°	40.9	33.9	29.6	25.4	21.2	16.9	14.1	14.1	14.1	14.1	15.5
70°	38.1	32.5	28.2	24.0	18.4	14.1	12.7	12.7	14.1	14.1	15.5
72.5°	29.6	25.4	24.0	19.8	14.1	12.7	11.3	12.7	12.7	14.1	14.1
75°	22.6	18.4	18.4	15.5	11.3	9.9	9.9	11.3	11.3	12.7	12.7
77.5°	15.5	12.7	12.7	11.3	9.9	8.5	8.5	9.9	11.3	11.3	12.7
80°	11.3	9.9	8.5	9.9	8.5	7.1	8.5	9.9	9.9	11.3	11.3
82.5°	8.5	8.5	8.5	8.5	7.1	7.1	8.5	8.5	9.9	11.3	11.3
85°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	8.5	8.5	9.9	9.9
87.5°	4.2	4.2	4.2	5.6	5.6	7.1	7.1	7.1	7.1	8.5	8.5
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: P151826

CATALOG NUMBER: TLM-F05-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	650.8	650.8	650.8	650.8
2.5°	491.3	489.9	484.2	485.7
5°	344.5	336.0	341.7	340.2
7.5°	252.7	251.3	249.9	252.7
10°	216.0	216.0	214.6	216.0
12.5°	203.3	203.3	203.3	203.3
15°	193.4	193.4	192.0	192.0
17.5°	182.1	182.1	182.1	180.7
20°	170.8	169.4	169.4	169.4
22.5°	158.1	156.7	156.7	156.7
25°	145.4	144.0	144.0	144.0
27.5°	132.7	131.3	129.9	129.9
30°	120.0	118.6	117.2	117.2
32.5°	107.3	105.9	104.5	104.5
35°	96.0	96.0	94.6	93.2
37.5°	86.1	86.1	86.1	86.1
40°	79.1	80.5	80.5	80.5
42.5°	74.8	76.2	77.6	79.1
45°	72.0	74.8	76.2	76.2
47.5°	70.6	72.0	73.4	73.4
50°	64.9	63.5	63.5	63.5
52.5°	52.2	49.4	48.0	46.6
55°	38.1	36.7	33.9	33.9
57.5°	26.8	26.8	25.4	25.4
60°	21.2	21.2	19.8	21.2
62.5°	18.4	18.4	18.4	18.4
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°	9.9	9.9	11.3	11.3
87.5°	8.5	8.5	9.9	9.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)