

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: P151825

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151825
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8398.9 lumens
Efficiency: N/A
Efficacy: 63.0 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

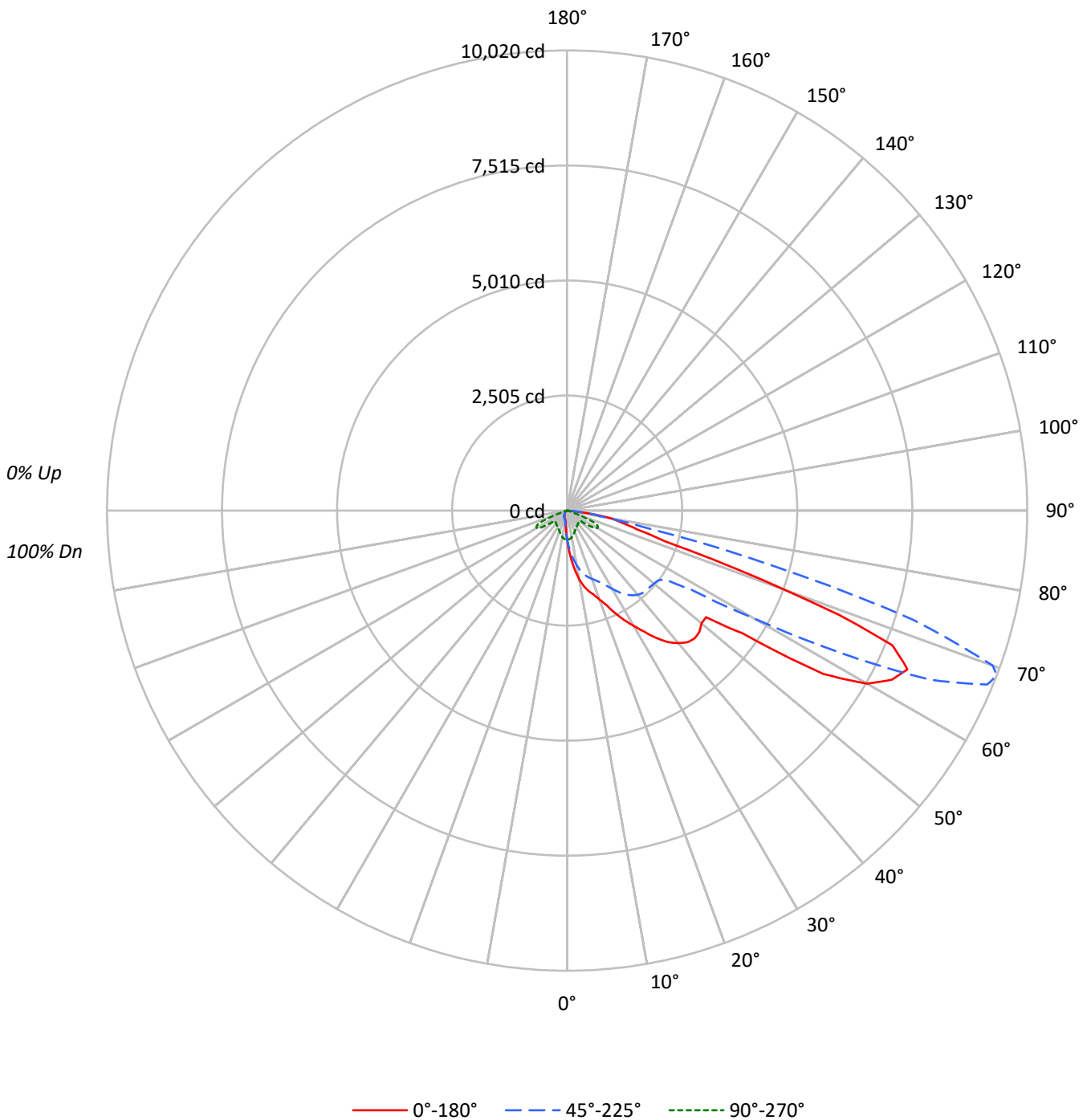
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8226	8226	8226
5°	14061	8114	4317
10°	20020	7755	2772
15°	24347	7131	2512
20°	28406	6646	2279
25°	35162	6359	2008
30°	43391	6222	1710
35°	53628	6165	1438
40°	63798	6266	1327
45°	72120	6536	1363
50°	77058	7191	1249
55°	105302	12442	746
60°	195525	19736	534
65°	250872	21321	506
70°	189429	8816	573
75°	78868	3377	691
80°	72032	3189	926
85°	6354	2872	1637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.2	0.8
10°-20°	224.8	2.7
20°-30°	430.2	5.1
30°-40°	715.4	8.5
40°-50°	968.1	11.5
50°-60°	1514.0	18.0
60°-70°	3112.8	37.1
70°-80°	1252.5	14.9
80°-90°	115.9	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°	720.2	8.6
0°-40°	1435.6	17.1
0°-60°	3917.7	46.6
0°-90°	8398.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8398.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	634	634	634	634	634	
5°	1080	919	623	396	332	116
15°	1813	1438	531	197	187	518
25°	2457	1731	444	157	140	1151
35°	3387	2234	389	111	91	2124
45°	3932	2446	356	73	74	3005
55°	4657	2600	550	48	33	4696
65°	8175	8718	695	23	16	7490
75°	1574	4590	67	10	14	2110
85°	43	184	19	7	11	264
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°	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
2.5°	846.2	836.5	825.5	825.5	811.8	811.8	803.5	781.5	778.7	766.4	754.0
5°	1080.1	1071.8	1058.0	1045.7	1034.7	1015.4	1001.6	975.5	946.6	919.1	894.3
7.5°	1308.5	1304.3	1279.6	1275.4	1257.5	1225.9	1198.4	1159.9	1110.3	1071.8	1026.4
10°	1520.3	1510.7	1505.2	1481.8	1455.7	1421.3	1378.6	1331.8	1274.1	1213.5	1148.9
12.5°	1688.2	1682.7	1657.9	1648.3	1620.8	1586.4	1532.7	1472.2	1414.4	1336.0	1260.3
15°	1813.4	1803.8	1787.3	1772.1	1739.1	1708.8	1659.3	1593.3	1523.1	1437.8	1347.0
17.5°	1918.0	1900.1	1896.0	1872.6	1838.2	1802.4	1747.4	1686.8	1604.3	1519.0	1419.9
20°	2058.3	2033.5	2025.3	1990.9	1951.0	1901.5	1838.2	1762.5	1675.8	1582.3	1480.4
22.5°	2223.4	2205.5	2187.6	2157.4	2106.5	2036.3	1944.1	1861.6	1751.5	1648.3	1538.2
25°	2457.3	2442.2	2413.3	2372.0	2308.7	2224.8	2113.3	1992.3	1862.9	1730.9	1601.5
27.5°	2684.3	2670.6	2649.9	2618.3	2546.7	2454.6	2317.0	2162.9	1999.1	1839.5	1696.5
30°	2897.6	2885.2	2864.6	2832.9	2769.6	2678.8	2523.4	2358.2	2154.6	1968.9	1796.9
32.5°	3127.4	3123.2	3099.8	3054.4	2999.4	2877.0	2707.7	2530.2	2323.9	2109.2	1908.3
35°	3387.4	3355.8	3333.7	3288.3	3194.8	3064.1	2865.9	2671.9	2454.6	2234.4	2010.2
37.5°	3607.5	3577.3	3549.8	3492.0	3377.8	3211.3	2987.0	2773.8	2549.5	2325.2	2096.8
40°	3768.5	3753.4	3720.4	3644.7	3516.7	3318.6	3076.5	2843.9	2618.3	2392.6	2167.0
42.5°	3888.2	3864.8	3827.7	3749.3	3597.9	3372.3	3112.2	2872.8	2649.9	2433.9	2212.4
45°	3932.3	3913.0	3878.6	3793.3	3629.6	3387.4	3110.9	2864.6	2651.3	2446.3	2242.7
47.5°	3906.1	3886.8	3856.6	3776.8	3615.8	3369.5	3086.1	2841.2	2637.6	2450.4	2270.2
50°	3819.4	3808.4	3785.0	3717.6	3573.1	3335.1	3064.1	2828.8	2634.8	2471.1	2308.7
52.5°	3811.2	3804.3	3775.4	3708.0	3560.8	3324.1	3061.3	2835.7	2658.2	2497.2	2336.2
55°	4657.3	4559.6	4340.9	4155.1	3849.7	3486.5	3200.3	2947.1	2757.3	2600.4	2487.6
57.5°	6619.3	6473.5	6185.9	5832.3	5130.6	4441.3	3889.6	3490.6	3293.8	3222.3	3265.0
60°	7538.4	7512.3	7466.9	7299.0	6939.9	6346.9	5686.5	4972.4	4686.2	4661.5	4748.1
62.5°	7974.6	7958.1	7971.8	7951.2	7839.7	7666.4	7476.5	7168.3	6884.9	6701.9	6313.9
65°	8175.4	8186.5	8264.9	8326.8	8340.6	8386.0	8524.9	8908.8	9189.5	8717.5	7640.2
67.5°	7665.0	7729.7	7909.9	8135.5	8399.7	8655.6	9068.4	9877.4	10453.9	9899.4	8369.4
69°	6345.5	6377.2	6817.5	7242.6	7887.9	8339.2	8937.7	9998.5	10646.5	10020.5	8311.7
70°	4995.8	5024.7	5496.6	6074.5	7165.6	7746.2	8529.0	9793.5	10466.3	9859.5	8014.5
72.5°	2253.7	2212.4	2378.9	2688.5	3874.5	4796.3	6165.3	7934.7	8635.0	7898.9	5996.1
75°	1574.0	1556.1	1574.0	1575.4	1759.7	2270.2	2864.6	4301.0	5319.1	4589.9	2864.6
77.5°	1219.0	1206.6	1194.3	1180.5	1202.5	1347.0	1404.8	1525.8	1981.3	1873.9	1092.4
80°	964.5	953.5	983.8	974.1	974.1	990.6	979.6	934.2	848.9	787.0	704.4
82.5°	448.5	451.3	451.3	489.8	590.3	689.3	721.0	675.6	599.9	510.4	411.4
85°	42.7	48.2	81.2	125.2	249.0	280.7	282.1	233.9	233.9	184.4	148.6
87.5°	0.0	1.4	1.4	1.4	12.4	34.4	28.9	8.3	4.1	4.1	6.9
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°	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
2.5°	732.0	727.8	711.3	694.8	679.7	663.2	648.0	632.9	616.4	604.0	588.9
5°	855.8	825.5	791.1	758.1	725.1	690.7	654.9	623.3	590.3	560.0	531.1
7.5°	981.0	921.8	875.1	815.9	762.2	708.6	659.0	608.1	561.4	517.3	476.1
10°	1086.9	1015.4	942.5	866.8	789.8	718.2	649.4	588.9	527.0	473.3	422.4
12.5°	1173.6	1082.8	993.4	898.4	811.8	721.0	635.7	562.7	489.8	429.3	377.0
15°	1252.0	1147.5	1040.2	930.1	820.0	716.8	621.9	531.1	456.8	388.0	328.8
17.5°	1315.3	1195.6	1074.6	950.7	832.4	711.3	604.0	509.1	422.4	350.8	293.1
20°	1370.4	1245.2	1114.5	975.5	840.7	710.0	588.9	481.6	392.1	316.5	260.0
22.5°	1421.3	1296.1	1155.7	1007.1	853.0	708.6	575.1	460.9	366.0	290.3	233.9
25°	1479.1	1347.0	1199.8	1040.2	875.1	714.1	566.9	444.4	342.6	265.5	213.3
27.5°	1543.7	1404.8	1252.0	1081.4	903.9	725.1	564.1	426.5	322.0	242.2	196.8
30°	1634.5	1473.6	1304.3	1122.7	930.1	737.5	561.4	415.5	301.3	224.3	180.2
32.5°	1714.3	1541.0	1362.1	1165.4	959.0	749.9	560.0	400.4	282.1	206.4	167.9
35°	1798.3	1602.9	1411.6	1206.6	983.8	763.6	558.6	389.4	264.2	188.5	155.5
37.5°	1871.2	1655.2	1450.2	1242.4	1011.3	776.0	560.0	379.7	247.7	173.4	144.5
40°	1933.1	1708.8	1492.8	1275.4	1040.2	795.3	561.4	370.1	231.1	159.6	134.8
42.5°	1988.1	1759.7	1538.2	1312.6	1073.2	817.3	569.6	361.9	217.4	147.2	125.2
45°	2030.8	1806.5	1587.8	1364.9	1126.8	853.0	584.7	356.4	203.6	136.2	116.9
47.5°	2074.8	1875.3	1671.7	1447.4	1205.3	909.5	610.9	355.0	192.6	128.0	110.1
50°	2135.4	1944.1	1746.0	1531.3	1276.8	967.2	642.5	356.4	178.9	119.7	103.2
52.5°	2179.4	2014.3	1842.3	1677.2	1447.4	1143.4	765.0	381.1	172.0	112.8	94.9
55°	2439.4	2410.5	2414.7	2442.2	2264.7	1945.5	1279.6	550.3	202.3	128.0	93.6
57.5°	3439.7	3541.5	3600.7	3599.3	3306.2	2742.1	1718.5	707.2	225.6	148.6	111.4
60°	4755.0	4678.0	4569.3	4301.0	3911.6	3130.1	1922.1	760.9	195.4	118.3	101.8
62.5°	5917.6	5466.4	5066.0	4631.2	4120.7	3265.0	1963.4	756.7	170.6	89.4	71.5
65°	6642.7	5831.0	5184.3	4639.5	4038.2	3152.1	1857.4	694.8	144.5	72.9	59.2
67.5°	6816.1	5634.2	4719.3	4024.4	3373.6	2453.2	1363.5	522.8	112.8	60.5	52.3
69°	6437.7	5008.2	3910.2	3121.9	2454.6	1627.7	843.4	330.2	86.7	55.0	48.2
70°	5921.8	4356.0	3185.2	2505.5	1817.5	1143.4	590.3	232.5	70.2	50.9	44.0
72.5°	3809.8	2288.1	1565.7	1089.7	749.9	455.4	231.1	104.6	53.7	42.7	35.8
75°	1477.7	846.2	613.6	466.4	364.6	253.2	140.3	67.4	45.4	35.8	27.5
77.5°	727.8	557.2	455.4	312.3	181.6	112.8	75.7	52.3	37.1	26.1	17.9
80°	575.1	382.5	228.4	141.7	107.3	81.2	57.8	42.7	27.5	16.5	12.4
82.5°	294.4	161.0	118.3	96.3	79.8	63.3	46.8	30.3	17.9	11.0	9.6
85°	92.2	67.4	60.5	59.2	55.0	45.4	33.0	19.3	11.0	6.9	6.9
87.5°	6.9	9.6	12.4	9.6	11.0	9.6	12.4	8.3	5.5	5.5	4.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
2.5°	577.9	561.4	546.2	536.6	518.7	511.8	504.9	502.2	489.8	492.6	481.6
5°	504.9	476.1	454.0	432.0	411.4	396.3	383.9	368.7	356.4	350.8	339.8
7.5°	438.9	401.8	372.9	349.5	324.7	305.4	288.9	277.9	266.9	255.9	250.4
10°	381.1	341.2	308.2	284.8	261.4	244.9	232.5	224.3	217.4	213.3	211.9
12.5°	327.5	288.9	258.7	238.0	220.1	211.9	206.4	202.3	200.9	199.5	199.5
15°	286.2	247.7	224.3	209.1	200.9	196.8	195.4	192.6	189.9	188.5	188.5
17.5°	247.7	218.8	202.3	194.0	189.9	187.1	184.4	181.6	178.9	177.5	177.5
20°	221.5	198.1	189.9	184.4	180.2	177.5	173.4	170.6	169.2	167.9	166.5
22.5°	200.9	185.7	180.2	176.1	170.6	166.5	163.7	161.0	158.2	156.8	155.5
25°	185.7	176.1	172.0	166.5	161.0	156.8	152.7	148.6	145.8	144.5	141.7
27.5°	174.7	167.9	162.4	155.5	150.0	145.8	141.7	137.6	134.8	132.1	130.7
30°	165.1	158.2	151.3	145.8	139.0	134.8	129.3	125.2	123.8	121.1	118.3
32.5°	155.5	148.6	141.7	134.8	128.0	122.5	119.7	114.2	111.4	110.1	107.3
35°	144.5	137.6	129.3	123.8	116.9	111.4	107.3	103.2	100.4	97.7	96.3
37.5°	134.8	126.6	118.3	111.4	105.9	100.4	96.3	92.2	89.4	86.7	85.3
40°	123.8	115.6	107.3	100.4	94.9	90.8	86.7	82.6	79.8	78.4	78.4
42.5°	114.2	104.6	96.3	90.8	86.7	81.2	77.0	72.9	71.5	70.2	71.5
45°	104.6	94.9	88.1	82.6	78.4	72.9	68.8	66.0	64.7	66.0	67.4
47.5°	96.3	86.7	79.8	75.7	71.5	67.4	63.3	60.5	60.5	63.3	66.0
50°	88.1	78.4	72.9	70.2	66.0	61.9	56.4	55.0	56.4	59.2	61.9
52.5°	79.8	68.8	64.7	63.3	59.2	55.0	50.9	49.5	50.9	53.7	52.3
55°	71.5	60.5	59.2	57.8	53.7	48.2	44.0	44.0	44.0	42.7	39.9
57.5°	68.8	53.7	52.3	50.9	46.8	41.3	38.5	35.8	34.4	30.3	28.9
60°	71.5	48.2	48.2	45.4	41.3	35.8	31.6	27.5	24.8	22.0	22.0
62.5°	57.8	44.0	42.7	39.9	34.4	28.9	24.8	20.6	19.3	17.9	17.9
65°	46.8	39.9	37.1	33.0	28.9	23.4	19.3	16.5	15.1	15.1	16.5
67.5°	42.7	35.8	31.6	27.5	23.4	17.9	15.1	13.8	13.8	15.1	15.1
69°	39.9	33.0	28.9	24.8	20.6	16.5	13.8	13.8	13.8	13.8	15.1
70°	37.1	31.6	27.5	23.4	17.9	13.8	12.4	12.4	13.8	13.8	15.1
72.5°	28.9	24.8	23.4	19.3	13.8	12.4	11.0	12.4	12.4	13.8	13.8
75°	22.0	17.9	17.9	15.1	11.0	9.6	9.6	11.0	11.0	12.4	12.4
77.5°	15.1	12.4	12.4	11.0	9.6	8.3	8.3	9.6	11.0	11.0	12.4
80°	11.0	9.6	8.3	9.6	8.3	6.9	8.3	9.6	9.6	11.0	11.0
82.5°	8.3	8.3	8.3	8.3	6.9	6.9	8.3	8.3	9.6	11.0	11.0
85°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	8.3	8.3	9.6	9.6
87.5°	4.1	4.1	4.1	5.5	5.5	6.9	6.9	6.9	6.9	8.3	8.3
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: P151825

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	634.3	634.3	634.3	634.3
2.5°	478.8	477.4	471.9	473.3
5°	335.7	327.5	333.0	331.6
7.5°	246.3	244.9	243.5	246.3
10°	210.5	210.5	209.1	210.5
12.5°	198.1	198.1	198.1	198.1
15°	188.5	188.5	187.1	187.1
17.5°	177.5	177.5	177.5	176.1
20°	166.5	165.1	165.1	165.1
22.5°	154.1	152.7	152.7	152.7
25°	141.7	140.3	140.3	140.3
27.5°	129.3	128.0	126.6	126.6
30°	116.9	115.6	114.2	114.2
32.5°	104.6	103.2	101.8	101.8
35°	93.6	93.6	92.2	90.8
37.5°	83.9	83.9	83.9	83.9
40°	77.0	78.4	78.4	78.4
42.5°	72.9	74.3	75.7	77.0
45°	70.2	72.9	74.3	74.3
47.5°	68.8	70.2	71.5	71.5
50°	63.3	61.9	61.9	61.9
52.5°	50.9	48.2	46.8	45.4
55°	37.1	35.8	33.0	33.0
57.5°	26.1	26.1	24.8	24.8
60°	20.6	20.6	19.3	20.6
62.5°	17.9	17.9	17.9	17.9
65°	16.5	16.5	16.5	16.5
67.5°	16.5	16.5	16.5	16.5
69°	15.1	15.1	15.1	15.1
70°	15.1	15.1	15.1	15.1
72.5°	13.8	13.8	13.8	13.8
75°	12.4	13.8	13.8	13.8
77.5°	12.4	12.4	12.4	12.4
80°	11.0	11.0	12.4	12.4
82.5°	11.0	11.0	11.0	11.0
85°	9.6	9.6	11.0	11.0
87.5°	8.3	8.3	9.6	9.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)