

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: P150684

Luminaire Tested: **TLM-F05-LED-E1-SL3-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150684
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6536.4 lumens
Efficiency: N/A
Efficacy: 49.0 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

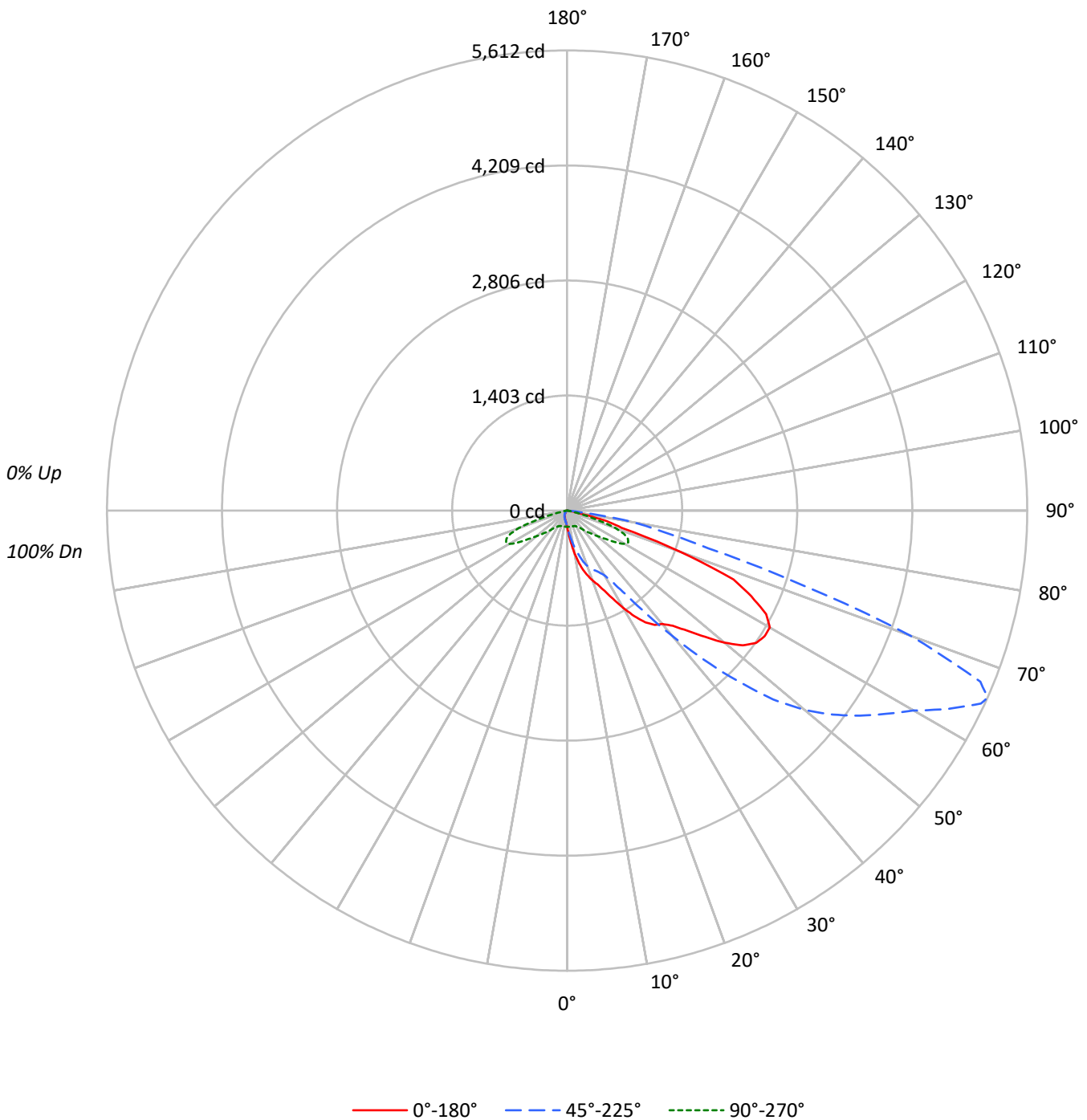
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76						76														
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55						55														
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40						40														
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30						30														
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23						23														
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17						17														
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14						14														
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11						11														
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9						9														
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7						7														

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2559	2559	2559
5°	4286	2577	1881
10°	7033	2598	1572
15°	10039	2708	1333
20°	12487	2801	1144
25°	15447	2967	972
30°	20530	3321	828
35°	26341	3929	697
40°	30551	5169	554
45°	37937	6984	414
50°	50530	9736	406
55°	63645	14234	454
60°	74022	21122	488
65°	76084	25084	540
70°	55606	24087	618
75°	25058	10482	817
80°	4503	2625	1217
85°	372	2336	2247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	0.3
10°-20°	93.7	1.4
20°-30°	202.0	3.1
30°-40°	431.3	6.6
40°-50°	953.9	14.6
50°-60°	1616.6	24.7
60°-70°	2157.2	33.0
70°-80°	950.2	14.5
80°-90°	109.5	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°	317.7	4.9
0°-40°	749.1	11.5
0°-60°	3319.6	50.8
0°-90°	6536.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6536.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	197	197	197	197	197	
5°	329	279	198	150	144	38
15°	748	570	202	107	99	214
25°	1080	806	207	78	68	517
35°	1664	1247	248	53	44	1032
45°	2068	2934	381	31	23	1635
55°	2815	4361	630	15	20	2481
65°	2479	5567	817	11	18	2367
75°	500	1782	209	9	16	552
85°	2	38	16	8	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	248.8	247.6	242.5	242.5	235.0	230.0	223.7	217.4	217.4	216.1	214.9
5°	329.2	321.7	320.4	306.6	295.3	279.0	263.9	243.8	241.3	238.8	237.5
7.5°	418.5	417.2	405.9	389.6	366.9	336.8	306.6	274.0	268.9	266.4	261.4
10°	534.1	527.8	512.7	485.1	451.1	410.9	361.9	310.4	304.1	299.1	296.6
12.5°	644.7	633.4	624.6	589.4	546.6	487.6	428.5	354.4	349.4	343.1	333.0
15°	747.7	737.7	722.6	692.4	644.7	570.5	501.4	410.9	398.4	389.6	382.0
17.5°	828.1	821.9	804.3	770.3	718.8	653.5	570.5	468.7	458.7	447.4	433.5
20°	904.8	896.0	868.3	821.9	766.6	716.3	652.2	544.1	530.3	516.5	501.4
22.5°	977.7	968.9	923.6	847.0	787.9	766.6	743.9	629.6	608.2	596.9	581.8
25°	1079.5	1060.6	990.2	868.3	789.2	805.5	844.5	740.2	720.1	703.7	679.9
27.5°	1216.4	1191.3	1080.7	899.8	794.2	848.2	960.1	874.6	853.3	834.4	808.0
30°	1371.0	1354.7	1222.7	975.2	830.6	911.1	1089.5	1045.5	1020.4	997.8	966.4
32.5°	1526.8	1504.2	1373.5	1118.4	928.7	1033.0	1251.6	1244.1	1211.4	1190.1	1156.1
35°	1663.8	1652.5	1555.7	1353.4	1152.4	1246.6	1467.8	1476.6	1447.7	1425.0	1387.3
37.5°	1756.8	1756.8	1738.0	1606.0	1508.0	1578.4	1785.7	1787.0	1758.1	1706.5	1687.7
40°	1804.6	1818.4	1886.2	1911.4	1906.3	1996.8	2202.9	2180.3	2156.4	2130.0	2067.2
42.5°	1902.6	1915.1	2059.7	2233.1	2346.2	2465.6	2607.6	2600.0	2571.1	2523.4	2465.6
45°	2068.5	2084.8	2257.0	2532.2	2764.6	2934.3	3024.8	2989.6	2960.7	2915.4	2885.3
47.5°	2279.6	2311.0	2505.8	2846.3	3126.6	3406.8	3501.0	3408.1	3382.9	3347.7	3298.7
50°	2504.5	2534.7	2742.0	3131.6	3448.3	3782.5	3939.6	3782.5	3746.1	3734.8	3679.5
52.5°	2699.3	2724.4	2924.2	3351.5	3694.6	4086.6	4315.4	4108.0	4081.6	4043.9	4003.7
55°	2814.9	2835.0	3022.3	3457.1	3861.7	4360.6	4678.5	4496.3	4457.4	4442.3	4384.5
57.5°	2853.9	2874.0	3042.4	3470.9	3952.2	4610.7	5119.6	5125.9	5079.4	5025.4	5007.8
60°	2853.9	2876.5	3018.5	3437.0	4040.1	4877.1	5707.7	6231.8	6131.2	6121.2	6057.1
62.5°	2735.7	2757.1	2900.4	3332.7	4158.3	5236.5	6527.1	7452.0	7423.1	7357.7	7252.2
65°	2479.4	2491.9	2632.7	3066.2	4113.0	5567.0	7237.1	8263.8	8217.3	8089.1	7953.4
66°	2363.8	2373.8	2505.8	2914.2	3964.7	5612.2	7362.7	8365.6	8288.9	8180.8	8027.5
67.5°	2196.6	2214.2	2307.2	2631.4	3609.1	5455.1	7283.6	8293.9	8227.3	8096.6	7943.3
70°	1466.5	1454.0	1781.9	2019.4	2749.6	4444.8	6534.6	7446.9	7448.2	7386.6	7325.0
72.5°	696.2	703.7	799.2	1242.8	1799.5	2969.5	5201.3	5944.0	6029.4	5918.8	5842.2
75°	500.1	511.5	569.3	760.3	1073.2	1781.9	3371.6	4157.0	4159.5	3963.5	3788.8
77.5°	145.8	152.1	213.6	468.7	804.3	1202.6	1936.5	2311.0	2257.0	2116.2	1984.3
80°	60.3	60.3	62.8	149.5	323.0	816.8	1354.7	1779.4	1773.1	1719.1	1641.2
82.5°	22.6	23.9	30.2	61.6	76.7	201.1	903.5	1544.4	1540.7	1464.0	1408.7
85°	2.5	2.5	7.5	26.4	28.9	37.7	181.0	681.1	677.3	681.1	596.9
87.5°	0.0	0.0	1.3	2.5	3.8	5.0	7.5	26.4	28.9	27.6	25.1
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	214.9	212.4	212.4	211.1	211.1	211.1	209.9	208.6	208.6	207.3	206.1
5°	235.0	232.5	231.2	228.7	227.5	226.2	223.7	222.4	219.9	218.7	217.4
7.5°	258.9	253.8	252.6	248.8	245.0	242.5	240.0	236.3	233.7	228.7	227.5
10°	289.0	282.7	277.7	272.7	268.9	262.6	258.9	253.8	248.8	245.0	241.3
12.5°	328.0	319.2	311.7	306.6	297.8	290.3	282.7	279.0	268.9	263.9	257.6
15°	370.7	360.7	351.9	341.8	335.5	323.0	312.9	301.6	296.6	287.8	277.7
17.5°	426.0	409.7	395.8	385.8	373.2	360.7	349.4	338.0	323.0	312.9	300.3
20°	485.1	471.2	452.4	434.8	419.7	404.6	388.3	373.2	359.4	343.1	328.0
22.5°	560.5	540.4	517.7	500.1	480.0	463.7	441.1	421.0	398.4	377.0	359.4
25°	656.0	629.6	608.2	583.1	559.2	534.1	506.4	481.3	452.4	432.3	402.1
27.5°	774.1	749.0	720.1	687.4	663.5	625.8	589.4	558.0	524.0	492.6	458.7
30°	924.9	888.5	858.3	826.9	779.1	742.7	700.0	657.2	610.7	579.3	527.8
32.5°	1105.9	1066.9	1021.7	976.4	932.4	880.9	828.1	775.4	723.8	666.0	613.2
35°	1327.0	1280.5	1229.0	1180.0	1112.1	1056.8	990.2	917.4	859.6	792.9	726.3
37.5°	1619.8	1543.2	1497.9	1446.4	1354.7	1279.3	1205.1	1132.2	1030.5	960.1	865.8
40°	1986.8	1941.5	1867.4	1784.5	1701.5	1602.2	1501.7	1404.9	1286.8	1188.8	1079.5
42.5°	2417.8	2351.2	2275.8	2156.4	2072.2	1955.4	1841.0	1712.8	1568.3	1442.6	1314.5
45°	2822.4	2743.3	2685.5	2566.1	2478.1	2339.9	2201.7	2065.9	1898.8	1736.7	1588.4
47.5°	3259.8	3194.4	3098.9	3002.2	2912.9	2757.1	2607.6	2442.9	2267.0	2074.7	1882.5
50°	3644.3	3592.8	3527.4	3410.6	3311.3	3180.6	3004.7	2825.0	2602.5	2411.5	2192.9
52.5°	3971.0	3930.8	3839.1	3756.1	3666.9	3543.8	3386.7	3214.5	2974.5	2764.6	2515.8
55°	4356.8	4327.9	4247.5	4196.0	4116.8	3998.7	3851.6	3692.1	3438.2	3209.5	2928.0
57.5°	4988.9	4966.3	4895.9	4874.6	4796.7	4693.6	4512.7	4341.7	4045.2	3761.2	3439.5
60°	6035.7	5990.5	5887.4	5834.7	5670.0	5531.8	5296.8	5061.8	4703.7	4341.7	3954.7
62.5°	7156.7	7029.7	6833.7	6665.3	6431.6	6191.5	5877.4	5518.0	5098.3	4668.5	4223.6
65°	7761.1	7545.0	7297.4	7029.7	6726.9	6373.8	5977.9	5546.9	5095.7	4642.1	4172.1
66°	7830.2	7586.4	7323.8	7026.0	6689.2	6313.4	5911.3	5458.9	4990.2	4547.8	4077.8
67.5°	7743.5	7488.4	7210.7	6880.2	6515.8	6126.2	5704.0	5234.0	4782.8	4334.2	3876.8
70°	7136.5	6882.7	6635.1	6287.0	5898.7	5506.7	5107.0	4581.8	4154.5	3742.3	3335.2
72.5°	5698.9	5526.8	5281.7	4983.9	4605.6	4145.7	3812.7	3342.7	2972.0	2572.4	2257.0
75°	3561.4	3318.8	3016.0	2636.5	2347.4	1974.2	1779.4	1422.5	1211.4	1026.7	848.2
77.5°	1820.9	1638.7	1426.3	1212.7	1007.8	804.3	622.0	439.8	296.6	206.1	153.3
80°	1504.2	1343.4	1167.4	972.7	791.7	614.5	442.3	301.6	192.3	125.7	98.0
82.5°	1242.8	1107.1	950.0	769.1	612.0	482.6	335.5	218.7	135.7	88.0	69.1
85°	529.1	480.0	370.7	294.1	221.2	163.4	114.4	76.7	54.0	44.0	40.2
87.5°	22.6	25.1	23.9	18.8	13.8	13.8	12.6	10.1	10.1	10.1	10.1
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3	197.3
2.5°	206.1	204.8	203.6	203.6	202.3	201.1	193.5	187.2	179.7	174.7	169.6
5°	214.9	213.6	211.1	209.9	207.3	206.1	189.8	175.9	164.6	155.8	149.5
7.5°	223.7	222.4	218.7	214.9	213.6	211.1	184.7	167.1	152.1	142.0	135.7
10°	235.0	231.2	227.5	222.4	218.7	214.9	179.7	157.1	140.7	131.9	125.7
12.5°	251.3	245.0	238.8	232.5	227.5	221.2	177.2	148.3	131.9	121.9	115.6
15°	270.2	261.4	253.8	246.3	237.5	231.2	172.2	140.7	124.4	114.4	106.8
17.5°	287.8	277.7	266.4	255.1	246.3	237.5	167.1	133.2	116.9	106.8	99.3
20°	312.9	297.8	284.0	270.2	257.6	246.3	159.6	125.7	110.6	99.3	91.7
22.5°	340.6	323.0	305.4	286.5	270.2	255.1	153.3	119.4	104.3	93.0	84.2
25°	375.7	354.4	330.5	306.6	287.8	267.7	147.0	113.1	98.0	86.7	77.9
27.5°	424.7	394.6	368.2	338.0	309.1	286.5	142.0	108.1	91.7	80.4	71.6
30°	491.4	447.4	405.9	373.2	339.3	306.6	137.0	101.8	86.7	74.1	64.1
32.5°	565.5	514.0	466.2	417.2	374.5	336.8	131.9	96.8	80.4	67.9	59.1
35°	657.2	591.9	527.8	471.2	419.7	369.5	126.9	91.7	75.4	61.6	52.8
37.5°	789.2	707.5	623.3	550.4	483.8	417.2	123.2	86.7	69.1	55.3	46.5
40°	970.1	864.6	761.5	662.3	575.5	492.6	118.1	81.7	64.1	50.3	41.5
42.5°	1166.2	1038.0	902.3	790.4	671.1	566.8	113.1	76.7	59.1	45.2	36.4
45°	1410.0	1250.4	1085.8	933.7	787.9	653.5	108.1	71.6	52.8	40.2	31.4
47.5°	1676.4	1472.8	1286.8	1095.8	922.4	761.5	101.8	67.9	47.8	35.2	27.6
50°	1950.3	1735.4	1500.4	1283.0	1077.0	869.6	95.5	61.6	42.7	31.4	22.6
52.5°	2245.6	1991.8	1751.8	1481.6	1241.6	1011.6	89.2	56.5	39.0	27.6	18.8
55°	2621.4	2337.4	2055.9	1753.0	1464.0	1176.2	82.9	50.3	33.9	23.9	15.1
57.5°	3093.9	2757.1	2411.5	2069.7	1719.1	1392.4	77.9	44.0	28.9	20.1	12.6
60°	3540.0	3146.7	2728.2	2334.9	1939.0	1558.3	70.4	39.0	25.1	16.3	12.6
62.5°	3771.2	3322.6	2871.5	2437.9	2015.7	1617.3	62.8	32.7	21.4	13.8	11.3
65°	3714.7	3257.3	2819.9	2382.6	1969.2	1579.6	55.3	28.9	18.8	12.6	11.3
66°	3633.0	3180.6	2740.8	2324.8	1930.2	1539.4	51.5	27.6	17.6	12.6	10.1
67.5°	3454.5	3017.2	2597.5	2210.5	1823.4	1462.7	46.5	25.1	16.3	11.3	10.1
70°	2950.6	2553.5	2218.0	1873.7	1558.3	1232.8	37.7	21.4	13.8	10.1	10.1
72.5°	1952.8	1682.7	1459.0	1255.4	1049.3	814.3	31.4	17.6	11.3	10.1	8.8
75°	736.4	666.0	571.8	514.0	448.6	393.3	25.1	11.3	8.8	8.8	8.8
77.5°	130.7	120.6	106.8	98.0	90.5	82.9	20.1	7.5	7.5	8.8	8.8
80°	88.0	81.7	74.1	67.9	62.8	56.5	13.8	6.3	7.5	7.5	8.8
82.5°	62.8	59.1	55.3	50.3	46.5	41.5	8.8	6.3	7.5	7.5	7.5
85°	37.7	35.2	32.7	30.2	26.4	25.1	6.3	6.3	6.3	7.5	7.5
87.5°	10.1	8.8	10.1	10.1	7.5	8.8	5.0	5.0	5.0	6.3	6.3
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: P150684

CATALOG NUMBER: TLM-F05-LED-E1-SL3-HSS-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	197.3	197.3	197.3	197.3	197.3
2.5°	167.1	167.1	164.6	168.4	168.4
5°	144.5	144.5	143.3	144.5	144.5
7.5°	131.9	130.7	130.7	130.7	131.9
10°	120.6	119.4	119.4	119.4	119.4
12.5°	110.6	109.3	108.1	109.3	109.3
15°	101.8	99.3	99.3	99.3	99.3
17.5°	94.2	91.7	90.5	90.5	90.5
20°	86.7	82.9	82.9	82.9	82.9
22.5°	79.2	75.4	75.4	75.4	75.4
25°	71.6	67.9	67.9	67.9	67.9
27.5°	65.3	61.6	61.6	61.6	61.6
30°	57.8	55.3	55.3	56.5	55.3
32.5°	52.8	49.0	49.0	50.3	50.3
35°	46.5	44.0	44.0	44.0	44.0
37.5°	40.2	37.7	37.7	37.7	37.7
40°	35.2	32.7	31.4	32.7	32.7
42.5°	30.2	27.6	26.4	26.4	26.4
45°	26.4	22.6	21.4	22.6	22.6
47.5°	21.4	18.8	18.8	20.1	20.1
50°	16.3	16.3	17.6	20.1	20.1
52.5°	15.1	15.1	17.6	20.1	20.1
55°	13.8	15.1	17.6	18.8	20.1
57.5°	12.6	15.1	17.6	18.8	18.8
60°	12.6	13.8	16.3	18.8	18.8
62.5°	11.3	12.6	15.1	17.6	17.6
65°	11.3	12.6	15.1	17.6	17.6
66°	11.3	12.6	15.1	17.6	17.6
67.5°	11.3	12.6	15.1	17.6	17.6
70°	11.3	12.6	15.1	16.3	16.3
72.5°	10.1	11.3	13.8	16.3	16.3
75°	10.1	11.3	13.8	16.3	16.3
77.5°	10.1	11.3	13.8	16.3	16.3
80°	10.1	11.3	13.8	15.1	16.3
82.5°	8.8	11.3	12.6	15.1	15.1
85°	8.8	10.1	12.6	13.8	15.1
87.5°	7.5	8.8	10.1	12.6	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)