

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: P150681

Luminaire Tested: **TLM-E05-LED-E1-SL3-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150681
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-E05-LED-E1-SL3-HSS-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (105) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

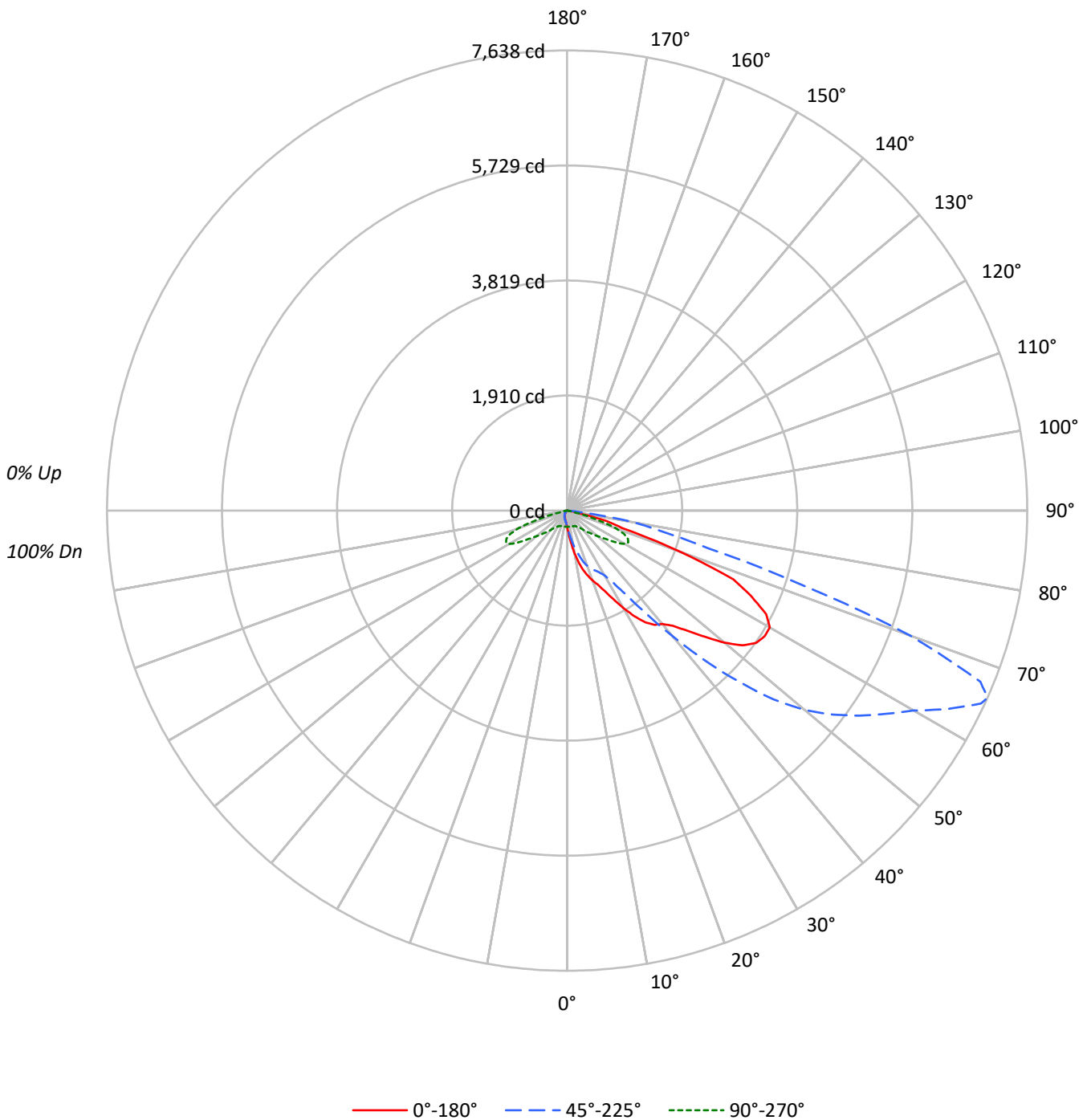
Lumens per Lamp: N/A
Luminaire Lumens: 8895.4 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 127.3
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	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3482	3482	3482
5°	5833	3506	2561
10°	9571	3536	2140
15°	13662	3685	1814
20°	16993	3812	1558
25°	21020	4038	1321
30°	27940	4520	1126
35°	35848	5347	948
40°	41575	7036	753
45°	51626	9504	565
50°	68766	13249	553
55°	86614	19372	620
60°	100735	28744	667
65°	103542	34137	733
70°	75676	32780	842
75°	34103	14268	1112
80°	6131	3577	1658
85°	506	3184	3050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	0.3
10°-20°	127.4	1.4
20°-30°	274.9	3.1
30°-40°	587.0	6.6
40°-50°	1298.2	14.6
50°-60°	2200.0	24.7
60°-70°	2935.7	33.0
70°-80°	1293.2	14.5
80°-90°	149.0	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°	432.4	4.9
0°-40°	1019.4	11.5
0°-60°	4517.6	50.8
0°-90°	8895.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8895.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	268	268	268	268	268	
5°	448	380	269	204	197	51
15°	1018	776	274	145	135	291
25°	1469	1096	282	106	92	703
35°	2264	1696	338	72	60	1404
45°	2815	3993	518	43	31	2225
55°	3831	5934	857	20	27	3376
65°	3374	7576	1112	15	24	3221
75°	681	2425	285	12	22	751
85°	3	51	21	10	20	20
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°	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5
2.5°	338.6	336.9	330.1	330.1	319.8	313.0	304.4	295.9	295.9	294.2	292.4
5°	448.1	437.8	436.1	417.3	401.9	379.7	359.1	331.8	328.4	324.9	323.2
7.5°	569.5	567.8	552.4	530.2	499.4	458.3	417.3	372.8	366.0	362.6	355.7
10°	726.8	718.3	697.8	660.1	614.0	559.2	492.5	422.4	413.9	407.0	403.6
12.5°	877.3	861.9	850.0	802.1	743.9	663.5	583.2	482.3	475.4	466.9	453.2
15°	1017.6	1003.9	983.4	942.3	877.3	776.4	682.4	559.2	542.1	530.2	519.9
17.5°	1127.0	1118.5	1094.5	1048.3	978.2	889.3	776.4	637.9	624.2	608.8	590.0
20°	1231.3	1219.4	1181.7	1118.5	1043.2	974.8	887.6	740.5	721.7	702.9	682.4
22.5°	1330.5	1318.5	1257.0	1152.7	1072.3	1043.2	1012.4	856.8	827.7	812.3	791.8
25°	1469.0	1443.4	1347.6	1181.7	1074.0	1096.2	1149.2	1007.3	979.9	957.7	925.2
27.5°	1655.5	1621.2	1470.8	1224.5	1080.8	1154.4	1306.6	1190.3	1161.2	1135.6	1099.6
30°	1865.8	1843.6	1664.0	1327.1	1130.4	1239.9	1482.7	1422.9	1388.7	1357.9	1315.1
32.5°	2077.9	2047.1	1869.2	1522.1	1263.8	1405.8	1703.3	1693.1	1648.6	1619.5	1573.4
35°	2264.3	2248.9	2117.2	1841.9	1568.2	1696.5	1997.5	2009.5	1970.1	1939.3	1888.0
37.5°	2390.8	2390.8	2365.2	2185.6	2052.2	2148.0	2430.2	2431.9	2392.5	2322.4	2296.8
40°	2455.8	2474.6	2567.0	2601.2	2594.3	2717.5	2997.9	2967.2	2934.7	2898.7	2813.2
42.5°	2589.2	2606.3	2803.0	3039.0	3192.9	3355.4	3548.6	3538.4	3499.0	3434.0	3355.4
45°	2814.9	2837.2	3071.5	3446.0	3762.4	3993.3	4116.4	4068.5	4029.2	3967.6	3926.6
47.5°	3102.3	3145.0	3410.1	3873.5	4254.9	4636.3	4764.5	4638.0	4603.8	4555.9	4489.2
50°	3408.4	3449.4	3731.6	4261.8	4692.7	5147.6	5361.4	5147.6	5098.0	5082.6	5007.4
52.5°	3673.5	3707.7	3979.6	4561.0	5027.9	5561.5	5872.7	5590.6	5554.7	5503.3	5448.6
55°	3830.8	3858.2	4113.0	4704.7	5255.4	5934.3	6367.0	6119.0	6066.0	6045.5	5966.8
57.5°	3883.8	3911.2	4140.3	4723.5	5378.5	6274.6	6967.3	6975.8	6912.5	6839.0	6815.1
60°	3883.8	3914.6	4107.8	4677.3	5498.2	6637.2	7767.6	8480.8	8343.9	8330.3	8243.0
62.5°	3723.1	3752.1	3947.1	4535.4	5659.0	7126.3	8882.7	10141.3	10102.0	10013.1	9869.4
65°	3374.2	3391.3	3582.8	4172.8	5597.4	7576.1	9848.9	11246.1	11182.8	11008.4	10823.7
66°	3216.8	3230.5	3410.1	3965.9	5395.6	7637.6	10019.9	11384.6	11280.3	11133.2	10924.6
67.5°	2989.4	3013.3	3139.9	3581.1	4911.6	7423.9	9912.2	11287.2	11196.5	11018.7	10810.0
70°	1995.8	1978.7	2425.0	2748.3	3741.9	6048.9	8892.9	10134.5	10136.2	10052.4	9968.6
72.5°	947.4	957.7	1087.7	1691.4	2449.0	4041.1	7078.4	8089.1	8205.4	8054.9	7950.6
75°	680.6	696.0	774.7	1034.7	1460.5	2425.0	4588.4	5657.3	5660.7	5393.9	5156.2
77.5°	198.4	206.9	290.7	637.9	1094.5	1636.6	2635.4	3145.0	3071.5	2879.9	2700.4
80°	82.1	82.1	85.5	203.5	439.5	1111.6	1843.6	2421.6	2413.1	2339.5	2233.5
82.5°	30.8	32.5	41.0	83.8	104.3	273.6	1229.6	2101.8	2096.7	1992.4	1917.1
85°	3.4	3.4	10.3	35.9	39.3	51.3	246.3	926.9	921.8	926.9	812.3
87.5°	0.0	0.0	1.7	3.4	5.1	6.8	10.3	35.9	39.3	37.6	34.2
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5
2.5°	292.4	289.0	289.0	287.3	287.3	287.3	285.6	283.9	283.9	282.2	280.5
5°	319.8	316.4	314.7	311.3	309.5	307.8	304.4	302.7	299.3	297.6	295.9
7.5°	352.3	345.5	343.7	338.6	333.5	330.1	326.6	321.5	318.1	311.3	309.5
10°	393.3	384.8	377.9	371.1	366.0	357.4	352.3	345.5	338.6	333.5	328.4
12.5°	446.4	434.4	424.1	417.3	405.3	395.1	384.8	379.7	366.0	359.1	350.6
15°	504.5	490.8	478.8	465.2	456.6	439.5	425.8	410.4	403.6	391.6	377.9
17.5°	579.7	557.5	538.7	525.0	507.9	490.8	475.4	460.0	439.5	425.8	408.7
20°	660.1	641.3	615.7	591.7	571.2	550.7	528.4	507.9	489.1	466.9	446.4
22.5°	762.7	735.4	704.6	680.6	653.3	631.1	600.3	572.9	542.1	513.1	489.1
25°	892.7	856.8	827.7	793.5	761.0	726.8	689.2	655.0	615.7	588.3	547.3
27.5°	1053.5	1019.3	979.9	935.5	903.0	851.7	802.1	759.3	713.1	670.4	624.2
30°	1258.7	1209.1	1168.1	1125.3	1060.3	1010.7	952.6	894.4	831.1	788.4	718.3
32.5°	1505.0	1451.9	1390.4	1328.8	1269.0	1198.8	1127.0	1055.2	985.1	906.4	834.6
35°	1805.9	1742.7	1672.6	1605.9	1513.5	1438.3	1347.6	1248.4	1169.8	1079.1	988.5
37.5°	2204.4	2100.1	2038.5	1968.4	1843.6	1741.0	1640.1	1540.9	1402.3	1306.6	1178.3
40°	2703.8	2642.2	2541.3	2428.4	2315.6	2180.5	2043.7	1912.0	1751.2	1617.8	1469.0
42.5°	3290.4	3199.7	3097.1	2934.7	2820.1	2661.0	2505.4	2331.0	2134.3	1963.3	1788.8
45°	3841.1	3733.3	3654.6	3492.2	3372.5	3184.3	2996.2	2811.5	2584.1	2363.5	2161.7
47.5°	4436.2	4347.3	4217.3	4085.6	3964.2	3752.1	3548.6	3324.6	3085.2	2823.5	2561.8
50°	4959.5	4889.4	4800.5	4641.4	4506.3	4328.5	4089.0	3844.5	3541.8	3281.8	2984.3
52.5°	5404.2	5349.4	5224.6	5111.7	4990.3	4822.7	4608.9	4374.6	4048.0	3762.4	3423.8
55°	5929.2	5889.8	5780.4	5710.3	5602.5	5441.8	5241.7	5024.5	4679.0	4367.8	3984.7
57.5°	6789.4	6758.6	6662.8	6633.8	6527.7	6387.5	6141.2	5908.7	5505.1	5118.6	4680.8
60°	8214.0	8152.4	8012.2	7940.3	7716.3	7528.2	7208.4	6888.6	6401.2	5908.7	5381.9
62.5°	9739.5	9566.7	9299.9	9070.8	8752.7	8426.0	7998.5	7509.4	6938.2	6353.3	5747.9
65°	10562.0	10267.9	9931.0	9566.7	9154.6	8674.0	8135.3	7548.7	6934.8	6317.4	5677.8
66°	10656.1	10324.3	9966.9	9561.6	9103.3	8591.9	8044.7	7429.0	6791.1	6189.1	5549.5
67.5°	10538.1	10190.9	9813.0	9363.2	8867.3	8337.1	7762.5	7122.9	6508.9	5898.4	5275.9
70°	9712.1	9366.6	9029.7	8556.0	8027.6	7494.0	6950.2	6235.3	5653.8	5092.9	4538.8
72.5°	7755.6	7521.4	7187.9	6782.6	6267.8	5641.9	5188.7	4549.1	4044.6	3500.7	3071.5
75°	4846.6	4516.6	4104.4	3587.9	3194.6	2686.7	2421.6	1935.9	1648.6	1397.2	1154.4
77.5°	2478.0	2230.1	1941.0	1650.3	1371.6	1094.5	846.5	598.6	403.6	280.5	208.6
80°	2047.1	1828.2	1588.8	1323.7	1077.4	836.3	602.0	410.4	261.7	171.0	133.4
82.5°	1691.4	1506.7	1292.9	1046.6	832.9	656.7	456.6	297.6	184.7	119.7	94.1
85°	720.0	653.3	504.5	400.2	301.0	222.3	155.6	104.3	73.5	59.9	54.7
87.5°	30.8	34.2	32.5	25.7	18.8	18.8	17.1	13.7	13.7	13.7	13.7
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°	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5	268.5
2.5°	280.5	278.8	277.0	277.0	275.3	273.6	263.4	254.8	244.6	237.7	230.9
5°	292.4	290.7	287.3	285.6	282.2	280.5	258.2	239.4	224.0	212.1	203.5
7.5°	304.4	302.7	297.6	292.4	290.7	287.3	251.4	227.5	206.9	193.2	184.7
10°	319.8	314.7	309.5	302.7	297.6	292.4	244.6	213.8	191.5	179.6	171.0
12.5°	342.0	333.5	324.9	316.4	309.5	301.0	241.1	201.8	179.6	165.9	157.3
15°	367.7	355.7	345.5	335.2	323.2	314.7	234.3	191.5	169.3	155.6	145.4
17.5°	391.6	377.9	362.6	347.2	335.2	323.2	227.5	181.3	159.0	145.4	135.1
20°	425.8	405.3	386.5	367.7	350.6	335.2	217.2	171.0	150.5	135.1	124.8
22.5°	463.5	439.5	415.6	389.9	367.7	347.2	208.6	162.5	141.9	126.6	114.6
25°	511.3	482.3	449.8	417.3	391.6	364.3	200.1	153.9	133.4	118.0	106.0
27.5°	578.0	537.0	501.1	460.0	420.7	389.9	193.2	147.1	124.8	109.5	97.5
30°	668.7	608.8	552.4	507.9	461.7	417.3	186.4	138.5	118.0	100.9	87.2
32.5°	769.6	699.5	634.5	567.8	509.6	458.3	179.6	131.7	109.5	92.3	80.4
35°	894.4	805.5	718.3	641.3	571.2	502.8	172.7	124.8	102.6	83.8	71.8
37.5°	1074.0	962.8	848.2	749.1	658.4	567.8	167.6	118.0	94.1	75.2	63.3
40°	1320.3	1176.6	1036.4	901.3	783.3	670.4	160.8	111.2	87.2	68.4	56.4
42.5°	1587.0	1412.6	1227.9	1075.7	913.2	771.3	153.9	104.3	80.4	61.6	49.6
45°	1918.8	1701.6	1477.6	1270.7	1072.3	889.3	147.1	97.5	71.8	54.7	42.8
47.5°	2281.4	2004.3	1751.2	1491.3	1255.3	1036.4	138.5	92.3	65.0	47.9	37.6
50°	2654.2	2361.8	2041.9	1746.1	1465.6	1183.4	130.0	83.8	58.1	42.8	30.8
52.5°	3056.1	2710.6	2384.0	2016.3	1689.7	1376.7	121.4	77.0	53.0	37.6	25.7
55°	3567.4	3180.9	2797.8	2385.7	1992.4	1600.7	112.9	68.4	46.2	32.5	20.5
57.5°	4210.5	3752.1	3281.8	2816.7	2339.5	1894.9	106.0	59.9	39.3	27.4	17.1
60°	4817.6	4282.3	3712.8	3177.5	2638.8	2120.6	95.8	53.0	34.2	22.2	17.1
62.5°	5132.2	4521.7	3907.8	3317.7	2743.1	2201.0	85.5	44.5	29.1	18.8	15.4
65°	5055.3	4432.8	3837.6	3242.5	2679.8	2149.7	75.2	39.3	25.7	17.1	15.4
66°	4944.1	4328.5	3729.9	3163.8	2626.8	2095.0	70.1	37.6	23.9	17.1	13.7
67.5°	4701.3	4106.1	3534.9	3008.2	2481.5	1990.6	63.3	34.2	22.2	15.4	13.7
70°	4015.5	3475.1	3018.5	2549.9	2120.6	1677.7	51.3	29.1	18.8	13.7	13.7
72.5°	2657.6	2289.9	1985.5	1708.5	1428.0	1108.2	42.8	23.9	15.4	13.7	12.0
75°	1002.2	906.4	778.1	699.5	610.5	535.3	34.2	15.4	12.0	12.0	12.0
77.5°	177.9	164.2	145.4	133.4	123.1	112.9	27.4	10.3	10.3	12.0	12.0
80°	119.7	111.2	100.9	92.3	85.5	77.0	18.8	8.6	10.3	10.3	12.0
82.5°	85.5	80.4	75.2	68.4	63.3	56.4	12.0	8.6	10.3	10.3	10.3
85°	51.3	47.9	44.5	41.0	35.9	34.2	8.6	8.6	8.6	10.3	10.3
87.5°	13.7	12.0	13.7	13.7	10.3	12.0	6.8	6.8	6.8	8.6	8.6
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: P150681

CATALOG NUMBER: TLM-E05-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	268.5	268.5	268.5	268.5	268.5
2.5°	227.5	227.5	224.0	229.2	229.2
5°	196.7	196.7	195.0	196.7	196.7
7.5°	179.6	177.9	177.9	177.9	179.6
10°	164.2	162.5	162.5	162.5	162.5
12.5°	150.5	148.8	147.1	148.8	148.8
15°	138.5	135.1	135.1	135.1	135.1
17.5°	128.3	124.8	123.1	123.1	123.1
20°	118.0	112.9	112.9	112.9	112.9
22.5°	107.7	102.6	102.6	102.6	102.6
25°	97.5	92.3	92.3	92.3	92.3
27.5°	88.9	83.8	83.8	83.8	83.8
30°	78.7	75.2	75.2	77.0	75.2
32.5°	71.8	66.7	66.7	68.4	68.4
35°	63.3	59.9	59.9	59.9	59.9
37.5°	54.7	51.3	51.3	51.3	51.3
40°	47.9	44.5	42.8	44.5	44.5
42.5°	41.0	37.6	35.9	35.9	35.9
45°	35.9	30.8	29.1	30.8	30.8
47.5°	29.1	25.7	25.7	27.4	27.4
50°	22.2	22.2	23.9	27.4	27.4
52.5°	20.5	20.5	23.9	27.4	27.4
55°	18.8	20.5	23.9	25.7	27.4
57.5°	17.1	20.5	23.9	25.7	25.7
60°	17.1	18.8	22.2	25.7	25.7
62.5°	15.4	17.1	20.5	23.9	23.9
65°	15.4	17.1	20.5	23.9	23.9
66°	15.4	17.1	20.5	23.9	23.9
67.5°	15.4	17.1	20.5	23.9	23.9
70°	15.4	17.1	20.5	22.2	22.2
72.5°	13.7	15.4	18.8	22.2	22.2
75°	13.7	15.4	18.8	22.2	22.2
77.5°	13.7	15.4	18.8	22.2	22.2
80°	13.7	15.4	18.8	20.5	22.2
82.5°	12.0	15.4	17.1	20.5	20.5
85°	12.0	13.7	17.1	18.8	20.5
87.5°	10.3	12.0	13.7	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)