

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: P150680

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150680
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8669.1 lumens
Efficiency: N/A
Efficacy: 68.1 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

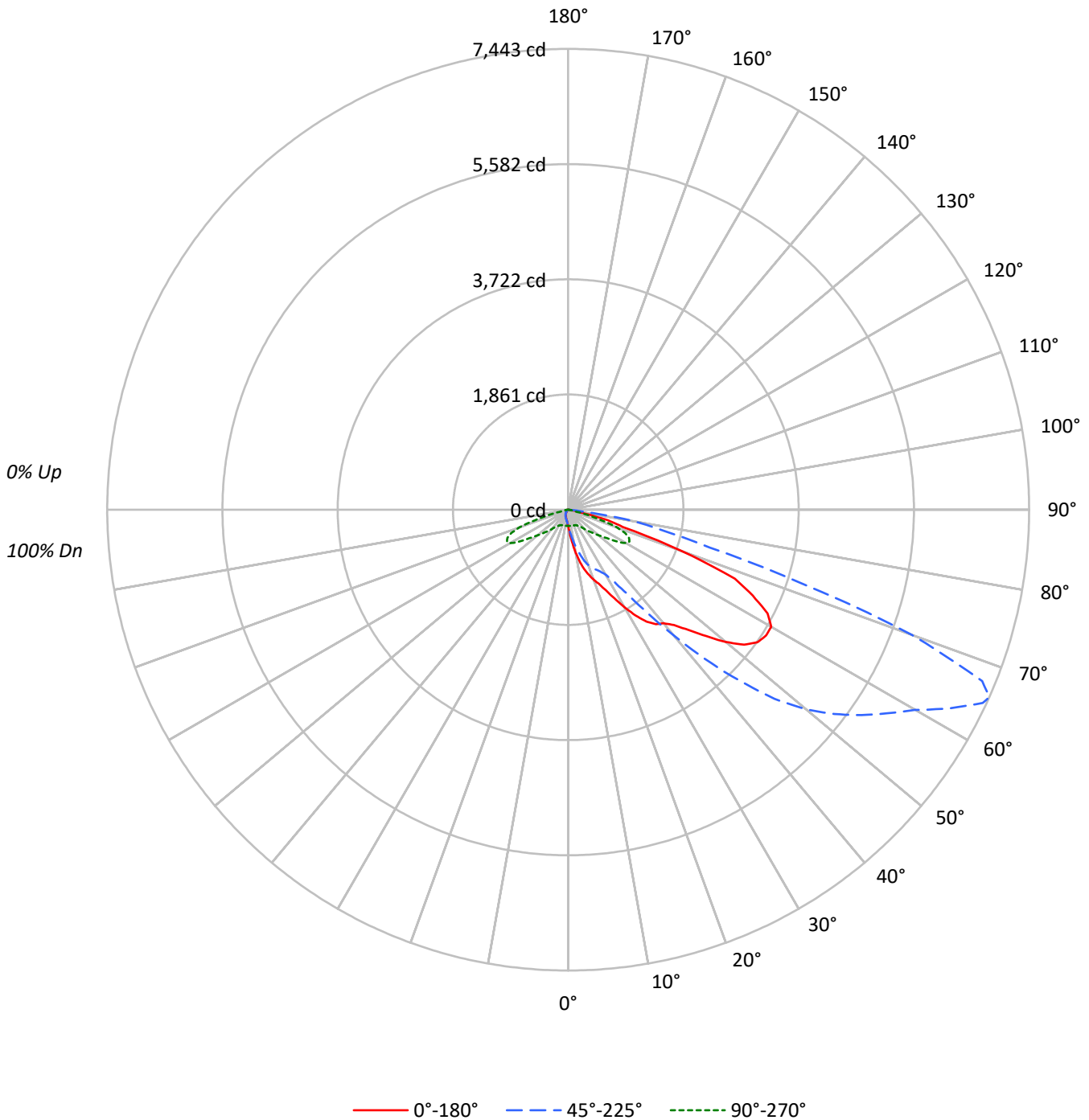
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3394	3394	3394
5°	5685	3417	2496
10°	9327	3446	2085
15°	13315	3591	1768
20°	16561	3715	1518
25°	20487	3935	1288
30°	27229	4406	1098
35°	34936	5211	923
40°	40517	6856	733
45°	50313	9262	550
50°	67017	12912	539
55°	84410	18879	604
60°	98172	28012	648
65°	100906	33269	715
70°	73750	31946	823
75°	33236	13905	1087
80°	5975	3484	1621
85°	491	3095	2976



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	0.3
10°-20°	124.2	1.4
20°-30°	267.9	3.1
30°-40°	572.1	6.6
40°-50°	1265.2	14.6
50°-60°	2144.0	24.7
60°-70°	2861.0	33.0
70°-80°	1260.2	14.5
80°-90°	145.2	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°	421.4	4.9
0°-40°	993.5	11.5
0°-60°	4402.7	50.8
0°-90°	8669.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8669.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	262	262	262	262	262	
5°	437	370	262	198	192	50
15°	992	757	268	142	132	283
25°	1432	1068	275	103	90	685
35°	2207	1653	329	70	58	1368
45°	2743	3892	505	42	30	2168
55°	3733	5783	835	20	27	3290
65°	3288	7383	1084	15	23	3139
75°	663	2363	278	12	22	732
85°	3	50	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°	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7
2.5°	330.0	328.3	321.7	321.7	311.7	305.0	296.7	288.3	288.3	286.7	285.0
5°	436.7	426.7	425.0	406.7	391.7	370.0	350.0	323.3	320.0	316.7	315.0
7.5°	555.0	553.3	538.3	516.7	486.7	446.7	406.7	363.3	356.7	353.3	346.7
10°	708.3	700.0	680.0	643.3	598.3	545.0	480.0	411.7	403.3	396.7	393.3
12.5°	855.0	840.0	828.3	781.7	725.0	646.7	568.3	470.0	463.3	455.0	441.7
15°	991.7	978.3	958.3	918.3	855.0	756.7	665.0	545.0	528.3	516.7	506.7
17.5°	1098.3	1090.0	1066.7	1021.7	953.3	866.7	756.7	621.7	608.3	593.3	575.0
20°	1200.0	1188.3	1151.7	1090.0	1016.7	950.0	865.0	721.7	703.3	685.0	665.0
22.5°	1296.7	1285.0	1225.0	1123.3	1045.0	1016.7	986.7	835.0	806.7	791.7	771.7
25°	1431.7	1406.7	1313.3	1151.7	1046.7	1068.3	1120.0	981.7	955.0	933.3	901.7
27.5°	1613.3	1580.0	1433.3	1193.3	1053.3	1125.0	1273.3	1160.0	1131.7	1106.7	1071.7
30°	1818.3	1796.7	1621.7	1293.3	1101.7	1208.3	1445.0	1386.7	1353.3	1323.3	1281.7
32.5°	2025.0	1995.0	1821.7	1483.3	1231.7	1370.0	1660.0	1650.0	1606.7	1578.3	1533.3
35°	2206.7	2191.7	2063.3	1795.0	1528.3	1653.3	1946.7	1958.3	1920.0	1890.0	1840.0
37.5°	2330.0	2330.0	2305.0	2130.0	2000.0	2093.3	2368.3	2370.0	2331.7	2263.3	2238.3
40°	2393.3	2411.7	2501.7	2535.0	2528.3	2648.3	2921.7	2891.7	2860.0	2825.0	2741.7
42.5°	2523.3	2540.0	2731.7	2961.7	3111.7	3270.0	3458.3	3448.3	3410.0	3346.7	3270.0
45°	2743.3	2765.0	2993.3	3358.3	3666.7	3891.7	4011.7	3965.0	3926.7	3866.7	3826.7
47.5°	3023.3	3065.0	3323.3	3775.0	4146.7	4518.3	4643.3	4520.0	4486.7	4440.0	4375.0
50°	3321.7	3361.7	3636.7	4153.3	4573.3	5016.7	5225.0	5016.7	4968.3	4953.3	4880.0
52.5°	3580.0	3613.3	3878.3	4445.0	4900.0	5420.0	5723.3	5448.3	5413.3	5363.3	5310.0
55°	3733.3	3760.0	4008.3	4585.0	5121.7	5783.3	6205.0	5963.3	5911.7	5891.7	5815.0
57.5°	3785.0	3811.7	4035.0	4603.3	5241.7	6115.0	6790.0	6798.3	6736.7	6665.0	6641.7
60°	3785.0	3815.0	4003.3	4558.3	5358.3	6468.3	7570.0	8265.0	8131.7	8118.3	8033.3
62.5°	3628.3	3656.7	3846.7	4420.0	5515.0	6945.0	8656.7	9883.3	9845.0	9758.3	9618.3
65°	3288.3	3305.0	3491.7	4066.7	5455.0	7383.3	9598.3	10960.0	10898.3	10728.3	10548.3
66°	3135.0	3148.3	3323.3	3865.0	5258.3	7443.3	9765.0	11095.0	10993.3	10850.0	10646.7
67.5°	2913.3	2936.7	3060.0	3490.0	4786.7	7235.0	9660.0	11000.0	10911.7	10738.3	10535.0
70°	1945.0	1928.3	2363.3	2678.3	3646.7	5895.0	8666.7	9876.7	9878.3	9796.7	9715.0
72.5°	923.3	933.3	1060.0	1648.3	2386.7	3938.3	6898.3	7883.3	7996.7	7850.0	7748.3
75°	663.3	678.3	755.0	1008.3	1423.3	2363.3	4471.7	5513.3	5516.7	5256.7	5025.0
77.5°	193.3	201.7	283.3	621.7	1066.7	1595.0	2568.3	3065.0	2993.3	2806.7	2631.7
80°	80.0	80.0	83.3	198.3	428.3	1083.3	1796.7	2360.0	2351.7	2280.0	2176.7
82.5°	30.0	31.7	40.0	81.7	101.7	266.7	1198.3	2048.3	2043.3	1941.7	1868.3
85°	3.3	3.3	10.0	35.0	38.3	50.0	240.0	903.3	898.3	903.3	791.7
87.5°	0.0	0.0	1.7	3.3	5.0	6.7	10.0	35.0	38.3	36.7	33.3
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°	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7
2.5°	285.0	281.7	281.7	280.0	280.0	280.0	278.3	276.7	276.7	275.0	273.3
5°	311.7	308.3	306.7	303.3	301.7	300.0	296.7	295.0	291.7	290.0	288.3
7.5°	343.3	336.7	335.0	330.0	325.0	321.7	318.3	313.3	310.0	303.3	301.7
10°	383.3	375.0	368.3	361.7	356.7	348.3	343.3	336.7	330.0	325.0	320.0
12.5°	435.0	423.3	413.3	406.7	395.0	385.0	375.0	370.0	356.7	350.0	341.7
15°	491.7	478.3	466.7	453.3	445.0	428.3	415.0	400.0	393.3	381.7	368.3
17.5°	565.0	543.3	525.0	511.7	495.0	478.3	463.3	448.3	428.3	415.0	398.3
20°	643.3	625.0	600.0	576.7	556.7	536.7	515.0	495.0	476.7	455.0	435.0
22.5°	743.3	716.7	686.7	663.3	636.7	615.0	585.0	558.3	528.3	500.0	476.7
25°	870.0	835.0	806.7	773.3	741.7	708.3	671.7	638.3	600.0	573.3	533.3
27.5°	1026.7	993.3	955.0	911.7	880.0	830.0	781.7	740.0	695.0	653.3	608.3
30°	1226.7	1178.3	1138.3	1096.7	1033.3	985.0	928.3	871.7	810.0	768.3	700.0
32.5°	1466.7	1415.0	1355.0	1295.0	1236.7	1168.3	1098.3	1028.3	960.0	883.3	813.3
35°	1760.0	1698.3	1630.0	1565.0	1475.0	1401.7	1313.3	1216.7	1140.0	1051.7	963.3
37.5°	2148.3	2046.7	1986.7	1918.3	1796.7	1696.7	1598.3	1501.7	1366.7	1273.3	1148.3
40°	2635.0	2575.0	2476.7	2366.7	2256.7	2125.0	1991.7	1863.3	1706.7	1576.7	1431.7
42.5°	3206.7	3118.3	3018.3	2860.0	2748.3	2593.3	2441.7	2271.7	2080.0	1913.3	1743.3
45°	3743.3	3638.3	3561.7	3403.3	3286.7	3103.3	2920.0	2740.0	2518.3	2303.3	2106.7
47.5°	4323.3	4236.7	4110.0	3981.7	3863.3	3656.7	3458.3	3240.0	3006.7	2751.7	2496.7
50°	4833.3	4765.0	4678.3	4523.3	4391.7	4218.3	3985.0	3746.7	3451.7	3198.3	2908.3
52.5°	5266.7	5213.3	5091.7	4981.7	4863.3	4700.0	4491.7	4263.3	3945.0	3666.7	3336.7
55°	5778.3	5740.0	5633.3	5565.0	5460.0	5303.3	5108.3	4896.7	4560.0	4256.7	3883.3
57.5°	6616.7	6586.7	6493.3	6465.0	6361.7	6225.0	5985.0	5758.3	5365.0	4988.3	4561.7
60°	8005.0	7945.0	7808.3	7738.3	7520.0	7336.7	7025.0	6713.3	6238.3	5758.3	5245.0
62.5°	9491.7	9323.3	9063.3	8840.0	8530.0	8211.7	7795.0	7318.3	6761.7	6191.7	5601.7
65°	10293.3	10006.7	9678.3	9323.3	8921.7	8453.3	7928.3	7356.7	6758.3	6156.7	5533.3
66°	10385.0	10061.7	9713.3	9318.3	8871.7	8373.3	7840.0	7240.0	6618.3	6031.7	5408.3
67.5°	10270.0	9931.7	9563.3	9125.0	8641.7	8125.0	7565.0	6941.7	6343.3	5748.3	5141.7
70°	9465.0	9128.3	8800.0	8338.3	7823.3	7303.3	6773.3	6076.7	5510.0	4963.3	4423.3
72.5°	7558.3	7330.0	7005.0	6610.0	6108.3	5498.3	5056.7	4433.3	3941.7	3411.7	2993.3
75°	4723.3	4401.7	4000.0	3496.7	3113.3	2618.3	2360.0	1886.7	1606.7	1361.7	1125.0
77.5°	2415.0	2173.3	1891.7	1608.3	1336.7	1066.7	825.0	583.3	393.3	273.3	203.3
80°	1995.0	1781.7	1548.3	1290.0	1050.0	815.0	586.7	400.0	255.0	166.7	130.0
82.5°	1648.3	1468.3	1260.0	1020.0	811.7	640.0	445.0	290.0	180.0	116.7	91.7
85°	701.7	636.7	491.7	390.0	293.3	216.7	151.7	101.7	71.7	58.3	53.3
87.5°	30.0	33.3	31.7	25.0	18.3	18.3	16.7	13.3	13.3	13.3	13.3
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°	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7	261.7
2.5°	273.3	271.7	270.0	270.0	268.3	266.7	256.7	248.3	238.3	231.7	225.0
5°	285.0	283.3	280.0	278.3	275.0	273.3	251.7	233.3	218.3	206.7	198.3
7.5°	296.7	295.0	290.0	285.0	283.3	280.0	245.0	221.7	201.7	188.3	180.0
10°	311.7	306.7	301.7	295.0	290.0	285.0	238.3	208.3	186.7	175.0	166.7
12.5°	333.3	325.0	316.7	308.3	301.7	293.3	235.0	196.7	175.0	161.7	153.3
15°	358.3	346.7	336.7	326.7	315.0	306.7	228.3	186.7	165.0	151.7	141.7
17.5°	381.7	368.3	353.3	338.3	326.7	315.0	221.7	176.7	155.0	141.7	131.7
20°	415.0	395.0	376.7	358.3	341.7	326.7	211.7	166.7	146.7	131.7	121.7
22.5°	451.7	428.3	405.0	380.0	358.3	338.3	203.3	158.3	138.3	123.3	111.7
25°	498.3	470.0	438.3	406.7	381.7	355.0	195.0	150.0	130.0	115.0	103.3
27.5°	563.3	523.3	488.3	448.3	410.0	380.0	188.3	143.3	121.7	106.7	95.0
30°	651.7	593.3	538.3	495.0	450.0	406.7	181.7	135.0	115.0	98.3	85.0
32.5°	750.0	681.7	618.3	553.3	496.7	446.7	175.0	128.3	106.7	90.0	78.3
35°	871.7	785.0	700.0	625.0	556.7	490.0	168.3	121.7	100.0	81.7	70.0
37.5°	1046.7	938.3	826.7	730.0	641.7	553.3	163.3	115.0	91.7	73.3	61.7
40°	1286.7	1146.7	1010.0	878.3	763.3	653.3	156.7	108.3	85.0	66.7	55.0
42.5°	1546.7	1376.7	1196.7	1048.3	890.0	751.7	150.0	101.7	78.3	60.0	48.3
45°	1870.0	1658.3	1440.0	1238.3	1045.0	866.7	143.3	95.0	70.0	53.3	41.7
47.5°	2223.3	1953.3	1706.7	1453.3	1223.3	1010.0	135.0	90.0	63.3	46.7	36.7
50°	2586.7	2301.7	1990.0	1701.7	1428.3	1153.3	126.7	81.7	56.7	41.7	30.0
52.5°	2978.3	2641.7	2323.3	1965.0	1646.7	1341.7	118.3	75.0	51.7	36.7	25.0
55°	3476.7	3100.0	2726.7	2325.0	1941.7	1560.0	110.0	66.7	45.0	31.7	20.0
57.5°	4103.3	3656.7	3198.3	2745.0	2280.0	1846.7	103.3	58.3	38.3	26.7	16.7
60°	4695.0	4173.3	3618.3	3096.7	2571.7	2066.7	93.3	51.7	33.3	21.7	16.7
62.5°	5001.7	4406.7	3808.3	3233.3	2673.3	2145.0	83.3	43.3	28.3	18.3	15.0
65°	4926.7	4320.0	3740.0	3160.0	2611.7	2095.0	73.3	38.3	25.0	16.7	15.0
66°	4818.3	4218.3	3635.0	3083.3	2560.0	2041.7	68.3	36.7	23.3	16.7	13.3
67.5°	4581.7	4001.7	3445.0	2931.7	2418.3	1940.0	61.7	33.3	21.7	15.0	13.3
70°	3913.3	3386.7	2941.7	2485.0	2066.7	1635.0	50.0	28.3	18.3	13.3	13.3
72.5°	2590.0	2231.7	1935.0	1665.0	1391.7	1080.0	41.7	23.3	15.0	13.3	11.7
75°	976.7	883.3	758.3	681.7	595.0	521.7	33.3	15.0	11.7	11.7	11.7
77.5°	173.3	160.0	141.7	130.0	120.0	110.0	26.7	10.0	10.0	11.7	11.7
80°	116.7	108.3	98.3	90.0	83.3	75.0	18.3	8.3	10.0	10.0	11.7
82.5°	83.3	78.3	73.3	66.7	61.7	55.0	11.7	8.3	10.0	10.0	10.0
85°	50.0	46.7	43.3	40.0	35.0	33.3	8.3	8.3	8.3	10.0	10.0
87.5°	13.3	11.7	13.3	13.3	10.0	11.7	6.7	6.7	6.7	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: P150680

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

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	261.7	261.7	261.7	261.7	261.7
2.5°	221.7	221.7	218.3	223.3	223.3
5°	191.7	191.7	190.0	191.7	191.7
7.5°	175.0	173.3	173.3	173.3	175.0
10°	160.0	158.3	158.3	158.3	158.3
12.5°	146.7	145.0	143.3	145.0	145.0
15°	135.0	131.7	131.7	131.7	131.7
17.5°	125.0	121.7	120.0	120.0	120.0
20°	115.0	110.0	110.0	110.0	110.0
22.5°	105.0	100.0	100.0	100.0	100.0
25°	95.0	90.0	90.0	90.0	90.0
27.5°	86.7	81.7	81.7	81.7	81.7
30°	76.7	73.3	73.3	75.0	73.3
32.5°	70.0	65.0	65.0	66.7	66.7
35°	61.7	58.3	58.3	58.3	58.3
37.5°	53.3	50.0	50.0	50.0	50.0
40°	46.7	43.3	41.7	43.3	43.3
42.5°	40.0	36.7	35.0	35.0	35.0
45°	35.0	30.0	28.3	30.0	30.0
47.5°	28.3	25.0	25.0	26.7	26.7
50°	21.7	21.7	23.3	26.7	26.7
52.5°	20.0	20.0	23.3	26.7	26.7
55°	18.3	20.0	23.3	25.0	26.7
57.5°	16.7	20.0	23.3	25.0	25.0
60°	16.7	18.3	21.7	25.0	25.0
62.5°	15.0	16.7	20.0	23.3	23.3
65°	15.0	16.7	20.0	23.3	23.3
66°	15.0	16.7	20.0	23.3	23.3
67.5°	15.0	16.7	20.0	23.3	23.3
70°	15.0	16.7	20.0	21.7	21.7
72.5°	13.3	15.0	18.3	21.7	21.7
75°	13.3	15.0	18.3	21.7	21.7
77.5°	13.3	15.0	18.3	21.7	21.7
80°	13.3	15.0	18.3	20.0	21.7
82.5°	11.7	15.0	16.7	20.0	20.0
85°	11.7	13.3	16.7	18.3	20.0
87.5°	10.0	11.7	13.3	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)