

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: P150670

Luminaire Tested: **TLM-E04-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P150670  
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-E04-LED-E1-SL3-HSS  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (84) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6935.3 lumens  
Efficiency: N/A  
Efficacy: 71.4 lumens/watt  
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
CIE Type: Direct

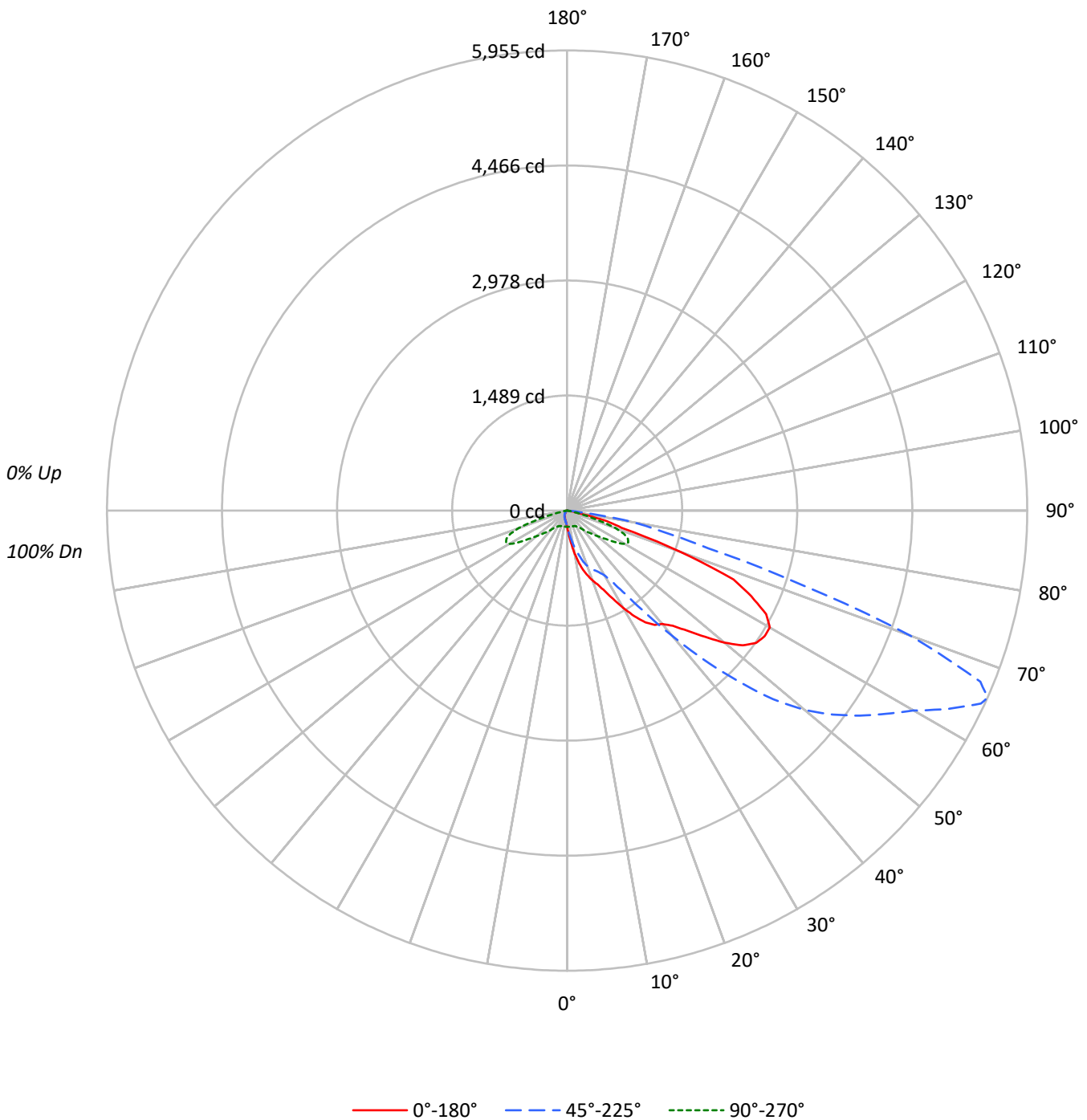
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	3363	3363	3363
5°	5633	3387	2472
10°	9245	3415	2067
15°	13194	3559	1751
20°	16413	3681	1505
25°	20302	3900	1276
30°	26986	4365	1089
35°	34622	5165	916
40°	40155	6795	728
45°	49864	9179	545
50°	66415	12797	532
55°	83656	18710	597
60°	97293	27761	643
65°	100004	32972	711
70°	73089	31659	813
75°	32942	13780	1074
80°	5921	3456	1601
85°	498	3078	2949



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.4	0.3
10°-20°	99.4	1.4
20°-30°	214.3	3.1
30°-40°	457.7	6.6
40°-50°	1012.1	14.6
50°-60°	1715.2	24.7
60°-70°	2288.8	33.0
70°-80°	1008.2	14.5
80°-90°	116.1	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°	337.1	4.9
0°-40°	794.8	11.5
0°-60°	3522.1	50.8
0°-90°	6935.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6935.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	209	209	209	209	209	
5°	349	296	210	159	153	40
15°	793	605	214	113	105	227
25°	1145	855	220	83	72	548
35°	1765	1323	263	56	47	1095
45°	2195	3113	404	33	24	1735
55°	2987	4627	668	16	21	2632
65°	2631	5907	867	12	19	2511
75°	531	1891	222	9	17	586
85°	3	40	17	8	16	16
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°	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3
2.5°	264.0	262.7	257.3	257.3	249.3	244.0	237.3	230.7	230.7	229.3	228.0
5°	349.3	341.3	340.0	325.3	313.3	296.0	280.0	258.7	256.0	253.3	252.0
7.5°	444.0	442.7	430.7	413.3	389.3	357.3	325.3	290.7	285.3	282.7	277.3
10°	566.7	560.0	544.0	514.7	478.7	436.0	384.0	329.3	322.7	317.3	314.7
12.5°	684.0	672.0	662.7	625.3	580.0	517.3	454.7	376.0	370.7	364.0	353.3
15°	793.3	782.7	766.7	734.7	684.0	605.3	532.0	436.0	422.7	413.3	405.3
17.5°	878.7	872.0	853.3	817.3	762.7	693.3	605.3	497.3	486.7	474.7	460.0
20°	960.0	950.7	921.3	872.0	813.3	760.0	692.0	577.3	562.7	548.0	532.0
22.5°	1037.3	1028.0	980.0	898.7	836.0	813.3	789.3	668.0	645.3	633.3	617.3
25°	1145.3	1125.3	1050.7	921.3	837.3	854.7	896.0	785.3	764.0	746.7	721.3
27.5°	1290.7	1264.0	1146.7	954.7	842.7	900.0	1018.7	928.0	905.3	885.3	857.3
30°	1454.7	1437.3	1297.3	1034.7	881.3	966.7	1156.0	1109.3	1082.7	1058.7	1025.3
32.5°	1620.0	1596.0	1457.3	1186.7	985.3	1096.0	1328.0	1320.0	1285.3	1262.7	1226.7
35°	1765.3	1753.3	1650.7	1436.0	1222.7	1322.7	1557.3	1566.7	1536.0	1512.0	1472.0
37.5°	1864.0	1864.0	1844.0	1704.0	1600.0	1674.7	1894.7	1896.0	1865.3	1810.7	1790.7
40°	1914.7	1929.3	2001.3	2028.0	2022.7	2118.7	2337.3	2313.3	2288.0	2260.0	2193.3
42.5°	2018.7	2032.0	2185.3	2369.3	2489.3	2616.0	2766.7	2758.7	2728.0	2677.3	2616.0
45°	2194.7	2212.0	2394.7	2686.7	2933.3	3113.3	3209.3	3172.0	3141.3	3093.3	3061.3
47.5°	2418.7	2452.0	2658.7	3020.0	3317.3	3614.7	3714.7	3616.0	3589.3	3552.0	3500.0
50°	2657.3	2689.3	2909.3	3322.7	3658.7	4013.3	4180.0	4013.3	3974.7	3962.7	3904.0
52.5°	2864.0	2890.7	3102.7	3556.0	3920.0	4336.0	4578.7	4358.7	4330.7	4290.7	4248.0
55°	2986.7	3008.0	3206.7	3668.0	4097.3	4626.7	4964.0	4770.7	4729.3	4713.3	4652.0
57.5°	3028.0	3049.3	3228.0	3682.7	4193.3	4892.0	5432.0	5438.7	5389.3	5332.0	5313.3
60°	3028.0	3052.0	3202.7	3646.7	4286.7	5174.7	6056.0	6612.0	6505.3	6494.7	6426.7
62.5°	2902.7	2925.3	3077.3	3536.0	4412.0	5556.0	6925.3	7906.7	7876.0	7806.7	7694.7
65°	2630.7	2644.0	2793.3	3253.3	4364.0	5906.7	7678.7	8768.0	8718.7	8582.7	8438.7
66°	2508.0	2518.7	2658.7	3092.0	4206.7	5954.7	7812.0	8876.0	8794.7	8680.0	8517.3
67.5°	2330.7	2349.3	2448.0	2792.0	3829.3	5788.0	7728.0	8800.0	8729.3	8590.7	8428.0
70°	1556.0	1542.7	1890.7	2142.7	2917.3	4716.0	6933.3	7901.3	7902.7	7837.3	7772.0
72.5°	738.7	746.7	848.0	1318.7	1909.3	3150.7	5518.7	6306.7	6397.3	6280.0	6198.7
75°	530.7	542.7	604.0	806.7	1138.7	1890.7	3577.3	4410.7	4413.3	4205.3	4020.0
77.5°	154.7	161.3	226.7	497.3	853.3	1276.0	2054.7	2452.0	2394.7	2245.3	2105.3
80°	64.0	64.0	66.7	158.7	342.7	866.7	1437.3	1888.0	1881.3	1824.0	1741.3
82.5°	24.0	25.3	32.0	65.3	81.3	213.3	958.7	1638.7	1634.7	1553.3	1494.7
85°	2.7	2.7	8.0	28.0	30.7	40.0	192.0	722.7	718.7	722.7	633.3
87.5°	0.0	0.0	1.3	2.7	4.0	5.3	8.0	28.0	30.7	29.3	26.7
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):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3
2.5°	228.0	225.3	225.3	224.0	224.0	224.0	222.7	221.3	221.3	220.0	218.7
5°	249.3	246.7	245.3	242.7	241.3	240.0	237.3	236.0	233.3	232.0	230.7
7.5°	274.7	269.3	268.0	264.0	260.0	257.3	254.7	250.7	248.0	242.7	241.3
10°	306.7	300.0	294.7	289.3	285.3	278.7	274.7	269.3	264.0	260.0	256.0
12.5°	348.0	338.7	330.7	325.3	316.0	308.0	300.0	296.0	285.3	280.0	273.3
15°	393.3	382.7	373.3	362.7	356.0	342.7	332.0	320.0	314.7	305.3	294.7
17.5°	452.0	434.7	420.0	409.3	396.0	382.7	370.7	358.7	342.7	332.0	318.7
20°	514.7	500.0	480.0	461.3	445.3	429.3	412.0	396.0	381.3	364.0	348.0
22.5°	594.7	573.3	549.3	530.7	509.3	492.0	468.0	446.7	422.7	400.0	381.3
25°	696.0	668.0	645.3	618.7	593.3	566.7	537.3	510.7	480.0	458.7	426.7
27.5°	821.3	794.7	764.0	729.3	704.0	664.0	625.3	592.0	556.0	522.7	486.7
30°	981.3	942.7	910.7	877.3	826.7	788.0	742.7	697.3	648.0	614.7	560.0
32.5°	1173.3	1132.0	1084.0	1036.0	989.3	934.7	878.7	822.7	768.0	706.7	650.7
35°	1408.0	1358.7	1304.0	1252.0	1180.0	1121.3	1050.7	973.3	912.0	841.3	770.7
37.5°	1718.7	1637.3	1589.3	1534.7	1437.3	1357.3	1278.7	1201.3	1093.3	1018.7	918.7
40°	2108.0	2060.0	1981.3	1893.3	1805.3	1700.0	1593.3	1490.7	1365.3	1261.3	1145.3
42.5°	2565.3	2494.7	2414.7	2288.0	2198.7	2074.7	1953.3	1817.3	1664.0	1530.7	1394.7
45°	2994.7	2910.7	2849.3	2722.7	2629.3	2482.7	2336.0	2192.0	2014.7	1842.7	1685.3
47.5°	3458.7	3389.3	3288.0	3185.3	3090.7	2925.3	2766.7	2592.0	2405.3	2201.3	1997.3
50°	3866.7	3812.0	3742.7	3618.7	3513.3	3374.7	3188.0	2997.3	2761.3	2558.7	2326.7
52.5°	4213.3	4170.7	4073.3	3985.3	3890.7	3760.0	3593.3	3410.7	3156.0	2933.3	2669.3
55°	4622.7	4592.0	4506.7	4452.0	4368.0	4242.7	4086.7	3917.3	3648.0	3405.3	3106.7
57.5°	5293.3	5269.3	5194.7	5172.0	5089.3	4980.0	4788.0	4606.7	4292.0	3990.7	3649.3
60°	6404.0	6356.0	6246.7	6190.7	6016.0	5869.3	5620.0	5370.7	4990.7	4606.7	4196.0
62.5°	7593.3	7458.7	7250.7	7072.0	6824.0	6569.3	6236.0	5854.7	5409.3	4953.3	4481.3
65°	8234.7	8005.3	7742.7	7458.7	7137.3	6762.7	6342.7	5885.3	5406.7	4925.3	4426.7
66°	8308.0	8049.3	7770.7	7454.7	7097.3	6698.7	6272.0	5792.0	5294.7	4825.3	4326.7
67.5°	8216.0	7945.3	7650.7	7300.0	6913.3	6500.0	6052.0	5553.3	5074.7	4598.7	4113.3
70°	7572.0	7302.7	7040.0	6670.7	6258.7	5842.7	5418.7	4861.3	4408.0	3970.7	3538.7
72.5°	6046.7	5864.0	5604.0	5288.0	4886.7	4398.7	4045.3	3546.7	3153.3	2729.3	2394.7
75°	3778.7	3521.3	3200.0	2797.3	2490.7	2094.7	1888.0	1509.3	1285.3	1089.3	900.0
77.5°	1932.0	1738.7	1513.3	1286.7	1069.3	853.3	660.0	466.7	314.7	218.7	162.7
80°	1596.0	1425.3	1238.7	1032.0	840.0	652.0	469.3	320.0	204.0	133.3	104.0
82.5°	1318.7	1174.7	1008.0	816.0	649.3	512.0	356.0	232.0	144.0	93.3	73.3
85°	561.3	509.3	393.3	312.0	234.7	173.3	121.3	81.3	57.3	46.7	42.7
87.5°	24.0	26.7	25.3	20.0	14.7	14.7	13.3	10.7	10.7	10.7	10.7
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°	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3	209.3
2.5°	218.7	217.3	216.0	216.0	214.7	213.3	205.3	198.7	190.7	185.3	180.0
5°	228.0	226.7	224.0	222.7	220.0	218.7	201.3	186.7	174.7	165.3	158.7
7.5°	237.3	236.0	232.0	228.0	226.7	224.0	196.0	177.3	161.3	150.7	144.0
10°	249.3	245.3	241.3	236.0	232.0	228.0	190.7	166.7	149.3	140.0	133.3
12.5°	266.7	260.0	253.3	246.7	241.3	234.7	188.0	157.3	140.0	129.3	122.7
15°	286.7	277.3	269.3	261.3	252.0	245.3	182.7	149.3	132.0	121.3	113.3
17.5°	305.3	294.7	282.7	270.7	261.3	252.0	177.3	141.3	124.0	113.3	105.3
20°	332.0	316.0	301.3	286.7	273.3	261.3	169.3	133.3	117.3	105.3	97.3
22.5°	361.3	342.7	324.0	304.0	286.7	270.7	162.7	126.7	110.7	98.7	89.3
25°	398.7	376.0	350.7	325.3	305.3	284.0	156.0	120.0	104.0	92.0	82.7
27.5°	450.7	418.7	390.7	358.7	328.0	304.0	150.7	114.7	97.3	85.3	76.0
30°	521.3	474.7	430.7	396.0	360.0	325.3	145.3	108.0	92.0	78.7	68.0
32.5°	600.0	545.3	494.7	442.7	397.3	357.3	140.0	102.7	85.3	72.0	62.7
35°	697.3	628.0	560.0	500.0	445.3	392.0	134.7	97.3	80.0	65.3	56.0
37.5°	837.3	750.7	661.3	584.0	513.3	442.7	130.7	92.0	73.3	58.7	49.3
40°	1029.3	917.3	808.0	702.7	610.7	522.7	125.3	86.7	68.0	53.3	44.0
42.5°	1237.3	1101.3	957.3	838.7	712.0	601.3	120.0	81.3	62.7	48.0	38.7
45°	1496.0	1326.7	1152.0	990.7	836.0	693.3	114.7	76.0	56.0	42.7	33.3
47.5°	1778.7	1562.7	1365.3	1162.7	978.7	808.0	108.0	72.0	50.7	37.3	29.3
50°	2069.3	1841.3	1592.0	1361.3	1142.7	922.7	101.3	65.3	45.3	33.3	24.0
52.5°	2382.7	2113.3	1858.7	1572.0	1317.3	1073.3	94.7	60.0	41.3	29.3	20.0
55°	2781.3	2480.0	2181.3	1860.0	1553.3	1248.0	88.0	53.3	36.0	25.3	16.0
57.5°	3282.7	2925.3	2558.7	2196.0	1824.0	1477.3	82.7	46.7	30.7	21.3	13.3
60°	3756.0	3338.7	2894.7	2477.3	2057.3	1653.3	74.7	41.3	26.7	17.3	13.3
62.5°	4001.3	3525.3	3046.7	2586.7	2138.7	1716.0	66.7	34.7	22.7	14.7	12.0
65°	3941.3	3456.0	2992.0	2528.0	2089.3	1676.0	58.7	30.7	20.0	13.3	12.0
66°	3854.7	3374.7	2908.0	2466.7	2048.0	1633.3	54.7	29.3	18.7	13.3	10.7
67.5°	3665.3	3201.3	2756.0	2345.3	1934.7	1552.0	49.3	26.7	17.3	12.0	10.7
70°	3130.7	2709.3	2353.3	1988.0	1653.3	1308.0	40.0	22.7	14.7	10.7	10.7
72.5°	2072.0	1785.3	1548.0	1332.0	1113.3	864.0	33.3	18.7	12.0	10.7	9.3
75°	781.3	706.7	606.7	545.3	476.0	417.3	26.7	12.0	9.3	9.3	9.3
77.5°	138.7	128.0	113.3	104.0	96.0	88.0	21.3	8.0	8.0	9.3	9.3
80°	93.3	86.7	78.7	72.0	66.7	60.0	14.7	6.7	8.0	8.0	9.3
82.5°	66.7	62.7	58.7	53.3	49.3	44.0	9.3	6.7	8.0	8.0	8.0
85°	40.0	37.3	34.7	32.0	28.0	26.7	6.7	6.7	6.7	8.0	8.0
87.5°	10.7	9.3	10.7	10.7	8.0	9.3	5.3	5.3	5.3	6.7	6.7
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: P150670

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS

**CANDELA DISTRIBUTION (continued):**

	145°	155°	165°	175°	180°
0°	209.3	209.3	209.3	209.3	209.3
2.5°	177.3	177.3	174.7	178.7	178.7
5°	153.3	153.3	152.0	153.3	153.3
7.5°	140.0	138.7	138.7	138.7	140.0
10°	128.0	126.7	126.7	126.7	126.7
12.5°	117.3	116.0	114.7	116.0	116.0
15°	108.0	105.3	105.3	105.3	105.3
17.5°	100.0	97.3	96.0	96.0	96.0
20°	92.0	88.0	88.0	88.0	88.0
22.5°	84.0	80.0	80.0	80.0	80.0
25°	76.0	72.0	72.0	72.0	72.0
27.5°	69.3	65.3	65.3	65.3	65.3
30°	61.3	58.7	58.7	60.0	58.7
32.5°	56.0	52.0	52.0	53.3	53.3
35°	49.3	46.7	46.7	46.7	46.7
37.5°	42.7	40.0	40.0	40.0	40.0
40°	37.3	34.7	33.3	34.7	34.7
42.5°	32.0	29.3	28.0	28.0	28.0
45°	28.0	24.0	22.7	24.0	24.0
47.5°	22.7	20.0	20.0	21.3	21.3
50°	17.3	17.3	18.7	21.3	21.3
52.5°	16.0	16.0	18.7	21.3	21.3
55°	14.7	16.0	18.7	20.0	21.3
57.5°	13.3	16.0	18.7	20.0	20.0
60°	13.3	14.7	17.3	20.0	20.0
62.5°	12.0	13.3	16.0	18.7	18.7
65°	12.0	13.3	16.0	18.7	18.7
66°	12.0	13.3	16.0	18.7	18.7
67.5°	12.0	13.3	16.0	18.7	18.7
70°	12.0	13.3	16.0	17.3	17.3
72.5°	10.7	12.0	14.7	17.3	17.3
75°	10.7	12.0	14.7	17.3	17.3
77.5°	10.7	12.0	14.7	17.3	17.3
80°	10.7	12.0	14.7	16.0	17.3
82.5°	9.3	12.0	13.3	16.0	16.0
85°	9.3	10.7	13.3	14.7	16.0
87.5°	8.0	9.3	10.7	13.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)