

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: P150068

Luminaire Tested: **TLM-E01-LED-E1-SL2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150068
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33678)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E01-LED-E1-SL2-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

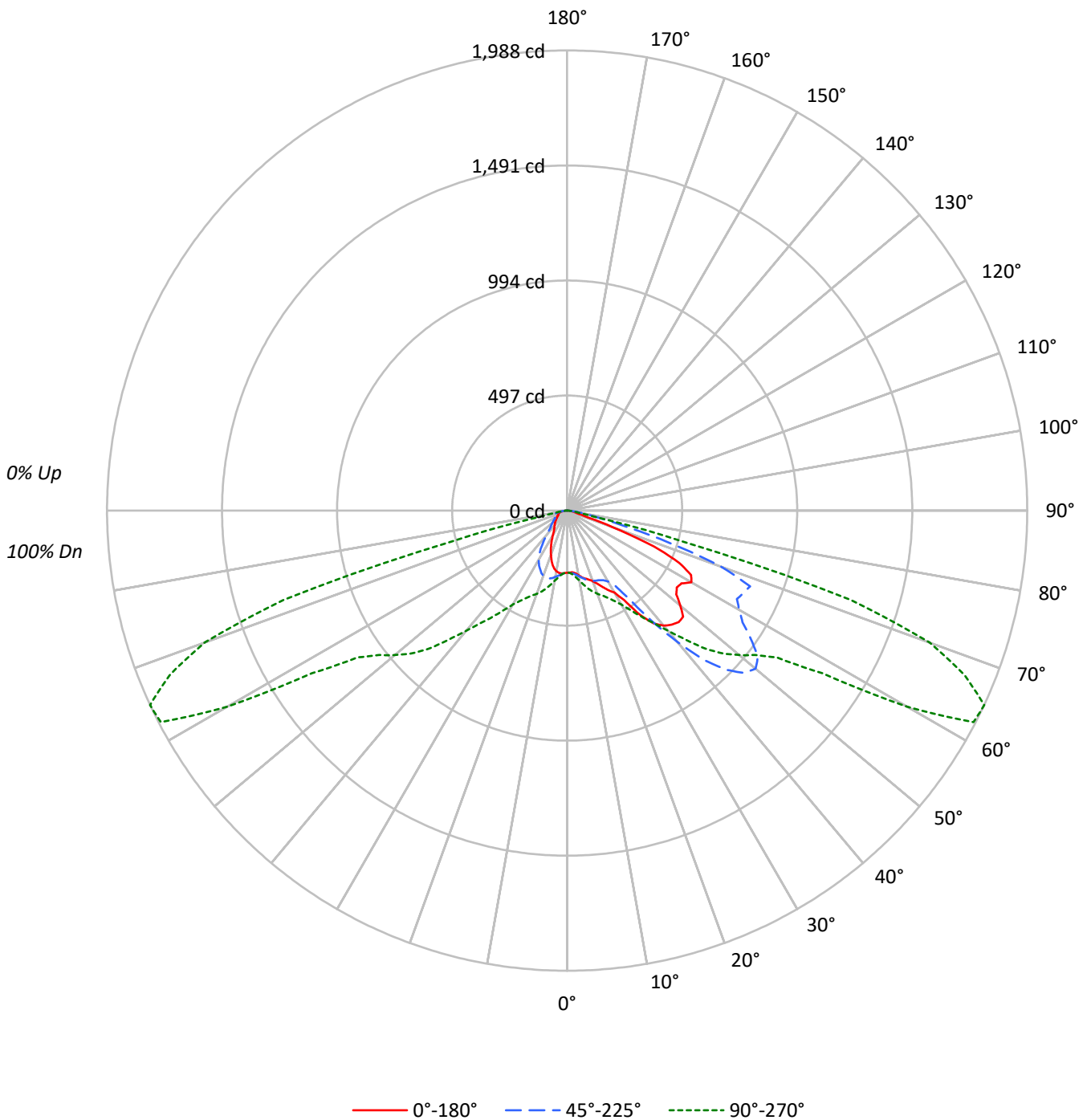
Lumens per Lamp: N/A
Luminaire Lumens: 2578.5 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.99 / 4.45 / 2.31
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): 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	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	106	100	94	90	103	98	93	88	93	89	85	89	86	83	85	83	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	74	68	63	70	66	61	59					59			
3	82	69	59	51	80	68	58	51	64	56	50	61	54	49	59	53	48	45					45			
4	74	59	48	40	71	57	47	40	55	46	39	52	45	38	50	43	38	35					35			
5	66	51	40	32	64	50	39	32	47	38	31	45	37	31	43	36	30	28					28			
6	60	44	34	26	58	43	33	26	41	32	26	40	32	25	38	31	25	23					23			
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19					19			
8	51	35	25	19	49	34	25	19	33	24	18	32	24	18	30	23	18	16					16			
9	47	32	22	16	46	31	22	16	30	22	16	29	21	16	28	21	16	14					14			
10	44	29	20	14	42	28	20	14	27	19	14	26	19	14	25	19	14	12					12			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	16994	16994	16994
5°	17002	17631	17345
10°	18195	19770	17128
15°	19934	22831	15935
20°	21858	25760	13759
25°	25493	29070	11381
30°	29910	34246	8986
35°	42644	43185	7505
40°	53643	55875	6976
45°	61042	75548	6626
50°	62875	95667	6265
55°	63794	121992	6082
60°	78488	214607	6053
65°	80169	297904	6367
70°	38432	308384	7238
75°	10593	126992	8807
80°	8933	17757	8715
85°	5957	11043	9372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	1.0
10°-20°	87.2	3.4
20°-30°	150.7	5.8
30°-40°	249.4	9.7
40°-50°	423.0	16.4
50°-60°	562.0	21.8
60°-70°	726.0	28.2
70°-80°	304.5	11.8
80°-90°	48.9	1.9
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°	264.6	10.3
0°-40°	514.0	19.9
0°-60°	1499.1	58.1
0°-90°	2578.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2578.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	268	268	268	268	268	
5°	268	272	277	276	273	26
15°	304	308	348	304	243	87
25°	365	331	416	278	163	170
35°	552	460	559	197	97	341
45°	682	973	844	101	74	518
55°	578	970	1105	69	55	535
65°	535	841	1988	55	42	484
75°	43	242	519	57	36	70
85°	8	20	15	17	13	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
2.5°	267.5	268.4	267.8	268.4	269.0	269.2	269.8	269.5	269.5	269.8	269.2
5°	267.5	267.5	268.4	269.8	270.4	272.0	274.0	273.7	274.0	273.7	274.3
7.5°	273.2	272.9	273.7	275.4	276.0	278.5	281.9	282.5	283.0	283.0	283.9
10°	283.0	282.7	283.6	284.4	285.3	287.2	292.0	294.0	294.3	294.6	295.7
12.5°	295.4	295.1	294.0	294.0	293.7	297.4	303.8	307.5	308.1	309.2	310.0
15°	304.1	303.3	301.6	300.5	301.9	307.8	317.3	321.6	322.1	323.0	325.2
17.5°	312.6	311.7	308.1	305.2	307.2	316.8	329.7	334.2	335.3	336.2	338.7
20°	324.4	323.8	318.5	311.7	311.2	323.5	339.3	345.2	346.0	347.2	349.7
22.5°	342.4	339.8	333.7	321.0	314.8	327.5	346.0	354.2	355.3	356.4	359.8
25°	364.9	363.8	353.1	333.7	320.7	331.4	353.4	363.5	365.2	366.6	371.1
27.5°	388.2	386.5	375.0	349.7	331.1	339.3	364.9	376.4	378.7	380.9	385.1
30°	409.1	408.5	398.9	371.4	348.0	354.2	383.5	397.5	400.1	402.9	406.8
32.5°	458.0	458.3	448.4	420.3	388.8	381.2	410.2	431.3	432.4	435.8	442.8
35°	551.7	552.8	549.2	526.9	491.5	460.3	463.1	483.9	485.0	487.8	494.6
37.5°	614.4	616.7	627.9	635.0	617.0	602.6	566.9	558.7	559.6	557.9	556.5
40°	649.0	652.4	681.9	718.5	738.2	738.5	723.0	687.0	673.2	669.3	652.4
42.5°	668.7	674.3	716.3	778.7	835.3	874.1	883.7	843.7	833.6	815.6	783.2
45°	681.7	688.4	737.9	823.5	906.7	972.8	1022.6	1004.9	998.2	987.2	957.4
47.5°	679.4	684.8	736.2	838.6	944.1	1038.1	1126.4	1144.7	1136.6	1133.8	1113.5
50°	638.3	643.1	695.4	800.9	923.6	1062.9	1192.3	1244.0	1244.0	1249.4	1243.2
52.5°	594.5	598.4	645.9	740.7	857.2	1038.7	1228.9	1314.7	1325.9	1335.2	1349.8
55°	577.9	582.6	618.6	699.7	800.7	969.5	1241.2	1367.5	1388.4	1404.1	1437.3
57.5°	585.7	590.5	616.1	677.4	767.5	898.9	1241.8	1438.7	1479.0	1511.3	1578.5
60°	619.8	624.3	645.7	698.0	758.7	858.1	1217.9	1552.1	1616.2	1677.0	1789.0
62.5°	604.0	609.6	640.9	732.0	823.7	827.1	1131.5	1639.9	1743.1	1832.9	2010.9
65°	535.1	541.0	565.5	650.7	827.7	840.6	1003.5	1641.6	1769.8	1891.1	2083.3
67.5°	406.2	408.5	427.9	496.3	662.0	855.5	871.8	1447.2	1569.3	1704.6	1902.9
70°	207.6	211.6	217.2	274.0	426.2	707.0	749.2	1066.5	1222.1	1361.9	1600.2
72.5°	72.0	73.4	79.1	104.7	207.6	463.9	655.8	730.9	824.9	955.7	1231.7
75°	43.3	43.3	45.3	52.9	94.8	241.7	583.5	597.0	609.6	653.5	834.1
77.5°	34.3	34.9	34.9	36.3	52.6	124.1	443.1	555.1	556.8	561.0	591.4
80°	24.5	25.6	27.9	29.0	34.0	68.1	248.7	487.3	520.5	536.5	558.7
82.5°	18.3	19.4	23.6	25.0	26.4	38.0	111.7	336.2	396.7	428.7	507.0
85°	8.2	9.6	16.0	17.7	18.6	20.3	52.3	95.7	110.0	123.5	162.9
87.5°	1.4	1.4	2.5	3.7	5.3	5.1	11.5	16.3	16.6	19.4	21.7
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
2.5°	269.2	269.2	269.2	269.0	269.2	269.2	269.2	269.2	269.5	269.5	269.5
5°	275.1	274.6	274.9	274.9	274.9	274.6	275.1	274.9	275.1	276.0	275.7
7.5°	283.9	284.4	284.7	285.0	285.0	285.0	285.3	285.8	285.8	286.7	286.4
10°	296.8	296.5	296.8	297.6	298.5	298.8	299.6	299.3	299.9	301.0	302.1
12.5°	310.6	311.2	312.0	312.8	314.2	314.5	315.4	315.7	317.3	317.3	318.5
15°	326.1	326.3	328.0	328.3	330.0	330.6	332.0	332.5	334.5	334.8	335.9
17.5°	340.1	340.7	341.5	342.4	344.3	345.2	346.3	347.4	349.1	349.7	351.7
20°	351.4	352.5	352.8	354.5	356.2	357.3	358.4	359.5	361.2	362.1	364.0
22.5°	361.5	362.6	363.5	364.9	366.0	367.7	368.3	370.2	371.9	373.3	375.0
25°	372.5	374.2	375.0	377.5	378.4	380.1	381.5	383.5	385.7	387.4	389.6
27.5°	388.0	390.5	391.6	394.4	396.4	397.2	399.5	402.3	404.3	406.2	408.5
30°	409.3	414.1	415.0	416.9	420.6	421.2	424.0	426.2	429.3	431.3	433.2
32.5°	442.5	448.4	449.0	451.3	454.3	455.5	457.7	460.3	465.0	465.9	469.0
35°	493.5	496.0	498.2	499.1	501.6	503.0	504.7	507.5	512.3	511.7	515.1
37.5°	554.5	555.3	555.6	552.8	553.4	550.8	553.9	554.5	556.2	557.6	561.0
40°	641.7	633.0	631.9	625.1	618.4	614.7	613.3	607.7	609.1	609.6	612.5
42.5°	769.2	752.3	738.2	728.6	712.0	703.9	692.9	684.2	677.4	680.0	681.1
45°	930.6	906.4	883.9	854.7	833.0	817.5	798.1	780.7	772.8	769.2	773.7
47.5°	1091.8	1070.5	1044.0	1013.9	979.6	954.0	921.6	893.2	873.5	866.2	870.2
50°	1231.1	1211.4	1191.4	1173.7	1133.8	1105.9	1061.7	1024.9	993.9	978.2	974.0
52.5°	1346.7	1336.3	1325.6	1310.7	1278.6	1250.8	1215.6	1179.3	1138.3	1106.2	1095.2
55°	1450.0	1456.2	1450.8	1451.1	1438.4	1420.7	1390.9	1363.9	1335.2	1298.9	1283.7
57.5°	1600.5	1637.1	1644.4	1662.7	1671.7	1681.2	1689.7	1673.6	1666.3	1639.3	1639.6
60°	1837.6	1891.1	1937.5	1979.7	2014.3	2048.1	2083.5	2099.3	2116.7	2124.9	2152.7
62.5°	2090.0	2140.9	2210.1	2266.7	2298.5	2342.4	2380.9	2405.9	2436.6	2469.2	2511.7
65°	2152.5	2213.8	2257.4	2295.1	2326.6	2350.0	2371.1	2400.9	2426.5	2478.2	2528.3
67.5°	1992.4	2041.3	2081.3	2118.4	2142.9	2162.6	2181.4	2201.1	2245.0	2292.0	2342.4
70°	1710.2	1769.3	1835.4	1883.5	1895.6	1912.5	1930.5	1956.1	1978.0	2027.3	2065.5
72.5°	1374.0	1459.0	1515.0	1581.6	1596.0	1621.6	1631.7	1651.7	1655.6	1682.4	1692.5
75°	957.6	1055.0	1111.3	1160.2	1169.8	1155.7	1161.3	1090.7	1072.7	1058.1	1046.3
77.5°	632.1	658.3	667.3	659.4	621.7	592.2	560.7	529.7	533.1	508.1	464.2
80°	562.1	568.0	559.8	552.0	530.3	499.4	470.9	442.0	427.6	412.4	389.9
82.5°	546.9	569.7	572.2	562.7	545.5	511.7	477.4	434.4	397.8	364.0	329.7
85°	182.9	222.5	240.3	256.9	261.9	267.8	247.6	220.0	186.8	164.6	128.8
87.5°	23.4	29.0	33.5	28.7	33.5	39.4	28.4	31.8	32.1	20.0	14.9
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
2.5°	269.8	269.5	269.5	269.5	269.2	269.5	269.5	269.5	269.5	269.5	269.2
5°	276.0	276.0	276.8	277.1	276.5	276.3	276.5	276.8	276.8	276.5	276.8
7.5°	287.5	287.8	288.4	289.2	288.6	288.9	289.2	288.9	289.8	290.1	289.8
10°	302.1	302.7	304.1	304.4	304.1	305.2	305.5	305.0	305.5	305.5	306.7
12.5°	319.0	319.6	321.3	321.8	322.4	322.7	323.5	323.8	324.7	325.2	326.1
15°	337.3	337.9	339.0	341.0	341.5	342.1	342.7	344.3	344.6	345.8	346.6
17.5°	352.8	353.6	355.3	356.7	357.6	359.0	359.5	361.5	362.1	363.8	365.2
20°	365.2	366.6	368.0	369.7	371.1	372.8	373.3	375.3	376.4	377.3	379.0
22.5°	376.4	378.1	380.1	382.0	383.2	385.4	386.3	387.1	389.6	390.8	392.5
25°	391.0	392.7	395.0	397.5	398.6	401.5	402.3	403.7	406.5	407.6	410.2
27.5°	411.0	413.3	415.0	417.5	418.9	420.9	422.8	424.5	427.1	428.7	431.6
30°	436.1	437.7	440.6	442.5	444.8	447.6	449.8	451.5	452.9	455.5	458.6
32.5°	472.9	473.2	474.0	478.8	481.1	483.3	486.4	487.8	490.1	492.6	496.0
35°	518.8	521.3	523.3	525.5	528.1	530.6	531.7	535.9	537.9	541.3	544.7
37.5°	564.3	564.6	569.1	570.5	572.8	575.3	579.3	583.5	588.5	591.9	597.3
40°	613.3	615.6	621.2	624.0	626.8	633.0	636.1	642.8	651.3	656.1	665.1
42.5°	684.2	687.6	697.7	702.2	709.0	719.1	725.6	734.8	738.2	749.7	754.0
45°	777.0	787.4	802.1	811.6	823.7	834.7	840.3	844.6	849.6	858.6	857.5
47.5°	877.5	891.0	907.3	927.0	934.9	947.8	955.1	963.3	958.8	956.5	954.3
50°	980.4	996.2	1017.9	1035.6	1047.7	1055.6	1061.7	1060.6	1051.1	1046.0	1031.9
52.5°	1094.9	1104.2	1124.8	1140.0	1147.3	1149.0	1147.5	1139.1	1130.1	1114.1	1097.5
55°	1270.5	1266.3	1274.4	1281.5	1279.2	1287.1	1266.8	1259.0	1236.7	1215.9	1193.7
57.5°	1627.2	1632.8	1587.3	1566.7	1563.1	1570.4	1534.7	1530.2	1476.4	1469.7	1432.3
60°	2148.8	2176.4	2140.6	2120.7	2066.7	2048.9	2009.0	1992.4	1940.9	1899.3	1846.7
62.5°	2541.0	2566.0	2580.9	2552.5	2521.0	2474.6	2414.1	2347.1	2292.6	2228.7	2173.0
65°	2576.4	2627.1	2661.4	2674.6	2652.4	2601.5	2526.9	2442.5	2359.0	2278.8	2208.4
67.5°	2410.7	2456.0	2509.2	2556.7	2559.5	2526.3	2462.8	2377.0	2280.5	2181.4	2099.0
70°	2126.0	2182.8	2229.3	2279.3	2314.2	2295.1	2263.3	2184.5	2084.4	2007.3	1912.5
72.5°	1729.1	1753.0	1764.2	1813.5	1814.0	1779.1	1756.6	1713.0	1632.3	1577.7	1505.4
75°	1009.7	957.1	901.1	852.4	812.8	796.2	722.5	710.1	660.6	629.9	584.9
77.5°	416.4	369.4	308.9	258.5	208.7	186.2	153.6	139.3	120.7	112.5	107.2
80°	357.0	312.6	267.0	223.4	184.6	145.7	113.4	88.1	69.2	58.8	54.6
82.5°	291.5	264.7	232.9	209.3	178.9	149.9	126.6	98.2	73.4	54.0	41.4
85°	105.2	86.4	69.5	63.9	50.9	41.9	35.2	30.1	24.8	19.7	17.4
87.5°	11.8	11.3	6.5	6.2	7.0	5.1	5.9	5.3	4.5	3.9	4.2
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: P150068

CATALOG NUMBER: TLM-E01-LED-E1-SL2-8030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
2.5°	269.2	269.2	269.5	269.5	269.8	270.1	270.6	270.4	270.4	270.6	270.6
5°	276.8	277.7	277.4	277.4	277.4	277.7	278.0	276.8	275.7	274.6	274.0
7.5°	290.1	290.6	291.2	290.6	291.2	290.9	290.3	287.2	283.6	279.1	276.0
10°	307.2	307.2	307.8	307.5	308.6	307.8	306.1	299.1	291.2	281.6	274.6
12.5°	325.8	327.7	326.9	327.2	329.4	327.2	323.2	312.8	298.8	283.3	270.9
15°	347.7	348.6	349.1	348.3	349.7	347.7	340.7	324.1	303.6	281.9	263.6
17.5°	365.7	366.0	366.3	366.9	368.8	366.6	354.5	332.0	304.7	275.4	251.2
20°	379.8	381.2	382.3	382.3	385.1	381.8	365.7	335.9	301.0	264.7	235.5
22.5°	394.4	395.6	397.0	397.2	400.9	397.5	375.0	335.1	291.5	249.5	217.2
25°	412.4	413.6	414.7	416.1	421.2	416.4	384.3	331.7	278.2	231.5	197.5
27.5°	433.2	435.8	436.6	438.9	444.8	437.5	392.2	326.6	263.6	210.7	176.7
30°	461.1	464.2	465.3	468.4	476.6	460.5	396.7	317.9	245.0	189.6	154.5
32.5°	498.5	502.7	506.1	509.5	518.8	483.6	397.2	305.2	223.4	166.0	133.1
35°	547.5	553.9	556.5	558.7	567.4	508.6	394.7	286.4	196.9	141.8	116.2
37.5°	602.3	608.8	610.5	611.6	613.3	530.0	388.5	257.7	167.1	120.7	102.7
40°	669.8	675.5	677.7	676.0	667.0	546.6	374.7	224.2	138.1	106.3	94.2
42.5°	752.3	760.7	761.6	754.0	724.1	555.9	347.2	184.8	115.3	95.9	87.8
45°	854.4	853.8	849.1	843.7	786.3	552.3	308.6	150.5	101.0	87.8	81.9
47.5°	946.1	936.5	929.2	913.5	841.2	530.9	258.8	124.6	92.3	81.6	76.8
50°	1021.2	1003.8	988.3	971.2	882.0	492.9	209.3	105.8	84.1	76.2	72.0
52.5°	1080.6	1059.5	1041.5	1024.6	921.4	450.7	171.6	92.0	76.2	70.9	66.7
55°	1173.4	1152.3	1123.6	1105.1	981.6	411.9	147.1	81.0	68.6	65.3	61.0
57.5°	1408.3	1389.8	1355.4	1307.3	1136.3	397.2	133.4	72.6	62.5	60.5	57.1
60°	1818.5	1788.4	1743.7	1694.7	1450.8	407.1	122.4	66.7	58.2	56.5	54.0
62.5°	2128.0	2075.1	2024.5	1979.2	1702.3	406.8	108.0	62.2	55.1	54.3	51.8
65°	2140.6	2086.9	2036.0	1988.4	1708.0	362.1	91.2	58.2	54.6	54.3	50.1
67.5°	2027.0	1968.7	1919.5	1859.6	1581.1	283.0	73.1	55.7	56.8	56.3	49.5
70°	1841.3	1765.3	1724.8	1665.8	1391.5	198.1	60.2	56.5	61.6	59.9	50.4
72.5°	1445.2	1387.8	1326.2	1285.1	1089.3	125.2	50.6	57.1	63.6	60.8	52.6
75°	537.9	553.4	528.1	519.1	553.4	73.4	45.0	53.2	56.8	52.6	47.8
77.5°	108.6	103.8	98.5	97.3	125.8	45.3	41.4	46.1	43.6	38.5	38.8
80°	52.0	50.6	49.0	48.7	46.7	37.7	38.3	39.4	32.9	29.8	31.8
82.5°	34.6	32.6	32.1	30.9	31.5	33.8	36.3	33.8	25.3	23.6	28.7
85°	16.0	15.5	15.2	15.2	16.9	30.4	30.1	24.8	17.4	16.9	28.7
87.5°	3.9	3.9	4.2	3.9	4.5	9.0	7.9	7.6	6.5	7.3	13.5
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: P150068

CATALOG NUMBER: TLM-E01-LED-E1-SL2-8030

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	268.4	268.4	268.4
2.5°	270.4	270.6	270.4
5°	272.9	272.9	272.9
7.5°	272.9	272.0	271.8
10°	269.0	266.4	266.4
12.5°	262.2	258.0	257.4
15°	249.5	243.9	243.1
17.5°	233.5	225.9	224.5
20°	215.5	205.9	204.2
22.5°	195.8	184.8	184.0
25°	176.4	165.1	162.9
27.5°	154.7	143.8	142.6
30°	133.1	123.5	122.9
32.5°	114.8	108.9	107.7
35°	101.8	98.5	97.1
37.5°	93.4	90.9	90.6
40°	86.9	84.7	84.4
42.5°	81.6	79.6	79.3
45°	76.2	74.6	74.0
47.5°	70.9	69.2	68.9
50°	66.1	63.9	63.6
52.5°	61.6	59.4	58.8
55°	57.4	55.1	55.1
57.5°	53.7	51.5	51.2
60°	50.4	48.1	47.8
62.5°	47.8	45.0	44.7
65°	45.9	43.0	42.5
67.5°	44.7	41.4	40.5
70°	46.7	40.5	39.1
72.5°	47.0	39.7	37.7
75°	45.3	37.4	36.0
77.5°	39.7	33.5	32.1
80°	34.3	25.9	23.9
82.5°	32.6	21.1	18.3
85°	25.3	13.8	12.9
87.5°	14.3	7.6	6.2
90°	0.0	0.0	0.0

(END OF REPORT)