

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: P152358

Luminaire Tested: **TLM-E02-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152358
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E02-LED-E1-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

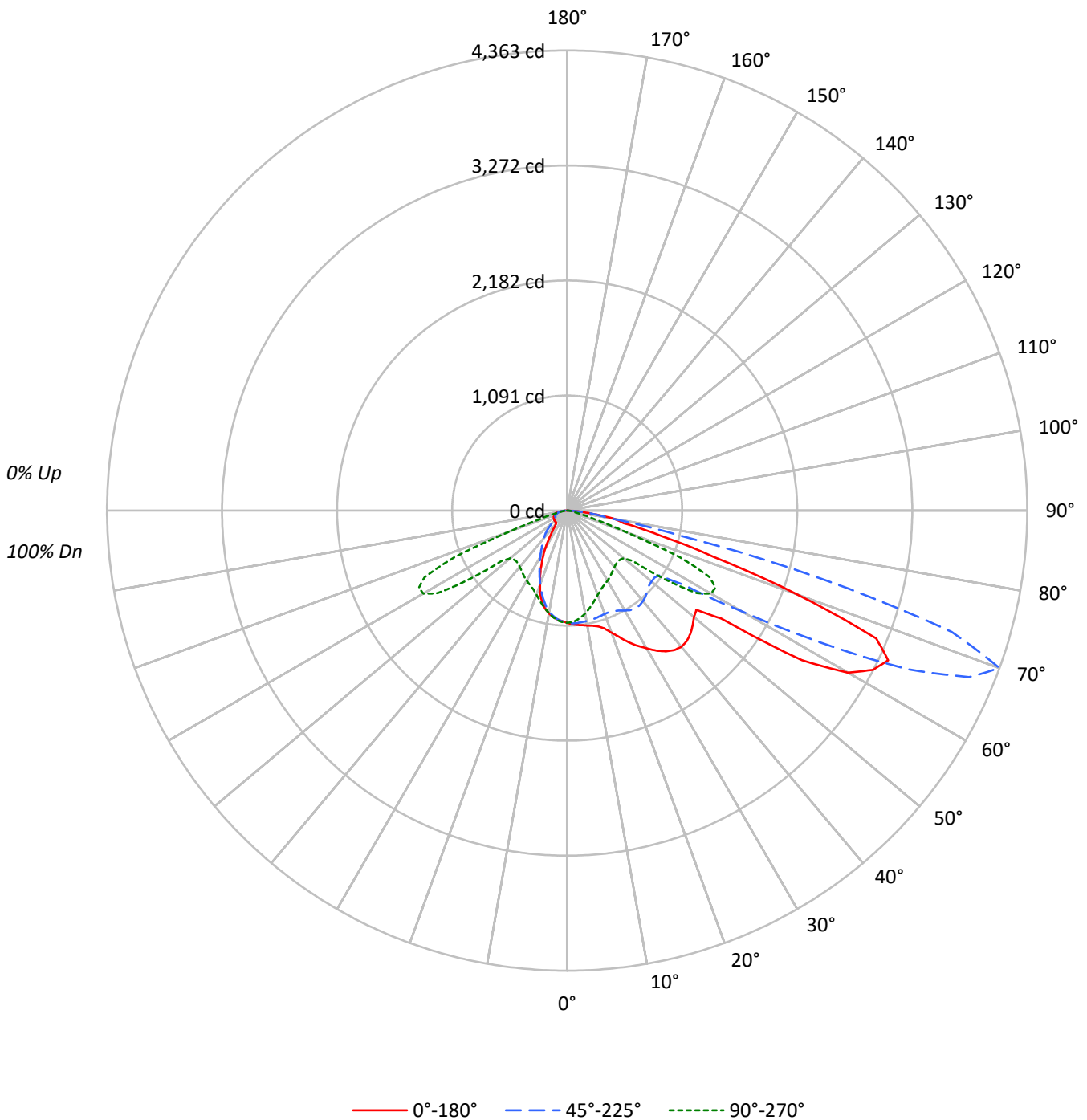
Lumens per Lamp: N/A
Luminaire Lumens: 4986.5 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 52.1
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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CATALOG NUMBER: TLM-E02-LED-E1-SL4-8030

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	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34705	34705	34705
5°	35630	34173	33954
10°	36675	32763	32816
15°	38398	31027	30571
20°	42733	29453	26190
25°	49551	28716	20939
30°	56793	28884	15638
35°	64837	29104	10170
40°	71755	29708	7021
45°	76228	31381	7007
50°	79715	35663	7794
55°	101429	65273	8513
60°	200522	102668	9544
65°	259211	115084	10728
70°	220539	54408	12074
75°	115944	20000	14896
80°	86237	10895	16173
85°	49925	10516	16205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.4	2.0
10°-20°	272.1	5.5
20°-30°	402.8	8.1
30°-40°	509.1	10.2
40°-50°	575.7	11.5
50°-60°	819.3	16.4
60°-70°	1525.8	30.6
70°-80°	699.3	14.0
80°-90°	83.0	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°	774.3	15.5
0°-40°	1283.4	25.7
0°-60°	2678.4	53.7
0°-90°	4986.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4986.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1064	1064	1064	1064	1064	
5°	1088	1070	1044	1035	1037	104
15°	1137	1055	919	870	905	327
25°	1377	1049	798	622	582	639
35°	1628	1133	731	416	255	1018
45°	1652	1076	680	272	152	1271
55°	1784	1070	1148	138	150	1874
65°	3358	3557	1491	124	139	3097
75°	920	2500	159	97	118	1131
85°	133	117	28	44	43	168
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0
2.5°	1080.3	1083.1	1079.7	1079.2	1079.2	1078.6	1075.2	1074.7	1070.2	1070.7	1071.9
5°	1088.2	1089.3	1087.1	1086.5	1085.4	1083.1	1080.3	1076.9	1073.6	1070.2	1067.4
7.5°	1096.1	1094.9	1093.2	1093.2	1091.6	1088.2	1082.6	1078.1	1070.7	1066.8	1061.7
10°	1107.3	1105.6	1103.4	1102.3	1099.4	1094.4	1086.5	1080.3	1071.3	1063.4	1055.0
12.5°	1118.0	1117.4	1114.1	1112.4	1107.9	1102.8	1093.2	1083.7	1071.9	1059.5	1048.2
15°	1137.1	1134.9	1131.5	1128.1	1120.8	1114.1	1099.4	1088.2	1071.3	1055.0	1037.5
17.5°	1170.3	1166.4	1163.0	1155.7	1146.7	1134.9	1113.5	1094.4	1071.3	1047.7	1028.0
20°	1231.1	1222.7	1218.2	1208.6	1192.8	1171.5	1138.3	1107.3	1073.0	1042.6	1016.2
22.5°	1299.7	1294.1	1287.9	1281.7	1257.0	1226.0	1181.0	1134.9	1083.1	1040.4	1006.6
25°	1376.8	1369.5	1366.1	1355.4	1332.4	1296.9	1235.6	1171.5	1106.2	1049.4	1006.6
27.5°	1445.5	1443.2	1442.7	1430.3	1408.3	1366.7	1294.1	1217.0	1137.7	1067.9	1015.0
30°	1507.9	1505.7	1504.6	1497.8	1472.5	1423.0	1344.2	1257.5	1172.0	1093.8	1030.8
32.5°	1574.3	1567.0	1563.6	1550.7	1522.0	1464.0	1374.0	1284.0	1199.0	1119.1	1048.2
35°	1628.3	1622.2	1615.4	1596.8	1556.3	1487.7	1387.0	1293.0	1209.7	1133.2	1057.2
37.5°	1667.7	1661.5	1652.0	1628.3	1578.3	1495.6	1386.4	1290.2	1205.8	1130.9	1058.9
40°	1685.2	1679.0	1668.9	1639.0	1582.2	1491.1	1375.7	1277.2	1194.0	1119.1	1052.2
42.5°	1678.4	1673.9	1661.0	1632.3	1569.8	1470.8	1354.3	1253.0	1171.5	1100.0	1037.0
45°	1652.5	1649.2	1636.8	1606.4	1541.7	1438.2	1322.8	1222.7	1144.5	1076.4	1016.7
47.5°	1613.7	1612.6	1600.2	1570.4	1506.2	1405.5	1290.2	1192.8	1117.4	1053.3	999.8
50°	1570.9	1565.3	1559.1	1531.6	1473.0	1377.4	1266.5	1174.3	1102.3	1044.9	992.5
52.5°	1543.9	1542.3	1536.6	1511.9	1455.6	1361.1	1255.9	1167.5	1101.1	1043.2	988.6
55°	1783.6	1787.6	1735.8	1628.3	1533.8	1406.1	1287.9	1201.8	1128.7	1070.2	1030.2
57.5°	2638.3	2620.9	2532.0	2318.7	2077.9	1760.0	1531.0	1392.0	1301.4	1311.6	1331.8
60°	3073.8	3070.4	3054.1	2971.4	2811.1	2569.1	2300.7	1992.9	1895.0	1905.7	1913.6
62.5°	3268.5	3273.6	3285.9	3255.0	3212.8	3142.5	3008.5	2884.8	2753.7	2704.7	2573.6
65°	3358.5	3367.5	3395.7	3413.1	3429.4	3441.8	3494.7	3639.9	3735.5	3556.6	3140.2
67.5°	3172.3	3215.6	3308.4	3399.0	3480.1	3595.4	3774.3	4111.4	4346.0	4126.0	3522.3
70°	2312.5	2371.6	2478.0	2758.2	3057.5	3319.1	3665.7	4178.9	4532.8	4362.9	3616.8
72.5°	1450.0	1466.3	1513.6	1616.5	1838.8	2174.7	2780.7	3550.4	3958.9	3823.3	3056.9
75°	920.0	925.6	923.9	947.5	985.2	1058.4	1298.1	2097.0	2712.0	2500.5	1703.7
77.5°	548.0	556.5	559.8	567.2	585.2	611.0	630.7	713.5	1137.1	1103.9	618.4
80°	459.1	465.9	460.3	458.6	447.3	439.4	449.0	439.4	407.9	392.7	361.8
82.5°	243.1	242.5	240.8	257.1	290.3	316.2	335.9	331.4	299.9	255.4	216.6
85°	133.4	137.9	137.9	143.5	138.4	139.0	143.5	151.4	140.1	117.0	95.7
87.5°	11.3	17.4	14.1	17.4	23.6	16.9	16.3	16.3	14.1	10.1	9.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0
2.5°	1069.1	1067.9	1065.7	1064.0	1064.0	1061.2	1059.5	1058.4	1057.8	1055.6	1055.6
5°	1065.7	1061.7	1057.8	1055.0	1053.3	1050.5	1046.0	1043.7	1040.9	1038.7	1037.5
7.5°	1058.4	1051.1	1044.9	1040.4	1034.7	1030.2	1024.6	1019.5	1014.5	1012.2	1011.1
10°	1047.1	1037.5	1028.0	1019.5	1011.7	1003.8	996.5	989.2	983.0	978.5	974.0
12.5°	1036.4	1021.8	1009.4	997.0	984.7	975.1	965.0	954.3	945.3	936.8	934.6
15°	1021.8	1004.9	989.2	974.0	958.8	943.0	930.6	918.8	904.2	894.6	887.3
17.5°	1008.3	988.0	968.9	950.9	932.3	916.0	897.4	881.7	867.1	852.4	841.7
20°	993.7	971.7	951.5	931.2	910.9	890.1	868.7	848.5	830.5	813.0	795.6
22.5°	980.7	958.2	938.5	916.6	894.1	870.4	845.7	820.4	799.5	777.0	756.8
25°	972.8	948.1	927.8	906.4	881.7	855.8	827.7	797.9	772.5	746.7	722.5
27.5°	972.8	940.8	920.0	898.6	873.2	845.7	814.7	782.1	753.4	724.7	694.9
30°	981.3	941.9	913.8	891.3	865.4	835.6	801.2	766.9	735.4	701.6	672.9
32.5°	989.2	944.1	909.3	880.6	850.7	821.5	786.6	750.0	715.1	683.1	652.7
35°	994.2	944.1	900.8	864.2	830.5	801.8	767.5	730.9	695.4	663.9	635.8
37.5°	994.8	939.6	887.3	845.7	810.2	780.4	747.8	713.5	679.7	650.4	626.8
40°	989.2	930.6	873.8	826.0	788.9	758.5	728.6	697.7	667.3	643.1	622.9
42.5°	979.0	921.1	860.9	810.2	771.4	739.9	712.3	685.9	659.4	638.6	621.7
45°	963.8	908.1	849.1	800.7	762.4	729.2	702.2	680.3	657.8	640.3	623.4
47.5°	950.3	903.6	853.0	806.9	766.9	732.6	705.0	686.4	669.0	657.2	634.1
50°	947.5	901.4	854.7	811.9	771.4	736.5	712.3	702.8	697.7	690.4	654.9
52.5°	939.6	900.8	867.1	843.4	817.5	801.2	775.9	784.9	779.3	753.4	689.3
55°	1022.4	1033.6	1065.1	1110.1	1151.8	1161.3	1158.5	1147.8	1091.0	938.5	772.0
57.5°	1405.5	1469.1	1528.7	1555.2	1551.8	1522.0	1500.6	1457.3	1375.1	1189.5	935.1
60°	1937.8	1947.9	1916.4	1869.7	1790.9	1725.1	1654.8	1573.8	1454.5	1272.7	1035.3
62.5°	2427.9	2291.7	2151.6	2020.0	1900.1	1795.5	1697.5	1584.5	1429.2	1239.5	1022.4
65°	2773.9	2485.8	2264.7	2075.7	1906.3	1760.0	1637.9	1491.1	1316.1	1145.0	947.5
67.5°	2952.3	2510.6	2171.3	1908.0	1667.7	1465.2	1302.6	1159.6	1029.7	954.8	829.4
70°	2753.1	2130.8	1658.2	1360.5	1073.0	860.3	679.7	570.5	532.8	603.7	627.9
72.5°	2051.5	1387.0	986.3	763.0	584.6	465.9	357.3	280.8	228.4	239.7	311.2
75°	970.0	598.7	423.1	321.8	256.0	212.1	173.3	158.7	132.8	110.3	103.5
77.5°	377.5	275.1	227.3	166.5	118.2	95.1	81.0	78.2	79.9	77.6	76.5
80°	287.5	194.7	122.1	89.5	77.1	68.1	60.2	58.0	59.1	61.9	64.7
82.5°	160.4	100.2	74.3	64.7	58.0	49.5	45.0	41.6	42.2	45.6	51.8
85°	61.9	48.4	44.5	42.8	39.9	32.1	27.6	28.1	32.1	38.3	38.3
87.5°	6.8	6.8	9.0	6.8	6.8	6.8	6.2	7.3	7.9	10.1	11.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0	1064.0
2.5°	1054.4	1054.4	1054.4	1053.3	1053.9	1051.6	1051.6	1049.9	1052.7	1051.1	1050.5
5°	1038.1	1037.5	1035.3	1035.3	1035.3	1035.3	1037.0	1032.5	1035.9	1035.9	1034.2
7.5°	1010.5	1010.5	1004.3	1007.7	1006.6	1008.3	1010.5	1008.3	1011.7	1013.9	1012.2
10°	972.3	972.3	967.2	971.2	969.5	973.4	977.3	975.1	977.3	980.7	981.8
12.5°	930.1	927.8	923.3	925.0	925.0	927.3	929.0	931.8	934.6	939.1	941.3
15°	881.1	877.8	872.1	872.1	868.7	869.9	873.2	874.4	880.0	886.2	893.5
17.5°	831.0	822.6	816.4	809.1	803.5	808.0	811.9	814.7	819.2	828.8	833.9
20°	783.8	766.9	755.1	745.5	739.3	742.1	747.2	750.6	754.5	756.8	758.5
22.5°	737.1	718.0	701.6	689.8	679.7	682.5	680.3	678.6	681.4	674.1	673.5
25°	696.6	674.1	652.1	638.1	625.7	621.7	609.9	607.1	599.2	593.0	588.5
27.5°	667.3	638.1	613.9	597.5	577.9	563.2	548.0	532.8	524.4	514.3	509.2
30°	644.2	613.3	584.6	557.0	531.2	508.6	488.4	468.7	455.2	440.6	431.0
32.5°	622.9	594.2	559.3	521.6	486.7	461.4	434.9	412.4	391.0	371.9	357.9
35°	608.2	576.2	531.7	485.6	446.2	416.4	388.2	356.2	330.3	305.5	290.3
37.5°	600.4	561.0	506.4	455.2	411.3	377.5	342.7	305.5	274.0	250.9	227.9
40°	594.2	545.8	483.9	428.2	382.0	341.5	301.0	257.1	222.3	198.1	180.1
42.5°	587.4	528.9	464.2	406.8	355.6	308.3	259.4	212.7	179.5	162.6	154.7
45°	580.1	514.3	445.6	386.5	329.7	272.3	216.1	172.7	153.0	147.4	147.4
47.5°	578.4	504.7	432.1	366.9	300.5	230.7	176.1	149.1	143.5	144.6	146.9
50°	585.2	501.9	420.3	343.8	261.6	186.8	149.1	140.1	141.2	144.6	148.0
52.5°	601.5	504.1	407.9	311.7	215.5	154.2	137.9	137.3	140.7	145.7	149.1
55°	629.1	504.1	384.3	263.9	172.2	138.4	133.9	136.2	140.7	145.2	148.0
57.5°	688.1	499.1	342.7	211.0	144.0	132.8	132.8	135.6	139.5	144.0	146.3
60°	758.5	492.3	284.1	163.2	130.0	128.3	132.2	135.6	139.0	142.9	145.2
62.5°	763.0	474.9	225.1	135.0	122.7	125.5	131.7	136.2	137.3	140.1	142.9
65°	701.1	414.1	178.9	121.0	119.3	123.8	130.0	133.4	133.9	135.0	137.9
67.5°	613.9	337.6	144.6	114.2	115.9	121.0	124.3	127.2	128.8	131.7	132.2
70°	504.1	271.2	123.8	107.5	109.2	114.8	117.6	120.4	123.8	127.2	125.5
72.5°	357.3	211.0	108.6	100.2	102.4	107.5	110.8	113.1	115.9	119.3	117.0
75°	151.9	147.4	94.0	90.6	94.0	97.3	100.7	104.1	106.9	108.6	108.6
77.5°	77.6	86.6	81.0	81.0	83.3	86.6	89.5	92.8	94.5	96.2	98.5
80°	65.8	67.0	68.1	70.3	72.6	76.0	78.8	81.6	82.1	82.7	83.8
82.5°	54.6	56.8	58.0	61.3	63.0	64.1	65.8	65.8	67.0	67.0	65.3
85°	39.4	42.2	43.9	44.5	43.9	44.5	45.0	46.1	49.0	49.0	46.7
87.5°	11.3	10.7	13.5	14.1	15.2	17.4	19.7	23.6	24.8	25.9	25.9
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: P152358

CATALOG NUMBER: TLM-E02-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1064.0	1064.0	1064.0	1064.0
2.5°	1049.9	1051.1	1048.8	1049.4
5°	1034.2	1036.4	1033.6	1037.0
7.5°	1013.9	1017.3	1016.7	1016.2
10°	984.7	989.2	989.2	990.8
12.5°	947.5	950.3	952.6	953.7
15°	897.4	902.5	905.3	905.3
17.5°	837.2	840.6	842.3	840.1
20°	760.7	759.6	760.2	754.5
22.5°	672.4	674.1	669.0	670.1
25°	585.7	582.9	585.2	581.8
27.5°	501.9	502.5	496.3	499.1
30°	422.0	419.2	411.3	415.2
32.5°	344.9	337.6	329.2	324.1
35°	272.3	261.1	257.1	255.4
37.5°	213.8	201.4	197.5	193.0
40°	169.9	165.4	163.7	164.9
42.5°	152.5	152.5	153.6	154.2
45°	148.0	149.7	151.4	151.9
47.5°	148.5	150.2	152.5	153.0
50°	149.7	151.4	153.0	153.6
52.5°	150.2	150.2	151.4	151.9
55°	149.1	148.5	149.1	149.7
57.5°	146.9	145.7	146.3	148.0
60°	145.7	144.0	145.2	146.3
62.5°	142.9	142.4	143.5	144.0
65°	136.7	137.3	139.0	139.0
67.5°	131.1	131.7	132.2	132.8
70°	124.3	124.9	126.0	126.6
72.5°	116.5	118.7	120.4	122.7
75°	110.3	112.5	115.9	118.2
77.5°	99.6	101.3	105.2	108.0
80°	84.4	83.8	84.4	86.1
82.5°	64.7	64.7	64.1	63.6
85°	45.6	45.0	43.3	43.3
87.5°	24.8	24.2	23.6	22.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)