

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: P152360

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152360
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5908.2 lumens
Efficiency: N/A
Efficacy: 113.4 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

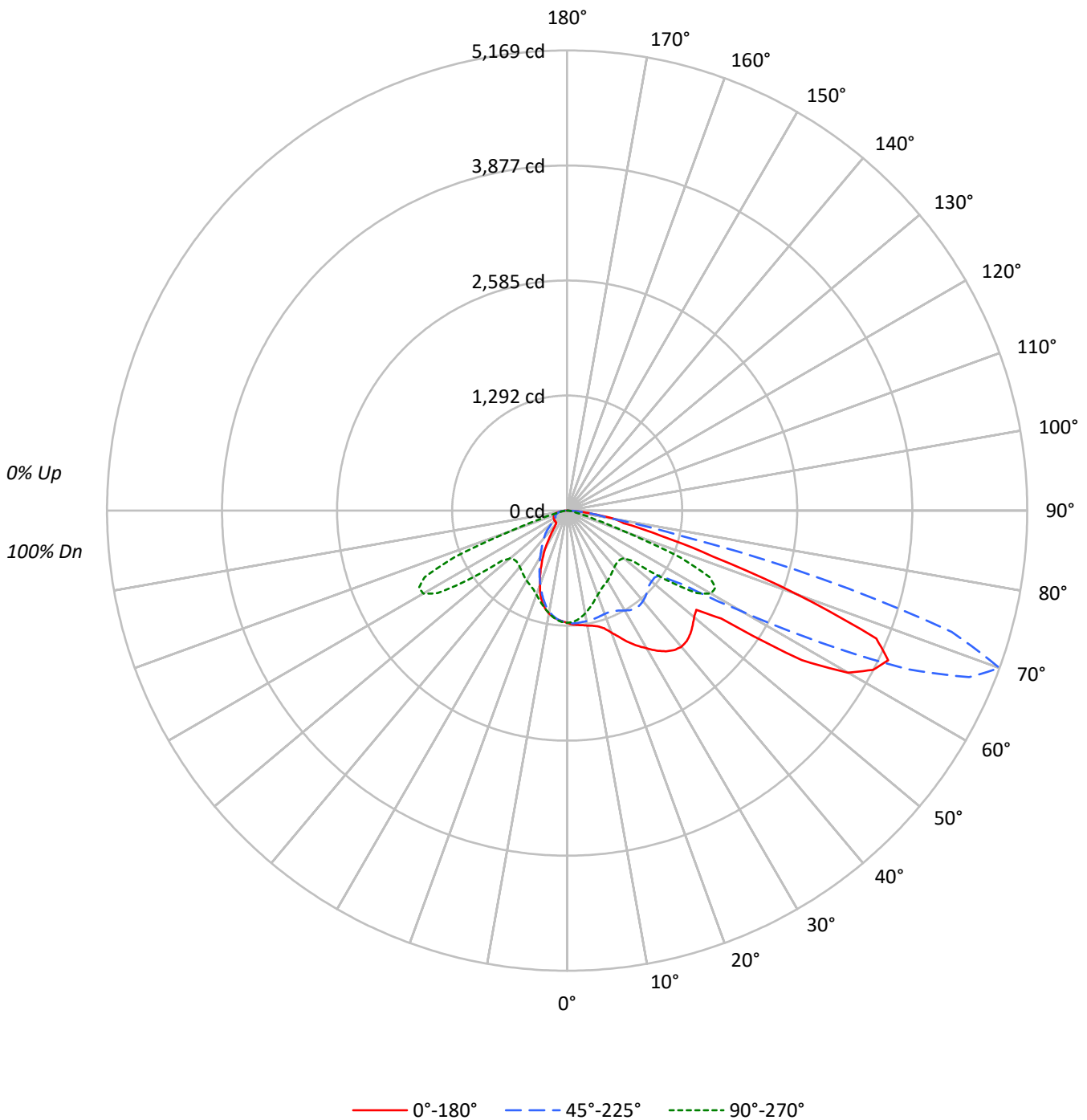
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P152360

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

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°	41121	41121	41121
5°	42215	40493	40231
10°	43455	38818	38884
15°	45496	36764	36224
20°	50633	34895	31032
25°	58710	34021	24808
30°	67294	34225	18531
35°	76823	34483	12053
40°	85019	35201	8316
45°	90320	37180	8303
50°	94451	42255	9235
55°	120178	77340	10083
60°	237589	121645	11305
65°	307125	136355	12712
70°	261310	64469	14305
75°	137368	23693	17644
80°	102184	12905	19160
85°	59131	12462	19199



TEST NUMBER: P152360

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	2.0
10°-20°	322.4	5.5
20°-30°	477.3	8.1
30°-40°	603.2	10.2
40°-50°	682.1	11.5
50°-60°	970.7	16.4
60°-70°	1807.8	30.6
70°-80°	828.5	14.0
80°-90°	98.4	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°	917.5	15.5
0°-40°	1520.6	25.7
0°-60°	3173.5	53.7
0°-90°	5908.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5908.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1261	1261	1261	1261	1261	
5°	1289	1268	1237	1227	1229	124
15°	1347	1250	1089	1031	1073	388
25°	1631	1243	945	737	689	757
35°	1929	1343	866	493	303	1206
45°	1958	1275	806	323	180	1506
55°	2113	1268	1360	164	177	2220
65°	3979	4214	1767	147	165	3669
75°	1090	2963	188	115	140	1340
85°	158	139	33	53	51	199
90°	0	0	0	0	0	



TEST NUMBER: P152360

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7
2.5°	1280.0	1283.3	1279.3	1278.7	1278.7	1278.0	1274.0	1273.3	1268.0	1268.7	1270.0
5°	1289.3	1290.7	1288.0	1287.3	1286.0	1283.3	1280.0	1276.0	1272.0	1268.0	1264.7
7.5°	1298.7	1297.3	1295.3	1295.3	1293.3	1289.3	1282.7	1277.3	1268.7	1264.0	1258.0
10°	1312.0	1310.0	1307.3	1306.0	1302.7	1296.7	1287.3	1280.0	1269.3	1260.0	1250.0
12.5°	1324.7	1324.0	1320.0	1318.0	1312.7	1306.7	1295.3	1284.0	1270.0	1255.3	1242.0
15°	1347.3	1344.7	1340.7	1336.7	1328.0	1320.0	1302.7	1289.3	1269.3	1250.0	1229.3
17.5°	1386.7	1382.0	1378.0	1369.3	1358.7	1344.7	1319.3	1296.7	1269.3	1241.3	1218.0
20°	1458.7	1448.7	1443.3	1432.0	1413.3	1388.0	1348.7	1312.0	1271.3	1235.3	1204.0
22.5°	1540.0	1533.3	1526.0	1518.7	1489.3	1452.7	1399.3	1344.7	1283.3	1232.7	1192.7
25°	1631.3	1622.7	1618.7	1606.0	1578.7	1536.7	1464.0	1388.0	1310.7	1243.3	1192.7
27.5°	1712.7	1710.0	1709.3	1694.7	1668.7	1619.3	1533.3	1442.0	1348.0	1265.3	1202.7
30°	1786.7	1784.0	1782.7	1774.7	1744.7	1686.0	1592.7	1490.0	1388.7	1296.0	1221.3
32.5°	1865.3	1856.7	1852.7	1837.3	1803.3	1734.7	1628.0	1521.3	1420.7	1326.0	1242.0
35°	1929.3	1922.0	1914.0	1892.0	1844.0	1762.7	1643.3	1532.0	1433.3	1342.7	1252.7
37.5°	1976.0	1968.7	1957.3	1929.3	1870.0	1772.0	1642.7	1528.7	1428.7	1340.0	1254.7
40°	1996.7	1989.3	1977.3	1942.0	1874.7	1766.7	1630.0	1513.3	1414.7	1326.0	1246.7
42.5°	1988.7	1983.3	1968.0	1934.0	1860.0	1742.7	1604.7	1484.7	1388.0	1303.3	1228.7
45°	1958.0	1954.0	1939.3	1903.3	1826.7	1704.0	1567.3	1448.7	1356.0	1275.3	1204.7
47.5°	1912.0	1910.7	1896.0	1860.7	1784.7	1665.3	1528.7	1413.3	1324.0	1248.0	1184.7
50°	1861.3	1854.7	1847.3	1814.7	1745.3	1632.0	1500.7	1391.3	1306.0	1238.0	1176.0
52.5°	1829.3	1827.3	1820.7	1791.3	1724.7	1612.7	1488.0	1383.3	1304.7	1236.0	1171.3
55°	2113.3	2118.0	2056.7	1929.3	1817.3	1666.0	1526.0	1424.0	1337.3	1268.0	1220.7
57.5°	3126.0	3105.3	3000.0	2747.3	2462.0	2085.3	1814.0	1649.3	1542.0	1554.0	1578.0
60°	3642.0	3638.0	3618.7	3520.7	3330.7	3044.0	2726.0	2361.3	2245.3	2258.0	2267.3
62.5°	3872.7	3878.7	3893.3	3856.7	3806.7	3723.3	3564.7	3418.0	3262.7	3204.7	3049.3
65°	3979.3	3990.0	4023.3	4044.0	4063.3	4078.0	4140.7	4312.7	4426.0	4214.0	3720.7
67.5°	3758.7	3810.0	3920.0	4027.3	4123.3	4260.0	4472.0	4871.3	5149.3	4888.7	4173.3
70°	2740.0	2810.0	2936.0	3268.0	3622.7	3932.7	4343.3	4951.3	5370.7	5169.3	4285.3
72.5°	1718.0	1737.3	1793.3	1915.3	2178.7	2576.7	3294.7	4206.7	4690.7	4530.0	3622.0
75°	1090.0	1096.7	1094.7	1122.7	1167.3	1254.0	1538.0	2484.7	3213.3	2962.7	2018.7
77.5°	649.3	659.3	663.3	672.0	693.3	724.0	747.3	845.3	1347.3	1308.0	732.7
80°	544.0	552.0	545.3	543.3	530.0	520.7	532.0	520.7	483.3	465.3	428.7
82.5°	288.0	287.3	285.3	304.7	344.0	374.7	398.0	392.7	355.3	302.7	256.7
85°	158.0	163.3	163.3	170.0	164.0	164.7	170.0	179.3	166.0	138.7	113.3
87.5°	13.3	20.7	16.7	20.7	28.0	20.0	19.3	19.3	16.7	12.0	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



TEST NUMBER: P152360

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7
2.5°	1266.7	1265.3	1262.7	1260.7	1260.7	1257.3	1255.3	1254.0	1253.3	1250.7	1250.7
5°	1262.7	1258.0	1253.3	1250.0	1248.0	1244.7	1239.3	1236.7	1233.3	1230.7	1229.3
7.5°	1254.0	1245.3	1238.0	1232.7	1226.0	1220.7	1214.0	1208.0	1202.0	1199.3	1198.0
10°	1240.7	1229.3	1218.0	1208.0	1198.7	1189.3	1180.7	1172.0	1164.7	1159.3	1154.0
12.5°	1228.0	1210.7	1196.0	1181.3	1166.7	1155.3	1143.3	1130.7	1120.0	1110.0	1107.3
15°	1210.7	1190.7	1172.0	1154.0	1136.0	1117.3	1102.7	1088.7	1071.3	1060.0	1051.3
17.5°	1194.7	1170.7	1148.0	1126.7	1104.7	1085.3	1063.3	1044.7	1027.3	1010.0	997.3
20°	1177.3	1151.3	1127.3	1103.3	1079.3	1054.7	1029.3	1005.3	984.0	963.3	942.7
22.5°	1162.0	1135.3	1112.0	1086.0	1059.3	1031.3	1002.0	972.0	947.3	920.7	896.7
25°	1152.7	1123.3	1099.3	1074.0	1044.7	1014.0	980.7	945.3	915.3	884.7	856.0
27.5°	1152.7	1114.7	1090.0	1064.7	1034.7	1002.0	965.3	926.7	892.7	858.7	823.3
30°	1162.7	1116.0	1082.7	1056.0	1025.3	990.0	949.3	908.7	871.3	831.3	797.3
32.5°	1172.0	1118.7	1077.3	1043.3	1008.0	973.3	932.0	888.7	847.3	809.3	773.3
35°	1178.0	1118.7	1067.3	1024.0	984.0	950.0	909.3	866.0	824.0	786.7	753.3
37.5°	1178.7	1113.3	1051.3	1002.0	960.0	924.7	886.0	845.3	805.3	770.7	742.7
40°	1172.0	1102.7	1035.3	978.7	934.7	898.7	863.3	826.7	790.7	762.0	738.0
42.5°	1160.0	1091.3	1020.0	960.0	914.0	876.7	844.0	812.7	781.3	756.7	736.7
45°	1142.0	1076.0	1006.0	948.7	903.3	864.0	832.0	806.0	779.3	758.7	738.7
47.5°	1126.0	1070.7	1010.7	956.0	908.7	868.0	835.3	813.3	792.7	778.7	751.3
50°	1122.7	1068.0	1012.7	962.0	914.0	872.7	844.0	832.7	826.7	818.0	776.0
52.5°	1113.3	1067.3	1027.3	999.3	968.7	949.3	919.3	930.0	923.3	892.7	816.7
55°	1211.3	1224.7	1262.0	1315.3	1364.7	1376.0	1372.7	1360.0	1292.7	1112.0	914.7
57.5°	1665.3	1740.7	1811.3	1842.7	1838.7	1803.3	1778.0	1726.7	1629.3	1409.3	1108.0
60°	2296.0	2308.0	2270.7	2215.3	2122.0	2044.0	1960.7	1864.7	1723.3	1508.0	1226.7
62.5°	2876.7	2715.3	2549.3	2393.3	2251.3	2127.3	2011.3	1877.3	1693.3	1468.7	1211.3
65°	3286.7	2945.3	2683.3	2459.3	2258.7	2085.3	1940.7	1766.7	1559.3	1356.7	1122.7
67.5°	3498.0	2974.7	2572.7	2260.7	1976.0	1736.0	1543.3	1374.0	1220.0	1131.3	982.7
70°	3262.0	2524.7	1964.7	1612.0	1271.3	1019.3	805.3	676.0	631.3	715.3	744.0
72.5°	2430.7	1643.3	1168.7	904.0	692.7	552.0	423.3	332.7	270.7	284.0	368.7
75°	1149.3	709.3	501.3	381.3	303.3	251.3	205.3	188.0	157.3	130.7	122.7
77.5°	447.3	326.0	269.3	197.3	140.0	112.7	96.0	92.7	94.7	92.0	90.7
80°	340.7	230.7	144.7	106.0	91.3	80.7	71.3	68.7	70.0	73.3	76.7
82.5°	190.0	118.7	88.0	76.7	68.7	58.7	53.3	49.3	50.0	54.0	61.3
85°	73.3	57.3	52.7	50.7	47.3	38.0	32.7	33.3	38.0	45.3	45.3
87.5°	8.0	8.0	10.7	8.0	8.0	8.0	7.3	8.7	9.3	12.0	14.0
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: P152360

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

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7	1260.7
2.5°	1249.3	1249.3	1249.3	1248.0	1248.7	1246.0	1246.0	1244.0	1247.3	1245.3	1244.7
5°	1230.0	1229.3	1226.7	1226.7	1226.7	1226.7	1228.7	1223.3	1227.3	1227.3	1225.3
7.5°	1197.3	1197.3	1190.0	1194.0	1192.7	1194.7	1197.3	1194.7	1198.7	1201.3	1199.3
10°	1152.0	1152.0	1146.0	1150.7	1148.7	1153.3	1158.0	1155.3	1158.0	1162.0	1163.3
12.5°	1102.0	1099.3	1094.0	1096.0	1096.0	1098.7	1100.7	1104.0	1107.3	1112.7	1115.3
15°	1044.0	1040.0	1033.3	1033.3	1029.3	1030.7	1034.7	1036.0	1042.7	1050.0	1058.7
17.5°	984.7	974.7	967.3	958.7	952.0	957.3	962.0	965.3	970.7	982.0	988.0
20°	928.7	908.7	894.7	883.3	876.0	879.3	885.3	889.3	894.0	896.7	898.7
22.5°	873.3	850.7	831.3	817.3	805.3	808.7	806.0	804.0	807.3	798.7	798.0
25°	825.3	798.7	772.7	756.0	741.3	736.7	722.7	719.3	710.0	702.7	697.3
27.5°	790.7	756.0	727.3	708.0	684.7	667.3	649.3	631.3	621.3	609.3	603.3
30°	763.3	726.7	692.7	660.0	629.3	602.7	578.7	555.3	539.3	522.0	510.7
32.5°	738.0	704.0	662.7	618.0	576.7	546.7	515.3	488.7	463.3	440.7	424.0
35°	720.7	682.7	630.0	575.3	528.7	493.3	460.0	422.0	391.3	362.0	344.0
37.5°	711.3	664.7	600.0	539.3	487.3	447.3	406.0	362.0	324.7	297.3	270.0
40°	704.0	646.7	573.3	507.3	452.7	404.7	356.7	304.7	263.3	234.7	213.3
42.5°	696.0	626.7	550.0	482.0	421.3	365.3	307.3	252.0	212.7	192.7	183.3
45°	687.3	609.3	528.0	458.0	390.7	322.7	256.0	204.7	181.3	174.7	174.7
47.5°	685.3	598.0	512.0	434.7	356.0	273.3	208.7	176.7	170.0	171.3	174.0
50°	693.3	594.7	498.0	407.3	310.0	221.3	176.7	166.0	167.3	171.3	175.3
52.5°	712.7	597.3	483.3	369.3	255.3	182.7	163.3	162.7	166.7	172.7	176.7
55°	745.3	597.3	455.3	312.7	204.0	164.0	158.7	161.3	166.7	172.0	175.3
57.5°	815.3	591.3	406.0	250.0	170.7	157.3	157.3	160.7	165.3	170.7	173.3
60°	898.7	583.3	336.7	193.3	154.0	152.0	156.7	160.7	164.7	169.3	172.0
62.5°	904.0	562.7	266.7	160.0	145.3	148.7	156.0	161.3	162.7	166.0	169.3
65°	830.7	490.7	212.0	143.3	141.3	146.7	154.0	158.0	158.7	160.0	163.3
67.5°	727.3	400.0	171.3	135.3	137.3	143.3	147.3	150.7	152.7	156.0	156.7
70°	597.3	321.3	146.7	127.3	129.3	136.0	139.3	142.7	146.7	150.7	148.7
72.5°	423.3	250.0	128.7	118.7	121.3	127.3	131.3	134.0	137.3	141.3	138.7
75°	180.0	174.7	111.3	107.3	111.3	115.3	119.3	123.3	126.7	128.7	128.7
77.5°	92.0	102.7	96.0	96.0	98.7	102.7	106.0	110.0	112.0	114.0	116.7
80°	78.0	79.3	80.7	83.3	86.0	90.0	93.3	96.7	97.3	98.0	99.3
82.5°	64.7	67.3	68.7	72.7	74.7	76.0	78.0	78.0	79.3	79.3	77.3
85°	46.7	50.0	52.0	52.7	52.0	52.7	53.3	54.7	58.0	58.0	55.3
87.5°	13.3	12.7	16.0	16.7	18.0	20.7	23.3	28.0	29.3	30.7	30.7
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: P152360

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1260.7	1260.7	1260.7	1260.7
2.5°	1244.0	1245.3	1242.7	1243.3
5°	1225.3	1228.0	1224.7	1228.7
7.5°	1201.3	1205.3	1204.7	1204.0
10°	1166.7	1172.0	1172.0	1174.0
12.5°	1122.7	1126.0	1128.7	1130.0
15°	1063.3	1069.3	1072.7	1072.7
17.5°	992.0	996.0	998.0	995.3
20°	901.3	900.0	900.7	894.0
22.5°	796.7	798.7	792.7	794.0
25°	694.0	690.7	693.3	689.3
27.5°	594.7	595.3	588.0	591.3
30°	500.0	496.7	487.3	492.0
32.5°	408.7	400.0	390.0	384.0
35°	322.7	309.3	304.7	302.7
37.5°	253.3	238.7	234.0	228.7
40°	201.3	196.0	194.0	195.3
42.5°	180.7	180.7	182.0	182.7
45°	175.3	177.3	179.3	180.0
47.5°	176.0	178.0	180.7	181.3
50°	177.3	179.3	181.3	182.0
52.5°	178.0	178.0	179.3	180.0
55°	176.7	176.0	176.7	177.3
57.5°	174.0	172.7	173.3	175.3
60°	172.7	170.7	172.0	173.3
62.5°	169.3	168.7	170.0	170.7
65°	162.0	162.7	164.7	164.7
67.5°	155.3	156.0	156.7	157.3
70°	147.3	148.0	149.3	150.0
72.5°	138.0	140.7	142.7	145.3
75°	130.7	133.3	137.3	140.0
77.5°	118.0	120.0	124.7	128.0
80°	100.0	99.3	100.0	102.0
82.5°	76.7	76.7	76.0	75.3
85°	54.0	53.3	51.3	51.3
87.5°	29.3	28.7	28.0	26.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)