

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: P156629

Luminaire Tested: **TLM-E03-LED-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P156629
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33673)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E03-LED-E1-T4-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8280.5 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

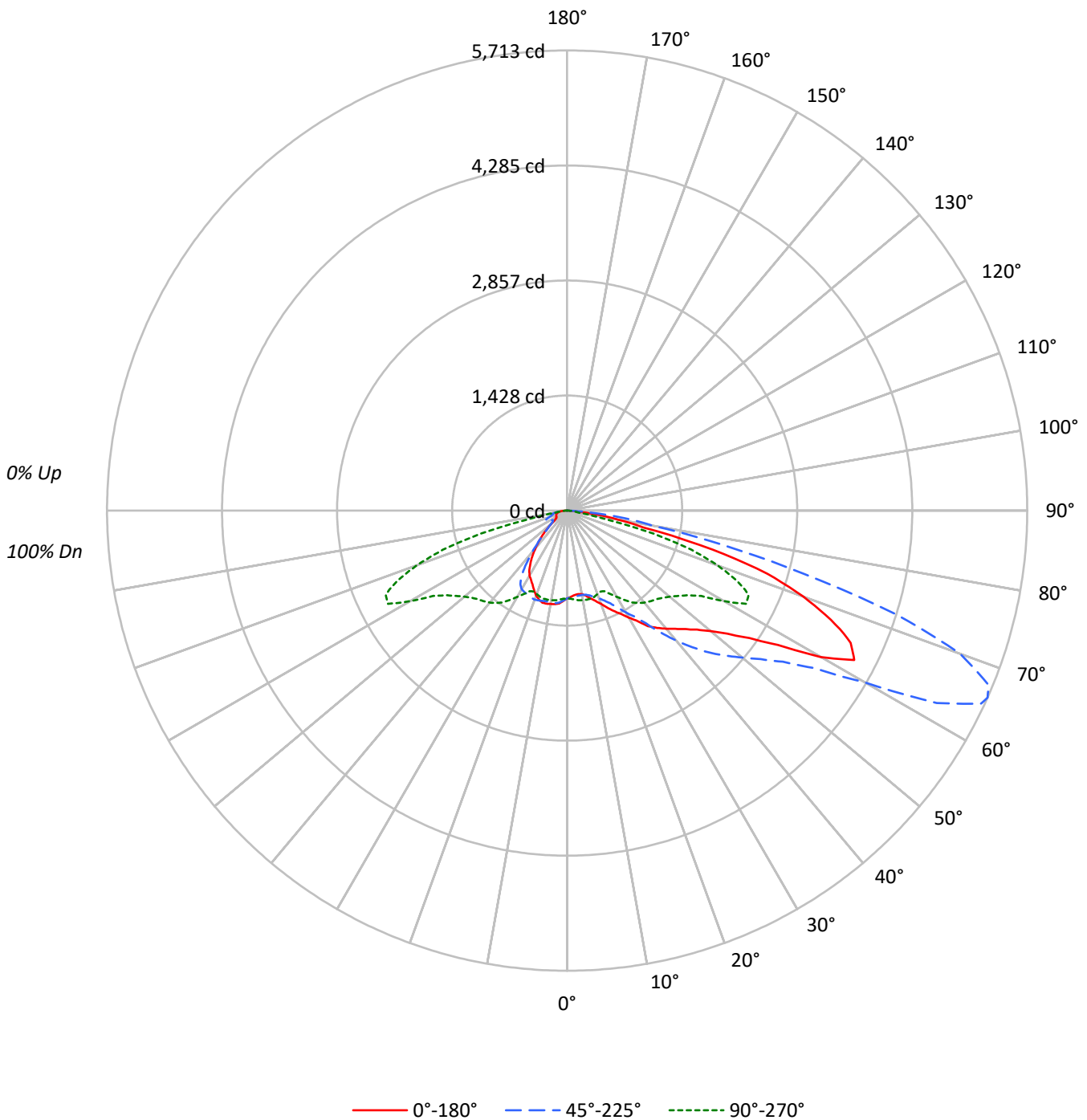
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

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	105	99	93	88	102	96	91	87	92	88	84	88	84	81	84	81	79	76					76			
2	92	81	72	65	89	79	71	64	76	69	62	72	66	61	69	64	59	57					57			
3	82	68	58	49	79	66	57	49	63	55	48	60	53	47	57	51	46	43					43			
4	73	58	47	39	70	57	46	38	54	45	38	51	43	37	49	42	36	34					34			
5	66	50	39	31	64	49	39	31	47	38	31	45	36	30	42	35	30	27					27			
6	60	44	34	26	58	43	33	26	41	32	25	39	31	25	38	30	25	22					22			
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19					19			
8	51	35	26	19	49	35	25	19	33	25	19	32	24	18	31	23	18	16					16			
9	47	32	23	16	46	31	23	16	30	22	16	29	22	16	28	21	16	14					14			
10	44	29	21	15	43	29	20	15	28	20	14	27	19	14	26	19	14	12					12			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	23498	23498	23498
5°	22738	24000	25027
10°	23001	24717	25736
15°	25200	25220	26401
20°	28247	25276	25736
25°	32694	26274	24103
30°	38142	30765	23180
35°	46015	36533	20859
40°	53774	41940	17224
45°	63371	47467	13097
50°	77911	55673	8383
55°	103631	68700	6272
60°	156473	96819	6605
65°	197873	126548	7631
70°	196269	125037	9083
75°	155666	92609	11171
80°	78922	19476	13922
85°	11510	16006	17834



TEST NUMBER: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	1.3
10°-20°	321.8	3.9
20°-30°	554.3	6.7
30°-40°	838.6	10.1
40°-50°	1086.9	13.1
50°-60°	1498.5	18.1
60°-70°	2328.2	28.1
70°-80°	1353.8	16.3
80°-90°	192.5	2.3
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°	982.0	11.9
0°-40°	1820.6	22.0
0°-60°	4406.0	53.2
0°-90°	8280.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8280.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1092	1092	1092	1092	1092	
5°	1052	1068	1111	1147	1158	101
15°	1131	1092	1132	1161	1185	324
25°	1376	1272	1106	1156	1015	642
35°	1751	1711	1390	981	794	1094
45°	2082	2492	1559	411	430	1627
55°	2761	3271	1830	212	167	2557
65°	3884	5671	2484	300	150	3676
75°	1872	3049	1113	188	134	1927
85°	47	318	65	77	72	201
90°	0	0	0	0	0	



TEST NUMBER: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°	
0°	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5
2.5°	1071.4	1075.0	1072.3	1073.2	1073.2	1074.1	1074.1	1075.0	1074.1	1076.8	1078.7	1078.7
5°	1052.2	1054.0	1053.1	1054.9	1056.7	1060.4	1059.5	1064.1	1065.0	1067.7	1072.3	1072.3
7.5°	1044.9	1043.0	1044.0	1046.7	1048.5	1050.4	1052.2	1055.8	1058.6	1065.0	1068.6	1068.6
10°	1052.2	1051.3	1052.2	1054.0	1054.0	1054.9	1053.1	1056.7	1058.6	1064.1	1067.7	1067.7
12.5°	1082.3	1082.3	1080.5	1080.5	1078.7	1076.8	1072.3	1069.5	1068.6	1069.5	1071.4	1071.4
15°	1130.7	1128.9	1125.2	1122.5	1118.9	1112.5	1106.1	1100.6	1096.9	1091.5	1089.6	1089.6
17.5°	1178.2	1175.5	1171.8	1168.2	1163.6	1157.2	1147.2	1140.8	1130.7	1124.3	1120.7	1120.7
20°	1233.0	1227.5	1223.0	1218.4	1209.3	1207.4	1197.4	1186.4	1174.6	1160.0	1158.1	1158.1
22.5°	1304.3	1295.1	1289.7	1286.9	1277.8	1275.0	1258.6	1243.1	1228.5	1209.3	1204.7	1204.7
25°	1376.4	1367.3	1364.5	1360.9	1354.5	1350.8	1335.3	1318.0	1298.8	1272.3	1266.8	1266.8
27.5°	1446.7	1447.7	1440.4	1443.1	1441.3	1434.9	1419.3	1402.0	1387.4	1356.3	1349.9	1349.9
30°	1534.4	1528.9	1525.3	1530.8	1524.4	1525.3	1511.6	1502.5	1478.7	1460.4	1447.7	1447.7
32.5°	1625.8	1624.9	1630.3	1634.0	1633.1	1631.2	1620.3	1611.2	1590.1	1563.7	1558.2	1558.2
35°	1750.9	1756.4	1760.9	1777.4	1777.4	1789.3	1778.3	1767.3	1742.7	1710.7	1699.7	1699.7
37.5°	1835.8	1837.7	1855.9	1877.8	1905.2	1930.8	1938.1	1940.9	1930.8	1907.1	1890.6	1890.6
40°	1913.5	1917.1	1946.3	1980.1	2020.3	2070.6	2100.7	2114.4	2117.1	2106.2	2070.6	2070.6
42.5°	1991.1	1996.6	2026.7	2076.0	2131.8	2195.7	2248.7	2282.5	2301.6	2301.6	2280.6	2280.6
45°	2081.5	2088.8	2121.7	2175.6	2240.4	2320.8	2393.9	2458.7	2489.8	2491.6	2471.5	2471.5
47.5°	2188.4	2194.8	2233.1	2287.9	2354.6	2435.9	2528.2	2602.1	2659.7	2663.3	2646.9	2646.9
50°	2326.3	2335.4	2367.4	2416.7	2485.2	2567.4	2659.7	2762.9	2823.2	2837.8	2820.4	2820.4
52.5°	2509.0	2510.8	2537.3	2583.0	2649.6	2728.2	2825.9	2938.2	3017.7	3029.6	3001.3	3001.3
55°	2761.1	2758.3	2775.7	2825.0	2875.2	2936.4	3037.8	3163.8	3252.4	3270.7	3241.5	3241.5
57.5°	3103.6	3100.8	3115.4	3127.3	3221.4	3280.8	3380.3	3500.9	3586.7	3639.7	3589.5	3589.5
60°	3634.2	3631.5	3655.2	3724.6	3795.0	3881.7	3978.6	4122.9	4243.4	4259.0	4209.6	4209.6
62.5°	4018.7	4032.4	4084.5	4165.8	4308.3	4478.2	4655.3	4845.3	5092.8	5171.4	5147.6	5147.6
65°	3884.5	3911.9	3984.0	4107.3	4297.3	4532.0	4809.7	5154.0	5485.6	5671.0	5665.5	5665.5
66°	3763.9	3794.1	3882.7	4001.4	4202.3	4459.0	4762.2	5137.6	5508.4	5713.0	5725.8	5725.8
67.5°	3544.7	3578.5	3665.3	3805.9	4001.4	4274.5	4600.5	5008.8	5428.0	5666.4	5700.2	5700.2
70°	3118.2	3156.5	3219.6	3335.6	3528.3	3772.1	4115.6	4480.9	4920.2	5193.3	5234.4	5234.4
72.5°	2606.7	2640.5	2710.8	2805.8	2963.8	3117.3	3386.7	3656.1	3970.3	4281.8	4251.6	4251.6
75°	1871.5	1886.1	1928.1	2031.3	2116.2	2254.1	2470.6	2691.6	2906.3	3048.8	3068.9	3068.9
77.5°	972.7	1011.1	1070.4	1184.6	1276.9	1401.1	1541.7	1708.0	1865.1	1995.7	1960.0	1960.0
80°	636.6	653.0	706.0	764.5	832.1	911.5	1005.6	1067.7	1087.8	1079.6	1087.8	1087.8
82.5°	367.2	397.3	467.6	512.4	562.6	590.0	664.9	736.2	776.3	726.1	707.8	707.8
85°	46.6	60.3	190.0	239.3	274.0	315.1	337.9	380.9	355.3	317.8	387.3	387.3
87.5°	10.0	9.1	12.8	27.4	28.3	23.7	44.8	47.5	29.2	14.6	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5
2.5°	1080.5	1081.4	1083.2	1086.0	1087.8	1089.6	1091.5	1094.2	1096.0	1097.8	1101.5
5°	1075.9	1079.6	1083.2	1086.9	1091.5	1098.8	1103.3	1107.0	1110.6	1117.9	1120.7
7.5°	1073.2	1079.6	1085.1	1091.5	1098.8	1105.2	1113.4	1117.9	1123.4	1128.0	1133.5
10°	1071.4	1080.5	1086.0	1095.1	1103.3	1109.7	1118.9	1124.3	1130.7	1136.2	1138.9
12.5°	1075.0	1079.6	1085.1	1094.2	1104.2	1113.4	1123.4	1128.0	1133.5	1138.0	1138.9
15°	1090.5	1090.5	1091.5	1098.8	1108.8	1116.1	1124.3	1128.9	1131.6	1134.4	1134.4
17.5°	1118.9	1112.5	1107.9	1108.8	1115.2	1119.8	1124.3	1124.3	1122.5	1121.6	1119.8
20°	1151.7	1143.5	1134.4	1128.0	1126.2	1122.5	1119.8	1110.6	1103.3	1096.9	1092.4
22.5°	1199.2	1186.4	1173.7	1161.8	1150.8	1137.1	1121.6	1103.3	1086.0	1074.1	1066.8
25°	1257.7	1247.6	1232.1	1213.8	1200.1	1174.6	1154.5	1128.0	1106.1	1090.5	1077.8
27.5°	1340.8	1328.9	1314.3	1297.9	1277.8	1249.5	1224.8	1193.7	1167.3	1144.4	1128.0
30°	1444.0	1428.5	1417.5	1397.4	1383.7	1351.8	1327.1	1288.7	1237.6	1201.1	1178.2
32.5°	1550.0	1532.6	1523.5	1507.9	1492.4	1473.2	1435.8	1376.4	1310.7	1251.3	1212.0
35°	1691.5	1673.3	1656.8	1643.1	1620.3	1584.7	1551.8	1480.5	1390.1	1307.0	1241.2
37.5°	1869.6	1839.5	1798.4	1763.7	1723.5	1672.3	1622.1	1549.0	1445.8	1338.1	1250.4
40°	2059.6	2006.6	1948.2	1883.3	1813.9	1739.9	1682.4	1608.4	1492.4	1364.5	1244.0
42.5°	2257.8	2173.8	2092.5	2001.2	1904.3	1816.7	1741.8	1660.5	1527.1	1371.9	1218.4
45°	2454.2	2360.1	2236.8	2117.1	1994.8	1886.1	1802.0	1710.7	1559.1	1374.6	1184.6
47.5°	2616.7	2519.9	2379.3	2229.5	2084.3	1961.0	1862.3	1763.7	1602.0	1393.8	1176.4
50°	2788.5	2670.6	2514.5	2337.3	2172.9	2034.9	1929.9	1827.6	1662.3	1443.1	1202.9
52.5°	2975.7	2840.5	2657.8	2459.7	2279.7	2125.4	2011.2	1906.2	1739.0	1512.5	1253.1
55°	3204.0	3038.7	2840.5	2616.7	2424.0	2253.2	2127.2	2003.0	1830.4	1594.7	1316.1
57.5°	3552.9	3350.2	3127.3	2872.5	2658.8	2456.9	2306.2	2162.8	1971.9	1717.1	1402.0
60°	4184.1	3967.6	3678.1	3369.3	3118.2	2882.5	2661.5	2483.4	2248.7	1958.2	1592.0
62.5°	5088.3	4800.6	4414.2	3982.2	3653.4	3313.6	3064.3	2799.4	2508.1	2194.8	1815.7
65°	5590.6	5241.7	4724.8	4223.3	3800.5	3431.5	3114.5	2807.6	2484.3	2184.7	1867.8
66°	5652.7	5289.2	4752.2	4224.2	3780.4	3401.3	3067.9	2750.1	2419.5	2133.6	1845.9
67.5°	5627.2	5255.4	4701.9	4144.8	3693.6	3286.2	2941.9	2612.2	2282.5	2015.8	1772.8
70°	5207.9	4855.4	4311.9	3772.1	3343.8	2941.9	2613.1	2288.9	1986.5	1758.2	1579.2
72.5°	4324.7	4023.3	3551.1	3127.3	2791.2	2459.7	2181.1	1871.5	1615.7	1446.7	1340.8
75°	3121.8	2939.2	2509.0	2266.0	1971.0	1750.9	1480.5	1297.0	1113.4	1031.2	1012.9
77.5°	1971.9	1726.2	1453.1	1196.5	983.7	815.6	634.8	538.9	449.4	440.2	531.6
80°	998.3	898.7	692.3	551.7	464.0	375.4	296.8	224.7	157.1	189.1	226.5
82.5°	654.0	545.3	427.4	351.6	306.0	253.9	197.3	137.0	100.5	113.3	155.3
85°	353.5	301.4	243.0	191.8	155.3	138.8	93.2	65.8	64.8	69.4	88.6
87.5°	25.6	25.6	20.1	18.3	21.9	18.3	16.4	16.4	15.5	16.4	21.9
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: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5	1091.5
2.5°	1103.3	1106.1	1107.0	1111.5	1114.3	1116.1	1117.9	1117.9	1118.9	1121.6	1122.5
5°	1124.3	1128.9	1134.4	1138.0	1139.9	1145.3	1147.2	1147.2	1149.0	1152.6	1155.4
7.5°	1137.1	1143.5	1149.0	1150.8	1154.5	1156.3	1159.0	1160.9	1160.9	1164.5	1166.3
10°	1141.7	1145.3	1150.8	1150.8	1154.5	1154.5	1157.2	1158.1	1158.1	1161.8	1164.5
12.5°	1141.7	1143.5	1148.1	1148.1	1150.8	1151.7	1155.4	1158.1	1159.0	1163.6	1167.3
15°	1136.2	1138.0	1141.7	1142.6	1149.0	1152.6	1160.9	1166.3	1166.3	1170.9	1172.7
17.5°	1120.7	1125.2	1132.6	1139.9	1151.7	1160.0	1170.0	1174.6	1170.9	1168.2	1165.4
20°	1095.1	1103.3	1120.7	1138.9	1160.0	1170.9	1176.4	1171.8	1159.0	1146.3	1138.0
22.5°	1069.5	1086.0	1115.2	1142.6	1166.3	1173.7	1170.9	1154.5	1133.5	1117.9	1107.0
25°	1081.4	1100.6	1128.9	1153.6	1169.1	1167.3	1156.3	1133.5	1110.6	1090.5	1072.3
27.5°	1130.7	1151.7	1167.3	1175.5	1173.7	1160.9	1143.5	1117.9	1090.5	1064.1	1038.5
30°	1177.3	1188.3	1191.9	1185.5	1170.9	1149.9	1128.0	1098.8	1062.2	1029.3	1000.1
32.5°	1198.3	1187.4	1170.0	1152.6	1128.9	1110.6	1080.5	1048.5	1002.9	963.6	934.4
35°	1198.3	1154.5	1110.6	1074.1	1038.5	1015.6	980.9	938.0	896.0	863.1	840.3
37.5°	1171.8	1087.8	1015.6	956.3	911.5	886.9	834.8	796.4	760.8	749.9	735.2
40°	1123.4	999.2	895.1	817.4	760.8	724.3	672.2	645.7	632.0	626.6	623.8
42.5°	1058.6	900.6	761.7	665.8	604.6	563.5	528.8	512.4	511.5	510.6	510.6
45°	989.2	794.6	632.0	517.9	464.0	427.4	411.0	404.6	410.1	409.2	410.1
47.5°	946.2	714.2	513.3	391.8	350.7	327.0	318.8	321.5	326.1	324.2	324.2
50°	940.8	673.1	433.8	305.1	274.0	262.1	260.3	260.3	263.0	261.2	260.3
52.5°	960.8	666.7	392.7	262.1	237.5	227.4	225.6	224.7	223.8	218.3	213.7
55°	995.6	681.4	380.9	251.2	225.6	214.6	211.9	210.1	206.4	199.1	190.9
57.5°	1065.0	727.0	391.8	256.7	229.3	220.1	217.4	217.4	210.1	198.2	186.3
60°	1232.1	843.0	436.6	277.7	246.6	237.5	239.3	238.4	227.4	210.1	191.8
62.5°	1447.7	994.6	495.0	306.9	268.5	266.7	275.8	274.0	255.7	229.3	202.8
65°	1547.2	1065.9	511.5	313.3	273.1	281.3	299.6	297.8	274.9	238.4	204.6
66°	1549.0	1065.9	504.2	307.8	266.7	276.7	295.0	294.1	271.3	234.7	200.9
67.5°	1511.6	1036.7	483.2	296.8	253.9	261.2	277.7	276.7	255.7	225.6	193.6
70°	1370.9	928.0	429.3	277.7	236.6	232.9	238.4	234.7	221.0	200.0	178.1
72.5°	1174.6	779.1	374.5	263.0	224.7	210.1	206.4	203.7	192.7	180.8	167.1
75°	925.2	616.5	328.8	252.1	213.7	194.5	188.2	184.5	177.2	169.0	158.0
77.5°	570.8	441.1	286.8	237.5	205.5	186.3	181.8	176.3	165.3	155.3	147.0
80°	254.8	273.1	235.6	207.3	183.6	166.2	158.9	150.7	139.7	133.3	128.8
82.5°	169.9	176.3	170.8	155.3	138.8	125.1	114.2	114.2	112.3	106.9	105.0
85°	108.7	109.6	105.9	95.9	89.5	81.3	76.7	77.6	81.3	80.4	79.5
87.5°	24.7	24.7	29.2	27.4	32.0	33.8	36.5	39.3	44.8	44.8	47.5
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: P156629

CATALOG NUMBER: TLM-E03-LED-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1091.5	1091.5	1091.5	1091.5	1091.5
2.5°	1123.4	1125.2	1127.1	1124.3	1125.2
5°	1155.4	1154.5	1159.0	1156.3	1158.1
7.5°	1165.4	1166.3	1170.0	1170.0	1170.9
10°	1166.3	1168.2	1172.7	1175.5	1177.3
12.5°	1170.9	1174.6	1181.9	1183.7	1183.7
15°	1174.6	1176.4	1181.0	1182.8	1184.6
17.5°	1161.8	1158.1	1160.0	1160.9	1160.0
20°	1129.8	1126.2	1125.2	1121.6	1123.4
22.5°	1095.1	1085.1	1078.7	1071.4	1071.4
25°	1053.1	1037.6	1024.8	1012.0	1014.7
27.5°	1013.8	993.7	980.9	972.7	970.9
30°	975.5	954.5	942.6	932.5	932.5
32.5°	911.5	896.9	881.4	875.0	874.1
35°	822.9	813.8	801.0	798.3	793.7
37.5°	723.4	720.6	709.7	708.8	704.2
40°	619.3	621.1	617.4	615.6	612.9
42.5°	515.1	524.3	522.4	521.5	519.7
45°	415.6	422.0	422.9	425.6	430.2
47.5°	327.0	328.8	330.6	329.7	330.6
50°	255.7	251.2	250.3	247.5	250.3
52.5°	206.4	199.1	195.5	191.8	190.0
55°	181.8	174.4	170.8	169.0	167.1
57.5°	175.4	168.1	162.6	158.9	158.0
60°	177.2	166.2	158.9	154.4	153.4
62.5°	181.8	167.1	157.1	152.5	151.6
65°	180.8	165.3	156.2	150.7	149.8
66°	178.1	163.5	154.4	149.8	148.9
67.5°	173.5	160.7	152.5	148.9	147.0
70°	165.3	157.1	150.7	146.1	144.3
72.5°	158.0	151.6	146.1	141.6	140.7
75°	149.8	144.3	138.8	135.2	134.3
77.5°	139.7	134.3	130.6	127.9	127.0
80°	123.3	119.6	116.0	112.3	112.3
82.5°	102.3	99.6	95.9	93.2	92.2
85°	78.5	78.5	75.8	73.1	72.2
87.5°	46.6	45.7	45.7	42.9	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)