

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: P152954

Luminaire Tested: **TLM-F04-LED-E1-SLL-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152954
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33681)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F04-LED-E1-SLL-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8391.8 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.93 / 2.48 / 2.44
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

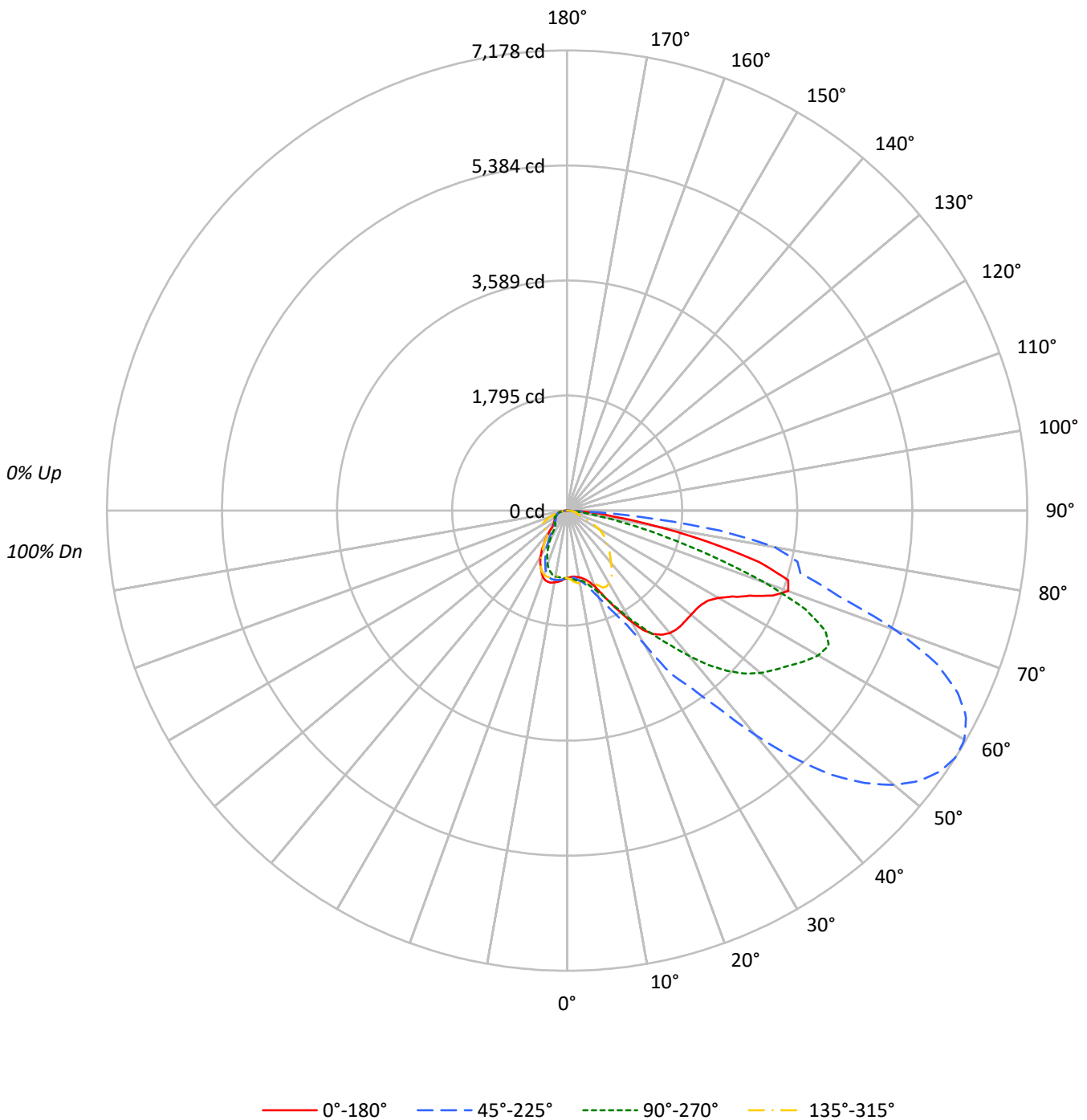
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	99	93	88	102	97	91	87	92	88	84	88	85	81	84	82	79	77					77			
2	93	82	73	66	90	80	72	65	76	70	64	73	67	62	70	65	61	58					58			
3	82	69	59	51	80	68	58	50	64	56	49	61	54	48	59	53	47	45					45			
4	74	59	48	40	71	58	48	40	55	46	39	52	45	39	50	44	38	35					35			
5	67	51	41	33	64	50	40	32	48	39	32	46	38	32	44	37	31	29					29			
6	61	45	35	27	59	44	34	27	42	33	27	40	32	26	39	32	26	24					24			
7	56	40	30	23	54	39	30	23	38	29	23	36	28	22	35	27	22	20					20			
8	52	36	26	20	50	35	26	20	34	25	19	33	25	19	31	24	19	17					17			
9	48	33	23	17	46	32	23	17	31	23	17	30	22	17	29	22	17	15					15			
10	45	30	21	15	43	29	21	15	28	20	15	27	20	15	26	20	15	13					13			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16943	16943	16943	16943
5°	16651	17380	17753	16943
10°	17220	18074	18548	17007
15°	18577	19530	19179	16554
20°	21468	22670	18907	15262
25°	28103	27765	17251	12884
30°	37039	36031	15386	9977
35°	46138	46630	12322	6821
40°	52288	62008	9024	5967
45°	57332	80309	6784	6259
50°	63119	98447	6483	6408
55°	71550	118124	6619	6560
60°	87506	145261	7204	7204
65°	119350	169034	7607	7489
70°	172361	153849	8028	7934
75°	192263	99595	8864	8361
80°	131422	48368	10140	9020
85°	85235	23539	12240	11115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	1.2
10°-20°	319.7	3.8
20°-30°	568.0	6.8
30°-40°	894.5	10.7
40°-50°	1316.4	15.7
50°-60°	1748.5	20.8
60°-70°	1926.0	23.0
70°-80°	1208.4	14.4
80°-90°	307.8	3.7
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°	990.4	11.8
0°-40°	1884.8	22.5
0°-60°	4949.7	59.0
0°-90°	8391.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8391.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1055	1055	1055	1055	1055	
5°	1032	1078	1101	1051	1032	100
15°	1117	1174	1153	995	1117	324
25°	1585	1566	973	727	1585	748
35°	2352	2378	628	348	2352	1458
45°	2523	3535	299	276	2523	1951
55°	2554	4217	236	234	2554	2317
65°	3140	4447	200	197	3140	3161
75°	3097	1604	143	135	3097	3029
85°	462	128	66	60	462	535
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°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1040.5	1042.5	1042.5	1041.5	1041.5	1043.5	1042.5	1041.5	1038.5	1042.5	1042.5
5°	1032.5	1034.5	1034.5	1036.5	1038.5	1040.5	1040.5	1042.5	1041.5	1045.5	1048.6
7.5°	1042.5	1044.5	1048.6	1053.6	1056.6	1063.6	1063.6	1068.7	1070.7	1073.7	1072.7
10°	1055.6	1060.6	1069.7	1077.7	1083.7	1091.8	1097.8	1104.9	1104.9	1107.9	1109.9
12.5°	1078.7	1083.7	1093.8	1103.8	1112.9	1122.9	1132.0	1139.0	1146.1	1148.1	1152.1
15°	1116.9	1122.9	1138.0	1152.1	1163.2	1176.2	1188.3	1202.4	1215.4	1218.5	1220.5
17.5°	1174.2	1186.3	1197.3	1222.5	1238.6	1255.7	1274.8	1294.9	1298.9	1320.0	1325.0
20°	1255.7	1270.7	1280.8	1311.9	1339.1	1361.2	1389.4	1412.5	1421.5	1441.6	1461.7
22.5°	1396.4	1393.4	1408.5	1439.6	1459.7	1504.0	1528.1	1552.2	1564.3	1594.4	1610.5
25°	1585.4	1601.5	1634.7	1637.7	1656.8	1708.0	1739.2	1763.3	1764.3	1773.4	1790.5
27.5°	1771.4	1837.7	1890.0	1918.2	1969.4	2016.7	2014.7	2048.9	1995.6	2006.6	2022.7
30°	1996.6	2107.2	2205.7	2272.0	2324.3	2379.6	2406.7	2425.8	2402.7	2392.7	2373.6
32.5°	2207.7	2362.5	2514.3	2631.9	2729.5	2820.9	2881.3	2908.4	2940.6	3022.0	3051.2
35°	2352.5	2571.6	2760.6	2930.5	3093.4	3239.2	3344.7	3405.0	3381.9	3370.9	3364.8
37.5°	2438.9	2706.3	2942.6	3182.9	3369.8	3588.0	3751.9	3910.7	3946.9	3883.6	3852.4
40°	2493.2	2809.9	3113.5	3397.0	3639.3	3920.8	4123.8	4362.1	4543.1	4567.2	4492.8
42.5°	2519.3	2879.2	3233.1	3553.8	3881.6	4226.4	4483.7	4772.3	5042.7	5228.7	5182.4
45°	2523.4	2924.5	3320.6	3695.6	4085.6	4494.8	4826.6	5146.3	5508.2	5826.9	5835.9
47.5°	2523.4	2958.7	3380.9	3798.1	4268.6	4728.0	5090.0	5468.0	5911.3	6288.3	6403.9
50°	2525.4	2981.8	3437.2	3878.5	4408.3	4925.1	5334.3	5780.6	6247.1	6657.3	6880.4
52.5°	2534.4	2998.9	3481.4	3935.8	4498.8	5063.8	5524.3	6039.0	6503.4	6924.7	7213.2
55°	2554.5	3023.0	3513.6	3971.0	4559.1	5154.3	5662.0	6215.9	6669.3	7096.6	7499.7
57.5°	2610.8	3065.2	3552.8	4002.2	4592.3	5213.6	5758.5	6292.3	6732.7	7178.0	7651.5
60°	2723.4	3154.7	3620.2	4064.5	4647.6	5323.2	5804.7	6241.1	6686.4	7153.9	7685.7
62.5°	2903.4	3294.4	3713.7	4170.1	4805.5	5493.1	5769.6	6088.2	6504.5	7014.1	7564.1
63°	2965.7	3324.6	3734.8	4193.2	4848.7	5524.3	5754.5	6043.0	6467.3	6969.9	7520.8
65°	3139.6	3458.3	3835.3	4309.8	5026.6	5555.4	5636.9	5807.8	6209.9	6717.6	7265.5
67.5°	3464.3	3783.0	4051.5	4506.9	5176.4	5432.8	5271.9	5293.0	5713.3	6239.0	6731.7
70°	3669.4	4049.4	4189.2	4532.0	5149.3	5250.8	4799.4	4519.9	4856.7	5455.9	5887.2
72.5°	3616.2	4052.5	4037.4	4197.2	4606.4	4700.9	4233.4	3793.1	3993.1	4440.5	4720.0
75°	3097.4	3619.2	3508.6	3476.4	3620.2	3682.5	3331.6	3264.3	3516.6	3764.9	3769.0
77.5°	2229.8	2803.9	2674.2	2488.2	2478.1	2621.9	2669.1	3110.5	3483.4	3679.5	3593.0
80°	1420.5	2042.8	1908.1	1583.4	1578.4	1765.4	2180.5	2780.7	3175.8	3285.4	3060.2
82.5°	741.9	1337.1	1388.4	1188.3	1360.2	1669.8	2075.0	2240.9	2390.7	2405.7	2140.3
85°	462.4	822.4	967.1	998.3	1228.5	1480.8	1477.8	1419.5	1353.2	1158.1	1047.5
87.5°	52.3	103.5	156.8	148.8	200.1	280.5	349.9	205.1	143.8	52.3	72.4
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°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1044.5	1045.5	1046.5	1046.5	1051.6	1050.6	1051.6	1053.6	1056.6	1058.6	1060.6
5°	1052.6	1052.6	1056.6	1059.6	1065.6	1069.7	1071.7	1077.7	1084.7	1082.7	1088.8
7.5°	1078.7	1077.7	1081.7	1083.7	1088.8	1095.8	1094.8	1099.8	1105.9	1107.9	1112.9
10°	1113.9	1110.9	1110.9	1108.9	1109.9	1107.9	1107.9	1107.9	1111.9	1110.9	1114.9
12.5°	1150.1	1149.1	1147.1	1141.0	1141.0	1133.0	1129.0	1124.0	1122.9	1115.9	1116.9
15°	1224.5	1224.5	1220.5	1208.4	1198.3	1191.3	1181.3	1174.2	1164.2	1151.1	1144.1
17.5°	1333.1	1319.0	1314.0	1311.9	1295.9	1289.8	1267.7	1244.6	1233.5	1215.4	1205.4
20°	1465.8	1462.7	1442.6	1432.6	1412.5	1384.3	1356.2	1326.0	1307.9	1285.8	1273.7
22.5°	1615.6	1593.4	1583.4	1568.3	1537.1	1505.0	1462.7	1422.5	1394.4	1379.3	1370.3
25°	1790.5	1768.4	1758.3	1738.2	1700.0	1665.8	1613.5	1566.3	1541.2	1516.0	1502.0
27.5°	2022.7	2001.6	1989.5	1937.3	1924.2	1867.9	1803.6	1739.2	1706.0	1668.8	1644.7
30°	2369.6	2370.6	2308.2	2244.9	2179.5	2082.0	2014.7	1942.3	1888.0	1834.7	1781.4
32.5°	2955.7	2805.9	2690.2	2554.5	2412.8	2309.2	2225.8	2139.3	2063.9	1986.5	1898.1
35°	3313.5	3241.2	3091.4	2843.1	2700.3	2574.6	2482.1	2377.6	2285.1	2148.4	2013.7
37.5°	3717.7	3549.8	3367.8	3230.1	3068.3	2922.5	2767.7	2649.0	2489.2	2305.2	2114.2
40°	4307.8	4067.5	3848.4	3663.4	3454.3	3301.5	3128.6	2956.7	2744.5	2478.1	2215.7
42.5°	4924.1	4675.8	4386.2	4146.0	3899.7	3720.7	3506.6	3265.3	2953.6	2623.9	2303.2
45°	5570.5	5238.7	4891.9	4598.4	4342.0	4119.8	3854.4	3534.7	3154.7	2754.6	2384.6
47.5°	6207.9	5826.9	5413.7	5098.0	4764.2	4492.8	4167.1	3762.9	3311.5	2878.2	2466.1
50°	6769.9	6402.9	5905.3	5504.2	5166.4	4831.6	4425.4	3938.9	3435.2	2984.8	2539.5
52.5°	7254.4	6938.8	6415.0	5908.3	5519.2	5143.2	4633.5	4080.6	3559.9	3083.3	2599.8
55°	7610.3	7400.2	6917.6	6289.3	5829.9	5381.5	4809.5	4217.3	3677.5	3161.7	2639.0
57.5°	7878.7	7762.1	7347.9	6648.2	6115.4	5612.7	4991.4	4381.2	3794.1	3229.1	2657.1
60°	8025.5	8057.7	7673.6	6961.9	6367.7	5805.7	5173.4	4520.9	3880.6	3268.3	2647.0
62.5°	8011.4	8208.5	7917.9	7154.9	6514.5	5920.4	5296.1	4586.3	3868.5	3206.0	2555.5
63°	7984.3	8213.5	7945.1	7168.0	6523.6	5924.4	5299.1	4577.2	3843.4	3175.8	2519.3
65°	7750.0	8097.9	7922.0	7108.7	6443.1	5849.0	5235.7	4446.6	3666.4	3014.0	2333.4
67.5°	7122.7	7558.0	7507.8	6689.4	6062.1	5537.3	4912.0	4025.3	3229.1	2615.9	1977.5
70°	6086.2	6495.4	6504.5	5817.8	5294.0	4779.3	4259.6	3275.3	2559.6	2027.7	1474.8
72.5°	4664.7	4928.1	5019.6	4567.2	4216.3	3854.4	3387.9	2377.6	1824.7	1379.3	960.1
75°	3612.1	3539.7	3538.7	3347.7	3205.0	3028.0	2515.3	1604.5	1198.3	896.7	587.1
77.5°	3247.2	2925.5	2613.8	2384.6	2270.0	2210.7	1649.7	967.1	706.7	515.7	337.8
80°	2678.2	2203.7	1780.4	1533.1	1434.6	1503.0	919.9	522.8	387.0	293.6	219.2
82.5°	1846.8	1533.1	1165.2	965.1	828.4	866.6	470.5	267.4	178.9	163.9	135.7
85°	962.1	843.5	711.8	611.2	539.9	474.5	244.3	127.7	74.4	65.3	59.3
87.5°	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1063.6	1062.6	1064.6	1065.6	1068.7	1070.7	1071.7	1069.7	1072.7	1075.7	1073.7
5°	1091.8	1098.8	1099.8	1102.8	1102.8	1108.9	1108.9	1108.9	1107.9	1108.9	1106.9
7.5°	1115.9	1125.0	1126.0	1130.0	1131.0	1138.0	1135.0	1137.0	1137.0	1132.0	1130.0
10°	1118.9	1128.0	1133.0	1138.0	1145.1	1154.1	1154.1	1159.1	1159.1	1155.1	1154.1
12.5°	1119.9	1127.0	1132.0	1139.0	1149.1	1162.2	1169.2	1176.2	1179.2	1178.2	1175.2
15°	1141.0	1141.0	1142.0	1148.1	1155.1	1171.2	1181.3	1189.3	1194.3	1192.3	1187.3
17.5°	1196.3	1188.3	1182.3	1172.2	1174.2	1182.3	1188.3	1195.3	1196.3	1194.3	1186.3
20°	1260.7	1250.6	1235.5	1219.5	1211.4	1205.4	1201.4	1201.4	1198.3	1188.3	1175.2
22.5°	1352.2	1339.1	1318.0	1293.9	1277.8	1258.7	1235.5	1213.4	1189.3	1165.2	1137.0
25°	1478.8	1460.7	1438.6	1401.4	1367.2	1327.0	1279.8	1230.5	1173.2	1122.9	1081.7
27.5°	1606.5	1566.3	1509.0	1457.7	1394.4	1334.1	1266.7	1206.4	1133.0	1072.7	1027.4
30°	1712.1	1635.7	1553.2	1471.8	1388.4	1306.9	1226.5	1154.1	1073.7	1012.4	968.1
32.5°	1793.5	1687.9	1573.3	1466.8	1364.2	1264.7	1172.2	1091.8	1010.4	947.0	899.8
35°	1868.9	1722.1	1576.3	1444.7	1318.0	1214.4	1109.9	1022.4	936.0	869.6	818.3
37.5°	1925.2	1738.2	1558.3	1403.4	1257.7	1142.0	1035.5	946.0	857.5	785.2	726.8
40°	1961.4	1728.2	1519.0	1344.1	1186.3	1064.6	956.1	863.6	778.1	698.7	628.3
42.5°	1990.5	1715.1	1479.8	1289.8	1130.0	997.3	885.7	786.2	699.7	613.2	535.8
45°	2033.8	1725.1	1462.7	1251.6	1079.7	940.0	817.3	713.8	623.3	538.9	464.5
47.5°	2076.0	1730.2	1437.6	1204.4	1016.4	880.7	756.0	655.5	563.0	485.6	417.2
50°	2114.2	1727.1	1398.4	1144.1	955.1	821.4	700.7	600.2	508.7	437.3	373.0
52.5°	2132.3	1710.1	1350.2	1085.8	905.8	769.1	646.4	548.9	458.4	391.1	331.8
55°	2130.3	1665.8	1286.8	1030.5	851.5	713.8	593.1	496.6	415.2	352.9	301.6
57.5°	2100.1	1597.5	1219.5	969.1	780.1	645.4	530.8	437.3	369.0	316.7	273.4
60°	2036.8	1510.0	1131.0	879.7	690.7	561.0	453.4	373.0	317.7	277.5	249.3
62.5°	1918.2	1384.3	1020.4	755.0	570.0	451.4	357.9	305.6	264.4	240.3	227.2
63°	1883.0	1350.2	973.2	724.8	541.9	426.3	337.8	283.5	253.3	232.2	220.2
65°	1708.0	1182.3	814.3	585.1	421.2	328.7	271.4	230.2	212.1	203.1	202.1
67.5°	1383.3	929.9	576.1	401.1	286.5	237.3	208.1	191.0	183.0	181.0	183.0
70°	971.1	587.1	365.9	266.4	212.1	191.0	177.9	170.9	165.9	166.9	168.9
72.5°	619.3	351.9	251.3	202.1	178.9	167.9	161.9	159.8	158.8	157.8	157.8
75°	352.9	234.2	193.0	174.9	162.9	153.8	148.8	146.8	147.8	148.8	146.8
77.5°	233.2	193.0	171.9	159.8	148.8	138.7	135.7	134.7	136.7	138.7	138.7
80°	184.0	171.9	159.8	147.8	129.7	122.6	124.7	125.7	124.7	125.7	122.6
82.5°	129.7	127.7	130.7	125.7	107.6	101.5	99.5	100.5	98.5	98.5	96.5
85°	60.3	60.3	63.3	63.3	61.3	62.3	67.4	73.4	76.4	73.4	69.4
87.5°	0.0	0.0	0.0	0.0	0.0	9.0	18.1	26.1	28.1	35.2	34.2
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: P152954

CATALOG NUMBER: TLM-F04-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1070.7	1072.7	1071.7	1070.7	1072.7	1070.7	1071.7	1070.7	1070.7	1069.7	1069.7
5°	1104.9	1107.9	1101.8	1100.8	1098.8	1093.8	1093.8	1091.8	1091.8	1087.8	1084.7
7.5°	1127.0	1128.0	1122.9	1121.9	1116.9	1111.9	1107.9	1103.8	1102.8	1099.8	1093.8
10°	1148.1	1146.1	1142.0	1137.0	1132.0	1125.0	1119.9	1114.9	1113.9	1108.9	1101.8
12.5°	1166.2	1165.2	1157.1	1152.1	1144.1	1137.0	1131.0	1125.0	1121.9	1115.9	1105.9
15°	1178.2	1172.2	1162.2	1153.1	1144.1	1136.0	1129.0	1121.9	1118.9	1111.9	1101.8
17.5°	1173.2	1162.2	1149.1	1138.0	1126.0	1115.9	1109.9	1102.8	1097.8	1093.8	1079.7
20°	1155.1	1139.0	1118.9	1105.9	1089.8	1076.7	1072.7	1065.6	1061.6	1046.5	1028.4
22.5°	1107.9	1084.7	1059.6	1040.5	1022.4	1009.3	999.3	992.3	982.2	973.2	945.0
25°	1048.6	1022.4	996.3	973.2	949.0	928.9	910.8	893.7	888.7	869.6	842.5
27.5°	991.3	962.1	936.0	908.8	877.6	852.5	821.4	797.2	781.1	761.0	735.9
30°	929.9	900.8	865.6	829.4	793.2	766.1	730.9	701.7	681.6	660.5	637.4
32.5°	852.5	817.3	775.1	734.9	701.7	669.5	634.4	606.2	586.1	567.0	544.9
35°	764.0	717.8	672.6	628.3	593.1	566.0	534.8	513.7	499.6	482.6	459.4
37.5°	662.5	610.2	562.0	527.8	496.6	470.5	448.4	435.3	420.2	411.2	397.1
40°	560.0	508.7	461.4	430.3	404.1	389.1	377.0	374.0	363.9	351.9	342.8
42.5°	469.5	420.2	374.0	348.8	331.8	327.7	321.7	321.7	316.7	307.6	301.6
45°	408.2	356.9	316.7	298.6	289.5	288.5	285.5	285.5	284.5	280.5	273.4
47.5°	363.9	317.7	286.5	275.5	273.4	271.4	268.4	267.4	266.4	263.4	259.4
50°	323.7	284.5	264.4	259.4	260.4	257.4	254.3	251.3	250.3	247.3	243.3
52.5°	286.5	258.4	245.3	242.3	242.3	242.3	240.3	240.3	238.3	237.3	233.2
55°	265.4	244.3	237.3	236.3	235.2	234.2	232.2	232.2	230.2	229.2	224.2
57.5°	247.3	234.2	230.2	228.2	227.2	225.2	224.2	224.2	224.2	224.2	218.2
60°	233.2	227.2	226.2	224.2	223.2	219.2	217.2	216.1	217.2	218.2	212.1
62.5°	218.2	217.2	216.1	214.1	213.1	209.1	206.1	204.1	206.1	208.1	207.1
63°	214.1	213.1	213.1	212.1	211.1	206.1	203.1	201.1	203.1	205.1	205.1
65°	200.1	201.1	201.1	200.1	199.1	196.0	192.0	190.0	191.0	194.0	195.0
67.5°	185.0	186.0	185.0	186.0	185.0	183.0	180.0	177.9	176.9	177.9	178.9
70°	170.9	172.9	171.9	170.9	169.9	169.9	167.9	164.9	163.9	162.9	162.9
72.5°	158.8	158.8	156.8	156.8	155.8	155.8	153.8	150.8	149.8	149.8	147.8
75°	145.8	145.8	142.8	142.8	140.7	141.8	139.7	136.7	135.7	135.7	134.7
77.5°	137.7	134.7	129.7	128.7	127.7	127.7	126.7	123.7	122.6	122.6	121.6
80°	121.6	115.6	110.6	109.6	110.6	112.6	112.6	110.6	110.6	110.6	110.6
82.5°	94.5	92.5	89.5	87.5	87.5	90.5	94.5	96.5	98.5	100.5	100.5
85°	69.4	70.4	69.4	66.4	65.3	68.4	72.4	76.4	77.4	81.4	80.4
87.5°	37.2	38.2	35.2	34.2	37.2	39.2	43.2	44.2	46.2	47.3	48.3
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: P152954

CATALOG NUMBER: TLM-F04-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1068.7	1067.7	1068.7	1066.6	1066.6	1064.6	1062.6	1061.6	1059.6	1058.6	1056.6
5°	1086.8	1083.7	1080.7	1079.7	1075.7	1071.7	1068.7	1063.6	1059.6	1052.6	1050.6
7.5°	1098.8	1091.8	1087.8	1086.8	1080.7	1077.7	1070.7	1064.6	1058.6	1049.6	1046.5
10°	1103.8	1096.8	1089.8	1086.8	1079.7	1074.7	1067.7	1058.6	1053.6	1044.5	1042.5
12.5°	1109.9	1096.8	1085.8	1077.7	1067.7	1056.6	1049.6	1044.5	1037.5	1032.5	1030.5
15°	1098.8	1081.7	1064.6	1049.6	1033.5	1021.4	1014.4	1006.3	998.3	995.3	995.3
17.5°	1068.7	1046.5	1017.4	998.3	981.2	968.1	959.1	951.0	950.0	946.0	948.0
20°	1006.3	977.2	949.0	935.0	924.9	916.9	907.8	903.8	900.8	894.7	892.7
22.5°	919.9	895.7	875.6	865.6	857.5	847.5	839.4	827.4	824.4	818.3	815.3
25°	824.4	805.3	788.2	781.1	776.1	762.0	757.0	740.9	729.9	722.8	726.8
27.5°	728.9	714.8	698.7	689.7	686.6	673.6	668.5	650.4	641.4	641.4	631.3
30°	630.3	617.3	607.2	597.2	595.2	579.1	566.0	559.0	548.9	544.9	537.8
32.5°	537.8	524.8	516.7	511.7	503.7	490.6	477.5	465.5	449.4	443.3	440.3
35°	452.4	442.3	432.3	428.3	417.2	403.1	387.0	377.0	357.9	350.9	347.8
37.5°	387.0	375.0	367.9	356.9	345.8	330.8	318.7	309.6	302.6	299.6	299.6
40°	334.8	325.7	317.7	308.6	299.6	291.5	285.5	283.5	282.5	282.5	284.5
42.5°	295.6	287.5	283.5	278.5	275.5	275.5	274.5	275.5	276.5	277.5	280.5
45°	269.4	264.4	262.4	261.4	263.4	265.4	266.4	268.4	272.4	274.5	275.5
47.5°	255.4	251.3	250.3	251.3	254.3	258.4	262.4	265.4	268.4	269.4	270.4
50°	241.3	236.3	234.2	236.3	240.3	246.3	249.3	254.3	256.4	258.4	256.4
52.5°	229.2	225.2	224.2	224.2	228.2	232.2	236.3	240.3	241.3	241.3	240.3
55°	219.2	216.1	213.1	215.1	218.2	222.2	228.2	231.2	233.2	234.2	234.2
57.5°	211.1	208.1	205.1	207.1	210.1	214.1	220.2	223.2	225.2	228.2	229.2
60°	205.1	201.1	198.0	201.1	204.1	210.1	215.1	218.2	223.2	224.2	224.2
62.5°	199.1	195.0	190.0	193.0	193.0	196.0	201.1	205.1	210.1	212.1	212.1
63°	198.0	194.0	189.0	191.0	191.0	193.0	197.0	201.1	207.1	209.1	208.1
65°	190.0	189.0	184.0	184.0	182.0	184.0	187.0	191.0	194.0	197.0	197.0
67.5°	176.9	175.9	174.9	174.9	174.9	176.9	178.9	182.0	185.0	187.0	186.0
70°	161.9	161.9	161.9	162.9	162.9	164.9	165.9	164.9	167.9	169.9	168.9
72.5°	148.8	147.8	146.8	148.8	147.8	147.8	149.8	148.8	151.8	151.8	152.8
75°	134.7	133.7	133.7	134.7	132.7	130.7	131.7	131.7	132.7	132.7	134.7
77.5°	122.6	122.6	122.6	121.6	119.6	118.6	117.6	117.6	117.6	117.6	118.6
80°	111.6	111.6	111.6	110.6	108.6	106.6	104.6	103.5	102.5	97.5	97.5
82.5°	100.5	100.5	100.5	100.5	99.5	97.5	94.5	86.5	82.4	78.4	79.4
85°	79.4	81.4	83.4	86.5	85.5	85.5	79.4	69.4	63.3	59.3	60.3
87.5°	51.3	45.2	45.2	44.2	42.2	40.2	40.2	34.2	28.1	25.1	26.1
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: P152954

CATALOG NUMBER: TLM-F04-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1056.6	1054.6	1052.6	1052.6	1049.6	1049.6	1047.5	1051.6	1047.5	1044.5	1044.5
5°	1048.6	1046.5	1040.5	1039.5	1035.5	1035.5	1035.5	1033.5	1033.5	1031.5	1030.5
7.5°	1043.5	1038.5	1033.5	1030.5	1030.5	1028.4	1032.5	1030.5	1031.5	1031.5	1032.5
10°	1039.5	1035.5	1033.5	1032.5	1032.5	1035.5	1038.5	1039.5	1038.5	1039.5	1039.5
12.5°	1029.5	1031.5	1032.5	1036.5	1041.5	1047.5	1054.6	1055.6	1057.6	1057.6	1059.6
15°	997.3	1002.3	1008.3	1018.4	1031.5	1044.5	1057.6	1068.7	1078.7	1083.7	1087.8
17.5°	952.0	957.1	968.1	979.2	996.3	1015.4	1037.5	1056.6	1077.7	1096.8	1115.9
20°	890.7	898.8	901.8	921.9	942.0	968.1	994.3	1024.4	1060.6	1096.8	1134.0
22.5°	811.3	820.3	834.4	850.5	871.6	903.8	935.0	982.2	1030.5	1081.7	1140.0
25°	722.8	732.9	744.9	762.0	783.1	817.3	862.6	912.8	972.1	1039.5	1111.9
27.5°	631.3	641.4	651.5	663.5	687.6	723.8	777.1	829.4	894.7	968.1	1052.6
30°	539.9	540.9	546.9	562.0	587.1	634.4	673.6	738.9	807.3	884.7	982.2
32.5°	439.3	438.3	445.4	458.4	482.6	527.8	576.1	639.4	706.7	804.3	904.8
35°	349.9	349.9	362.9	376.0	403.1	435.3	477.5	533.8	613.2	703.7	804.3
37.5°	302.6	309.6	317.7	330.8	351.9	377.0	414.2	463.5	525.8	612.2	704.7
40°	287.5	291.5	298.6	310.6	328.7	351.9	379.0	416.2	464.5	533.8	618.3
42.5°	281.5	282.5	286.5	295.6	311.7	334.8	362.9	396.1	432.3	481.6	554.9
45°	275.5	274.5	276.5	283.5	296.6	322.7	354.9	391.1	427.3	468.5	528.8
47.5°	270.4	270.4	270.4	273.4	285.5	311.7	348.8	391.1	434.3	480.5	539.9
50°	256.4	255.4	255.4	257.4	266.4	294.6	338.8	390.1	446.4	506.7	574.0
52.5°	240.3	240.3	241.3	242.3	250.3	278.5	327.7	390.1	460.4	540.9	625.3
55°	235.2	236.3	237.3	236.3	242.3	266.4	315.7	384.0	466.5	568.0	680.6
57.5°	231.2	233.2	233.2	232.2	236.3	256.4	303.6	372.0	461.4	578.1	719.8
60°	225.2	225.2	225.2	222.2	224.2	242.3	285.5	352.9	445.4	569.0	725.8
62.5°	212.1	212.1	210.1	209.1	208.1	222.2	261.4	324.7	416.2	544.9	710.8
63°	209.1	208.1	208.1	205.1	205.1	218.2	256.4	320.7	408.2	538.9	704.7
65°	198.0	198.0	198.0	196.0	195.0	205.1	236.3	292.5	377.0	510.7	674.6
67.5°	186.0	187.0	185.0	184.0	183.0	189.0	213.1	257.4	328.7	451.4	618.3
70°	168.9	169.9	169.9	168.9	167.9	171.9	187.0	221.2	272.4	376.0	526.8
72.5°	153.8	155.8	155.8	157.8	157.8	160.9	166.9	184.0	218.2	293.6	414.2
75°	137.7	138.7	140.7	142.8	140.7	139.7	140.7	153.8	170.9	217.2	295.6
77.5°	123.7	126.7	126.7	125.7	122.6	120.6	120.6	126.7	140.7	164.9	211.1
80°	102.5	107.6	108.6	105.6	102.5	102.5	104.6	108.6	117.6	135.7	159.8
82.5°	82.4	87.5	88.5	89.5	88.5	91.5	91.5	92.5	97.5	111.6	130.7
85°	63.3	67.4	70.4	71.4	72.4	73.4	72.4	67.4	70.4	79.4	88.5
87.5°	28.1	29.2	27.1	28.1	27.1	28.1	29.2	24.1	23.1	31.2	32.2
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: P152954

CATALOG NUMBER: TLM-F04-LED-E1-SLL-7030

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6	1054.6
2.5°	1043.5	1043.5	1044.5	1042.5	1042.5	1043.5	1040.5
5°	1027.4	1031.5	1031.5	1031.5	1029.5	1031.5	1032.5
7.5°	1031.5	1034.5	1036.5	1036.5	1035.5	1039.5	1042.5
10°	1036.5	1041.5	1043.5	1043.5	1043.5	1048.6	1055.6
12.5°	1055.6	1059.6	1062.6	1062.6	1064.6	1070.7	1078.7
15°	1090.8	1095.8	1095.8	1094.8	1100.8	1107.9	1116.9
17.5°	1130.0	1144.1	1151.1	1150.1	1155.1	1164.2	1174.2
20°	1167.2	1206.4	1223.5	1235.5	1240.6	1252.6	1255.7
22.5°	1198.3	1263.7	1310.9	1351.2	1370.3	1382.3	1396.4
25°	1187.3	1275.8	1360.2	1442.6	1500.9	1560.3	1585.4
27.5°	1142.0	1252.6	1363.2	1483.9	1589.4	1695.0	1771.4
30°	1086.8	1219.5	1368.2	1539.2	1706.0	1867.9	1996.6
32.5°	1023.4	1188.3	1379.3	1590.4	1809.6	2021.7	2207.7
35°	944.0	1129.0	1352.2	1595.5	1853.8	2111.2	2352.5
37.5°	843.5	1048.6	1288.8	1559.3	1855.8	2150.4	2438.9
40°	742.9	947.0	1208.4	1507.0	1829.7	2159.4	2493.2
42.5°	672.6	856.5	1127.0	1440.6	1787.5	2145.4	2519.3
45°	624.3	791.2	1054.6	1380.3	1742.2	2120.2	2523.4
47.5°	620.3	763.0	1007.3	1336.1	1706.0	2098.1	2523.4
50°	654.5	778.1	991.3	1314.0	1691.0	2091.1	2525.4
52.5°	718.8	838.4	1020.4	1331.0	1703.0	2100.1	2534.4
55°	796.2	929.9	1098.8	1390.4	1754.3	2130.3	2554.5
57.5°	866.6	1035.5	1232.5	1505.0	1847.8	2206.7	2610.8
60°	907.8	1126.0	1374.3	1665.8	2007.6	2358.5	2723.4
62.5°	912.8	1176.2	1499.9	1840.7	2201.7	2532.4	2903.4
63°	908.8	1180.3	1516.0	1873.9	2242.9	2575.6	2965.7
65°	886.7	1181.3	1561.3	1990.5	2385.6	2757.6	3139.6
67.5°	830.4	1149.1	1577.4	2082.0	2565.6	2996.9	3464.3
70°	732.9	1057.6	1530.1	2084.0	2635.0	3130.6	3669.4
72.5°	589.1	883.7	1326.0	1896.0	2452.0	2998.9	3616.2
75°	431.3	649.4	1002.3	1468.8	2000.6	2496.2	3097.4
77.5°	286.5	420.2	675.6	1046.5	1434.6	1796.5	2229.8
80°	197.0	260.4	395.1	629.3	877.6	1053.6	1420.5
82.5°	144.8	171.9	219.2	321.7	422.2	519.8	741.9
85°	90.5	98.5	109.6	158.8	227.2	306.6	462.4
87.5°	24.1	25.1	23.1	31.2	49.3	47.3	52.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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