

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P140756

Luminaire Tested: **ECM-F02-LED-E1-RW-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140756
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33689)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F02-LED-E1-RW-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5010.2 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

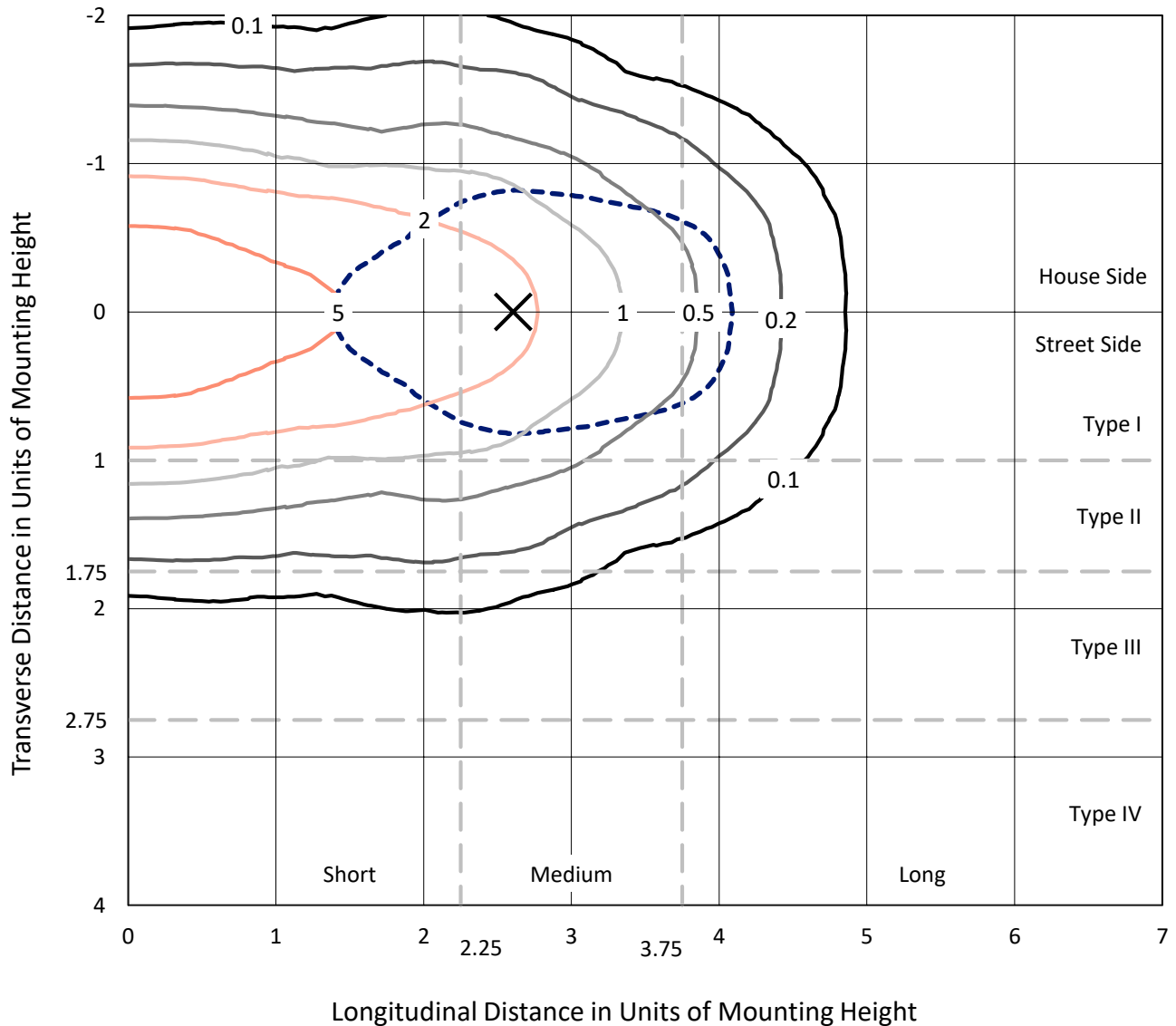
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P140756
 CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

Iso-Footcandle Lines of Horizontal Illumination

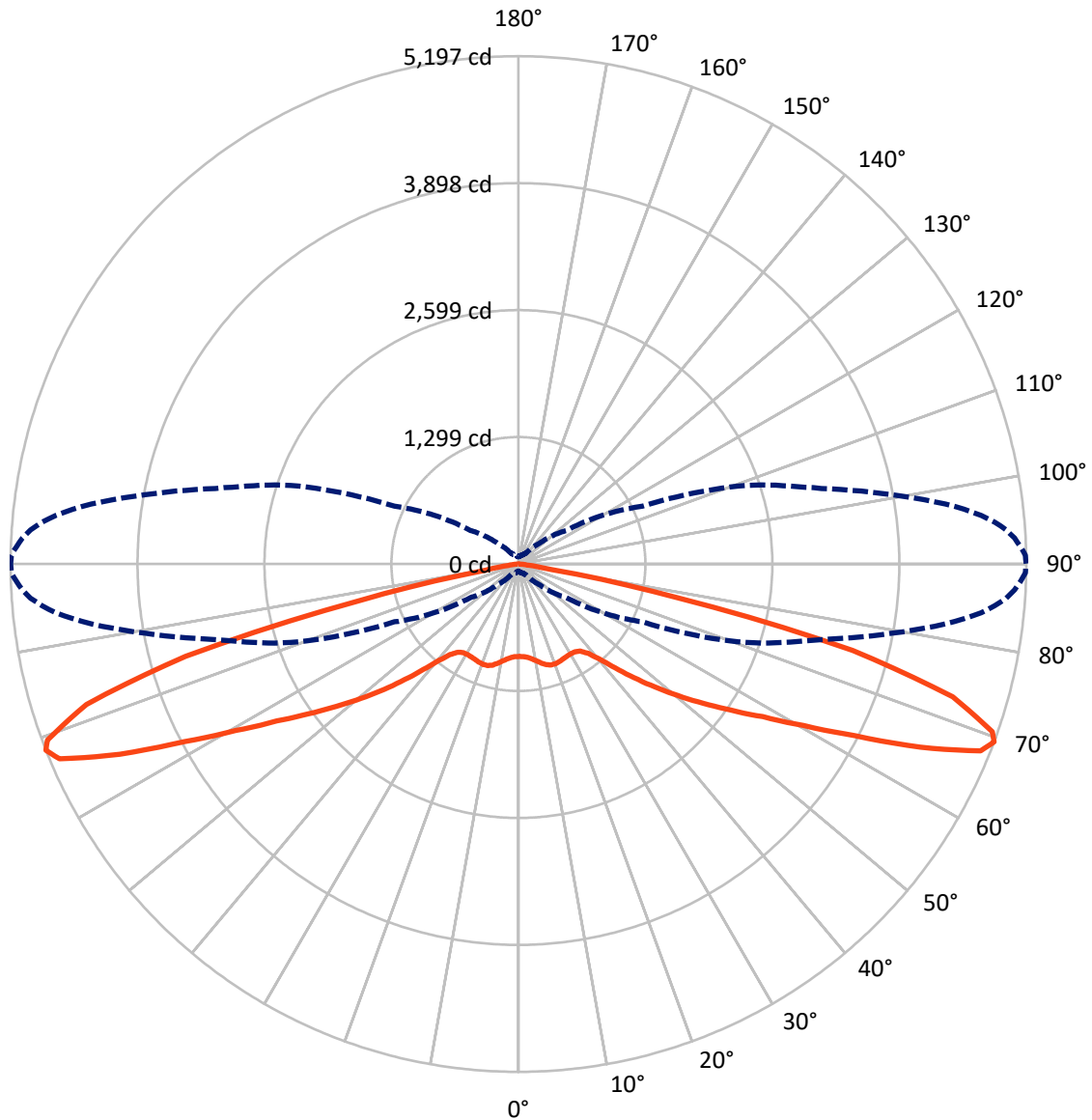
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P140756
CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P140756

CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

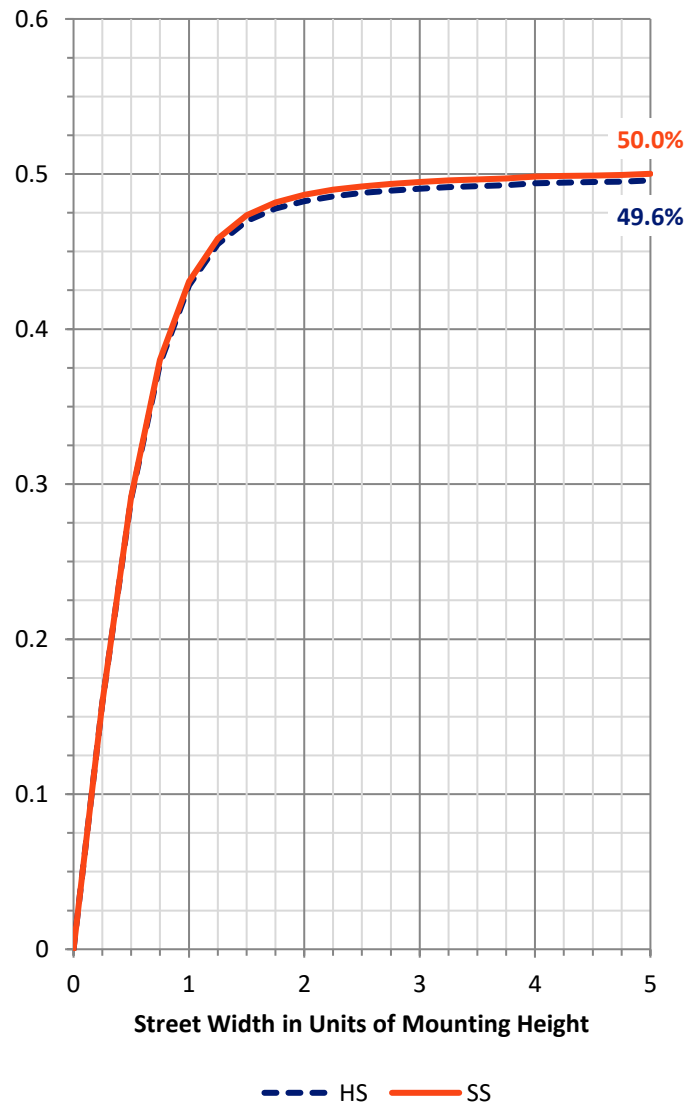
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2505.1	0.0	2505.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2505.1	0.0	2505.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	5010.2	0.0	5010.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	1.8
10°-20°	291.2	5.8
20°-30°	470.8	9.4
30°-40°	588.1	11.7
40°-50°	735.6	14.7
50°-60°	906.5	18.1
60°-70°	1122.2	22.4
70°-80°	733.5	14.6
80°-90°	69.7	1.4
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°-90°	5010.2	100.0
0°-180°	5010.2	100.0



REPORT NUMBER: P140756

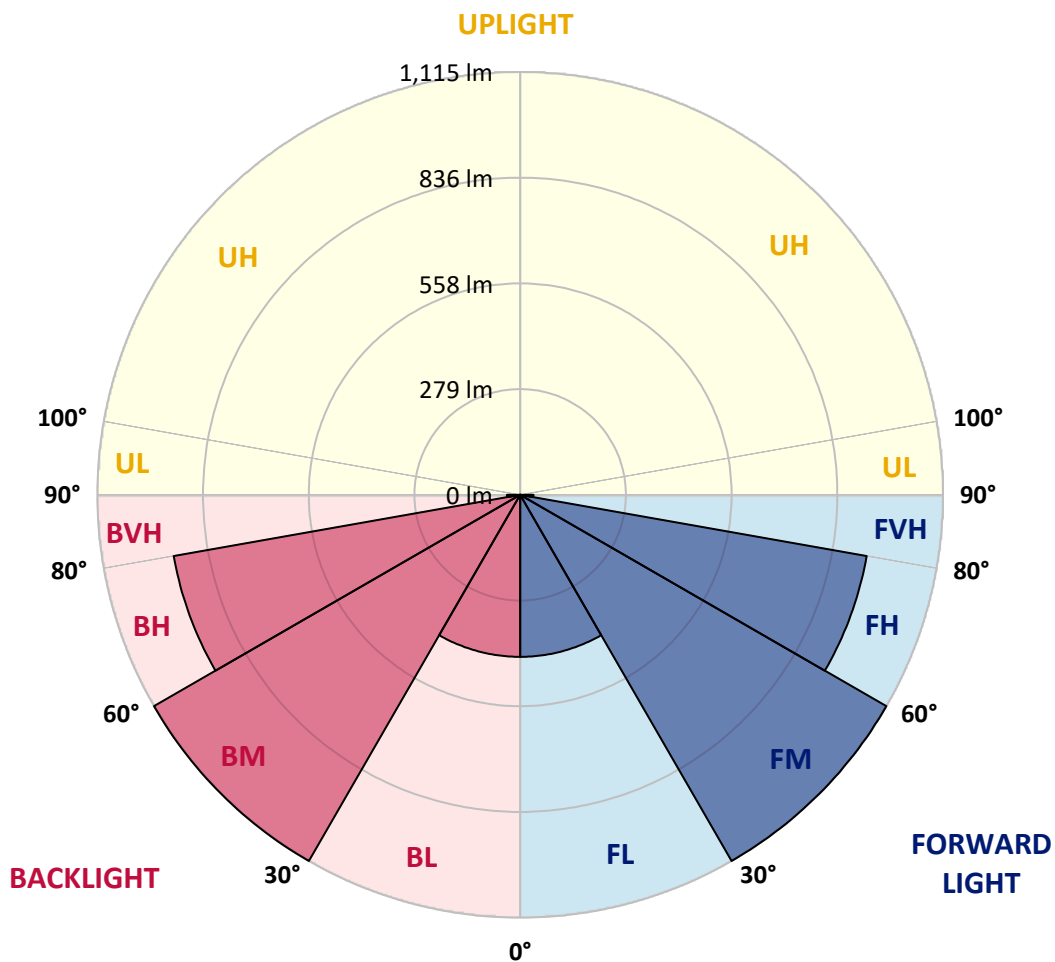
CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.3	8.5			
FM (30°-60°)	1115.1	22.3			
FH (60°-80°)	927.8	18.5			G1/1800
FVH (80°-90°)	34.9	0.7			G1/100
BL (0°-30°)	427.3	8.5	B1/500		
BM (30°-60°)	1115.1	22.3	B2/2500		
BH (60°-80°)	927.8	18.5	B2/1000		G2/1000
BVH (80°-90°)	34.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Short





REPORT NUMBER: P140756

CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9
2.5°	952.1	952.7	951.0	951.6	952.1	951.6	950.7	950.7	950.4	950.1	949.9
5°	958.4	958.6	957.8	959.2	959.5	960.3	960.3	960.6	960.4	960.2	960.1
7.5°	967.0	968.2	967.4	969.4	971.3	974.2	975.6	979.0	978.9	978.8	978.8
10°	975.2	976.4	976.4	980.9	985.7	991.0	996.8	1002.1	1002.4	1002.8	1003.1
12.5°	981.4	982.3	983.8	992.0	1002.6	1011.7	1021.6	1030.0	1030.4	1030.7	1031.1
15°	979.0	980.9	987.4	1000.4	1019.4	1034.2	1046.4	1056.6	1057.3	1058.0	1058.6
17.5°	970.2	973.2	982.6	1004.6	1033.8	1057.7	1072.2	1074.9	1075.4	1075.8	1076.3
20°	951.2	955.8	970.4	1001.8	1044.8	1077.2	1091.6	1086.6	1086.1	1085.6	1085.2
22.5°	919.6	925.6	944.0	988.6	1045.6	1091.4	1105.4	1091.3	1089.7	1088.2	1086.6
25°	877.3	882.1	903.0	955.8	1032.6	1093.8	1114.2	1094.4	1091.9	1089.4	1086.8
27.5°	825.9	829.8	855.8	912.0	1000.4	1080.9	1119.8	1099.8	1096.5	1093.2	1089.9
30°	768.1	771.4	799.9	859.8	955.2	1052.4	1119.2	1112.0	1108.1	1104.2	1100.2
32.5°	710.4	711.8	737.2	803.0	905.0	1010.3	1110.0	1130.6	1126.8	1123.0	1119.2
35°	647.2	651.7	678.8	750.5	848.2	964.0	1097.6	1156.6	1154.4	1152.2	1150.1
37.5°	596.3	597.8	626.8	701.4	802.2	921.9	1081.7	1189.8	1191.4	1192.9	1194.4
40°	545.6	545.5	574.3	651.7	756.2	884.0	1068.4	1230.8	1238.5	1246.3	1254.0
42.5°	489.9	493.8	522.1	599.2	711.6	851.8	1061.6	1280.0	1294.5	1309.1	1323.7
45°	438.0	440.4	469.2	544.6	655.9	815.2	1059.7	1334.7	1356.8	1379.0	1401.1
47.5°	386.8	390.5	417.9	487.1	595.2	766.3	1057.2	1397.1	1425.4	1453.7	1482.0
50°	339.4	341.7	372.1	435.1	535.4	703.1	1040.5	1466.9	1501.4	1536.0	1570.6
52.5°	289.2	293.7	318.8	383.8	475.0	635.0	996.7	1542.8	1584.6	1626.4	1668.2
55°	236.6	235.5	265.7	326.7	422.2	569.8	916.0	1608.6	1659.0	1709.5	1759.9
57.5°	173.4	177.0	204.7	266.6	360.8	515.0	820.8	1642.8	1705.7	1768.6	1831.5
60°	124.2	129.3	153.3	202.1	299.9	461.4	723.6	1619.0	1702.4	1785.8	1869.1
62.5°	97.1	99.4	120.0	151.6	233.8	405.2	658.5	1557.5	1672.4	1787.3	1902.3
65°	84.7	87.2	105.6	122.0	177.6	351.8	619.2	1508.4	1660.0	1811.7	1963.4
67.5°	77.1	80.2	96.0	107.3	145.7	306.4	609.9	1468.2	1646.2	1824.2	2002.1
69°	73.4	76.5	91.2	101.6	135.2	292.0	599.2	1400.8	1581.4	1762.0	1942.6
70°	71.7	74.2	88.4	98.2	131.9	283.5	574.9	1323.7	1498.3	1672.8	1847.4
72.5°	66.1	67.5	80.4	90.1	124.8	237.2	455.4	990.8	1136.7	1282.5	1428.4
75°	58.4	60.7	72.6	82.4	100.2	151.9	298.8	598.9	706.9	815.0	923.0
77.5°	50.2	52.2	62.4	78.8	77.1	92.0	171.7	334.6	393.0	451.4	509.8
80°	43.4	45.4	54.8	73.2	62.7	68.0	115.8	218.2	240.4	262.6	284.8
82.5°	34.2	35.6	46.0	59.6	48.6	50.5	86.7	190.6	204.0	217.4	230.8
85°	21.8	22.6	33.6	40.6	33.9	30.0	54.5	139.8	150.4	160.9	171.4
87.5°	7.6	10.7	15.0	14.1	14.2	10.7	19.2	51.7	55.8	59.9	64.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P140756

CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9
2.5°	949.6	949.3	949.6	949.6	949.2	949.0	949.0	948.7	948.2	948.2	947.8
5°	959.9	959.8	960.3	960.0	960.3	960.0	960.0	959.8	960.0	958.9	958.6
7.5°	978.7	978.6	978.6	979.5	979.0	978.7	979.2	979.2	979.2	978.6	978.6
10°	1003.4	1003.8	1004.4	1004.9	1004.9	1004.9	1006.0	1005.2	1006.9	1005.2	1006.0
12.5°	1031.4	1031.8	1033.2	1033.8	1034.3	1034.2	1034.3	1036.0	1037.1	1036.8	1037.1
15°	1059.3	1060.0	1060.2	1061.1	1061.1	1061.4	1062.5	1064.5	1063.9	1065.0	1065.0
17.5°	1076.8	1077.2	1076.9	1077.0	1077.5	1078.4	1079.5	1080.6	1080.3	1081.2	1081.8
20°	1084.7	1084.2	1083.4	1082.8	1082.6	1083.2	1083.1	1083.4	1084.0	1083.9	1083.9
22.5°	1085.0	1083.4	1081.4	1080.3	1078.9	1078.0	1078.6	1078.0	1078.1	1078.1	1077.5
25°	1084.2	1081.7	1078.6	1076.4	1074.1	1072.6	1071.3	1070.7	1069.6	1069.6	1069.6
27.5°	1086.7	1083.4	1080.3	1076.1	1072.9	1071.2	1069.3	1067.3	1066.2	1065.1	1065.0
30°	1096.4	1092.4	1088.5	1083.4	1079.2	1077.8	1074.0	1072.2	1069.3	1067.9	1067.4
32.5°	1115.4	1111.6	1106.2	1100.6	1097.2	1093.0	1089.9	1085.7	1082.6	1080.6	1078.0
35°	1148.0	1145.8	1141.3	1137.6	1132.6	1127.7	1121.6	1119.2	1112.8	1111.6	1108.6
37.5°	1196.0	1197.5	1196.6	1193.8	1190.4	1186.2	1183.6	1178.8	1176.3	1173.8	1170.9
40°	1261.8	1269.5	1272.0	1275.1	1276.0	1279.6	1275.4	1274.8	1271.4	1274.3	1272.6
42.5°	1338.2	1352.8	1360.6	1370.0	1380.2	1389.5	1396.8	1409.2	1407.8	1417.4	1424.2
45°	1423.3	1445.4	1465.8	1481.2	1500.8	1522.2	1541.1	1558.6	1578.4	1589.6	1606.4
47.5°	1510.3	1538.6	1567.7	1596.4	1624.1	1651.8	1685.6	1716.5	1746.4	1766.7	1792.4
50°	1605.1	1639.6	1674.6	1710.0	1749.2	1792.7	1830.6	1870.6	1911.8	1953.6	1983.0
52.5°	1710.0	1751.8	1789.8	1827.2	1875.8	1921.8	1970.9	2021.1	2083.5	2129.0	2169.4
55°	1810.3	1860.8	1902.6	1947.2	1998.0	2049.1	2109.2	2172.2	2238.2	2303.8	2363.0
57.5°	1894.4	1957.3	2007.0	2051.4	2105.8	2164.9	2229.5	2307.4	2382.8	2464.2	2540.6
60°	1952.4	2035.8	2095.7	2149.0	2212.2	2277.8	2362.2	2454.2	2553.4	2654.4	2752.7
62.5°	2017.2	2132.1	2214.0	2290.2	2365.0	2437.9	2533.0	2647.4	2781.8	2904.0	3034.2
65°	2115.1	2266.8	2387.6	2484.8	2590.9	2697.1	2808.0	2941.6	3094.4	3272.8	3424.4
67.5°	2180.0	2358.0	2511.6	2650.8	2774.8	2903.8	3043.8	3203.6	3388.0	3570.2	3758.8
69°	2123.2	2303.8	2466.1	2619.4	2755.2	2894.2	3036.5	3197.4	3385.8	3587.0	3786.2
70°	2021.9	2196.5	2364.2	2525.7	2658.4	2803.6	2943.6	3097.0	3287.8	3489.1	3705.7
72.5°	1574.2	1720.1	1892.4	2048.2	2206.6	2339.0	2465.6	2619.4	2812.0	3003.7	3214.6
75°	1031.0	1139.0	1296.6	1424.8	1561.8	1686.0	1777.7	1930.5	2047.4	2227.8	2423.8
77.5°	568.2	626.6	708.4	812.9	872.0	942.0	1033.7	1089.4	1172.4	1298.6	1357.3
80°	307.0	329.2	363.7	385.4	402.9	385.7	376.4	393.0	386.0	384.0	365.1
82.5°	244.2	257.6	275.3	288.0	279.8	242.8	203.6	175.1	156.7	131.8	113.0
85°	182.0	192.6	199.4	207.8	206.4	186.6	149.4	115.5	90.6	72.2	63.0
87.5°	68.1	72.2	74.2	90.4	83.1	78.8	61.2	44.7	34.2	24.8	20.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P140756

CATALOG NUMBER: ECM-F02-LED-E1-RW-7050

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9	945.9
2.5°	948.4	948.2	948.2	948.2	948.4	947.9	947.4	947.9	947.6	947.6	947.6
5°	959.7	959.4	959.4	959.7	959.4	959.8	959.4	958.4	958.9	959.2	959.5
7.5°	979.2	979.0	979.0	980.4	980.0	979.8	979.5	980.1	979.2	979.2	979.8
10°	1006.0	1007.2	1006.9	1007.8	1007.4	1006.8	1006.4	1006.9	1007.7	1008.0	1006.9
12.5°	1038.8	1039.1	1038.5	1040.0	1039.1	1041.1	1038.8	1039.9	1041.1	1039.4	1040.2
15°	1065.3	1065.4	1066.4	1066.8	1066.4	1067.0	1068.8	1067.8	1067.1	1068.4	1069.0
17.5°	1081.4	1082.3	1082.6	1082.8	1083.4	1084.0	1084.2	1084.0	1084.2	1084.8	1086.0
20°	1085.1	1084.8	1085.4	1085.6	1086.6	1086.5	1087.0	1086.8	1087.6	1087.9	1088.2
22.5°	1078.6	1078.9	1079.2	1080.0	1079.7	1080.3	1080.6	1081.4	1081.2	1081.7	1082.0
25°	1069.9	1070.4	1070.7	1070.4	1070.4	1070.7	1071.0	1070.7	1071.8	1072.4	1072.4
27.5°	1064.2	1064.2	1065.1	1064.8	1064.2	1064.8	1064.5	1064.5	1064.5	1064.8	1065.6
30°	1066.5	1065.6	1065.0	1065.1	1064.8	1064.2	1063.6	1062.8	1062.8	1063.1	1062.8
32.5°	1078.6	1076.9	1076.1	1075.2	1074.6	1073.2	1071.6	1071.0	1069.6	1069.6	1069.0
35°	1109.7	1107.7	1107.7	1104.6	1102.9	1102.0	1100.6	1096.4	1096.6	1095.0	1094.4
37.5°	1171.5	1168.1	1166.7	1169.5	1164.2	1166.4	1161.6	1159.6	1160.8	1157.6	1159.4
40°	1275.4	1280.8	1278.5	1281.6	1283.0	1283.6	1283.6	1278.8	1283.6	1276.0	1278.5
42.5°	1425.4	1439.4	1444.6	1446.2	1455.0	1452.7	1450.2	1450.0	1449.6	1453.3	1451.3
45°	1614.0	1616.0	1640.0	1644.4	1649.2	1654.6	1653.2	1659.4	1664.0	1657.8	1658.6
47.5°	1806.8	1826.8	1844.4	1854.0	1864.4	1859.0	1863.3	1865.8	1882.0	1880.2	1878.8
50°	2019.2	2052.8	2062.0	2072.5	2080.7	2097.1	2095.6	2105.6	2103.9	2117.2	2118.8
52.5°	2220.4	2257.4	2295.0	2311.4	2323.8	2342.8	2350.1	2360.8	2356.8	2355.7	2365.6
55°	2420.7	2482.5	2525.4	2567.5	2590.9	2616.0	2626.8	2642.0	2648.8	2651.9	2639.5
57.5°	2619.2	2693.4	2766.0	2818.0	2854.1	2891.9	2912.0	2928.6	2948.1	2954.6	2948.4
60°	2851.2	2960.0	3055.2	3124.5	3191.2	3232.5	3275.6	3307.2	3313.2	3340.0	3357.2
62.5°	3160.4	3292.8	3413.4	3514.5	3617.9	3695.0	3772.8	3803.9	3834.8	3855.6	3868.3
65°	3582.0	3756.5	3923.1	4066.8	4193.6	4321.8	4412.7	4460.4	4521.6	4533.8	4520.6
67.5°	3951.6	4157.4	4364.4	4547.4	4684.4	4817.3	4925.2	5004.2	5061.6	5089.8	5101.7
69°	3992.2	4201.4	4413.0	4595.4	4761.1	4893.8	5004.2	5082.8	5139.8	5188.6	5197.1
70°	3909.0	4143.9	4349.5	4533.6	4704.4	4839.6	4938.5	5028.2	5093.2	5130.7	5144.0
72.5°	3431.5	3642.7	3850.2	4062.2	4208.8	4371.2	4452.6	4524.5	4610.9	4660.0	4649.3
75°	2600.6	2783.2	2964.2	3122.9	3235.8	3295.7	3390.8	3460.6	3447.9	3530.6	3532.9
77.5°	1466.8	1490.6	1613.4	1597.1	1651.2	1652.6	1666.8	1691.4	1644.2	1741.0	1671.6
80°	355.8	351.0	376.4	346.4	343.9	341.4	332.9	349.6	351.8	334.6	337.7
82.5°	104.4	99.9	98.0	95.4	99.6	98.2	99.2	99.7	102.5	98.8	102.8
85°	57.3	54.0	53.6	52.2	52.0	48.8	48.6	48.6	46.6	47.2	46.9
87.5°	22.0	20.6	19.4	18.6	18.4	17.5	16.6	15.2	13.6	12.2	11.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)