

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: P141076

Luminaire Tested: **ECM-F02-LED-E1-SL3-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141076  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)  
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-SL3-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (14) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4902.7 lumens  
Efficiency: N/A  
Efficacy: 89.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

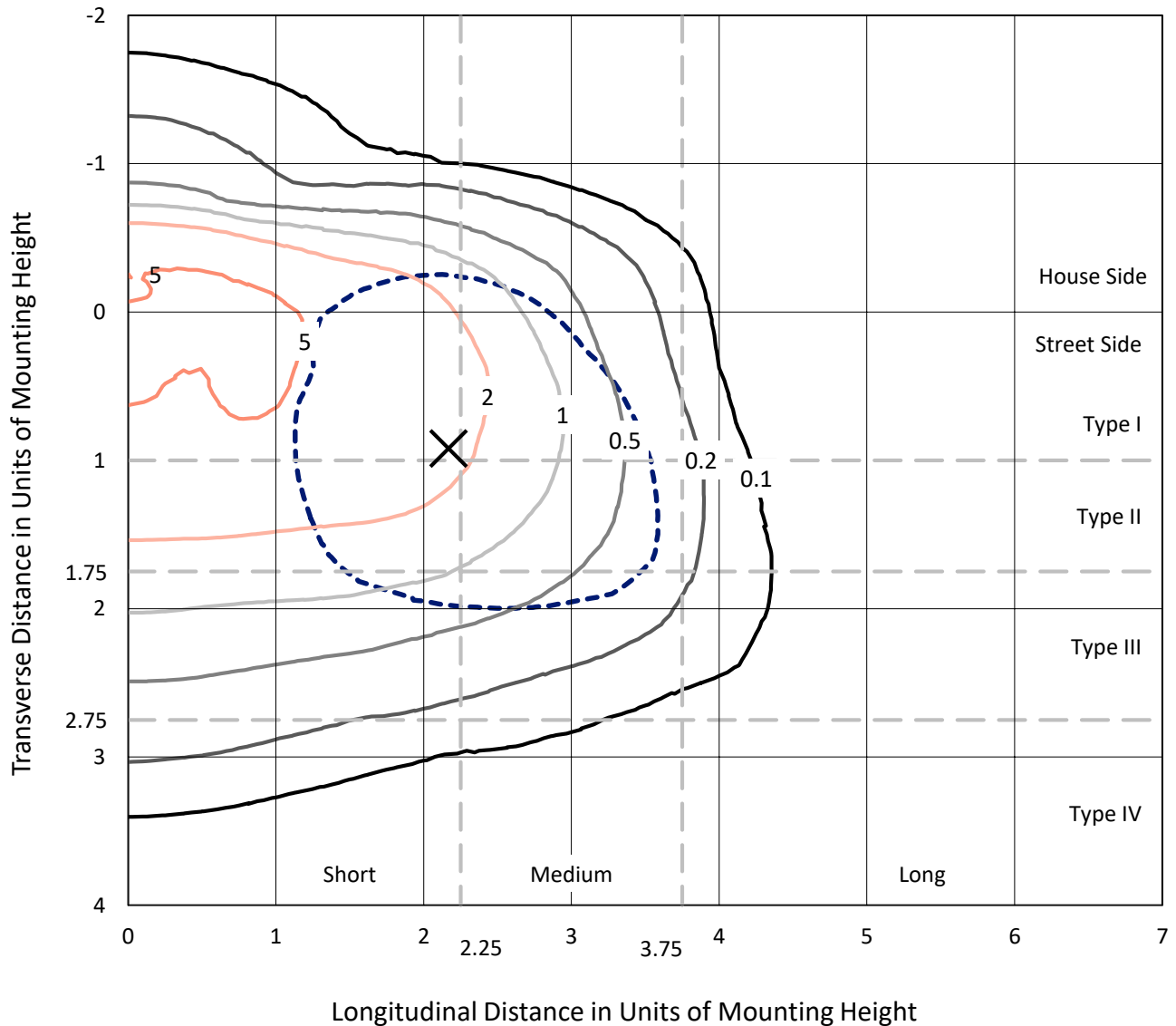
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P141076  
 CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

### Iso-Footcandle Lines of Horizontal Illumination

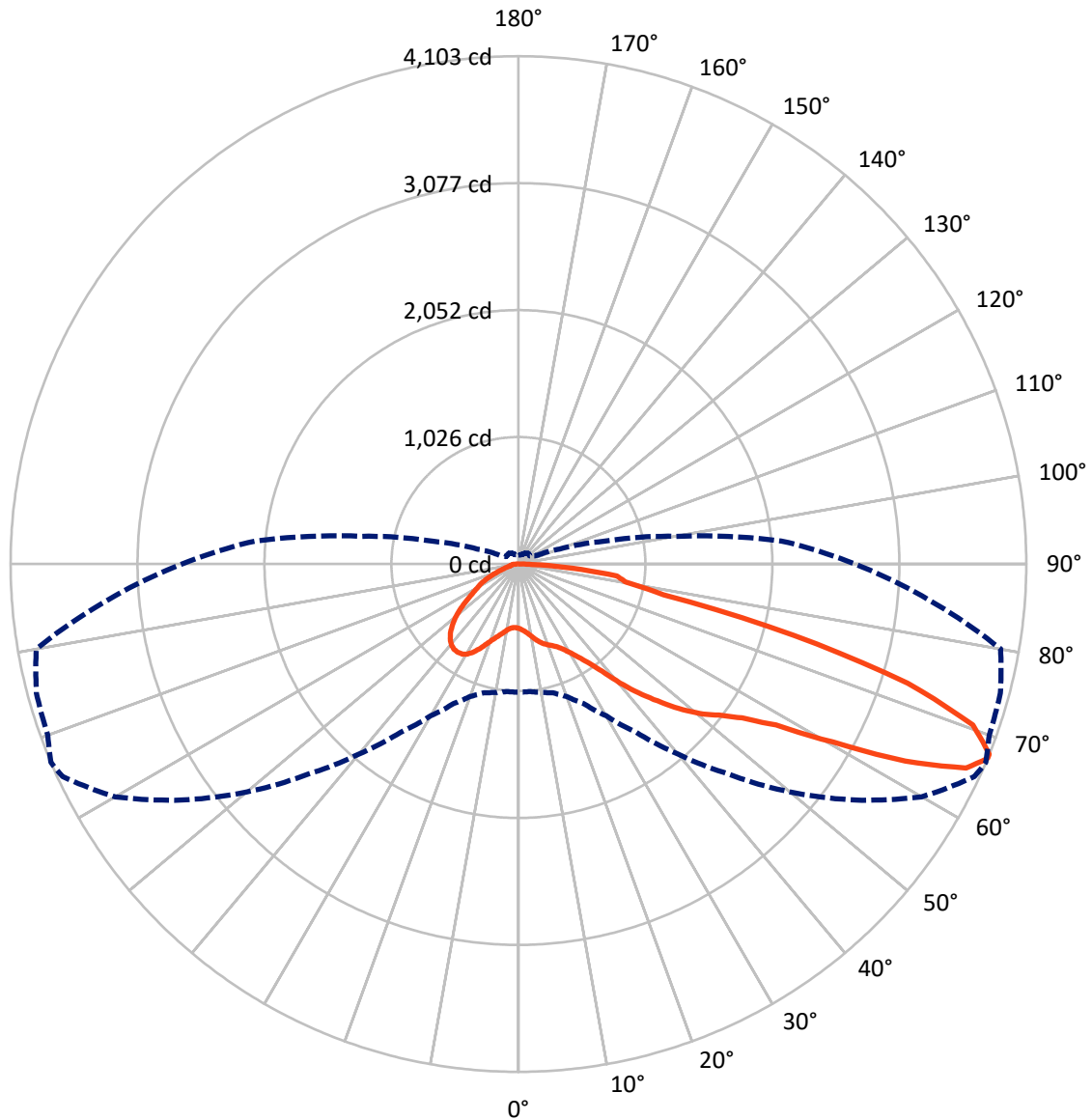
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P141076  
CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P141076

CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1127.9	0.0	1127.9
	% Fixture	23.0	0.0	23.0
<b>Street Side</b>	Lumens	3774.8	0.0	3774.8
	% Fixture	77.0	0.0	77.0
<b>Total</b>	Lumens	4902.7	0.0	4902.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	1.1
10°-20°	180.3	3.7
20°-30°	320.9	6.5
30°-40°	461.4	9.4
40°-50°	703.1	14.3
50°-60°	1027.1	20.9
60°-70°	1383.9	28.2
70°-80°	679.4	13.9
80°-90°	94.5	1.9
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°	4902.7	100.0
0°-180°	4902.7	100.0



REPORT NUMBER: P141076

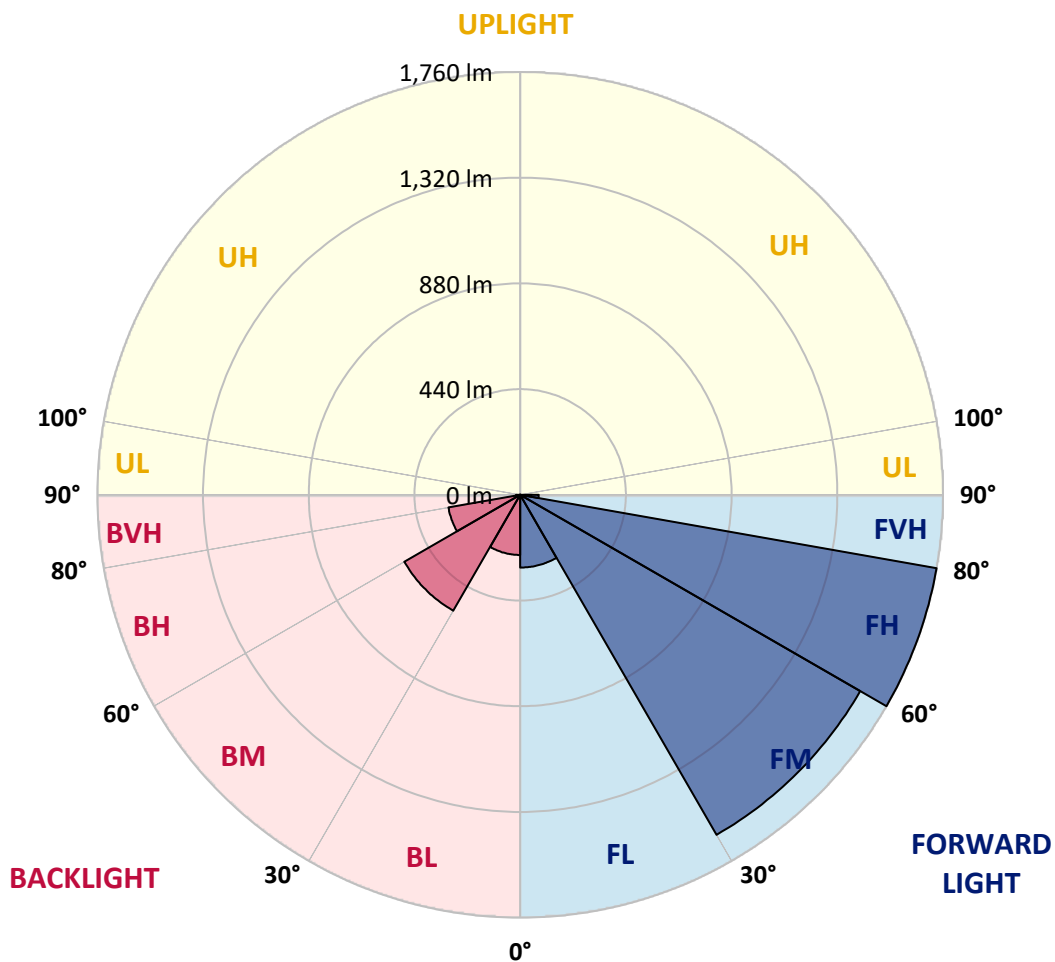
CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	302.8	6.2			
FM	(30°-60°)	1634.4	33.3			
FH	(60°-80°)	1760.1	35.9			G1/1800
FVH	(80°-90°)	77.5	1.6			G1/100
BL	(0°-30°)	250.5	5.1	B1/500		
BM	(30°-60°)	557.1	11.4	B1/1000		
BH	(60°-80°)	303.3	6.2	B1/500		G1/500
BVH	(80°-90°)	17.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





REPORT NUMBER: P141076

CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1
2.5°	547.2	544.4	546.6	546.1	544.4	542.1	543.3	541.6	540.4	538.7	537.0
5°	582.8	581.1	580.0	578.3	577.1	575.4	574.3	571.5	567.5	564.7	562.5
7.5°	617.8	617.2	615.5	613.3	608.8	607.6	603.7	600.9	597.5	591.8	587.3
10°	659.0	658.5	655.6	652.2	647.2	642.1	637.6	630.8	624.0	618.9	615.0
12.5°	708.7	705.9	700.2	695.7	690.1	682.2	674.8	666.9	657.3	649.4	644.9
15°	758.4	755.0	750.5	744.3	735.8	725.1	714.4	702.5	687.8	677.7	671.4
17.5°	799.1	796.8	791.7	783.3	774.8	761.8	747.7	731.3	713.2	698.0	688.4
20°	828.4	826.2	818.3	808.1	796.8	782.1	766.9	748.8	727.4	708.7	698.0
22.5°	840.9	837.5	828.4	814.9	799.6	781.6	765.2	749.9	730.2	716.1	704.8
25°	844.8	840.9	829.0	812.1	792.3	769.1	750.5	738.6	726.8	721.7	717.8
27.5°	842.6	839.2	826.2	805.3	778.7	751.6	731.9	723.4	724.0	733.6	738.1
30°	834.7	830.7	818.8	795.7	767.5	738.1	720.6	717.8	730.7	755.0	773.1
32.5°	821.7	818.8	809.2	789.5	764.1	738.6	726.2	732.4	755.0	792.9	823.9
35°	818.3	817.7	813.2	802.5	783.8	767.5	762.4	779.9	817.1	869.1	908.6
37.5°	817.7	820.5	822.8	822.8	818.8	817.7	833.0	857.2	912.6	977.5	1041.9
40°	829.0	834.1	845.4	860.1	874.2	894.5	925.6	971.3	1028.9	1108.0	1188.2
42.5°	864.0	875.3	894.5	919.9	956.6	994.5	1044.7	1101.8	1175.7	1255.4	1335.0
45°	932.3	948.7	962.8	1002.9	1051.5	1096.1	1161.6	1236.7	1318.0	1418.0	1503.8
47.5°	1022.7	1034.6	1063.9	1106.3	1165.6	1229.4	1292.6	1358.1	1455.8	1560.3	1664.2
50°	1113.1	1122.1	1153.2	1202.8	1280.8	1350.8	1423.1	1488.0	1572.2	1682.9	1784.5
52.5°	1180.3	1192.7	1219.8	1268.4	1355.9	1435.5	1518.0	1589.7	1684.6	1783.9	1890.1
55°	1226.6	1234.5	1259.3	1306.8	1389.2	1480.1	1573.3	1661.4	1774.3	1886.7	1992.3
57.5°	1233.9	1241.8	1264.4	1306.2	1386.4	1481.8	1588.5	1696.4	1833.1	1981.6	2119.9
60°	1225.4	1231.6	1251.4	1285.9	1361.5	1466.0	1593.1	1728.6	1896.9	2088.3	2286.0
62.5°	1187.6	1193.8	1211.9	1240.1	1307.3	1420.3	1579.5	1776.0	1987.8	2228.4	2518.1
65°	1116.4	1120.4	1137.3	1159.9	1227.7	1342.3	1518.0	1766.4	2059.5	2387.1	2762.0
67°	1035.7	1034.0	1053.2	1075.8	1137.9	1243.5	1415.2	1659.7	2002.5	2399.5	2864.2
67.5°	1010.8	1015.4	1034.0	1049.8	1110.2	1212.4	1376.8	1618.5	1953.9	2371.2	2862.6
70°	834.7	843.1	853.3	863.5	916.5	991.6	1112.5	1346.3	1617.3	2012.7	2598.8
72.5°	572.6	555.7	563.0	559.6	576.0	623.4	707.6	913.1	1128.3	1468.3	1929.1
75°	290.3	308.9	306.6	320.8	343.9	373.8	412.8	489.6	658.5	858.4	1193.8
77.5°	162.6	158.1	173.9	177.3	190.9	222.5	291.4	392.5	469.8	551.7	674.8
80°	74.0	81.9	87.0	79.1	81.9	88.7	115.2	180.7	303.8	462.5	532.0
82.5°	41.2	44.0	51.4	52.0	54.2	55.9	60.4	70.0	94.3	190.9	375.5
85°	26.0	27.1	34.4	37.8	39.5	39.5	39.5	41.8	48.0	56.5	97.1
87.5°	9.6	10.2	15.8	20.9	21.5	20.3	19.2	22.0	20.3	20.9	31.6
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: P141076

CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	67°	70°	75°	80°	85°	90°	95°	100°
0°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1
2.5°	535.9	533.7	531.4	530.8	529.1	528.0	525.2	522.9	520.7	519.0	517.3
5°	557.4	552.9	548.9	547.2	545.0	542.1	536.5	532.5	529.1	525.8	522.4
7.5°	581.7	576.0	570.4	568.1	564.7	559.6	553.4	548.9	543.3	538.2	533.7
10°	608.8	602.6	598.0	595.8	593.0	585.6	581.7	573.8	567.5	560.8	555.1
12.5°	638.1	635.3	629.1	626.8	624.0	618.9	613.3	606.5	598.6	591.3	584.5
15°	664.7	660.2	656.2	655.6	653.9	651.1	643.8	636.4	629.7	620.1	614.4
17.5°	681.0	679.4	678.8	678.2	677.1	675.4	672.0	664.1	657.9	650.0	642.1
20°	691.2	692.9	695.7	698.0	699.1	700.2	698.6	690.6	684.4	677.7	670.9
22.5°	701.9	706.5	713.8	717.2	721.1	726.8	725.7	720.6	717.2	709.3	704.2
25°	717.2	726.2	738.6	743.2	750.5	757.9	759.5	756.7	753.3	747.7	747.7
27.5°	743.2	756.2	772.5	782.1	789.5	799.6	803.0	801.3	801.9	798.5	806.4
30°	783.8	801.9	823.9	834.1	843.1	855.0	857.2	860.6	858.4	864.6	874.2
32.5°	845.4	868.0	890.6	900.2	908.1	920.5	927.8	925.6	933.5	937.4	951.0
35°	940.3	962.8	980.3	982.0	991.1	997.9	1004.6	1002.4	1023.8	1032.3	1039.6
37.5°	1071.3	1090.5	1101.2	1097.2	1086.5	1099.5	1108.5	1122.1	1135.6	1150.9	1123.8
40°	1241.2	1271.7	1267.2	1261.6	1241.2	1244.1	1248.0	1255.4	1278.0	1272.9	1195.5
42.5°	1402.8	1433.8	1428.7	1422.5	1395.4	1381.3	1392.0	1405.0	1417.4	1369.4	1254.2
45°	1566.0	1594.2	1569.9	1578.4	1554.1	1547.9	1568.8	1576.1	1562.0	1473.9	1303.9
47.5°	1735.4	1765.9	1754.0	1745.5	1728.0	1726.3	1738.2	1749.5	1693.6	1549.6	1341.2
50°	1865.3	1910.4	1904.2	1899.1	1879.9	1877.7	1905.9	1913.8	1813.3	1629.8	1378.5
52.5°	1965.2	2023.9	2035.2	2028.5	2023.9	2025.1	2106.4	2094.5	1955.6	1726.9	1422.0
55°	2083.2	2144.2	2185.5	2193.9	2205.2	2221.6	2382.5	2365.0	2152.1	1867.0	1467.7
57.5°	2239.7	2352.6	2414.7	2453.1	2484.2	2590.4	2794.8	2727.6	2424.3	2047.7	1521.9
60°	2470.1	2694.3	2823.0	2920.7	2982.3	3167.5	3415.4	3168.1	2740.6	2264.5	1593.1
62.5°	2840.0	3205.9	3452.1	3507.5	3533.4	3709.6	3886.9	3505.2	2968.7	2408.0	1604.4
65°	3198.6	3656.0	3943.4	3975.6	3956.4	4003.8	4053.5	3515.4	2915.6	2340.2	1472.2
67°	3325.1	3762.1	4064.3	4103.2	4046.8	4031.5	3955.8	3330.1	2717.4	2132.4	1288.1
67.5°	3318.3	3749.7	4063.1	4102.7	4046.8	4022.5	3911.2	3255.6	2639.5	2081.5	1252.5
70°	3058.5	3473.0	3822.0	3896.0	3864.9	3800.5	3504.6	2757.5	2187.1	1707.7	965.7
72.5°	2483.1	2930.9	3207.6	3289.5	3311.5	3146.0	2610.1	1930.2	1576.7	1220.4	700.2
75°	1667.0	2112.0	2338.5	2297.3	2163.4	1881.6	1377.9	1018.2	864.0	709.8	433.1
77.5°	945.3	1288.7	1271.2	1200.0	1087.1	804.7	390.8	211.8	202.2	236.1	183.5
80°	631.4	794.6	848.8	876.4	870.2	595.2	161.5	81.9	70.6	70.6	69.5
82.5°	526.9	686.7	777.6	801.9	747.1	452.3	96.6	53.6	42.9	48.0	53.6
85°	221.9	346.2	458.0	440.5	350.1	176.2	49.1	28.2	28.2	37.3	46.9
87.5°	53.6	79.6	112.4	109.0	87.5	40.7	24.8	17.5	17.5	28.8	40.7
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: P141076

CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1
2.5°	516.7	514.5	514.5	512.2	511.1	509.9	509.4	509.9	508.2	506.6	507.1
5°	519.5	516.2	514.5	510.5	508.2	506.0	504.3	503.7	500.9	499.2	499.2
7.5°	529.1	524.6	521.2	516.7	512.2	508.8	506.0	504.3	500.3	497.5	497.0
10°	548.9	542.7	537.6	530.8	524.6	520.1	515.0	512.2	507.7	504.9	503.7
12.5°	578.3	569.2	561.3	551.2	543.8	537.0	534.2	529.7	528.0	526.3	526.9
15°	605.9	595.2	587.9	580.0	571.5	567.5	561.9	561.3	561.9	559.1	559.1
17.5°	634.2	625.7	617.2	614.4	606.5	603.7	599.7	597.5	592.4	587.3	581.1
20°	663.5	659.0	655.6	652.2	650.6	643.8	633.6	621.8	605.4	590.7	578.3
22.5°	701.4	698.6	699.1	696.3	687.3	670.3	647.2	622.3	595.8	572.1	553.4
25°	749.4	752.2	748.8	734.7	708.7	674.3	638.7	603.7	568.7	540.4	515.0
27.5°	810.4	808.1	792.3	756.2	711.5	662.4	616.7	574.9	533.1	500.3	468.7
30°	877.0	860.6	819.4	762.9	700.2	641.0	584.5	535.9	487.4	449.0	413.4
32.5°	944.2	897.3	830.7	755.0	680.5	610.5	547.2	490.2	434.3	391.3	350.1
35°	995.0	919.9	829.0	738.1	650.6	570.4	497.0	426.4	361.4	310.0	268.2
37.5°	1041.9	932.3	817.7	712.1	609.3	517.3	425.8	349.6	284.1	232.7	196.5
40°	1070.7	931.2	795.7	669.2	552.3	439.3	340.0	261.5	203.9	166.0	146.3
42.5°	1087.6	919.4	757.9	612.2	473.8	351.8	250.7	180.1	145.1	128.8	119.7
45°	1096.1	893.9	711.0	535.9	378.9	251.3	172.8	129.9	115.8	111.2	109.0
47.5°	1091.0	858.4	643.8	450.1	282.4	172.2	123.7	109.6	105.0	102.8	102.2
50°	1079.2	812.1	573.2	356.9	200.5	123.7	103.9	100.0	98.3	97.7	96.6
52.5°	1062.2	757.3	492.4	276.7	142.3	102.8	97.1	95.4	94.3	92.6	92.0
55°	1034.0	689.5	410.0	203.9	114.1	97.1	94.3	93.7	91.5	89.8	88.7
57.5°	1000.1	617.2	332.1	159.8	105.0	94.9	93.2	92.6	90.4	88.1	85.8
60°	983.2	566.4	273.3	138.4	103.3	96.0	94.9	93.7	90.9	87.5	84.7
62.5°	941.4	511.6	235.5	131.6	105.6	100.0	99.4	97.1	93.2	89.8	85.3
65°	833.5	434.3	200.5	124.8	109.0	106.2	107.3	104.5	100.0	94.3	87.0
67°	704.2	352.9	169.4	119.7	112.9	114.6	116.3	114.6	107.3	98.8	89.2
67.5°	669.2	328.7	160.9	118.0	114.1	116.3	119.2	117.5	109.6	100.0	90.4
70°	503.2	235.5	127.6	111.8	118.0	124.2	129.9	129.3	121.4	109.6	94.3
72.5°	347.9	160.9	103.3	104.5	114.6	125.9	133.3	136.7	128.8	114.6	96.6
75°	209.5	102.8	87.0	94.3	104.5	115.8	127.6	128.8	119.7	105.6	90.4
77.5°	102.8	74.0	71.7	74.5	84.1	93.7	98.8	92.6	87.0	77.4	71.7
80°	62.1	58.2	57.0	63.2	68.9	67.2	63.2	58.2	55.3	53.1	50.8
82.5°	52.0	52.5	53.6	54.8	53.6	47.4	40.7	37.3	35.0	35.0	35.6
85°	53.1	54.2	49.7	45.7	40.7	33.9	27.7	23.7	24.3	24.8	24.8
87.5°	41.2	39.5	35.0	28.8	23.2	16.9	13.6	11.3	12.4	11.9	13.0
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: P141076

CATALOG NUMBER: ECM-F02-LED-E1-SL3-7050

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	520.1	520.1	520.1	520.1	520.1
2.5°	507.1	506.6	507.1	507.1	507.7
5°	498.1	497.0	497.0	497.5	497.5
7.5°	495.8	494.7	494.7	495.3	494.7
10°	503.7	503.2	504.3	503.7	503.7
12.5°	527.4	527.4	529.7	530.8	529.7
15°	559.6	558.5	560.2	560.8	561.3
17.5°	577.7	572.6	570.9	572.1	569.8
20°	567.5	559.1	555.7	555.1	551.2
22.5°	538.7	526.3	521.2	519.0	514.5
25°	498.1	483.4	476.6	471.0	468.2
27.5°	449.5	431.4	421.8	417.3	415.6
30°	388.5	371.0	356.9	349.6	347.3
32.5°	320.8	295.3	280.7	271.6	265.4
35°	239.4	215.2	204.4	197.7	189.7
37.5°	173.9	159.3	150.2	145.7	144.0
40°	134.4	127.1	122.5	122.0	121.4
42.5°	116.3	112.9	112.4	111.2	110.1
45°	107.3	106.2	106.7	105.0	103.9
47.5°	101.1	100.5	100.5	99.4	98.8
50°	96.0	96.0	95.4	94.9	94.9
52.5°	91.5	92.0	92.0	90.9	90.9
55°	87.5	87.5	88.1	87.5	87.5
57.5°	84.7	84.1	84.7	84.7	84.7
60°	83.0	81.9	81.3	81.9	81.9
62.5°	81.3	79.6	79.1	79.1	79.6
65°	81.3	78.5	77.4	77.4	76.8
67°	81.9	77.4	75.1	74.0	73.4
67.5°	81.9	76.8	74.0	73.4	72.8
70°	81.9	74.5	70.6	67.8	67.8
72.5°	81.3	72.3	66.1	63.2	62.1
75°	77.4	68.3	62.7	59.3	58.2
77.5°	64.9	59.3	56.5	53.6	53.1
80°	49.1	46.3	44.0	37.8	35.0
82.5°	35.0	33.3	29.4	27.1	25.4
85°	24.8	23.2	21.5	19.2	19.2
87.5°	13.6	13.0	12.4	11.3	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)