

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: P162441

Luminaire Tested: **ECM-F02-LED-E1-SL3-HSS-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162441  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)  
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-HSS-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2485.9 lumens  
Efficiency: N/A  
Efficacy: 45.2 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B0 - U0 - G1

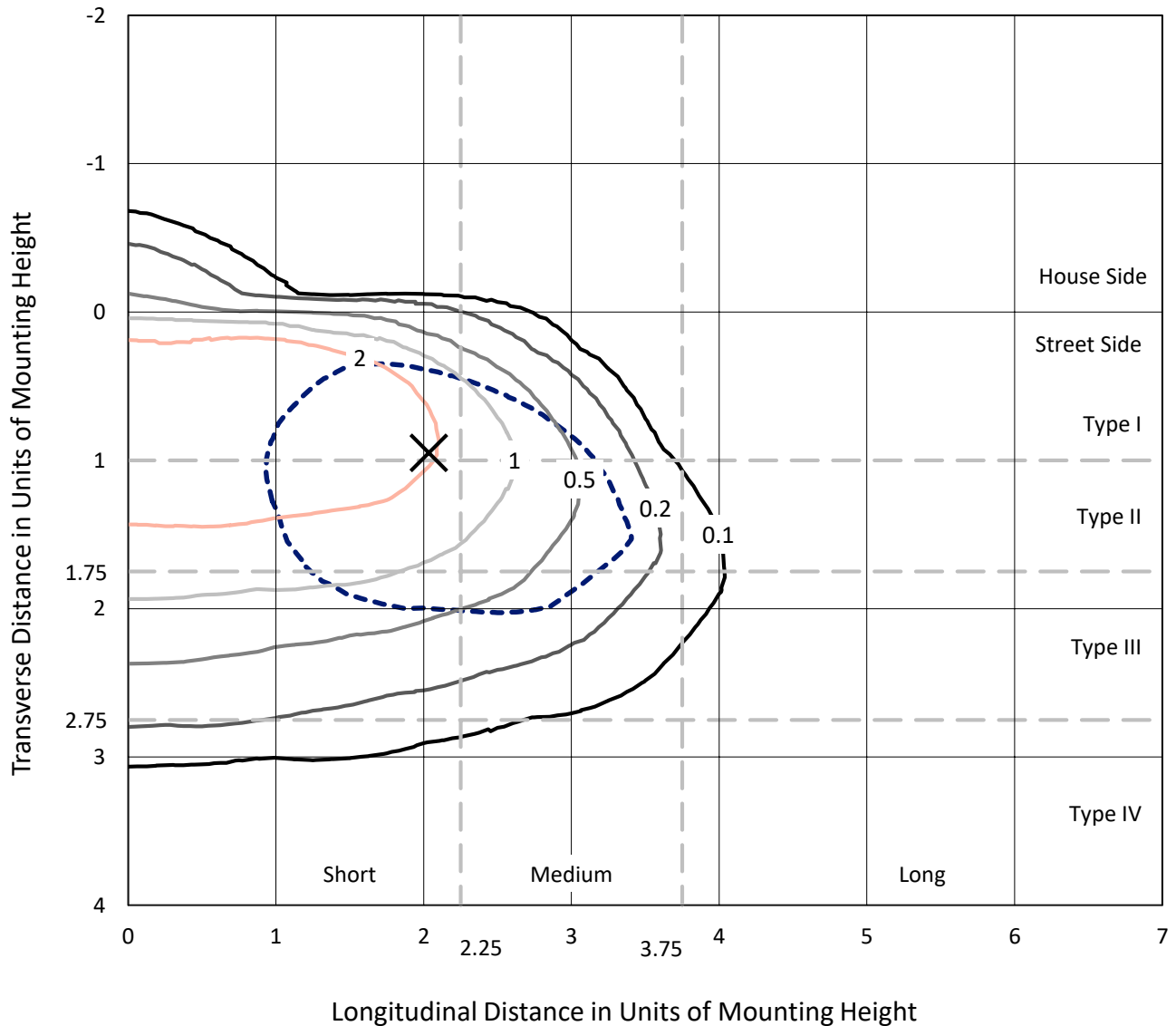
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P162441  
 CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

### Iso-Footcandle Lines of Horizontal Illumination

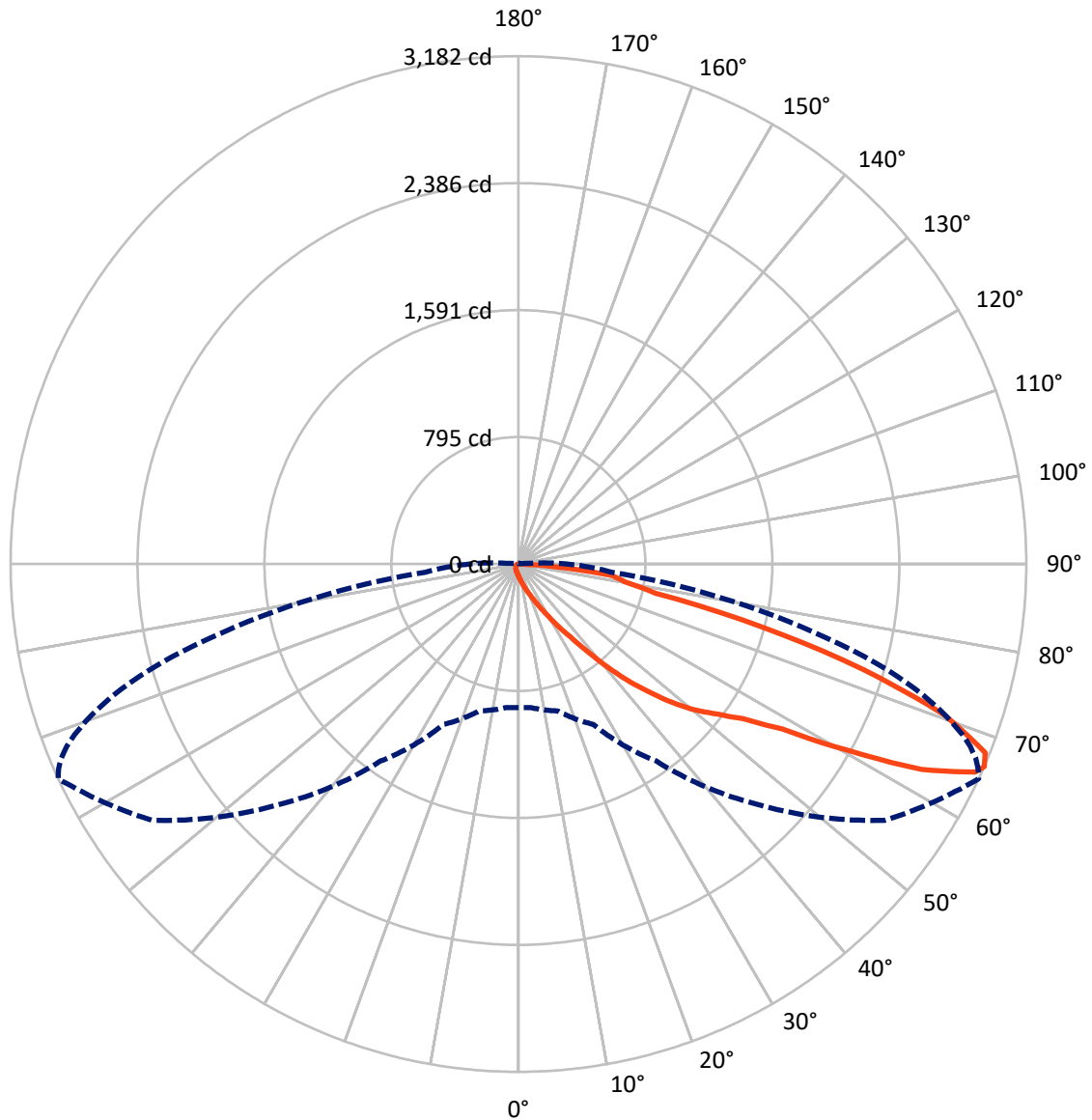
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc  
 Type III - Short - Non-Cutoff

REPORT NUMBER: P162441  
CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P162441

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	53.9	0.0	53.9
	% Fixture	2.2	0.0	2.2
<b>Street Side</b>	Lumens	2432.0	0.0	2432.0
	% Fixture	97.8	0.0	97.8
<b>Total</b>	Lumens	2485.9	0.0	2485.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.4	0.3
10°-20°	35.6	1.4
20°-30°	76.8	3.1
30°-40°	164.0	6.6
40°-50°	362.8	14.6
50°-60°	614.8	24.7
60°-70°	820.4	33.0
70°-80°	361.4	14.5
80°-90°	41.6	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°-90°	2485.9	100.0
0°-180°	2485.9	100.0



REPORT NUMBER: P162441

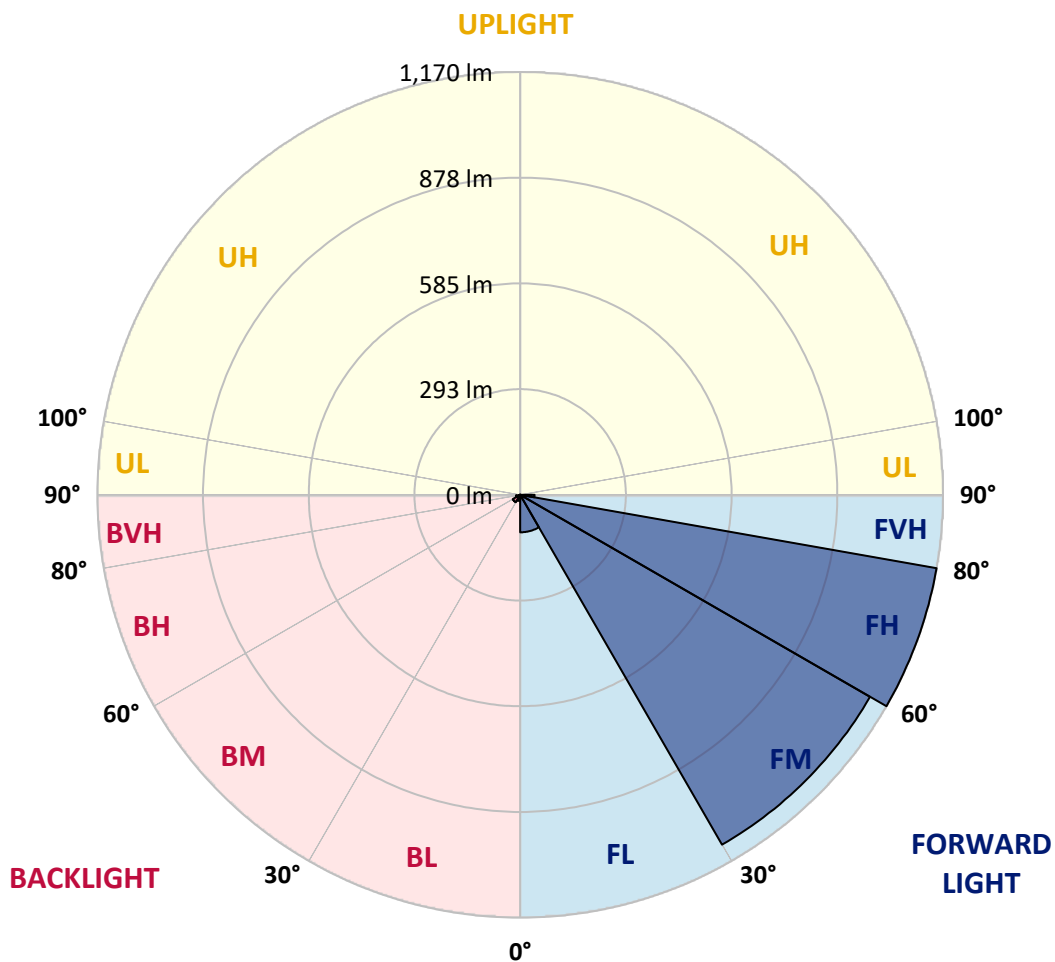
CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	103.8	4.2			
FM	(30°-60°)	1118.0	45.0			
FH	(60°-80°)	1170.2	47.1			G1/1800
FVH	(80°-90°)	40.0	1.6			G1/100
BL	(0°-30°)	17.0	0.7	B0/110		
BM	(30°-60°)	23.7	1.0	B0/220		
BH	(60°-80°)	11.6	0.5	B0/110		G0/110
BVH	(80°-90°)	1.7	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type III Short





REPORT NUMBER: P162441

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
2.5°	94.7	94.1	92.2	92.2	89.4	87.5	85.1	82.7	82.7	82.2	81.7
5°	125.2	122.3	121.8	116.6	112.3	106.1	100.4	92.7	91.7	90.8	90.3
7.5°	159.1	158.7	154.4	148.1	139.5	128.1	116.6	104.2	102.3	101.3	99.4
10°	203.1	200.7	195.0	184.5	171.6	156.3	137.6	118.0	115.7	113.8	112.8
12.5°	245.1	240.9	237.5	224.1	207.9	185.4	163.0	134.8	132.9	130.5	126.7
15°	284.4	280.5	274.8	263.3	245.1	216.9	190.7	156.3	151.5	148.1	145.3
17.5°	315.0	312.6	305.9	293.0	273.3	248.5	216.9	178.2	174.4	170.2	164.9
20°	344.1	340.8	330.2	312.6	291.5	272.4	248.0	206.9	201.7	196.4	190.7
22.5°	371.8	368.5	351.3	322.1	299.6	291.5	282.9	239.4	231.3	227.0	221.3
25°	410.5	403.3	376.6	330.2	300.1	306.3	321.2	281.5	273.9	267.6	258.6
27.5°	462.6	453.0	411.0	342.2	302.0	322.6	365.1	332.6	324.5	317.3	307.3
30°	521.4	515.2	465.0	370.9	315.9	346.5	414.3	397.6	388.1	379.5	367.5
32.5°	580.7	572.1	522.4	425.4	353.2	392.8	476.0	473.2	460.7	452.6	439.7
35°	632.8	628.4	591.6	514.7	438.2	474.1	558.2	561.5	550.6	542.0	527.6
37.5°	668.1	668.1	661.0	610.8	573.5	600.3	679.1	679.6	668.6	649.0	641.8
40°	686.3	691.5	717.3	726.9	725.0	759.4	837.8	829.2	820.1	810.0	786.2
42.5°	723.6	728.4	783.3	849.2	892.3	937.7	991.7	988.8	977.8	959.6	937.7
45°	786.7	792.8	858.3	963.0	1051.4	1115.9	1150.3	1137.0	1126.0	1108.8	1097.3
47.5°	866.9	878.9	952.9	1082.5	1189.0	1295.6	1331.5	1296.1	1286.5	1273.1	1254.5
50°	952.5	964.0	1042.8	1191.0	1311.4	1438.5	1498.2	1438.5	1424.6	1420.4	1399.3
52.5°	1026.5	1036.1	1112.1	1274.6	1405.0	1554.2	1641.1	1562.3	1552.3	1537.9	1522.6
55°	1070.5	1078.2	1149.4	1314.7	1468.6	1658.3	1779.3	1710.0	1695.1	1689.4	1667.4
57.5°	1085.3	1093.0	1157.0	1320.0	1503.0	1753.4	1947.0	1949.4	1931.7	1911.2	1904.5
60°	1085.3	1093.9	1147.9	1307.1	1536.5	1854.8	2170.7	2370.0	2331.7	2327.9	2303.6
62.5°	1040.4	1048.6	1103.0	1267.4	1581.4	1991.4	2482.2	2834.0	2823.0	2798.2	2758.0
65°	942.9	947.7	1001.2	1166.1	1564.2	2117.2	2752.3	3142.7	3125.1	3076.3	3024.7
66°	899.0	902.8	952.9	1108.3	1507.8	2134.4	2800.1	3181.5	3152.3	3111.2	3052.9
67.5°	835.4	842.1	877.4	1000.8	1372.6	2074.6	2770.0	3154.2	3128.9	3079.2	3020.9
70°	557.7	552.9	677.7	768.0	1045.7	1690.4	2485.2	2832.1	2832.6	2809.2	2785.8
72.5°	264.8	267.6	304.0	472.7	684.4	1129.3	1978.1	2260.5	2293.0	2251.0	2221.8
75°	190.2	194.5	216.5	289.1	408.1	677.7	1282.2	1580.9	1581.9	1507.3	1440.9
77.5°	55.4	57.8	81.2	178.2	305.9	457.4	736.5	878.9	858.3	804.8	754.6
80°	22.9	22.9	23.9	56.9	122.8	310.6	515.2	676.7	674.3	653.8	624.2
82.5°	8.6	9.1	11.5	23.4	29.2	76.5	343.6	587.4	585.9	556.7	535.7
85°	1.0	1.0	2.9	10.1	11.0	14.3	68.8	259.0	257.6	259.0	227.0
87.5°	0.0	0.0	0.5	1.0	1.5	1.9	2.9	10.1	11.0	10.5	9.6
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: P162441

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
2.5°	81.7	80.8	80.8	80.3	80.3	80.3	79.8	79.3	79.3	78.9	78.4
5°	89.4	88.4	87.9	87.0	86.5	86.0	85.1	84.6	83.6	83.1	82.7
7.5°	98.5	96.6	96.1	94.7	93.2	92.2	91.3	89.8	88.9	87.0	86.5
10°	109.9	107.5	105.6	103.7	102.3	99.9	98.5	96.6	94.7	93.2	91.7
12.5°	124.7	121.4	118.5	116.6	113.2	110.4	107.5	106.1	102.3	100.4	98.0
15°	141.0	137.2	133.8	130.0	127.6	122.8	119.0	114.7	112.8	109.4	105.6
17.5°	162.0	155.8	150.5	146.7	142.0	137.2	132.9	128.6	122.8	119.0	114.2
20°	184.5	179.2	172.1	165.4	159.6	153.9	147.7	142.0	136.7	130.5	124.7
22.5°	213.1	205.5	196.9	190.2	182.6	176.3	167.7	160.1	151.5	143.4	136.7
25°	249.5	239.4	231.3	221.8	212.7	203.1	192.6	183.0	172.1	164.4	152.9
27.5°	294.4	284.9	273.9	261.4	252.3	238.0	224.1	212.2	199.3	187.3	174.4
30°	351.8	337.9	326.4	314.5	296.3	282.4	266.2	249.9	232.3	220.3	200.7
32.5°	420.6	405.7	388.6	371.3	354.6	335.0	315.0	294.9	275.3	253.3	233.2
35°	504.7	487.0	467.4	448.8	422.9	401.9	376.6	348.9	326.9	301.5	276.2
37.5°	616.0	586.9	569.7	550.1	515.2	486.5	458.3	430.6	391.9	365.1	329.3
40°	755.6	738.4	710.2	678.6	647.1	609.3	571.1	534.3	489.4	452.1	410.5
42.5°	919.5	894.2	865.5	820.1	788.1	743.6	700.2	651.4	596.4	548.7	499.9
45°	1073.4	1043.3	1021.3	975.9	942.4	889.9	837.3	785.7	722.1	660.5	604.1
47.5°	1239.7	1214.8	1178.5	1141.7	1107.8	1048.6	991.7	929.1	862.2	789.0	715.9
50°	1385.9	1366.3	1341.5	1297.1	1259.3	1209.6	1142.7	1074.3	989.7	917.1	834.0
52.5°	1510.2	1494.9	1460.0	1428.5	1394.5	1347.7	1288.0	1222.5	1131.2	1051.4	956.8
55°	1656.9	1645.9	1615.4	1595.8	1565.6	1520.7	1464.8	1404.1	1307.6	1220.6	1113.5
57.5°	1897.3	1888.7	1862.0	1853.8	1824.2	1785.0	1716.2	1651.2	1538.4	1430.4	1308.0
60°	2295.4	2278.2	2239.0	2219.0	2156.3	2103.7	2014.4	1925.0	1788.8	1651.2	1504.0
62.5°	2721.7	2673.5	2598.9	2534.8	2446.0	2354.7	2235.2	2098.5	1938.9	1775.5	1606.3
65°	2951.6	2869.4	2775.2	2673.5	2558.2	2424.0	2273.4	2109.5	1937.9	1765.4	1586.7
66°	2977.9	2885.1	2785.3	2672.0	2543.9	2401.0	2248.1	2076.0	1897.8	1729.6	1550.8
67.5°	2944.9	2847.9	2742.3	2616.6	2478.0	2329.8	2169.2	1990.5	1818.9	1648.3	1474.4
70°	2714.1	2617.5	2523.4	2391.0	2243.3	2094.2	1942.2	1742.5	1580.0	1423.2	1268.4
72.5°	2167.3	2101.8	2008.6	1895.4	1751.5	1576.7	1450.0	1271.2	1130.2	978.3	858.3
75°	1354.4	1262.2	1147.0	1002.7	892.7	750.8	676.7	541.0	460.7	390.5	322.6
77.5°	692.5	623.2	542.4	461.2	383.3	305.9	236.6	167.3	112.8	78.4	58.3
80°	572.1	510.9	444.0	369.9	301.1	233.7	168.2	114.7	73.1	47.8	37.3
82.5°	472.7	421.0	361.3	292.5	232.7	183.5	127.6	83.1	51.6	33.5	26.3
85°	201.2	182.6	141.0	111.8	84.1	62.1	43.5	29.2	20.6	16.7	15.3
87.5°	8.6	9.6	9.1	7.2	5.3	5.3	4.8	3.8	3.8	3.8	3.8
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: P162441

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
2.5°	78.4	77.9	77.4	77.4	77.0	76.5	73.6	71.2	68.4	66.5	64.5
5°	81.7	81.2	80.3	79.8	78.9	78.4	72.2	66.9	62.6	59.3	56.9
7.5°	85.1	84.6	83.1	81.7	81.2	80.3	70.3	63.6	57.8	54.0	51.6
10°	89.4	87.9	86.5	84.6	83.1	81.7	68.4	59.7	53.5	50.2	47.8
12.5°	95.6	93.2	90.8	88.4	86.5	84.1	67.4	56.4	50.2	46.3	44.0
15°	102.7	99.4	96.6	93.6	90.3	87.9	65.5	53.5	47.3	43.5	40.6
17.5°	109.4	105.6	101.3	97.0	93.6	90.3	63.6	50.7	44.4	40.6	37.7
20°	119.0	113.2	108.0	102.7	98.0	93.6	60.7	47.8	42.1	37.7	34.9
22.5°	129.5	122.8	116.1	109.0	102.7	97.0	58.3	45.4	39.7	35.4	32.0
25°	142.9	134.8	125.7	116.6	109.4	101.8	55.9	43.0	37.3	33.0	29.6
27.5°	161.6	150.0	140.0	128.6	117.6	109.0	54.0	41.1	34.9	30.6	27.2
30°	186.8	170.2	154.4	142.0	129.0	116.6	52.1	38.7	33.0	28.2	24.4
32.5°	215.0	195.5	177.3	158.7	142.4	128.1	50.2	36.8	30.6	25.8	22.5
35°	249.9	225.1	200.7	179.2	159.6	140.5	48.3	34.9	28.7	23.4	20.1
37.5°	300.1	269.1	237.1	209.3	184.0	158.7	46.8	33.0	26.3	21.0	17.7
40°	369.0	328.8	289.6	251.9	218.9	187.3	44.9	31.1	24.4	19.1	15.8
42.5°	443.5	394.7	343.1	300.6	255.2	215.5	43.0	29.2	22.5	17.2	13.9
45°	536.2	475.5	412.9	355.1	299.6	248.5	41.1	27.2	20.1	15.3	12.0
47.5°	637.5	560.1	489.4	416.8	350.8	289.6	38.7	25.8	18.1	13.4	10.5
50°	741.7	660.0	570.6	487.9	409.6	330.7	36.3	23.4	16.2	12.0	8.6
52.5°	854.0	757.5	666.2	563.4	472.2	384.7	33.9	21.5	14.8	10.5	7.2
55°	996.9	888.9	781.8	666.7	556.7	447.3	31.6	19.1	12.9	9.1	5.7
57.5°	1176.6	1048.6	917.1	787.1	653.8	529.5	29.6	16.7	11.0	7.6	4.8
60°	1346.3	1196.7	1037.5	888.0	737.4	592.6	26.7	14.8	9.6	6.2	4.8
62.5°	1434.2	1263.6	1092.0	927.2	766.6	615.1	23.9	12.4	8.1	5.3	4.3
65°	1412.7	1238.8	1072.4	906.1	748.9	600.7	21.0	11.0	7.2	4.8	4.3
66°	1381.6	1209.6	1042.3	884.1	734.1	585.5	19.6	10.5	6.7	4.8	3.8
67.5°	1313.8	1147.5	987.8	840.7	693.5	556.3	17.7	9.6	6.2	4.3	3.8
70°	1122.1	971.1	843.5	712.6	592.6	468.8	14.3	8.1	5.3	3.8	3.8
72.5°	742.7	639.9	554.8	477.4	399.1	309.7	12.0	6.7	4.3	3.8	3.4
75°	280.0	253.3	217.5	195.5	170.6	149.6	9.6	4.3	3.4	3.4	3.4
77.5°	49.7	45.9	40.6	37.3	34.4	31.6	7.6	2.9	2.9	3.4	3.4
80°	33.5	31.1	28.2	25.8	23.9	21.5	5.3	2.4	2.9	2.9	3.4
82.5°	23.9	22.5	21.0	19.1	17.7	15.8	3.4	2.4	2.9	2.9	2.9
85°	14.3	13.4	12.4	11.5	10.1	9.6	2.4	2.4	2.4	2.9	2.9
87.5°	3.8	3.4	3.8	3.8	2.9	3.4	1.9	1.9	1.9	2.4	2.4
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: P162441

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	145°	155°	165°	175°	180°
0°	75.0	75.0	75.0	75.0	75.0
2.5°	63.6	63.6	62.6	64.0	64.0
5°	54.9	54.9	54.5	54.9	54.9
7.5°	50.2	49.7	49.7	49.7	50.2
10°	45.9	45.4	45.4	45.4	45.4
12.5°	42.1	41.6	41.1	41.6	41.6
15°	38.7	37.7	37.7	37.7	37.7
17.5°	35.8	34.9	34.4	34.4	34.4
20°	33.0	31.6	31.6	31.6	31.6
22.5°	30.1	28.7	28.7	28.7	28.7
25°	27.2	25.8	25.8	25.8	25.8
27.5°	24.8	23.4	23.4	23.4	23.4
30°	22.0	21.0	21.0	21.5	21.0
32.5°	20.1	18.6	18.6	19.1	19.1
35°	17.7	16.7	16.7	16.7	16.7
37.5°	15.3	14.3	14.3	14.3	14.3
40°	13.4	12.4	12.0	12.4	12.4
42.5°	11.5	10.5	10.1	10.1	10.1
45°	10.1	8.6	8.1	8.6	8.6
47.5°	8.1	7.2	7.2	7.6	7.6
50°	6.2	6.2	6.7	7.6	7.6
52.5°	5.7	5.7	6.7	7.6	7.6
55°	5.3	5.7	6.7	7.2	7.6
57.5°	4.8	5.7	6.7	7.2	7.2
60°	4.8	5.3	6.2	7.2	7.2
62.5°	4.3	4.8	5.7	6.7	6.7
65°	4.3	4.8	5.7	6.7	6.7
66°	4.3	4.8	5.7	6.7	6.7
67.5°	4.3	4.8	5.7	6.7	6.7
70°	4.3	4.8	5.7	6.2	6.2
72.5°	3.8	4.3	5.3	6.2	6.2
75°	3.8	4.3	5.3	6.2	6.2
77.5°	3.8	4.3	5.3	6.2	6.2
80°	3.8	4.3	5.3	5.7	6.2
82.5°	3.4	4.3	4.8	5.7	5.7
85°	3.4	3.8	4.8	5.3	5.7
87.5°	2.9	3.4	3.8	4.8	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)