

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: P162440

Luminaire Tested: **ECM-F02-LED-E1-SL3-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162440
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-8030
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, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2297.1 lumens
Efficiency: N/A
Efficacy: 41.8 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

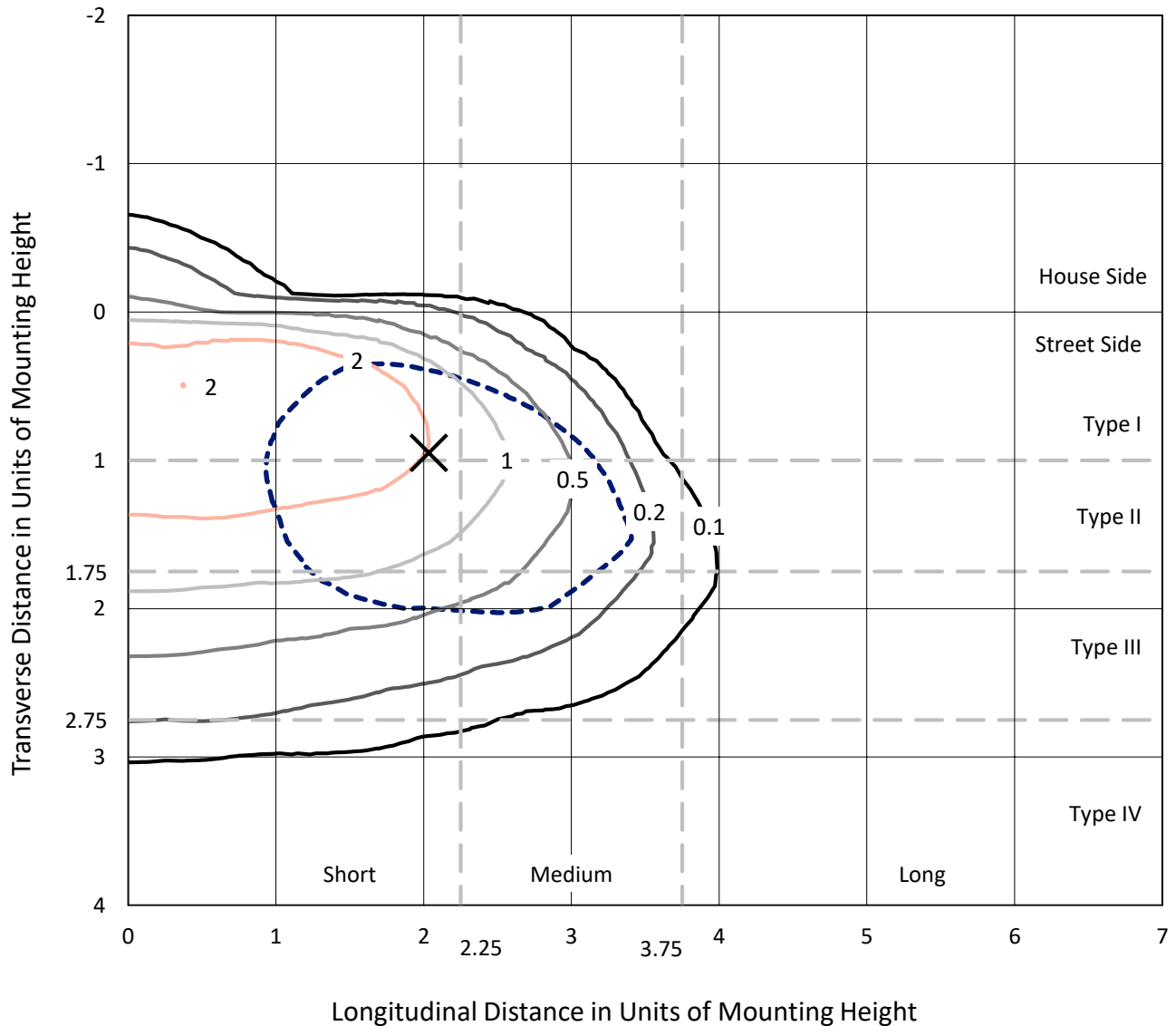
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P162440
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Iso-Footcandle Lines of Horizontal Illumination

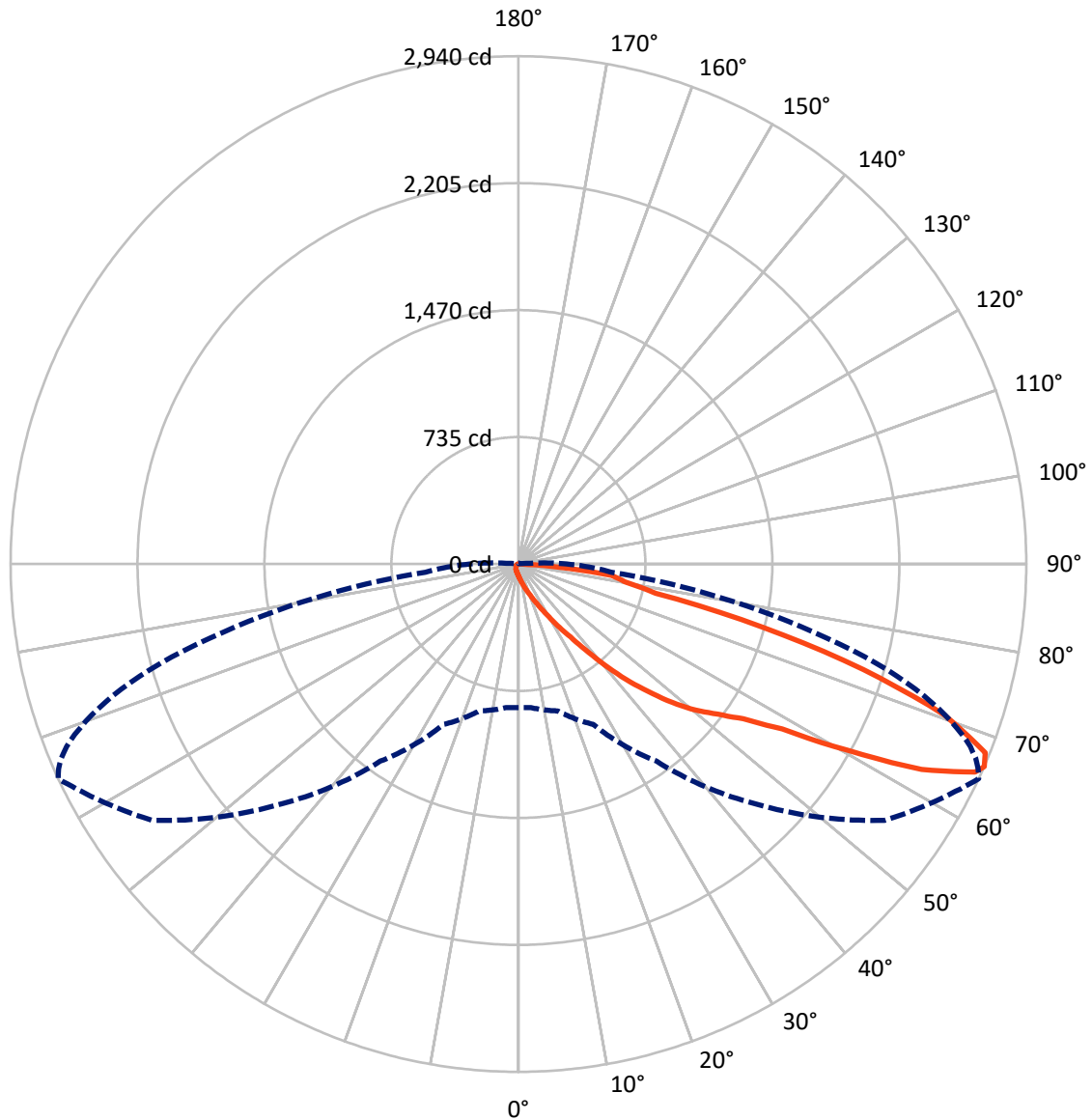
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P162440
CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

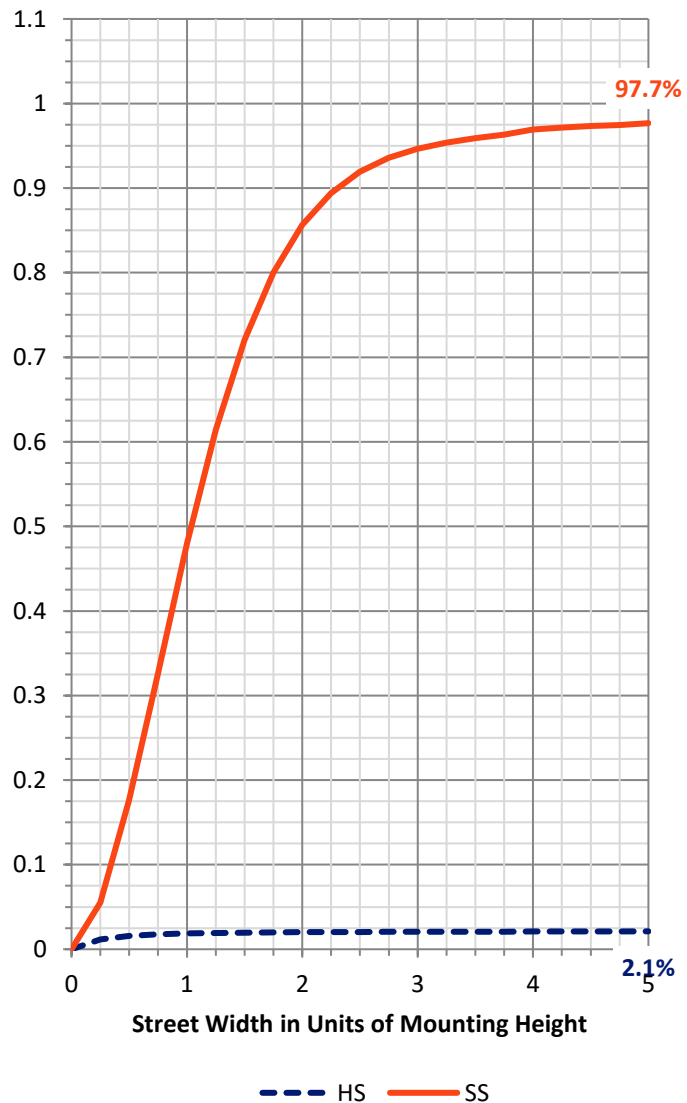
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	49.8	0.0	49.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	2247.3	0.0	2247.3
	% Fixture	97.8	0.0	97.8
Total	Lumens	2297.1	0.0	2297.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.8	0.3
10°-20°	32.9	1.4
20°-30°	71.0	3.1
30°-40°	151.6	6.6
40°-50°	335.2	14.6
50°-60°	568.1	24.7
60°-70°	758.1	33.0
70°-80°	333.9	14.5
80°-90°	38.5	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°	2297.1	100.0
0°-180°	2297.1	100.0



REPORT NUMBER: P162440

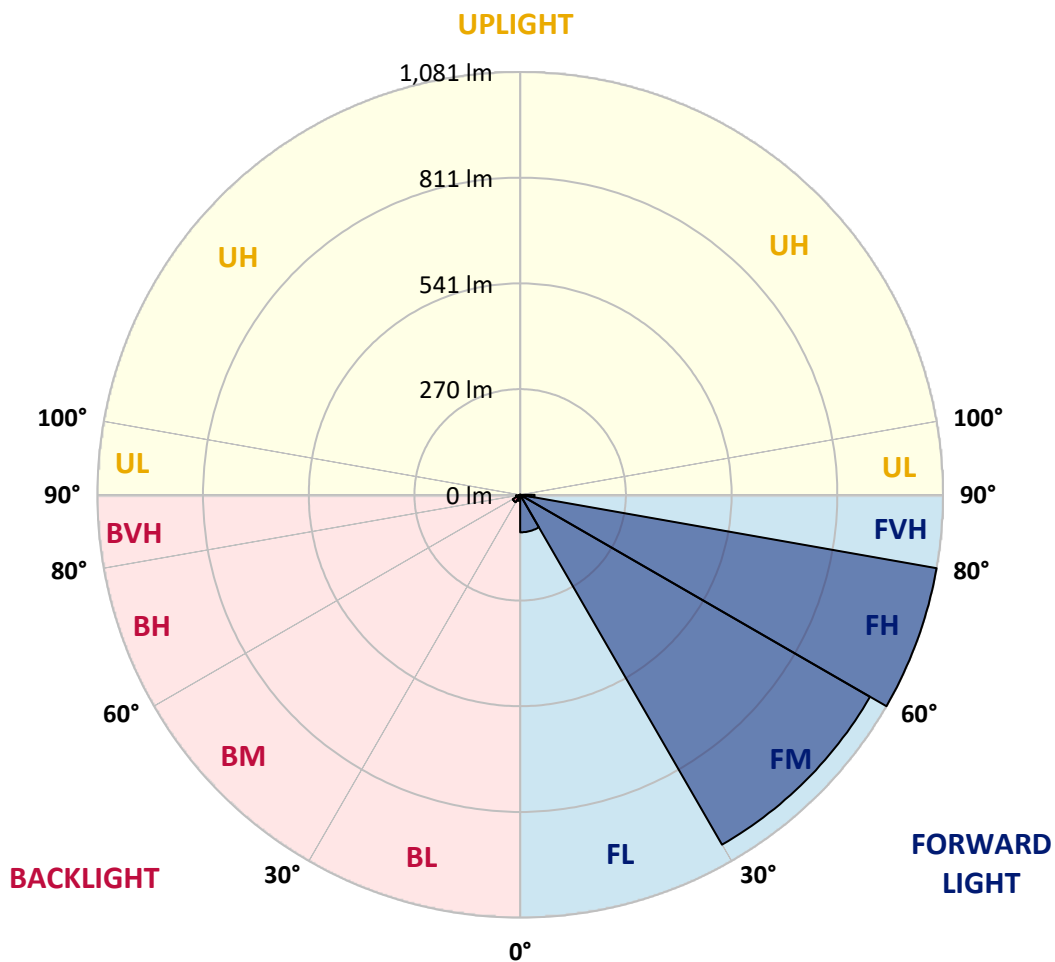
CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	95.9	4.2			
FM (30°-60°)	1033.1	45.0			
FH (60°-80°)	1081.3	47.1			G1/1800
FVH (80°-90°)	36.9	1.6			G1/100
BL (0°-30°)	15.7	0.7	B0/110		
BM (30°-60°)	21.9	1.0	B0/220		
BH (60°-80°)	10.7	0.5	B0/110		G0/110
BVH (80°-90°)	1.5	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: P162440
 CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
2.5°	87.5	87.0	85.2	85.2	82.6	80.8	78.6	76.4	76.4	75.9	75.5
5°	115.7	113.1	112.6	107.8	103.8	98.1	92.8	85.7	84.8	83.9	83.5
7.5°	147.1	146.6	142.6	136.9	128.9	118.4	107.8	96.3	94.5	93.6	91.9
10°	187.7	185.5	180.2	170.5	158.5	144.4	127.2	109.1	106.9	105.1	104.2
12.5°	226.5	222.6	219.5	207.1	192.1	171.4	150.6	124.5	122.8	120.6	117.1
15°	262.8	259.2	253.9	243.3	226.5	200.5	176.2	144.4	140.0	136.9	134.2
17.5°	291.0	288.8	282.6	270.7	252.6	229.6	200.5	164.7	161.2	157.2	152.4
20°	317.9	314.9	305.2	288.8	269.4	251.7	229.2	191.2	186.4	181.5	176.2
22.5°	343.6	340.5	324.6	297.6	276.9	269.4	261.4	221.2	213.8	209.8	204.5
25°	379.3	372.7	348.0	305.2	277.3	283.1	296.8	260.1	253.1	247.3	238.9
27.5°	427.5	418.6	379.8	316.2	279.1	298.1	337.4	307.4	299.9	293.2	283.9
30°	481.8	476.1	429.7	342.7	291.9	320.2	382.9	367.4	358.6	350.6	339.6
32.5°	536.6	528.6	482.7	393.1	326.4	363.0	439.9	437.2	425.7	418.2	406.3
35°	584.7	580.7	546.7	475.6	404.9	438.1	515.8	518.9	508.8	500.8	487.5
37.5°	617.4	617.4	610.8	564.4	529.9	554.7	627.5	628.0	617.8	599.7	593.1
40°	634.2	639.0	662.9	671.7	669.9	701.8	774.2	766.2	757.8	748.5	726.5
42.5°	668.6	673.0	723.8	784.8	824.5	866.5	916.3	913.7	903.6	886.8	866.5
45°	726.9	732.6	793.2	889.9	971.6	1031.2	1063.0	1050.6	1040.5	1024.6	1013.9
47.5°	801.1	812.1	880.6	1000.3	1098.8	1197.2	1230.3	1197.7	1188.8	1176.5	1159.2
50°	880.2	890.8	963.6	1100.5	1211.8	1329.3	1384.5	1329.3	1316.5	1312.5	1293.0
52.5°	948.6	957.4	1027.6	1177.8	1298.3	1436.2	1516.5	1443.6	1434.4	1421.1	1407.0
55°	989.2	996.3	1062.1	1214.9	1357.1	1532.4	1644.2	1580.1	1566.4	1561.1	1540.8
57.5°	1002.9	1010.0	1069.2	1219.8	1388.9	1620.3	1799.2	1801.4	1785.0	1766.0	1759.9
60°	1002.9	1010.9	1060.8	1207.8	1419.8	1713.9	2005.9	2190.0	2154.7	2151.1	2128.6
62.5°	961.4	968.9	1019.3	1171.2	1461.3	1840.2	2293.7	2618.8	2608.6	2585.7	2548.6
65°	871.3	875.8	925.2	1077.6	1445.4	1956.4	2543.3	2904.1	2887.7	2842.7	2795.0
66°	830.7	834.2	880.6	1024.1	1393.3	1972.3	2587.4	2939.9	2912.9	2874.9	2821.1
67.5°	771.9	778.1	810.8	924.8	1268.3	1917.0	2559.6	2914.7	2891.3	2845.3	2791.5
70°	515.4	510.9	626.2	709.7	966.3	1562.0	2296.4	2617.0	2617.5	2595.9	2574.2
72.5°	244.6	247.3	280.9	436.8	632.4	1043.5	1827.9	2088.9	2118.9	2080.0	2053.1
75°	175.8	179.8	200.1	267.2	377.1	626.2	1184.9	1460.9	1461.8	1392.9	1331.5
77.5°	51.2	53.4	75.1	164.7	282.6	422.6	680.5	812.1	793.2	743.7	697.3
80°	21.2	21.2	22.1	52.5	113.5	287.1	476.1	625.3	623.1	604.1	576.8
82.5°	7.9	8.4	10.6	21.6	26.9	70.6	317.5	542.8	541.4	514.5	495.1
85°	0.9	0.9	2.6	9.3	10.2	13.2	63.6	239.4	238.1	239.4	209.8
87.5°	0.0	0.0	0.5	0.9	1.3	1.8	2.6	9.3	10.2	9.7	8.8
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: P162440
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CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
2.5°	75.5	74.6	74.6	74.2	74.2	74.2	73.8	73.3	73.3	72.9	72.4
5°	82.6	81.7	81.2	80.4	79.9	79.5	78.6	78.2	77.3	76.8	76.4
7.5°	91.0	89.2	88.8	87.5	86.1	85.2	84.4	83.0	82.1	80.4	79.9
10°	101.6	99.4	97.6	95.8	94.5	92.3	91.0	89.2	87.5	86.1	84.8
12.5°	115.2	112.2	109.5	107.8	104.6	102.0	99.4	98.1	94.5	92.8	90.5
15°	130.3	126.8	123.6	120.1	117.9	113.5	109.9	106.0	104.2	101.1	97.6
17.5°	149.7	143.9	139.1	135.6	131.2	126.8	122.8	118.8	113.5	109.9	105.5
20°	170.5	165.6	159.0	152.8	147.5	142.2	136.5	131.2	126.3	120.6	115.2
22.5°	196.9	189.9	181.9	175.8	168.7	162.9	155.0	147.9	140.0	132.5	126.3
25°	230.5	221.2	213.8	204.9	196.5	187.7	178.0	169.1	159.0	151.9	141.3
27.5°	272.1	263.2	253.1	241.6	233.2	219.9	207.1	196.1	184.2	173.1	161.2
30°	325.1	312.2	301.6	290.6	273.8	261.0	246.0	230.9	214.6	203.6	185.5
32.5°	388.6	374.9	359.1	343.1	327.7	309.6	291.0	272.5	254.4	234.1	215.5
35°	466.3	450.0	431.9	414.7	390.8	371.4	348.0	322.4	302.1	278.6	255.2
37.5°	569.2	542.3	526.4	508.3	476.1	449.6	423.5	397.9	362.1	337.4	304.3
40°	698.2	682.3	656.2	627.1	597.9	563.1	527.8	493.7	452.2	417.8	379.3
42.5°	849.7	826.3	799.8	757.8	728.2	687.2	647.0	601.9	551.1	507.0	461.9
45°	991.9	964.0	943.8	901.8	870.9	822.3	773.7	726.0	667.3	610.3	558.2
47.5°	1145.6	1122.6	1089.0	1055.0	1023.7	968.9	916.3	858.5	796.7	729.1	661.5
50°	1280.7	1262.6	1239.6	1198.6	1163.7	1117.7	1055.9	992.8	914.6	847.5	770.6
52.5°	1395.5	1381.4	1349.2	1320.0	1288.6	1245.3	1190.2	1129.6	1045.3	971.6	884.1
55°	1531.1	1520.9	1492.7	1474.6	1446.7	1405.2	1353.6	1297.5	1208.3	1127.9	1029.0
57.5°	1753.2	1745.3	1720.6	1713.0	1685.7	1649.5	1585.9	1525.8	1421.6	1321.8	1208.7
60°	2121.1	2105.2	2069.0	2050.4	1992.6	1944.0	1861.4	1778.9	1653.0	1525.8	1389.8
62.5°	2515.0	2470.4	2401.5	2342.3	2260.2	2175.9	2065.4	1939.2	1791.6	1640.6	1484.3
65°	2727.4	2651.5	2564.5	2470.4	2364.0	2239.9	2100.8	1949.3	1790.7	1631.3	1466.2
66°	2751.7	2666.0	2573.7	2469.1	2350.7	2218.7	2077.4	1918.4	1753.7	1598.2	1433.0
67.5°	2721.3	2631.6	2534.0	2417.9	2289.8	2152.9	2004.5	1839.3	1680.8	1523.2	1362.4
70°	2508.0	2418.7	2331.7	2209.4	2073.0	1935.2	1794.7	1610.2	1460.0	1315.2	1172.0
72.5°	2002.7	1942.2	1856.1	1751.5	1618.5	1456.9	1339.9	1174.7	1044.4	904.0	793.2
75°	1251.6	1166.3	1059.9	926.5	824.9	693.8	625.3	499.9	425.7	360.8	298.1
77.5°	639.9	575.9	501.2	426.2	354.2	282.6	218.6	154.6	104.2	72.4	53.9
80°	528.6	472.1	410.3	341.8	278.2	215.9	155.5	106.0	67.6	44.2	34.5
82.5°	436.8	389.1	333.9	270.3	215.1	169.6	117.9	76.8	47.7	30.9	24.3
85°	185.9	168.7	130.3	103.3	77.7	57.4	40.2	26.9	19.0	15.5	14.1
87.5°	7.9	8.8	8.4	6.6	4.9	4.9	4.4	3.5	3.5	3.5	3.5
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: P162440

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
2.5°	72.4	72.0	71.5	71.5	71.1	70.6	68.0	65.8	63.2	61.4	59.6
5°	75.5	75.1	74.2	73.8	72.9	72.4	66.7	61.8	57.8	54.8	52.5
7.5°	78.6	78.2	76.8	75.5	75.1	74.2	64.9	58.8	53.4	49.9	47.7
10°	82.6	81.2	79.9	78.2	76.8	75.5	63.2	55.2	49.5	46.4	44.2
12.5°	88.3	86.1	83.9	81.7	79.9	77.7	62.3	52.1	46.4	42.8	40.6
15°	94.9	91.9	89.2	86.5	83.5	81.2	60.5	49.5	43.7	40.2	37.5
17.5°	101.1	97.6	93.6	89.6	86.5	83.5	58.8	46.8	41.1	37.5	34.9
20°	109.9	104.6	99.8	94.9	90.5	86.5	56.1	44.2	38.9	34.9	32.2
22.5°	119.7	113.5	107.3	100.7	94.9	89.6	53.9	41.9	36.6	32.7	29.6
25°	132.1	124.5	116.1	107.8	101.1	94.1	51.7	39.8	34.5	30.5	27.4
27.5°	149.3	138.7	129.4	118.8	108.6	100.7	49.9	38.0	32.2	28.2	25.2
30°	172.7	157.2	142.6	131.2	119.2	107.8	48.1	35.8	30.5	26.1	22.5
32.5°	198.7	180.6	163.8	146.6	131.6	118.4	46.4	34.0	28.2	23.8	20.8
35°	230.9	208.0	185.5	165.6	147.5	129.8	44.6	32.2	26.5	21.6	18.5
37.5°	277.3	248.6	219.1	193.4	170.0	146.6	43.3	30.5	24.3	19.4	16.4
40°	340.9	303.8	267.6	232.8	202.2	173.1	41.5	28.7	22.5	17.7	14.6
42.5°	409.8	364.8	317.1	277.8	235.8	199.2	39.8	26.9	20.8	15.9	12.8
45°	495.5	439.4	381.6	328.1	276.9	229.6	38.0	25.2	18.5	14.1	11.1
47.5°	589.1	517.6	452.2	385.1	324.2	267.6	35.8	23.8	16.8	12.4	9.7
50°	685.4	609.9	527.3	450.9	378.5	305.6	33.6	21.6	15.0	11.1	7.9
52.5°	789.2	700.0	615.6	520.6	436.3	355.5	31.4	19.9	13.7	9.7	6.6
55°	921.2	821.4	722.5	616.1	514.5	413.3	29.2	17.7	11.9	8.4	5.3
57.5°	1087.3	968.9	847.5	727.3	604.1	489.3	27.4	15.5	10.2	7.1	4.4
60°	1244.0	1105.8	958.8	820.5	681.4	547.6	24.7	13.7	8.8	5.8	4.4
62.5°	1325.3	1167.6	1009.1	856.8	708.3	568.4	22.1	11.5	7.5	4.9	4.0
65°	1305.4	1144.7	991.0	837.3	692.0	555.1	19.4	10.2	6.6	4.4	4.0
66°	1276.7	1117.7	963.2	817.0	678.3	541.0	18.1	9.7	6.2	4.4	3.5
67.5°	1214.0	1060.3	912.8	776.8	640.8	514.1	16.4	8.8	5.8	4.0	3.5
70°	1036.9	897.3	779.5	658.5	547.6	433.2	13.2	7.5	4.9	3.5	3.5
72.5°	686.3	591.3	512.7	441.2	368.8	286.2	11.1	6.2	4.0	3.5	3.1
75°	258.8	234.1	200.9	180.6	157.6	138.2	8.8	4.0	3.1	3.1	3.1
77.5°	45.9	42.4	37.5	34.5	31.8	29.2	7.1	2.6	2.6	3.1	3.1
80°	30.9	28.7	26.1	23.8	22.1	19.9	4.9	2.2	2.6	2.6	3.1
82.5°	22.1	20.8	19.4	17.7	16.4	14.6	3.1	2.2	2.6	2.6	2.6
85°	13.2	12.4	11.5	10.6	9.3	8.8	2.2	2.2	2.2	2.6	2.6
87.5°	3.5	3.1	3.5	3.5	2.6	3.1	1.8	1.8	1.8	2.2	2.2
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: P162440

CATALOG NUMBER: ECM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	69.3	69.3	69.3	69.3	69.3
2.5°	58.8	58.8	57.8	59.2	59.2
5°	50.8	50.8	50.4	50.8	50.8
7.5°	46.4	45.9	45.9	45.9	46.4
10°	42.4	41.9	41.9	41.9	41.9
12.5°	38.9	38.4	38.0	38.4	38.4
15°	35.8	34.9	34.9	34.9	34.9
17.5°	33.1	32.2	31.8	31.8	31.8
20°	30.5	29.2	29.2	29.2	29.2
22.5°	27.8	26.5	26.5	26.5	26.5
25°	25.2	23.8	23.8	23.8	23.8
27.5°	22.9	21.6	21.6	21.6	21.6
30°	20.3	19.4	19.4	19.9	19.4
32.5°	18.5	17.2	17.2	17.7	17.7
35°	16.4	15.5	15.5	15.5	15.5
37.5°	14.1	13.2	13.2	13.2	13.2
40°	12.4	11.5	11.1	11.5	11.5
42.5°	10.6	9.7	9.3	9.3	9.3
45°	9.3	7.9	7.5	7.9	7.9
47.5°	7.5	6.6	6.6	7.1	7.1
50°	5.8	5.8	6.2	7.1	7.1
52.5°	5.3	5.3	6.2	7.1	7.1
55°	4.9	5.3	6.2	6.6	7.1
57.5°	4.4	5.3	6.2	6.6	6.6
60°	4.4	4.9	5.8	6.6	6.6
62.5°	4.0	4.4	5.3	6.2	6.2
65°	4.0	4.4	5.3	6.2	6.2
66°	4.0	4.4	5.3	6.2	6.2
67.5°	4.0	4.4	5.3	6.2	6.2
70°	4.0	4.4	5.3	5.8	5.8
72.5°	3.5	4.0	4.9	5.8	5.8
75°	3.5	4.0	4.9	5.8	5.8
77.5°	3.5	4.0	4.9	5.8	5.8
80°	3.5	4.0	4.9	5.3	5.8
82.5°	3.1	4.0	4.4	5.3	5.3
85°	3.1	3.5	4.4	4.9	5.3
87.5°	2.6	3.1	3.5	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)