

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: P162613

Luminaire Tested: **ECM-F03-LED-E1-SL4-HSS-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162613  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F03-LED-E1-SL4-HSS-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (21) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

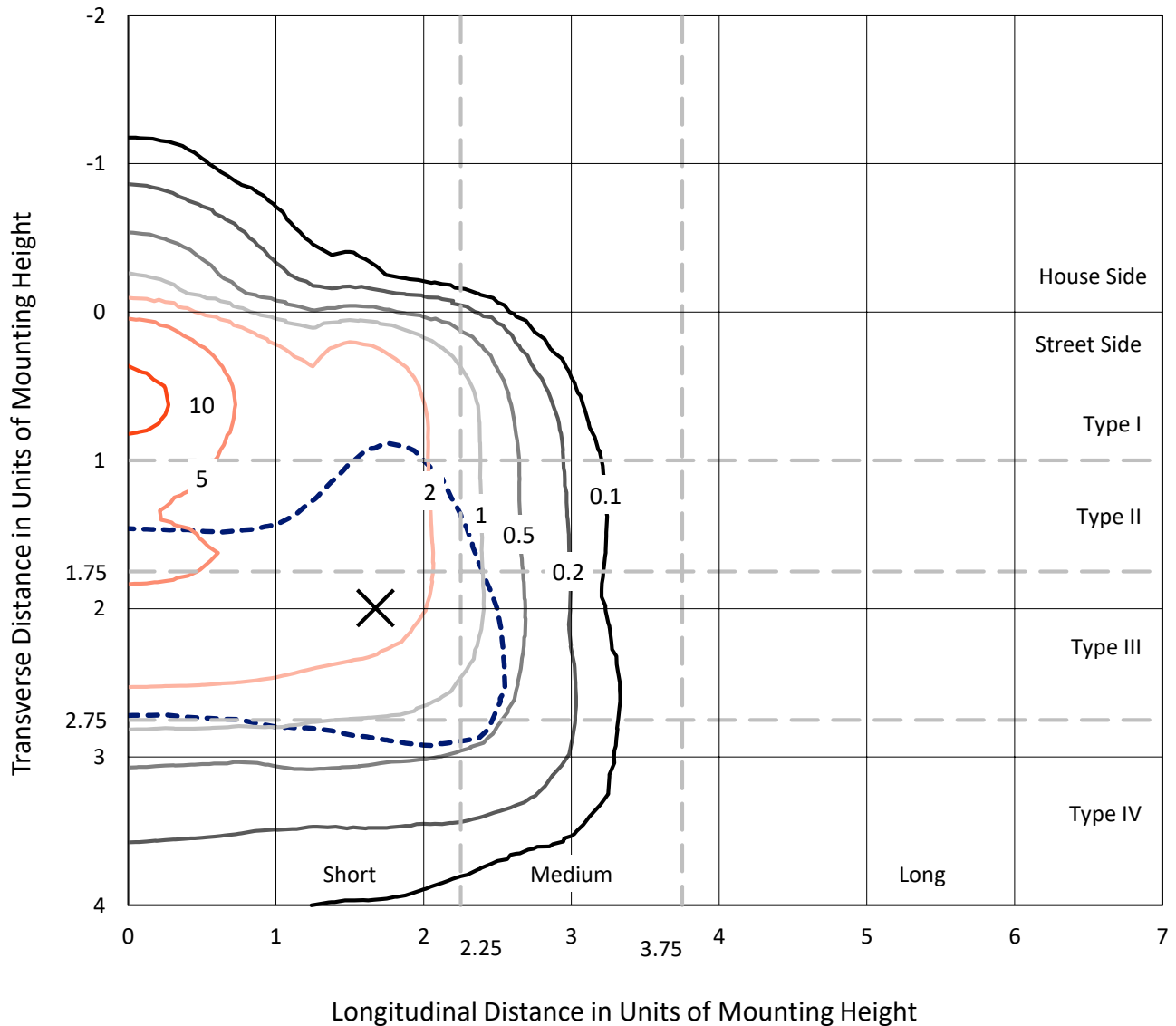
Lumens per Lamp: N/A  
Luminaire Lumens: 4916.3 lumens  
Efficiency: N/A  
Efficacy: 62.8 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G2  
  
Input Watts (W): 78.3  
Input Voltage (V): NR  
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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### Iso-Footcandle Lines of Horizontal Illumination

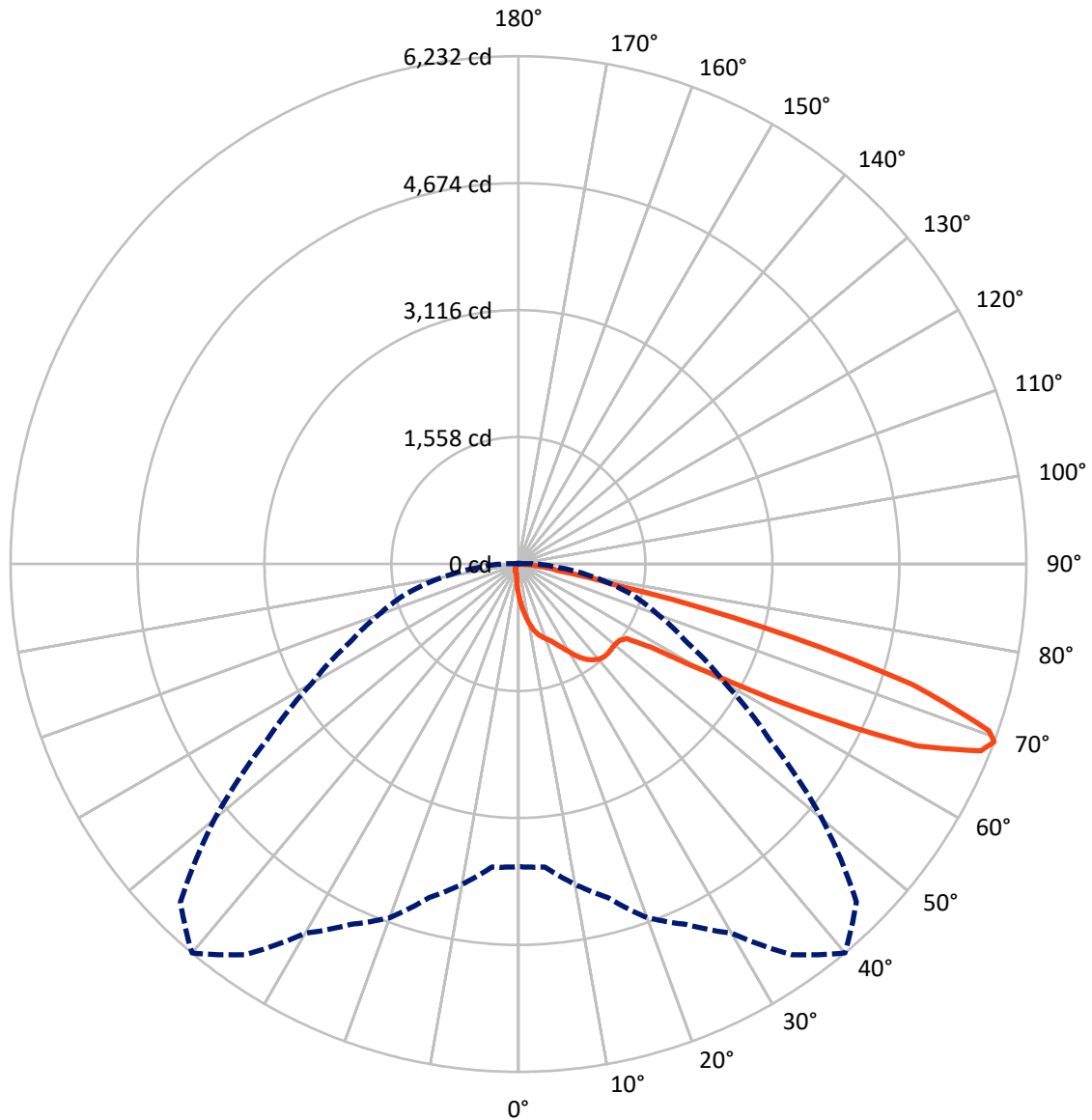
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	146.4	0.0	146.4
	% Fixture	3.0	0.0	3.0
<b>Street Side</b>	Lumens	4769.9	0.0	4769.9
	% Fixture	97.0	0.0	97.0
<b>Total</b>	Lumens	4916.3	0.0	4916.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.2	0.8
10°-20°	131.6	2.7
20°-30°	251.8	5.1
30°-40°	418.8	8.5
40°-50°	566.7	11.5
50°-60°	886.2	18.0
60°-70°	1822.1	37.1
70°-80°	733.2	14.9
80°-90°	67.8	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°	4916.3	100.0
0°-180°	4916.3	100.0



REPORT NUMBER: P162613

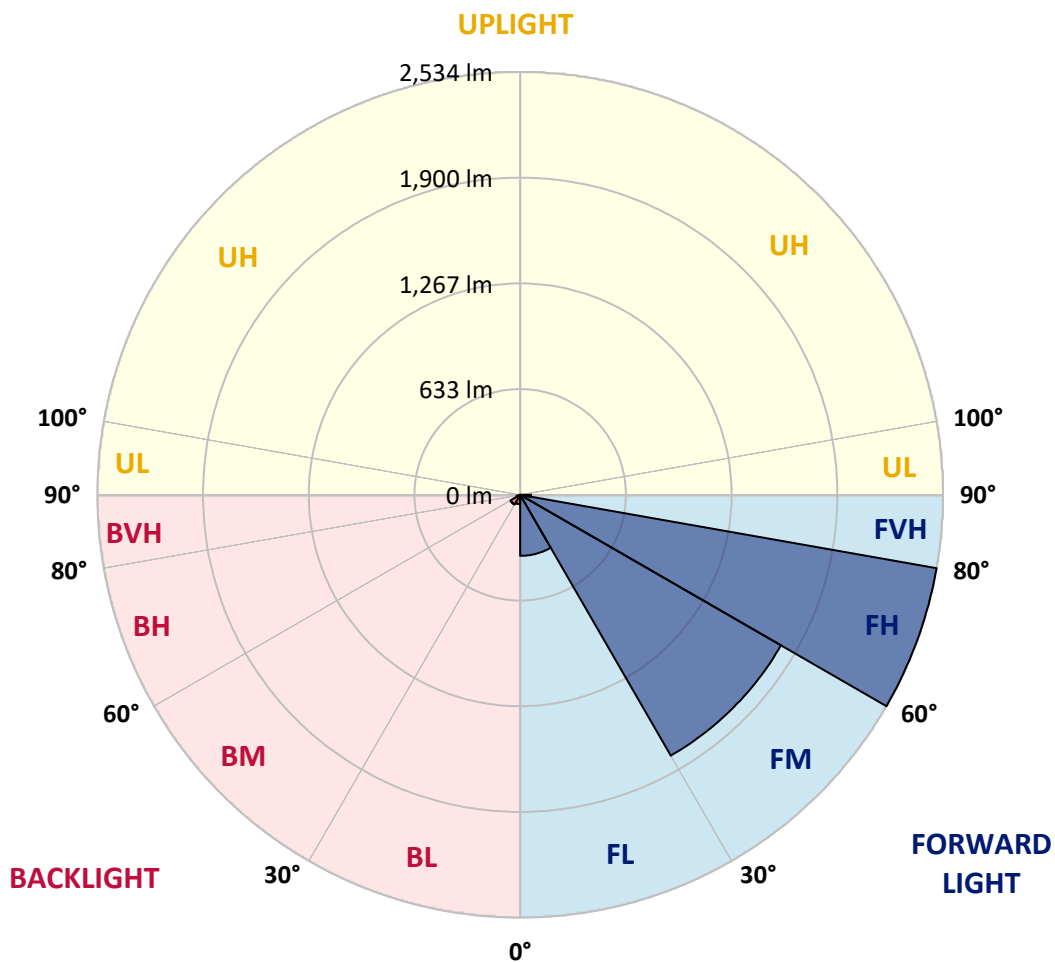
CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	365.9	7.4			
FM	(30°-60°)	1804.8	36.7			
FH	(60°-80°)	2533.9	51.5			G2/5000
FVH	(80°-90°)	65.3	1.3			G1/100
BL	(0°-30°)	55.7	1.1	B0/110		
BM	(30°-60°)	66.8	1.4	B0/220		
BH	(60°-80°)	21.4	0.4	B0/110		G0/110
BVH	(80°-90°)	2.5	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-G2**

Type IV Short





REPORT NUMBER: P162613

CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	495.3	489.7	483.3	483.3	475.1	475.1	470.3	457.4	455.8	448.6	441.3
5°	632.2	627.3	619.3	612.1	605.7	594.4	586.3	571.0	554.1	538.0	523.5
7.5°	765.9	763.5	749.0	746.6	736.1	717.6	701.5	678.9	650.0	627.3	600.8
10°	889.9	884.3	881.0	867.4	852.1	831.9	807.0	779.6	745.8	710.4	672.5
12.5°	988.2	985.0	970.5	964.8	948.7	928.6	897.1	861.7	827.9	782.0	737.7
15°	1061.5	1055.8	1046.1	1037.3	1018.0	1000.2	971.3	932.6	891.5	841.6	788.5
17.5°	1122.7	1112.2	1109.8	1096.1	1076.0	1055.0	1022.8	987.4	939.1	889.1	831.2
20°	1204.8	1190.3	1185.5	1165.3	1142.0	1113.1	1076.0	1031.7	980.9	926.2	866.6
22.5°	1301.4	1291.0	1280.5	1262.8	1233.0	1191.9	1138.0	1089.7	1025.2	964.8	900.4
25°	1438.4	1429.5	1412.6	1388.4	1351.4	1302.3	1237.1	1166.2	1090.4	1013.2	937.5
27.5°	1571.2	1563.2	1551.2	1532.6	1490.8	1436.8	1356.3	1266.0	1170.2	1076.8	993.0
30°	1696.1	1688.8	1676.8	1658.2	1621.2	1568.0	1477.0	1380.4	1261.2	1152.4	1051.8
32.5°	1830.6	1828.2	1814.5	1787.9	1755.7	1684.0	1585.0	1481.0	1360.2	1234.6	1117.0
35°	1982.8	1964.3	1951.4	1924.8	1870.1	1793.5	1677.5	1564.0	1436.8	1307.9	1176.7
37.5°	2111.7	2094.0	2077.9	2044.0	1977.2	1879.7	1748.4	1623.6	1492.4	1361.1	1227.4
40°	2205.9	2197.1	2177.7	2133.4	2058.5	1942.5	1800.8	1664.7	1532.6	1400.6	1268.4
42.5°	2275.9	2262.3	2240.5	2194.6	2106.0	1973.9	1821.7	1681.6	1551.2	1424.7	1295.0
45°	2301.8	2290.5	2270.3	2220.4	2124.6	1982.8	1821.0	1676.8	1551.9	1432.0	1312.7
47.5°	2286.4	2275.2	2257.5	2210.7	2116.5	1972.3	1806.5	1663.1	1543.9	1434.4	1328.9
50°	2235.7	2229.2	2215.5	2176.1	2091.5	1952.2	1793.5	1655.9	1542.3	1446.5	1351.4
52.5°	2230.9	2226.9	2209.9	2170.5	2084.3	1945.7	1791.9	1659.8	1556.0	1461.7	1367.5
55°	2726.1	2669.0	2540.9	2432.2	2253.4	2040.8	1873.3	1725.1	1613.9	1522.1	1456.1
57.5°	3874.6	3789.2	3620.9	3414.0	3003.2	2599.8	2276.8	2043.2	1928.0	1886.2	1911.2
60°	4412.6	4397.3	4370.7	4272.5	4062.2	3715.2	3328.6	2910.6	2743.1	2728.6	2779.3
62.5°	4667.9	4658.2	4666.3	4654.2	4588.9	4487.5	4376.3	4196.0	4030.0	3923.0	3695.8
65°	4785.5	4791.9	4837.8	4874.1	4882.1	4908.7	4990.0	5214.8	5379.0	5102.8	4472.2
67.5°	4486.7	4524.6	4630.0	4762.1	4916.8	5066.5	5308.2	5781.7	6119.2	5794.6	4899.1
69°	3714.3	3732.9	3990.6	4239.4	4617.2	4881.4	5231.6	5852.6	6231.9	5865.5	4865.2
70°	2924.3	2941.2	3217.4	3555.7	4194.4	4534.2	4992.5	5732.6	6126.4	5771.2	4691.3
72.5°	1319.2	1295.0	1392.5	1573.7	2267.9	2807.5	3608.9	4644.5	5054.5	4623.6	3509.8
75°	921.4	910.9	921.4	922.1	1030.0	1328.9	1676.8	2517.6	3113.5	2686.7	1676.8
77.5°	713.6	706.3	699.1	691.0	703.9	788.5	822.3	893.2	1159.7	1096.9	639.5
80°	564.6	558.1	575.8	570.2	570.2	579.8	573.4	546.9	496.9	460.6	412.4
82.5°	262.5	264.1	264.1	286.7	345.5	403.5	422.0	395.4	351.1	298.8	240.8
85°	25.0	28.2	47.5	73.3	145.8	164.3	165.1	136.9	136.9	107.9	87.0
87.5°	0.0	0.8	0.8	0.8	7.3	20.2	16.9	4.8	2.5	2.5	4.1
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°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	428.5	426.1	416.3	406.7	397.9	388.2	379.3	370.4	360.8	353.6	344.7
5°	501.0	483.3	463.1	443.8	424.5	404.3	383.4	364.8	345.5	327.8	310.9
7.5°	574.2	539.6	512.2	477.6	446.2	414.7	385.8	355.9	328.6	302.8	278.7
10°	636.2	594.4	551.7	507.4	462.2	420.4	380.2	344.7	308.4	277.1	247.3
12.5°	687.0	633.8	581.4	525.9	475.1	422.0	372.1	329.4	286.7	251.2	220.7
15°	732.9	671.6	608.9	544.4	480.0	419.6	364.0	310.9	267.4	227.1	192.5
17.5°	769.9	699.9	629.0	556.5	487.2	416.3	353.6	298.0	247.3	205.3	171.5
20°	802.2	728.8	652.3	571.0	492.1	415.6	344.7	281.9	229.6	185.3	152.2
22.5°	831.9	758.6	676.5	589.6	499.4	414.7	336.6	269.8	214.2	169.9	136.9
25°	865.8	788.5	702.3	608.9	512.2	417.9	331.8	260.1	200.5	155.4	124.9
27.5°	903.7	822.3	732.9	633.0	529.1	424.5	330.2	249.6	188.5	141.7	115.2
30°	956.8	862.6	763.5	657.2	544.4	431.7	328.6	243.2	176.4	131.3	105.5
32.5°	1003.4	902.1	797.4	682.1	561.4	439.0	327.8	234.4	165.1	120.8	98.3
35°	1052.6	938.2	826.3	706.3	575.8	447.0	327.0	227.9	154.6	110.4	91.0
37.5°	1095.3	968.9	848.9	727.2	591.9	454.2	327.8	222.3	144.9	101.5	84.5
40°	1131.5	1000.2	873.8	746.6	608.9	465.5	328.6	216.7	135.3	93.4	78.9
42.5°	1163.7	1030.0	900.4	768.3	628.2	478.4	333.4	211.8	127.2	86.1	73.3
45°	1188.7	1057.4	929.4	799.0	659.6	499.4	342.3	208.6	119.2	79.7	68.4
47.5°	1214.5	1097.7	978.5	847.2	705.5	532.4	357.6	207.8	112.7	74.9	64.5
50°	1249.9	1138.0	1022.0	896.4	747.4	566.2	376.1	208.6	104.7	70.1	60.4
52.5°	1275.7	1179.0	1078.4	981.8	847.2	669.3	447.8	223.1	100.6	66.1	55.6
55°	1427.9	1411.0	1413.4	1429.5	1325.7	1138.8	749.0	322.1	118.4	74.9	54.8
57.5°	2013.4	2073.0	2107.6	2106.8	1935.3	1605.1	1005.9	414.0	132.1	87.0	65.2
60°	2783.3	2738.3	2674.6	2517.6	2289.6	1832.2	1125.1	445.4	114.4	69.3	59.6
62.5°	3463.9	3199.7	2965.4	2710.9	2412.0	1911.2	1149.2	442.9	99.9	52.3	41.8
65°	3888.3	3413.1	3034.6	2715.7	2363.8	1845.1	1087.2	406.7	84.5	42.7	34.6
67.5°	3989.8	3298.0	2762.4	2355.7	1974.8	1436.0	798.1	306.0	66.1	35.4	30.6
69°	3768.3	2931.6	2288.9	1827.4	1436.8	952.7	493.7	193.3	50.7	32.2	28.2
70°	3466.3	2549.8	1864.4	1466.5	1063.9	669.3	345.5	136.1	41.1	29.8	25.8
72.5°	2230.1	1339.3	916.5	637.8	439.0	266.6	135.3	61.2	31.4	25.0	20.9
75°	864.9	495.3	359.2	273.0	213.5	148.2	82.2	39.5	26.6	20.9	16.1
77.5°	426.1	326.2	266.6	182.8	106.3	66.1	44.3	30.6	21.8	15.3	10.5
80°	336.6	223.9	133.7	82.9	62.9	47.5	33.8	25.0	16.1	9.7	7.3
82.5°	172.4	94.2	69.3	56.4	46.7	37.0	27.4	17.7	10.5	6.4	5.7
85°	54.0	39.5	35.4	34.6	32.2	26.6	19.3	11.3	6.4	4.1	4.1
87.5°	4.1	5.7	7.3	5.7	6.4	5.7	7.3	4.8	3.2	3.2	2.5
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°	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3	371.3
2.5°	338.2	328.6	319.8	314.1	303.6	299.6	295.5	293.9	286.7	288.3	281.9
5°	295.5	278.7	265.8	252.9	240.8	231.9	224.7	215.8	208.6	205.3	198.9
7.5°	256.9	235.1	218.3	204.6	190.1	178.8	169.2	162.7	156.2	149.8	146.5
10°	223.1	199.7	180.4	166.7	153.0	143.3	136.1	131.3	127.2	124.9	124.0
12.5°	191.7	169.2	151.4	139.3	128.8	124.0	120.8	118.4	117.6	116.8	116.8
15°	167.6	144.9	131.3	122.4	117.6	115.2	114.4	112.7	111.1	110.4	110.4
17.5°	144.9	128.1	118.4	113.6	111.1	109.5	107.9	106.3	104.7	103.9	103.9
20°	129.7	116.0	111.1	107.9	105.5	103.9	101.5	99.9	99.0	98.3	97.4
22.5°	117.6	108.8	105.5	103.1	99.9	97.4	95.8	94.2	92.6	91.8	91.0
25°	108.8	103.1	100.6	97.4	94.2	91.8	89.4	87.0	85.4	84.5	82.9
27.5°	102.2	98.3	95.0	91.0	87.8	85.4	82.9	80.6	78.9	77.3	76.5
30°	96.7	92.6	88.6	85.4	81.3	78.9	75.7	73.3	72.5	70.9	69.3
32.5°	91.0	87.0	82.9	78.9	74.9	71.7	70.1	66.8	65.2	64.5	62.9
35°	84.5	80.6	75.7	72.5	68.4	65.2	62.9	60.4	58.8	57.2	56.4
37.5°	78.9	74.1	69.3	65.2	62.0	58.8	56.4	54.0	52.3	50.7	49.9
40°	72.5	67.7	62.9	58.8	55.6	53.2	50.7	48.3	46.7	45.9	45.9
42.5°	66.8	61.2	56.4	53.2	50.7	47.5	45.1	42.7	41.8	41.1	41.8
45°	61.2	55.6	51.5	48.3	45.9	42.7	40.2	38.6	37.9	38.6	39.5
47.5°	56.4	50.7	46.7	44.3	41.8	39.5	37.0	35.4	35.4	37.0	38.6
50°	51.5	45.9	42.7	41.1	38.6	36.3	33.0	32.2	33.0	34.6	36.3
52.5°	46.7	40.2	37.9	37.0	34.6	32.2	29.8	29.0	29.8	31.4	30.6
55°	41.8	35.4	34.6	33.8	31.4	28.2	25.8	25.8	25.8	25.0	23.4
57.5°	40.2	31.4	30.6	29.8	27.4	24.1	22.5	20.9	20.2	17.7	16.9
60°	41.8	28.2	28.2	26.6	24.1	20.9	18.6	16.1	14.5	12.9	12.9
62.5°	33.8	25.8	25.0	23.4	20.2	16.9	14.5	12.1	11.3	10.5	10.5
65°	27.4	23.4	21.8	19.3	16.9	13.7	11.3	9.7	8.9	8.9	9.7
67.5°	25.0	20.9	18.6	16.1	13.7	10.5	8.9	8.0	8.0	8.9	8.9
69°	23.4	19.3	16.9	14.5	12.1	9.7	8.0	8.0	8.0	8.0	8.9
70°	21.8	18.6	16.1	13.7	10.5	8.0	7.3	7.3	8.0	8.0	8.9
72.5°	16.9	14.5	13.7	11.3	8.0	7.3	6.4	7.3	7.3	8.0	8.0
75°	12.9	10.5	10.5	8.9	6.4	5.7	5.7	6.4	6.4	7.3	7.3
77.5°	8.9	7.3	7.3	6.4	5.7	4.8	4.8	5.7	6.4	6.4	7.3
80°	6.4	5.7	4.8	5.7	4.8	4.1	4.8	5.7	5.7	6.4	6.4
82.5°	4.8	4.8	4.8	4.8	4.1	4.1	4.8	4.8	5.7	6.4	6.4
85°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.8	4.8	5.7	5.7
87.5°	2.5	2.5	2.5	3.2	3.2	4.1	4.1	4.1	4.1	4.8	4.8
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: P162613

CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7050

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	371.3	371.3	371.3	371.3
2.5°	280.3	279.5	276.2	277.1
5°	196.5	191.7	194.9	194.1
7.5°	144.2	143.3	142.6	144.2
10°	123.2	123.2	122.4	123.2
12.5°	116.0	116.0	116.0	116.0
15°	110.4	110.4	109.5	109.5
17.5°	103.9	103.9	103.9	103.1
20°	97.4	96.7	96.7	96.7
22.5°	90.2	89.4	89.4	89.4
25°	82.9	82.2	82.2	82.2
27.5°	75.7	74.9	74.1	74.1
30°	68.4	67.7	66.8	66.8
32.5°	61.2	60.4	59.6	59.6
35°	54.8	54.8	54.0	53.2
37.5°	49.1	49.1	49.1	49.1
40°	45.1	45.9	45.9	45.9
42.5°	42.7	43.5	44.3	45.1
45°	41.1	42.7	43.5	43.5
47.5°	40.2	41.1	41.8	41.8
50°	37.0	36.3	36.3	36.3
52.5°	29.8	28.2	27.4	26.6
55°	21.8	20.9	19.3	19.3
57.5°	15.3	15.3	14.5	14.5
60°	12.1	12.1	11.3	12.1
62.5°	10.5	10.5	10.5	10.5
65°	9.7	9.7	9.7	9.7
67.5°	9.7	9.7	9.7	9.7
69°	8.9	8.9	8.9	8.9
70°	8.9	8.9	8.9	8.9
72.5°	8.0	8.0	8.0	8.0
75°	7.3	8.0	8.0	8.0
77.5°	7.3	7.3	7.3	7.3
80°	6.4	6.4	7.3	7.3
82.5°	6.4	6.4	6.4	6.4
85°	5.7	5.7	6.4	6.4
87.5°	4.8	4.8	5.7	5.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)