

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: P162453

Luminaire Tested: **ECM-F03-LED-E1-SL3-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162453
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-F03-LED-E1-SL3-HSS-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 4189.1 lumens
Efficiency: N/A
Efficacy: 53.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

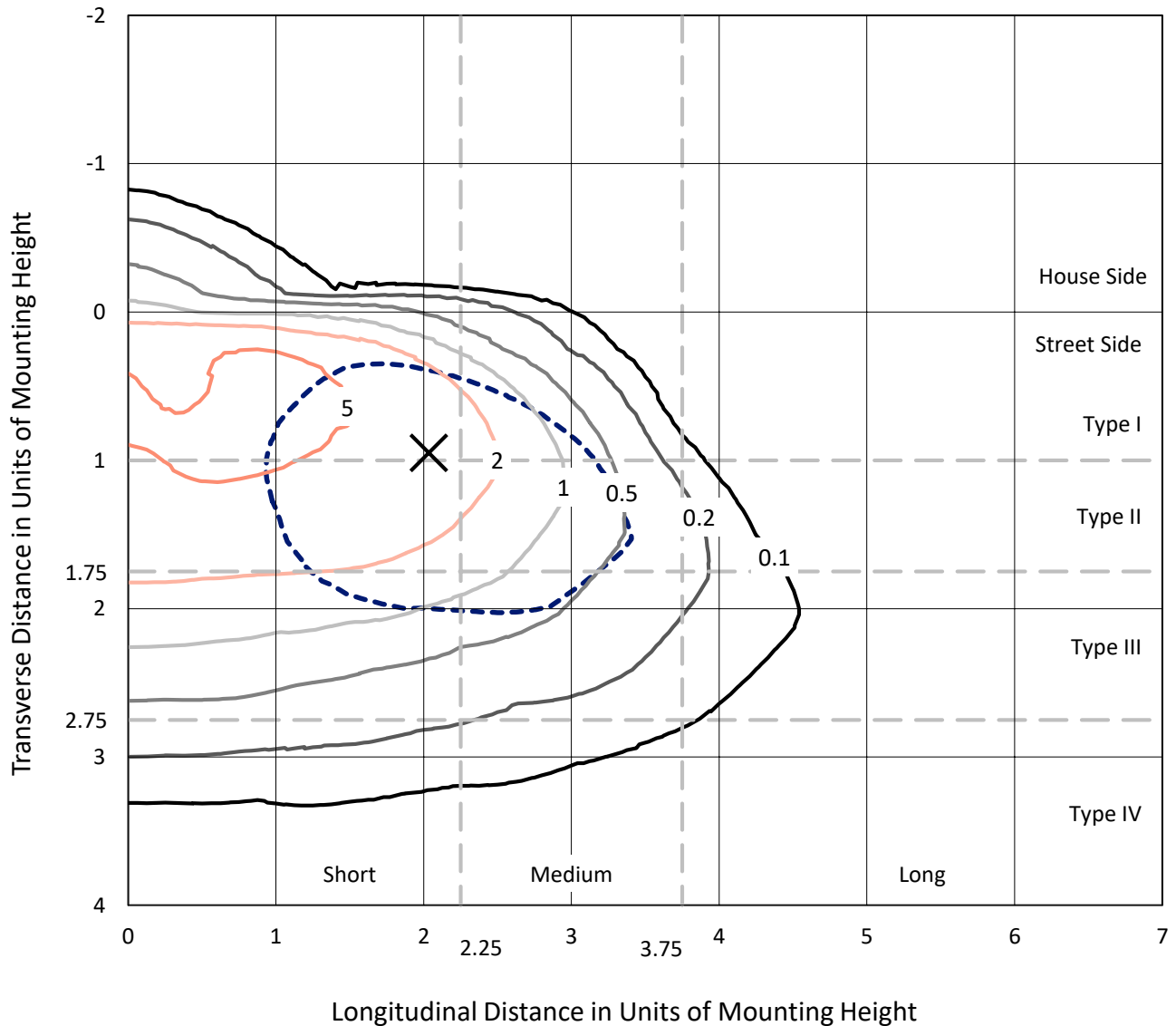
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

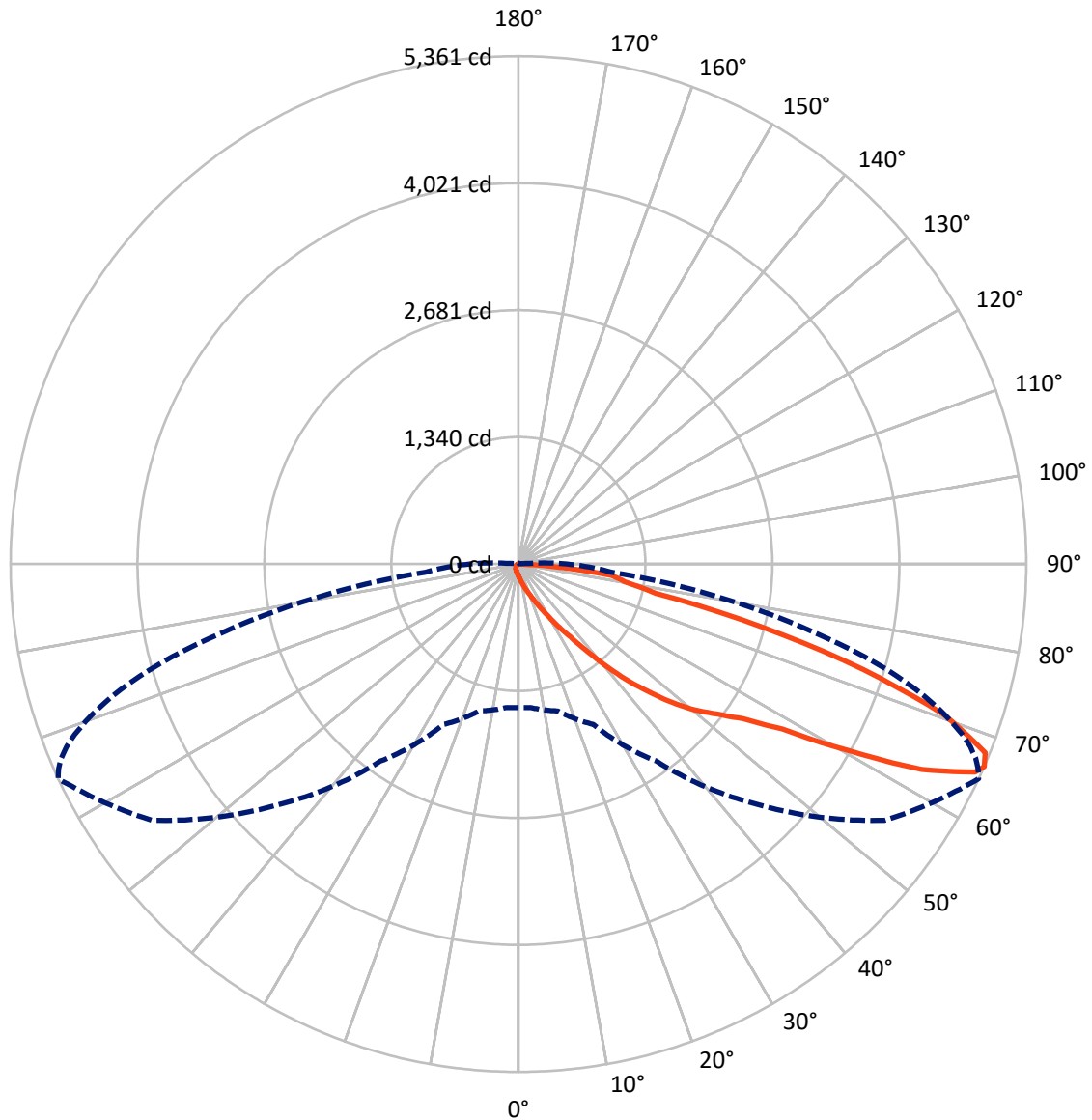
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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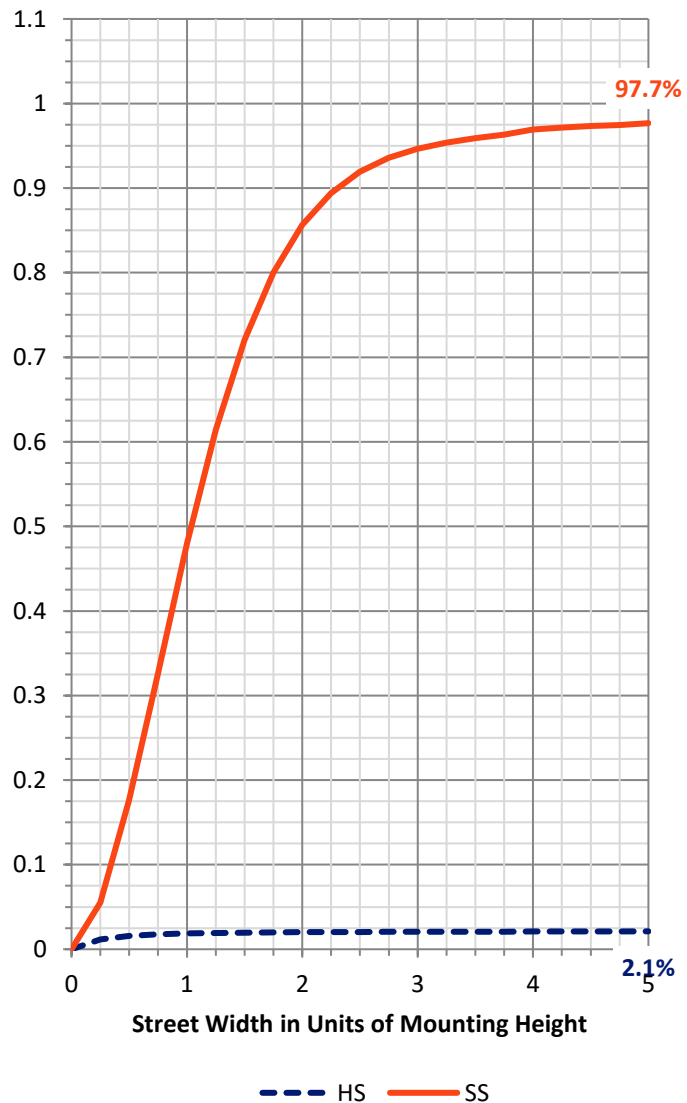
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	90.8	0.0	90.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	4098.3	0.0	4098.3
	% Fixture	97.8	0.0	97.8
Total	Lumens	4189.1	0.0	4189.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.2	0.3
10°-20°	60.0	1.4
20°-30°	129.4	3.1
30°-40°	276.4	6.6
40°-50°	611.4	14.6
50°-60°	1036.0	24.7
60°-70°	1382.5	33.0
70°-80°	609.0	14.5
80°-90°	70.2	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°	4189.1	100.0
0°-180°	4189.1	100.0

Coefficient of Utilization



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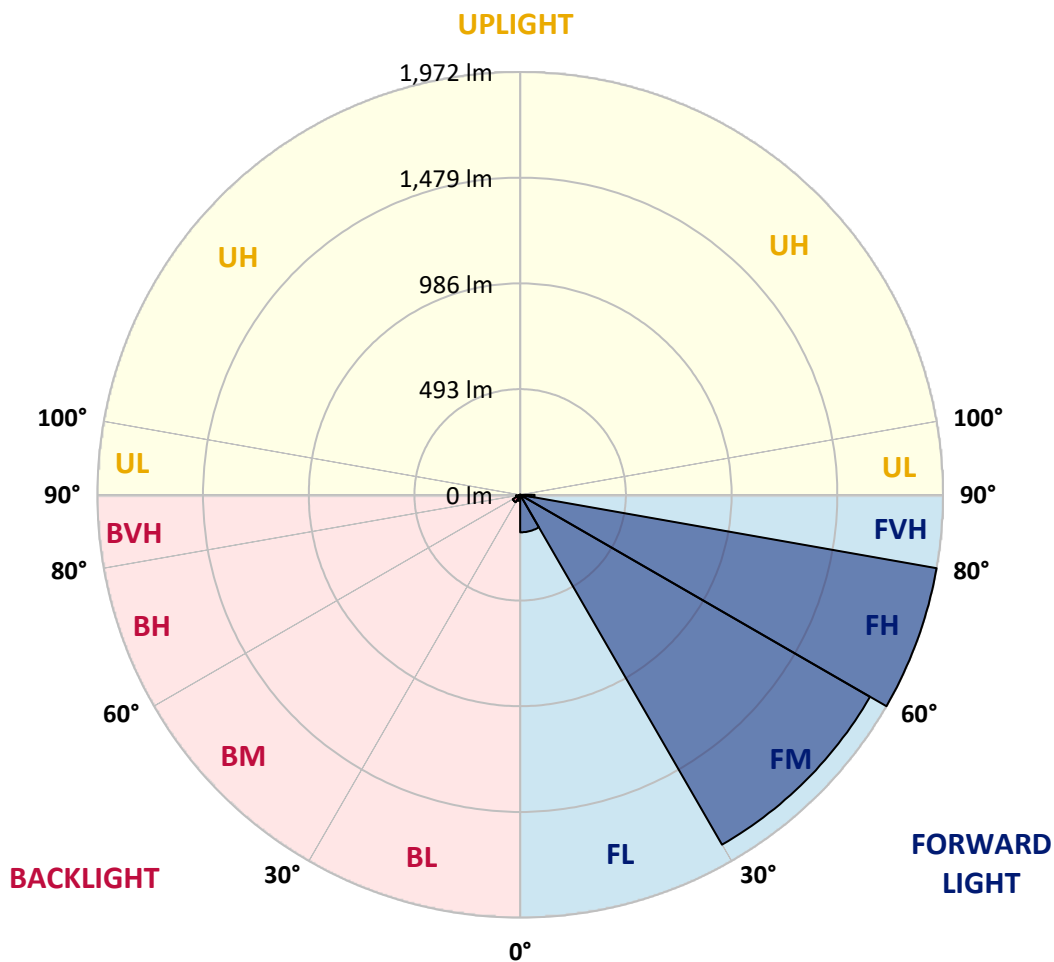
CATALOG NUMBER: ECM-F03-LED-E1-SL3-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	175.0	4.2			
FM	(30°-60°)	1884.0	45.0			
FH	(60°-80°)	1972.0	47.1			G2/5000
FVH	(80°-90°)	67.3	1.6			G1/100
BL	(0°-30°)	28.6	0.7	B0/110		
BM	(30°-60°)	39.9	1.0	B0/220		
BH	(60°-80°)	19.5	0.5	B0/110		G0/110
BVH	(80°-90°)	2.8	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5
2.5°	159.5	158.7	155.4	155.4	150.6	147.4	143.3	139.3	139.3	138.5	137.7
5°	211.0	206.2	205.3	196.5	189.2	178.8	169.2	156.2	154.6	153.0	152.2
7.5°	268.2	267.4	260.1	249.6	235.1	215.8	196.5	175.6	172.4	170.8	167.6
10°	342.3	338.2	328.6	310.9	289.1	263.4	231.9	198.9	194.9	191.7	190.1
12.5°	413.1	405.9	400.2	377.7	350.4	312.5	274.6	227.1	223.9	219.9	213.5
15°	479.2	472.8	463.1	443.8	413.1	365.6	321.4	263.4	255.3	249.6	244.8
17.5°	530.8	526.7	515.4	493.7	460.6	418.8	365.6	300.4	293.9	286.7	277.8
20°	579.8	574.2	556.5	526.7	491.3	459.0	417.9	348.7	339.8	331.0	321.4
22.5°	626.6	620.9	591.9	542.8	504.9	491.3	476.7	403.5	389.8	382.5	372.9
25°	691.8	679.7	634.6	556.5	505.8	516.2	541.2	474.4	461.5	451.0	435.7
27.5°	779.6	763.5	692.7	576.6	509.0	543.7	615.3	560.5	546.9	534.8	517.8
30°	878.7	868.2	783.6	625.0	532.4	583.9	698.2	670.0	653.9	639.5	619.3
32.5°	978.5	964.1	880.3	716.8	595.2	662.0	802.2	797.4	776.3	762.7	740.9
35°	1066.3	1059.0	997.0	867.4	738.5	799.0	940.7	946.3	927.8	913.3	889.1
37.5°	1125.9	1125.9	1113.8	1029.3	966.4	1011.6	1144.4	1145.2	1126.7	1093.7	1081.6
40°	1156.5	1165.3	1208.9	1225.0	1221.7	1279.8	1411.8	1397.3	1382.0	1365.1	1324.8
42.5°	1219.4	1227.4	1320.0	1431.1	1503.6	1580.1	1671.1	1666.3	1647.8	1617.2	1580.1
45°	1325.7	1336.1	1446.5	1622.8	1771.8	1880.5	1938.5	1916.0	1897.4	1868.5	1849.1
47.5°	1461.0	1481.0	1605.9	1824.2	2003.8	2183.3	2243.7	2184.2	2168.0	2145.5	2114.0
50°	1605.1	1624.4	1757.3	2007.0	2209.9	2424.2	2524.8	2424.2	2400.8	2393.6	2358.1
52.5°	1729.9	1746.0	1874.1	2147.9	2367.7	2619.1	2765.6	2632.7	2615.9	2591.6	2565.9
55°	1804.0	1816.9	1936.9	2215.5	2474.9	2794.6	2998.4	2881.6	2856.6	2846.9	2809.9
57.5°	1829.0	1841.9	1949.8	2224.4	2532.8	2954.9	3281.1	3285.1	3255.3	3220.7	3209.4
60°	1829.0	1843.5	1934.5	2202.7	2589.3	3125.6	3658.0	3993.8	3929.4	3923.0	3881.9
62.5°	1753.3	1767.0	1858.8	2135.8	2665.0	3355.9	4183.0	4775.8	4757.3	4715.4	4647.7
65°	1588.9	1597.1	1687.2	1965.1	2635.9	3567.8	4638.1	5296.1	5266.3	5184.1	5097.2
66°	1514.9	1521.3	1605.9	1867.6	2540.9	3596.8	4718.6	5361.3	5312.2	5242.9	5144.7
67.5°	1407.8	1419.0	1478.7	1686.4	2313.0	3496.1	4667.9	5315.4	5272.7	5188.9	5090.8
70°	939.8	931.8	1142.0	1294.2	1762.2	2848.5	4187.9	4772.6	4773.4	4734.0	4694.5
72.5°	446.2	451.0	512.2	796.5	1153.3	1903.0	3333.4	3809.4	3864.1	3793.3	3744.2
75°	320.5	327.8	364.8	487.2	687.7	1142.0	2160.8	2664.1	2665.7	2540.1	2428.1
77.5°	93.4	97.4	136.9	300.4	515.4	770.8	1241.1	1481.0	1446.5	1356.3	1271.7
80°	38.6	38.6	40.2	95.8	206.9	523.5	868.2	1140.4	1136.4	1101.7	1051.8
82.5°	14.5	15.3	19.3	39.5	49.1	128.8	579.1	989.8	987.4	938.2	902.8
85°	1.6	1.6	4.8	16.9	18.6	24.1	116.0	436.5	434.1	436.5	382.5
87.5°	0.0	0.0	0.8	1.6	2.5	3.2	4.8	16.9	18.6	17.7	16.1
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5
2.5°	137.7	136.1	136.1	135.3	135.3	135.3	134.5	133.7	133.7	132.9	132.1
5°	150.6	149.0	148.2	146.5	145.8	144.9	143.3	142.6	141.0	140.1	139.3
7.5°	165.9	162.7	161.9	159.5	157.0	155.4	153.8	151.4	149.8	146.5	145.8
10°	185.3	181.2	178.0	174.8	172.4	168.3	165.9	162.7	159.5	157.0	154.6
12.5°	210.2	204.6	199.7	196.5	190.8	186.0	181.2	178.8	172.4	169.2	165.1
15°	237.6	231.2	225.5	219.1	215.1	206.9	200.5	193.3	190.1	184.4	178.0
17.5°	273.0	262.5	253.7	247.3	239.2	231.2	223.9	216.7	206.9	200.5	192.5
20°	310.9	302.0	290.0	278.7	269.0	259.3	248.9	239.2	230.3	219.9	210.2
22.5°	359.2	346.3	331.8	320.5	307.7	297.2	282.7	269.8	255.3	241.6	230.3
25°	420.4	403.5	389.8	373.7	358.4	342.3	324.6	308.4	290.0	277.1	257.7
27.5°	496.1	480.0	461.5	440.6	425.2	401.1	377.7	357.6	335.9	315.7	293.9
30°	592.8	569.4	550.1	529.9	499.4	476.0	448.6	421.2	391.4	371.3	338.2
32.5°	708.7	683.8	654.8	625.7	597.6	564.6	530.8	496.9	463.9	426.8	393.0
35°	850.5	820.6	787.6	756.3	712.7	677.3	634.6	588.0	550.9	508.2	465.5
37.5°	1038.1	989.0	960.0	927.0	868.2	819.9	772.4	725.6	660.4	615.3	554.9
40°	1273.3	1244.3	1196.7	1143.6	1090.4	1026.8	962.4	900.4	824.7	761.9	691.8
42.5°	1549.6	1506.9	1458.5	1382.0	1328.0	1253.2	1179.9	1097.7	1005.1	924.6	842.4
45°	1808.8	1758.1	1721.1	1644.6	1588.2	1499.6	1411.0	1324.0	1216.9	1113.1	1018.0
47.5°	2089.1	2047.2	1986.1	1924.0	1866.9	1767.0	1671.1	1565.6	1452.9	1329.7	1206.4
50°	2335.6	2302.5	2260.7	2185.8	2122.2	2038.4	1925.7	1810.5	1667.9	1545.5	1405.4
52.5°	2545.0	2519.2	2460.4	2407.2	2350.0	2271.1	2170.5	2060.1	1906.3	1771.8	1612.3
55°	2792.2	2773.7	2722.2	2689.1	2638.4	2562.7	2468.5	2366.1	2203.5	2056.9	1876.5
57.5°	3197.3	3182.8	3137.7	3124.0	3074.1	3008.1	2892.1	2782.6	2592.5	2410.4	2204.3
60°	3868.2	3839.2	3773.1	3739.3	3633.8	3545.2	3394.7	3244.0	3014.5	2782.6	2534.5
62.5°	4586.6	4505.3	4379.6	4271.6	4121.9	3968.0	3766.7	3536.4	3267.3	2992.0	2706.8
65°	4973.9	4835.4	4676.8	4505.3	4311.1	4084.9	3831.2	3554.9	3265.7	2975.0	2673.8
66°	5018.2	4862.0	4693.6	4502.8	4287.0	4046.1	3788.5	3498.5	3198.1	2914.6	2613.4
67.5°	4962.7	4799.2	4621.2	4409.4	4175.8	3926.2	3655.6	3354.3	3065.2	2777.7	2484.6
70°	4573.7	4411.0	4252.3	4029.3	3780.4	3529.1	3273.0	2936.4	2662.5	2398.4	2137.4
72.5°	3652.3	3542.0	3384.9	3194.1	2951.6	2656.9	2443.5	2142.3	1904.6	1648.6	1446.5
75°	2282.4	2127.0	1932.9	1689.7	1504.4	1265.2	1140.4	911.7	776.3	658.0	543.7
77.5°	1167.0	1050.2	914.1	777.2	645.9	515.4	398.6	281.9	190.1	132.1	98.3
80°	964.1	861.0	748.2	623.4	507.4	393.8	283.5	193.3	123.2	80.6	62.9
82.5°	796.5	709.5	608.9	492.9	392.2	309.3	215.1	140.1	87.0	56.4	44.3
85°	339.1	307.7	237.6	188.5	141.7	104.7	73.3	49.1	34.6	28.2	25.8
87.5°	14.5	16.1	15.3	12.1	8.9	8.9	8.0	6.4	6.4	6.4	6.4
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5	126.5
2.5°	132.1	131.3	130.4	130.4	129.7	128.8	124.0	120.0	115.2	112.0	108.8
5°	137.7	136.9	135.3	134.5	132.9	132.1	121.6	112.7	105.5	99.9	95.8
7.5°	143.3	142.6	140.1	137.7	136.9	135.3	118.4	107.2	97.4	91.0	87.0
10°	150.6	148.2	145.8	142.6	140.1	137.7	115.2	100.6	90.2	84.5	80.6
12.5°	161.1	157.0	153.0	149.0	145.8	141.7	113.6	95.0	84.5	78.1	74.1
15°	173.1	167.6	162.7	157.8	152.2	148.2	110.4	90.2	79.7	73.3	68.4
17.5°	184.4	178.0	170.8	163.5	157.8	152.2	107.2	85.4	74.9	68.4	63.6
20°	200.5	190.8	182.0	173.1	165.1	157.8	102.2	80.6	70.9	63.6	58.8
22.5°	218.3	206.9	195.7	183.6	173.1	163.5	98.3	76.5	66.8	59.6	54.0
25°	240.8	227.1	211.8	196.5	184.4	171.5	94.2	72.5	62.9	55.6	49.9
27.5°	272.3	252.9	236.0	216.7	198.1	183.6	91.0	69.3	58.8	51.5	45.9
30°	314.9	286.7	260.1	239.2	217.4	196.5	87.8	65.2	55.6	47.5	41.1
32.5°	362.4	329.4	298.8	267.4	240.0	215.8	84.5	62.0	51.5	43.5	37.9
35°	421.2	379.3	338.2	302.0	269.0	236.8	81.3	58.8	48.3	39.5	33.8
37.5°	505.8	453.4	399.5	352.7	310.0	267.4	78.9	55.6	44.3	35.4	29.8
40°	621.8	554.1	488.1	424.5	368.8	315.7	75.7	52.3	41.1	32.2	26.6
42.5°	747.4	665.2	578.2	506.6	430.1	363.2	72.5	49.1	37.9	29.0	23.4
45°	903.7	801.3	695.9	598.4	504.9	418.8	69.3	45.9	33.8	25.8	20.2
47.5°	1074.3	943.9	824.7	702.3	591.2	488.1	65.2	43.5	30.6	22.5	17.7
50°	1249.9	1112.2	961.6	822.3	690.2	557.3	61.2	39.5	27.4	20.2	14.5
52.5°	1439.2	1276.5	1122.7	949.5	795.7	648.4	57.2	36.3	25.0	17.7	12.1
55°	1680.0	1498.0	1317.5	1123.5	938.2	753.8	53.2	32.2	21.8	15.3	9.7
57.5°	1982.8	1767.0	1545.5	1326.4	1101.7	892.3	49.9	28.2	18.6	12.9	8.0
60°	2268.7	2016.6	1748.4	1496.4	1242.7	998.6	45.1	25.0	16.1	10.5	8.0
62.5°	2416.9	2129.4	1840.3	1562.4	1291.8	1036.5	40.2	20.9	13.7	8.9	7.3
65°	2380.6	2087.5	1807.2	1526.9	1262.0	1012.3	35.4	18.6	12.1	8.0	7.3
66°	2328.3	2038.4	1756.5	1489.9	1237.1	986.6	33.0	17.7	11.3	8.0	6.4
67.5°	2213.9	1933.7	1664.7	1416.6	1168.6	937.5	29.8	16.1	10.5	7.3	6.4
70°	1891.0	1636.5	1421.5	1200.8	998.6	790.1	24.1	13.7	8.9	6.4	6.4
72.5°	1251.6	1078.4	935.0	804.6	672.5	521.9	20.2	11.3	7.3	6.4	5.7
75°	471.9	426.8	366.4	329.4	287.5	252.1	16.1	7.3	5.7	5.7	5.7
77.5°	83.8	77.3	68.4	62.9	58.0	53.2	12.9	4.8	4.8	5.7	5.7
80°	56.4	52.3	47.5	43.5	40.2	36.3	8.9	4.1	4.8	4.8	5.7
82.5°	40.2	37.9	35.4	32.2	29.8	26.6	5.7	4.1	4.8	4.8	4.8
85°	24.1	22.5	20.9	19.3	16.9	16.1	4.1	4.1	4.1	4.8	4.8
87.5°	6.4	5.7	6.4	6.4	4.8	5.7	3.2	3.2	3.2	4.1	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



REPORT NUMBER: P162453

CATALOG NUMBER: ECM-F03-LED-E1-SL3-HSS-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	126.5	126.5	126.5	126.5	126.5
2.5°	107.2	107.2	105.5	107.9	107.9
5°	92.6	92.6	91.8	92.6	92.6
7.5°	84.5	83.8	83.8	83.8	84.5
10°	77.3	76.5	76.5	76.5	76.5
12.5°	70.9	70.1	69.3	70.1	70.1
15°	65.2	63.6	63.6	63.6	63.6
17.5°	60.4	58.8	58.0	58.0	58.0
20°	55.6	53.2	53.2	53.2	53.2
22.5°	50.7	48.3	48.3	48.3	48.3
25°	45.9	43.5	43.5	43.5	43.5
27.5°	41.8	39.5	39.5	39.5	39.5
30°	37.0	35.4	35.4	36.3	35.4
32.5°	33.8	31.4	31.4	32.2	32.2
35°	29.8	28.2	28.2	28.2	28.2
37.5°	25.8	24.1	24.1	24.1	24.1
40°	22.5	20.9	20.2	20.9	20.9
42.5°	19.3	17.7	16.9	16.9	16.9
45°	16.9	14.5	13.7	14.5	14.5
47.5°	13.7	12.1	12.1	12.9	12.9
50°	10.5	10.5	11.3	12.9	12.9
52.5°	9.7	9.7	11.3	12.9	12.9
55°	8.9	9.7	11.3	12.1	12.9
57.5°	8.0	9.7	11.3	12.1	12.1
60°	8.0	8.9	10.5	12.1	12.1
62.5°	7.3	8.0	9.7	11.3	11.3
65°	7.3	8.0	9.7	11.3	11.3
66°	7.3	8.0	9.7	11.3	11.3
67.5°	7.3	8.0	9.7	11.3	11.3
70°	7.3	8.0	9.7	10.5	10.5
72.5°	6.4	7.3	8.9	10.5	10.5
75°	6.4	7.3	8.9	10.5	10.5
77.5°	6.4	7.3	8.9	10.5	10.5
80°	6.4	7.3	8.9	9.7	10.5
82.5°	5.7	7.3	8.0	9.7	9.7
85°	5.7	6.4	8.0	8.9	9.7
87.5°	4.8	5.7	6.4	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)