

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: P162640

Luminaire Tested: **EMM-F02-LED-E1-SL4-HSS-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162640  
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: EMM-F02-LED-E1-SL4-HSS-8030  
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 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: 2695.8 lumens  
Efficiency: N/A  
Efficacy: 49.0 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

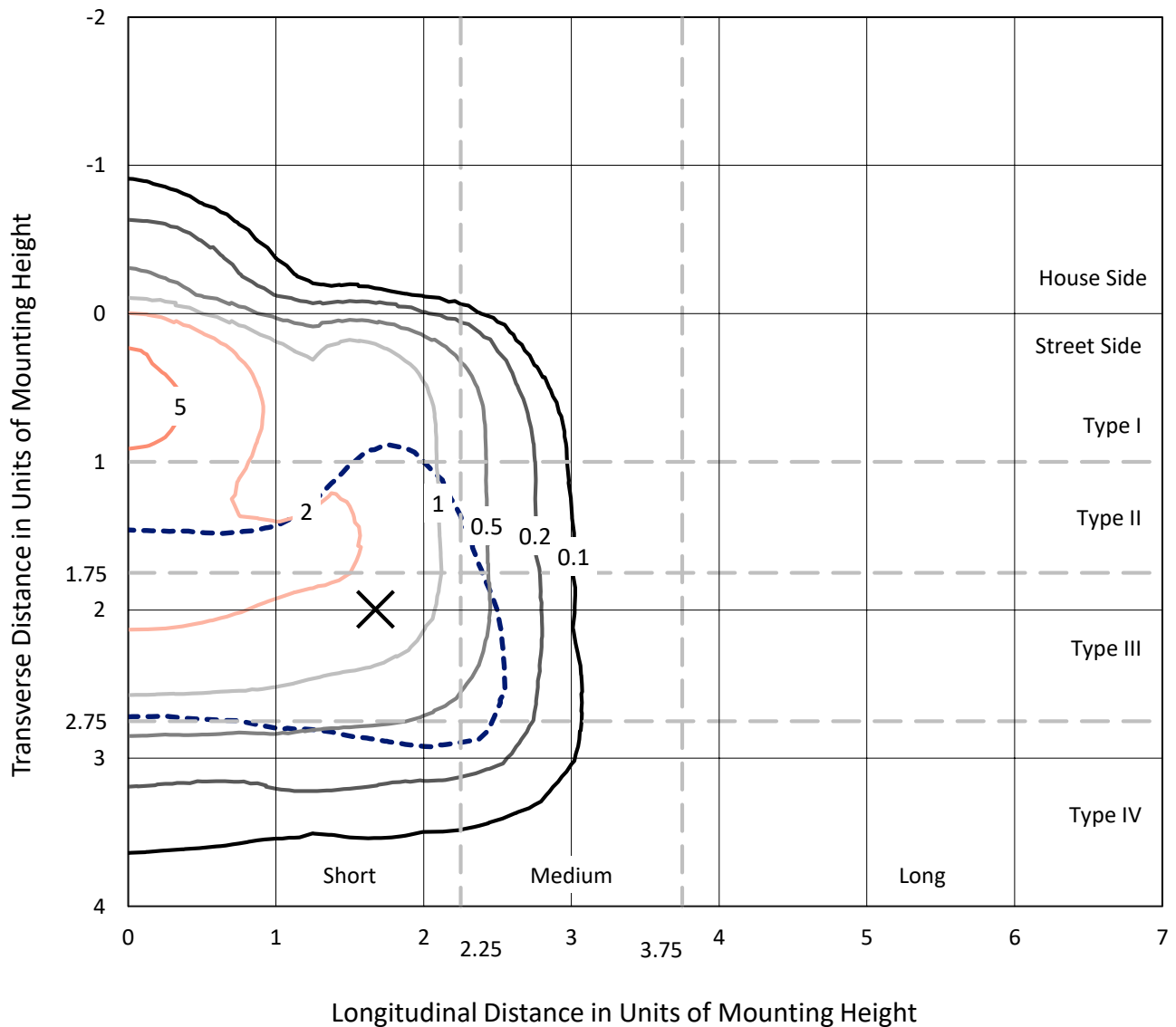
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

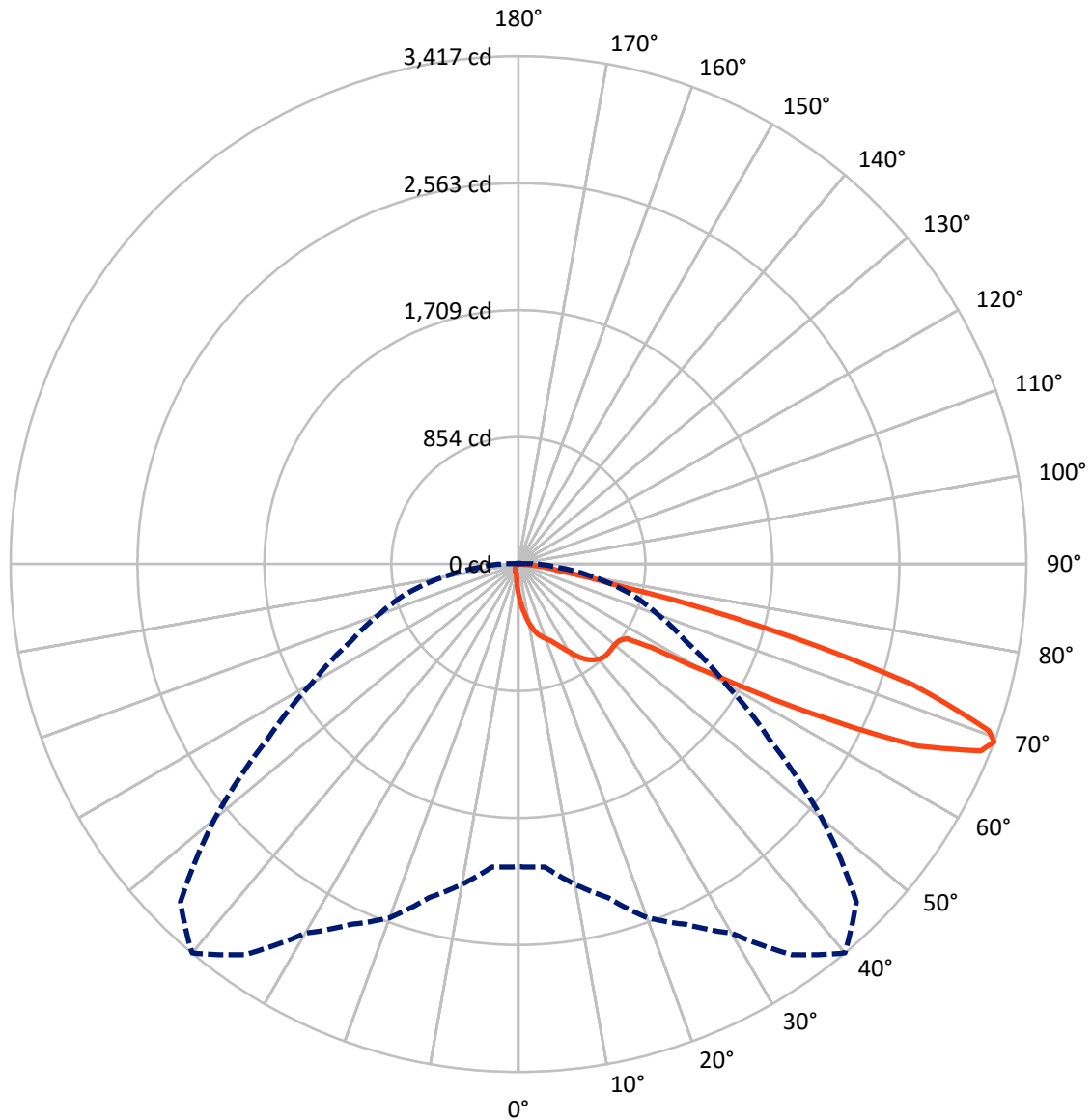
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 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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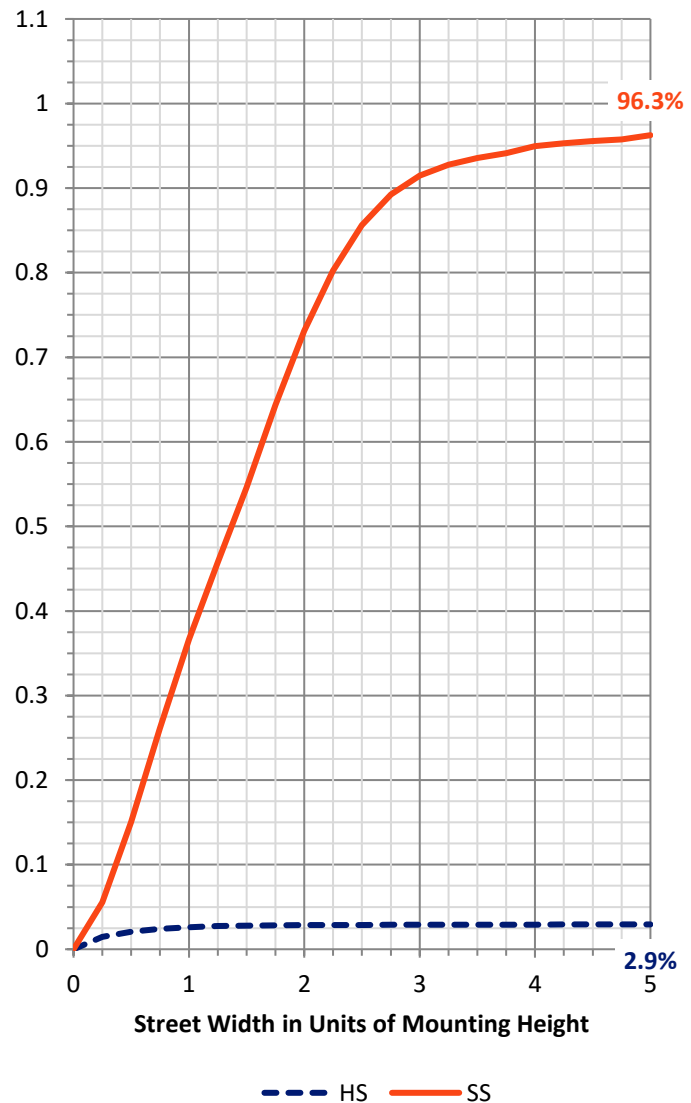
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	80.3	0.0	80.3
	% Fixture	3.0	0.0	3.0
<b>Street Side</b>	Lumens	2615.6	0.0	2615.6
	% Fixture	97.0	0.0	97.0
<b>Total</b>	Lumens	2695.8	0.0	2695.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.9	0.8
10°-20°	72.1	2.7
20°-30°	138.1	5.1
30°-40°	229.6	8.5
40°-50°	310.7	11.5
50°-60°	486.0	18.0
60°-70°	999.1	37.1
70°-80°	402.0	14.9
80°-90°	37.2	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°	2695.8	100.0
0°-180°	2695.8	100.0



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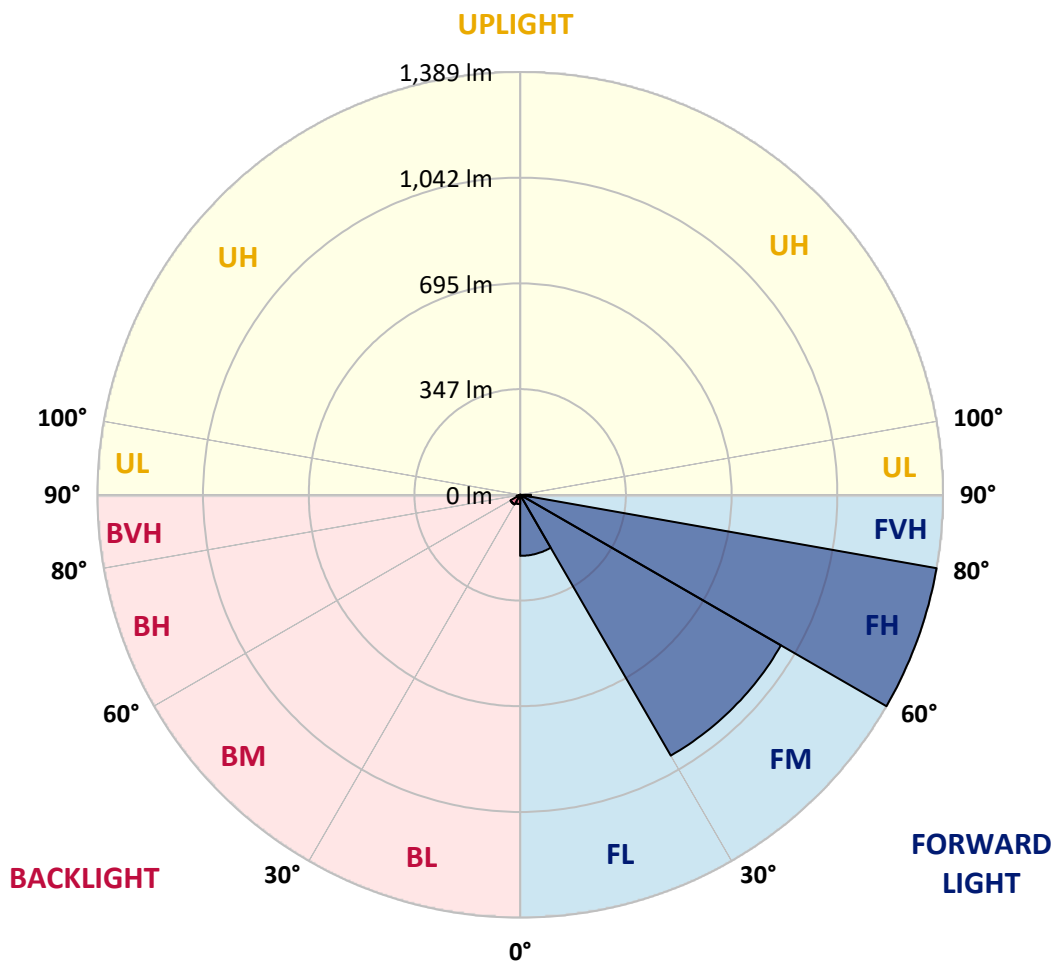
CATALOG NUMBER: EMM-F02-LED-E1-SL4-HSS-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	200.6	7.4			
FM	(30°-60°)	989.7	36.7			
FH	(60°-80°)	1389.4	51.5			G1/1800
FVH	(80°-90°)	35.8	1.3			G1/100
BL	(0°-30°)	30.5	1.1	B0/110		
BM	(30°-60°)	36.7	1.4	B0/220		
BH	(60°-80°)	11.7	0.4	B0/110		G0/110
BVH	(80°-90°)	1.4	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6
2.5°	271.6	268.5	265.0	265.0	260.5	260.5	257.9	250.8	249.9	246.0	242.0
5°	346.6	344.0	339.6	335.6	332.1	325.9	321.5	313.1	303.8	295.0	287.1
7.5°	420.0	418.6	410.7	409.4	403.6	393.5	384.6	372.3	356.4	344.0	329.5
10°	488.0	484.9	483.1	475.6	467.2	456.2	442.5	427.5	408.9	389.5	368.8
12.5°	541.9	540.1	532.2	529.1	520.2	509.2	491.9	472.5	454.0	428.8	404.5
15°	582.1	578.9	573.6	568.8	558.2	548.5	532.6	511.4	488.9	461.5	432.3
17.5°	615.6	609.9	608.5	601.1	590.0	578.5	560.9	541.4	514.9	487.5	455.8
20°	660.6	652.7	650.1	639.0	626.2	610.3	590.0	565.7	537.9	507.9	475.2
22.5°	713.6	707.9	702.2	692.5	676.1	653.6	624.0	597.5	562.2	529.1	493.7
25°	788.8	783.9	774.6	761.3	741.0	714.1	678.3	639.5	597.9	555.6	514.1
27.5°	861.6	857.2	850.6	840.4	817.5	787.9	743.7	694.2	641.7	590.5	544.5
30°	930.0	926.1	919.5	909.3	889.0	859.8	809.9	756.9	691.6	631.9	576.8
32.5°	1003.8	1002.5	995.0	980.4	962.7	923.4	869.1	812.1	745.9	677.0	612.5
35°	1087.3	1077.1	1070.0	1055.5	1025.5	983.5	919.9	857.6	787.9	717.2	645.2
37.5°	1157.9	1148.2	1139.4	1120.8	1084.2	1030.8	958.8	890.3	818.3	746.3	673.0
40°	1209.6	1204.7	1194.2	1169.9	1128.8	1065.2	987.5	912.8	840.4	768.0	695.5
42.5°	1248.0	1240.5	1228.6	1203.4	1154.8	1082.4	998.9	922.1	850.6	781.2	710.1
45°	1262.2	1256.0	1244.9	1217.5	1165.0	1087.3	998.5	919.5	851.0	785.2	719.8
47.5°	1253.8	1247.6	1237.9	1212.2	1160.6	1081.5	990.6	911.9	846.6	786.5	728.7
50°	1225.9	1222.4	1214.9	1193.3	1146.9	1070.5	983.5	908.0	845.7	793.2	741.0
52.5°	1223.3	1221.1	1211.8	1190.2	1142.9	1066.9	982.6	910.2	853.2	801.5	749.9
55°	1494.9	1463.5	1393.3	1333.7	1235.6	1119.1	1027.2	945.9	885.0	834.6	798.5
57.5°	2124.6	2077.8	1985.5	1872.0	1646.8	1425.6	1248.5	1120.4	1057.2	1034.3	1048.0
60°	2419.6	2411.2	2396.7	2342.8	2227.5	2037.2	1825.2	1596.0	1504.2	1496.2	1524.0
62.5°	2559.6	2554.3	2558.7	2552.1	2516.3	2460.7	2399.7	2300.9	2209.9	2151.1	2026.6
65°	2624.1	2627.6	2652.8	2672.7	2677.1	2691.7	2736.3	2859.5	2949.6	2798.1	2452.3
67.5°	2460.3	2481.0	2538.9	2611.3	2696.1	2778.2	2910.7	3170.4	3355.4	3177.4	2686.4
69°	2036.7	2046.9	2188.2	2324.7	2531.8	2676.7	2868.7	3209.3	3417.3	3216.3	2667.8
70°	1603.5	1612.8	1764.3	1949.7	2300.0	2486.3	2737.6	3143.4	3359.4	3164.6	2572.4
72.5°	723.4	710.1	763.6	862.9	1243.6	1539.5	1978.9	2546.8	2771.6	2535.3	1924.6
75°	505.2	499.5	505.2	505.6	564.8	728.7	919.5	1380.5	1707.3	1473.2	919.5
77.5°	391.3	387.3	383.3	378.9	386.0	432.3	450.9	489.8	635.9	601.5	350.6
80°	309.6	306.1	315.8	312.6	312.6	317.9	314.4	299.9	272.5	252.6	226.1
82.5°	143.9	144.8	144.8	157.2	189.5	221.2	231.4	216.8	192.5	163.8	132.1
85°	13.7	15.5	26.1	40.2	79.9	90.1	90.5	75.1	75.1	59.2	47.7
87.5°	0.0	0.5	0.5	0.5	4.0	11.1	9.3	2.6	1.3	1.3	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6
2.5°	234.9	233.6	228.3	223.0	218.2	212.9	208.0	203.1	197.8	193.9	189.0
5°	274.7	265.0	253.9	243.3	232.8	221.7	210.2	200.1	189.5	179.8	170.5
7.5°	314.9	295.9	280.9	261.9	244.6	227.4	211.5	195.2	180.2	166.1	152.8
10°	348.9	325.9	302.5	278.2	253.5	230.5	208.5	189.0	169.1	151.9	135.6
12.5°	376.7	347.5	318.8	288.4	260.5	231.4	204.1	180.6	157.2	137.8	121.0
15°	401.9	368.3	333.9	298.5	263.2	230.1	199.6	170.5	146.6	124.5	105.5
17.5°	422.2	383.8	344.9	305.2	267.2	228.3	193.9	163.4	135.6	112.6	94.1
20°	439.9	399.6	357.7	313.1	269.8	227.9	189.0	154.6	125.9	101.6	83.5
22.5°	456.2	416.0	370.9	323.3	273.8	227.4	184.6	147.9	117.5	93.2	75.1
25°	474.8	432.3	385.1	333.9	280.9	229.2	181.9	142.6	109.9	85.2	68.5
27.5°	495.5	450.9	401.9	347.1	290.1	232.8	181.1	136.9	103.3	77.7	63.2
30°	524.6	473.0	418.6	360.4	298.5	236.7	180.2	133.4	96.7	72.0	57.8
32.5°	550.2	494.6	437.2	374.1	307.8	240.7	179.8	128.5	90.5	66.2	53.9
35°	577.2	514.5	453.1	387.3	315.8	245.1	179.3	125.0	84.8	60.5	49.9
37.5°	600.6	531.3	465.5	398.8	324.6	249.1	179.8	121.9	79.5	55.6	46.4
40°	620.5	548.5	479.2	409.4	333.9	255.2	180.2	118.8	74.2	51.2	43.3
42.5°	638.1	564.8	493.7	421.3	344.5	262.3	182.8	116.1	69.8	47.2	40.2
45°	651.8	579.8	509.6	438.1	361.7	273.8	187.7	114.4	65.4	43.7	37.5
47.5°	665.9	601.9	536.6	464.6	386.9	291.9	196.1	113.9	61.8	41.1	35.3
50°	685.4	624.0	560.4	491.5	409.8	310.5	206.2	114.4	57.4	38.4	33.1
52.5°	699.5	646.5	591.3	538.3	464.6	367.0	245.5	122.3	55.2	36.2	30.5
55°	783.0	773.7	775.0	783.9	726.9	624.5	410.7	176.6	64.9	41.1	30.1
57.5°	1104.0	1136.7	1155.7	1155.3	1061.2	880.2	551.6	227.0	72.4	47.7	35.8
60°	1526.2	1501.5	1466.6	1380.5	1255.5	1004.7	616.9	244.2	62.7	38.0	32.7
62.5°	1899.4	1754.6	1626.0	1486.5	1322.6	1048.0	630.2	242.9	54.8	28.7	22.9
65°	2132.2	1871.6	1664.0	1489.2	1296.2	1011.8	596.2	223.0	46.4	23.4	19.0
67.5°	2187.8	1808.4	1514.7	1291.7	1082.9	787.4	437.6	167.8	36.2	19.4	16.8
69°	2066.3	1607.5	1255.1	1002.0	787.9	522.4	270.7	106.0	27.8	17.7	15.5
70°	1900.7	1398.2	1022.3	804.2	583.4	367.0	189.5	74.6	22.5	16.4	14.1
72.5°	1222.9	734.4	502.6	349.8	240.7	146.2	74.2	33.6	17.2	13.7	11.5
75°	474.3	271.6	196.9	149.7	117.1	81.2	45.1	21.6	14.6	11.5	8.8
77.5°	233.6	178.9	146.2	100.2	58.3	36.2	24.3	16.8	11.9	8.4	5.8
80°	184.6	122.8	73.3	45.5	34.5	26.1	18.5	13.7	8.8	5.3	4.0
82.5°	94.5	51.7	38.0	30.9	25.6	20.3	15.0	9.7	5.8	3.5	3.1
85°	29.6	21.6	19.4	19.0	17.7	14.6	10.6	6.2	3.5	2.2	2.2
87.5°	2.2	3.1	4.0	3.1	3.5	3.1	4.0	2.6	1.8	1.8	1.3
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°	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6	203.6
2.5°	185.5	180.2	175.3	172.2	166.5	164.3	162.1	161.2	157.2	158.1	154.6
5°	162.1	152.8	145.8	138.7	132.1	127.2	123.2	118.4	114.4	112.6	109.1
7.5°	140.9	128.9	119.7	112.2	104.2	98.1	92.8	89.2	85.7	82.1	80.4
10°	122.3	109.5	98.9	91.4	83.9	78.6	74.6	72.0	69.8	68.5	68.0
12.5°	105.1	92.8	83.0	76.4	70.6	68.0	66.2	64.9	64.5	64.1	64.1
15°	91.9	79.5	72.0	67.1	64.5	63.2	62.7	61.8	60.9	60.5	60.5
17.5°	79.5	70.2	64.9	62.3	60.9	60.1	59.2	58.3	57.4	56.9	56.9
20°	71.1	63.6	60.9	59.2	57.8	56.9	55.6	54.8	54.3	53.9	53.4
22.5°	64.5	59.6	57.8	56.5	54.8	53.4	52.5	51.7	50.8	50.4	49.9
25°	59.6	56.5	55.2	53.4	51.7	50.4	49.0	47.7	46.8	46.4	45.5
27.5°	56.1	53.9	52.1	49.9	48.1	46.8	45.5	44.2	43.3	42.4	41.9
30°	53.0	50.8	48.6	46.8	44.6	43.3	41.5	40.2	39.8	38.9	38.0
32.5°	49.9	47.7	45.5	43.3	41.1	39.3	38.4	36.6	35.8	35.3	34.5
35°	46.4	44.2	41.5	39.8	37.5	35.8	34.5	33.1	32.2	31.4	30.9
37.5°	43.3	40.6	38.0	35.8	34.0	32.2	30.9	29.6	28.7	27.8	27.4
40°	39.8	37.1	34.5	32.2	30.5	29.2	27.8	26.5	25.6	25.2	25.2
42.5°	36.6	33.6	30.9	29.2	27.8	26.1	24.7	23.4	22.9	22.5	22.9
45°	33.6	30.5	28.2	26.5	25.2	23.4	22.1	21.2	20.8	21.2	21.6
47.5°	30.9	27.8	25.6	24.3	22.9	21.6	20.3	19.4	19.4	20.3	21.2
50°	28.2	25.2	23.4	22.5	21.2	19.9	18.1	17.7	18.1	19.0	19.9
52.5°	25.6	22.1	20.8	20.3	19.0	17.7	16.4	15.9	16.4	17.2	16.8
55°	22.9	19.4	19.0	18.5	17.2	15.5	14.1	14.1	14.1	13.7	12.8
57.5°	22.1	17.2	16.8	16.4	15.0	13.2	12.4	11.5	11.1	9.7	9.3
60°	22.9	15.5	15.5	14.6	13.2	11.5	10.2	8.8	7.9	7.1	7.1
62.5°	18.5	14.1	13.7	12.8	11.1	9.3	7.9	6.6	6.2	5.8	5.8
65°	15.0	12.8	11.9	10.6	9.3	7.5	6.2	5.3	4.9	4.9	5.3
67.5°	13.7	11.5	10.2	8.8	7.5	5.8	4.9	4.4	4.4	4.9	4.9
69°	12.8	10.6	9.3	7.9	6.6	5.3	4.4	4.4	4.4	4.4	4.9
70°	11.9	10.2	8.8	7.5	5.8	4.4	4.0	4.0	4.4	4.4	4.9
72.5°	9.3	7.9	7.5	6.2	4.4	4.0	3.5	4.0	4.0	4.4	4.4
75°	7.1	5.8	5.8	4.9	3.5	3.1	3.1	3.5	3.5	4.0	4.0
77.5°	4.9	4.0	4.0	3.5	3.1	2.6	2.6	3.1	3.5	3.5	4.0
80°	3.5	3.1	2.6	3.1	2.6	2.2	2.6	3.1	3.1	3.5	3.5
82.5°	2.6	2.6	2.6	2.6	2.2	2.2	2.6	2.6	3.1	3.5	3.5
85°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.6	3.1	3.1
87.5°	1.3	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2	2.6	2.6
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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 CATALOG NUMBER: EMM-F02-LED-E1-SL4-HSS-8030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	203.6	203.6	203.6	203.6
2.5°	153.7	153.2	151.5	151.9
5°	107.8	105.1	106.9	106.4
7.5°	79.1	78.6	78.2	79.1
10°	67.6	67.6	67.1	67.6
12.5°	63.6	63.6	63.6	63.6
15°	60.5	60.5	60.1	60.1
17.5°	56.9	56.9	56.9	56.5
20°	53.4	53.0	53.0	53.0
22.5°	49.5	49.0	49.0	49.0
25°	45.5	45.1	45.1	45.1
27.5°	41.5	41.1	40.6	40.6
30°	37.5	37.1	36.6	36.6
32.5°	33.6	33.1	32.7	32.7
35°	30.1	30.1	29.6	29.2
37.5°	26.9	26.9	26.9	26.9
40°	24.7	25.2	25.2	25.2
42.5°	23.4	23.8	24.3	24.7
45°	22.5	23.4	23.8	23.8
47.5°	22.1	22.5	22.9	22.9
50°	20.3	19.9	19.9	19.9
52.5°	16.4	15.5	15.0	14.6
55°	11.9	11.5	10.6	10.6
57.5°	8.4	8.4	7.9	7.9
60°	6.6	6.6	6.2	6.6
62.5°	5.8	5.8	5.8	5.8
65°	5.3	5.3	5.3	5.3
67.5°	5.3	5.3	5.3	5.3
69°	4.9	4.9	4.9	4.9
70°	4.9	4.9	4.9	4.9
72.5°	4.4	4.4	4.4	4.4
75°	4.0	4.4	4.4	4.4
77.5°	4.0	4.0	4.0	4.0
80°	3.5	3.5	4.0	4.0
82.5°	3.5	3.5	3.5	3.5
85°	3.1	3.1	3.5	3.5
87.5°	2.6	2.6	3.1	3.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)