

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: P162591

Luminaire Tested: **ECM-F01-LED-E1-SL4-HSS-7030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P162591  
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-F01-LED-E1-SL4-HSS-7030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (7) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1458.7 lumens  
Efficiency: N/A  
Efficacy: 56.3 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

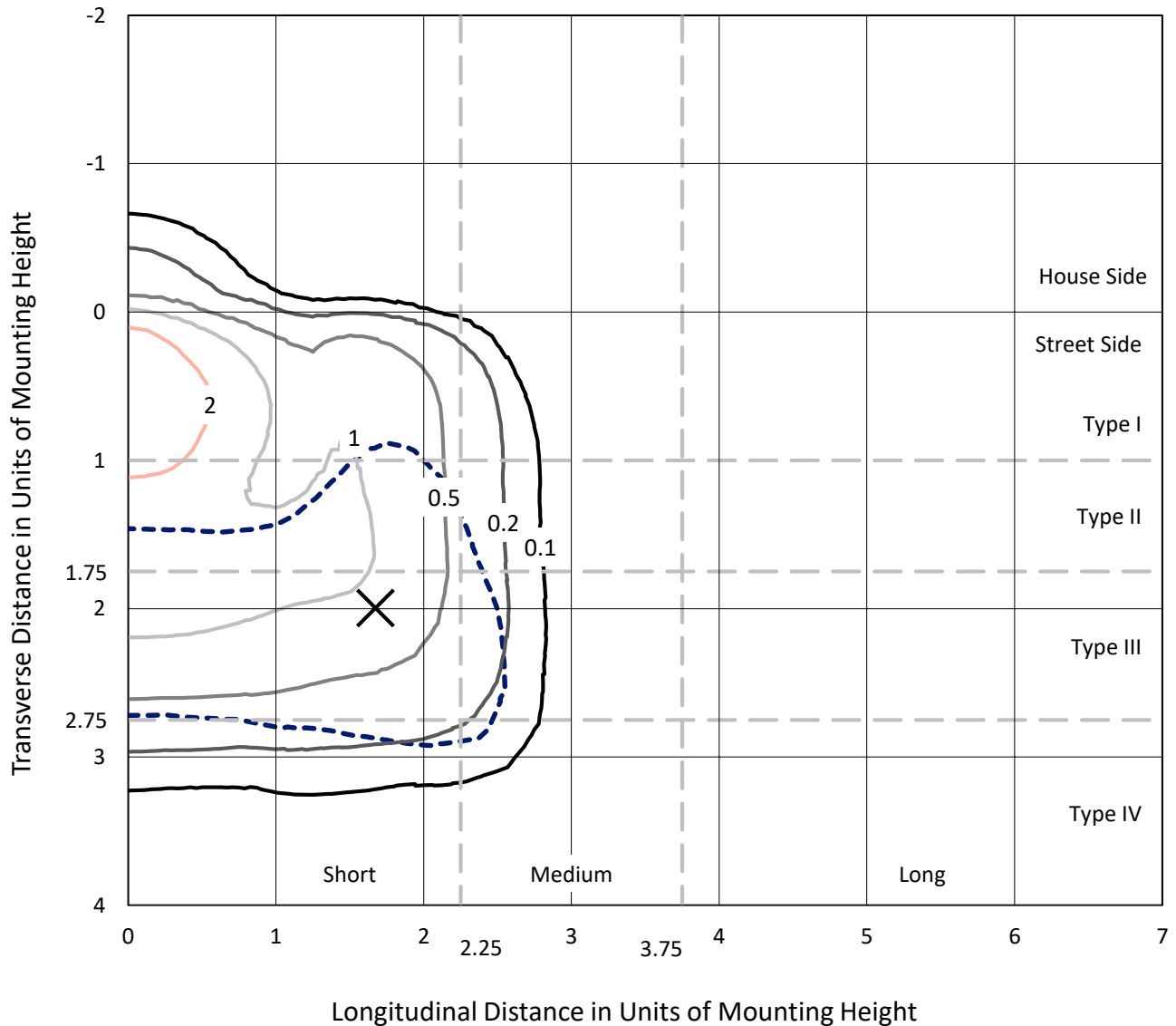
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

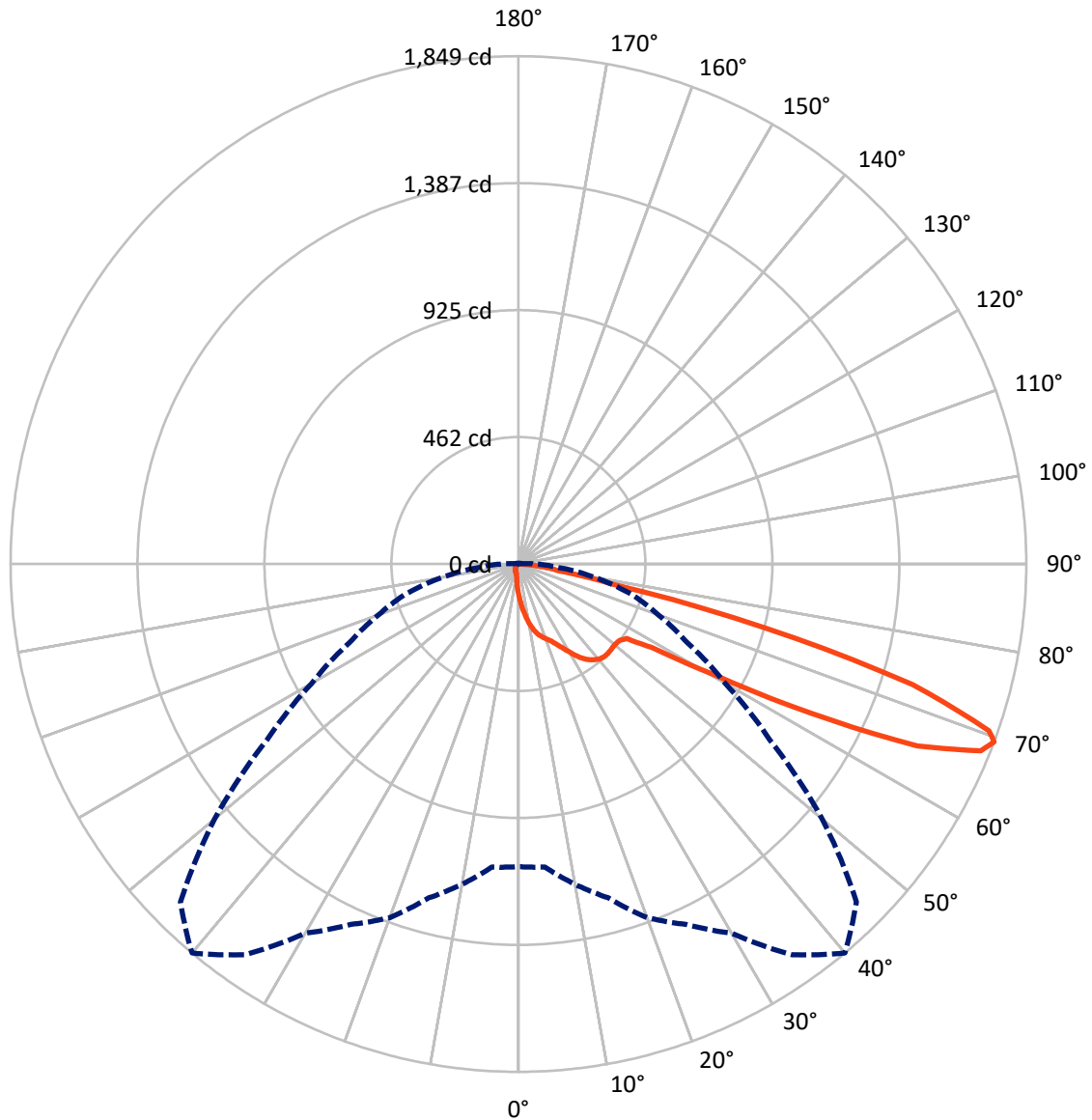
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.3 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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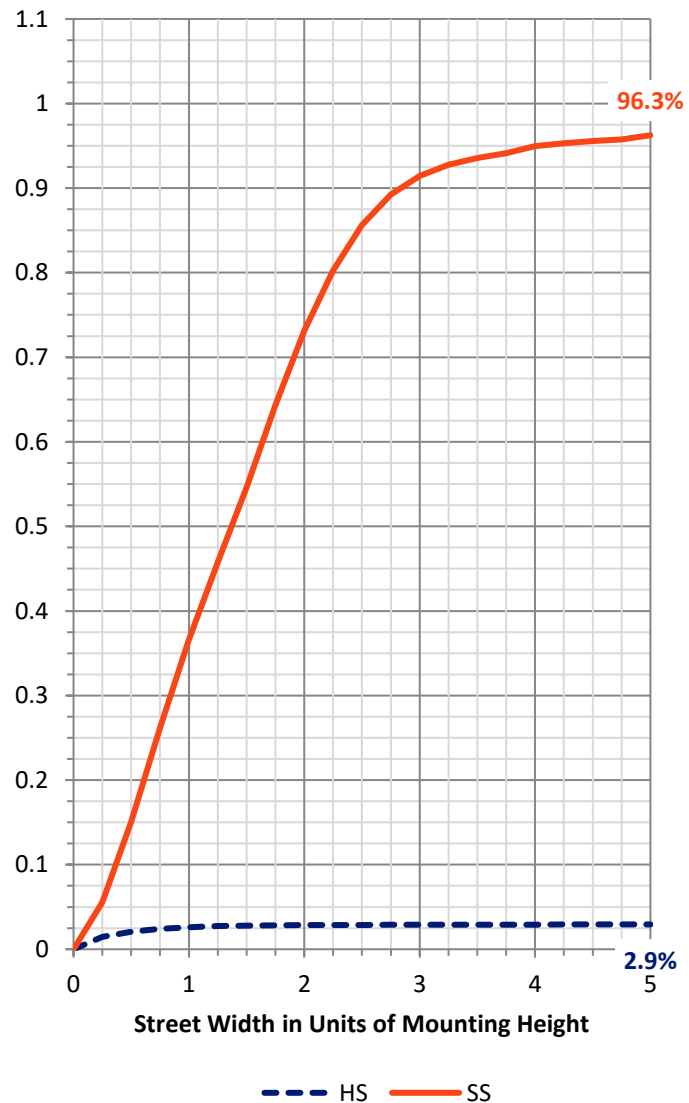
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	43.4	0.0	43.4
	% Fixture	3.0	0.0	3.0
<b>Street Side</b>	Lumens	1415.2	0.0	1415.2
	% Fixture	97.0	0.0	97.0
<b>Total</b>	Lumens	1458.7	0.0	1458.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	11.3	0.8
10°-20°	39.0	2.7
20°-30°	74.7	5.1
30°-40°	124.3	8.5
40°-50°	168.1	11.5
50°-60°	262.9	18.0
60°-70°	540.6	37.1
70°-80°	217.5	14.9
80°-90°	20.1	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°	1458.7	100.0
0°-180°	1458.7	100.0



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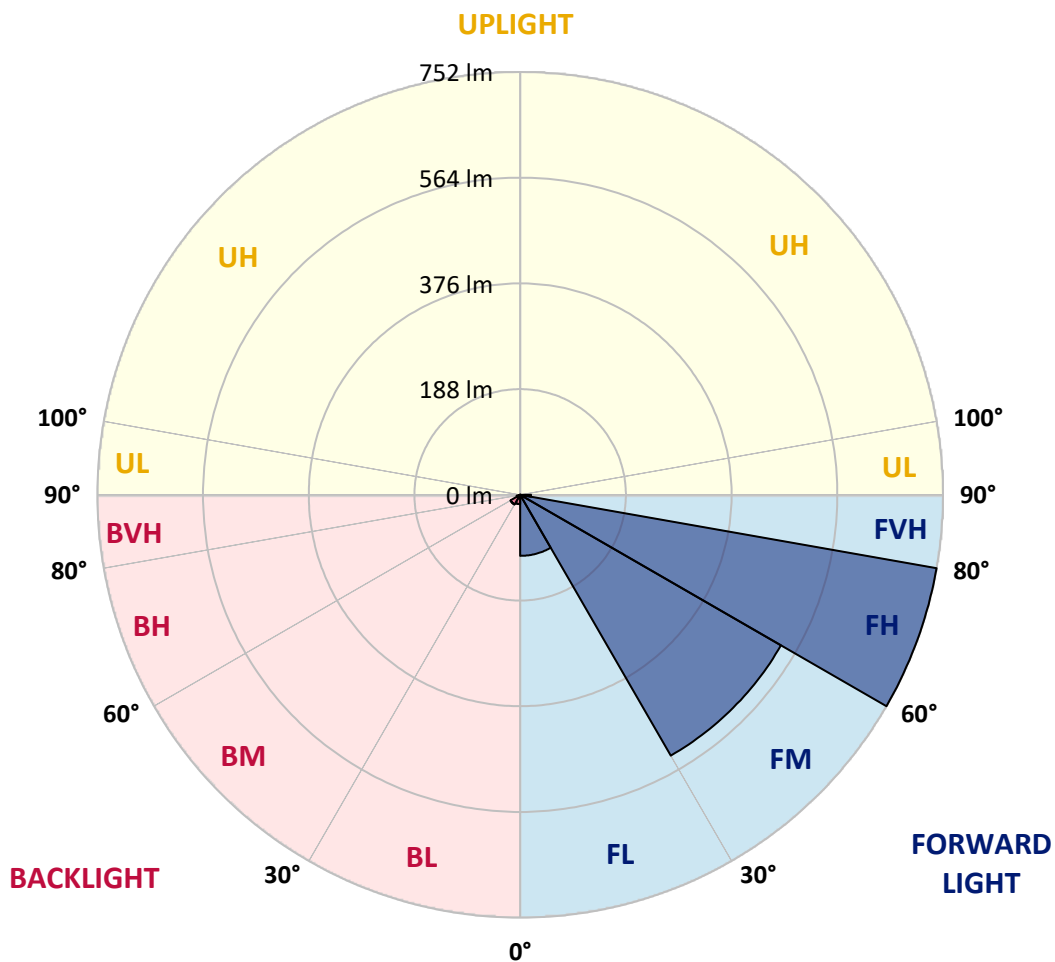
CATALOG NUMBER: ECM-F01-LED-E1-SL4-HSS-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	108.6	7.4			
FM	(30°-60°)	535.5	36.7			
FH	(60°-80°)	751.8	51.5			G1/1800
FVH	(80°-90°)	19.4	1.3			G1/100
BL	(0°-30°)	16.5	1.1	B0/110		
BM	(30°-60°)	19.8	1.4	B0/220		
BH	(60°-80°)	6.3	0.4	B0/110		G0/110
BVH	(80°-90°)	0.7	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2
2.5°	147.0	145.3	143.4	143.4	141.0	141.0	139.5	135.7	135.2	133.1	130.9
5°	187.6	186.1	183.7	181.6	179.7	176.4	174.0	169.4	164.4	159.6	155.3
7.5°	227.3	226.5	222.2	221.5	218.4	212.9	208.1	201.4	192.8	186.1	178.3
10°	264.0	262.4	261.4	257.4	252.8	246.8	239.4	231.3	221.3	210.8	199.5
12.5°	293.2	292.2	288.0	286.3	281.5	275.5	266.2	255.7	245.7	232.0	218.9
15°	314.9	313.3	310.4	307.8	302.0	296.8	288.2	276.7	264.5	249.7	233.9
17.5°	333.1	330.0	329.3	325.2	319.2	313.0	303.5	293.0	278.6	263.8	246.6
20°	357.5	353.2	351.7	345.8	338.8	330.2	319.2	306.1	291.0	274.8	257.1
22.5°	386.1	383.1	379.9	374.7	365.8	353.6	337.6	323.3	304.2	286.3	267.1
25°	426.8	424.1	419.1	412.0	401.0	386.4	367.0	346.0	323.5	300.6	278.1
27.5°	466.2	463.8	460.2	454.7	442.3	426.3	402.4	375.6	347.2	319.5	294.6
30°	503.2	501.1	497.5	492.0	481.0	465.2	438.2	409.6	374.2	341.9	312.1
32.5°	543.2	542.4	538.4	530.5	520.9	499.6	470.3	439.4	403.6	366.3	331.4
35°	588.3	582.8	579.0	571.1	554.9	532.1	497.7	464.1	426.3	388.1	349.1
37.5°	626.5	621.3	616.5	606.5	586.6	557.7	518.8	481.7	442.8	403.8	364.2
40°	654.5	651.9	646.1	633.0	610.8	576.4	534.3	493.9	454.7	415.6	376.3
42.5°	675.3	671.2	664.8	651.1	624.9	585.7	540.5	498.9	460.2	422.7	384.2
45°	682.9	679.6	673.6	658.8	630.4	588.3	540.3	497.5	460.5	424.9	389.5
47.5°	678.4	675.1	669.8	655.9	628.0	585.2	536.0	493.4	458.1	425.6	394.3
50°	663.3	661.4	657.4	645.7	620.6	579.2	532.1	491.3	457.6	429.2	401.0
52.5°	661.9	660.7	655.7	644.0	618.4	577.3	531.7	492.5	461.7	433.7	405.7
55°	808.9	791.9	753.9	721.6	668.6	605.5	555.8	511.8	478.9	451.6	432.0
57.5°	1149.6	1124.3	1074.3	1012.9	891.1	771.4	675.5	606.2	572.1	559.6	567.1
60°	1309.2	1304.7	1296.8	1267.7	1205.3	1102.3	987.6	863.6	813.9	809.6	824.6
62.5°	1385.0	1382.1	1384.5	1380.9	1361.6	1331.5	1298.5	1245.0	1195.7	1164.0	1096.6
65°	1419.9	1421.8	1435.4	1446.2	1448.5	1456.4	1480.6	1547.2	1596.0	1514.0	1326.9
67.5°	1331.2	1342.5	1373.8	1412.9	1458.8	1503.3	1575.0	1715.5	1815.6	1719.3	1453.6
69°	1102.1	1107.6	1184.0	1257.9	1369.9	1448.3	1552.2	1736.5	1849.0	1740.3	1443.5
70°	867.6	872.7	954.6	1055.0	1244.5	1345.3	1481.3	1700.9	1817.7	1712.3	1391.9
72.5°	391.4	384.2	413.2	466.9	672.9	833.0	1070.8	1378.0	1499.7	1371.8	1041.4
75°	273.4	270.3	273.4	273.6	305.6	394.3	497.5	747.0	923.8	797.1	497.5
77.5°	211.7	209.6	207.4	205.0	208.9	233.9	244.0	265.0	344.1	325.4	189.7
80°	167.5	165.6	170.9	169.2	169.2	172.0	170.1	162.3	147.4	136.7	122.3
82.5°	77.9	78.4	78.4	85.1	102.5	119.7	125.2	117.3	104.2	88.6	71.5
85°	7.4	8.4	14.1	21.7	43.3	48.8	49.0	40.6	40.6	32.0	25.8
87.5°	0.0	0.3	0.3	0.3	2.2	6.0	5.0	1.4	0.7	0.7	1.2
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°	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2
2.5°	127.1	126.4	123.5	120.7	118.1	115.2	112.5	109.9	107.0	104.9	102.3
5°	148.6	143.4	137.4	131.7	125.9	120.0	113.8	108.2	102.5	97.3	92.2
7.5°	170.4	160.1	152.0	141.7	132.4	123.1	114.5	105.6	97.5	89.9	82.7
10°	188.8	176.4	163.7	150.5	137.2	124.7	112.8	102.3	91.5	82.2	73.4
12.5°	203.8	188.0	172.5	156.0	141.0	125.2	110.4	97.7	85.1	74.5	65.5
15°	217.5	199.3	180.7	161.5	142.4	124.5	108.0	92.2	79.3	67.4	57.1
17.5°	228.4	207.6	186.6	165.1	144.6	123.5	104.9	88.4	73.4	60.9	50.9
20°	238.0	216.2	193.6	169.4	146.0	123.3	102.3	83.6	68.1	55.0	45.2
22.5°	246.8	225.1	200.7	174.9	148.2	123.1	99.9	80.0	63.6	50.4	40.6
25°	256.9	233.9	208.4	180.7	152.0	124.0	98.4	77.2	59.5	46.1	37.0
27.5°	268.1	244.0	217.5	187.8	157.0	125.9	98.0	74.1	55.9	42.0	34.2
30°	283.9	255.9	226.5	195.0	161.5	128.1	97.5	72.2	52.3	39.0	31.3
32.5°	297.7	267.6	236.6	202.4	166.6	130.2	97.3	69.5	49.0	35.8	29.2
35°	312.3	278.4	245.2	209.6	170.9	132.6	97.0	67.6	45.9	32.7	27.0
37.5°	325.0	287.5	251.9	215.8	175.6	134.8	97.3	65.9	43.0	30.1	25.1
40°	335.7	296.8	259.3	221.5	180.7	138.1	97.5	64.3	40.1	27.7	23.4
42.5°	345.3	305.6	267.1	228.0	186.4	142.0	98.9	62.8	37.7	25.6	21.7
45°	352.7	313.7	275.8	237.1	195.7	148.2	101.6	61.9	35.4	23.7	20.3
47.5°	360.3	325.7	290.3	251.4	209.3	158.0	106.1	61.7	33.5	22.2	19.1
50°	370.9	337.6	303.2	266.0	221.7	168.0	111.6	61.9	31.1	20.8	17.9
52.5°	378.5	349.8	320.0	291.3	251.4	198.6	132.9	66.2	29.9	19.6	16.5
55°	423.7	418.6	419.4	424.1	393.3	337.9	222.2	95.6	35.1	22.2	16.3
57.5°	597.4	615.1	625.3	625.1	574.2	476.2	298.5	122.8	39.2	25.8	19.4
60°	825.8	812.5	793.6	747.0	679.3	543.6	333.8	132.1	33.9	20.6	17.7
62.5°	1027.7	949.4	879.8	804.3	715.7	567.1	341.0	131.4	29.6	15.5	12.4
65°	1153.7	1012.7	900.4	805.8	701.3	547.4	322.6	120.7	25.1	12.7	10.3
67.5°	1183.8	978.5	819.6	699.0	585.9	426.1	236.8	90.8	19.6	10.5	9.1
69°	1118.1	869.8	679.1	542.2	426.3	282.7	146.5	57.4	15.1	9.6	8.4
70°	1028.5	756.5	553.2	435.1	315.7	198.6	102.5	40.4	12.2	8.8	7.6
72.5°	661.7	397.4	271.9	189.3	130.2	79.1	40.1	18.2	9.3	7.4	6.2
75°	256.6	147.0	106.6	81.0	63.3	44.0	24.4	11.7	7.9	6.2	4.8
77.5°	126.4	96.8	79.1	54.2	31.5	19.6	13.1	9.1	6.5	4.5	3.1
80°	99.9	66.4	39.7	24.6	18.6	14.1	10.0	7.4	4.8	2.9	2.2
82.5°	51.1	27.9	20.6	16.7	13.8	11.0	8.1	5.3	3.1	1.9	1.7
85°	16.0	11.7	10.5	10.3	9.6	7.9	5.7	3.3	1.9	1.2	1.2
87.5°	1.2	1.7	2.2	1.7	1.9	1.7	2.2	1.4	1.0	1.0	0.7
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°	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2
2.5°	100.4	97.5	94.9	93.2	90.1	88.9	87.7	87.2	85.1	85.6	83.6
5°	87.7	82.7	78.9	75.0	71.5	68.8	66.7	64.0	61.9	60.9	59.0
7.5°	76.2	69.8	64.8	60.7	56.4	53.1	50.2	48.3	46.3	44.4	43.5
10°	66.2	59.3	53.5	49.5	45.4	42.5	40.4	39.0	37.7	37.0	36.8
12.5°	56.9	50.2	44.9	41.3	38.2	36.8	35.8	35.1	34.9	34.7	34.7
15°	49.7	43.0	39.0	36.3	34.9	34.2	33.9	33.5	33.0	32.7	32.7
17.5°	43.0	38.0	35.1	33.7	33.0	32.5	32.0	31.5	31.1	30.8	30.8
20°	38.5	34.4	33.0	32.0	31.3	30.8	30.1	29.6	29.4	29.2	28.9
22.5°	34.9	32.3	31.3	30.6	29.6	28.9	28.4	27.9	27.5	27.2	27.0
25°	32.3	30.6	29.9	28.9	27.9	27.2	26.5	25.8	25.3	25.1	24.6
27.5°	30.3	29.2	28.2	27.0	26.0	25.3	24.6	23.9	23.4	22.9	22.7
30°	28.7	27.5	26.3	25.3	24.1	23.4	22.5	21.7	21.5	21.0	20.6
32.5°	27.0	25.8	24.6	23.4	22.2	21.3	20.8	19.8	19.4	19.1	18.6
35°	25.1	23.9	22.5	21.5	20.3	19.4	18.6	17.9	17.4	17.0	16.7
37.5°	23.4	22.0	20.6	19.4	18.4	17.4	16.7	16.0	15.5	15.1	14.8
40°	21.5	20.1	18.6	17.4	16.5	15.8	15.1	14.3	13.8	13.6	13.6
42.5°	19.8	18.2	16.7	15.8	15.1	14.1	13.4	12.7	12.4	12.2	12.4
45°	18.2	16.5	15.3	14.3	13.6	12.7	11.9	11.5	11.2	11.5	11.7
47.5°	16.7	15.1	13.8	13.1	12.4	11.7	11.0	10.5	10.5	11.0	11.5
50°	15.3	13.6	12.7	12.2	11.5	10.8	9.8	9.6	9.8	10.3	10.8
52.5°	13.8	11.9	11.2	11.0	10.3	9.6	8.8	8.6	8.8	9.3	9.1
55°	12.4	10.5	10.3	10.0	9.3	8.4	7.6	7.6	7.6	7.4	6.9
57.5°	11.9	9.3	9.1	8.8	8.1	7.2	6.7	6.2	6.0	5.3	5.0
60°	12.4	8.4	8.4	7.9	7.2	6.2	5.5	4.8	4.3	3.8	3.8
62.5°	10.0	7.6	7.4	6.9	6.0	5.0	4.3	3.6	3.3	3.1	3.1
65°	8.1	6.9	6.5	5.7	5.0	4.1	3.3	2.9	2.6	2.6	2.9
67.5°	7.4	6.2	5.5	4.8	4.1	3.1	2.6	2.4	2.4	2.6	2.6
69°	6.9	5.7	5.0	4.3	3.6	2.9	2.4	2.4	2.4	2.4	2.6
70°	6.5	5.5	4.8	4.1	3.1	2.4	2.2	2.2	2.4	2.4	2.6
72.5°	5.0	4.3	4.1	3.3	2.4	2.2	1.9	2.2	2.2	2.4	2.4
75°	3.8	3.1	3.1	2.6	1.9	1.7	1.7	1.9	1.9	2.2	2.2
77.5°	2.6	2.2	2.2	1.9	1.7	1.4	1.4	1.7	1.9	1.9	2.2
80°	1.9	1.7	1.4	1.7	1.4	1.2	1.4	1.7	1.7	1.9	1.9
82.5°	1.4	1.4	1.4	1.4	1.2	1.2	1.4	1.4	1.7	1.9	1.9
85°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.4	1.4	1.7	1.7
87.5°	0.7	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2	1.4	1.4
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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CATALOG NUMBER: ECM-F01-LED-E1-SL4-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	110.2	110.2	110.2	110.2
2.5°	83.2	82.9	82.0	82.2
5°	58.3	56.9	57.8	57.6
7.5°	42.8	42.5	42.3	42.8
10°	36.6	36.6	36.3	36.6
12.5°	34.4	34.4	34.4	34.4
15°	32.7	32.7	32.5	32.5
17.5°	30.8	30.8	30.8	30.6
20°	28.9	28.7	28.7	28.7
22.5°	26.8	26.5	26.5	26.5
25°	24.6	24.4	24.4	24.4
27.5°	22.5	22.2	22.0	22.0
30°	20.3	20.1	19.8	19.8
32.5°	18.2	17.9	17.7	17.7
35°	16.3	16.3	16.0	15.8
37.5°	14.6	14.6	14.6	14.6
40°	13.4	13.6	13.6	13.6
42.5°	12.7	12.9	13.1	13.4
45°	12.2	12.7	12.9	12.9
47.5°	11.9	12.2	12.4	12.4
50°	11.0	10.8	10.8	10.8
52.5°	8.8	8.4	8.1	7.9
55°	6.5	6.2	5.7	5.7
57.5°	4.5	4.5	4.3	4.3
60°	3.6	3.6	3.3	3.6
62.5°	3.1	3.1	3.1	3.1
65°	2.9	2.9	2.9	2.9
67.5°	2.9	2.9	2.9	2.9
69°	2.6	2.6	2.6	2.6
70°	2.6	2.6	2.6	2.6
72.5°	2.4	2.4	2.4	2.4
75°	2.2	2.4	2.4	2.4
77.5°	2.2	2.2	2.2	2.2
80°	1.9	1.9	2.2	2.2
82.5°	1.9	1.9	1.9	1.9
85°	1.7	1.7	1.9	1.9
87.5°	1.4	1.4	1.7	1.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)