

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: P142023

Luminaire Tested: **ECM-F01-LED-E1-T4-8030**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P142023  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)  
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-T4-8030  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (7) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2003.6 lumens  
Efficiency: N/A  
Efficacy: 77.4 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

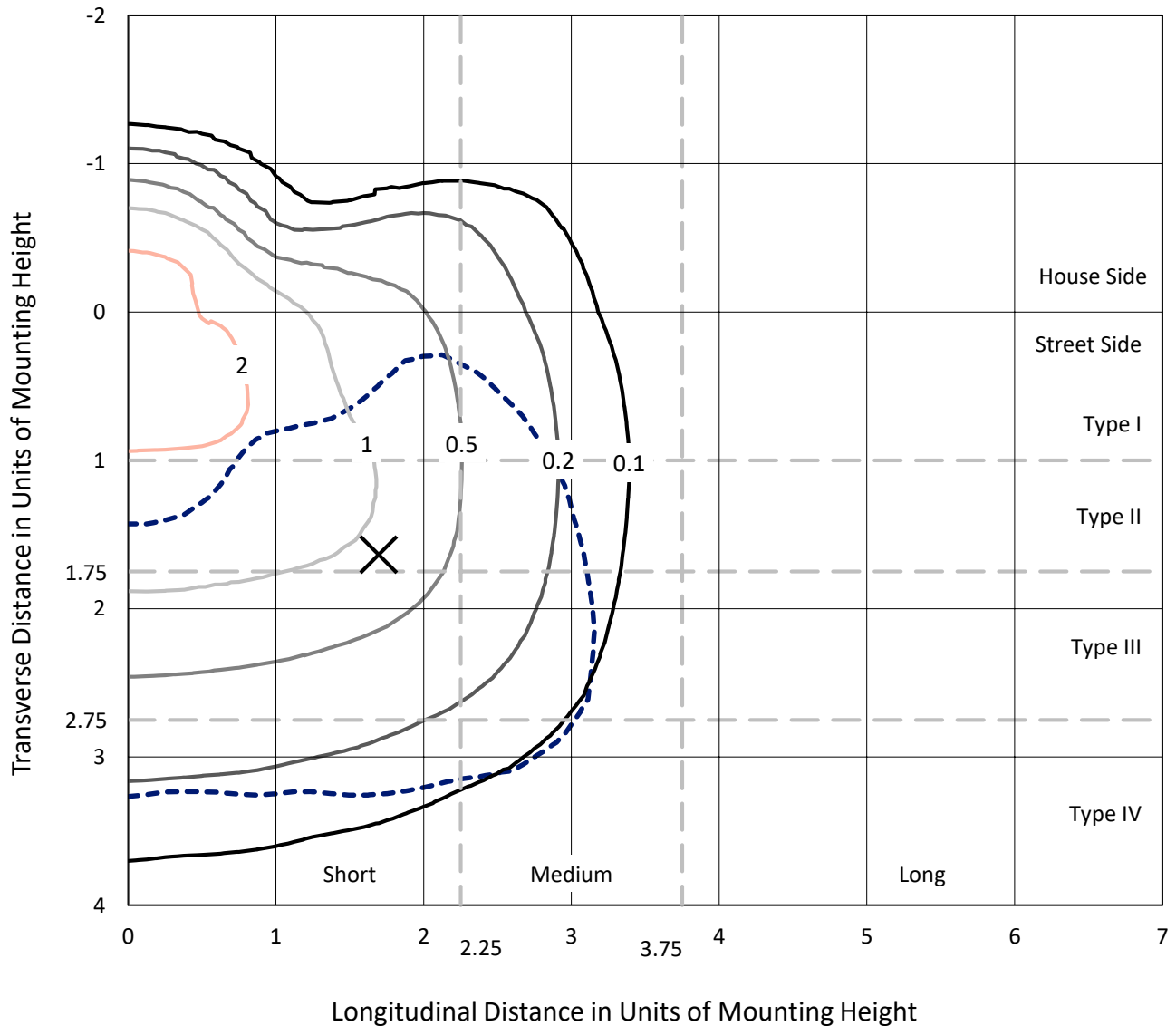
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

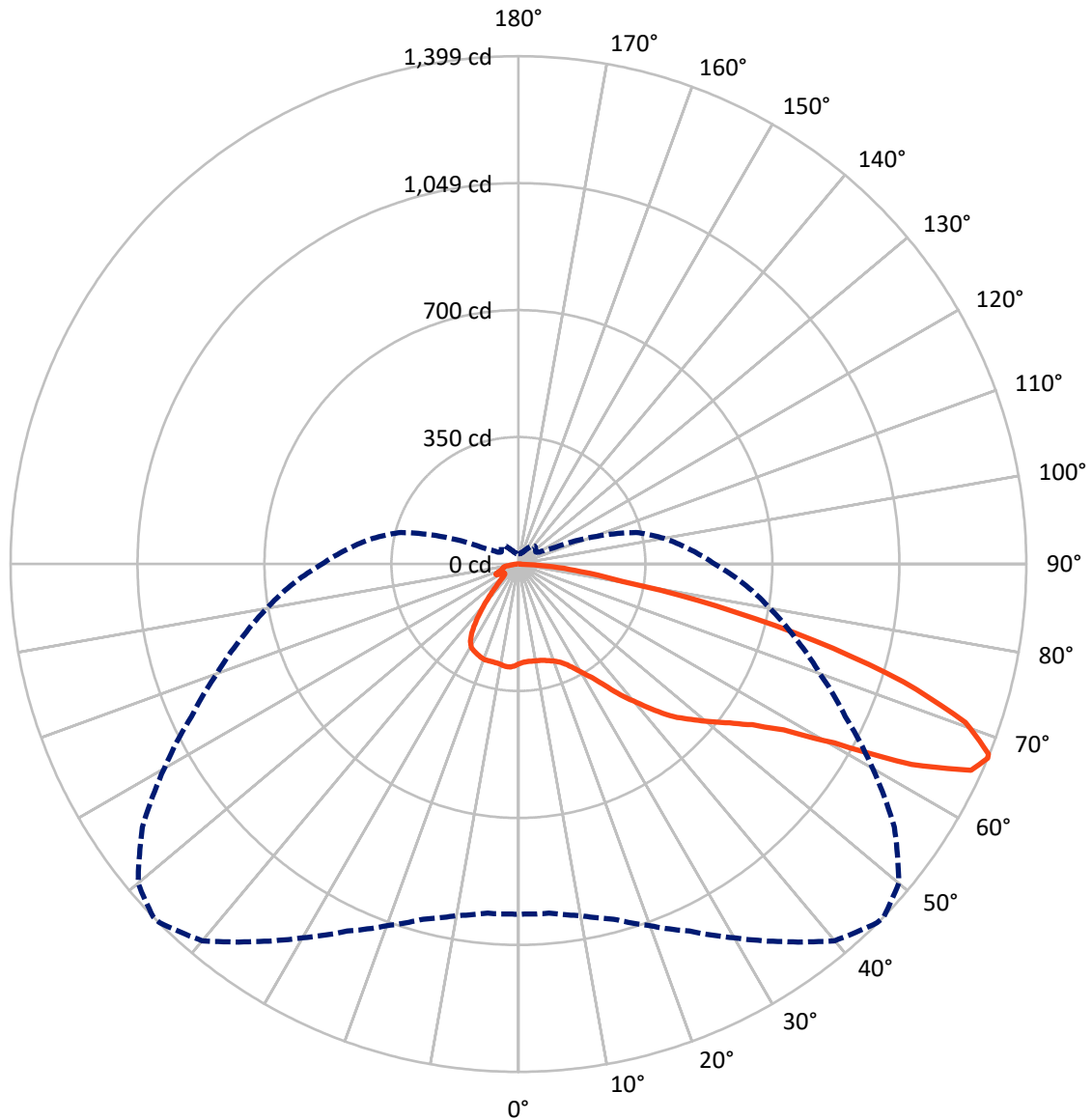


Based on 10 foot mounting height. Maximum calculated value = 2.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	398.2	0.0	398.2
	% Fixture	19.9	0.0	19.9
<b>Street Side</b>	Lumens	1605.5	0.0	1605.5
	% Fixture	80.1	0.0	80.1
<b>Total</b>	Lumens	2003.6	0.0	2003.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	1.3
10°-20°	78.9	3.9
20°-30°	132.6	6.6
30°-40°	198.3	9.9
40°-50°	258.3	12.9
50°-60°	353.7	17.7
60°-70°	559.2	27.9
70°-80°	346.9	17.3
80°-90°	49.4	2.5
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°	2003.6	100.0
0°-180°	2003.6	100.0



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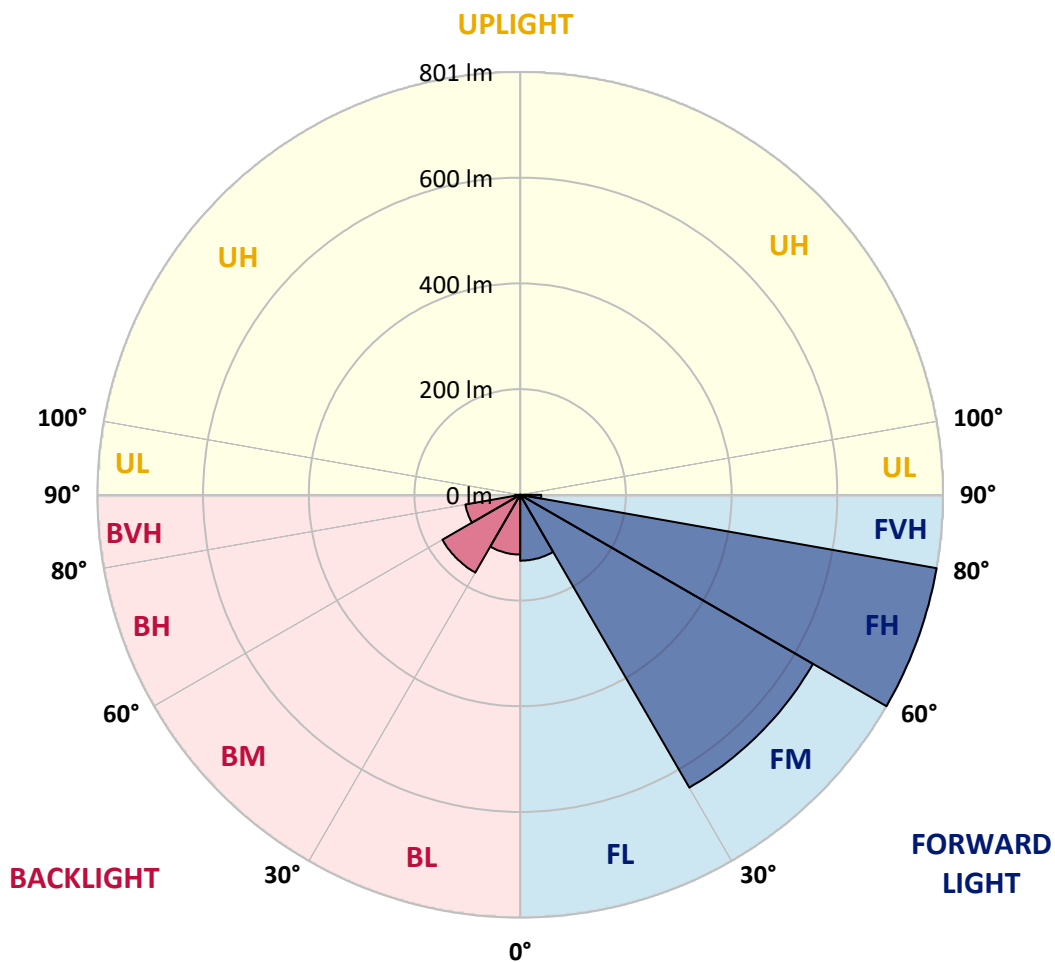
CATALOG NUMBER: ECM-F01-LED-E1-T4-8030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	124.8	6.2			
FM	(30°-60°)	640.2	32.0			
FH	(60°-80°)	800.7	40.0			G1/1800
FVH	(80°-90°)	39.8	2.0			G1/100
BL	(0°-30°)	113.1	5.6	B1/500		
BM	(30°-60°)	170.0	8.5	B0/220		
BH	(60°-80°)	105.4	5.3	B0/110		G0/110
BVH	(80°-90°)	9.6	0.5			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°
0°	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
2.5°	268.5	269.2	268.9	268.7	268.9	269.2	269.4	270.1	270.3	270.6	270.8
5°	263.6	264.3	264.1	264.5	264.8	265.7	266.4	267.5	268.2	269.2	269.6
7.5°	262.2	262.7	262.7	263.1	263.4	264.3	265.5	266.8	268.2	269.6	270.1
10°	265.9	266.2	266.2	265.9	266.2	266.6	267.1	268.2	269.4	270.6	271.0
12.5°	274.7	274.0	273.8	273.1	273.4	272.4	272.4	272.2	272.2	272.4	272.4
15°	284.0	283.6	283.1	281.9	281.9	280.6	280.1	279.2	276.8	275.9	275.7
17.5°	292.4	291.9	291.0	290.1	289.6	287.8	287.3	285.7	282.9	280.8	280.1
20°	302.4	301.2	299.1	298.7	297.5	295.4	294.7	292.6	288.9	285.9	285.7
22.5°	317.7	315.9	313.8	312.1	309.1	307.0	305.2	302.4	298.0	294.5	293.6
25°	333.0	332.3	330.5	328.2	326.1	323.7	321.4	317.2	311.4	307.0	306.1
27.5°	354.6	353.0	350.7	347.0	345.8	341.9	340.0	336.5	330.7	325.1	324.2
30°	377.2	375.5	371.8	368.6	367.9	363.7	362.5	358.8	353.7	348.1	347.4
32.5°	402.9	401.3	398.5	396.7	394.1	391.8	389.0	385.5	379.0	374.4	373.5
35°	435.9	434.5	431.3	432.7	430.4	429.7	428.0	422.2	415.0	409.4	410.4
37.5°	461.9	461.7	462.4	461.7	464.7	467.7	467.7	468.2	464.7	458.7	457.5
40°	486.3	486.1	487.9	490.0	498.2	503.0	508.6	510.7	507.0	502.3	500.7
42.5°	509.1	508.6	511.2	518.8	528.8	537.9	547.4	555.5	557.4	552.3	551.1
45°	531.6	532.3	535.6	544.2	557.4	569.2	585.5	595.0	601.1	598.3	600.1
47.5°	558.8	559.5	563.0	573.2	584.8	599.7	618.7	635.0	642.2	642.2	639.8
50°	591.1	594.3	598.0	605.0	618.5	633.1	656.3	672.6	684.2	683.7	681.9
52.5°	634.0	634.7	640.8	646.3	658.0	672.8	693.7	716.0	730.6	729.2	727.2
55°	691.9	689.1	693.0	698.4	710.9	723.9	746.7	772.4	787.3	782.9	781.5
57.5°	764.8	762.5	765.2	771.8	787.5	798.2	816.6	840.3	861.2	864.9	861.6
60°	870.0	870.0	875.6	889.5	905.5	921.5	945.0	973.6	995.2	1000.5	1000.3
62.5°	994.7	1002.6	1003.8	1021.9	1052.5	1080.2	1116.6	1167.0	1199.3	1222.3	1216.3
65°	1014.7	1017.2	1027.5	1055.6	1097.1	1146.1	1202.8	1269.0	1336.1	1369.3	1370.2
67°	964.5	965.4	983.3	1012.8	1060.4	1115.7	1189.1	1269.7	1354.7	1397.7	1399.0
67.5°	949.0	947.1	963.1	994.0	1046.0	1108.3	1177.3	1262.0	1349.8	1395.8	1396.5
70°	844.7	845.6	858.1	892.5	947.6	1005.9	1083.0	1170.1	1262.5	1304.5	1306.6
72.5°	728.3	722.3	733.7	770.4	796.6	853.5	924.3	990.1	1071.3	1111.1	1110.1
75°	555.5	538.8	558.8	580.1	594.8	651.2	695.3	740.6	815.6	845.8	844.2
77.5°	299.4	298.7	320.5	337.2	359.1	409.9	448.7	477.3	540.4	555.3	557.2
80°	162.6	168.6	181.6	200.2	217.8	242.2	264.8	282.6	303.3	293.8	291.7
82.5°	98.0	108.0	128.0	142.1	149.1	160.0	176.0	186.3	194.4	176.7	173.3
85°	15.6	28.1	72.2	86.4	93.8	98.9	102.4	109.2	99.6	93.4	95.0
87.5°	5.1	5.8	11.1	24.6	21.6	14.9	19.5	28.3	13.5	7.2	7.0
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
2.5°	271.0	271.3	272.0	272.9	273.4	274.5	274.5	275.4	275.4	276.1	276.8
5°	270.3	271.5	272.4	273.8	274.5	276.1	276.8	278.2	278.9	279.9	280.8
7.5°	271.5	273.1	274.3	275.9	277.1	278.7	279.4	280.6	281.2	282.4	282.9
10°	272.4	274.0	275.4	277.3	278.2	279.4	280.1	281.0	281.2	281.9	282.4
12.5°	273.6	274.3	275.4	277.1	278.0	278.7	279.4	280.1	280.8	280.8	280.8
15°	275.2	274.5	274.7	276.1	277.1	277.5	278.2	278.7	278.9	278.9	278.5
17.5°	278.7	276.8	275.7	275.7	276.1	276.6	276.6	275.9	275.4	274.7	273.8
20°	283.8	280.8	278.5	277.3	276.4	275.2	273.4	271.0	268.9	267.1	265.9
22.5°	291.0	288.0	285.2	282.6	279.6	275.7	271.7	266.8	262.9	259.9	258.7
25°	304.5	300.1	298.0	294.0	289.4	283.1	277.1	270.3	265.7	261.5	259.7
27.5°	322.6	319.1	314.5	312.4	306.3	299.1	292.4	284.3	277.8	272.7	269.2
30°	345.6	343.3	339.3	335.8	330.0	323.5	313.5	304.5	293.1	284.0	278.9
32.5°	372.1	368.6	365.1	360.7	356.5	347.9	338.6	324.9	309.1	293.6	284.0
35°	405.3	401.8	399.5	392.5	385.5	376.2	363.7	347.4	325.4	304.5	288.2
37.5°	451.0	443.6	432.2	422.2	409.7	395.5	381.3	361.8	337.2	310.0	287.8
40°	490.7	479.8	467.0	449.9	432.2	413.6	396.9	375.8	347.0	314.7	284.5
42.5°	542.3	523.5	501.9	479.1	455.0	432.7	412.0	387.8	354.2	314.9	276.8
45°	588.7	565.5	537.0	506.1	476.6	449.4	425.7	399.0	360.2	314.0	268.0
47.5°	630.1	602.9	568.1	530.9	496.1	465.4	439.4	411.3	368.1	317.0	264.8
50°	670.0	638.9	599.7	554.6	515.8	482.4	455.2	425.0	381.3	327.2	269.9
52.5°	712.8	674.9	630.5	579.7	537.4	502.8	472.4	441.5	397.1	340.9	279.2
55°	765.0	722.1	671.4	615.2	566.7	528.1	493.8	461.2	416.0	357.9	290.1
57.5°	834.7	791.3	733.0	668.2	617.3	571.6	530.2	493.5	444.5	381.3	306.3
60°	968.9	915.3	837.7	767.3	712.3	658.4	608.5	558.3	499.3	428.7	348.1
62.5°	1184.5	1109.7	1013.5	915.5	841.2	769.9	703.9	638.7	565.1	485.9	397.8
65°	1333.6	1241.1	1120.4	997.5	896.9	809.8	731.1	653.5	571.6	496.1	419.4
67°	1367.7	1264.3	1126.9	993.5	884.2	789.6	703.9	623.1	540.7	472.2	406.7
67.5°	1366.3	1263.2	1121.7	985.2	875.6	782.4	696.0	611.0	530.0	462.9	400.4
70°	1283.6	1180.0	1037.9	902.0	796.4	703.7	616.6	542.5	459.8	405.5	358.6
72.5°	1087.6	997.5	882.8	760.6	670.0	587.1	517.4	444.7	373.0	336.8	299.8
75°	827.0	747.1	641.9	552.5	483.5	425.9	356.0	308.2	257.8	232.9	219.7
77.5°	546.5	454.7	382.0	296.8	246.2	200.9	158.4	125.6	105.0	110.3	120.5
80°	289.1	229.5	169.8	131.5	101.5	79.0	62.7	46.9	34.1	39.9	50.2
82.5°	157.5	134.2	99.2	79.0	64.6	53.4	41.1	28.8	21.4	23.7	34.1
85°	89.9	79.0	61.3	47.8	41.8	34.1	23.5	15.8	15.3	16.5	21.1
87.5°	14.9	20.0	16.3	11.1	12.5	12.3	10.9	8.4	6.3	8.8	11.4
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
2.5°	277.3	278.0	278.9	279.2	278.9	279.6	280.8	281.7	281.0	280.6	281.7
5°	281.7	282.2	283.3	283.3	283.6	284.0	284.7	285.4	284.5	284.5	285.0
7.5°	283.6	283.6	284.7	284.3	284.3	284.0	284.7	285.0	283.6	283.3	283.6
10°	282.4	282.4	282.9	281.9	281.7	281.5	281.5	281.7	280.3	279.9	280.6
12.5°	280.8	280.8	280.3	279.9	279.4	278.9	279.4	279.6	278.7	278.7	278.9
15°	278.0	277.3	277.1	277.1	277.3	277.5	278.5	279.2	278.5	278.0	278.0
17.5°	273.4	272.9	273.6	275.0	276.6	277.8	279.2	279.6	278.0	276.1	274.7
20°	266.4	267.5	270.1	274.0	277.5	279.4	279.4	277.8	274.0	270.3	268.5
22.5°	259.2	262.4	268.0	274.0	278.2	278.9	276.4	272.9	267.8	263.8	260.3
25°	260.1	264.1	269.6	274.7	277.5	276.4	271.7	267.3	261.3	257.1	252.0
27.5°	269.9	273.6	276.4	278.0	277.1	273.4	268.0	262.0	255.2	249.4	243.4
30°	277.8	279.4	279.2	277.8	274.3	268.5	262.2	255.0	246.9	240.6	232.7
32.5°	279.2	276.1	271.5	266.4	261.7	255.2	248.0	239.7	230.6	222.5	214.6
35°	276.6	265.2	255.0	244.8	237.8	229.7	223.4	213.7	203.7	196.7	190.9
37.5°	267.1	247.3	231.1	216.7	206.5	197.2	187.7	178.1	169.8	166.5	164.9
40°	255.0	225.3	200.4	180.5	169.5	160.5	150.7	143.1	139.1	136.1	134.9
42.5°	237.4	200.2	169.3	147.9	134.0	125.6	116.1	111.9	110.1	110.8	109.9
45°	220.9	174.0	135.2	111.5	102.0	94.1	89.4	87.6	86.6	86.2	86.9
47.5°	209.3	153.7	108.9	84.8	76.9	71.3	69.4	68.7	68.5	67.6	67.4
50°	206.5	141.9	89.2	66.0	59.9	56.9	56.0	55.3	54.8	54.1	52.5
52.5°	209.7	138.7	79.4	56.7	51.6	49.2	48.5	47.4	46.9	45.1	43.0
55°	215.3	139.8	76.4	54.1	49.0	46.4	45.5	45.1	43.4	41.3	38.8
57.5°	226.9	147.0	77.8	54.8	49.5	47.1	46.7	46.2	44.1	41.1	37.9
60°	260.6	167.9	85.0	59.7	53.2	51.6	51.8	50.9	47.8	43.9	39.0
62.5°	312.6	200.4	98.2	65.7	59.2	59.2	60.6	59.9	55.3	48.8	41.8
65°	339.5	219.9	103.8	67.6	61.1	64.1	68.5	67.8	61.1	51.3	42.0
67°	335.4	216.2	100.6	64.8	57.6	61.5	66.0	66.2	58.8	49.0	40.2
67.5°	331.4	213.7	98.9	63.6	56.7	60.6	64.8	64.1	57.8	48.1	39.7
70°	297.7	187.7	88.3	59.5	52.5	53.6	54.8	53.9	49.0	42.5	36.7
72.5°	257.1	155.8	77.8	56.9	50.2	48.3	48.3	46.7	43.4	39.0	34.8
75°	196.0	121.2	68.3	54.1	47.4	44.6	44.1	43.0	40.2	36.9	33.2
77.5°	119.6	86.9	59.2	49.9	43.9	41.6	41.8	41.1	38.3	35.3	31.8
80°	59.9	56.2	49.7	43.4	39.7	37.4	37.6	36.2	33.9	31.6	28.8
82.5°	36.7	38.8	34.8	33.0	30.7	28.1	21.8	25.5	24.9	22.8	21.6
85°	24.4	24.2	21.8	19.3	17.7	15.3	13.7	13.9	15.3	15.8	15.8
87.5°	11.8	11.4	10.5	9.8	9.3	7.7	7.2	8.1	8.1	8.6	8.4
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-T4-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	274.5	274.5	274.5	274.5	274.5
2.5°	281.9	282.4	282.2	282.9	282.2
5°	285.2	285.2	285.4	285.7	285.4
7.5°	283.6	283.3	283.8	284.3	284.0
10°	280.6	280.8	281.2	281.9	281.9
12.5°	279.4	279.6	280.6	281.2	281.2
15°	278.5	278.7	279.2	280.1	279.4
17.5°	274.3	273.4	273.4	274.0	273.4
20°	266.8	265.5	265.5	265.2	265.0
22.5°	258.0	254.5	253.6	252.5	252.7
25°	247.1	242.5	239.9	238.5	238.1
27.5°	238.3	232.9	230.4	228.3	227.6
30°	227.1	221.1	219.0	217.8	217.4
32.5°	210.9	205.5	202.8	202.1	200.7
35°	186.3	183.9	182.8	181.2	181.4
37.5°	161.6	160.9	158.2	159.1	158.2
40°	135.2	134.9	135.4	134.7	136.3
42.5°	110.3	109.6	110.8	110.1	110.8
45°	85.5	86.9	88.5	87.8	88.7
47.5°	65.5	65.7	65.3	65.7	66.2
50°	50.4	49.9	49.5	48.5	49.0
52.5°	41.6	39.9	38.8	38.1	37.9
55°	36.7	35.1	34.1	33.2	33.2
57.5°	35.3	33.2	31.8	31.1	30.9
60°	35.5	32.7	30.9	29.7	29.5
62.5°	36.5	32.7	30.2	29.0	28.6
65°	36.2	32.3	29.7	28.6	28.1
67°	35.1	31.6	29.5	28.3	28.1
67.5°	34.6	31.4	29.5	28.3	27.9
70°	33.0	30.7	29.0	27.9	27.4
72.5°	31.6	29.7	27.9	26.9	26.5
75°	30.2	28.3	26.7	25.8	25.5
77.5°	28.8	26.7	25.5	24.4	23.5
80°	26.2	23.9	22.3	20.4	20.0
82.5°	21.6	19.7	18.1	16.5	16.3
85°	16.0	15.3	13.9	12.5	12.5
87.5°	8.8	9.8	8.6	7.9	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)