

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: P141226

Luminaire Tested: **ECM-F01-LED-E1-SL4-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141226
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)
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-SL4-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (7) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2391.7 lumens
Efficiency: N/A
Efficacy: 92.3 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

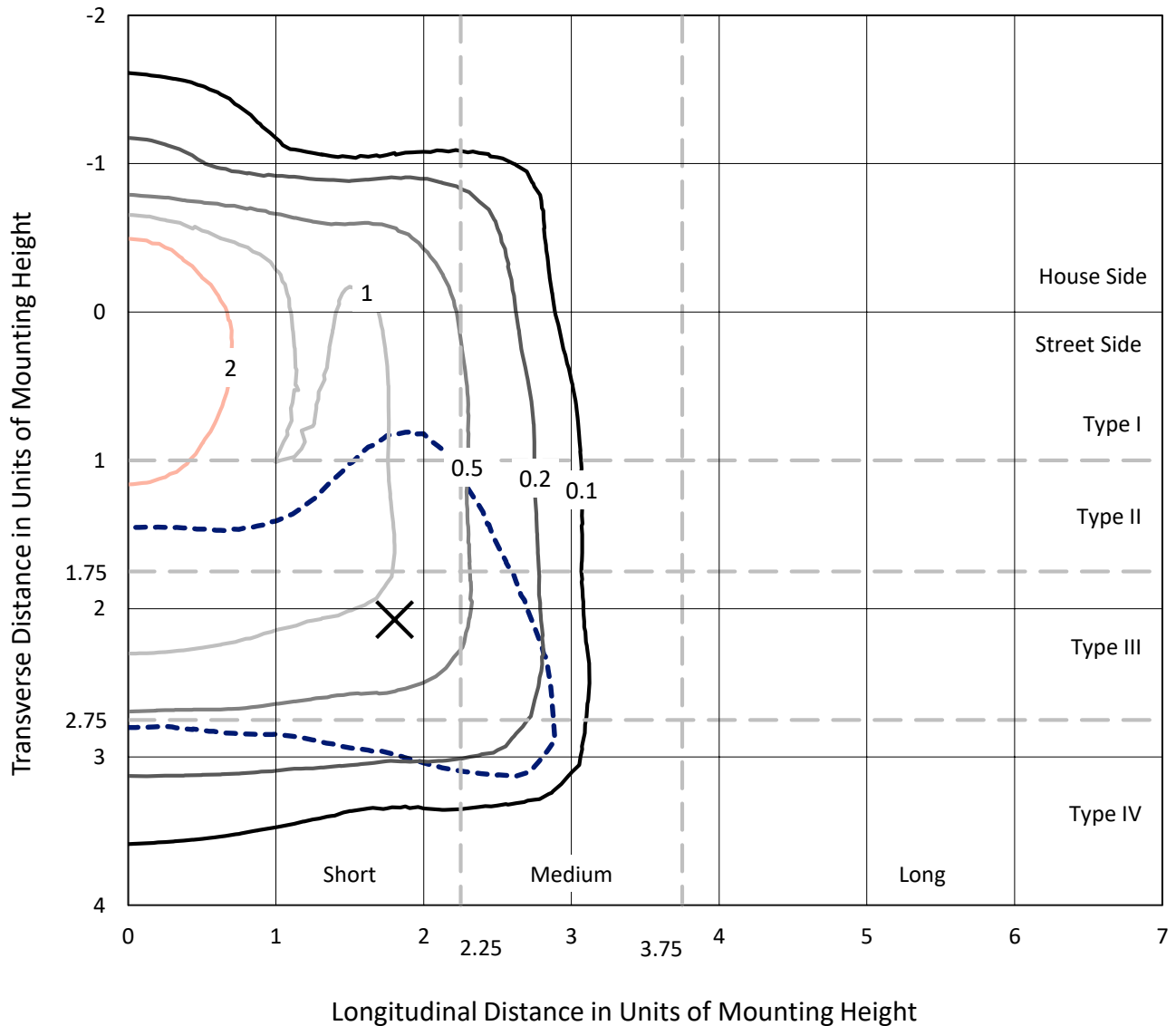
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

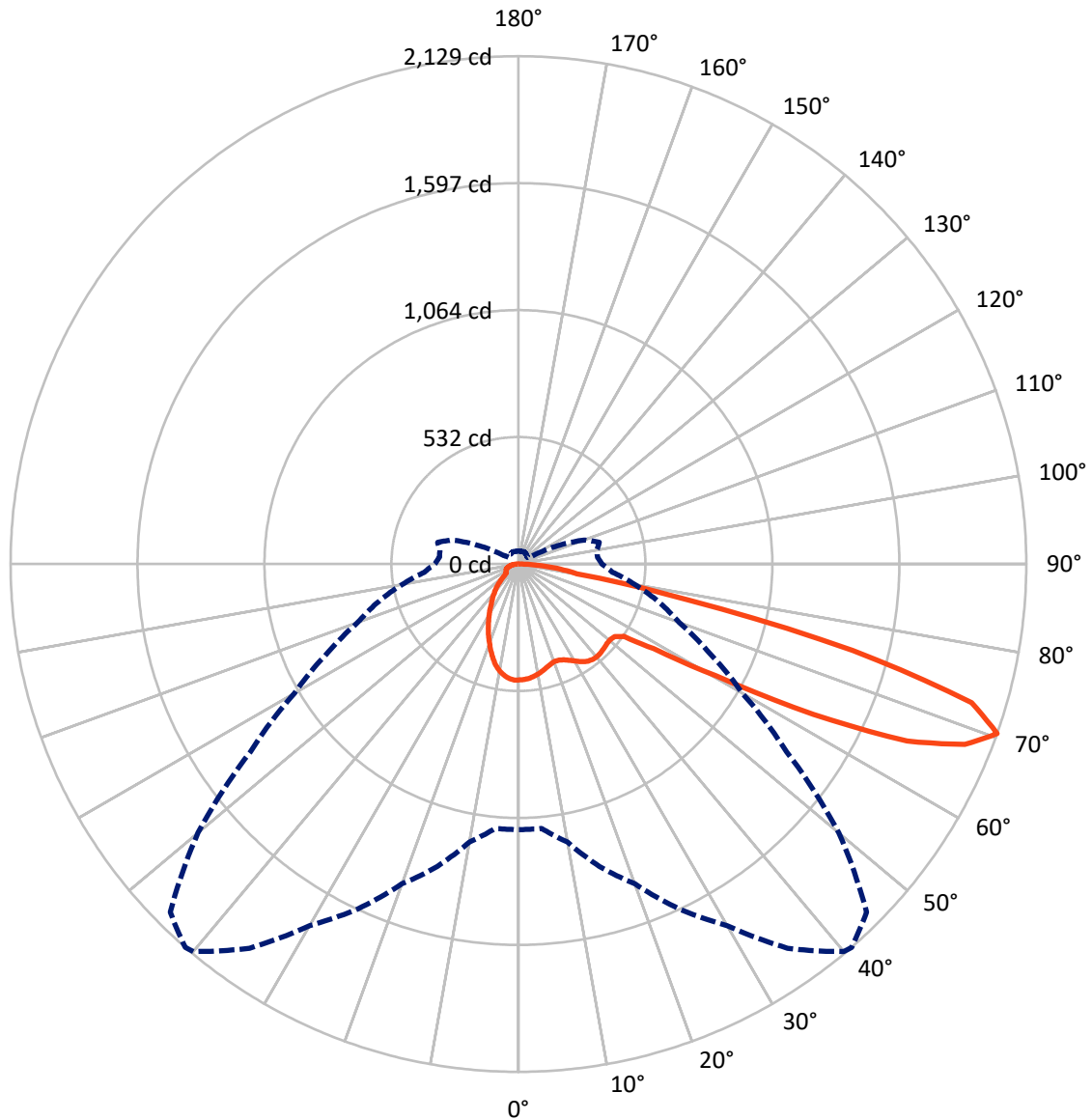
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	513.1	0.0	513.1
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	1878.5	0.0	1878.5
	% Fixture	78.5	0.0	78.5
Total	Lumens	2391.7	0.0	2391.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	1.9
10°-20°	121.2	5.1
20°-30°	175.2	7.3
30°-40°	223.0	9.3
40°-50°	262.8	11.0
50°-60°	402.1	16.8
60°-70°	747.4	31.3
70°-80°	360.7	15.1
80°-90°	53.9	2.3
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°	2391.7	100.0
0°-180°	2391.7	100.0



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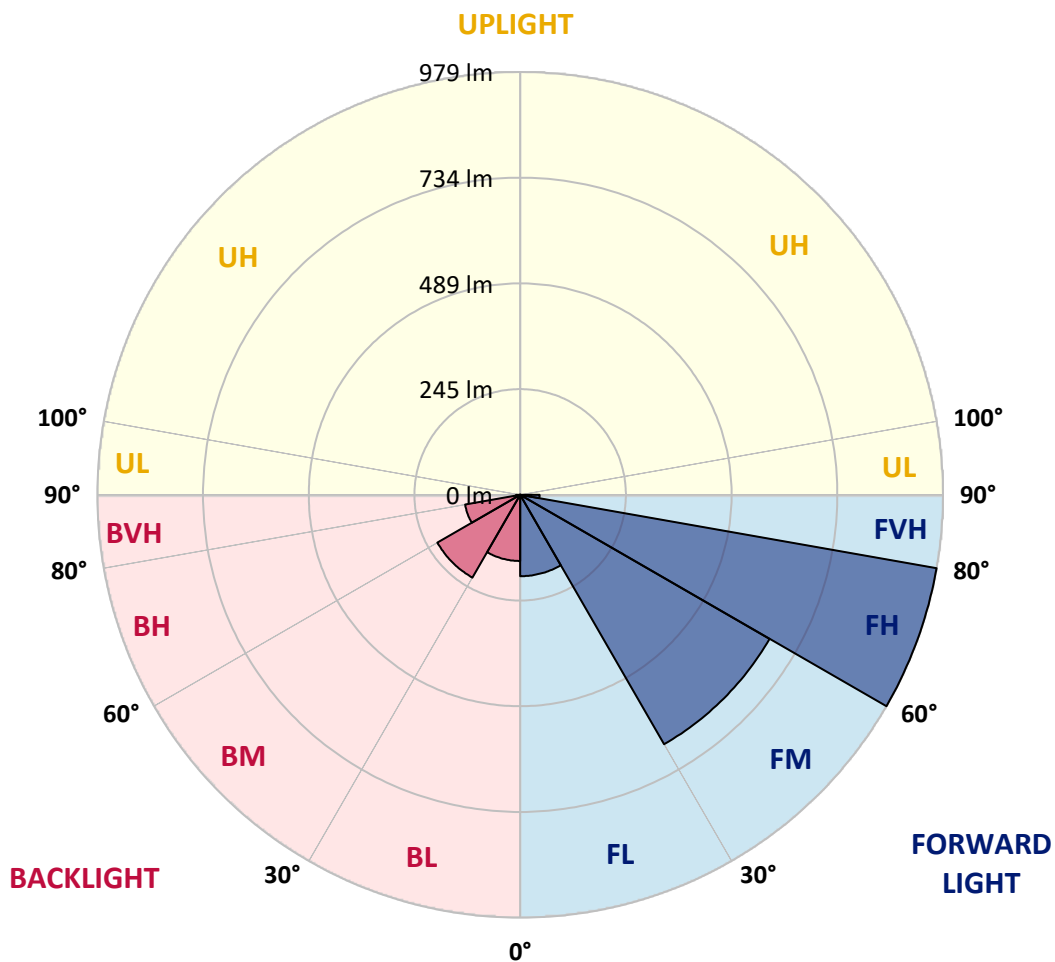
CATALOG NUMBER: ECM-F01-LED-E1-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	188.4	7.9			
FM	(30°-60°)	666.6	27.9			
FH	(60°-80°)	978.8	40.9			G1/1800
FVH	(80°-90°)	44.8	1.9			G1/100
BL	(0°-30°)	153.3	6.4	B1/500		
BM	(30°-60°)	221.4	9.3	B1/1000		
BH	(60°-80°)	129.4	5.4	B1/500		G1/500
BVH	(80°-90°)	9.1	0.4			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°	41°	45°
0°	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9
2.5°	485.9	486.5	486.2	485.7	485.1	485.4	485.1	484.8	484.8	484.5	484.2
5°	483.7	484.8	484.0	483.4	482.6	482.6	482.3	481.7	481.1	480.9	480.3
7.5°	478.9	480.0	479.4	478.9	478.0	477.5	476.3	475.8	475.2	474.9	474.1
10°	472.4	473.0	472.4	471.3	470.7	470.4	469.8	468.7	467.6	467.0	466.2
12.5°	463.9	464.2	463.6	463.1	462.2	462.2	461.4	460.5	458.8	458.3	456.3
15°	456.6	455.7	455.2	454.9	454.6	453.2	453.5	452.1	449.2	448.4	446.1
17.5°	454.6	453.8	453.5	452.6	452.1	450.4	448.7	445.8	441.0	440.2	436.8
20°	460.2	460.2	459.4	458.8	458.0	454.9	451.2	445.8	437.1	435.1	430.9
22.5°	473.8	472.4	471.8	471.8	471.5	467.0	460.2	451.8	440.2	437.7	430.3
25°	495.0	492.4	493.3	493.0	492.4	485.9	476.1	463.9	448.1	444.7	435.1
27.5°	520.1	520.7	520.4	519.3	517.6	510.5	496.4	480.0	460.2	456.9	444.4
30°	546.4	546.9	548.6	547.8	546.6	535.9	518.4	500.6	476.6	472.1	456.9
32.5°	576.9	578.8	580.2	580.5	576.0	561.3	540.7	518.1	492.7	488.2	469.3
35°	612.2	611.0	613.6	612.4	604.5	584.5	559.1	532.2	506.3	500.3	480.0
37.5°	647.7	649.1	646.6	641.8	629.4	603.1	571.8	541.6	512.8	507.1	485.9
40°	682.2	681.3	675.4	667.2	648.6	615.0	578.8	545.8	515.0	509.1	487.4
42.5°	707.9	705.6	696.6	683.3	659.3	620.6	580.8	545.8	513.6	507.4	485.4
45°	719.2	716.9	708.2	691.2	662.7	619.5	577.4	541.0	508.8	503.4	481.4
47.5°	719.2	718.3	708.7	692.3	661.8	616.4	572.3	535.1	504.0	498.6	478.0
50°	713.5	713.0	704.5	688.4	659.0	614.7	570.9	533.9	503.7	498.4	479.4
52.5°	732.4	728.8	720.0	701.4	669.5	621.8	578.0	539.6	510.5	505.1	485.7
55°	962.6	959.5	915.1	837.2	755.6	681.0	617.2	573.2	543.8	535.6	521.5
57.5°	1334.7	1330.2	1284.7	1213.9	1073.5	914.0	788.9	715.5	674.3	668.3	659.9
60°	1485.8	1484.1	1464.9	1436.1	1383.0	1300.5	1184.2	1062.2	967.4	952.1	953.2
62.5°	1572.5	1568.2	1558.9	1551.8	1533.8	1500.2	1478.4	1444.3	1398.2	1387.8	1321.7
65°	1621.0	1620.5	1625.5	1631.5	1630.3	1640.5	1651.5	1716.7	1793.3	1789.9	1720.1
67.5°	1548.7	1553.5	1580.1	1620.7	1663.4	1708.6	1792.7	1923.4	2018.0	2018.0	1956.7
70°	1113.3	1112.5	1183.1	1311.8	1426.5	1595.3	1750.3	1965.8	2120.5	2128.7	2063.8
72.5°	667.2	682.7	726.2	784.7	882.1	1086.5	1374.8	1761.9	1977.9	1986.7	1909.0
75°	468.7	457.1	455.4	458.8	475.5	525.8	684.4	1081.4	1433.8	1447.4	1372.3
77.5°	299.9	297.3	298.5	302.1	303.0	307.8	315.4	370.7	664.7	729.6	726.2
80°	258.6	257.8	258.1	253.8	245.7	242.5	252.1	244.5	237.5	247.3	233.8
82.5°	173.4	176.5	181.6	188.3	204.7	210.4	207.3	205.8	183.5	178.5	158.4
85°	128.5	126.8	128.8	128.8	124.5	120.3	123.4	120.3	106.4	99.7	88.1
87.5°	69.5	69.7	75.4	77.6	77.4	66.1	54.5	47.2	42.6	39.5	33.3
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9
2.5°	484.5	483.7	484.0	484.0	483.7	484.2	483.4	483.1	483.4	483.4	483.4
5°	479.7	478.6	478.6	478.3	477.8	477.8	476.6	476.3	475.8	476.6	476.1
7.5°	473.0	471.3	469.8	468.7	468.2	467.3	465.9	465.3	464.8	464.5	463.9
10°	464.8	462.8	460.0	457.7	456.6	454.3	452.6	450.4	450.4	449.2	448.1
12.5°	454.9	452.1	449.2	446.1	444.1	441.0	438.2	435.7	433.7	431.2	429.5
15°	445.0	440.8	437.7	434.5	430.9	426.6	423.3	419.3	415.6	411.7	410.5
17.5°	434.3	430.9	428.1	424.4	420.4	415.3	410.8	404.3	399.8	395.0	391.3
20°	427.2	423.3	420.1	416.8	412.5	406.6	400.7	393.3	386.5	379.5	374.1
22.5°	423.5	417.0	414.2	411.1	406.9	400.4	393.6	384.6	376.1	366.8	358.3
25°	424.9	416.2	410.5	407.2	403.5	397.0	388.2	378.1	368.5	356.6	347.0
27.5°	431.2	419.3	410.5	404.9	400.9	394.2	385.1	373.6	362.0	349.6	338.0
30°	439.3	424.4	413.1	404.9	399.0	391.6	381.7	369.3	356.6	342.8	329.5
32.5°	448.7	430.3	416.8	405.5	395.9	386.5	376.4	363.4	350.1	335.4	322.5
35°	456.0	434.8	419.3	404.3	391.6	380.1	368.2	356.1	342.8	328.9	315.1
37.5°	460.2	437.7	419.3	400.4	384.9	372.7	360.3	348.4	335.7	322.2	310.0
40°	461.9	438.8	417.6	395.9	377.8	364.0	352.4	340.2	328.9	317.1	306.4
42.5°	461.1	437.9	415.3	391.6	372.1	357.2	344.5	333.2	323.9	314.0	304.9
45°	457.7	435.1	413.1	389.7	370.2	354.9	341.9	331.2	322.5	313.4	306.4
47.5°	454.9	434.0	414.5	394.5	375.8	360.3	346.2	334.3	327.0	319.9	315.4
50°	457.1	437.1	417.6	398.7	380.6	364.8	350.4	339.4	335.2	334.0	332.6
52.5°	463.4	443.6	427.2	413.9	405.7	399.8	385.1	382.6	378.9	376.9	372.1
55°	503.7	495.5	510.2	526.3	529.1	546.9	554.0	554.6	548.3	526.3	474.9
57.5°	668.1	688.4	694.6	731.9	742.0	734.1	723.4	722.8	703.6	674.6	599.7
60°	961.7	951.0	937.7	913.4	890.6	866.0	832.1	806.1	781.6	737.0	658.2
62.5°	1268.9	1175.5	1107.4	1037.7	981.2	931.8	882.7	840.9	801.1	739.2	654.8
65°	1535.5	1345.2	1207.1	1102.3	1014.8	942.5	877.3	820.3	770.0	692.6	607.1
67.5°	1708.8	1435.2	1228.8	1072.4	948.7	856.7	760.7	670.6	621.2	558.8	515.3
70°	1753.2	1371.7	1083.7	883.2	716.6	606.8	493.6	395.3	349.8	332.3	333.7
72.5°	1581.5	1084.3	768.3	561.9	439.9	348.7	283.5	218.0	170.3	142.9	139.5
75°	1033.1	603.4	364.8	254.1	202.2	160.9	126.8	106.7	92.0	74.3	62.1
77.5°	390.5	229.8	163.8	133.6	98.8	68.9	53.6	45.2	41.5	40.4	36.4
80°	200.2	159.5	114.1	75.1	52.5	42.1	35.3	29.9	27.7	26.5	27.1
82.5°	135.0	100.5	63.0	45.2	36.4	31.3	24.8	20.9	18.6	18.4	19.8
85°	75.1	50.3	36.7	30.5	26.8	23.4	18.9	15.5	14.4	15.2	17.8
87.5°	23.4	23.2	16.7	13.6	14.1	12.1	9.0	6.8	6.8	8.8	12.4
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°	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9	485.9
2.5°	483.4	484.0	485.1	484.2	484.5	484.8	485.7	486.8	485.9	485.4	487.1
5°	476.6	476.6	478.0	477.5	478.6	479.7	480.3	482.3	481.7	481.1	483.4
7.5°	464.2	464.5	466.5	465.9	468.2	468.4	470.7	472.4	472.4	473.5	475.5
10°	448.4	448.4	450.1	450.4	451.8	452.9	455.4	458.6	459.1	461.1	463.9
12.5°	430.6	430.0	431.4	431.4	432.6	434.0	436.8	440.5	441.0	444.1	447.8
15°	408.6	407.7	407.2	407.7	408.3	408.6	412.8	416.5	418.7	422.1	425.8
17.5°	387.4	384.3	382.9	382.9	383.2	383.2	384.9	389.1	392.2	397.6	402.9
20°	368.5	363.1	361.1	356.6	355.8	353.8	355.2	360.0	365.7	369.9	374.1
22.5°	350.7	345.0	339.4	334.0	329.8	327.3	329.8	332.9	334.9	338.3	339.4
25°	337.1	327.8	319.9	311.4	306.9	304.7	304.4	304.1	302.4	301.8	301.8
27.5°	326.4	315.4	303.5	294.2	288.0	283.8	279.0	275.6	271.3	265.7	262.9
30°	317.4	305.5	292.5	281.5	273.6	265.4	255.5	247.9	240.3	233.5	227.6
32.5°	309.2	297.0	284.3	272.8	259.2	245.1	232.7	223.6	210.4	201.3	193.7
35°	303.0	290.8	279.0	263.7	245.1	227.0	210.9	197.7	184.1	172.2	162.1
37.5°	298.5	288.3	275.6	255.0	231.5	209.8	192.9	177.0	160.9	144.8	132.1
40°	297.0	288.3	272.2	245.4	218.5	195.1	175.6	156.1	138.4	121.1	108.1
42.5°	297.9	288.6	266.8	236.9	207.8	182.4	160.4	137.8	116.6	98.3	85.3
45°	301.0	288.6	261.2	227.6	197.9	170.8	144.6	117.7	93.2	78.5	72.8
47.5°	310.3	290.5	256.7	220.8	189.2	158.1	126.8	96.3	75.4	69.2	69.2
50°	324.7	296.5	256.1	215.7	179.3	143.4	104.8	76.0	66.6	66.4	68.0
52.5°	349.3	306.9	258.9	212.3	168.9	123.7	81.6	65.5	63.5	65.2	67.8
55°	397.0	325.3	262.9	206.1	151.3	96.8	66.9	62.1	63.0	64.9	67.2
57.5°	484.2	362.3	267.1	192.9	122.5	73.4	60.7	61.0	62.4	64.4	66.4
60°	544.4	408.0	275.6	170.5	91.2	60.7	58.2	60.4	62.1	63.5	65.2
62.5°	549.5	424.7	281.8	145.4	67.8	55.3	55.9	59.3	61.6	62.1	63.0
65°	519.0	403.2	264.0	120.0	56.2	52.5	54.5	57.6	59.9	60.1	61.0
67.5°	452.3	358.3	225.3	91.2	51.4	50.5	52.8	54.8	56.5	57.9	59.0
70°	350.4	292.5	181.3	70.9	47.7	47.4	49.4	51.7	53.4	54.8	56.5
72.5°	184.7	207.8	135.0	56.8	43.8	44.0	46.0	48.0	49.1	50.5	52.2
75°	57.3	88.1	83.3	45.5	39.0	40.1	41.2	42.9	44.9	45.7	46.6
77.5°	33.9	35.9	43.5	35.6	33.9	34.7	36.1	37.6	39.0	40.1	40.9
80°	27.4	28.0	28.2	28.2	28.2	29.4	30.5	32.5	33.6	34.2	34.4
82.5°	21.5	22.9	23.2	22.6	23.4	24.6	25.1	26.3	26.5	27.1	27.7
85°	17.8	17.5	18.1	18.4	17.2	17.2	16.7	16.7	17.8	19.8	20.0
87.5°	13.8	12.1	9.9	9.3	8.8	8.2	7.6	7.6	7.9	9.0	9.9
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-SL4-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	485.9	485.9	485.9	485.9	485.9
2.5°	487.1	486.8	487.4	488.2	487.6
5°	483.7	483.7	484.8	485.7	485.1
7.5°	476.9	477.2	478.9	480.0	479.4
10°	466.2	466.7	468.7	470.4	471.3
12.5°	450.1	452.1	454.6	456.3	456.3
15°	429.7	432.9	435.7	438.2	436.8
17.5°	406.6	410.3	413.9	415.3	413.9
20°	378.6	378.9	381.2	382.6	382.0
22.5°	340.5	339.4	340.5	341.1	341.9
25°	301.6	299.6	298.5	300.1	301.0
27.5°	261.7	258.9	259.8	257.8	255.5
30°	223.1	220.5	217.4	216.6	218.0
32.5°	188.9	182.4	179.9	175.1	177.0
35°	152.8	146.3	140.0	138.4	137.2
37.5°	123.1	115.2	107.6	105.0	104.5
40°	96.3	89.8	84.7	83.3	82.7
42.5°	78.2	75.4	74.5	74.5	74.8
45°	71.4	71.7	72.6	73.1	73.4
47.5°	70.0	71.2	72.3	73.4	73.7
50°	70.0	70.9	71.7	72.8	73.1
52.5°	69.5	70.3	70.6	71.2	71.7
55°	68.9	69.2	69.2	69.5	70.0
57.5°	67.5	67.8	67.2	67.5	68.6
60°	66.1	66.4	65.8	66.4	66.6
62.5°	64.1	64.1	63.8	64.1	64.4
65°	61.8	61.0	61.6	61.3	61.6
67.5°	59.0	57.9	57.6	57.6	57.9
70°	55.1	54.2	53.9	54.5	55.1
72.5°	50.3	50.8	51.7	52.5	53.9
75°	46.9	47.7	48.8	51.7	53.6
77.5°	42.1	41.8	42.9	46.0	48.8
80°	35.0	35.3	35.0	35.9	36.4
82.5°	26.8	26.5	25.7	25.7	25.1
85°	18.9	18.1	16.9	16.7	16.4
87.5°	9.6	10.2	9.3	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)