

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: P141705

Luminaire Tested: **ECM-F01-LED-E1-T2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141705
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)
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-T2
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (7) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2433.7 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

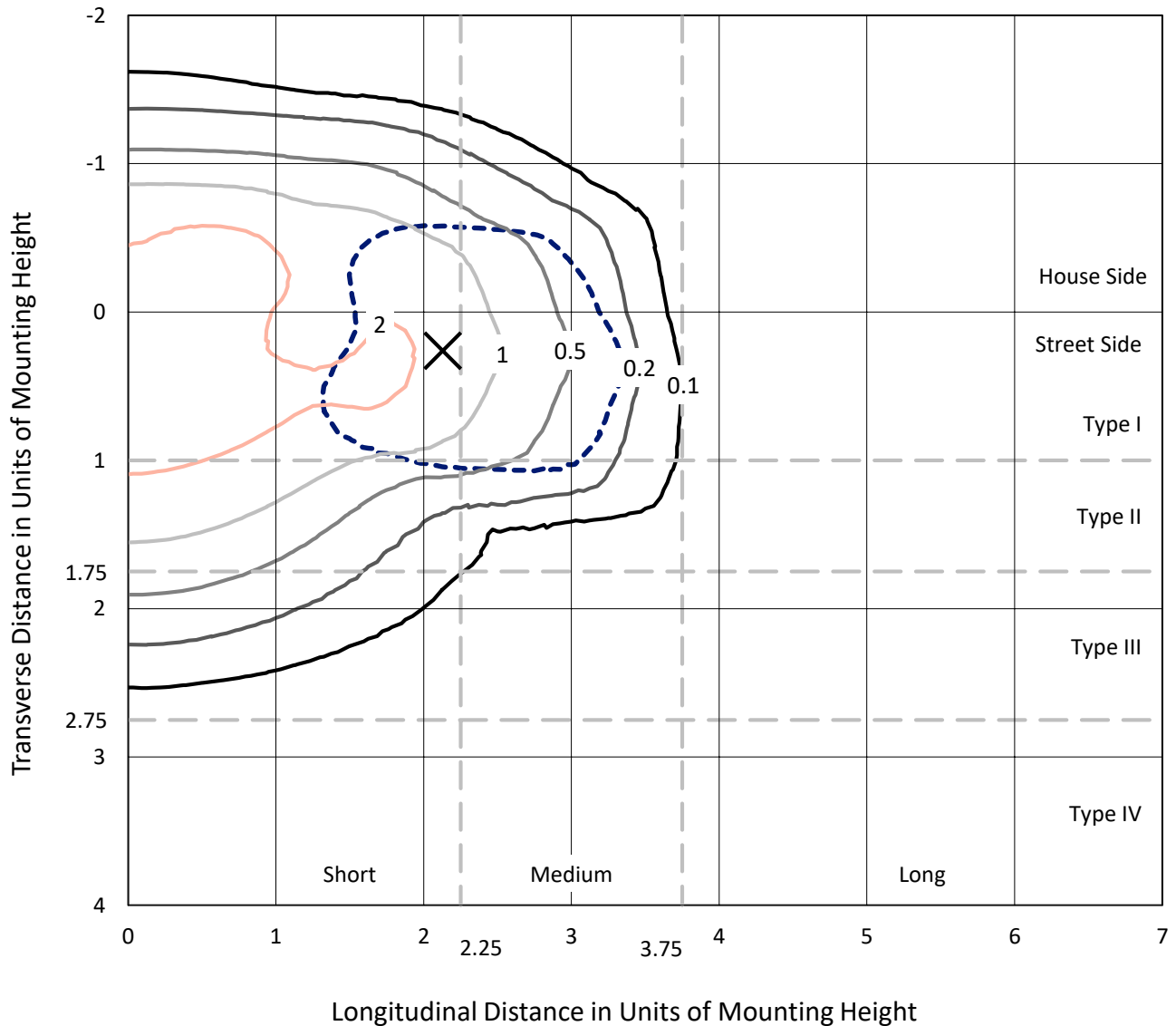
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

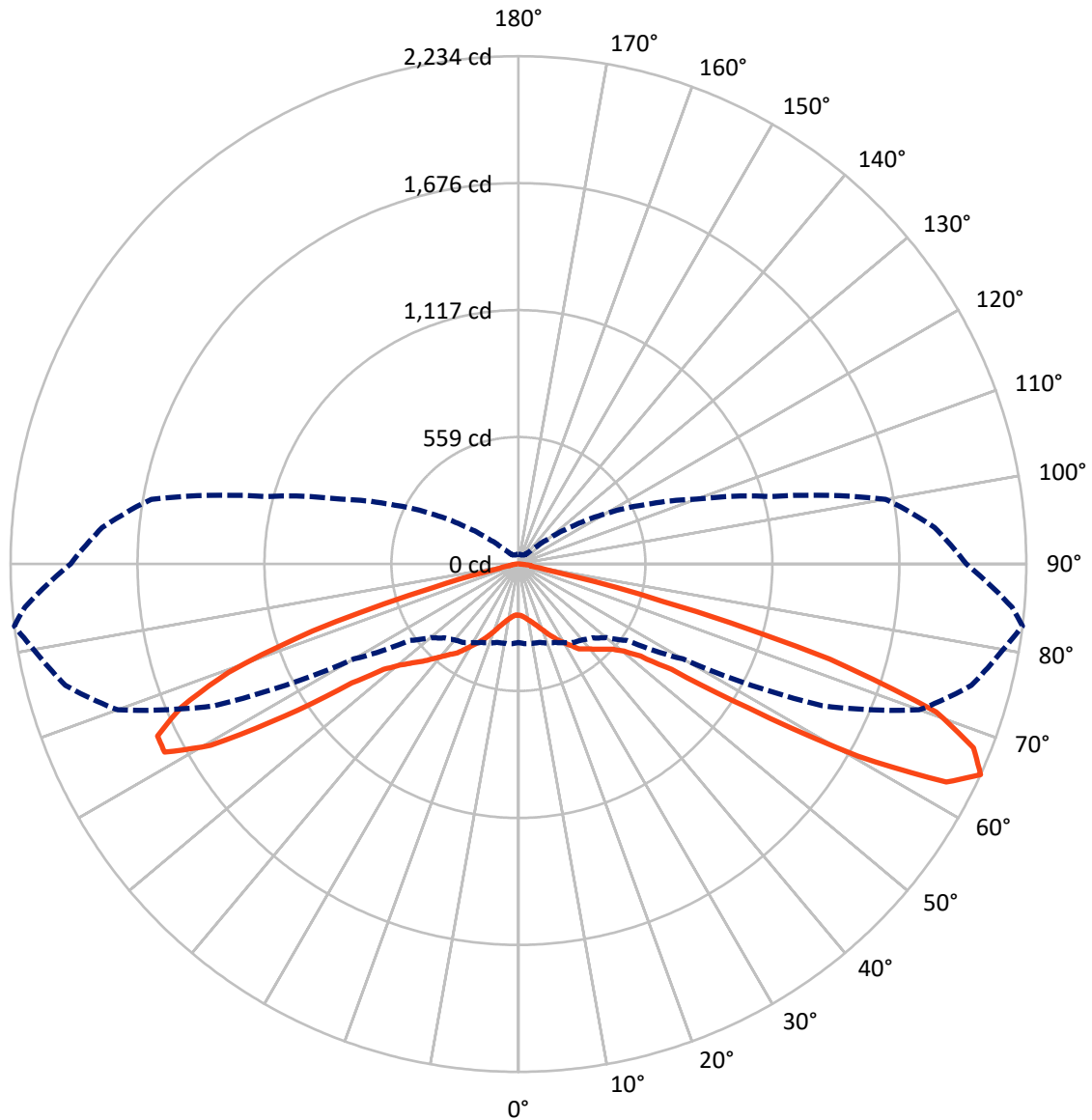
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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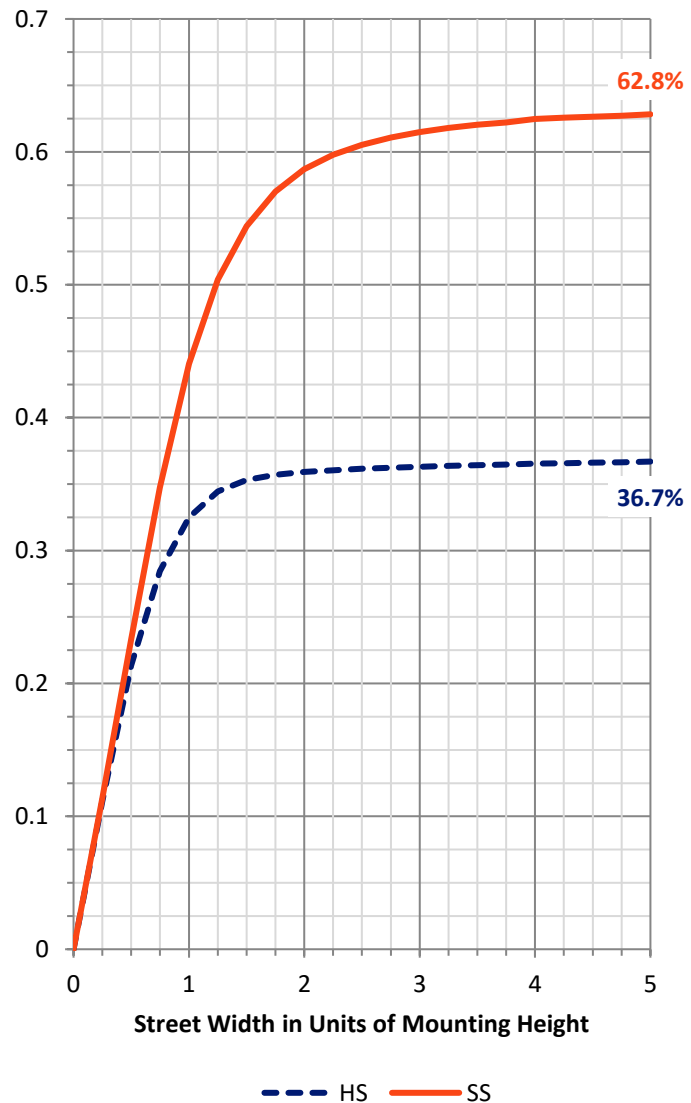
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	902.7	0.0	902.7
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	1531.0	0.0	1531.0
	% Fixture	62.9	0.0	62.9
Total	Lumens	2433.7	0.0	2433.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.7	0.9
10°-20°	79.4	3.3
20°-30°	156.9	6.4
30°-40°	270.1	11.1
40°-50°	407.5	16.7
50°-60°	567.0	23.3
60°-70°	654.5	26.9
70°-80°	237.8	9.8
80°-90°	37.8	1.6
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°	2433.7	100.0
0°-180°	2433.7	100.0



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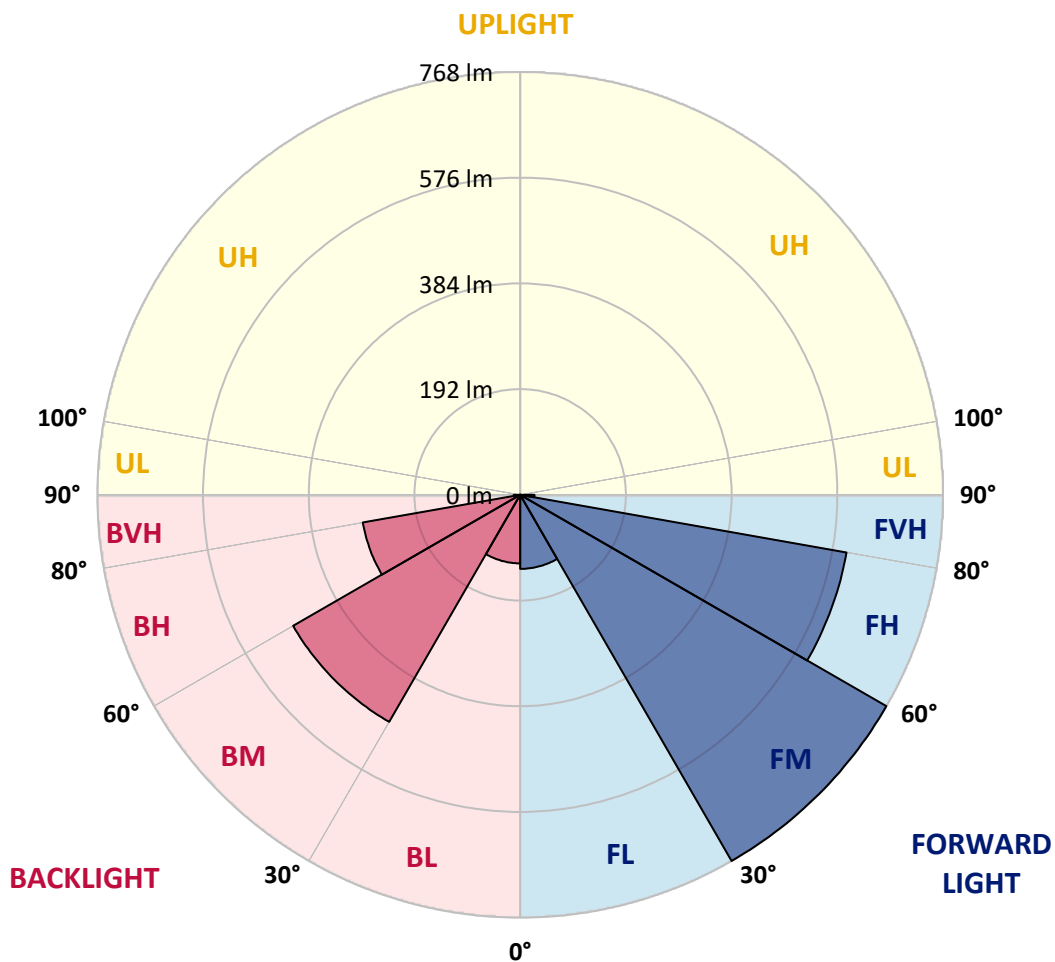
CATALOG NUMBER: ECM-F01-LED-E1-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	134.5	5.5			
FM	(30°-60°)	768.3	31.6			
FH	(60°-80°)	602.1	24.7			G0/660
FVH	(80°-90°)	26.1	1.1			G1/100
BL	(0°-30°)	124.5	5.1	B1/500		
BM	(30°-60°)	476.3	19.6	B1/1000		
BH	(60°-80°)	290.2	11.9	B1/500		G1/500
BVH	(80°-90°)	11.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4
2.5°	236.4	236.9	236.4	236.4	236.1	235.8	235.8	235.5	235.0	234.4	234.2
5°	249.3	249.6	248.8	248.8	249.0	248.8	247.9	248.2	246.0	245.2	244.6
7.5°	263.6	264.4	263.3	262.8	262.5	262.0	261.1	259.8	258.1	256.7	255.9
10°	279.9	280.7	280.1	279.0	277.4	276.6	275.7	273.5	271.6	269.4	267.7
12.5°	299.1	299.4	298.8	296.6	295.5	293.1	290.3	287.8	285.1	281.8	279.0
15°	318.1	318.4	317.6	315.4	314.0	310.9	307.1	303.8	299.1	295.3	291.7
17.5°	332.7	333.2	331.6	329.9	328.0	324.2	320.6	316.7	311.8	307.6	304.1
20°	337.6	338.5	337.4	336.5	335.4	333.5	329.9	326.6	322.2	319.2	316.5
22.5°	335.4	336.3	335.7	335.7	335.7	335.4	333.8	333.0	330.2	328.8	328.3
25°	332.1	333.0	332.4	333.0	334.1	335.4	335.4	337.1	336.8	339.0	340.4
27.5°	340.7	341.2	339.8	339.8	340.9	343.1	342.6	345.9	346.4	350.8	355.0
30°	370.4	370.4	368.2	366.0	366.8	366.3	365.7	367.9	367.9	372.0	374.0
32.5°	414.7	411.7	411.4	411.1	409.2	410.6	406.2	406.4	404.5	405.1	404.2
35°	463.4	463.1	462.0	461.5	460.6	464.8	461.5	464.2	457.3	454.9	450.2
37.5°	506.0	507.1	508.0	512.1	514.0	522.3	524.2	525.6	518.4	518.7	508.2
40°	549.0	550.3	553.4	560.8	566.3	574.0	577.6	583.4	583.9	585.0	577.3
42.5°	595.8	593.6	597.7	607.0	613.9	621.6	626.3	637.0	643.1	646.1	647.2
45°	633.5	631.0	632.9	638.4	644.7	654.6	664.8	680.8	693.7	707.8	715.5
47.5°	653.0	653.5	654.9	658.2	662.6	672.3	686.6	706.9	727.8	750.4	770.5
50°	659.3	659.6	661.5	664.8	669.0	679.1	694.0	717.1	742.4	774.1	804.9
52.5°	661.2	660.1	662.1	663.7	666.5	675.0	689.0	713.3	741.9	780.1	825.8
55°	654.1	652.7	656.0	658.2	660.4	667.3	678.0	700.3	730.0	773.5	833.2
57.5°	626.6	626.8	631.5	637.3	643.1	652.4	666.5	687.7	717.1	760.0	826.9
60°	580.1	579.2	585.0	592.2	602.1	616.9	634.3	655.7	680.2	716.0	781.8
62.5°	495.6	498.9	500.8	511.6	512.1	533.3	544.6	566.0	586.9	614.5	673.6
65°	345.1	352.2	354.2	356.9	369.8	380.8	399.0	421.6	435.3	459.5	503.6
67.5°	214.9	220.1	220.4	227.6	238.9	251.5	265.5	288.4	309.3	313.1	335.2
70°	178.3	178.6	182.4	187.7	196.5	209.4	223.2	239.1	258.1	270.2	268.0
72.5°	147.8	149.4	152.2	157.4	167.0	178.6	196.2	216.6	240.2	264.4	285.9
75°	99.1	101.8	102.6	105.1	109.8	120.3	133.5	152.7	183.3	219.3	265.0
77.5°	52.6	53.1	55.0	57.0	59.4	65.8	74.3	84.2	104.3	135.4	189.0
80°	26.7	27.8	29.2	30.5	30.3	31.9	34.4	38.8	45.7	59.4	85.6
82.5°	9.6	12.4	16.2	18.2	18.2	18.7	19.5	20.4	19.8	22.0	27.5
85°	4.4	5.0	6.3	9.9	10.2	10.2	10.2	10.7	10.2	9.1	10.7
87.5°	0.0	0.8	0.8	2.5	2.8	2.5	2.8	3.6	2.8	2.2	1.9
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-T2

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4
2.5°	232.8	232.2	230.9	230.3	228.7	227.6	227.0	226.5	225.6	224.5	223.7
5°	243.0	241.3	239.4	238.3	236.1	233.9	233.1	232.0	230.0	228.4	226.5
7.5°	253.7	251.8	249.6	247.1	244.9	242.4	241.3	240.2	237.5	235.3	232.5
10°	265.3	262.5	260.0	257.8	255.9	253.2	251.2	250.4	247.9	244.6	241.9
12.5°	276.3	273.2	270.8	268.0	266.1	263.9	262.0	261.1	259.2	256.2	254.0
15°	287.8	284.8	282.1	280.1	277.9	276.6	275.5	274.1	273.2	270.8	269.7
17.5°	300.2	297.5	295.0	293.3	292.5	292.2	292.0	291.4	290.6	288.9	288.1
20°	314.2	311.8	310.9	310.7	310.9	311.2	311.8	311.8	312.0	310.9	310.7
22.5°	327.7	327.7	329.1	330.8	332.4	333.5	334.3	333.2	333.5	335.2	336.5
25°	342.6	345.1	348.6	351.4	353.9	355.8	356.9	357.5	358.0	360.5	363.0
27.5°	358.6	362.4	367.6	371.2	375.9	378.9	381.1	380.8	381.7	385.0	389.4
30°	378.4	382.2	387.7	392.7	399.0	403.4	404.2	403.7	404.8	407.8	416.6
32.5°	406.2	407.0	410.6	415.5	422.4	426.8	427.6	429.0	431.5	437.0	447.7
35°	445.2	441.7	441.4	443.6	450.2	458.7	459.5	460.4	461.5	468.6	482.9
37.5°	498.1	483.5	474.7	467.8	468.6	471.6	473.3	473.9	476.6	487.6	511.8
40°	564.4	537.1	517.6	498.1	490.9	491.5	492.0	491.5	497.0	514.0	545.7
42.5°	637.0	613.1	579.0	538.5	518.2	511.6	512.4	512.9	521.5	546.2	581.4
45°	714.1	698.7	659.0	595.8	552.0	535.2	534.7	535.8	549.8	584.7	621.9
47.5°	781.8	785.6	756.5	682.2	607.0	564.4	560.8	562.7	585.6	623.0	660.7
50°	835.4	860.7	858.5	799.7	696.2	614.7	602.1	604.8	631.8	670.6	704.4
52.5°	875.9	927.3	960.4	937.0	847.0	706.1	673.4	668.7	702.5	743.5	764.4
55°	902.8	986.2	1072.9	1113.4	1076.8	903.4	817.8	807.6	844.2	896.5	905.6
57.5°	920.7	1057.8	1244.3	1400.6	1450.4	1301.9	1194.5	1151.9	1178.6	1233.9	1222.1
60°	891.0	1086.1	1451.3	1731.4	1873.1	1836.2	1716.8	1652.4	1602.6	1598.5	1532.7
62.5°	777.1	1018.7	1535.2	1888.8	2088.0	2134.0	2112.8	2036.6	1898.7	1822.2	1673.6
65°	586.1	834.6	1475.5	1876.7	2063.5	2165.4	2234.4	2179.7	1970.5	1838.2	1640.6
67.5°	374.5	538.8	1227.3	1731.1	1906.7	2021.2	2159.3	2134.3	1867.1	1698.1	1483.2
70°	273.5	298.6	832.7	1465.3	1658.5	1759.2	1949.1	1938.1	1637.3	1447.4	1234.4
72.5°	315.1	222.6	456.5	1094.6	1244.1	1323.3	1432.0	1405.3	1143.9	1012.1	861.3
75°	355.3	249.0	257.3	649.4	695.1	639.5	654.4	568.2	443.3	392.9	387.2
77.5°	299.1	312.3	233.3	279.0	257.0	185.2	138.7	108.7	85.0	91.4	101.5
80°	173.9	351.1	308.7	145.3	162.9	129.6	57.8	47.9	39.6	40.2	40.7
82.5°	53.7	219.3	434.5	177.5	161.3	182.7	53.1	32.5	26.1	29.4	33.3
85°	17.9	91.9	348.4	186.3	104.3	97.4	23.4	16.0	13.2	18.4	26.1
87.5°	4.4	22.3	64.7	24.5	15.4	9.4	8.0	5.8	6.3	11.6	16.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4	225.4
2.5°	223.2	222.3	221.5	221.0	220.1	220.1	219.3	219.3	218.2	217.7	217.7
5°	224.8	223.2	221.8	220.4	219.0	218.5	217.4	216.8	215.7	214.9	214.4
7.5°	230.3	228.1	226.5	224.8	223.2	222.3	221.2	220.1	219.9	219.3	218.8
10°	239.7	236.7	235.3	234.2	232.0	231.4	230.3	229.5	228.7	227.8	228.1
12.5°	251.8	249.6	249.0	246.8	246.3	245.5	243.8	243.3	241.1	239.4	238.6
15°	267.2	266.4	266.4	265.3	263.6	262.2	259.8	258.4	254.5	252.1	249.3
17.5°	287.6	286.7	287.0	285.9	284.0	281.5	278.8	274.6	268.8	264.4	258.9
20°	311.2	310.9	311.5	310.7	308.2	304.9	298.3	292.2	284.3	276.3	270.2
22.5°	337.6	339.0	339.6	337.4	334.6	327.7	320.6	311.8	301.0	290.6	282.1
25°	365.7	369.0	370.9	367.9	364.6	355.8	345.1	333.2	318.1	305.4	294.2
27.5°	393.2	400.1	402.9	401.2	396.0	383.6	369.3	353.6	335.2	318.4	303.8
30°	426.0	435.1	440.0	437.5	427.3	411.1	393.8	372.6	349.2	329.1	311.5
32.5°	460.4	471.6	475.2	470.0	455.1	434.8	412.2	386.3	359.9	336.8	317.0
35°	498.6	509.1	509.9	499.7	480.2	454.3	426.2	395.2	364.9	339.0	317.3
37.5°	531.9	542.4	541.5	526.4	502.7	470.5	434.8	397.1	361.9	332.4	308.7
40°	566.9	578.4	572.1	552.6	522.0	481.0	435.9	390.5	350.3	318.1	292.2
42.5°	603.7	608.7	597.4	572.9	533.6	480.7	426.5	374.8	332.1	296.4	269.1
45°	637.6	633.7	617.5	584.7	532.7	468.9	408.1	355.3	307.9	272.1	245.5
47.5°	667.8	655.7	630.7	584.7	519.8	448.0	384.4	329.9	282.9	246.8	220.4
50°	700.6	675.3	636.2	574.6	496.4	422.7	359.4	304.6	256.2	219.3	190.4
52.5°	744.1	698.7	636.2	556.1	472.2	397.1	333.0	275.2	225.1	186.6	158.0
55°	845.9	747.7	647.2	545.9	450.7	370.1	301.6	237.2	188.5	151.6	128.0
57.5°	1045.9	855.0	702.5	564.7	442.8	340.9	261.1	195.1	148.9	118.1	98.2
60°	1212.4	941.6	747.4	579.0	429.8	303.2	211.6	149.4	110.6	87.2	74.3
62.5°	1255.3	942.7	728.9	541.8	377.5	246.8	156.0	102.9	75.9	63.3	56.4
65°	1148.0	833.8	620.0	441.9	287.6	171.4	97.7	62.5	50.6	46.2	43.5
67.5°	965.0	664.3	459.5	308.2	181.3	94.4	54.8	42.9	38.5	37.1	35.8
70°	740.2	466.7	299.1	180.5	94.9	49.0	39.1	35.2	33.3	32.5	31.4
72.5°	456.2	275.7	162.6	86.7	47.3	37.4	34.9	33.6	31.1	30.0	28.9
75°	193.7	118.3	67.4	44.0	38.0	35.8	33.8	32.2	30.3	28.6	27.5
77.5°	65.2	45.1	39.9	38.5	38.0	35.8	33.3	31.1	29.2	27.2	26.1
80°	39.6	36.0	36.9	36.6	38.0	35.5	32.2	29.7	27.5	25.6	24.2
82.5°	34.4	34.1	34.9	35.8	37.7	34.1	30.3	26.7	23.9	22.0	20.6
85°	29.7	30.3	30.8	31.4	32.5	28.9	24.5	21.2	19.0	16.5	15.4
87.5°	19.8	21.5	22.6	22.8	22.0	13.8	8.0	9.4	9.6	8.3	7.4
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-T2

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	225.4	225.4	225.4	225.4	225.4
2.5°	216.8	216.6	217.4	216.6	216.6
5°	214.1	213.8	213.8	213.8	213.3
7.5°	218.5	218.2	217.9	217.9	217.7
10°	227.0	226.7	226.7	226.5	226.5
12.5°	237.2	236.1	235.8	235.3	235.5
15°	247.1	244.1	243.3	242.4	241.6
17.5°	254.8	251.2	249.3	247.7	247.7
20°	264.4	259.8	257.3	254.8	254.8
22.5°	275.5	269.1	265.8	263.1	262.0
25°	284.5	276.6	271.9	268.6	267.7
27.5°	291.4	281.2	275.2	271.3	270.2
30°	296.9	285.4	278.2	274.1	272.4
32.5°	300.5	287.8	280.1	276.0	274.3
35°	298.6	285.1	275.7	270.8	269.7
37.5°	288.9	274.6	263.6	258.4	256.5
40°	271.3	255.9	244.4	238.0	236.9
42.5°	248.2	232.8	221.8	215.2	212.2
45°	223.4	207.5	197.0	191.0	187.4
47.5°	196.8	181.1	170.3	164.3	161.8
50°	168.7	153.5	144.5	137.9	135.4
52.5°	139.5	126.0	116.9	111.4	108.7
55°	111.7	100.7	93.0	89.4	87.5
57.5°	87.2	80.1	75.7	73.5	72.1
60°	67.7	64.1	62.5	60.8	61.1
62.5°	52.8	52.0	51.5	50.6	50.9
65°	42.7	42.1	42.4	42.1	42.4
67.5°	34.9	35.2	35.8	35.8	36.0
70°	30.8	31.1	31.6	31.6	31.6
72.5°	28.6	29.2	29.7	29.4	29.4
75°	27.0	28.3	29.4	28.3	27.2
77.5°	25.3	28.6	31.6	29.2	26.1
80°	23.1	30.3	33.8	29.4	25.0
82.5°	22.0	29.2	29.7	25.6	22.0
85°	20.4	33.0	34.4	23.4	16.8
87.5°	10.5	19.8	22.8	15.7	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)