

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: P400947

Luminaire Tested: **ENV-SA1A-740-U-SL2-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400947
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-740-U-SL2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4478 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U4 - G1

Input Watts (W): 36.8
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

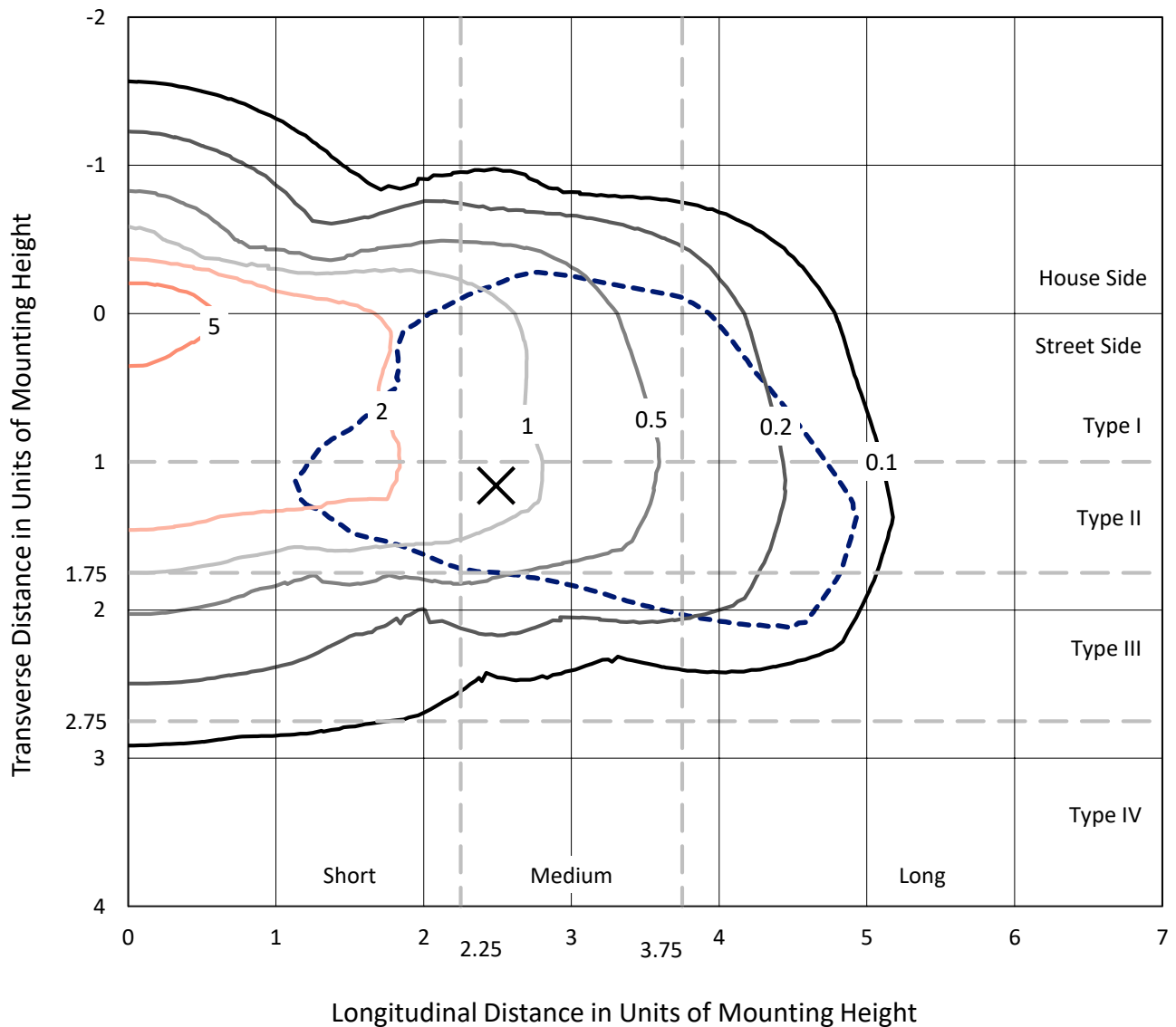


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Iso-Footcandle Lines of Horizontal Illumination

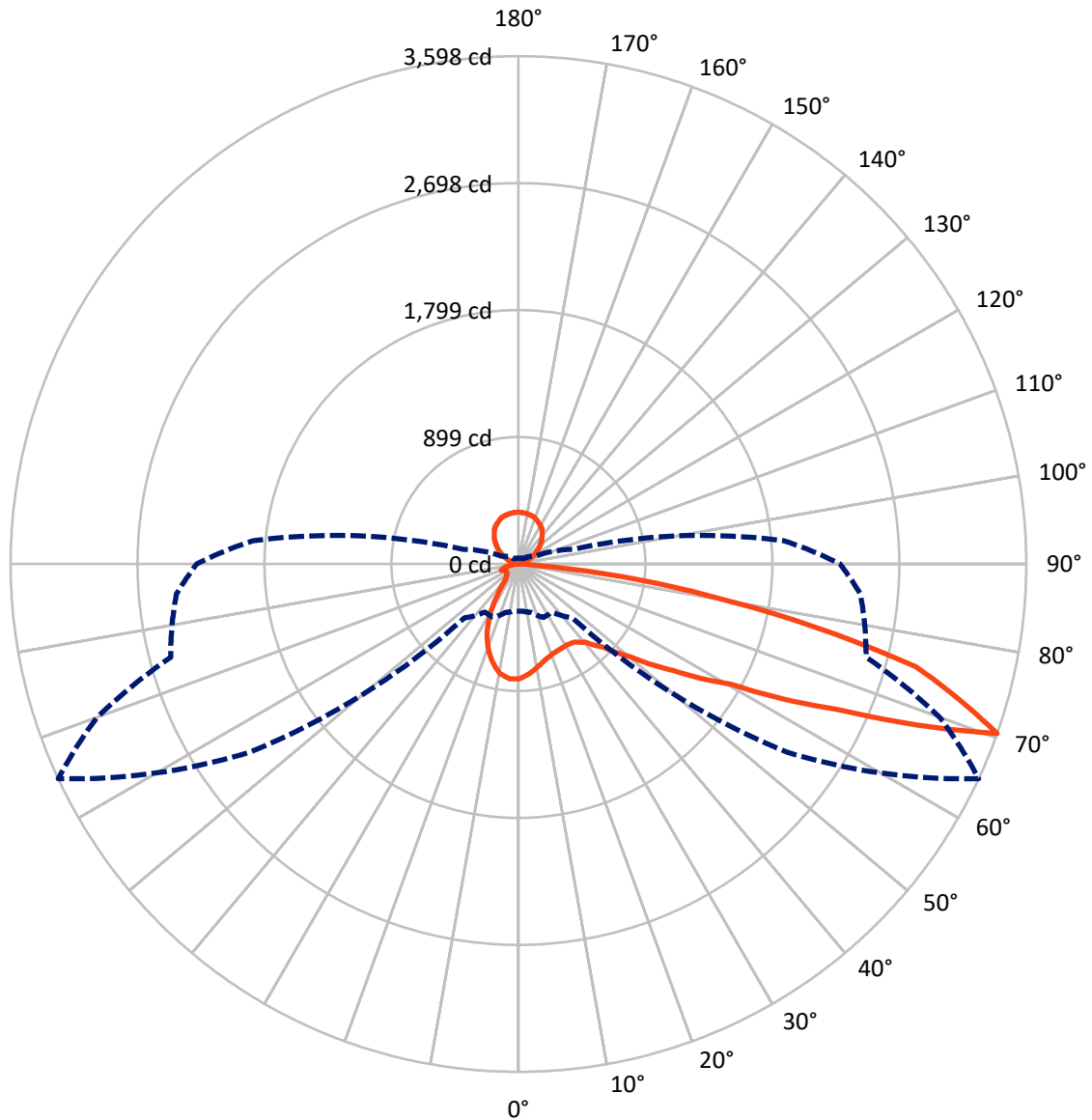
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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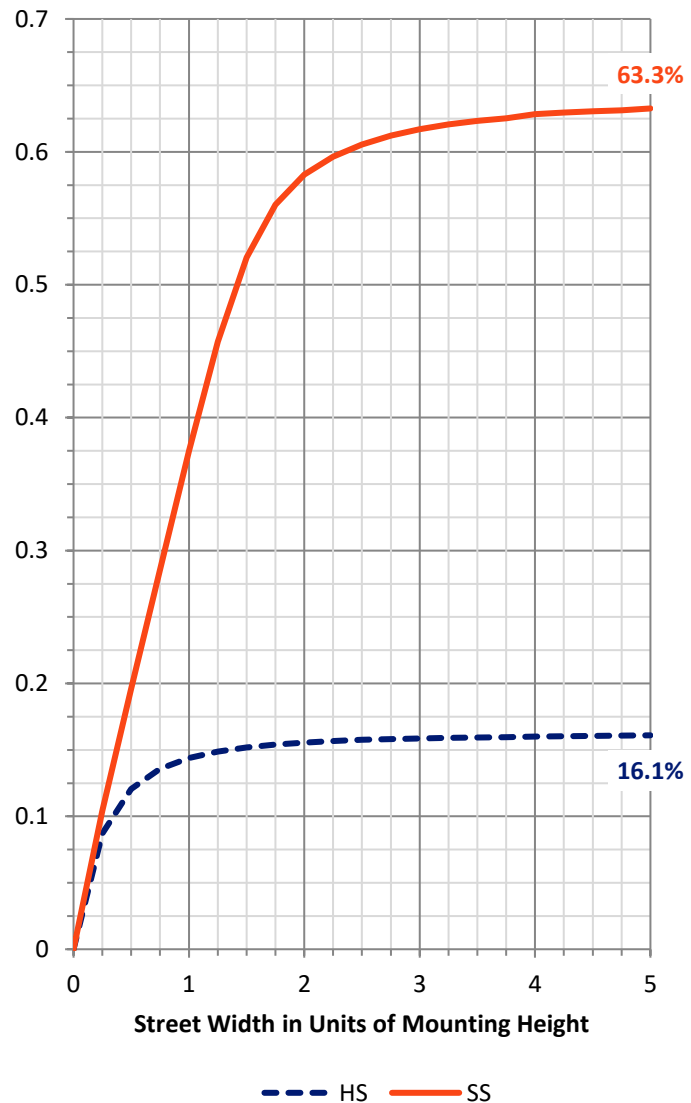
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	731.3	456.0	1187.3
	% Fixture	16.3	10.2	26.5
Street Side	Lumens	2834.7	456.0	3290.7
	% Fixture	63.3	10.2	73.5
Total	Lumens	3566.0	912.0	4478.0
	% Fixture	79.6	20.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	1.6
10°-20°	177.8	4.0
20°-30°	240.1	5.4
30°-40°	315.8	7.1
40°-50°	450.0	10.1
50°-60°	682.8	15.2
60°-70°	853.0	19.0
70°-80°	675.0	15.1
80°-90°	99.2	2.2
90°-100°	4.4	0.1
100°-110°	30.8	0.7
110°-120°	87.6	2.0
120°-130°	143.5	3.2
130°-140°	176.9	4.0
140°-150°	180.9	4.0
150°-160°	152.5	3.4
160°-170°	100.4	2.2
170°-180°	34.8	0.8
0°-90°	3566.0	79.6
0°-180°	4478.0	100.0



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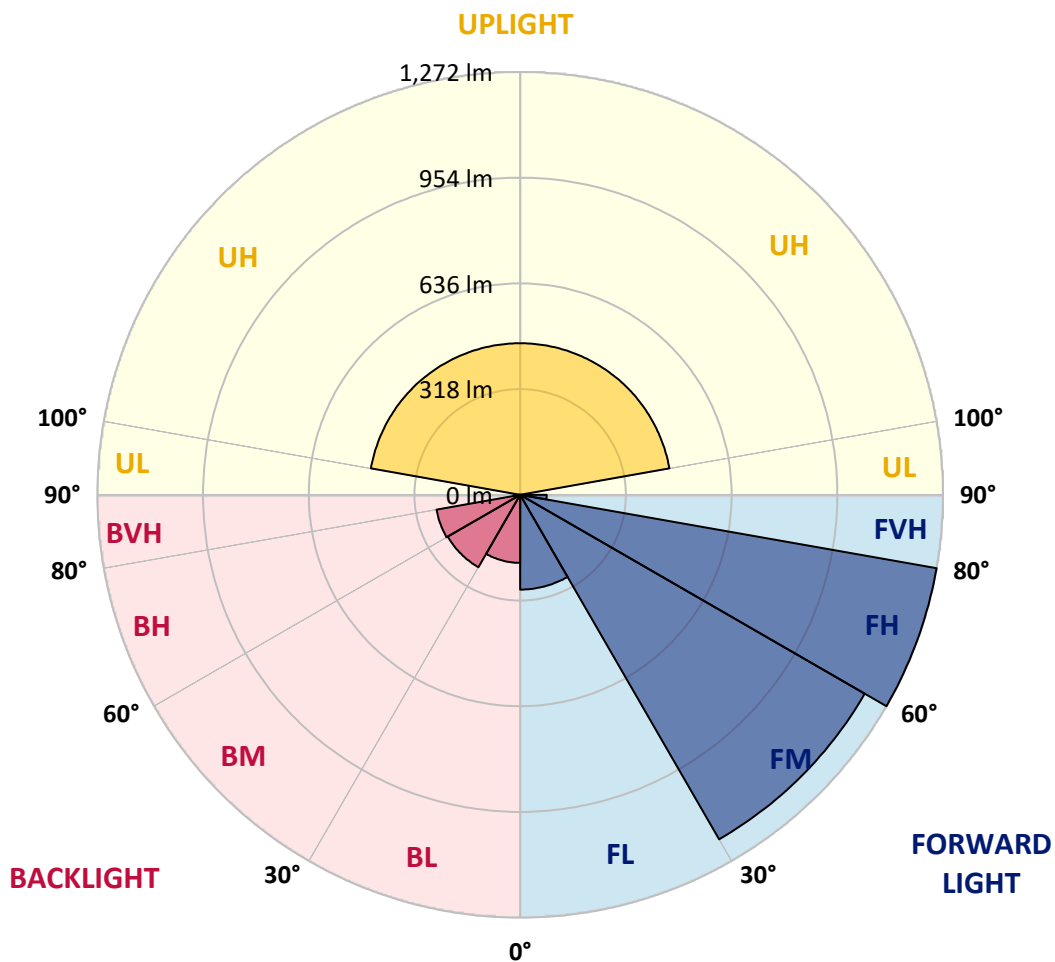
CATALOG NUMBER: ENV-SA1A-740-U-SL2-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	285.2	6.4			
FM	(30°-60°)	1197.2	26.7			
FH	(60°-80°)	1272.5	28.4			G1/1800
FVH	(80°-90°)	79.9	1.8			G1/100
BL	(0°-30°)	204.9	4.6	B1/500		
BM	(30°-60°)	251.5	5.6	B1/1000		
BH	(60°-80°)	255.6	5.7	B1/500		G1/500
BVH	(80°-90°)	19.3	0.4			G1/100
UL	(90°-100°)	4.4	0.1		U1/10	
UH	(100°-180°)	456.0	10.2		U3/500	

BUG Rating: B1-U4-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3
5°	717.3	717.8	719.4	720.9	724.0	727.1	732.0	736.8	744.3	751.7	757.4
10°	642.4	644.9	647.0	649.0	654.2	659.3	664.9	670.6	680.4	690.1	700.6
15°	602.3	602.8	604.9	606.9	611.5	616.2	623.1	630.0	639.5	649.0	659.8
20°	593.1	594.1	595.1	596.1	597.4	598.7	603.1	607.4	615.4	623.4	634.4
25°	624.4	624.4	623.9	623.4	619.2	615.1	611.8	608.5	610.8	613.1	622.8
30°	691.1	692.2	691.1	690.1	683.7	677.3	664.7	652.1	641.6	631.1	632.9
35°	769.7	771.8	777.9	784.1	783.0	782.0	765.6	749.2	722.2	695.2	681.1
40°	840.0	846.7	860.1	873.4	886.5	899.6	894.0	888.3	850.8	813.3	781.8
45°	929.4	936.6	959.9	983.3	1005.9	1028.5	1039.5	1050.6	1020.5	990.5	943.0
50°	1072.6	1081.9	1100.6	1119.4	1147.4	1175.3	1210.0	1244.7	1233.9	1223.1	1168.9
55°	1165.6	1172.3	1178.2	1184.1	1220.8	1257.5	1356.9	1456.2	1509.6	1563.0	1497.0
60°	832.3	846.2	860.3	874.4	932.7	991.0	1173.5	1356.1	1627.7	1899.3	1979.7
65°	484.7	494.0	498.1	502.2	501.9	501.7	569.4	637.2	1164.0	1690.9	2216.4
70°	333.8	334.8	344.8	354.8	386.1	417.5	416.2	414.9	477.0	539.1	1430.5
75°	135.0	134.0	142.5	151.0	204.6	258.3	342.0	425.7	424.6	423.6	608.7
80°	34.9	37.0	40.3	43.6	56.7	69.8	134.5	199.2	275.2	351.2	338.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	15.1	29.3	48.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.6	2.6	2.9	3.1	3.4	3.7	3.7	3.7	3.7	3.7	3.7
100°	4.2	4.2	4.5	4.7	5.0	5.2	5.8	6.3	8.7	11.0	13.1
105°	11.0	11.6	12.9	14.2	16.5	18.9	22.1	25.2	29.2	33.1	35.5
110°	34.7	35.7	37.3	38.9	42.3	45.7	49.7	53.6	56.7	59.9	61.5
115°	73.5	73.0	75.1	77.2	80.4	83.5	85.9	88.3	89.9	91.4	92.7
120°	118.2	117.1	117.9	118.7	120.6	122.4	123.4	124.5	126.1	127.6	128.4
125°	156.5	154.4	155.0	155.5	156.3	157.1	158.7	160.2	161.5	162.8	163.6
130°	190.7	189.6	189.9	190.1	191.2	192.2	193.3	194.3	194.9	195.4	196.7
135°	225.3	223.8	223.8	223.8	225.4	226.9	227.7	228.5	229.0	229.5	231.1
140°	256.3	254.7	255.3	255.8	256.3	256.8	257.4	257.9	259.5	261.0	261.9
145°	288.9	286.8	286.3	285.7	286.6	287.3	288.1	288.9	289.1	289.4	290.7
150°	312.6	311.0	311.2	311.5	311.5	311.5	311.5	311.5	311.5	311.5	312.6
155°	330.4	328.3	328.3	328.3	328.8	329.3	330.2	330.9	330.4	329.9	329.3
160°	348.2	346.6	346.4	346.1	345.4	344.6	344.3	344.0	344.0	344.0	344.8
165°	357.7	356.1	355.6	355.1	355.1	355.1	354.3	353.5	353.5	353.5	353.2
170°	366.6	365.1	364.3	363.5	363.5	363.5	363.7	364.0	363.5	363.0	361.6
175°	367.7	366.6	366.4	366.1	365.6	365.1	364.1	363.0	362.7	362.4	362.4
180°	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6



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CATALOG NUMBER: ENV-SA1A-740-U-SL2-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3
5°	763.0	772.5	782.0	790.6	799.0	804.9	810.8	814.9	818.0	819.0	820.0
10°	711.2	726.3	741.5	758.3	776.9	793.3	809.7	818.0	820.0	815.9	811.8
15°	670.6	688.1	705.5	726.8	751.2	778.2	805.1	814.4	812.8	796.1	779.5
20°	645.4	663.4	681.4	706.8	736.3	772.8	809.2	815.4	803.1	768.4	733.8
25°	632.6	652.1	671.6	699.3	731.7	774.6	817.4	815.4	785.1	731.4	677.8
30°	634.7	651.3	668.0	696.7	730.7	775.3	820.0	805.1	755.8	681.9	608.0
35°	667.0	672.7	678.3	702.5	732.7	776.1	819.5	788.2	720.4	624.1	527.9
40°	750.2	739.4	728.6	743.2	769.2	804.1	839.0	785.1	694.7	567.4	440.0
45°	895.5	867.3	839.0	849.5	866.2	891.9	917.6	832.9	700.9	524.3	347.6
50°	1114.8	1076.5	1038.2	1039.8	1047.5	1075.0	1102.4	963.8	776.4	521.4	266.5
55°	1431.1	1381.8	1332.5	1315.3	1312.4	1347.9	1383.3	1219.0	963.3	594.3	225.4
60°	2060.1	1893.4	1726.8	1672.7	1623.6	1661.3	1699.1	1530.7	1236.4	762.8	289.1
65°	2741.9	2612.6	2483.2	2166.3	1945.6	1963.5	1981.5	1832.1	1527.6	1006.9	486.3
70°	2321.9	2959.9	3597.9	3176.9	2550.4	2491.1	2431.8	2278.3	1887.5	1144.3	401.0
75°	793.8	1852.1	2910.4	2987.3	2895.5	2558.6	2221.8	1938.4	1456.7	812.8	168.9
80°	325.5	850.8	1376.1	1442.9	1455.7	1171.7	887.8	729.6	507.8	302.4	97.0
85°	68.3	86.0	103.7	71.1	45.7	42.4	39.0	38.5	38.5	29.8	21.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.7	4.0	4.2	4.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7
100°	15.3	14.4	13.7	12.9	12.1	11.0	10.0	10.0	10.0	11.0	12.1
105°	37.8	37.3	36.8	35.4	34.1	33.1	32.0	32.0	32.0	33.1	34.1
110°	63.1	63.3	63.6	63.1	62.5	61.7	60.9	61.5	60.9	61.7	62.5
115°	94.0	94.8	95.6	94.8	94.0	93.5	93.0	93.5	93.0	93.5	94.0
120°	129.2	130.3	131.3	130.0	128.7	128.2	127.6	127.6	127.6	128.2	128.7
125°	164.4	164.9	165.4	164.2	162.8	162.8	162.8	162.8	162.8	162.8	162.8
130°	198.0	199.1	200.1	200.1	200.1	199.6	199.1	199.6	199.1	199.6	200.1
135°	232.7	234.0	235.3	235.1	234.8	235.6	236.4	236.9	236.4	235.6	234.8
140°	262.6	263.2	263.7	264.2	264.7	266.0	267.4	268.4	267.4	266.1	264.7
145°	292.1	293.6	295.2	294.9	294.7	293.9	293.1	294.2	293.1	293.9	294.7
150°	313.6	314.3	315.2	315.9	316.7	317.5	318.3	320.4	318.3	317.5	316.7
155°	328.8	330.1	331.4	332.7	334.1	334.6	335.1	336.7	335.1	334.6	334.1
160°	345.6	347.2	348.8	348.0	347.2	347.0	346.6	349.8	346.6	347.0	347.2
165°	353.0	354.3	355.6	356.4	357.2	356.7	356.1	358.3	356.1	356.7	357.2
170°	360.3	361.1	361.9	363.2	364.5	365.1	365.6	368.2	365.6	365.1	364.5
175°	362.4	363.7	365.1	365.3	365.6	365.1	364.5	367.1	364.5	365.1	365.6
180°	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3	813.3
5°	817.7	815.4	811.5	807.7	801.0	794.3	792.0	789.7	783.8	777.9	774.1
10°	799.5	787.2	770.0	752.8	733.0	713.2	696.8	680.4	666.5	652.6	638.8
15°	751.0	722.5	689.3	656.2	622.8	589.5	554.6	519.6	488.8	458.0	437.0
20°	686.3	638.8	583.6	528.4	469.1	409.8	359.7	309.6	281.1	252.6	243.9
25°	607.2	536.6	449.8	363.0	291.7	220.3	199.5	178.7	176.1	173.6	178.2
30°	506.3	404.6	302.2	199.7	173.8	147.9	144.3	140.7	141.5	142.2	145.3
35°	390.8	253.7	194.1	134.5	130.2	125.8	125.3	124.8	124.5	124.3	125.0
40°	294.0	147.9	133.0	118.1	116.6	115.0	113.5	111.9	110.4	108.9	107.8
45°	232.3	117.1	112.2	107.3	105.8	104.2	100.9	97.6	95.8	94.0	93.2
50°	186.9	107.3	103.5	99.6	96.5	93.5	90.1	86.8	84.7	82.7	81.9
55°	163.8	102.2	96.8	91.4	88.1	84.7	81.1	77.5	75.2	72.9	71.4
60°	194.1	99.1	90.6	82.2	78.3	74.5	71.1	67.8	65.2	62.6	61.1
65°	292.9	99.6	88.6	77.5	70.9	64.2	60.6	57.0	54.9	52.9	51.9
70°	266.2	131.4	110.9	90.4	73.4	56.5	51.3	46.2	45.2	44.2	43.6
75°	139.7	110.4	93.7	77.0	61.9	46.7	41.8	37.0	36.5	35.9	35.4
80°	82.4	67.8	55.7	43.6	37.2	30.8	29.3	27.7	27.5	27.2	27.0
85°	21.1	21.1	19.5	18.0	17.2	16.4	16.9	17.5	17.5	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.0	4.2	4.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.4
100°	12.9	13.7	14.5	15.3	13.1	11.0	8.7	6.3	5.8	5.2	5.0
105°	35.5	36.8	37.3	37.8	35.5	33.1	29.2	25.2	22.1	18.9	16.5
110°	63.1	63.6	63.3	63.1	61.5	59.9	56.7	53.6	49.7	45.7	42.3
115°	94.8	95.6	94.8	94.0	92.7	91.4	89.9	88.3	85.9	83.5	80.4
120°	130.0	131.3	130.3	129.2	128.4	127.6	126.1	124.5	123.4	122.4	120.6
125°	164.2	165.4	164.9	164.4	163.6	162.8	161.5	160.2	158.7	157.1	156.3
130°	200.1	200.1	199.1	198.0	196.7	195.4	194.9	194.3	193.3	192.2	191.2
135°	235.1	235.3	234.0	232.7	231.1	229.5	229.0	228.5	227.7	226.9	225.4
140°	264.2	263.7	263.2	262.6	261.9	261.0	259.5	257.9	257.4	256.8	256.3
145°	294.9	295.2	293.7	292.1	290.7	289.4	289.1	288.9	288.1	287.3	286.6
150°	315.9	315.2	314.4	313.6	312.6	311.5	311.5	311.5	311.5	311.5	311.5
155°	332.8	331.4	330.2	328.8	329.3	329.9	330.4	330.9	330.2	329.3	328.8
160°	348.0	348.8	347.2	345.6	344.8	344.0	344.0	344.0	344.3	344.6	345.4
165°	356.4	355.6	354.3	353.0	353.2	353.5	353.5	353.5	354.3	355.1	355.1
170°	363.2	361.9	361.1	360.3	361.6	363.0	363.5	364.0	363.7	363.5	363.5
175°	365.3	365.1	363.7	362.4	362.4	362.4	362.7	363.0	364.1	365.1	365.6
180°	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6	367.6



REPORT NUMBER: P400947

CATALOG NUMBER: ENV-SA1A-740-U-SL2-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	813.3	813.3	813.3	813.3
5°	770.2	768.2	766.1	764.0
10°	624.9	619.8	614.6	616.2
15°	415.9	401.8	387.7	384.1
20°	235.2	233.9	232.6	233.1
25°	182.8	186.4	190.0	192.0
30°	148.4	151.5	154.6	154.6
35°	125.8	126.3	126.8	126.8
40°	106.8	106.3	105.8	105.3
45°	92.4	92.7	92.9	92.9
50°	81.1	81.1	81.1	81.1
55°	69.8	69.3	68.8	69.3
60°	59.6	59.0	58.5	58.0
65°	50.8	50.1	49.3	49.3
70°	43.1	42.6	42.1	42.1
75°	34.9	34.7	34.4	34.9
80°	26.7	26.4	26.2	26.2
85°	17.5	16.9	16.4	16.4
90°	0.0	0.0	0.0	0.0
95°	3.1	2.9	2.6	2.6
100°	4.7	4.5	4.2	4.2
105°	14.2	12.9	11.6	11.0
110°	38.9	37.3	35.7	34.7
115°	77.2	75.1	73.0	73.5
120°	118.7	117.9	117.1	118.2
125°	155.5	155.0	154.4	156.5
130°	190.1	189.9	189.6	190.7
135°	223.8	223.8	223.8	225.3
140°	255.8	255.3	254.7	256.3
145°	285.7	286.3	286.8	288.9
150°	311.5	311.2	311.0	312.6
155°	328.3	328.3	328.3	330.4
160°	346.1	346.4	346.6	348.2
165°	355.1	355.6	356.1	357.7
170°	363.5	364.3	365.1	366.6
175°	366.1	366.4	366.6	367.7
180°	367.6	367.6	367.6	367.6

(END OF REPORT)