

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: P400969

Luminaire Tested: **ENV-SA1A-740-U-T3-HSS-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400969  
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-T3-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3878 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B0 - U4 - G1

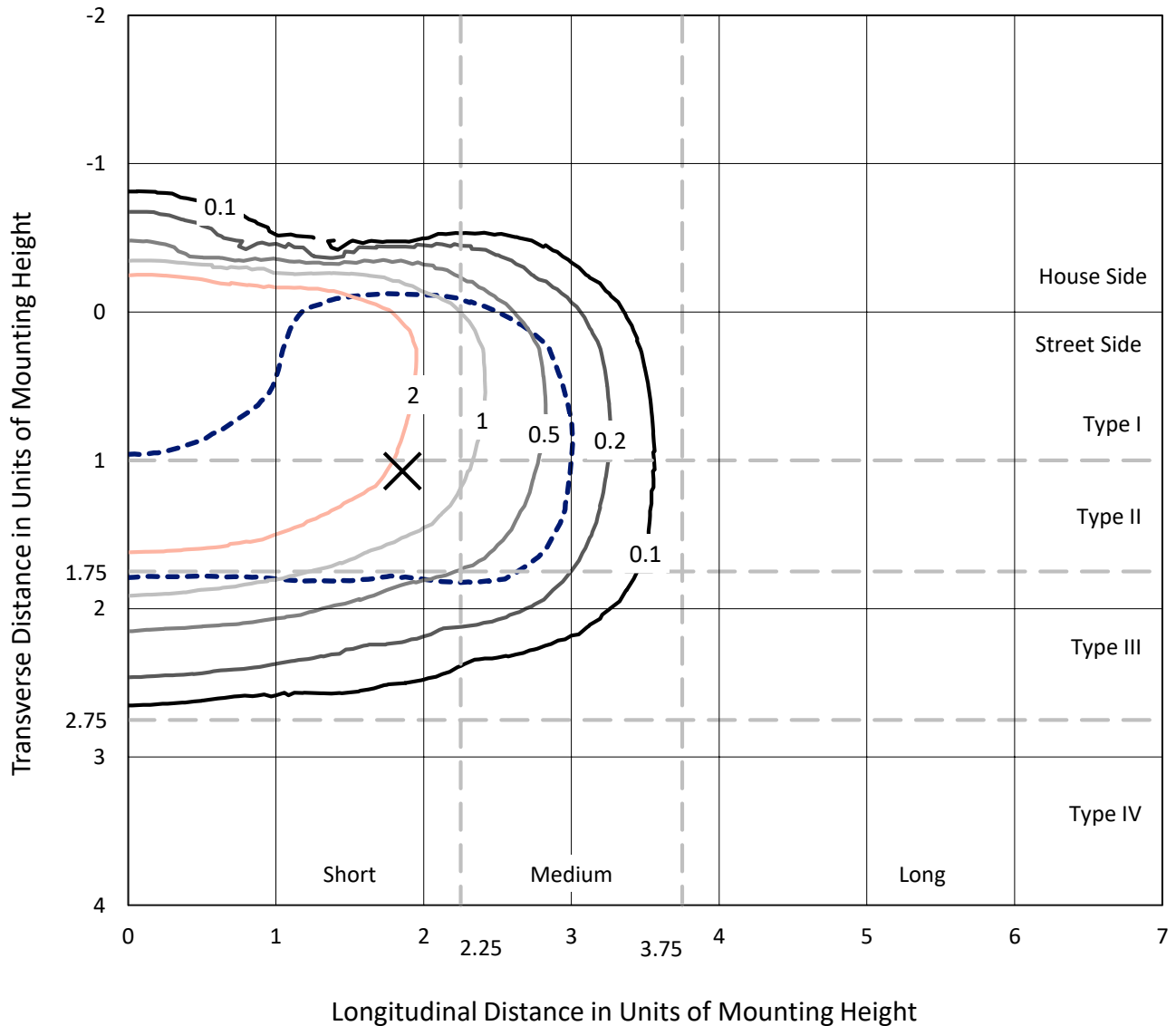
Input Watts (W): 36.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400969  
 CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

### Iso-Footcandle Lines of Horizontal Illumination

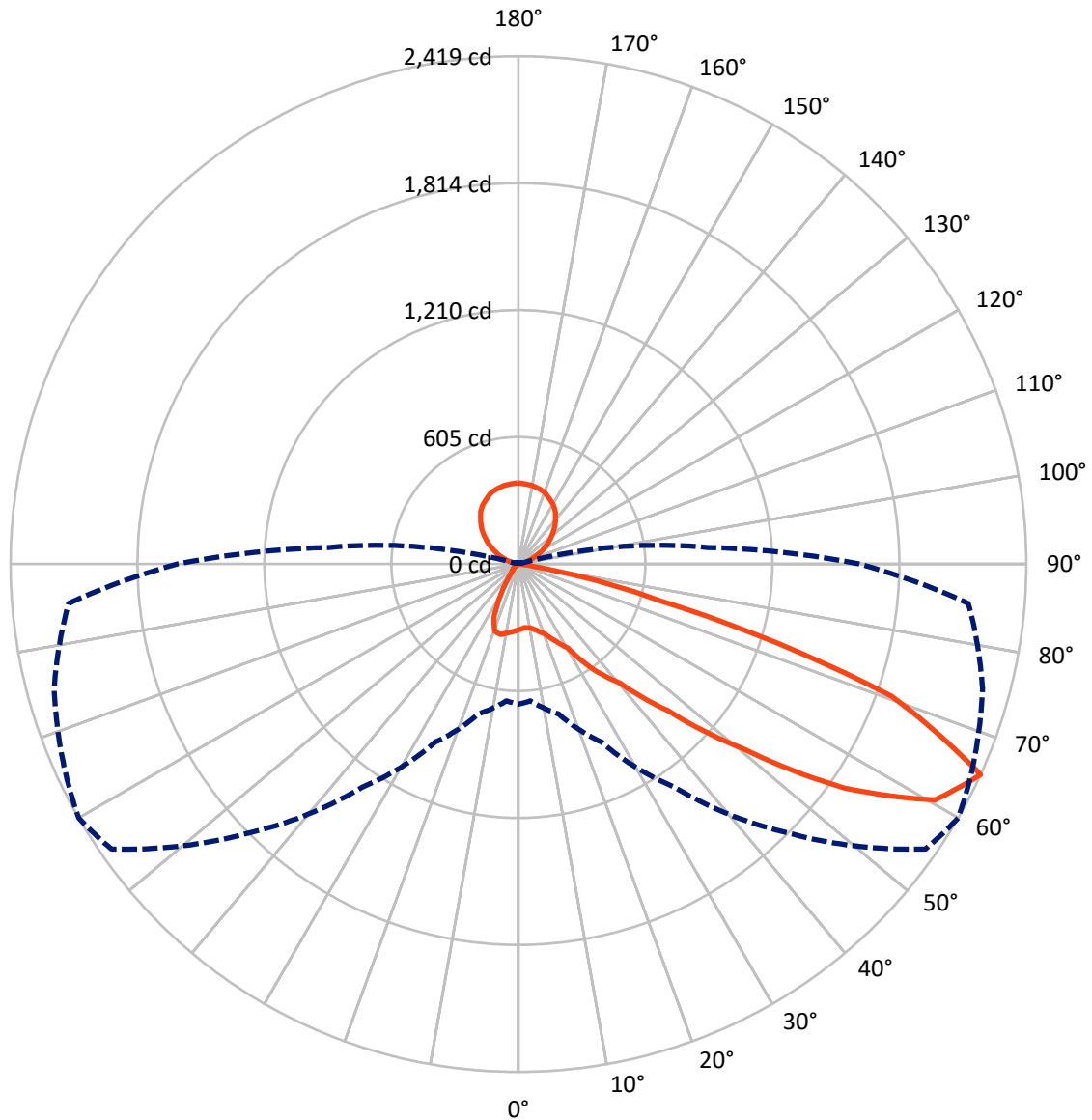
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type III - Short - Non-Cutoff

REPORT NUMBER: P400969  
CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P400969

CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

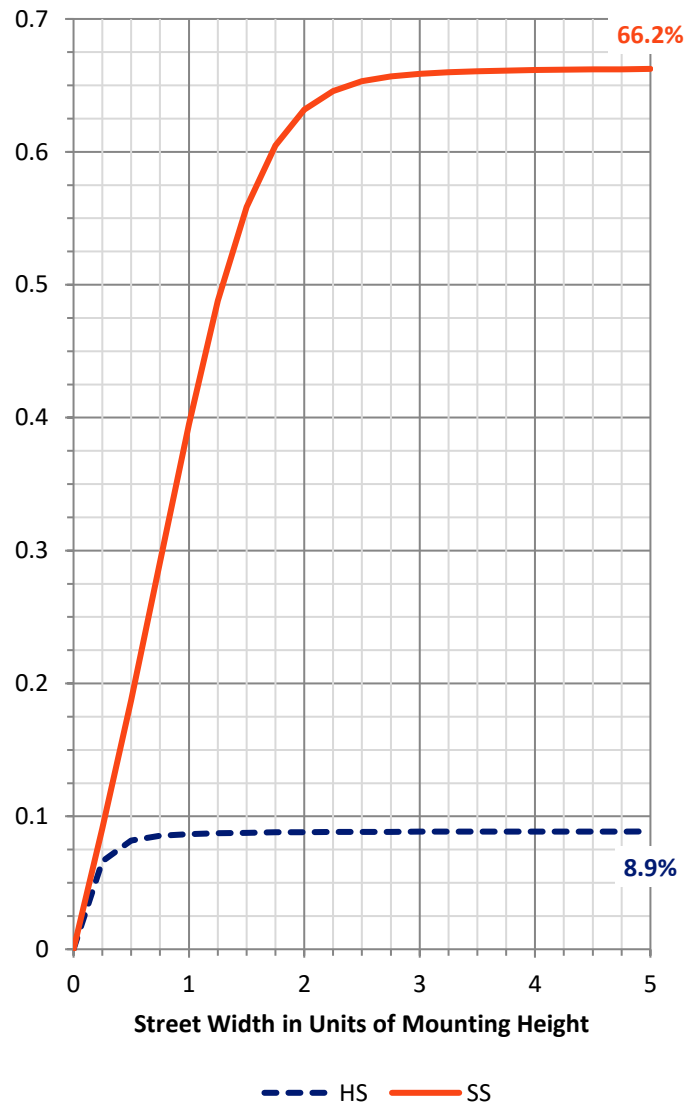
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	348.4	479.8	828.2
	% Fixture	9.0	12.4	21.4
<b>Street Side</b>	Lumens	2570.0	479.8	3049.8
	% Fixture	66.3	12.4	78.6
<b>Total</b>	Lumens	2918.4	959.6	3878.0
	% Fixture	75.3	24.7	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.6	0.8
10°-20°	86.4	2.2
20°-30°	154.9	4.0
30°-40°	272.2	7.0
40°-50°	497.4	12.8
50°-60°	842.3	21.7
60°-70°	812.2	20.9
70°-80°	216.7	5.6
80°-90°	6.6	0.2
90°-100°	4.7	0.1
100°-110°	32.4	0.8
110°-120°	92.2	2.4
120°-130°	151.0	3.9
130°-140°	186.1	4.8
140°-150°	190.3	4.9
150°-160°	160.5	4.1
160°-170°	105.7	2.7
170°-180°	36.6	0.9
0°-90°	2918.4	75.3
0°-180°	3878.0	100.0



REPORT NUMBER: P400969

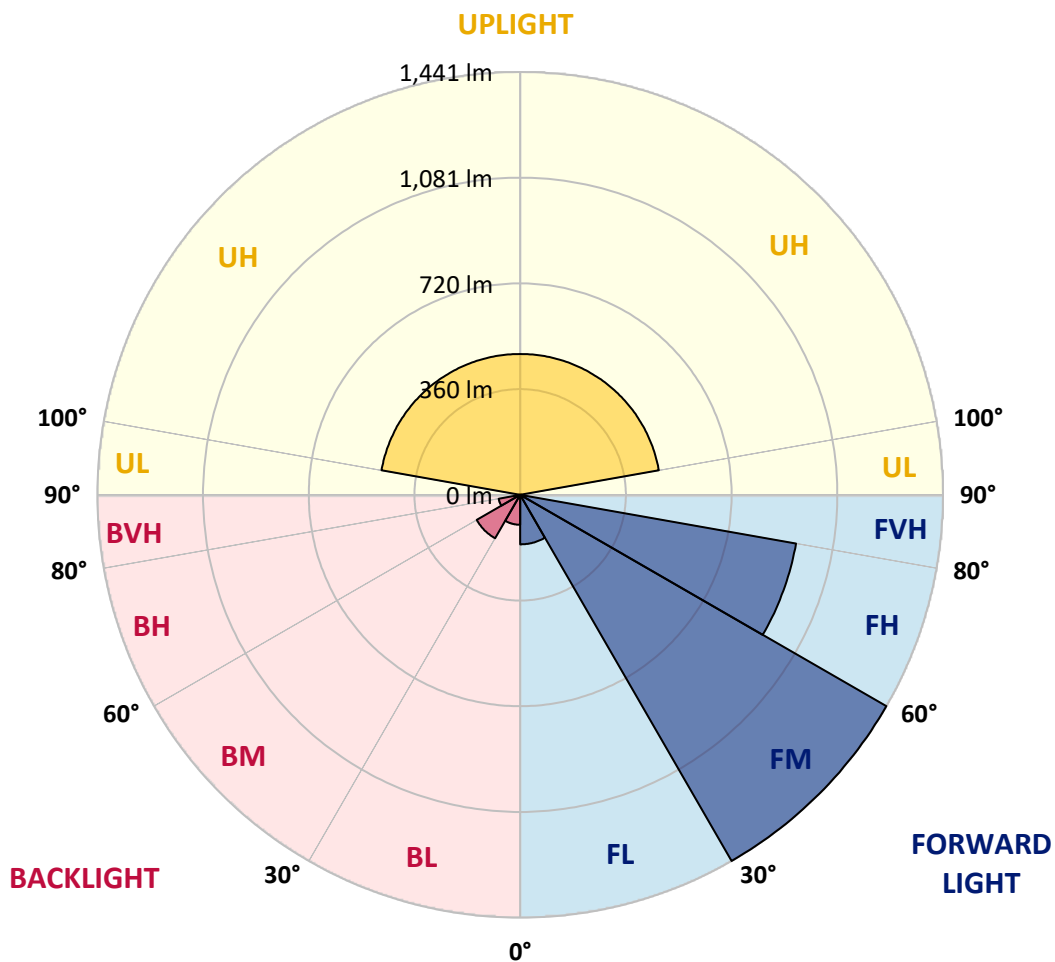
CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	168.9	4.4			
FM	(30°-60°)	1440.9	37.2			
FH	(60°-80°)	954.6	24.6			G1/1800
FVH	(80°-90°)	5.7	0.1			G0/10
BL	(0°-30°)	102.1	2.6	B0/110		
BM	(30°-60°)	171.0	4.4	B0/220		
BH	(60°-80°)	74.3	1.9	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	479.8	12.4		U3/500	

**BUG Rating: B0-U4-G1**

Type III Short





REPORT NUMBER: P400969

CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
5°	283.6	284.2	284.7	285.3	286.6	288.0	289.9	291.7	293.9	296.1	298.8
10°	276.1	276.1	277.2	278.2	280.7	283.1	286.1	289.0	293.1	297.1	300.7
15°	280.9	282.0	282.8	283.6	285.5	287.4	291.5	295.5	301.2	306.9	313.6
20°	382.5	382.0	377.1	372.2	360.4	348.5	337.9	327.4	324.7	322.0	331.5
25°	544.0	547.3	540.3	533.2	513.2	493.3	466.8	440.3	416.3	392.2	388.4
30°	708.8	705.0	698.3	691.5	676.1	660.7	631.8	602.9	566.2	529.5	498.4
35°	835.8	835.2	833.4	831.5	813.4	795.3	768.5	741.8	713.7	685.6	656.4
40°	992.5	997.3	991.7	986.0	966.8	947.6	924.4	901.2	881.2	861.2	817.7
45°	1264.2	1257.2	1250.4	1243.7	1234.5	1225.3	1200.5	1175.6	1147.2	1118.9	1073.0
50°	1456.5	1460.9	1470.1	1479.2	1502.7	1526.2	1543.5	1560.8	1546.5	1532.2	1468.2
55°	1541.4	1546.2	1569.7	1593.2	1661.8	1730.5	1817.2	1903.9	1938.7	1973.6	1951.4
60°	1298.8	1295.5	1341.2	1386.9	1491.7	1596.5	1755.0	1913.6	2046.2	2178.9	2254.0
65°	668.3	654.3	696.7	739.1	837.4	935.7	1117.3	1298.8	1554.3	1809.9	2088.4
70°	157.8	158.8	170.5	182.1	236.1	290.1	387.6	485.2	686.4	887.7	1301.0
75°	32.4	33.5	38.1	42.7	52.7	62.7	78.6	94.5	119.1	143.7	365.2
80°	13.0	13.0	14.9	16.7	19.7	22.7	24.9	27.0	25.1	23.2	37.8
85°	0.0	0.0	0.3	0.5	0.8	1.1	0.8	0.5	0.8	1.1	1.9
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.8	2.8	3.0	3.3	3.6	3.9	3.9	3.9	3.9	3.9	3.9
100°	4.4	4.4	4.7	5.0	5.2	5.5	6.1	6.6	9.1	11.6	13.8
105°	11.6	12.2	13.6	14.9	17.4	19.9	23.2	26.5	30.7	34.8	37.3
110°	36.5	37.6	39.3	40.9	44.5	48.1	52.2	56.3	59.7	63.0	64.7
115°	77.4	76.8	79.0	81.3	84.6	87.8	90.4	92.9	94.5	96.2	97.6
120°	124.4	123.2	124.1	124.9	126.9	128.7	129.9	131.0	132.6	134.3	135.1
125°	164.7	162.5	163.1	163.6	164.5	165.3	166.9	168.6	170.0	171.3	172.2
130°	200.6	199.5	199.8	200.1	201.2	202.3	203.4	204.5	205.0	205.6	207.0
135°	237.1	235.4	235.4	235.4	237.1	238.7	239.6	240.4	241.0	241.5	243.2
140°	269.7	268.0	268.6	269.2	269.7	270.2	270.8	271.4	273.0	274.7	275.5
145°	304.0	301.7	301.2	300.7	301.5	302.3	303.1	304.0	304.2	304.5	305.9
150°	328.9	327.2	327.5	327.7	327.7	327.7	327.7	327.7	327.7	327.7	328.9
155°	347.6	345.4	345.4	345.4	346.0	346.5	347.4	348.2	347.7	347.1	346.5
160°	366.4	364.7	364.5	364.2	363.4	362.6	362.3	362.0	362.0	362.0	362.8
165°	376.3	374.7	374.2	373.6	373.6	373.6	372.8	371.9	371.9	371.9	371.6
170°	385.7	384.1	383.3	382.5	382.5	382.5	382.7	383.0	382.5	381.9	380.5
175°	386.9	385.7	385.5	385.2	384.7	384.1	383.0	381.9	381.6	381.3	381.3
180°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8



REPORT NUMBER: P400969

CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
5°	301.5	304.3	307.4	310.1	312.8	314.7	316.6	318.8	320.4	321.2	322.0
10°	304.2	309.2	315.0	320.1	325.2	329.6	333.9	337.1	338.7	339.3	339.8
15°	320.4	327.9	336.0	343.9	351.7	358.5	365.2	368.5	370.6	370.1	369.5
20°	340.9	354.9	372.2	385.5	398.7	404.1	409.5	410.6	409.5	403.0	396.6
25°	384.7	403.5	429.0	444.9	460.8	459.5	458.1	452.2	443.6	428.2	412.8
30°	467.3	464.8	470.6	490.3	510.0	505.4	500.8	485.7	466.2	441.7	417.1
35°	627.2	617.7	617.0	633.2	649.4	628.9	608.3	566.2	525.1	479.2	433.3
40°	774.2	746.8	733.7	743.1	752.6	737.2	721.8	682.9	638.1	523.8	409.5
45°	1027.0	995.8	989.2	1013.8	1038.4	1010.0	981.7	920.1	803.9	545.7	287.4
50°	1404.1	1378.4	1373.3	1410.1	1446.8	1404.4	1362.0	1228.0	994.6	569.4	144.3
55°	1929.3	1882.5	1835.8	1816.4	1796.9	1745.0	1693.2	1512.7	1099.4	581.9	64.3
60°	2329.1	2281.6	2212.9	2177.0	2141.1	2102.7	2064.3	1719.7	1094.6	564.0	33.5
65°	2366.9	2419.1	2378.2	2333.7	2289.1	2220.2	2151.3	1623.5	906.0	463.0	20.0
70°	1714.3	1886.0	1895.2	1824.2	1753.2	1555.7	1358.2	960.6	505.1	258.8	12.4
75°	586.7	692.1	696.4	600.2	504.1	386.0	268.0	177.7	86.4	47.5	8.6
80°	52.4	73.2	83.2	72.1	61.0	44.6	28.1	17.3	10.3	7.3	4.3
85°	2.7	4.4	5.9	7.3	8.6	6.5	4.3	2.2	1.6	1.4	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.9	4.2	4.4	4.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9
100°	16.0	15.2	14.4	13.6	12.7	11.6	10.5	10.5	10.5	11.6	12.7
105°	39.8	39.2	38.7	37.3	35.9	34.8	33.7	33.7	33.7	34.8	35.9
110°	66.3	66.6	66.9	66.3	65.7	64.9	64.1	64.7	64.1	64.9	65.7
115°	98.9	99.7	100.6	99.7	98.9	98.4	97.8	98.4	97.8	98.4	98.9
120°	135.9	137.1	138.1	136.8	135.4	134.8	134.3	134.3	134.3	134.8	135.4
125°	173.0	173.5	174.1	172.7	171.3	171.3	171.3	171.3	171.3	171.3	171.3
130°	208.4	209.5	210.5	210.5	210.5	210.0	209.5	210.0	209.5	210.0	210.5
135°	244.8	246.2	247.6	247.3	247.1	247.9	248.7	249.3	248.7	247.9	247.1
140°	276.3	276.9	277.4	278.0	278.6	279.9	281.3	282.4	281.3	280.0	278.6
145°	307.3	308.9	310.6	310.3	310.1	309.2	308.4	309.5	308.4	309.2	310.1
150°	329.9	330.7	331.6	332.4	333.2	334.1	334.9	337.1	334.9	334.1	333.2
155°	346.0	347.3	348.7	350.1	351.5	352.0	352.6	354.3	352.6	352.0	351.5
160°	363.7	365.3	366.9	366.1	365.3	365.1	364.7	368.1	364.7	365.1	365.3
165°	371.4	372.8	374.1	375.0	375.8	375.3	374.7	376.9	374.7	375.3	375.8
170°	379.1	380.0	380.8	382.2	383.5	384.1	384.7	387.4	384.7	384.1	383.5
175°	381.3	382.7	384.1	384.4	384.7	384.1	383.5	386.3	383.5	384.1	384.7
180°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8





REPORT NUMBER: P400969

CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8	312.8
5°	322.3	322.5	322.3	322.0	320.1	318.2	318.8	319.3	317.9	316.6	316.3
10°	338.2	336.6	333.3	330.1	326.0	322.0	319.0	316.1	312.0	307.9	306.1
15°	363.9	358.2	346.8	335.5	320.6	305.8	289.6	273.4	255.0	236.6	225.3
20°	380.3	364.1	338.5	312.8	268.5	224.2	184.2	144.3	124.0	103.7	96.7
25°	382.2	351.7	280.9	210.2	153.7	97.2	88.1	78.9	77.8	76.7	75.6
30°	342.8	268.5	177.2	85.9	74.8	63.8	62.9	62.1	60.2	58.3	55.9
35°	282.8	132.4	93.5	54.6	51.9	49.2	45.9	42.7	39.7	36.7	34.3
40°	232.6	55.6	49.2	42.7	39.2	35.7	32.1	28.6	25.7	22.7	21.3
45°	165.1	42.7	37.5	32.4	28.6	24.9	21.9	18.9	17.3	15.7	14.6
50°	88.9	33.5	29.2	24.9	21.3	17.8	15.7	13.5	12.7	11.9	11.3
55°	44.8	25.4	22.4	19.4	16.5	13.5	12.7	11.9	11.3	10.8	10.3
60°	26.2	18.9	17.0	15.1	13.2	11.3	10.8	10.3	9.7	9.2	8.9
65°	16.5	13.0	11.6	10.3	9.5	8.6	8.4	8.1	7.6	7.0	6.2
70°	10.5	8.6	7.8	7.0	7.0	7.0	6.5	5.9	5.1	4.3	3.2
75°	7.3	5.9	5.4	4.9	4.3	3.8	3.5	3.2	2.7	2.2	1.9
80°	4.1	3.8	4.1	4.3	4.3	4.3	4.1	3.8	3.5	3.2	3.5
85°	1.4	1.6	1.6	1.6	1.6	1.6	1.4	1.1	1.1	1.1	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.2	4.4	4.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.6
100°	13.6	14.4	15.2	16.0	13.8	11.6	9.1	6.6	6.1	5.5	5.2
105°	37.3	38.7	39.3	39.8	37.3	34.8	30.7	26.5	23.2	19.9	17.4
110°	66.3	66.9	66.6	66.3	64.7	63.0	59.7	56.3	52.2	48.1	44.5
115°	99.8	100.6	99.8	98.9	97.6	96.2	94.5	92.9	90.4	87.8	84.6
120°	136.8	138.1	137.1	135.9	135.1	134.3	132.6	131.0	129.9	128.7	126.9
125°	172.7	174.1	173.5	173.0	172.2	171.3	170.0	168.6	166.9	165.3	164.5
130°	210.5	210.5	209.5	208.4	207.0	205.6	205.0	204.5	203.4	202.3	201.2
135°	247.3	247.6	246.3	244.8	243.2	241.5	241.0	240.4	239.6	238.7	237.1
140°	278.0	277.4	276.9	276.3	275.5	274.7	273.0	271.4	270.8	270.2	269.7
145°	310.3	310.6	309.0	307.3	305.9	304.5	304.2	304.0	303.1	302.3	301.5
150°	332.4	331.6	330.8	329.9	328.9	327.7	327.7	327.7	327.7	327.7	327.7
155°	350.1	348.7	347.4	346.0	346.5	347.1	347.7	348.2	347.4	346.5	346.0
160°	366.1	366.9	365.3	363.7	362.8	362.0	362.0	362.0	362.3	362.6	363.4
165°	375.0	374.1	372.8	371.4	371.6	371.9	371.9	371.9	372.8	373.6	373.6
170°	382.2	380.8	380.0	379.1	380.5	381.9	382.5	383.0	382.7	382.5	382.5
175°	384.4	384.1	382.7	381.3	381.3	381.3	381.6	381.9	383.0	384.1	384.7
180°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8

REPORT NUMBER: P400969

CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	312.8	312.8	312.8	312.8
5°	316.1	316.1	316.1	316.1
10°	304.2	303.4	302.5	302.5
15°	213.9	206.7	199.4	196.7
20°	89.7	88.1	86.4	85.9
25°	74.6	73.5	72.4	71.9
30°	53.5	51.9	50.2	49.2
35°	31.9	30.5	29.2	28.6
40°	20.0	19.2	18.4	18.4
45°	13.5	13.2	13.0	13.0
50°	10.8	10.5	10.3	10.3
55°	9.7	9.7	9.7	9.2
60°	8.6	8.4	8.1	8.1
65°	5.4	4.9	4.3	4.3
70°	2.2	1.6	1.1	1.1
75°	1.6	1.4	1.1	0.5
80°	3.8	3.2	2.7	2.2
85°	0.5	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0
95°	3.3	3.0	2.8	2.8
100°	5.0	4.7	4.4	4.4
105°	14.9	13.6	12.2	11.6
110°	40.9	39.3	37.6	36.5
115°	81.3	79.0	76.8	77.4
120°	124.9	124.1	123.2	124.4
125°	163.6	163.1	162.5	164.7
130°	200.1	199.8	199.5	200.6
135°	235.4	235.4	235.4	237.1
140°	269.2	268.6	268.0	269.7
145°	300.7	301.2	301.7	304.0
150°	327.7	327.5	327.2	328.9
155°	345.4	345.4	345.4	347.6
160°	364.2	364.5	364.7	366.4
165°	373.6	374.2	374.7	376.3
170°	382.5	383.3	384.1	385.7
175°	385.2	385.5	385.7	386.9
180°	386.8	386.8	386.8	386.8

(END OF REPORT)