

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: P400953

Luminaire Tested: **ENV-SA1A-740-U-SL4-HSS-ULG**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400953  
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-SL4-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4021 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U4 - G1

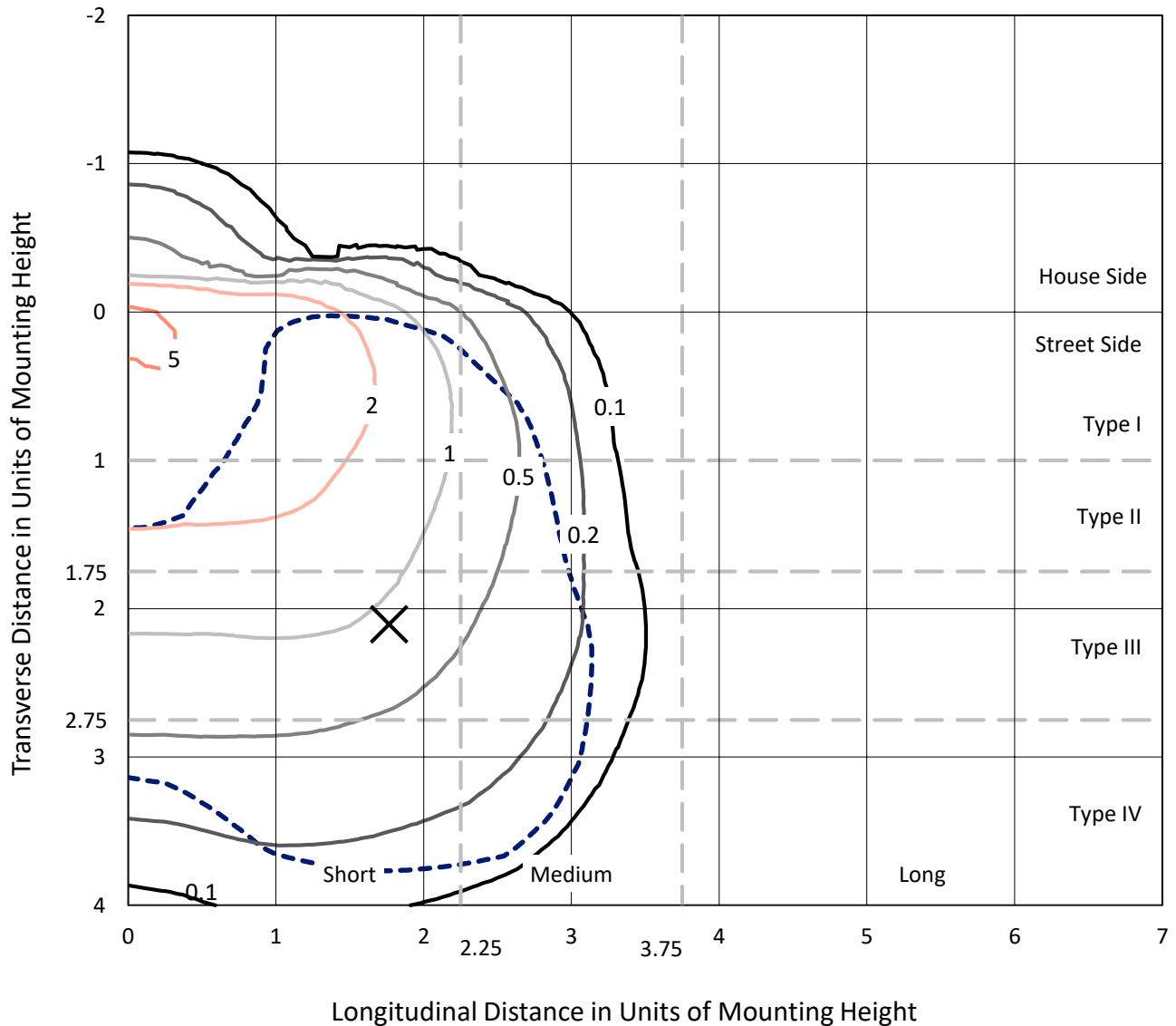
Input Watts (W): 36.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

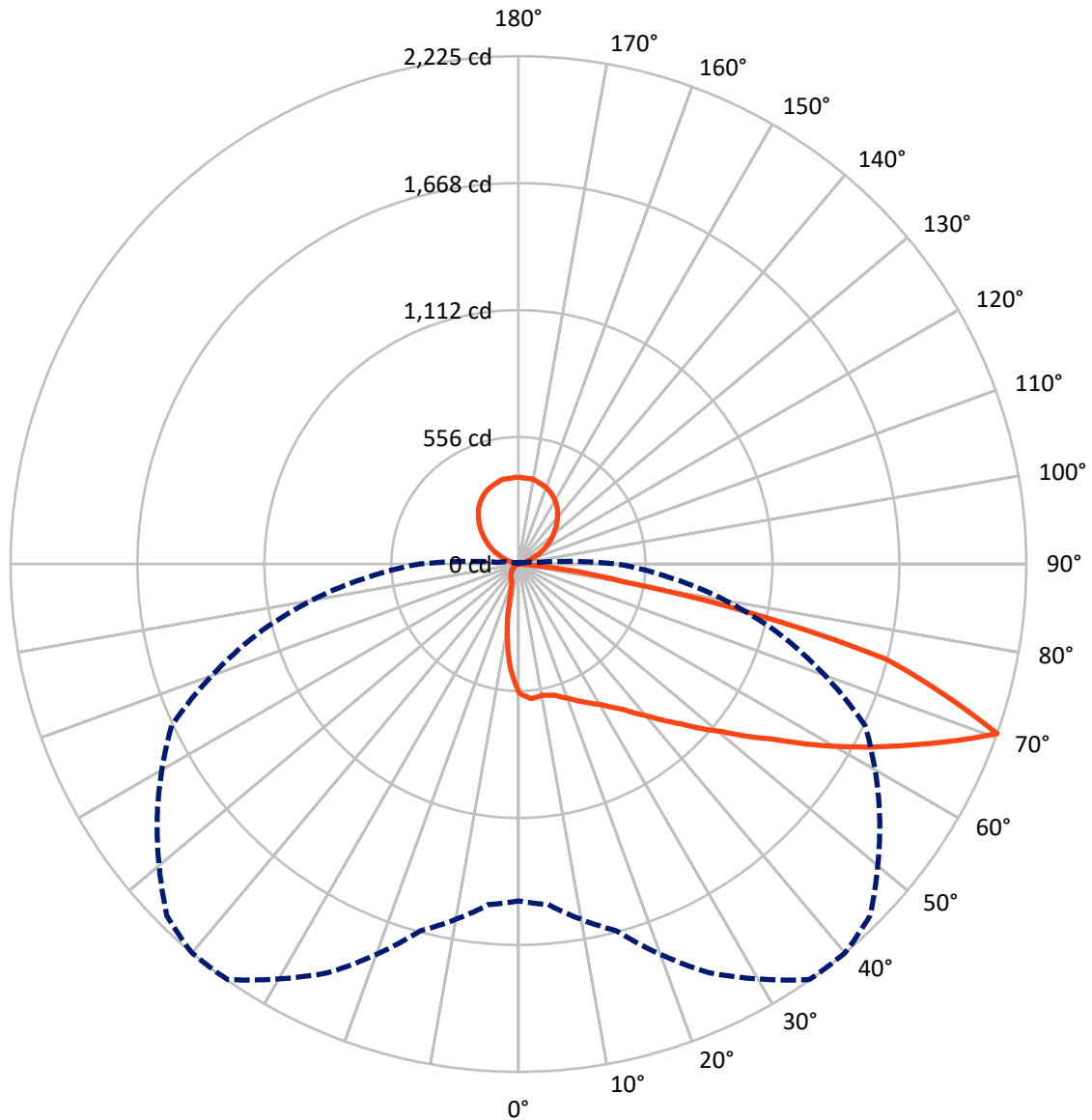
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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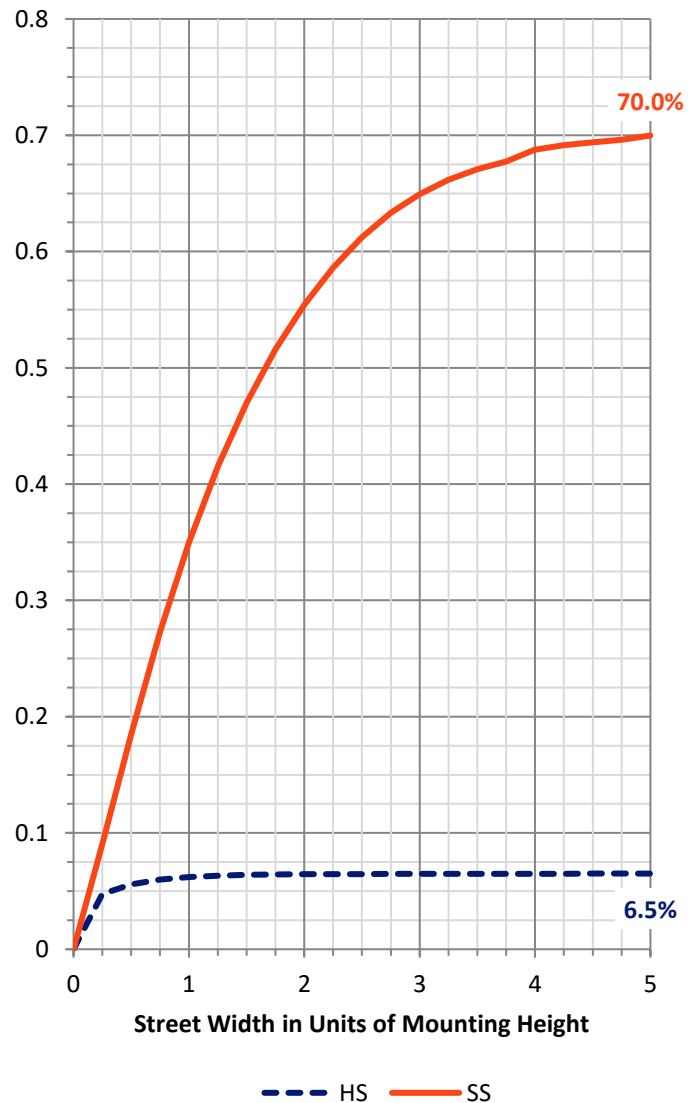
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	264.4	473.4	737.8
	% Fixture	6.6	11.8	18.3
<b>Street Side</b>	Lumens	2809.8	473.4	3283.2
	% Fixture	69.9	11.8	81.7
<b>Total</b>	Lumens	3074.2	946.8	4021.0
	% Fixture	76.5	23.5	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	1.2
10°-20°	116.8	2.9
20°-30°	186.3	4.6
30°-40°	283.5	7.1
40°-50°	441.1	11.0
50°-60°	644.2	16.0
60°-70°	821.1	20.4
70°-80°	502.7	12.5
80°-90°	30.5	0.8
90°-100°	4.6	0.1
100°-110°	32.0	0.8
110°-120°	91.0	2.3
120°-130°	149.0	3.7
130°-140°	183.7	4.6
140°-150°	187.8	4.7
150°-160°	158.4	3.9
160°-170°	104.3	2.6
170°-180°	36.1	0.9
0°-90°	3074.2	76.5
0°-180°	4021.0	100.0



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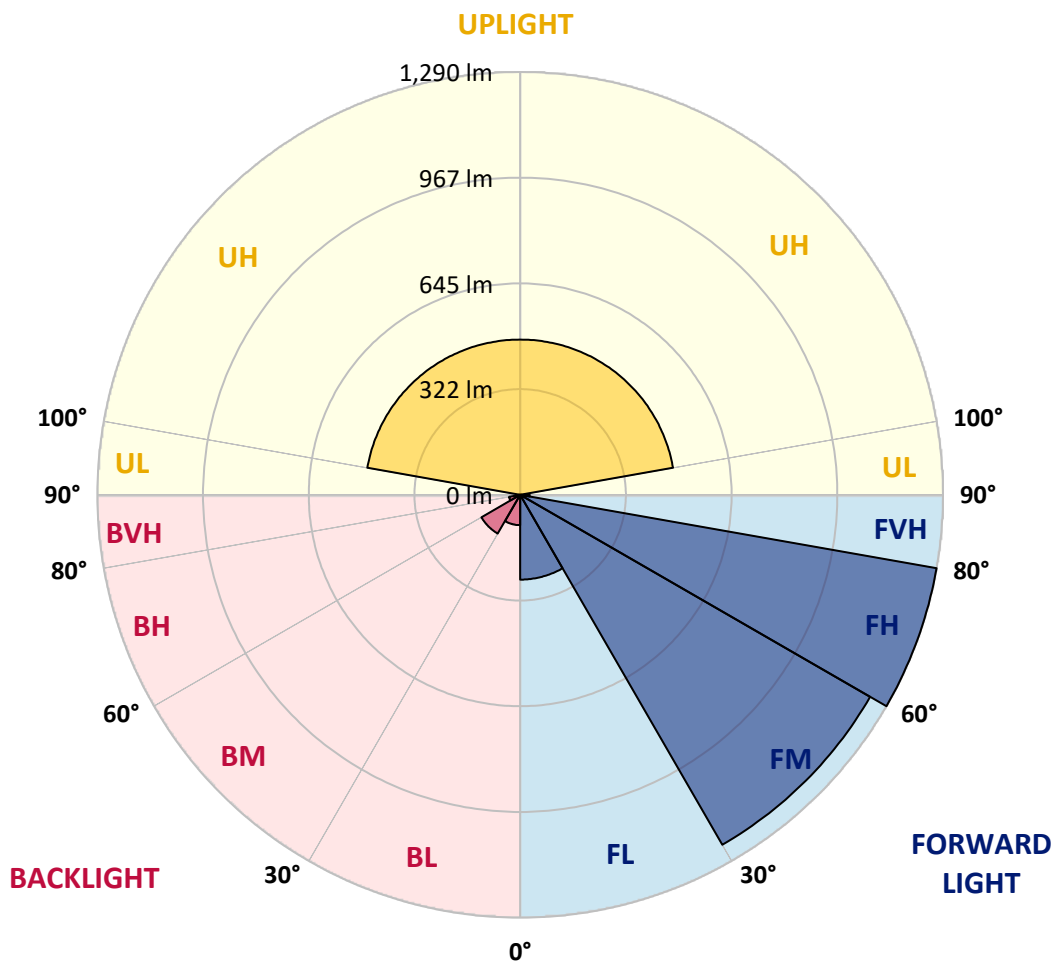
CATALOG NUMBER: ENV-SA1A-740-U-SL4-HSS-ULG

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	258.6	6.4			
FM	(30°-60°)	1232.3	30.6			
FH	(60°-80°)	1289.5	32.1			G1/1800
FVH	(80°-90°)	29.3	0.7			G1/100
BL	(0°-30°)	92.6	2.3	B0/110		
BM	(30°-60°)	136.4	3.4	B0/220		
BH	(60°-80°)	34.3	0.9	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	4.6	0.1		U1/10	
UH	(100°-180°)	473.4	11.8		U3/500	

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

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2
5°	601.9	600.8	600.8	600.8	599.7	598.7	596.8	594.9	592.7	591.2	588.3
10°	586.4	587.5	587.2	586.9	586.9	586.9	586.1	585.3	583.9	583.2	579.2
15°	571.5	573.6	577.3	581.1	585.3	589.6	592.0	594.4	596.5	597.6	593.3
20°	575.2	579.5	588.8	598.1	607.5	616.8	622.4	628.0	628.5	626.9	620.0
25°	618.9	621.0	632.5	644.0	654.4	664.8	667.7	670.6	669.9	664.2	652.8
30°	694.1	695.7	704.2	712.7	717.8	722.9	720.7	718.6	714.3	709.0	696.2
35°	765.0	765.0	775.6	786.3	787.6	789.0	784.7	780.4	780.4	780.4	764.2
40°	823.1	830.0	844.9	859.9	861.2	862.5	866.0	869.5	876.7	880.1	873.7
45°	878.0	886.5	906.2	926.0	940.6	955.3	968.6	981.9	998.4	1012.9	1019.8
50°	975.0	975.5	989.1	1002.7	1032.9	1063.0	1089.9	1116.8	1153.1	1192.0	1215.2
55°	1095.5	1097.1	1103.8	1110.4	1157.1	1203.7	1253.6	1303.4	1353.7	1411.6	1444.4
60°	1227.2	1225.6	1238.6	1251.7	1314.9	1378.0	1466.3	1554.5	1622.7	1677.1	1676.0
65°	1353.5	1360.4	1397.5	1434.5	1528.4	1622.2	1750.4	1878.6	1906.8	1917.5	1895.9
70°	1475.6	1497.4	1580.6	1663.8	1819.7	1975.6	2099.0	2222.4	2224.6	2178.2	2055.0
75°	690.3	752.2	947.3	1142.4	1293.0	1443.6	1569.1	1694.7	1666.6	1563.0	1370.8
80°	142.9	146.1	159.7	173.3	244.2	315.1	394.0	472.8	462.7	393.4	302.8
85°	0.0	0.0	0.3	0.5	0.5	0.5	1.6	2.7	0.5	0.5	11.2
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.7	2.7	3.0	3.3	3.6	3.8	3.8	3.8	3.8	3.8	3.8
100°	4.4	4.4	4.6	4.9	5.2	5.4	6.0	6.6	9.0	11.5	13.6
105°	11.5	12.0	13.4	14.7	17.2	19.6	22.9	26.2	30.3	34.3	36.8
110°	36.0	37.1	38.8	40.4	43.9	47.4	51.5	55.6	58.9	62.2	63.8
115°	76.3	75.8	78.0	80.2	83.4	86.7	89.2	91.6	93.3	94.9	96.3
120°	122.7	121.6	122.4	123.2	125.2	127.0	128.2	129.2	130.9	132.5	133.3
125°	162.5	160.3	160.9	161.4	162.3	163.1	164.7	166.3	167.7	169.0	169.9
130°	197.9	196.9	197.1	197.4	198.5	199.6	200.7	201.8	202.3	202.8	204.2
135°	233.9	232.3	232.3	232.3	234.0	235.6	236.4	237.2	237.8	238.3	239.9
140°	266.1	264.5	265.1	265.6	266.1	266.6	267.2	267.8	269.4	271.0	271.9
145°	299.9	297.7	297.2	296.7	297.5	298.3	299.1	299.9	300.2	300.4	301.8
150°	324.5	322.8	323.1	323.4	323.4	323.4	323.4	323.4	323.4	323.4	324.5
155°	343.0	340.8	340.8	340.8	341.4	341.9	342.8	343.6	343.0	342.5	341.9
160°	361.5	359.9	359.6	359.4	358.6	357.8	357.5	357.2	357.2	357.2	358.0
165°	371.3	369.7	369.2	368.6	368.6	368.6	367.8	367.0	367.0	367.0	366.7
170°	380.6	379.0	378.2	377.4	377.4	377.4	377.6	377.9	377.4	376.8	375.5
175°	381.7	380.6	380.4	380.1	379.6	379.0	378.0	376.8	376.6	376.3	376.3
180°	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2
5°	585.3	581.9	578.4	573.6	568.8	561.6	554.4	545.3	537.9	528.8	519.8
10°	575.2	571.5	567.7	561.9	556.0	546.7	537.4	523.5	507.5	488.8	470.2
15°	589.1	583.7	578.4	571.5	564.5	554.4	544.3	526.2	501.6	470.2	438.7
20°	613.0	606.4	599.7	590.9	582.1	569.6	557.1	532.6	498.4	449.7	400.9
25°	641.3	633.0	624.8	618.1	611.4	593.9	576.3	542.7	494.2	424.3	354.5
30°	683.4	676.0	668.5	664.2	660.0	638.9	617.8	569.3	500.6	396.3	292.1
35°	747.9	746.9	745.8	753.0	760.2	731.1	702.1	624.8	523.5	365.7	207.9
40°	867.3	876.1	884.9	904.9	924.9	887.1	849.2	740.5	589.1	353.2	117.3
45°	1026.7	1059.0	1091.2	1132.8	1174.4	1121.6	1068.8	910.0	687.1	376.9	66.6
50°	1238.4	1287.4	1336.4	1378.8	1421.2	1332.7	1244.2	1046.4	741.0	396.1	51.2
55°	1477.2	1520.1	1563.0	1559.5	1556.1	1425.7	1295.4	1069.4	672.2	356.4	40.5
60°	1675.0	1684.6	1694.1	1655.2	1616.3	1456.1	1295.9	1034.2	515.5	274.0	32.5
65°	1874.3	1847.7	1821.0	1721.3	1621.6	1392.2	1162.7	843.3	276.1	150.1	24.0
70°	1931.9	1803.7	1675.5	1429.5	1183.5	921.7	660.0	430.2	88.5	51.7	14.9
75°	1178.7	881.7	584.8	371.3	157.8	110.1	62.4	43.2	20.8	14.4	8.0
80°	212.2	147.7	83.2	56.2	29.3	25.9	22.4	23.5	8.5	5.9	3.2
85°	21.9	12.0	2.1	2.1	2.1	6.1	10.1	9.6	1.1	0.8	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.8	4.1	4.4	4.1	3.8	3.8	3.8	3.8	3.8	3.8	3.8
100°	15.8	15.0	14.2	13.4	12.5	11.5	10.3	10.3	10.3	11.5	12.5
105°	39.3	38.7	38.2	36.8	35.5	34.3	33.3	33.3	33.3	34.4	35.5
110°	65.5	65.7	66.0	65.5	64.9	64.1	63.3	63.8	63.3	64.1	64.9
115°	97.6	98.4	99.3	98.4	97.6	97.1	96.5	97.1	96.5	97.1	97.6
120°	134.1	135.2	136.3	135.0	133.6	133.1	132.5	132.5	132.5	133.1	133.6
125°	170.7	171.2	171.8	170.4	169.0	169.0	169.0	169.0	169.0	169.0	169.0
130°	205.6	206.7	207.7	207.7	207.7	207.2	206.7	207.2	206.7	207.2	207.7
135°	241.6	242.9	244.3	244.0	243.8	244.6	245.4	246.0	245.4	244.6	243.8
140°	272.7	273.2	273.7	274.3	274.9	276.2	277.6	278.6	277.6	276.2	274.9
145°	303.2	304.8	306.5	306.2	305.9	305.1	304.3	305.4	304.3	305.1	305.9
150°	325.6	326.4	327.2	328.0	328.8	329.7	330.5	332.6	330.5	329.7	328.8
155°	341.4	342.7	344.1	345.4	346.8	347.4	347.9	349.5	347.9	347.4	346.8
160°	358.8	360.5	362.1	361.3	360.5	360.2	359.9	363.2	359.9	360.2	360.5
165°	366.4	367.8	369.2	370.0	370.8	370.3	369.7	371.9	369.7	370.3	370.8
170°	374.1	374.9	375.7	377.1	378.4	379.0	379.6	382.3	379.6	379.0	378.4
175°	376.3	377.6	379.0	379.3	379.6	379.0	378.4	381.2	378.4	379.0	379.6
180°	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2	567.2
5°	510.4	501.1	492.0	483.0	473.4	463.8	455.0	446.2	437.9	429.7	425.7
10°	447.8	425.4	398.2	371.0	344.1	317.2	294.5	271.9	250.8	229.8	217.5
15°	393.4	348.1	297.7	247.4	204.7	162.1	136.5	110.9	102.1	93.3	90.9
20°	330.2	259.6	194.3	129.0	107.9	86.9	84.5	82.1	81.3	80.5	80.2
25°	255.3	156.2	119.1	82.1	79.4	76.8	75.4	74.1	73.6	73.0	73.0
30°	189.8	87.4	80.0	72.5	70.4	68.2	67.4	66.6	66.4	66.1	65.8
35°	138.1	68.2	65.3	62.4	60.8	59.2	58.4	57.6	57.6	57.6	57.6
40°	87.7	58.1	55.2	52.2	50.9	49.6	49.0	48.5	48.2	48.0	47.7
45°	57.6	48.5	46.1	43.7	42.6	41.6	41.0	40.5	39.7	38.9	38.1
50°	45.3	39.4	37.8	36.2	35.5	34.7	33.9	33.1	31.7	30.4	28.5
55°	36.8	33.1	31.5	29.9	28.8	27.7	26.4	25.1	23.2	21.3	19.5
60°	29.6	26.7	25.1	23.5	22.1	20.8	19.2	17.6	15.5	13.3	11.7
65°	21.3	18.7	17.9	17.1	15.7	14.4	12.5	10.7	8.8	6.9	5.3
70°	13.3	11.7	11.7	11.7	10.4	9.1	7.5	5.9	4.3	2.7	2.1
75°	7.7	7.5	7.5	7.5	6.7	5.9	5.1	4.3	3.5	2.7	2.7
80°	3.2	3.2	3.7	4.3	4.8	5.3	4.8	4.3	3.7	3.2	3.5
85°	0.8	1.1	1.1	1.1	1.3	1.6	1.6	1.6	1.9	2.1	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.1	4.4	4.1	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.6
100°	13.4	14.2	15.0	15.8	13.6	11.5	9.0	6.6	6.0	5.4	5.2
105°	36.8	38.2	38.8	39.3	36.8	34.3	30.3	26.2	22.9	19.6	17.2
110°	65.5	66.0	65.7	65.5	63.8	62.2	58.9	55.6	51.5	47.4	43.9
115°	98.5	99.3	98.5	97.6	96.3	94.9	93.3	91.6	89.2	86.7	83.4
120°	135.0	136.3	135.2	134.1	133.3	132.5	130.9	129.2	128.2	127.0	125.2
125°	170.4	171.8	171.2	170.7	169.9	169.0	167.7	166.3	164.7	163.1	162.3
130°	207.7	207.7	206.7	205.6	204.2	202.8	202.3	201.8	200.7	199.6	198.5
135°	244.0	244.3	243.0	241.6	239.9	238.3	237.8	237.2	236.4	235.6	234.0
140°	274.3	273.7	273.2	272.7	271.9	271.0	269.4	267.8	267.2	266.6	266.1
145°	306.2	306.5	304.9	303.2	301.8	300.4	300.2	299.9	299.1	298.3	297.5
150°	328.0	327.2	326.4	325.6	324.5	323.4	323.4	323.4	323.4	323.4	323.4
155°	345.5	344.1	342.8	341.4	341.9	342.5	343.0	343.6	342.8	341.9	341.4
160°	361.3	362.1	360.5	358.8	358.0	357.2	357.2	357.2	357.5	357.8	358.6
165°	370.0	369.2	367.8	366.4	366.7	367.0	367.0	367.0	367.8	368.6	368.6
170°	377.1	375.7	374.9	374.1	375.5	376.8	377.4	377.9	377.6	377.4	377.4
175°	379.3	379.0	377.6	376.3	376.3	376.3	376.6	376.8	378.0	379.0	379.6
180°	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7



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CATALOG NUMBER: ENV-SA1A-740-U-SL4-HSS-ULG

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	567.2	567.2	567.2	567.2
5°	421.7	416.1	410.5	415.8
10°	205.2	197.8	190.3	190.3
15°	88.5	88.0	87.4	87.4
20°	80.0	79.7	79.4	79.4
25°	73.0	72.8	72.5	72.5
30°	65.6	65.6	65.6	65.6
35°	57.6	57.3	57.0	57.6
40°	47.4	47.4	47.4	47.4
45°	37.3	36.5	35.7	35.7
50°	26.7	25.9	25.1	25.1
55°	17.6	16.5	15.5	15.5
60°	10.1	9.1	8.0	8.5
65°	3.7	3.5	3.2	3.2
70°	1.6	1.6	1.6	1.6
75°	2.7	2.7	2.7	2.7
80°	3.7	3.5	3.2	3.2
85°	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0
95°	3.3	3.0	2.7	2.7
100°	4.9	4.6	4.4	4.4
105°	14.7	13.4	12.0	11.5
110°	40.4	38.8	37.1	36.0
115°	80.2	78.0	75.8	76.3
120°	123.2	122.4	121.6	122.7
125°	161.4	160.9	160.3	162.5
130°	197.4	197.1	196.9	197.9
135°	232.3	232.3	232.3	233.9
140°	265.6	265.1	264.5	266.1
145°	296.7	297.2	297.7	299.9
150°	323.4	323.1	322.8	324.5
155°	340.8	340.8	340.8	343.0
160°	359.4	359.6	359.9	361.5
165°	368.6	369.2	369.7	371.3
170°	377.4	378.2	379.0	380.6
175°	380.1	380.4	380.6	381.7
180°	381.7	381.7	381.7	381.7

(END OF REPORT)