

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: P400945

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

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400945  
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-HSS-ULG  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3988 lumens  
Efficiency: N/A  
Efficacy: 108.4 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

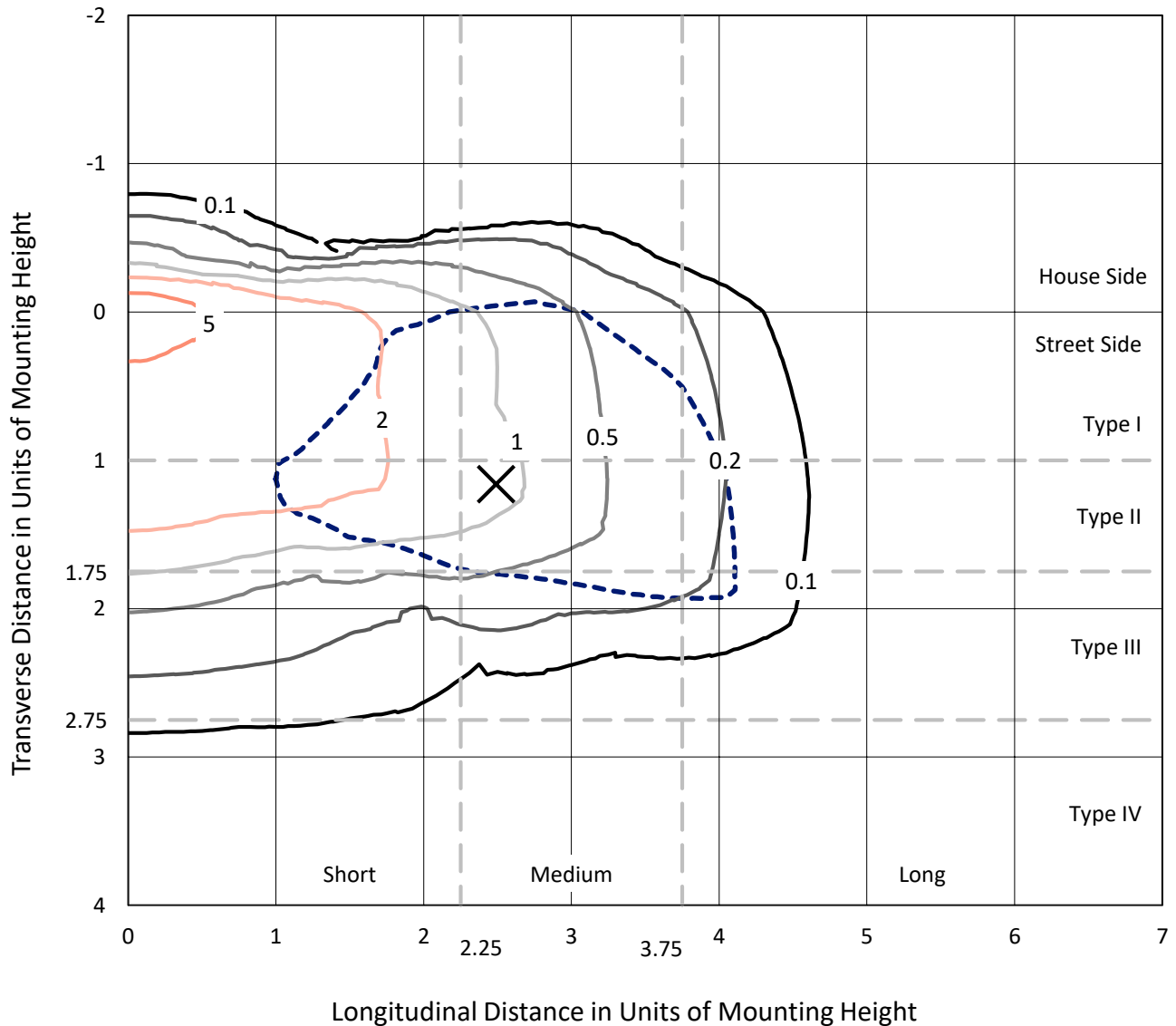
Input Watts (W): 36.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

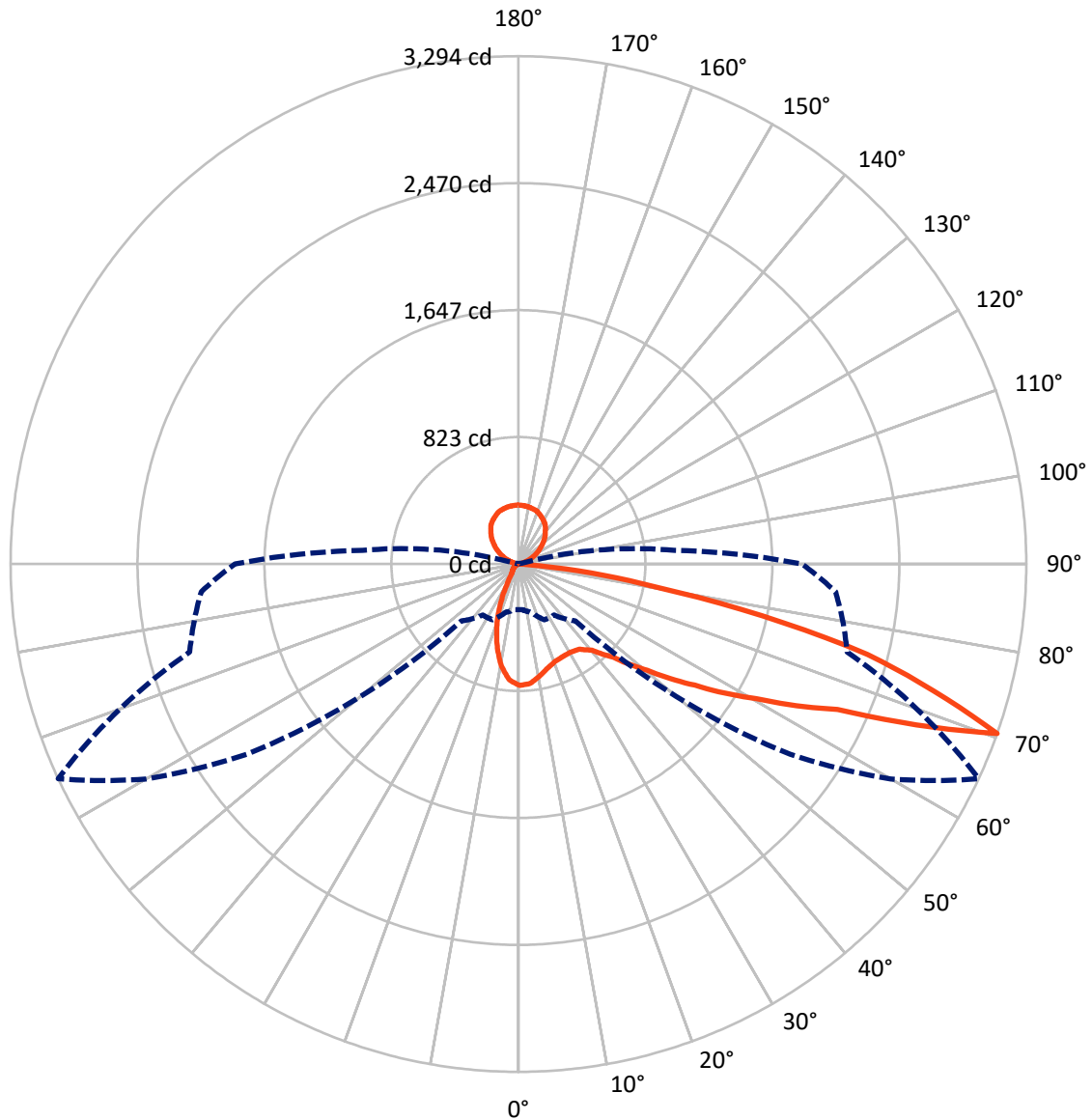
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 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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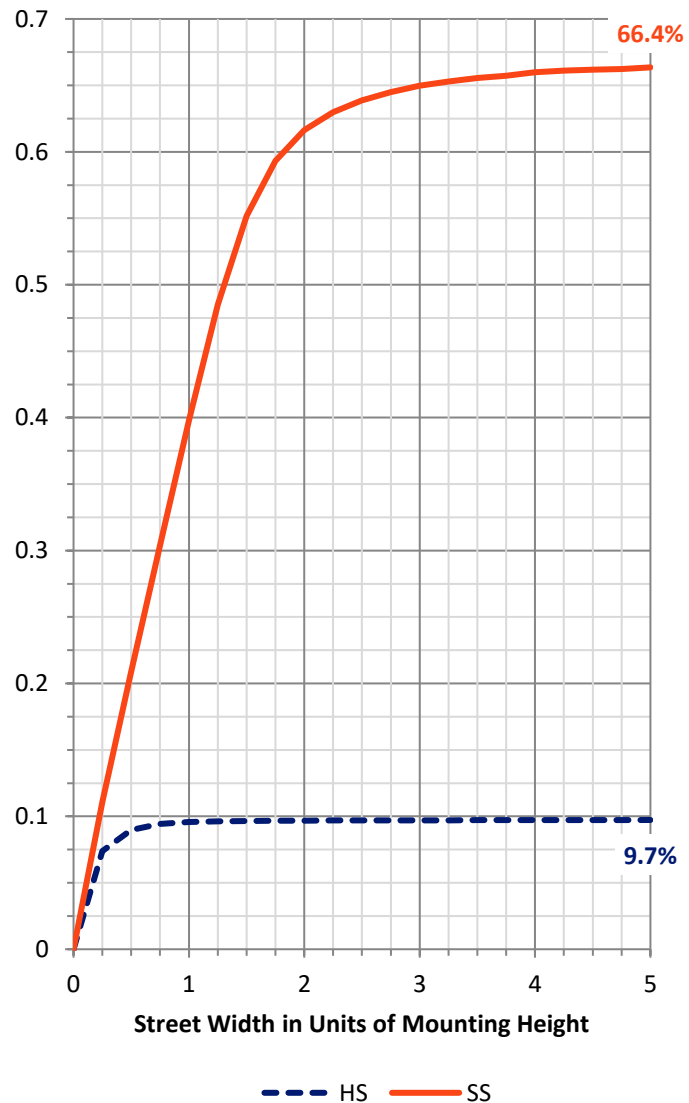
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	392.6	474.8	867.4
	% Fixture	9.8	11.9	21.7
<b>Street Side</b>	Lumens	2645.8	474.8	3120.6
	% Fixture	66.3	11.9	78.3
<b>Total</b>	Lumens	3038.4	949.6	3988.0
	% Fixture	76.2	23.8	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.6	1.7
10°-20°	148.3	3.7
20°-30°	203.3	5.1
30°-40°	279.8	7.0
40°-50°	417.6	10.5
50°-60°	652.4	16.4
60°-70°	741.9	18.6
70°-80°	481.6	12.1
80°-90°	46.8	1.2
90°-100°	4.6	0.1
100°-110°	32.1	0.8
110°-120°	91.3	2.3
120°-130°	149.5	3.7
130°-140°	184.2	4.6
140°-150°	188.3	4.7
150°-160°	158.8	4.0
160°-170°	104.6	2.6
170°-180°	36.2	0.9
0°-90°	3038.4	76.2
0°-180°	3988.0	100.0

**Coefficient of Utilization**



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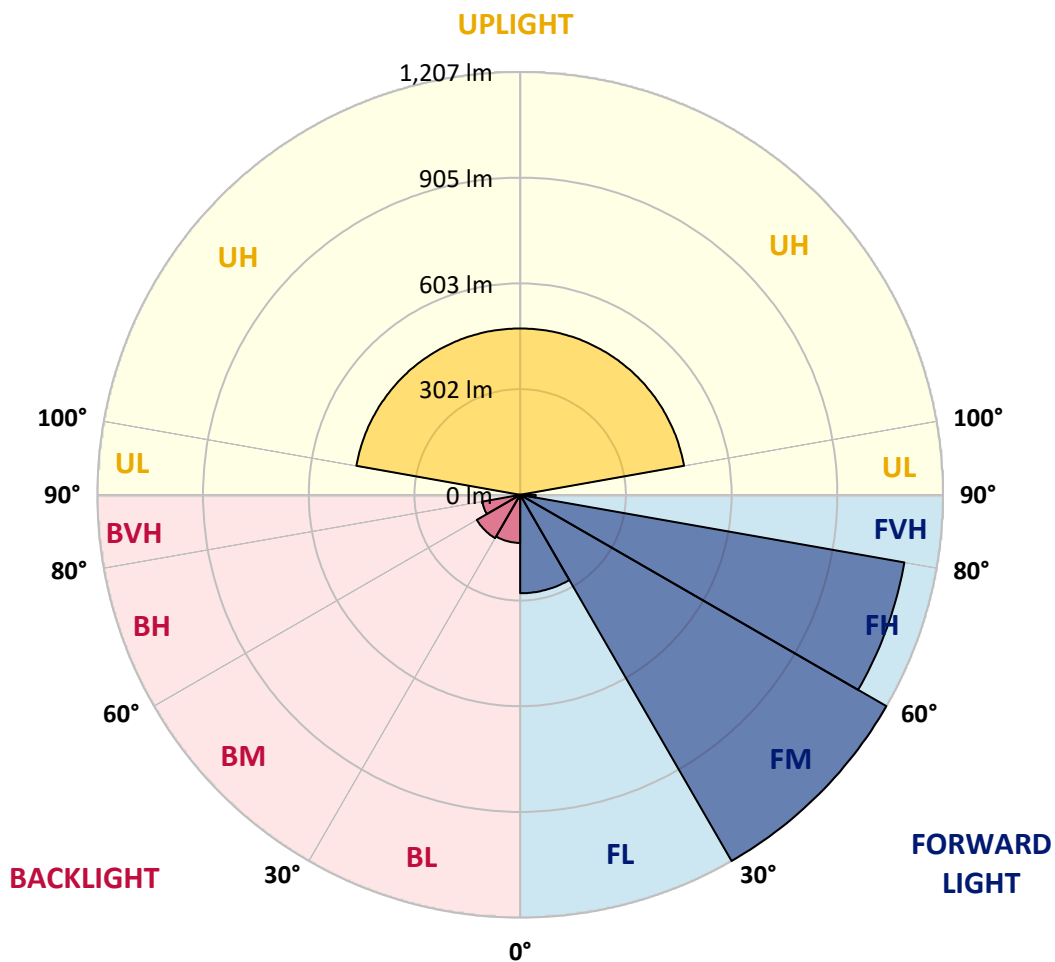
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	281.0	7.0			
FM	(30°-60°)	1207.0	30.3			
FH	(60°-80°)	1113.7	27.9			G1/1800
FVH	(80°-90°)	44.2	1.1			G1/100
BL	(0°-30°)	137.2	3.4	B1/500		
BM	(30°-60°)	142.8	3.6	B0/220		
BH	(60°-80°)	109.9	2.8	B0/110		G0/110
BVH	(80°-90°)	2.6	0.1			G0/10
UL	(90°-100°)	4.6	0.1		U1/10	
UH	(100°-180°)	474.8	11.9		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°	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0
5°	714.3	714.3	715.9	717.5	722.0	726.6	731.4	736.2	742.4	748.5	755.5
10°	634.6	637.3	638.9	640.5	645.6	650.7	658.1	665.6	676.1	686.5	696.9
15°	589.7	589.2	591.9	594.5	599.9	605.2	612.2	619.1	629.5	640.0	651.5
20°	578.5	578.5	579.8	581.2	583.0	584.9	590.0	595.1	603.9	612.7	624.2
25°	610.0	607.9	608.7	609.5	606.0	602.5	599.9	597.2	599.9	602.5	613.0
30°	677.9	676.3	673.9	671.5	666.7	661.9	651.5	641.0	631.1	621.3	624.7
35°	757.6	758.1	764.0	769.9	770.4	771.0	752.8	734.6	711.3	688.1	675.5
40°	832.4	839.4	853.3	867.2	879.8	892.3	886.4	880.6	844.7	808.9	778.7
45°	936.7	942.6	965.6	988.6	1011.3	1034.0	1038.8	1043.6	1014.0	984.3	938.8
50°	1100.8	1114.2	1127.3	1140.4	1166.6	1192.8	1222.5	1252.1	1237.7	1223.3	1172.2
55°	1202.9	1209.9	1213.9	1217.9	1250.5	1283.1	1379.4	1475.6	1530.4	1585.2	1514.4
60°	868.3	862.4	874.9	887.5	948.2	1008.9	1204.0	1399.2	1659.8	1920.4	1958.9
65°	470.0	466.7	475.6	484.4	492.4	500.4	581.4	662.4	1153.5	1644.6	2102.5
70°	296.2	297.3	310.9	324.5	361.7	398.8	401.3	403.7	462.7	521.8	1336.9
75°	86.1	90.9	104.5	118.2	174.8	231.5	318.1	404.7	396.7	388.7	585.7
80°	10.2	11.8	16.6	21.4	36.6	51.9	102.1	152.4	223.2	294.1	279.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.1	1.1	1.1	19.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.7	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	4.7	4.9	5.2	5.5	6.0	6.6	9.0	11.5	13.7
105°	11.5	12.0	13.4	14.8	17.2	19.7	23.0	26.3	30.4	34.4	36.9
110°	36.1	37.2	38.9	40.5	44.1	47.6	51.7	55.8	59.1	62.3	64.0
115°	76.6	76.0	78.2	80.4	83.7	86.9	89.4	91.9	93.6	95.2	96.6
120°	123.1	122.0	122.8	123.6	125.5	127.4	128.5	129.6	131.3	132.9	133.7
125°	163.0	160.8	161.4	161.9	162.7	163.5	165.2	166.8	168.2	169.5	170.4
130°	198.5	197.4	197.7	198.0	199.1	200.2	201.3	202.4	202.9	203.4	204.8
135°	234.6	233.0	233.0	233.0	234.7	236.3	237.1	237.9	238.5	239.0	240.6
140°	266.9	265.2	265.8	266.4	266.9	267.4	268.0	268.6	270.2	271.8	272.7
145°	300.8	298.6	298.1	297.5	298.4	299.2	300.0	300.8	301.1	301.3	302.7
150°	325.4	323.8	324.0	324.3	324.3	324.3	324.3	324.3	324.3	324.3	325.4
155°	344.0	341.8	341.8	341.8	342.4	342.9	343.8	344.6	344.0	343.5	342.9
160°	362.6	360.9	360.7	360.4	359.6	358.8	358.5	358.2	358.2	358.2	359.1
165°	372.4	370.8	370.3	369.7	369.7	369.7	368.9	368.0	368.0	368.0	367.8
170°	381.7	380.1	379.3	378.5	378.5	378.5	378.7	379.0	378.5	377.9	376.5
175°	382.9	381.7	381.5	381.2	380.7	380.1	379.1	377.9	377.7	377.4	377.4
180°	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0
5°	762.4	770.1	779.0	784.1	789.1	788.9	788.6	787.0	783.8	777.6	771.5
10°	707.3	723.1	740.5	758.9	777.4	783.8	790.2	784.9	773.1	751.7	730.3
15°	663.0	681.1	702.0	727.4	752.8	770.2	787.5	775.8	752.2	707.1	661.9
20°	635.7	654.1	675.3	706.5	737.8	765.9	793.9	775.2	733.0	660.6	588.1
25°	623.4	642.7	665.6	700.7	735.7	770.4	805.2	777.4	711.6	609.8	507.9
30°	628.2	643.7	663.5	699.8	736.2	773.1	810.0	771.0	683.3	552.6	421.8
35°	663.0	668.9	677.9	709.5	741.0	775.2	809.5	756.5	650.1	485.5	320.8
40°	748.5	739.9	734.1	757.9	781.6	806.0	830.3	755.5	619.1	419.2	219.2
45°	893.4	876.2	863.5	879.8	896.1	906.5	916.9	804.1	617.0	373.7	130.5
50°	1121.1	1102.4	1083.2	1092.3	1101.4	1103.8	1106.2	938.3	680.6	379.1	77.5
55°	1443.5	1419.2	1387.4	1383.4	1379.4	1389.3	1399.2	1194.4	846.9	453.4	59.9
60°	1997.4	1888.7	1772.9	1698.6	1624.2	1614.6	1605.0	1409.9	968.2	509.0	49.7
65°	2560.4	2466.8	2273.8	2032.2	1790.5	1773.7	1756.8	1584.7	1024.4	529.0	33.7
70°	2151.9	2787.3	3293.9	2750.5	2207.0	2135.9	2064.8	1838.1	1014.8	517.3	19.8
75°	782.7	1617.9	2339.6	2186.2	2032.7	1771.3	1509.8	1240.9	513.3	262.8	12.3
80°	265.2	600.8	897.7	774.4	651.2	497.5	343.8	236.3	54.5	30.7	7.0
85°	38.5	51.9	51.3	31.8	12.3	16.3	20.3	17.1	4.8	3.7	2.7
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°	15.9	15.0	14.2	13.4	12.6	11.5	10.4	10.4	10.4	11.5	12.6
105°	39.4	38.8	38.3	36.9	35.6	34.4	33.4	33.4	33.4	34.5	35.6
110°	65.7	65.9	66.2	65.7	65.1	64.3	63.5	64.0	63.5	64.3	65.1
115°	97.9	98.7	99.6	98.7	97.9	97.4	96.8	97.4	96.8	97.4	97.9
120°	134.5	135.6	136.7	135.4	134.0	133.4	132.9	132.9	132.9	133.4	134.0
125°	171.2	171.7	172.3	170.9	169.5	169.5	169.5	169.5	169.5	169.5	169.5
130°	206.2	207.3	208.4	208.4	208.4	207.8	207.3	207.8	207.3	207.8	208.4
135°	242.3	243.6	245.0	244.8	244.5	245.3	246.1	246.7	246.1	245.3	244.5
140°	273.5	274.0	274.5	275.1	275.7	277.0	278.4	279.5	278.4	277.1	275.7
145°	304.1	305.7	307.4	307.1	306.8	306.0	305.2	306.3	305.2	306.0	306.8
150°	326.5	327.3	328.2	329.0	329.8	330.6	331.4	333.6	331.4	330.6	329.8
155°	342.4	343.7	345.1	346.4	347.8	348.4	348.9	350.6	348.9	348.4	347.8
160°	359.9	361.5	363.1	362.3	361.5	361.3	360.9	364.3	360.9	361.3	361.5
165°	367.5	368.9	370.2	371.1	371.9	371.4	370.8	373.0	370.8	371.4	371.9
170°	375.2	376.0	376.8	378.2	379.5	380.1	380.7	383.4	380.7	380.1	379.5
175°	377.4	378.7	380.1	380.4	380.7	380.1	379.5	382.3	379.5	380.1	380.7
180°	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8





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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0	787.0
5°	762.4	753.3	740.7	728.2	714.6	700.9	692.4	683.8	674.5	665.1	657.1
10°	699.8	669.4	632.2	595.1	562.4	529.8	500.4	471.0	447.0	422.9	406.3
15°	605.8	549.6	489.2	428.8	372.9	317.0	271.6	226.2	195.9	165.7	147.0
20°	502.8	417.6	330.1	242.7	187.1	131.5	115.2	98.9	96.0	93.0	92.0
25°	391.6	275.3	191.9	108.5	96.5	84.5	81.8	79.1	76.7	74.3	72.4
30°	283.9	146.0	110.7	75.4	71.4	67.4	63.6	59.9	55.9	51.9	48.9
35°	199.7	78.6	70.0	61.5	56.7	51.9	47.0	42.2	38.0	33.7	31.3
40°	140.1	60.9	55.1	49.2	43.3	37.4	32.9	28.3	25.7	23.0	21.4
45°	90.6	50.8	44.1	37.4	31.8	26.2	23.0	19.8	17.4	15.0	13.4
50°	59.9	42.2	34.5	26.7	22.5	18.2	15.8	13.4	11.2	9.1	8.0
55°	46.5	33.1	25.4	17.6	15.0	12.3	10.4	8.6	7.0	5.3	4.5
60°	36.9	24.1	18.4	12.8	10.7	8.6	7.0	5.3	4.3	3.2	2.7
65°	24.3	15.0	12.0	9.1	7.5	5.9	4.8	3.7	2.9	2.1	1.9
70°	14.7	9.6	7.5	5.3	4.8	4.3	3.7	3.2	2.7	2.1	1.6
75°	9.4	6.4	5.6	4.8	4.5	4.3	3.7	3.2	3.2	3.2	2.9
80°	5.6	4.3	4.0	3.7	4.0	4.3	4.5	4.8	4.0	3.2	2.7
85°	2.4	2.1	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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	15.1	15.9	13.7	11.5	9.0	6.6	6.0	5.5	5.2
105°	36.9	38.3	38.9	39.4	36.9	34.4	30.4	26.3	23.0	19.7	17.2
110°	65.7	66.2	65.9	65.7	64.0	62.3	59.1	55.8	51.7	47.6	44.1
115°	98.7	99.6	98.7	97.9	96.6	95.2	93.6	91.9	89.4	86.9	83.7
120°	135.4	136.7	135.6	134.5	133.7	132.9	131.3	129.6	128.5	127.4	125.5
125°	170.9	172.3	171.7	171.2	170.4	169.5	168.2	166.8	165.2	163.5	162.7
130°	208.4	208.4	207.3	206.2	204.8	203.4	202.9	202.4	201.3	200.2	199.1
135°	244.8	245.0	243.7	242.3	240.6	239.0	238.5	237.9	237.1	236.3	234.7
140°	275.1	274.5	274.0	273.5	272.7	271.8	270.2	268.6	268.0	267.4	266.9
145°	307.1	307.4	305.8	304.1	302.7	301.3	301.1	300.8	300.0	299.2	298.4
150°	329.0	328.2	327.4	326.5	325.4	324.3	324.3	324.3	324.3	324.3	324.3
155°	346.5	345.1	343.8	342.4	342.9	343.5	344.0	344.6	343.8	342.9	342.4
160°	362.3	363.1	361.5	359.9	359.1	358.2	358.2	358.2	358.5	358.8	359.6
165°	371.1	370.2	368.9	367.5	367.8	368.0	368.0	368.0	368.9	369.7	369.7
170°	378.2	376.8	376.0	375.2	376.5	377.9	378.5	379.0	378.7	378.5	378.5
175°	380.4	380.1	378.7	377.4	377.4	377.4	377.7	377.9	379.1	380.1	380.7
180°	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8	382.8



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

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	787.0	787.0	787.0	787.0
5°	649.1	644.0	638.9	640.0
10°	389.8	382.8	375.9	364.1
15°	128.3	124.0	119.8	120.8
20°	90.9	90.4	89.8	89.3
25°	70.6	69.5	68.4	68.4
30°	46.0	44.6	43.3	42.2
35°	28.9	27.8	26.7	26.2
40°	19.8	18.7	17.6	17.6
45°	11.8	11.0	10.2	10.2
50°	7.0	6.4	5.9	5.9
55°	3.7	3.5	3.2	2.7
60°	2.1	1.9	1.6	1.6
65°	1.6	1.6	1.6	1.6
70°	1.1	1.1	1.1	1.1
75°	2.7	2.4	2.1	2.1
80°	2.1	1.9	1.6	1.6
85°	1.6	1.6	1.6	1.1
90°	0.0	0.0	0.0	0.0
95°	3.3	3.0	2.7	2.7
100°	4.9	4.7	4.4	4.4
105°	14.8	13.4	12.0	11.5
110°	40.5	38.9	37.2	36.1
115°	80.4	78.2	76.0	76.6
120°	123.6	122.8	122.0	123.1
125°	161.9	161.4	160.8	163.0
130°	198.0	197.7	197.4	198.5
135°	233.0	233.0	233.0	234.6
140°	266.4	265.8	265.2	266.9
145°	297.5	298.1	298.6	300.8
150°	324.3	324.0	323.8	325.4
155°	341.8	341.8	341.8	344.0
160°	360.4	360.7	360.9	362.6
165°	369.7	370.3	370.8	372.4
170°	378.5	379.3	380.1	381.7
175°	381.2	381.5	381.7	382.9
180°	382.8	382.8	382.8	382.8

(END OF REPORT)