

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: P400979

Luminaire Tested: **ENV-SA1A-740-U-T4W-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400979
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-T4W-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4511 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - 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

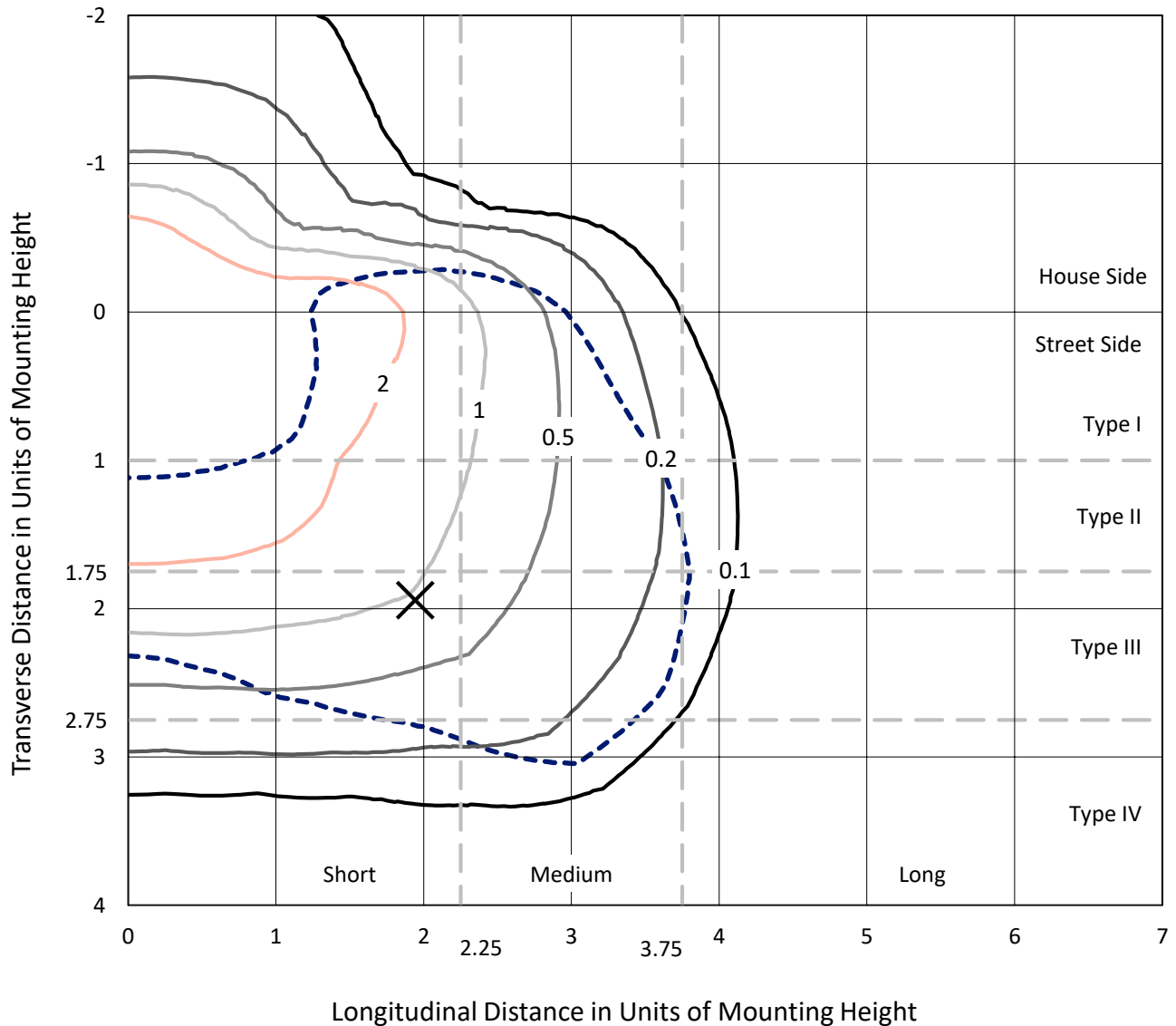


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Iso-Footcandle Lines of Horizontal Illumination

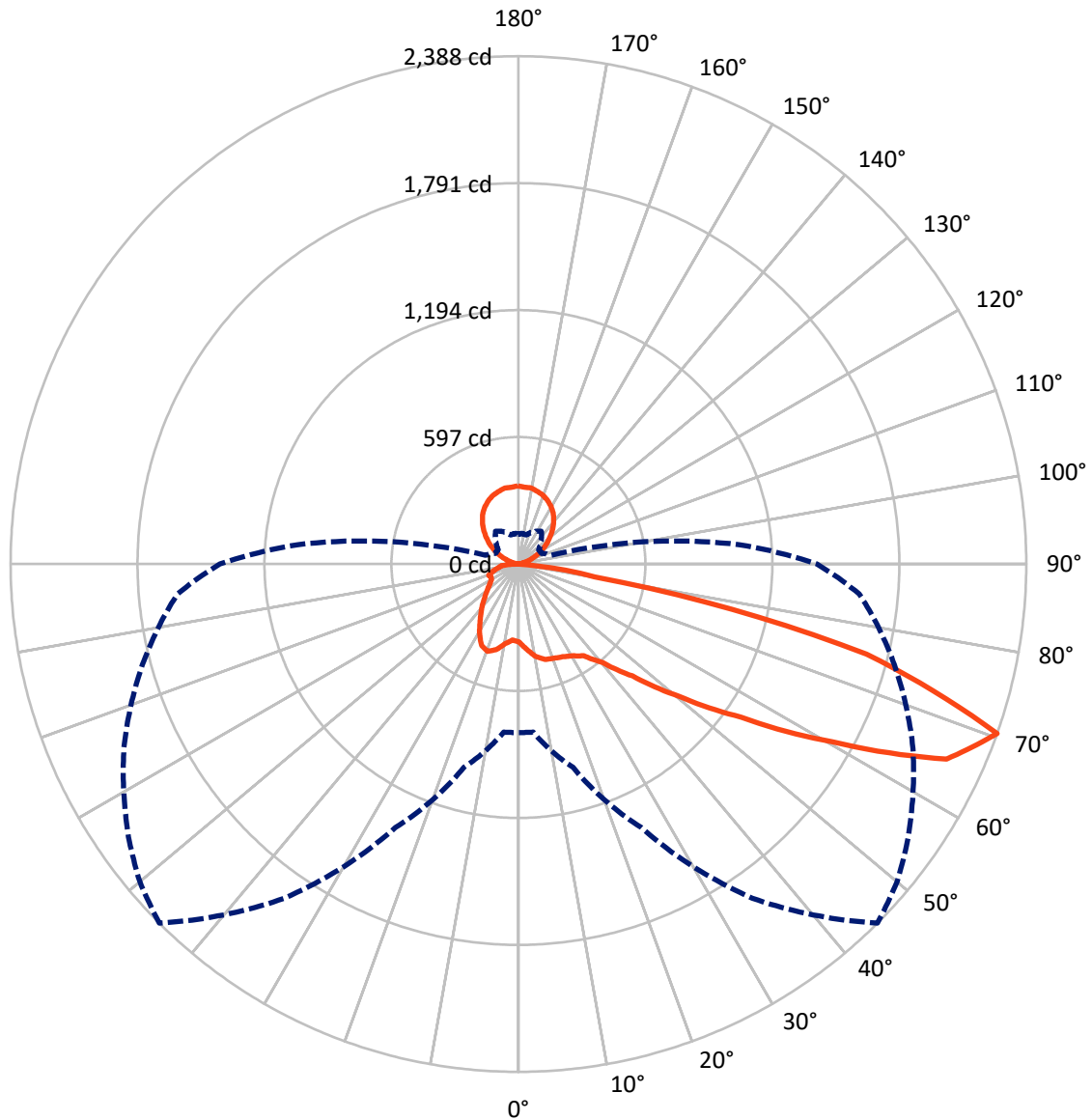
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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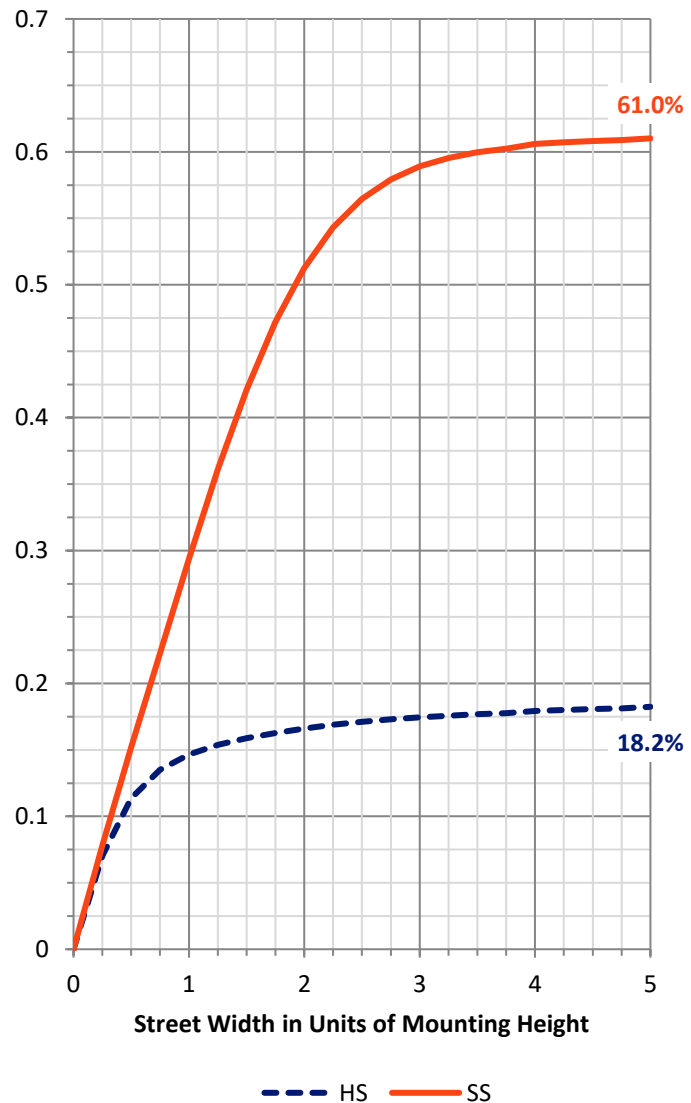
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	847.0	455.5	1302.5
	% Fixture	18.8	10.1	28.9
Street Side	Lumens	2753.1	455.5	3208.5
	% Fixture	61.0	10.1	71.1
Total	Lumens	3600.1	910.9	4511.0
	% Fixture	79.8	20.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	0.8
10°-20°	123.3	2.7
20°-30°	209.1	4.6
30°-40°	302.6	6.7
40°-50°	458.6	10.2
50°-60°	769.4	17.1
60°-70°	1044.3	23.1
70°-80°	587.9	13.0
80°-90°	67.7	1.5
90°-100°	4.4	0.1
100°-110°	30.8	0.7
110°-120°	87.5	1.9
120°-130°	143.4	3.2
130°-140°	176.7	3.9
140°-150°	180.7	4.0
150°-160°	152.4	3.4
160°-170°	100.3	2.2
170°-180°	34.8	0.8
0°-90°	3600.1	79.8
0°-180°	4511.0	100.0



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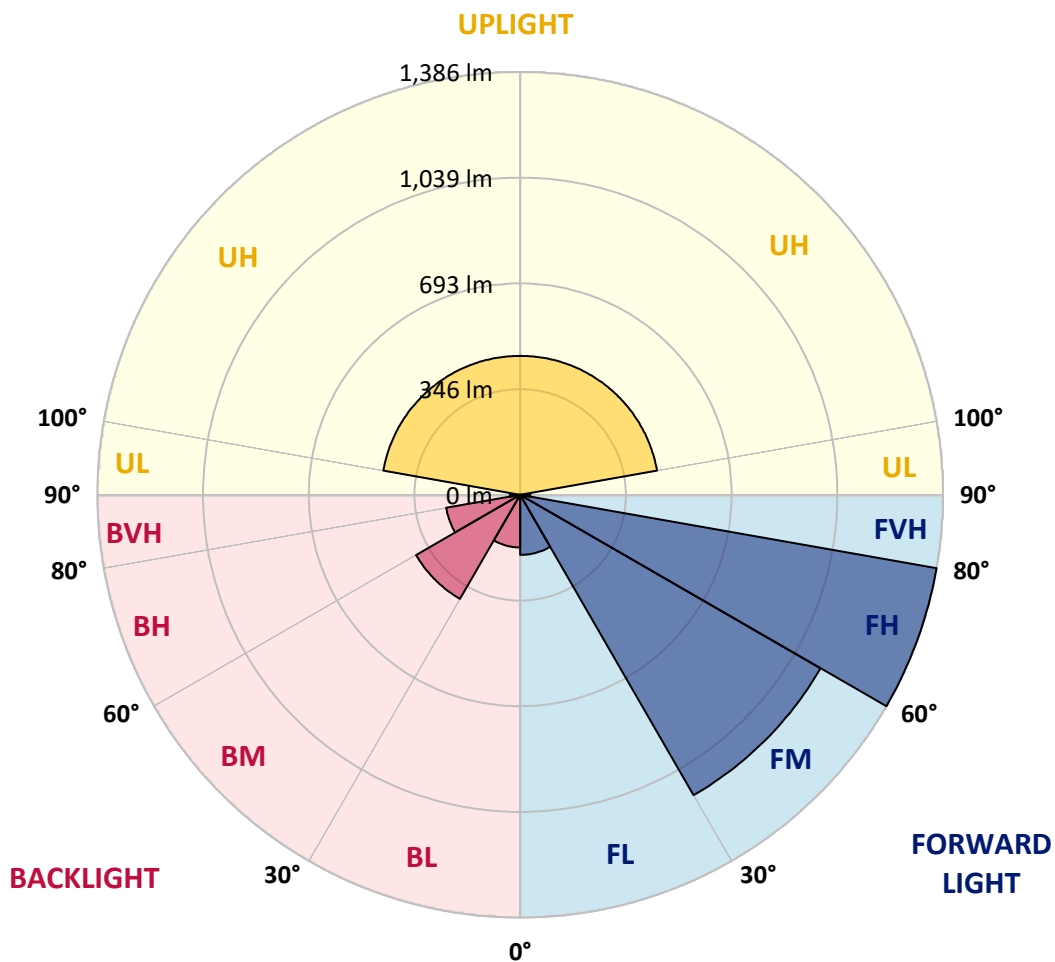
CATALOG NUMBER: ENV-SA1A-740-U-T4W-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	196.9	4.4			
FM (30°-60°)	1136.7	25.2			
FH (60°-80°)	1385.9	30.7			G1/1800
FVH (80°-90°)	33.6	0.7			G1/100
BL (0°-30°)	172.7	3.8	B1/500		
BM (30°-60°)	394.0	8.7	B1/1000		
BH (60°-80°)	246.3	5.5	B1/500		G1/500
BVH (80°-90°)	34.1	0.8			G1/100
UL (90°-100°)	4.4	0.1		U1/10	
UH (100°-180°)	455.5	10.1		U3/500	

BUG Rating: B1-U4-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2
5°	418.0	419.5	419.3	419.0	417.7	416.5	412.4	408.3	405.2	402.1	398.7
10°	471.9	472.9	470.6	468.3	464.7	461.1	456.0	450.8	446.0	441.1	434.8
15°	496.0	494.9	493.1	491.3	487.8	484.2	478.8	473.4	469.5	465.7	460.1
20°	487.8	487.2	486.7	486.2	483.4	480.6	478.0	475.4	474.2	472.9	470.5
25°	485.2	484.7	483.1	481.6	479.0	476.5	476.2	476.0	479.5	483.1	484.3
30°	559.6	560.1	550.3	540.6	526.2	511.9	504.2	496.5	498.5	500.6	503.3
35°	728.3	725.7	706.5	687.3	653.7	620.1	589.6	559.0	544.4	529.8	527.9
40°	899.6	898.1	882.7	867.3	829.8	792.4	736.2	680.1	644.7	609.3	594.1
45°	1076.0	1075.0	1067.3	1059.6	1020.1	980.6	917.5	854.5	802.4	750.3	717.1
50°	1243.2	1242.7	1230.9	1219.1	1207.6	1196.0	1148.3	1100.6	1038.8	977.0	938.1
55°	1437.6	1437.1	1424.5	1412.0	1419.1	1426.3	1426.8	1427.4	1349.1	1270.9	1233.8
60°	1548.4	1558.7	1588.1	1617.6	1675.1	1732.5	1760.7	1788.9	1744.1	1699.2	1648.5
65°	1375.0	1403.8	1495.1	1586.3	1705.1	1823.8	1958.7	2093.6	2152.8	2212.1	2132.0
70°	792.4	793.4	891.6	989.9	1178.6	1367.3	1642.8	1918.2	2153.1	2388.0	2324.0
75°	111.3	115.4	144.1	172.8	298.0	423.1	655.5	887.8	1289.4	1691.0	1726.4
80°	32.3	33.3	39.0	44.6	57.2	69.8	111.8	153.9	259.0	364.1	453.7
85°	0.0	0.0	0.3	0.5	0.8	1.0	2.3	3.6	6.2	8.7	13.5
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	11.5	12.9	14.2	16.5	18.9	22.1	25.2	29.1	33.0	35.4
110°	34.6	35.7	37.3	38.8	42.3	45.6	49.6	53.5	56.7	59.8	61.4
115°	73.4	72.9	75.0	77.1	80.3	83.4	85.8	88.2	89.8	91.3	92.6
120°	118.1	117.0	117.8	118.6	120.4	122.2	123.3	124.3	125.9	127.5	128.3
125°	156.3	154.2	154.8	155.3	156.1	156.9	158.5	160.0	161.4	162.6	163.5
130°	190.4	189.4	189.7	189.9	191.0	192.0	193.1	194.1	194.6	195.2	196.5
135°	225.1	223.5	223.5	223.5	225.1	226.6	227.5	228.2	228.7	229.3	230.8
140°	256.0	254.4	255.0	255.5	256.0	256.5	257.1	257.6	259.2	260.8	261.6
145°	288.5	286.4	285.9	285.4	286.2	287.0	287.8	288.5	288.8	289.1	290.4
150°	312.2	310.6	310.9	311.1	311.1	311.1	311.1	311.1	311.1	311.1	312.2
155°	330.0	327.9	327.9	327.9	328.5	329.0	329.8	330.6	330.0	329.5	329.0
160°	347.8	346.2	346.0	345.7	345.0	344.2	343.9	343.6	343.6	343.6	344.5
165°	357.3	355.7	355.2	354.7	354.7	354.7	353.9	353.1	353.1	353.1	352.8
170°	366.2	364.7	363.9	363.1	363.1	363.1	363.3	363.6	363.1	362.6	361.2
175°	367.3	366.2	365.9	365.7	365.2	364.7	363.6	362.6	362.3	362.0	362.0
180°	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2



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CATALOG NUMBER: ENV-SA1A-740-U-T4W-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2
5°	394.4	390.3	386.2	382.4	378.5	374.9	371.3	367.7	366.2	364.7	363.1
10°	428.3	422.6	417.0	410.1	403.1	396.2	389.3	384.1	380.6	378.0	375.4
15°	454.9	450.1	445.2	438.0	430.8	422.4	413.9	406.7	402.1	400.0	398.0
20°	468.8	466.5	464.2	458.3	452.4	444.4	436.5	428.8	425.2	424.2	423.1
25°	485.2	485.7	486.2	482.4	478.5	470.6	462.6	456.0	451.3	451.1	450.8
30°	506.2	505.4	504.7	501.3	498.0	492.4	486.7	482.6	482.6	483.6	484.7
35°	526.7	532.1	537.5	533.4	529.3	521.1	512.9	512.9	523.7	518.5	513.4
40°	579.0	581.1	583.1	576.2	569.3	566.5	563.7	577.5	598.5	566.7	534.9
45°	688.3	700.3	712.4	710.9	709.3	716.5	723.7	750.3	753.4	647.8	542.1
50°	899.1	925.2	951.4	969.4	987.3	1012.2	1037.1	1085.8	1028.3	799.1	569.8
55°	1197.6	1239.9	1282.2	1300.2	1318.1	1394.5	1471.0	1538.7	1395.6	989.4	583.1
60°	1601.7	1630.5	1659.2	1669.2	1679.2	1771.0	1862.8	1876.1	1591.5	1032.4	473.4
65°	2040.3	2011.5	1982.8	1957.2	1931.5	1979.5	2027.4	1904.8	1507.9	895.5	283.1
70°	2238.2	2142.6	2046.9	1938.4	1830.0	1719.2	1608.4	1403.2	1043.7	601.4	159.0
75°	1739.2	1634.0	1528.9	1344.8	1160.7	951.9	743.2	580.6	400.6	255.9	111.3
80°	520.1	479.8	439.5	345.9	252.3	188.0	123.6	99.0	89.2	84.1	79.0
85°	19.5	24.4	29.2	30.8	32.3	24.9	17.4	15.4	20.5	27.4	34.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.7	3.9	4.2	3.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7
100°	15.2	14.4	13.6	12.9	12.1	11.0	9.9	9.9	9.9	11.0	12.1
105°	37.8	37.2	36.7	35.4	34.1	33.0	32.0	32.0	32.0	33.1	34.1
110°	63.0	63.2	63.5	63.0	62.4	61.6	60.9	61.4	60.9	61.6	62.4
115°	93.9	94.7	95.5	94.7	93.9	93.4	92.9	93.4	92.9	93.4	93.9
120°	129.0	130.1	131.1	129.9	128.5	128.0	127.5	127.5	127.5	128.0	128.5
125°	164.2	164.7	165.3	164.0	162.6	162.6	162.6	162.6	162.6	162.6	162.6
130°	197.8	198.8	199.9	199.9	199.9	199.4	198.8	199.4	198.8	199.4	199.9
135°	232.4	233.7	235.1	234.8	234.5	235.3	236.1	236.6	236.1	235.3	234.5
140°	262.3	262.9	263.4	263.9	264.4	265.7	267.1	268.1	267.1	265.8	264.4
145°	291.7	293.3	294.9	294.6	294.3	293.5	292.8	293.8	292.8	293.6	294.3
150°	313.2	314.0	314.8	315.6	316.3	317.2	317.9	320.0	317.9	317.2	316.3
155°	328.5	329.7	331.1	332.3	333.7	334.2	334.7	336.3	334.7	334.2	333.7
160°	345.2	346.8	348.4	347.6	346.8	346.6	346.2	349.4	346.2	346.6	346.8
165°	352.6	353.9	355.2	356.0	356.8	356.2	355.7	357.8	355.7	356.2	356.8
170°	359.9	360.7	361.5	362.8	364.1	364.7	365.2	367.8	365.2	364.7	364.1
175°	362.0	363.3	364.7	364.9	365.2	364.7	364.1	366.7	364.1	364.7	365.2
180°	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2
5°	362.1	361.1	360.0	359.0	358.5	358.0	359.3	360.6	361.1	361.6	362.1
10°	375.2	374.9	375.4	375.9	378.0	380.0	382.9	385.7	388.0	390.3	392.4
15°	399.3	400.6	404.4	408.3	411.8	415.4	418.0	420.6	421.6	422.6	423.4
20°	426.7	430.3	432.6	434.9	435.2	435.4	433.4	431.3	429.0	426.7	424.2
25°	449.5	448.3	441.6	434.9	427.0	419.0	412.1	405.2	401.1	397.0	394.2
30°	468.8	452.9	429.8	406.7	388.8	370.8	362.1	353.4	353.1	352.9	354.9
35°	473.9	434.4	394.4	354.4	335.2	315.9	310.3	304.7	303.9	303.1	304.9
40°	458.0	381.1	337.0	292.9	282.1	271.3	265.4	259.5	255.7	251.8	247.5
45°	419.8	297.5	266.2	234.9	231.6	228.2	222.1	215.9	210.5	205.2	196.4
50°	396.2	222.6	206.9	191.3	192.1	192.8	189.0	185.2	178.0	170.8	161.8
55°	380.6	178.0	169.8	161.6	164.1	166.7	165.7	164.6	158.7	152.8	145.9
60°	311.1	148.7	143.6	138.5	142.8	147.2	150.0	152.8	149.5	146.2	140.8
65°	206.9	130.8	128.5	126.2	134.1	142.1	152.1	162.1	162.1	162.1	156.7
70°	139.2	119.5	118.0	116.4	133.1	149.8	168.7	187.7	178.0	168.2	154.9
75°	110.0	108.7	103.3	98.0	109.8	121.6	148.2	174.9	165.7	156.4	143.4
80°	82.3	85.7	80.5	75.4	85.4	95.4	123.1	150.8	145.4	140.0	126.9
85°	40.8	47.2	47.4	47.7	63.3	79.0	108.5	138.0	130.5	123.1	107.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.9	4.2	3.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.4
100°	12.9	13.6	14.5	15.2	13.1	11.0	8.7	6.3	5.8	5.2	5.0
105°	35.4	36.7	37.3	37.8	35.4	33.0	29.1	25.2	22.1	18.9	16.5
110°	63.0	63.5	63.2	63.0	61.4	59.8	56.7	53.5	49.6	45.6	42.3
115°	94.7	95.5	94.7	93.9	92.6	91.3	89.8	88.2	85.8	83.4	80.3
120°	129.9	131.1	130.1	129.0	128.3	127.5	125.9	124.3	123.3	122.2	120.4
125°	164.0	165.3	164.7	164.2	163.5	162.6	161.4	160.0	158.5	156.9	156.1
130°	199.9	199.9	198.8	197.8	196.5	195.2	194.6	194.1	193.1	192.0	191.0
135°	234.8	235.1	233.8	232.4	230.8	229.3	228.7	228.2	227.5	226.6	225.1
140°	263.9	263.4	262.9	262.3	261.6	260.8	259.2	257.6	257.1	256.5	256.0
145°	294.6	294.9	293.3	291.7	290.4	289.1	288.8	288.5	287.8	287.0	286.2
150°	315.6	314.8	314.0	313.2	312.2	311.1	311.1	311.1	311.1	311.1	311.1
155°	332.4	331.1	329.8	328.5	329.0	329.5	330.0	330.6	329.8	329.0	328.5
160°	347.6	348.4	346.8	345.2	344.5	343.6	343.6	343.6	343.9	344.2	345.0
165°	356.0	355.2	353.9	352.6	352.8	353.1	353.1	353.1	353.9	354.7	354.7
170°	362.8	361.5	360.7	359.9	361.2	362.6	363.1	363.6	363.3	363.1	363.1
175°	364.9	364.7	363.3	362.0	362.0	362.0	362.3	362.6	363.6	364.7	365.2
180°	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2	367.2



REPORT NUMBER: P400979

CATALOG NUMBER: ENV-SA1A-740-U-T4W-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	366.2	366.2	366.2	366.2
5°	362.6	362.6	362.6	363.1
10°	394.4	395.7	397.0	397.0
15°	424.2	425.4	426.7	427.2
20°	421.6	421.6	421.6	422.1
25°	391.3	391.6	391.8	394.9
30°	357.0	358.5	360.0	363.6
35°	306.7	309.0	311.3	312.9
40°	243.1	239.3	235.4	235.4
45°	187.7	180.8	173.9	170.8
50°	152.8	148.2	143.6	141.6
55°	139.0	135.7	132.3	130.8
60°	135.4	133.6	131.8	130.3
65°	151.3	153.6	155.9	156.4
70°	141.6	143.1	144.6	140.0
75°	130.3	126.9	123.6	117.5
80°	113.9	109.2	104.6	100.0
85°	91.8	85.7	79.5	78.5
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	11.5	11.0
110°	38.8	37.3	35.7	34.6
115°	77.1	75.0	72.9	73.4
120°	118.6	117.8	117.0	118.1
125°	155.3	154.8	154.2	156.3
130°	189.9	189.7	189.4	190.4
135°	223.5	223.5	223.5	225.1
140°	255.5	255.0	254.4	256.0
145°	285.4	285.9	286.4	288.5
150°	311.1	310.9	310.6	312.2
155°	327.9	327.9	327.9	330.0
160°	345.7	346.0	346.2	347.8
165°	354.7	355.2	355.7	357.3
170°	363.1	363.9	364.7	366.2
175°	365.7	365.9	366.2	367.3
180°	367.2	367.2	367.2	367.2

(END OF REPORT)