

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: P400965

Luminaire Tested: **ENV-SA1A-740-U-T2-HSS-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400965
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-T2-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3847 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B0 - U4 - G1

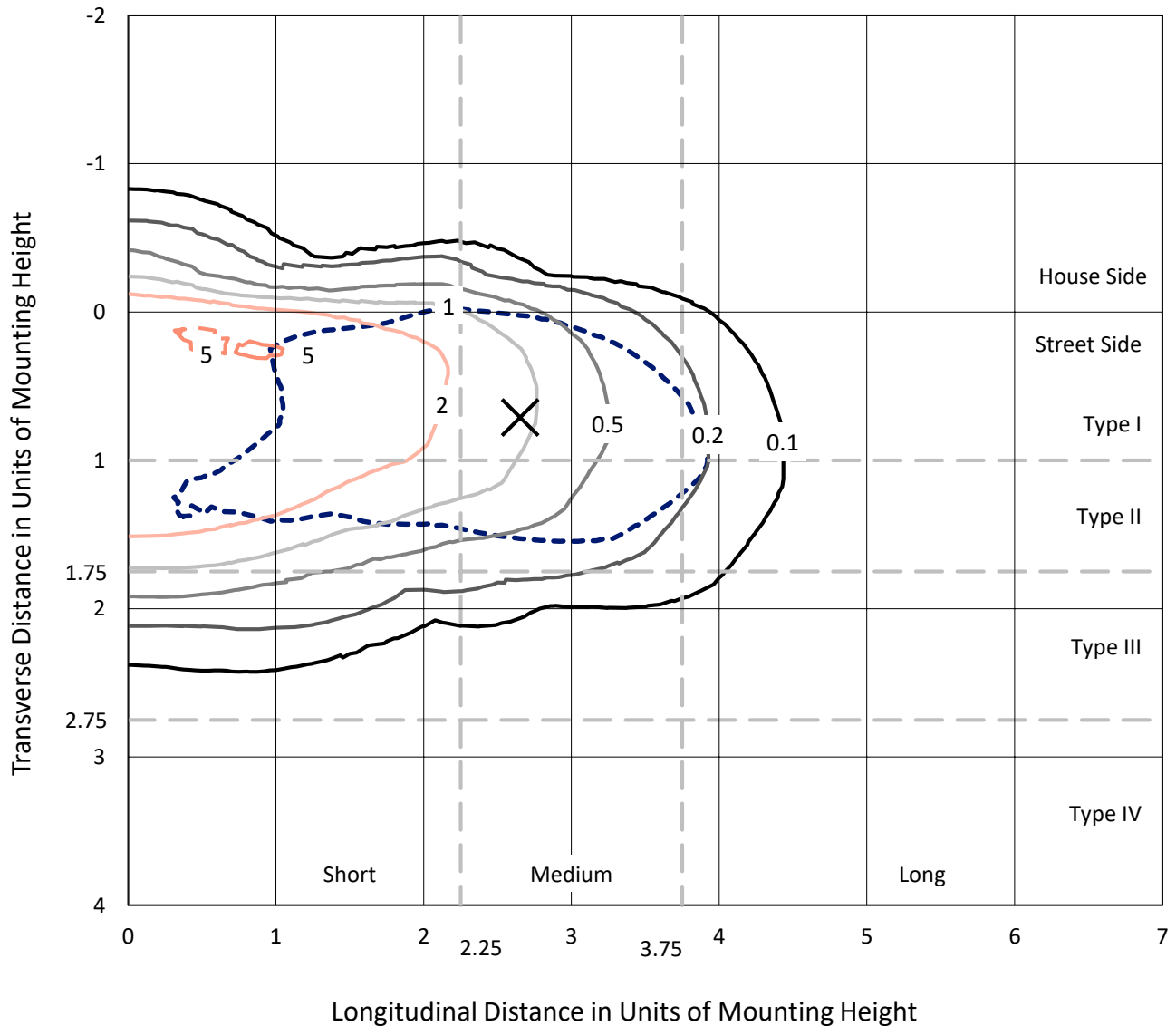
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

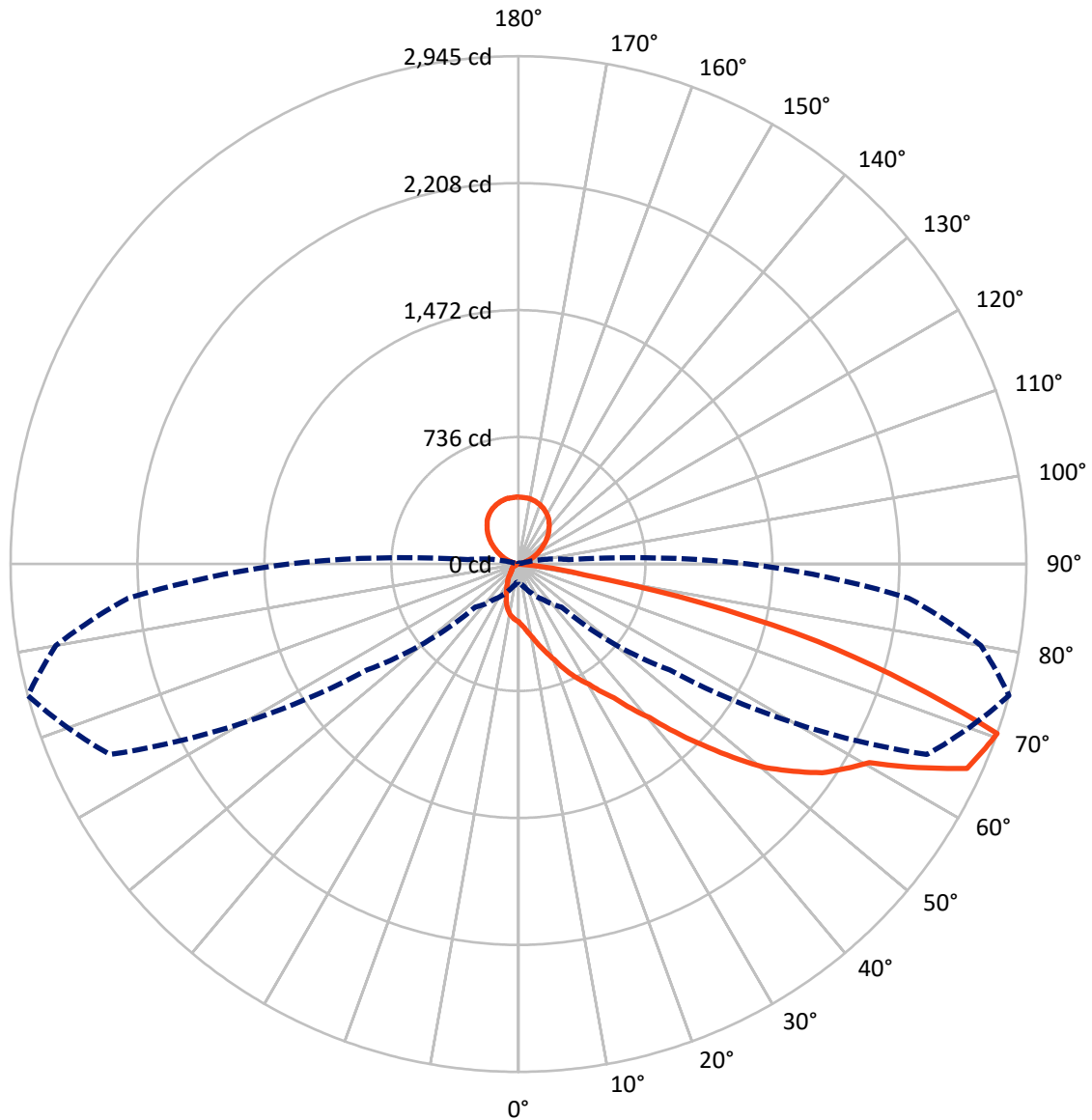
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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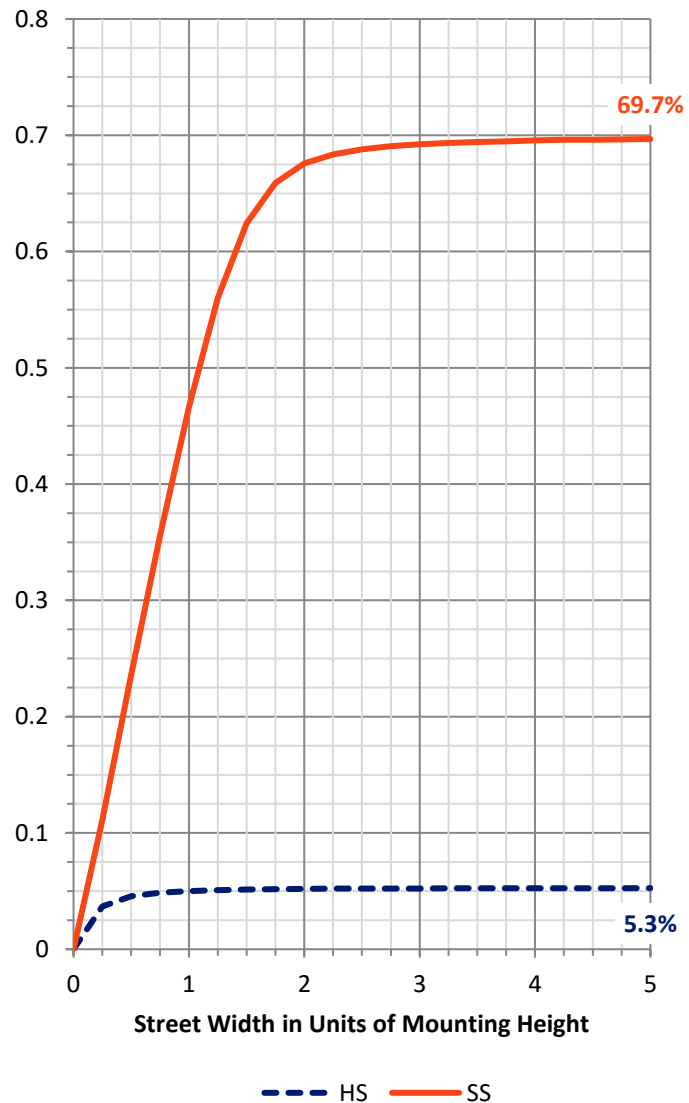
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	204.3	481.9	686.3
	% Fixture	5.3	12.5	17.8
Street Side	Lumens	2678.8	481.9	3160.8
	% Fixture	69.6	12.5	82.2
Total	Lumens	2883.1	963.9	3847.0
	% Fixture	74.9	25.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	0.8
10°-20°	92.7	2.4
20°-30°	163.9	4.3
30°-40°	288.8	7.5
40°-50°	495.9	12.9
50°-60°	738.8	19.2
60°-70°	727.8	18.9
70°-80°	324.7	8.4
80°-90°	18.3	0.5
90°-100°	4.7	0.1
100°-110°	32.6	0.8
110°-120°	92.6	2.4
120°-130°	151.7	3.9
130°-140°	187.0	4.9
140°-150°	191.2	5.0
150°-160°	161.2	4.2
160°-170°	106.1	2.8
170°-180°	36.8	1.0
0°-90°	2883.1	74.9
0°-180°	3847.0	100.0



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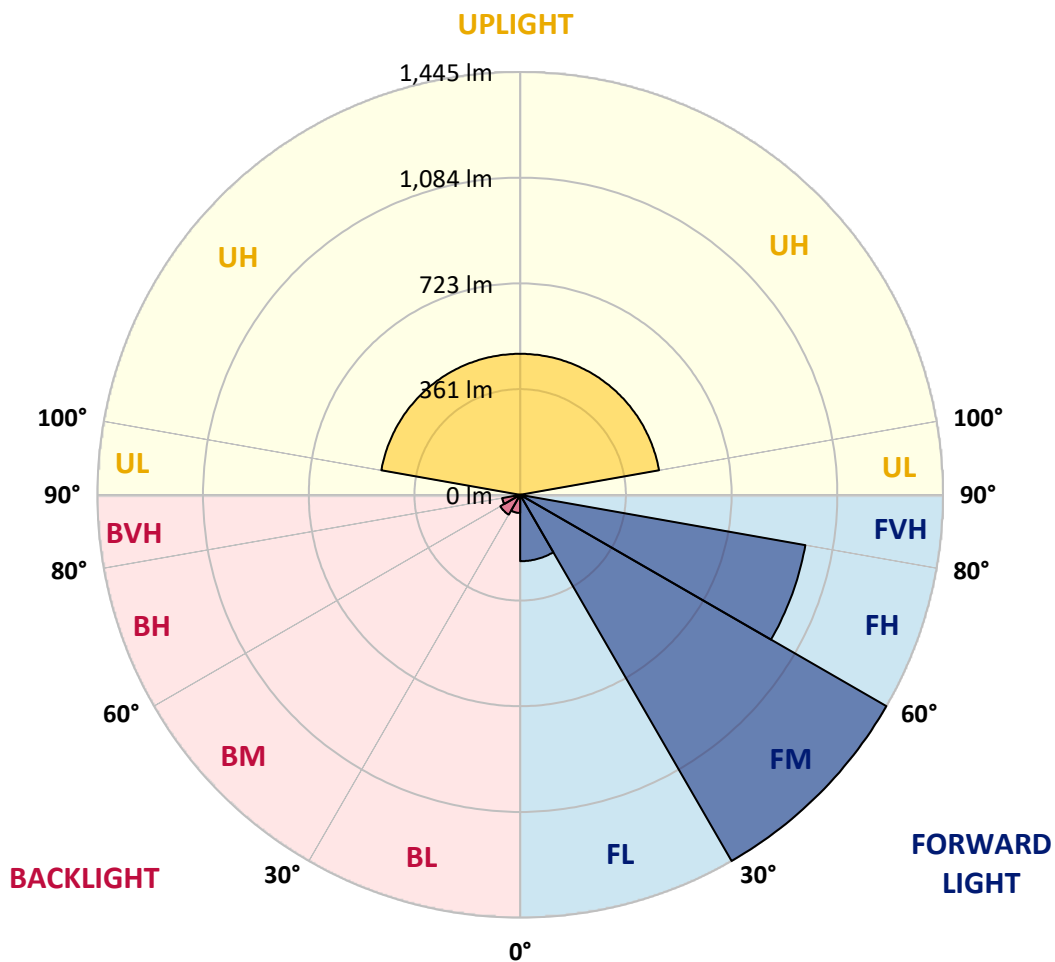
CATALOG NUMBER: ENV-SA1A-740-U-T2-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	226.9	5.9			
FM (30°-60°)	1445.4	37.6			
FH (60°-80°)	989.9	25.7			G1/1800
FVH (80°-90°)	16.6	0.4			G1/100
BL (0°-30°)	62.1	1.6	B0/110		
BM (30°-60°)	78.0	2.0	B0/220		
BH (60°-80°)	62.6	1.6	B0/110		G0/110
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	481.9	12.5		U3/500	

BUG Rating: B0-U4-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
5°	432.0	432.0	432.0	432.0	429.8	427.6	425.7	423.8	418.7	413.5	407.3
10°	459.6	461.8	464.0	466.2	469.4	472.7	475.1	477.6	479.5	481.4	477.3
15°	436.3	437.9	443.1	448.3	457.8	467.2	479.5	491.7	505.8	519.9	528.0
20°	409.2	409.7	412.2	414.6	425.2	435.8	456.9	478.1	507.1	536.2	564.7
25°	556.2	557.9	551.9	545.9	529.9	513.9	502.2	490.6	511.2	531.8	585.0
30°	716.9	714.7	710.9	707.1	692.2	677.3	656.1	634.9	618.4	601.8	632.5
35°	912.8	912.8	902.7	892.7	874.8	856.9	830.3	803.7	775.2	746.7	739.9
40°	1068.0	1079.9	1080.2	1080.5	1055.0	1029.5	1006.4	983.3	963.8	944.3	923.9
45°	1212.3	1216.7	1214.0	1211.3	1200.4	1189.6	1169.7	1149.9	1156.7	1163.5	1151.8
50°	1442.4	1450.6	1454.9	1459.3	1453.0	1446.8	1422.6	1398.5	1386.3	1374.1	1363.8
55°	1376.8	1381.7	1421.5	1461.4	1504.9	1548.3	1621.8	1695.3	1706.2	1717.0	1663.3
60°	762.5	785.3	853.1	920.9	1021.6	1122.3	1295.4	1468.5	1635.4	1802.2	1933.0
65°	225.8	231.2	261.0	290.9	356.3	421.7	540.2	658.8	891.4	1123.9	1585.7
70°	103.1	108.5	124.0	139.5	164.4	189.4	220.9	252.3	302.5	352.7	712.0
75°	38.5	40.7	47.5	54.3	72.7	91.2	111.5	131.9	125.1	118.3	194.3
80°	8.7	10.3	14.4	18.5	21.2	23.9	35.5	47.2	46.1	45.0	45.9
85°	0.0	0.0	0.3	0.5	0.5	0.5	0.5	0.5	0.8	1.1	2.4
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	5.3	5.5	6.1	6.7	9.2	11.7	13.9
105°	11.7	12.2	13.6	15.0	17.5	20.0	23.3	26.6	30.8	34.9	37.5
110°	36.6	37.8	39.5	41.1	44.7	48.3	52.5	56.6	60.0	63.3	65.0
115°	77.7	77.2	79.4	81.6	84.9	88.2	90.8	93.3	95.0	96.6	98.0
120°	124.9	123.8	124.7	125.5	127.4	129.3	130.5	131.5	133.2	134.9	135.7
125°	165.4	163.2	163.8	164.3	165.2	166.0	167.7	169.3	170.7	172.1	173.0
130°	201.5	200.4	200.7	201.0	202.1	203.2	204.3	205.4	205.9	206.5	207.9
135°	238.1	236.5	236.5	236.5	238.2	239.8	240.7	241.5	242.0	242.6	244.3
140°	270.9	269.2	269.8	270.4	270.9	271.4	272.0	272.6	274.3	275.9	276.8
145°	305.3	303.1	302.5	302.0	302.9	303.7	304.5	305.3	305.6	305.9	307.3
150°	330.3	328.6	328.9	329.2	329.2	329.2	329.2	329.2	329.2	329.2	330.3
155°	349.2	346.9	346.9	346.9	347.5	348.1	348.9	349.8	349.2	348.6	348.1
160°	368.0	366.4	366.1	365.8	365.0	364.2	363.9	363.6	363.6	363.6	364.5
165°	378.0	376.4	375.9	375.3	375.3	375.3	374.4	373.6	373.6	373.6	373.3
170°	387.5	385.8	385.0	384.2	384.2	384.2	384.4	384.7	384.2	383.6	382.2
175°	388.6	387.5	387.2	386.9	386.4	385.8	384.8	383.6	383.3	383.0	383.0
180°	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6



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CATALOG NUMBER: ENV-SA1A-740-U-T2-HSS-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
5°	401.0	394.8	388.6	380.4	372.3	362.7	353.8	344.6	335.9	327.2	318.6
10°	473.2	465.6	458.0	443.4	428.7	410.6	389.6	368.5	344.1	319.9	295.8
15°	536.2	534.8	533.5	518.3	503.1	474.1	441.2	397.8	350.6	305.0	259.4
20°	593.1	609.2	625.2	608.1	591.0	553.8	501.4	430.9	347.3	279.5	211.6
25°	638.2	684.3	730.4	718.5	706.6	651.4	577.4	466.2	333.2	249.4	165.5
30°	663.2	739.7	816.2	813.7	811.3	737.7	639.3	478.6	293.6	211.1	128.6
35°	733.2	819.7	906.3	929.1	951.9	851.6	713.6	483.0	245.3	174.5	103.7
40°	903.6	974.9	1046.3	1108.7	1171.1	1037.0	848.2	521.5	214.4	145.2	76.0
45°	1140.2	1203.4	1266.6	1380.8	1495.1	1329.6	1060.9	618.7	211.6	134.9	58.1
50°	1353.4	1436.2	1519.0	1686.9	1854.9	1656.1	1308.4	754.3	240.9	146.0	51.0
55°	1609.6	1694.8	1780.0	1958.5	2137.1	1929.6	1496.2	874.8	278.4	161.7	45.0
60°	2063.8	2110.5	2157.2	2247.5	2337.9	2186.2	1763.7	1095.1	368.5	202.7	36.9
65°	2047.5	2472.2	2896.8	2877.6	2858.3	2828.9	2455.6	1617.2	522.1	274.6	27.1
70°	1071.2	1841.9	2612.5	2778.5	2944.6	2723.7	2271.7	1330.1	290.9	154.1	17.4
75°	270.3	809.7	1349.1	1570.5	1791.9	1610.3	1243.3	764.1	141.6	76.8	11.9
80°	46.7	156.3	265.9	328.9	391.8	311.4	206.8	110.7	21.2	13.8	6.5
85°	3.8	6.0	8.1	9.0	9.8	10.6	8.7	3.3	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°	3.9	4.2	4.4	4.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9
100°	16.1	15.2	14.4	13.6	12.8	11.7	10.5	10.5	10.5	11.7	12.8
105°	40.0	39.4	38.9	37.4	36.1	34.9	33.9	33.9	33.9	35.0	36.1
110°	66.6	66.9	67.2	66.6	66.0	65.2	64.4	65.0	64.4	65.2	66.0
115°	99.4	100.2	101.0	100.2	99.4	98.8	98.3	98.8	98.3	98.8	99.4
120°	136.5	137.7	138.8	137.4	136.0	135.5	134.9	134.9	134.9	135.5	136.0
125°	173.8	174.3	174.9	173.5	172.1	172.1	172.1	172.1	172.1	172.1	172.1
130°	209.3	210.4	211.5	211.5	211.5	210.9	210.4	210.9	210.4	210.9	211.5
135°	245.9	247.3	248.7	248.4	248.2	249.0	249.8	250.4	249.8	249.0	248.2
140°	277.6	278.1	278.7	279.2	279.8	281.2	282.6	283.7	282.6	281.2	279.8
145°	308.7	310.3	312.0	311.7	311.4	310.6	309.8	310.9	309.8	310.6	311.4
150°	331.4	332.2	333.1	333.9	334.7	335.6	336.4	338.6	336.4	335.6	334.7
155°	347.5	348.9	350.3	351.7	353.1	353.6	354.2	355.8	354.2	353.6	353.1
160°	365.3	367.0	368.6	367.8	367.0	366.7	366.4	369.7	366.4	366.7	367.0
165°	373.0	374.4	375.8	376.7	377.5	376.9	376.4	378.6	376.4	376.9	377.5
170°	380.8	381.7	382.5	383.9	385.2	385.8	386.4	389.2	386.4	385.8	385.2
175°	383.0	384.4	385.8	386.1	386.4	385.8	385.2	388.0	385.2	385.8	386.4
180°	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6



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CATALOG NUMBER: ENV-SA1A-740-U-T2-HSS-ULG

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
5°	309.9	301.2	292.5	283.8	276.0	268.1	262.4	256.7	252.1	247.5	243.4
10°	273.5	251.3	234.2	217.1	203.8	190.5	181.8	173.1	166.9	160.6	157.6
15°	227.1	194.8	176.6	158.5	147.6	136.8	126.4	116.1	106.9	97.7	94.4
20°	179.9	148.2	131.6	115.0	98.0	80.9	79.2	77.6	77.1	76.5	75.7
25°	138.9	112.3	92.8	73.3	69.7	66.2	63.2	60.2	57.8	55.4	54.0
30°	101.5	74.3	67.8	61.3	56.4	51.6	47.8	44.0	41.2	38.5	37.4
35°	83.3	63.0	56.4	49.9	44.8	39.6	36.4	33.1	31.2	29.3	28.5
40°	64.0	52.1	45.6	39.1	35.3	31.5	29.3	27.1	25.8	24.4	23.3
45°	49.9	41.8	36.4	30.9	28.2	25.5	23.9	22.2	20.6	19.0	17.9
50°	42.1	33.1	29.3	25.5	23.6	21.7	19.8	17.9	16.3	14.7	13.8
55°	36.4	27.7	25.0	22.2	20.1	17.9	16.0	14.1	13.3	12.5	11.7
60°	29.8	22.8	20.4	17.9	16.3	14.7	13.6	12.5	11.4	10.3	9.8
65°	22.8	18.5	16.3	14.1	12.8	11.4	10.6	9.8	9.0	8.1	7.1
70°	14.7	11.9	10.9	9.8	9.2	8.7	7.6	6.5	5.4	4.3	3.3
75°	10.3	8.7	7.6	6.5	5.7	4.9	4.6	4.3	3.5	2.7	2.2
80°	6.0	5.4	5.4	5.4	5.2	4.9	4.6	4.3	4.1	3.8	3.5
85°	1.6	1.6	1.9	2.2	2.2	2.2	1.9	1.6	1.4	1.1	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°	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	15.3	16.1	13.9	11.7	9.2	6.7	6.1	5.5	5.3
105°	37.5	38.9	39.5	40.0	37.5	34.9	30.8	26.6	23.3	20.0	17.5
110°	66.6	67.2	66.9	66.6	65.0	63.3	60.0	56.6	52.5	48.3	44.7
115°	100.2	101.0	100.2	99.4	98.0	96.6	95.0	93.3	90.8	88.2	84.9
120°	137.4	138.8	137.7	136.5	135.7	134.9	133.2	131.5	130.5	129.3	127.4
125°	173.5	174.9	174.3	173.8	173.0	172.1	170.7	169.3	167.7	166.0	165.2
130°	211.5	211.5	210.4	209.3	207.9	206.5	205.9	205.4	204.3	203.2	202.1
135°	248.4	248.7	247.4	245.9	244.3	242.6	242.0	241.5	240.7	239.8	238.2
140°	279.3	278.7	278.1	277.6	276.8	275.9	274.3	272.6	272.0	271.4	270.9
145°	311.7	312.0	310.4	308.7	307.3	305.9	305.6	305.3	304.5	303.7	302.9
150°	333.9	333.1	332.3	331.4	330.3	329.2	329.2	329.2	329.2	329.2	329.2
155°	351.7	350.3	348.9	347.5	348.1	348.6	349.2	349.8	348.9	348.1	347.5
160°	367.8	368.6	367.0	365.3	364.5	363.6	363.6	363.6	363.9	364.2	365.0
165°	376.7	375.8	374.4	373.0	373.3	373.6	373.6	373.6	374.4	375.3	375.3
170°	383.9	382.5	381.7	380.8	382.2	383.6	384.2	384.7	384.4	384.2	384.2
175°	386.1	385.8	384.4	383.0	383.0	383.0	383.3	383.6	384.8	385.8	386.4
180°	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6	388.6



REPORT NUMBER: P400965

CATALOG NUMBER: ENV-SA1A-740-U-T2-HSS-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	335.4	335.4	335.4	335.4
5°	239.3	238.0	236.6	238.8
10°	154.7	152.8	150.9	151.4
15°	91.2	90.6	90.1	89.5
20°	74.9	74.6	74.3	73.8
25°	52.6	51.6	50.5	51.0
30°	36.4	35.8	35.3	34.7
35°	27.7	27.1	26.6	26.6
40°	22.2	21.7	21.2	21.2
45°	16.8	16.6	16.3	16.3
50°	13.0	12.8	12.5	12.5
55°	10.9	10.6	10.3	10.3
60°	9.2	9.0	8.7	8.7
65°	6.0	5.4	4.9	4.9
70°	2.2	1.6	1.1	1.1
75°	1.6	1.4	1.1	0.5
80°	3.3	3.0	2.7	1.6
85°	1.1	0.5	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°	15.0	13.6	12.2	11.7
110°	41.1	39.5	37.8	36.6
115°	81.6	79.4	77.2	77.7
120°	125.5	124.7	123.8	124.9
125°	164.3	163.8	163.2	165.4
130°	201.0	200.7	200.4	201.5
135°	236.5	236.5	236.5	238.1
140°	270.4	269.8	269.2	270.9
145°	302.0	302.5	303.1	305.3
150°	329.2	328.9	328.6	330.3
155°	346.9	346.9	346.9	349.2
160°	365.8	366.1	366.4	368.0
165°	375.3	375.9	376.4	378.0
170°	384.2	385.0	385.8	387.5
175°	386.9	387.2	387.5	388.6
180°	388.6	388.6	388.6	388.6

(END OF REPORT)