

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: P400973

Luminaire Tested: **ENV-SA1A-740-U-T4FT-HSS-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400973
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-T4FT-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3714.1 lumens
Efficiency: N/A
Efficacy: 100.9 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

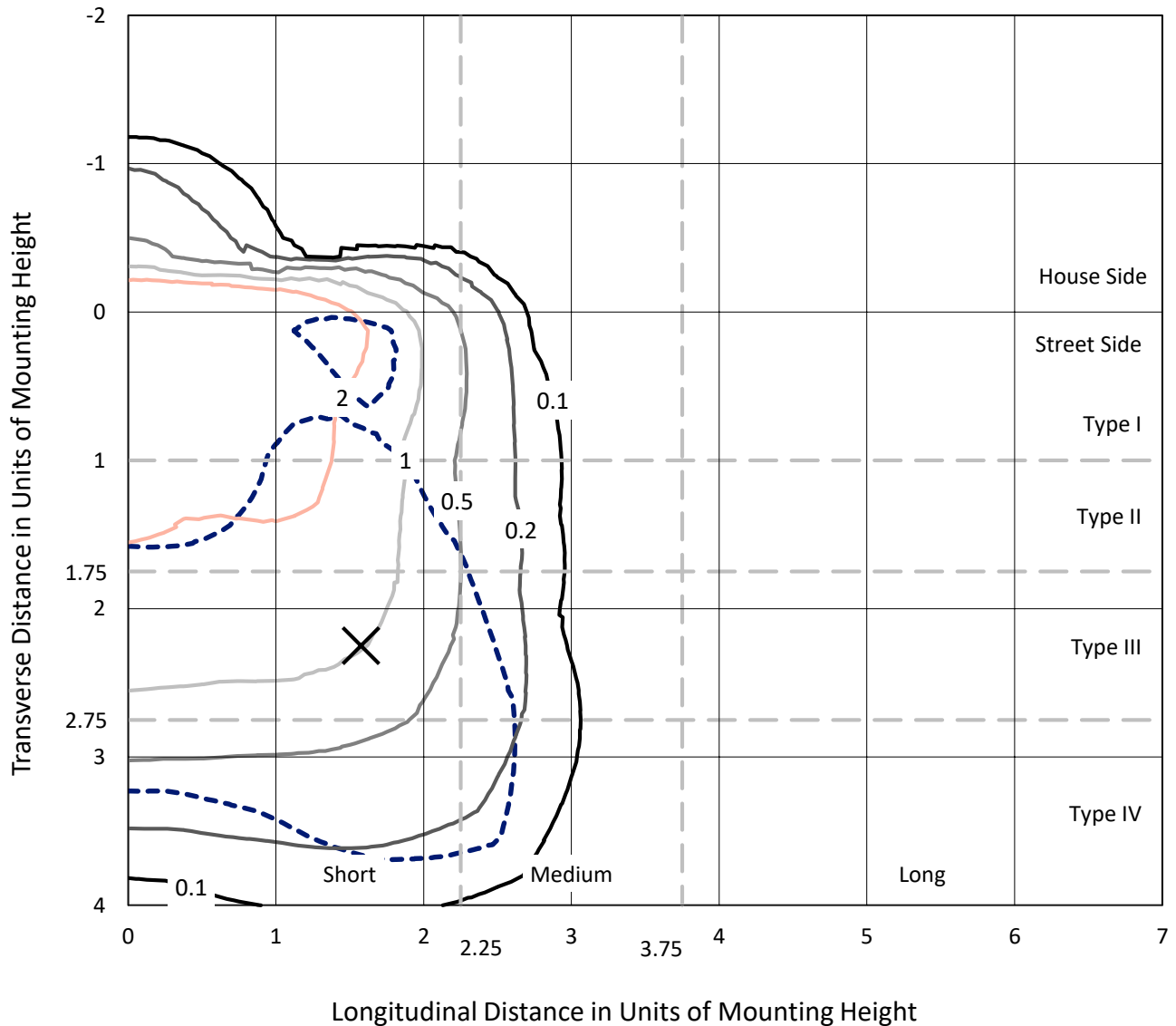
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P400973
 CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

Iso-Footcandle Lines of Horizontal Illumination

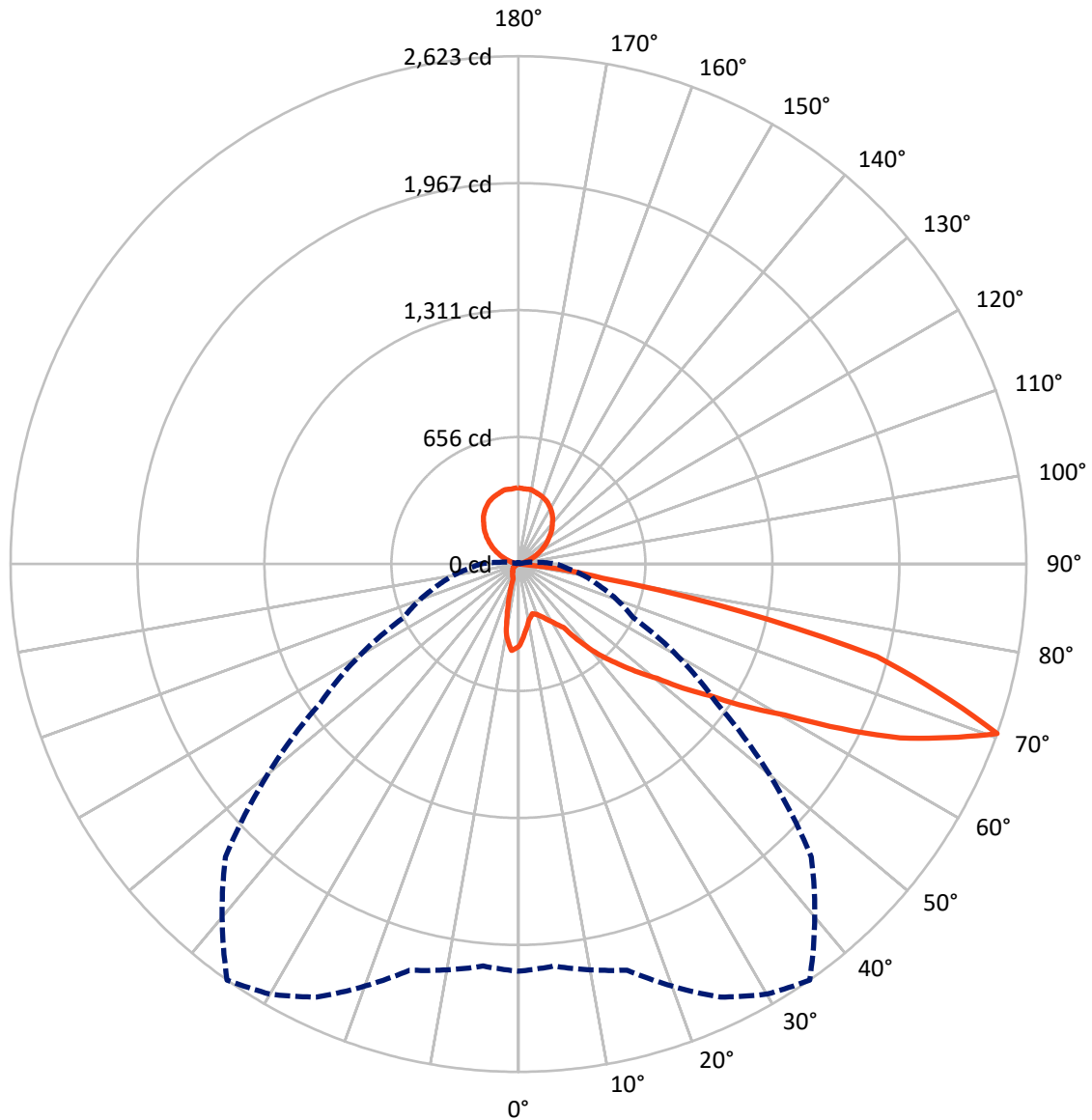
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P400973
CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P400973

CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

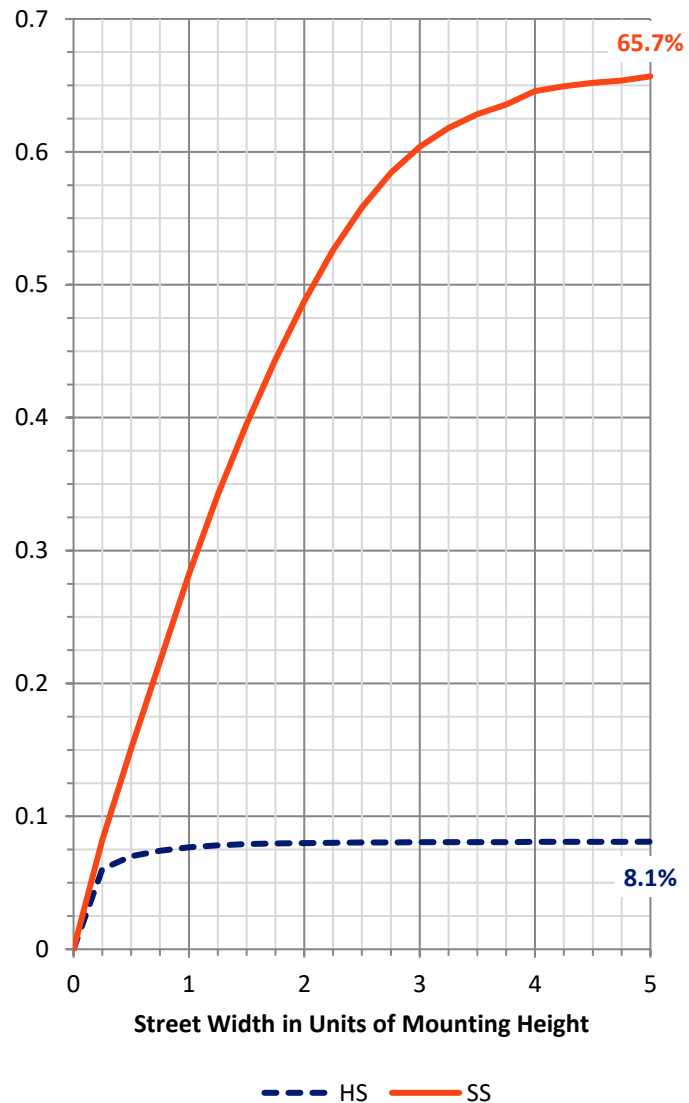
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	304.1	488.6	792.7
	% Fixture	8.2	13.2	21.3
Street Side	Lumens	2432.8	488.6	2921.4
	% Fixture	65.5	13.2	78.7
Total	Lumens	2736.9	977.1	3714.1
	% Fixture	73.7	26.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	1.0
10°-20°	86.6	2.3
20°-30°	128.5	3.5
30°-40°	214.9	5.8
40°-50°	386.0	10.4
50°-60°	612.8	16.5
60°-70°	813.0	21.9
70°-80°	438.0	11.8
80°-90°	19.7	0.5
90°-100°	4.8	0.1
100°-110°	33.0	0.9
110°-120°	93.9	2.5
120°-130°	153.8	4.1
130°-140°	189.6	5.1
140°-150°	193.8	5.2
150°-160°	163.4	4.4
160°-170°	107.6	2.9
170°-180°	37.3	1.0
0°-90°	2736.9	73.7
0°-180°	3714.1	100.0



REPORT NUMBER: P400973

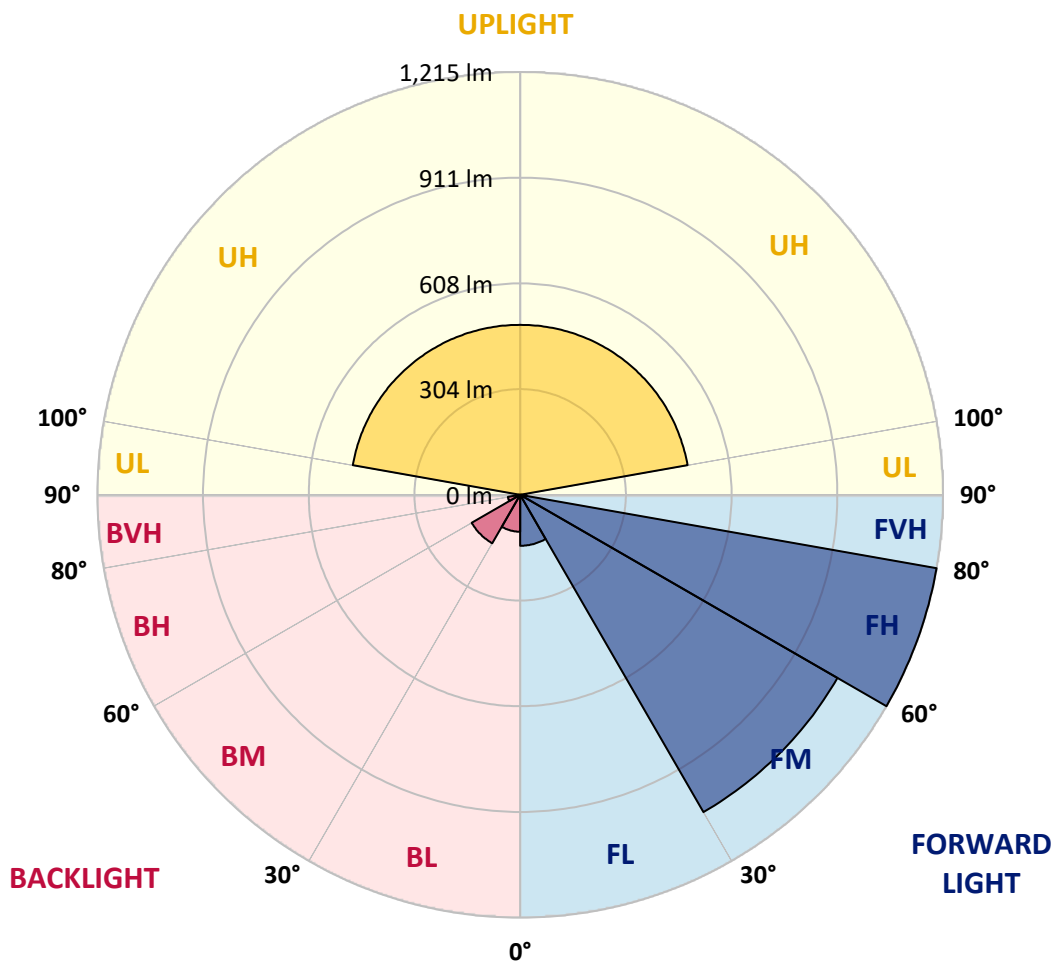
CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	146.5	3.9			
FM	(30°-60°)	1052.9	28.3			
FH	(60°-80°)	1215.3	32.7			G1/1800
FVH	(80°-90°)	18.2	0.5			G1/100
BL	(0°-30°)	106.1	2.9	B0/110		
BM	(30°-60°)	160.8	4.3	B0/220		
BH	(60°-80°)	35.8	1.0	B0/110		G0/110
BVH	(80°-90°)	1.4	0.0			G0/10
UL	(90°-100°)	4.8	0.1		U1/10	
UH	(100°-180°)	488.6	13.2		U3/500	

BUG Rating: B0-U4-G1

Type IV Short





REPORT NUMBER: P400973

CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7
5°	337.2	340.0	340.8	341.6	344.7	347.7	351.0	354.8	360.1	365.3	371.3
10°	265.2	266.3	268.2	270.1	274.8	279.5	286.5	294.9	305.1	315.2	326.2
15°	261.3	259.7	257.7	255.8	256.4	256.9	260.6	266.3	276.2	286.1	299.3
20°	284.4	282.2	276.7	271.2	269.8	268.5	272.4	277.8	286.3	294.9	304.8
25°	324.6	321.3	311.1	300.9	298.7	296.5	301.4	307.5	316.6	325.7	334.2
30°	370.8	366.4	355.9	345.5	340.5	335.6	341.1	347.1	357.3	367.5	377.9
35°	523.2	514.4	494.6	474.8	450.0	425.3	412.4	403.3	419.2	435.2	456.1
40°	707.5	695.4	681.6	667.9	646.1	624.4	607.6	587.0	573.5	560.0	574.1
45°	825.8	803.2	773.8	744.3	746.5	748.7	746.3	745.4	752.0	758.6	787.0
50°	956.1	937.4	909.1	880.8	881.0	881.3	900.9	927.5	998.5	1069.5	1100.8
55°	1115.1	1100.8	1082.1	1063.4	1076.9	1090.4	1137.1	1200.4	1303.0	1405.6	1394.0
60°	1449.6	1435.9	1421.0	1406.2	1412.5	1418.8	1500.4	1582.2	1647.1	1712.0	1624.8
65°	1940.3	1916.7	1904.3	1891.9	1951.3	2010.8	2110.4	2165.3	2082.8	2000.3	1792.1
70°	2103.2	2083.9	2127.7	2171.4	2319.4	2467.4	2564.9	2622.5	2380.4	2138.4	1691.9
75°	650.3	686.6	882.1	1077.7	1350.6	1623.5	1791.2	1912.8	1580.5	1248.3	812.6
80°	32.5	35.2	64.6	94.1	168.1	242.1	345.4	439.6	313.6	187.6	122.1
85°	0.0	0.0	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.4
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	3.1	3.4	3.7	4.0	4.0	4.0	4.0	4.0	4.0
100°	4.5	4.5	4.8	5.1	5.3	5.6	6.2	6.8	9.3	11.8	14.1
105°	11.8	12.4	13.8	15.2	17.7	20.2	23.7	27.0	31.2	35.4	38.0
110°	37.1	38.3	40.0	41.6	45.3	49.0	53.2	57.4	60.8	64.1	65.9
115°	78.8	78.2	80.5	82.7	86.1	89.5	92.0	94.6	96.3	97.9	99.4
120°	126.6	125.5	126.4	127.2	129.2	131.1	132.3	133.4	135.1	136.8	137.6
125°	167.7	165.4	166.0	166.6	167.5	168.3	170.0	171.6	173.1	174.4	175.3
130°	204.3	203.2	203.4	203.7	204.9	206.0	207.1	208.2	208.8	209.3	210.8
135°	241.4	239.8	239.8	239.8	241.5	243.1	244.0	244.8	245.4	245.9	247.6
140°	274.6	272.9	273.5	274.1	274.6	275.2	275.8	276.3	278.0	279.7	280.6
145°	309.5	307.3	306.7	306.2	307.0	307.9	308.7	309.5	309.8	310.1	311.5
150°	334.9	333.2	333.4	333.7	333.7	333.7	333.7	333.7	333.7	333.7	334.9
155°	354.0	351.7	351.7	351.7	352.3	352.9	353.7	354.6	354.0	353.4	352.9
160°	373.1	371.4	371.1	370.8	370.0	369.2	368.9	368.6	368.6	368.6	369.5
165°	383.2	381.6	381.0	380.4	380.4	380.4	379.6	378.7	378.7	378.7	378.4
170°	392.8	391.1	390.3	389.4	389.4	389.4	389.7	390.0	389.4	388.9	387.5
175°	394.0	392.8	392.5	392.2	391.7	391.1	390.0	388.9	388.6	388.3	388.3
180°	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9



REPORT NUMBER: P400973

CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7
5°	377.4	385.1	392.8	400.5	408.2	414.8	421.4	428.6	435.2	440.4	445.6
10°	337.2	351.0	364.7	380.1	395.5	410.7	425.8	440.1	450.6	455.5	460.5
15°	312.5	330.6	348.8	370.2	391.7	416.2	440.7	459.4	472.0	469.5	467.1
20°	314.7	331.2	347.7	373.8	400.0	433.2	466.5	491.3	502.8	483.8	464.9
25°	342.7	354.0	365.3	394.2	423.1	467.9	512.7	543.5	542.4	499.0	455.5
30°	388.4	397.7	407.1	437.4	467.6	532.3	596.9	634.3	606.3	517.1	428.0
35°	477.0	483.3	489.6	514.9	540.2	640.6	741.0	762.5	683.8	519.6	355.4
40°	588.1	604.3	620.6	656.9	693.2	818.9	944.6	918.2	764.7	492.1	219.5
45°	815.3	831.0	846.7	897.3	947.9	1071.1	1194.3	1088.2	831.8	467.1	102.3
50°	1132.2	1104.4	1076.6	1112.9	1149.2	1264.5	1379.7	1196.0	837.9	444.2	50.6
55°	1382.5	1292.8	1203.2	1251.0	1298.9	1386.6	1474.4	1230.7	759.2	395.0	30.8
60°	1537.6	1398.7	1259.8	1309.3	1358.8	1381.4	1404.0	1121.2	591.9	306.7	21.5
65°	1583.8	1379.5	1175.1	1153.1	1131.1	1051.3	971.5	763.6	386.7	200.0	13.2
70°	1245.5	949.0	652.5	542.4	432.4	341.9	251.4	194.2	99.6	53.9	8.3
75°	376.8	263.5	150.2	115.0	79.8	55.8	31.9	24.2	15.4	10.2	5.0
80°	56.7	54.5	52.3	48.4	44.6	27.0	9.4	7.7	5.0	3.9	2.8
85°	2.2	5.0	7.7	8.0	8.3	4.7	1.1	0.6	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.0	4.2	4.5	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0
100°	16.3	15.5	14.6	13.8	12.9	11.8	10.7	10.7	10.7	11.8	12.9
105°	40.5	39.9	39.4	38.0	36.6	35.4	34.3	34.3	34.3	35.5	36.6
110°	67.6	67.8	68.1	67.6	67.0	66.1	65.3	65.9	65.3	66.1	67.0
115°	100.7	101.6	102.4	101.6	100.7	100.2	99.6	100.2	99.6	100.2	100.7
120°	138.4	139.6	140.7	139.3	137.9	137.3	136.8	136.8	136.8	137.3	137.9
125°	176.2	176.7	177.3	175.9	174.4	174.4	174.4	174.4	174.4	174.4	174.4
130°	212.2	213.3	214.4	214.4	214.4	213.8	213.3	213.8	213.3	213.8	214.4
135°	249.3	250.7	252.1	251.9	251.6	252.4	253.2	253.8	253.2	252.4	251.6
140°	281.4	281.9	282.5	283.0	283.7	285.0	286.5	287.6	286.5	285.1	283.7
145°	312.9	314.6	316.3	316.0	315.7	314.8	314.0	315.2	314.0	314.9	315.7
150°	336.0	336.8	337.7	338.5	339.3	340.2	341.0	343.3	341.0	340.2	339.3
155°	352.3	353.7	355.1	356.5	357.9	358.5	359.0	360.7	359.0	358.5	357.9
160°	370.3	372.0	373.7	372.8	372.0	371.7	371.4	374.8	371.4	371.7	372.0
165°	378.2	379.6	381.0	381.9	382.7	382.1	381.6	383.8	381.6	382.1	382.7
170°	386.0	386.9	387.7	389.2	390.5	391.1	391.7	394.5	391.7	391.1	390.5
175°	388.3	389.7	391.1	391.4	391.7	391.1	390.5	393.3	390.5	391.1	391.7
180°	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9



REPORT NUMBER: P400973

CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7	424.7
5°	448.4	451.1	452.2	453.3	451.4	449.5	448.9	448.4	445.3	442.3	441.2
10°	456.9	453.3	443.4	433.5	419.5	405.5	389.2	373.0	356.5	340.0	325.4
15°	449.5	431.9	397.7	363.6	319.4	275.1	238.5	201.9	176.6	151.3	136.7
20°	418.7	372.4	302.9	233.3	177.1	121.0	101.5	82.0	78.9	75.9	75.9
25°	362.0	268.5	184.8	101.2	85.5	69.9	69.6	69.3	69.3	69.3	69.6
30°	281.9	135.9	98.2	60.5	60.2	60.0	61.1	62.2	63.8	65.5	66.3
35°	209.1	62.7	57.5	52.3	51.7	51.2	52.3	53.4	55.6	57.8	61.1
40°	134.2	49.0	47.3	45.7	45.4	45.1	45.4	45.7	47.3	49.0	52.0
45°	72.1	41.8	41.3	40.7	40.2	39.6	40.2	40.7	41.5	42.4	44.3
50°	42.4	34.1	34.4	34.7	35.5	36.3	36.3	36.3	36.6	36.9	36.9
55°	28.1	25.3	27.2	29.2	30.5	31.9	31.6	31.4	30.3	29.2	28.1
60°	19.8	18.2	19.5	20.9	22.3	23.7	22.8	22.0	21.2	20.4	19.0
65°	12.4	11.6	12.4	13.2	14.3	15.4	14.9	14.3	13.5	12.7	11.8
70°	7.4	6.6	7.2	7.7	8.5	9.4	9.1	8.8	8.3	7.7	6.9
75°	4.7	4.4	5.0	5.5	5.5	5.5	5.8	6.1	6.1	6.1	6.1
80°	3.0	3.3	3.9	4.4	4.7	5.0	5.5	6.1	6.3	6.6	7.2
85°	0.3	0.6	1.1	1.7	1.9	2.2	2.8	3.3	3.9	4.4	5.0
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	4.5	4.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.7
100°	13.8	14.6	15.5	16.3	14.1	11.8	9.3	6.8	6.2	5.6	5.3
105°	38.0	39.4	40.0	40.5	38.0	35.4	31.2	27.0	23.7	20.2	17.7
110°	67.6	68.1	67.8	67.6	65.9	64.1	60.8	57.4	53.2	49.0	45.3
115°	101.6	102.4	101.6	100.7	99.4	97.9	96.3	94.6	92.0	89.5	86.1
120°	139.3	140.7	139.6	138.4	137.6	136.8	135.1	133.4	132.3	131.1	129.2
125°	175.9	177.3	176.7	176.2	175.3	174.4	173.1	171.6	170.0	168.3	167.5
130°	214.4	214.4	213.3	212.2	210.8	209.3	208.8	208.2	207.1	206.0	204.9
135°	251.9	252.1	250.8	249.3	247.6	245.9	245.4	244.8	244.0	243.1	241.5
140°	283.1	282.5	281.9	281.4	280.6	279.7	278.0	276.3	275.8	275.2	274.6
145°	316.0	316.3	314.6	312.9	311.5	310.1	309.8	309.5	308.7	307.9	307.0
150°	338.5	337.7	336.8	336.0	334.9	333.7	333.7	333.7	333.7	333.7	333.7
155°	356.5	355.1	353.7	352.3	352.9	353.4	354.0	354.6	353.7	352.9	352.3
160°	372.8	373.7	372.0	370.3	369.5	368.6	368.6	368.6	368.9	369.2	370.0
165°	381.9	381.0	379.6	378.2	378.4	378.7	378.7	378.7	379.6	380.4	380.4
170°	389.2	387.7	386.9	386.0	387.5	388.9	389.4	390.0	389.7	389.4	389.4
175°	391.4	391.1	389.7	388.3	388.3	388.3	388.6	388.9	390.0	391.1	391.7
180°	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9	393.9



REPORT NUMBER: P400973

CATALOG NUMBER: ENV-SA1A-740-U-T4FT-HSS-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	424.7	424.7	424.7	424.7
5°	440.1	438.7	437.4	434.6
10°	310.8	305.3	299.8	303.7
15°	122.1	117.5	112.8	107.8
20°	75.9	75.9	75.9	75.4
25°	69.9	70.1	70.4	70.4
30°	67.1	67.7	68.2	68.2
35°	64.4	66.0	67.7	67.7
40°	55.0	59.1	63.3	64.9
45°	46.2	48.1	50.1	50.6
50°	36.9	36.0	35.2	34.7
55°	27.0	25.9	24.8	24.8
60°	17.6	16.8	16.0	16.0
65°	11.0	10.2	9.4	8.8
70°	6.1	5.8	5.5	5.5
75°	6.1	6.1	6.1	5.5
80°	7.7	7.7	7.7	7.2
85°	5.5	5.5	5.5	5.0
90°	0.0	0.0	0.0	0.0
95°	3.4	3.1	2.8	2.8
100°	5.1	4.8	4.5	4.5
105°	15.2	13.8	12.4	11.8
110°	41.6	40.0	38.3	37.1
115°	82.7	80.5	78.2	78.8
120°	127.2	126.4	125.5	126.6
125°	166.6	166.0	165.4	167.7
130°	203.7	203.4	203.2	204.3
135°	239.8	239.8	239.8	241.4
140°	274.1	273.5	272.9	274.6
145°	306.2	306.7	307.3	309.5
150°	333.7	333.4	333.2	334.9
155°	351.7	351.7	351.7	354.0
160°	370.8	371.1	371.4	373.1
165°	380.4	381.0	381.6	383.2
170°	389.4	390.3	391.1	392.8
175°	392.2	392.5	392.8	394.0
180°	393.9	393.9	393.9	393.9

(END OF REPORT)