

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:

Luminaire Tested: **ENV-SA1-740-U-SL3-HSS-ULG-XXB**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P400770 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-740-U-SL3-HSS-ULG-XXB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2420.9 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Short
BUG Rating: B0 - U5 - G0

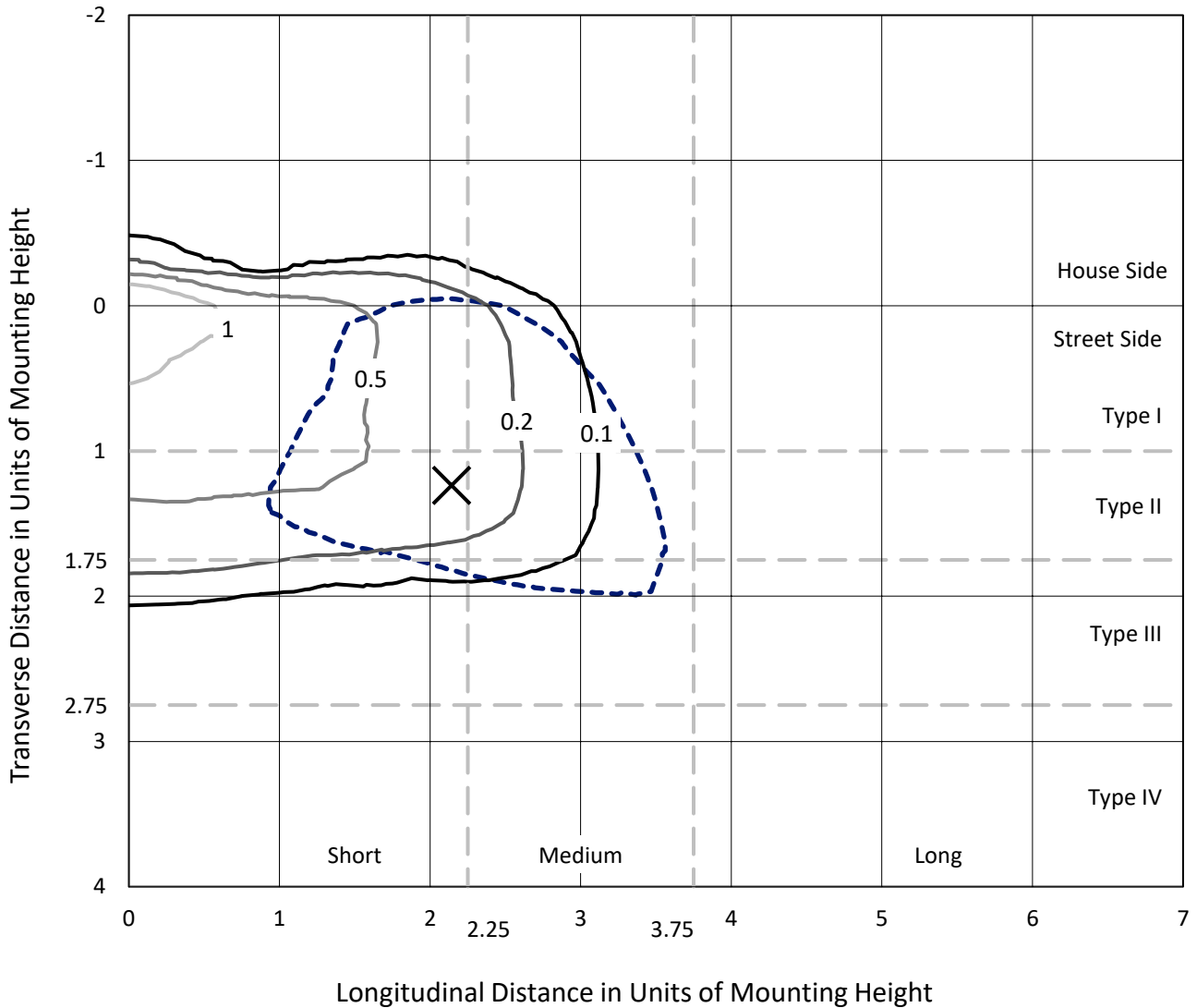
Input Watts (W): 29.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER:
 CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

Iso-Footcandle Lines of Horizontal Illumination

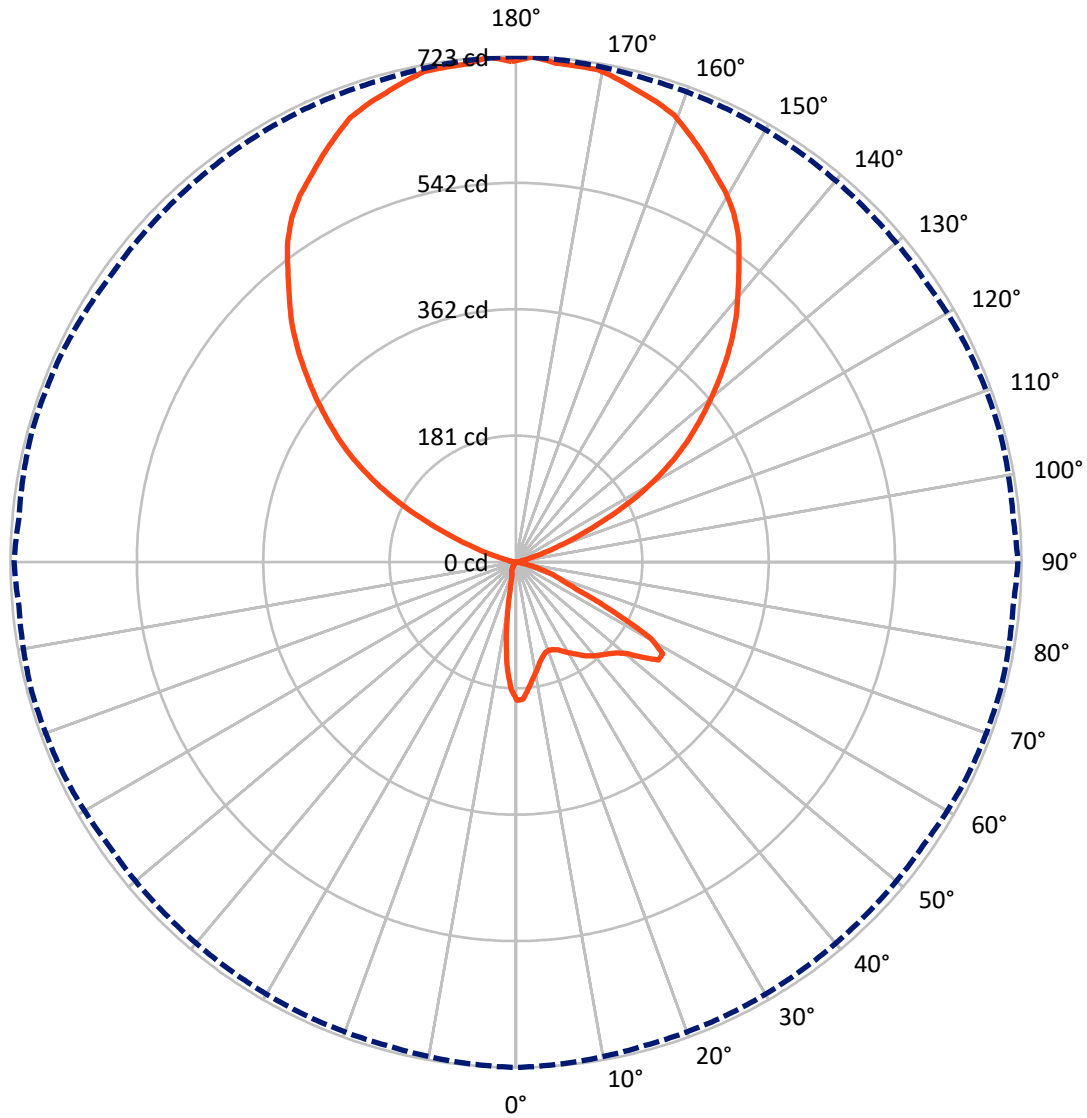
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2 fc
 Type III - Short - N/A

REPORT NUMBER:
CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 177.5-Deg Vertical

REPORT NUMBER:
 CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

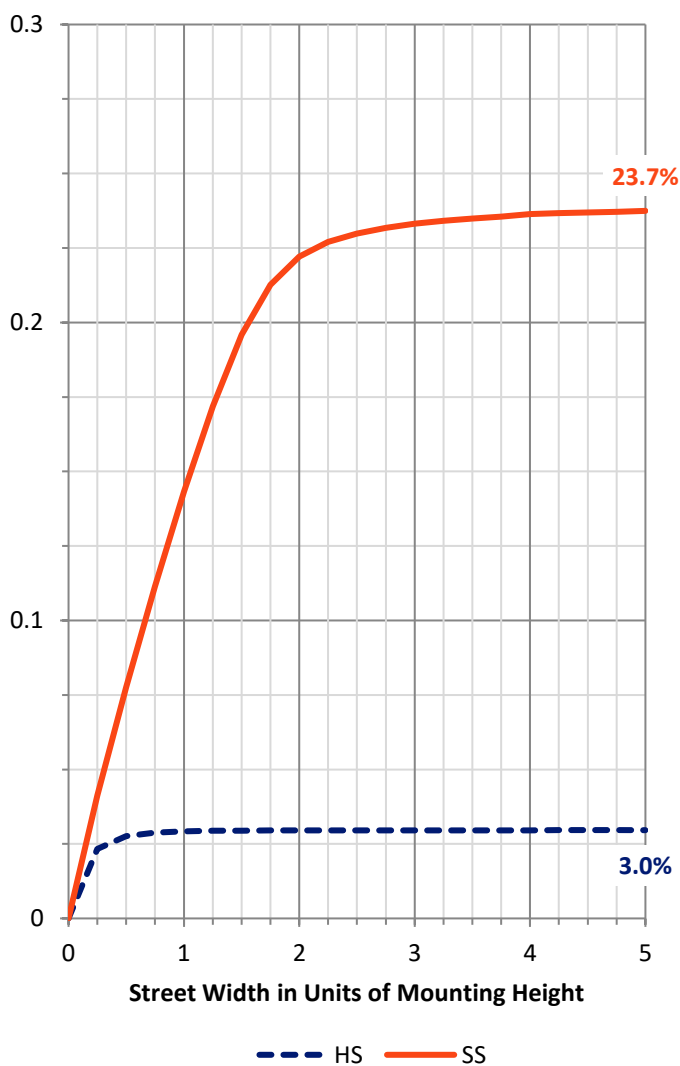
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	72.3	887.0	959.3
	% Fixture	3.0	36.6	39.6
Street Side	Lumens	574.7	887.0	1461.6
	% Fixture	23.7	36.6	60.4
Total	Lumens	647.0	1773.9	2420.9
	% Fixture	26.7	73.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.1	0.7
10°-20°	32.8	1.4
20°-30°	43.2	1.8
30°-40°	59.6	2.5
40°-50°	90.3	3.7
50°-60°	145.7	6.0
60°-70°	173.0	7.1
70°-80°	81.6	3.4
80°-90°	4.9	0.2
90°-100°	8.4	0.3
100°-110°	58.7	2.4
110°-120°	169.9	7.0
120°-130°	279.4	11.5
130°-140°	344.6	14.2
140°-150°	352.5	14.6
150°-160°	297.0	12.3
160°-170°	195.5	8.1
170°-180°	67.8	2.8
0°-90°	647.0	26.7
0°-180°	2420.9	100.0

Coefficient of Utilization

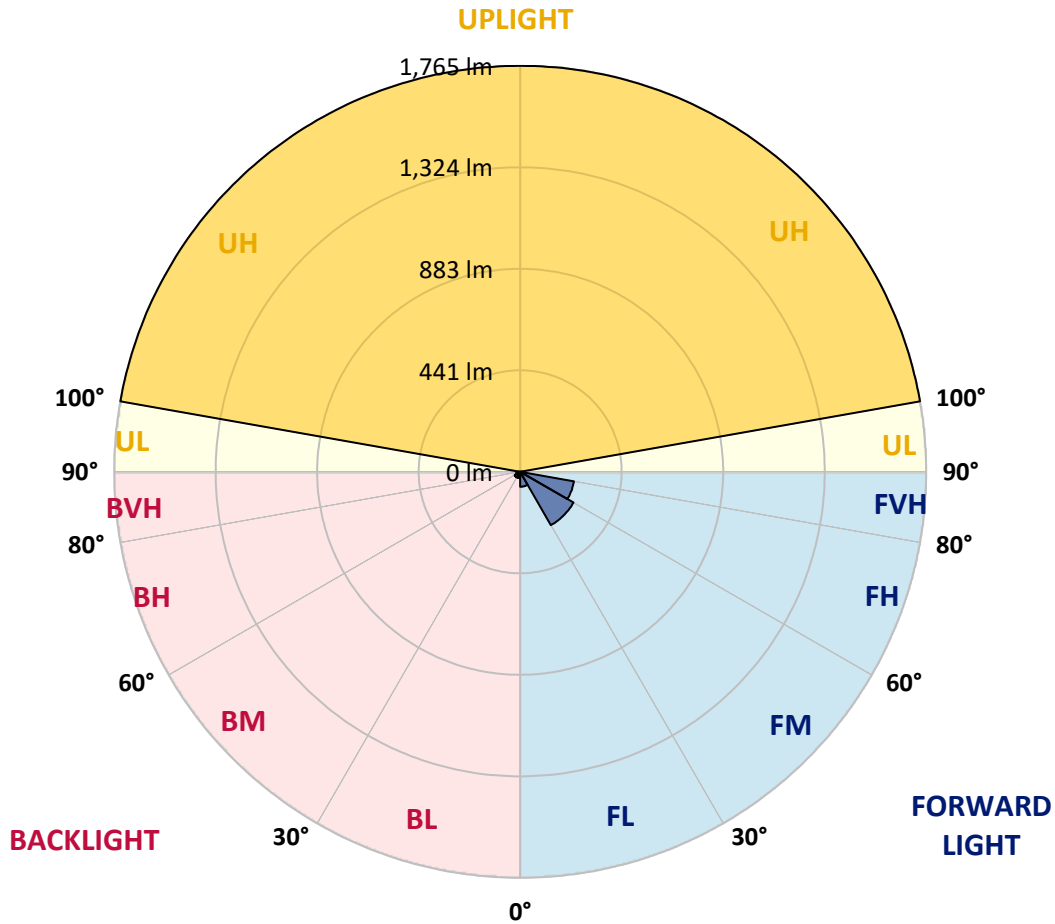


REPORT NUMBER:
 CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	64.9	2.7			
FM (30°-60°)	267.7	11.1			
FH (60°-80°)	237.4	9.8			G0/660
FVH (80°-90°)	4.7	0.2			G0/10
BL (0°-30°)	27.1	1.1	B0/110		
BM (30°-60°)	27.8	1.1	B0/220		
BH (60°-80°)	17.2	0.7	B0/110		G0/110
BVH (80°-90°)	0.2	0.0			G0/10
UL (90°-100°)	8.4	0.3		U1/10	
UH (100°-180°)	1765.5	72.9		U5	

BUG Rating: B0-U5-G0
 Type III Short





REPORT NUMBER:

CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
2.5°	196.3	195.8	197.1	197.4	197.7	198.4	198.3	198.4	198.5	198.3	196.9
5°	182.9	183.7	184.8	186.2	187.6	190.9	192.2	193.5	194.4	195.1	193.9
7.5°	169.7	171.3	172.1	174.8	177.0	180.4	183.2	185.5	187.7	190.1	188.9
10°	159.2	159.7	160.5	162.9	166.2	171.4	175.1	178.0	180.6	184.6	183.7
12.5°	148.9	149.2	150.7	153.4	156.8	163.1	168.1	171.4	174.3	179.4	179.5
15°	141.3	141.4	142.4	144.8	148.7	155.6	161.9	165.5	169.7	175.9	176.2
17.5°	136.3	136.2	136.5	138.0	141.7	148.2	155.9	160.2	165.1	173.0	173.3
20°	134.8	134.6	134.1	133.8	136.1	141.7	150.4	155.1	160.9	170.9	171.0
22.5°	136.1	135.7	134.7	132.8	133.5	137.1	144.4	150.1	157.2	169.8	169.1
25°	139.3	139.3	138.0	135.0	133.5	134.3	140.1	145.6	153.5	169.3	167.6
27.5°	144.6	144.4	142.6	139.5	136.7	134.6	137.4	142.6	150.7	169.9	167.0
30°	150.9	150.3	148.4	146.2	142.7	138.2	138.0	141.8	149.4	172.0	167.4
32.5°	157.0	157.0	156.2	154.1	150.7	144.8	141.4	144.5	151.1	175.4	168.8
35°	164.4	164.3	164.6	163.8	160.8	154.6	149.1	150.6	156.1	181.1	172.2
37.5°	170.4	170.5	172.4	173.7	172.4	165.8	160.1	160.1	164.7	189.7	178.1
40°	176.2	176.4	179.9	183.8	184.1	178.8	173.3	173.2	175.9	200.2	187.1
42.5°	181.5	182.3	187.4	194.0	197.8	194.3	190.2	188.9	190.2	216.2	201.7
45°	187.1	188.8	195.8	205.4	211.7	211.8	210.2	208.7	209.3	234.0	221.2
47.5°	194.3	196.3	205.1	216.8	228.7	231.7	233.2	232.6	230.9	256.7	246.5
50°	206.1	207.9	216.2	229.3	245.6	256.7	260.5	261.2	258.9	281.7	275.1
52.5°	226.0	227.1	234.8	245.2	263.5	284.2	294.3	294.4	289.3	311.0	306.1
55°	247.4	250.3	259.3	271.4	290.1	313.4	338.7	341.4	325.5	336.7	328.7
57.5°	247.8	250.5	265.4	288.6	327.9	358.8	381.3	383.2	365.6	357.3	350.0
60°	221.6	223.1	243.8	277.7	341.4	419.9	429.8	426.8	393.7	378.6	376.6
62.5°	156.4	157.1	181.7	226.4	311.5	449.1	503.7	487.7	433.6	410.0	416.6
65°	98.5	98.1	108.4	144.0	231.7	420.3	595.0	583.4	507.1	449.3	447.8
67.5°	72.7	70.9	73.7	84.7	132.4	330.0	611.8	664.3	577.0	465.7	420.8
68°	69.7	68.2	71.0	79.6	114.5	298.7	603.7	670.1	588.1	463.0	411.6
70°	59.2	57.7	60.2	66.6	79.7	193.9	532.6	644.3	598.2	440.6	362.7
72.5°	42.0	42.8	49.2	57.2	67.5	99.5	392.2	529.1	514.5	391.9	276.0
75°	24.9	26.3	34.7	46.1	62.0	65.6	253.0	384.7	377.5	271.4	149.5
77.5°	8.8	9.3	17.2	30.7	51.2	52.0	141.0	241.8	224.9	110.9	44.1
80°	3.2	3.2	6.4	17.1	33.0	39.7	74.9	129.1	88.8	28.8	12.2
82.5°	0.5	0.5	1.4	5.8	14.6	21.2	34.8	45.9	26.3	6.4	6.0
85°	0.0	0.0	0.0	0.0	0.2	0.2	10.2	10.3	4.8	0.9	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.7	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.1	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.6	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.6	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.7	96.2	92.1	89.0



REPORT NUMBER:

CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.3	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.6	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.9	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.7	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.4	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	423.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	542.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	612.2	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.6	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	676.2	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.4	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	690.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.3	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.3	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	708.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.5	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



REPORT NUMBER:

CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
2.5°	196.4	196.2	195.0	192.8	190.9	187.8	187.3	184.3	183.2	182.3	183.2
5°	193.0	191.8	187.7	182.8	176.1	168.2	163.6	157.2	155.9	152.4	154.5
7.5°	187.4	184.6	177.1	166.4	154.1	142.1	132.8	123.9	116.4	113.7	113.0
10°	181.5	177.6	164.9	148.4	130.6	112.1	98.4	85.5	78.4	71.7	71.5
12.5°	175.9	170.0	151.6	128.7	103.8	81.8	64.0	50.5	42.0	37.4	38.6
15°	171.4	163.6	138.2	108.9	77.5	52.7	36.2	27.6	24.6	23.2	23.4
17.5°	167.0	156.7	125.3	88.3	55.2	32.5	23.5	20.5	19.7	19.3	19.1
20°	163.0	150.0	111.6	69.6	36.4	22.5	19.3	18.3	18.0	17.8	17.8
22.5°	159.1	142.9	98.0	51.6	24.9	18.4	17.3	16.9	16.7	16.4	16.4
25°	155.4	136.1	84.4	36.1	19.1	16.5	15.7	15.3	14.8	14.5	14.5
27.5°	152.7	131.0	71.8	25.6	16.0	14.8	14.1	13.3	12.7	12.3	12.3
30°	150.9	125.9	59.6	19.3	14.3	13.2	12.2	11.2	10.3	9.8	9.7
32.5°	150.0	121.7	48.3	15.8	12.7	11.5	10.3	9.2	8.2	7.6	7.6
35°	150.4	118.5	37.0	13.4	11.5	10.1	8.8	7.5	6.6	6.0	5.9
37.5°	153.3	116.6	27.6	11.9	10.3	8.8	7.5	6.1	5.3	4.8	4.7
40°	158.6	117.0	21.0	10.8	9.4	7.7	6.1	5.0	4.3	3.8	3.8
42.5°	169.5	120.2	16.6	9.9	8.5	6.6	5.2	4.2	3.5	3.2	3.1
45°	183.9	126.2	13.6	9.1	7.5	5.6	4.4	3.5	2.9	2.5	2.5
47.5°	205.6	135.9	11.7	8.3	6.5	4.7	3.6	2.9	2.2	2.0	1.9
50°	230.8	149.4	10.3	7.5	5.7	4.0	3.1	2.2	1.8	1.4	1.4
52.5°	256.4	164.4	9.3	6.7	4.9	3.4	2.4	1.6	1.2	1.0	1.0
55°	280.0	177.1	8.3	6.0	4.2	2.9	2.0	1.3	0.9	0.7	0.7
57.5°	302.9	188.6	7.2	5.3	3.4	2.3	1.5	1.0	0.7	0.4	0.4
60°	331.5	203.5	6.3	4.5	2.7	1.9	1.2	0.8	0.4	0.3	0.2
62.5°	366.1	214.4	5.3	3.6	2.2	1.4	0.9	0.5	0.3	0.1	0.1
65°	378.8	200.0	4.4	3.0	1.8	1.1	0.7	0.4	0.2	0.1	0.1
67.5°	343.3	161.2	3.5	2.3	1.3	0.8	0.5	0.3	0.2	0.1	0.1
68°	333.4	153.3	3.4	2.2	1.2	0.8	0.4	0.3	0.1	0.1	0.0
70°	281.5	123.1	2.7	1.6	1.0	0.7	0.4	0.2	0.1	0.1	0.0
72.5°	208.7	84.9	2.0	1.1	0.7	0.4	0.3	0.2	0.1	0.1	0.0
75°	110.1	33.0	1.5	0.9	0.5	0.4	0.3	0.3	0.2	0.1	0.1
77.5°	31.6	10.4	1.2	0.7	0.5	0.5	0.5	0.4	0.4	0.3	0.2
80°	9.2	3.4	0.8	0.4	0.5	0.5	0.7	0.5	0.5	0.4	0.4
82.5°	4.9	1.3	0.4	0.3	0.3	0.4	0.5	0.4	0.3	0.2	0.1
85°	2.1	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
87.5°	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CATALOG NUMBER: ENV-SA1-740-U-SL3-HSS-ULG-XXB

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)