

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: P400778

Luminaire Tested: **ENV-SA1-740-U-SLL-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400778
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-740-U-SLL-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 580 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

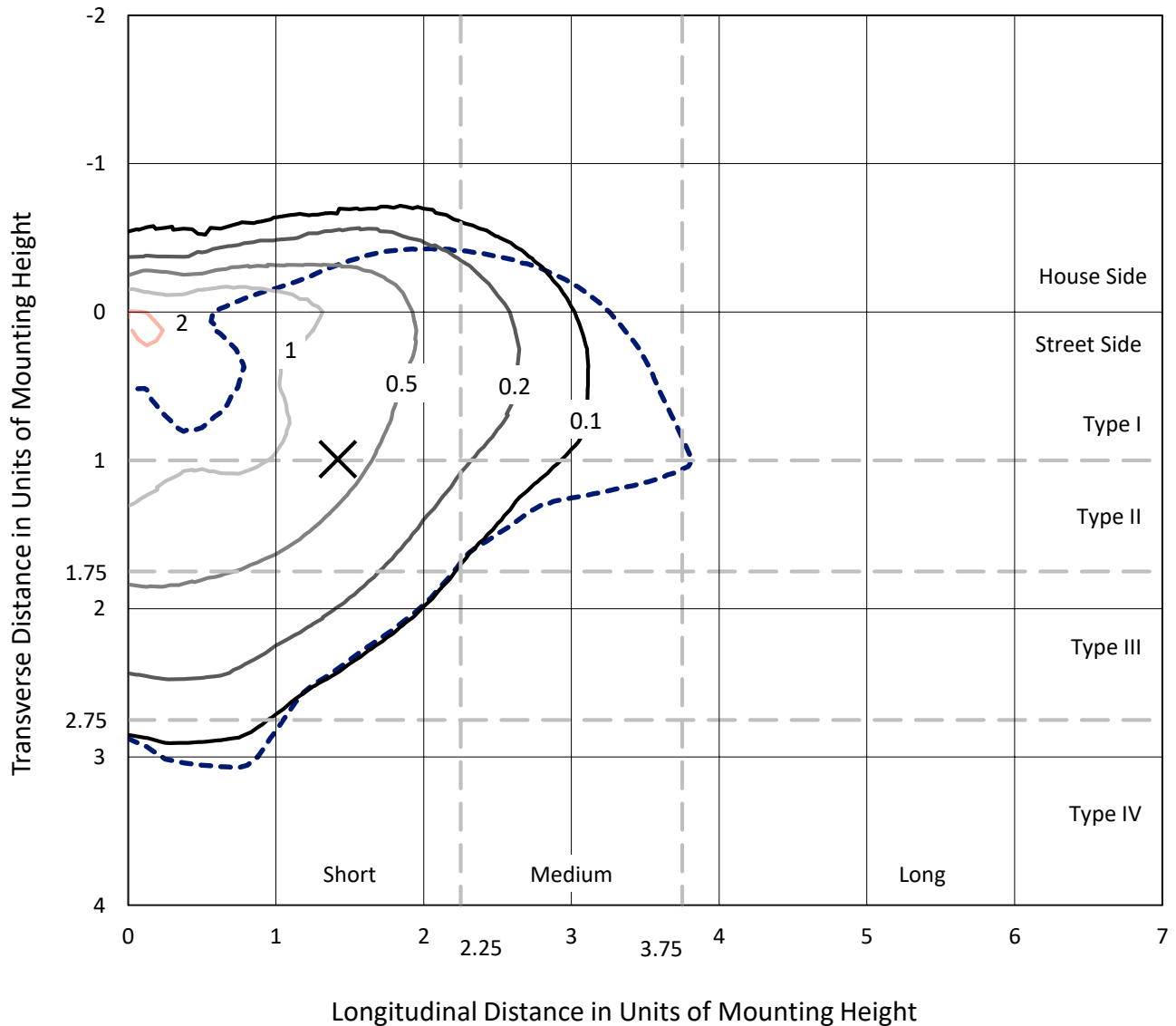
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

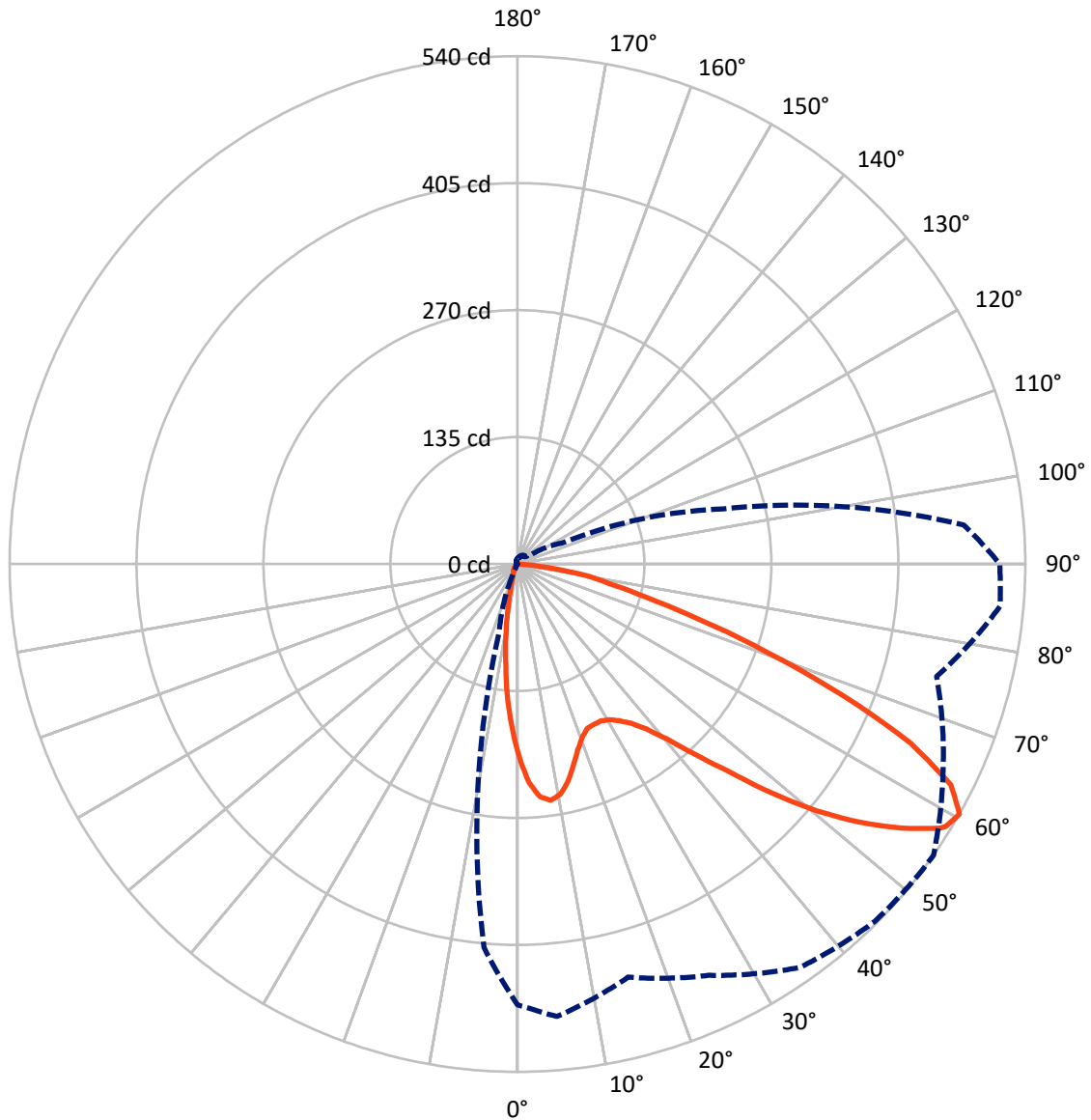
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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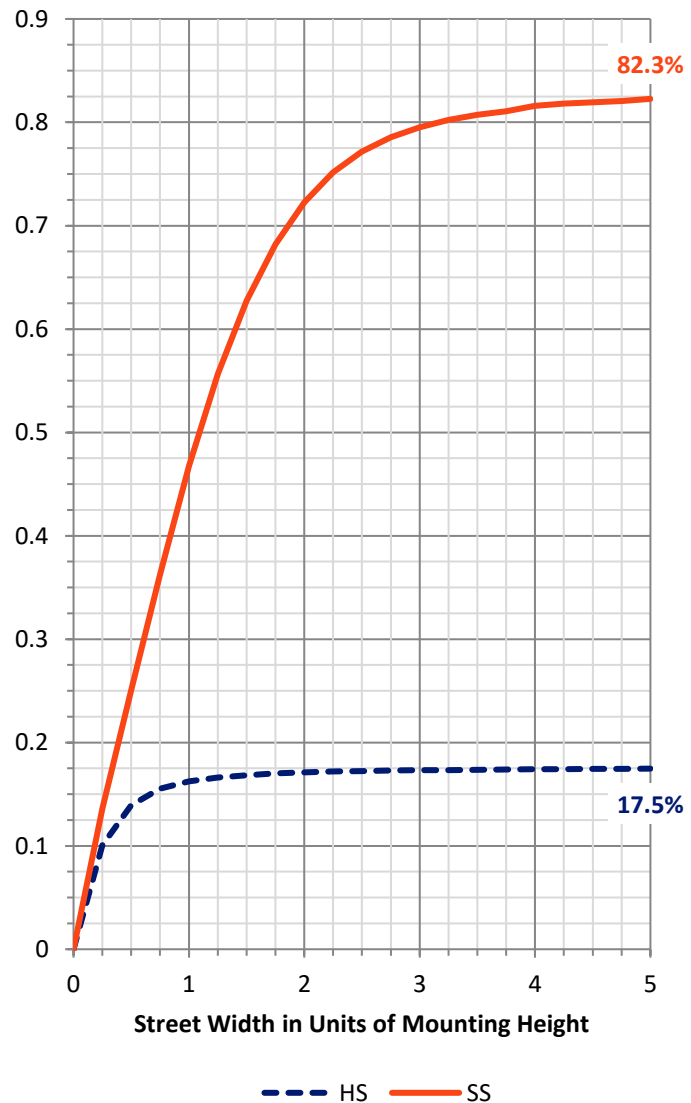
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	102.7	0.0	102.7
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	477.3	0.0	477.3
	% Fixture	82.3	0.0	82.3
Total	Lumens	580.0	0.0	580.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.4	2.7
10°-20°	29.3	5.1
20°-30°	41.8	7.2
30°-40°	61.3	10.6
40°-50°	90.4	15.6
50°-60°	134.0	23.1
60°-70°	142.8	24.6
70°-80°	59.2	10.2
80°-90°	5.7	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	580.0	100.0
0°-180°	580.0	100.0



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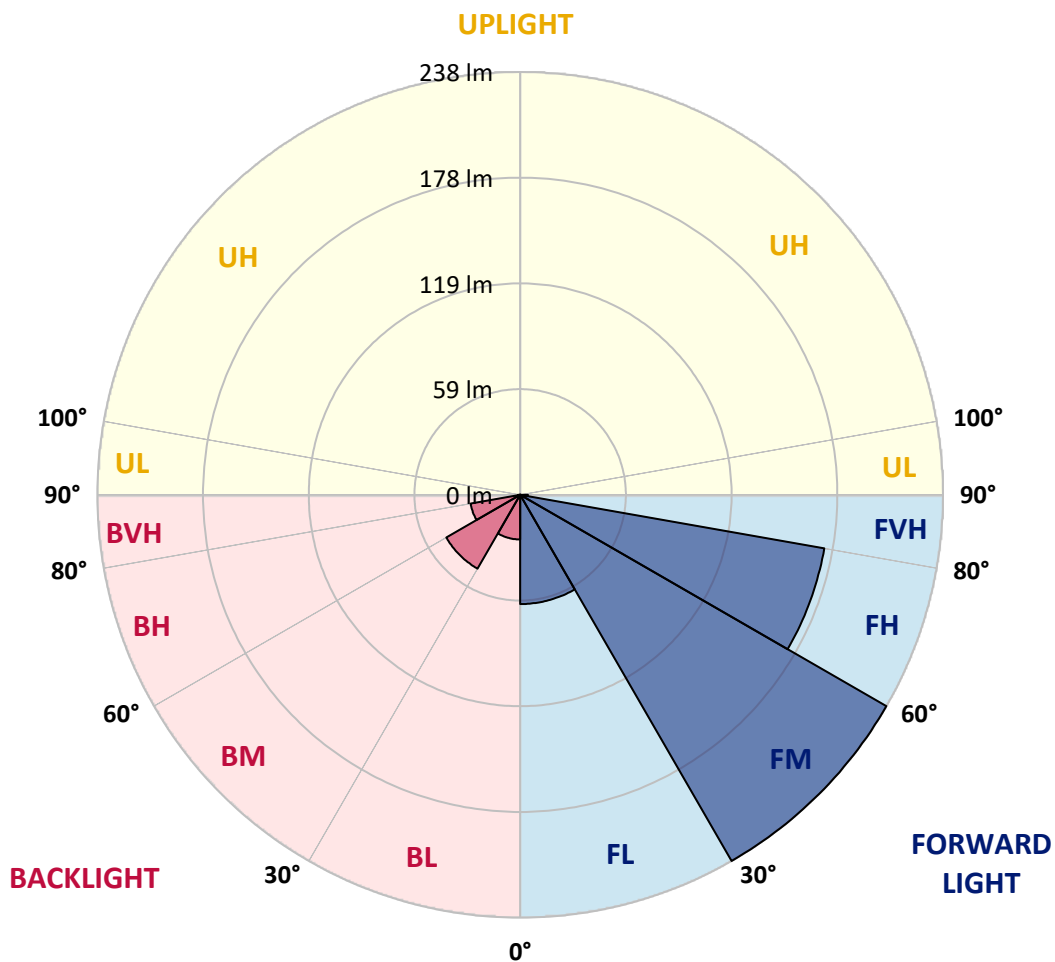
CATALOG NUMBER: ENV-SA1-740-U-SLL-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	61.4	10.6			
FM	(30°-60°)	237.8	41.0			
FH	(60°-80°)	173.7	29.9			G0/660
FVH	(80°-90°)	4.4	0.8			G0/10
BL	(0°-30°)	25.1	4.3	B0/110		
BM	(30°-60°)	48.0	8.3	B0/220		
BH	(60°-80°)	28.3	4.9	B0/110		G0/110
BVH	(80°-90°)	1.3	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8
2.5°	213.9	213.6	216.7	223.0	227.0	229.4	229.8	232.4	229.8	228.5	223.8
5°	207.7	207.6	213.5	227.4	238.8	247.4	251.5	248.7	244.3	235.6	225.1
7.5°	190.4	190.4	201.5	220.2	239.3	254.1	259.1	253.8	243.4	226.0	207.1
10°	176.2	177.5	188.3	210.5	231.7	247.9	253.5	249.5	235.9	213.3	191.1
12.5°	167.8	168.5	180.5	202.9	222.6	235.8	239.2	237.9	228.1	203.5	180.0
15°	168.5	169.6	183.3	201.6	214.5	219.7	220.9	222.5	218.4	199.6	176.4
17.5°	180.6	181.4	195.2	207.0	206.5	204.8	205.3	207.8	212.6	202.9	183.8
20°	199.9	201.9	215.8	216.0	202.3	194.6	192.7	196.8	209.9	211.5	199.5
22.5°	224.7	225.4	239.6	231.1	202.7	187.6	185.3	190.0	210.8	225.6	221.2
25°	253.4	256.1	263.8	250.8	209.1	186.6	185.1	189.0	213.9	240.5	243.5
27.5°	272.8	275.0	282.4	264.2	214.8	187.2	184.3	189.1	217.8	254.5	267.4
30°	290.1	291.7	294.4	271.2	221.3	189.9	185.3	192.2	219.9	257.5	282.9
32.5°	306.5	308.3	306.7	279.6	228.4	195.1	187.2	198.7	224.3	263.4	296.4
35°	327.5	327.6	322.0	288.1	236.5	201.2	192.7	207.9	233.1	272.6	310.9
37.5°	352.5	352.8	338.6	296.7	245.7	211.5	205.6	222.2	245.8	283.2	331.6
40°	374.4	375.2	356.5	306.7	257.0	231.6	231.0	244.7	262.2	297.4	353.8
42.5°	393.3	395.8	372.9	315.0	273.0	262.4	263.7	276.2	282.0	309.2	367.7
45°	412.5	412.4	386.4	323.4	299.8	302.1	314.6	314.0	304.5	315.6	378.5
47.5°	424.5	423.9	394.6	337.0	335.9	357.9	371.2	363.9	329.4	322.4	392.1
50°	429.1	428.8	401.1	354.3	372.6	408.5	427.4	412.9	359.9	333.8	408.3
52.5°	442.1	441.0	416.0	374.0	405.8	457.1	472.8	456.7	390.3	354.3	427.2
55°	462.5	462.8	441.7	397.2	432.5	491.5	510.6	496.3	421.3	382.5	453.1
57.5°	476.2	477.2	470.1	422.9	461.0	515.5	534.1	530.1	462.6	416.1	483.5
58°	477.5	478.3	474.6	427.9	465.3	518.2	537.3	534.4	471.7	426.9	490.7
60°	469.1	471.4	483.3	455.1	482.9	524.0	537.8	540.4	499.9	461.7	515.5
62.5°	446.2	446.9	468.7	485.5	495.0	509.7	511.0	517.6	511.5	502.6	537.6
65°	418.1	418.1	441.6	487.0	463.7	461.3	453.6	460.2	477.6	528.3	536.1
67.5°	369.3	369.6	399.6	433.8	384.4	376.1	371.2	373.6	410.8	506.9	506.3
70°	298.5	298.3	329.1	351.2	285.3	278.2	284.1	283.3	333.7	450.4	442.0
72.5°	211.1	212.9	244.6	271.3	193.8	167.0	193.1	203.2	251.0	379.7	342.0
75°	118.9	121.4	147.3	188.5	122.3	112.9	126.3	140.7	181.5	302.3	229.7
77.5°	59.7	60.6	75.4	90.7	74.1	86.1	85.3	99.0	124.5	204.0	131.4
80°	34.4	36.4	41.4	46.8	41.4	54.6	63.4	74.6	76.6	105.5	73.2
82.5°	13.8	15.5	19.4	22.0	17.2	16.2	11.1	34.9	46.2	51.0	28.1
85°	0.0	0.0	0.1	0.2	0.3	0.3	0.5	6.1	11.3	2.5	4.6
87.5°	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.8	1.0	1.2	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8
2.5°	222.0	220.8	216.8	210.6	206.8	200.9	198.5	192.9	190.0	185.3	185.3
5°	219.9	214.9	204.7	191.5	182.0	172.2	169.0	162.4	157.7	152.1	149.8
7.5°	199.9	193.0	177.1	161.6	146.6	136.6	126.8	120.1	113.7	109.1	109.8
10°	181.6	171.7	154.3	134.7	119.1	108.7	99.8	92.0	85.4	78.9	78.0
12.5°	169.6	158.3	137.5	116.5	104.8	97.2	88.9	80.4	72.3	65.1	62.3
15°	164.6	152.3	129.1	109.2	98.6	88.7	79.2	68.6	59.3	50.8	48.5
17.5°	170.1	155.4	128.3	104.4	89.6	77.2	63.9	52.4	41.4	35.3	33.4
20°	185.0	165.9	130.8	99.6	79.6	63.6	47.4	34.3	28.2	24.5	23.2
22.5°	206.6	183.3	135.1	94.8	69.5	47.4	32.7	24.8	21.2	19.2	18.6
25°	230.0	205.8	143.0	90.9	59.4	35.2	24.2	20.3	18.1	16.7	16.1
27.5°	256.5	228.1	152.6	87.9	50.1	28.2	20.8	17.9	16.1	15.1	14.7
30°	273.0	244.1	160.0	82.7	43.8	25.7	19.8	16.9	15.0	14.3	13.9
32.5°	288.3	256.7	167.0	76.6	38.9	22.7	19.3	17.8	15.6	14.0	13.4
35°	305.1	269.6	170.4	73.0	35.7	19.7	15.9	13.8	12.6	12.4	12.1
37.5°	330.1	285.0	172.6	71.1	33.8	18.0	14.8	12.5	11.1	9.8	9.2
40°	353.7	300.9	173.7	69.2	32.8	16.9	14.1	11.8	10.3	9.1	8.6
42.5°	372.3	315.4	174.3	67.9	31.0	16.2	13.6	11.4	9.8	8.6	8.0
45°	387.4	332.1	173.8	67.4	29.6	16.7	13.4	11.1	9.3	8.1	7.6
47.5°	402.2	350.3	175.9	66.9	28.2	16.0	13.5	11.0	9.0	7.8	7.2
50°	421.6	372.4	183.4	65.4	27.2	15.0	14.6	11.1	8.9	7.6	7.1
52.5°	446.7	402.9	197.2	63.7	26.0	14.1	15.2	11.1	8.7	7.3	6.8
55°	477.2	437.1	212.3	61.3	23.9	13.0	14.6	11.1	8.4	7.2	6.6
57.5°	502.1	467.6	224.2	58.4	20.1	11.7	13.4	10.6	7.9	6.8	6.3
58°	504.3	471.1	225.9	57.7	19.6	11.5	13.0	10.5	7.7	6.7	6.1
60°	513.2	476.8	226.5	53.5	16.3	11.0	11.3	10.2	7.2	6.3	5.8
62.5°	510.1	457.9	212.6	46.2	14.6	10.0	9.4	10.4	6.7	5.7	5.3
65°	494.9	420.8	186.3	41.3	14.7	8.9	8.1	9.1	6.1	5.2	4.7
67.5°	458.6	364.6	151.3	38.7	15.4	7.9	7.0	6.8	5.5	4.6	4.3
70°	391.1	298.8	114.7	36.4	16.2	7.0	6.5	6.0	5.0	4.3	3.8
72.5°	288.1	221.3	83.4	34.1	15.8	6.3	6.0	5.5	4.6	3.8	3.6
75°	179.7	128.5	57.1	27.9	14.1	5.5	5.6	5.2	4.2	3.6	3.3
77.5°	104.9	90.2	28.2	20.7	9.8	4.8	4.9	4.7	4.3	3.4	3.2
80°	62.8	56.1	12.1	8.9	5.4	4.3	4.2	4.4	4.1	3.2	3.0
82.5°	27.2	24.3	5.8	4.9	4.4	3.7	3.6	3.7	3.5	2.6	2.5
85°	1.5	4.1	2.7	3.6	3.3	2.7	2.7	2.9	2.5	2.1	2.1
87.5°	1.4	3.1	1.8	2.2	2.4	2.1	2.2	2.2	2.1	1.9	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8
2.5°	182.8	181.6	178.0	176.6	170.9	172.4	172.8	172.3	172.5	172.9	174.6
5°	151.4	149.5	144.7	141.7	140.0	138.9	133.8	133.9	134.7	131.7	135.5
7.5°	107.6	109.8	110.2	107.3	105.6	101.9	97.2	94.5	90.0	92.5	93.1
10°	77.0	75.9	78.0	77.0	74.2	72.8	67.8	67.3	66.9	66.6	69.7
12.5°	58.7	55.4	53.0	53.5	51.4	47.9	47.0	47.2	47.6	47.6	48.5
15°	46.5	41.4	37.6	35.3	35.6	32.1	31.1	27.9	27.4	26.4	26.6
17.5°	32.6	30.5	28.2	25.5	24.5	21.3	17.4	15.7	14.4	14.6	15.2
20°	22.5	21.6	20.9	19.6	18.5	14.8	12.4	11.6	11.5	11.7	12.0
22.5°	18.1	17.2	16.6	16.1	14.7	12.0	10.6	10.1	10.1	10.1	10.2
25°	15.6	14.7	13.8	13.8	12.5	10.4	9.4	9.0	8.9	8.8	9.0
27.5°	14.5	13.3	12.4	11.8	10.9	9.2	8.3	7.9	7.8	7.8	7.9
30°	13.4	12.2	11.3	10.5	9.4	8.2	7.3	7.0	6.8	6.8	6.9
32.5°	12.7	11.5	10.4	9.4	8.2	7.2	6.5	6.0	5.8	5.9	6.0
35°	11.3	10.3	9.3	8.3	7.2	6.4	5.6	5.2	5.0	5.0	5.2
37.5°	8.9	8.1	7.9	7.3	6.4	5.5	4.7	4.3	4.2	4.2	4.3
40°	8.0	7.0	6.6	6.4	5.8	4.7	3.8	3.4	3.4	3.3	3.5
42.5°	7.3	6.4	5.6	5.4	5.0	4.1	3.1	2.7	2.6	2.6	2.7
45°	6.9	5.8	4.8	4.3	4.3	3.3	2.5	2.1	2.0	2.0	2.1
47.5°	6.7	5.5	4.3	3.5	3.4	2.7	2.0	1.5	1.4	1.4	1.4
50°	6.5	5.0	3.8	3.0	2.6	2.3	1.5	1.2	1.1	1.1	1.1
52.5°	6.1	4.8	3.5	2.6	2.1	1.8	1.2	0.9	0.8	0.7	0.8
55°	5.9	4.5	3.4	2.4	1.8	1.3	0.9	0.7	0.5	0.5	0.5
57.5°	5.6	4.2	3.1	2.3	1.6	1.0	0.7	0.4	0.3	0.3	0.4
58°	5.5	4.2	3.0	2.2	1.5	1.0	0.7	0.4	0.3	0.3	0.4
60°	5.2	3.8	2.9	2.0	1.4	0.9	0.5	0.3	0.2	0.2	0.3
62.5°	4.8	3.5	2.5	1.8	1.2	0.8	0.4	0.2	0.1	0.1	0.1
65°	4.3	3.2	2.2	1.6	1.0	0.5	0.3	0.1	0.0	0.0	0.0
67.5°	3.8	3.0	2.0	1.4	0.9	0.4	0.2	0.0	0.0	0.0	0.0
70°	3.5	2.7	1.8	1.2	0.8	0.3	0.1	0.0	0.0	0.0	0.0
72.5°	3.3	2.5	1.6	1.1	0.5	0.3	0.1	0.0	0.0	0.0	0.0
75°	3.2	2.4	1.6	1.0	0.5	0.3	0.2	0.1	0.0	0.0	0.1
77.5°	3.1	2.4	1.6	1.0	0.7	0.3	0.3	0.2	0.2	0.1	0.3
80°	2.9	2.2	1.4	0.9	0.5	0.4	0.3	0.2	0.0	0.0	0.0
82.5°	2.4	1.8	1.2	0.9	0.5	0.3	0.1	0.0	0.0	0.0	0.0
85°	2.0	1.4	1.0	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	1.1	0.8	0.4	0.2	0.1	0.0	0.0	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



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CATALOG NUMBER: ENV-SA1-740-U-SLL-HSS-XXB

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8	204.8
2.5°	176.0	181.0	183.1	190.1	193.2	199.6	205.0	209.8	212.1	213.9
5°	136.5	141.3	146.5	156.9	165.9	175.6	187.6	200.1	203.7	207.7
7.5°	95.3	102.4	111.1	120.4	133.2	147.8	165.1	180.6	188.4	190.4
10°	74.0	82.5	91.7	100.9	111.5	127.1	144.5	164.5	172.8	176.2
12.5°	55.6	66.9	77.9	88.7	97.9	111.4	130.4	154.2	163.4	167.8
15°	33.4	46.2	59.7	74.2	87.1	102.9	124.2	152.0	163.6	168.5
17.5°	16.7	22.8	35.2	57.1	76.1	95.7	124.1	159.9	174.2	180.6
20°	12.4	14.0	18.8	35.6	63.3	89.8	125.4	173.4	194.5	199.9
22.5°	10.6	11.8	13.5	20.8	47.4	84.3	130.0	191.2	217.5	224.7
25°	9.3	10.3	11.6	14.4	32.5	77.9	138.7	216.5	243.6	253.4
27.5°	8.2	9.1	10.2	12.1	21.7	65.7	143.6	237.6	264.7	272.8
30°	7.2	7.9	9.0	10.3	16.0	50.8	148.2	256.3	283.8	290.1
32.5°	6.4	6.9	7.8	8.8	12.2	38.5	148.5	272.3	300.4	306.5
35°	5.4	6.0	6.7	7.6	9.6	30.0	144.0	288.2	320.2	327.5
37.5°	4.5	5.0	5.8	6.6	8.8	23.2	134.7	306.8	344.2	352.5
40°	3.8	4.4	5.0	5.9	7.8	16.9	119.7	323.7	366.7	374.4
42.5°	3.1	3.6	4.4	5.8	6.5	12.2	104.7	339.9	386.2	393.3
45°	2.4	3.1	4.1	5.6	5.4	8.6	91.8	354.3	403.0	412.5
47.5°	1.8	2.5	4.1	5.0	4.4	6.1	85.2	368.1	418.0	424.5
50°	1.3	2.1	4.4	4.3	3.7	5.3	86.2	383.5	424.9	429.1
52.5°	1.0	1.8	3.4	3.1	3.2	4.6	90.0	403.7	439.2	442.1
55°	0.9	1.3	2.1	2.3	2.9	4.4	89.0	422.9	457.4	462.5
57.5°	0.8	1.1	1.6	1.9	2.5	4.2	83.4	431.4	469.1	476.2
58°	0.7	1.1	1.5	1.9	2.5	4.1	82.0	429.1	468.5	477.5
60°	0.5	1.0	1.4	1.6	2.2	3.6	75.1	409.5	456.5	469.1
62.5°	0.4	0.7	1.1	1.2	1.8	3.0	61.8	378.0	430.6	446.2
65°	0.2	0.4	0.7	0.9	1.2	2.2	44.0	340.6	402.9	418.1
67.5°	0.0	0.2	0.4	0.5	0.8	1.6	25.3	289.0	357.2	369.3
70°	0.0	0.1	0.2	0.3	0.4	1.1	13.4	212.2	276.8	298.5
72.5°	0.1	0.1	0.1	0.0	0.2	0.9	5.9	125.9	188.7	211.1
75°	0.1	0.1	0.0	0.0	0.0	0.4	2.5	66.3	108.2	118.9
77.5°	0.4	0.2	0.0	0.0	0.0	0.1	1.2	35.7	56.1	59.7
80°	0.1	0.0	0.0	0.0	0.0	0.0	0.4	12.0	33.7	34.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	14.5	13.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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