

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-T2-HSS-ULG-XXB**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P400786 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-T2-HSS-ULG-XXB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION 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: 2357.9 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type II - Short
BUG Rating: B0 - U5 - G0

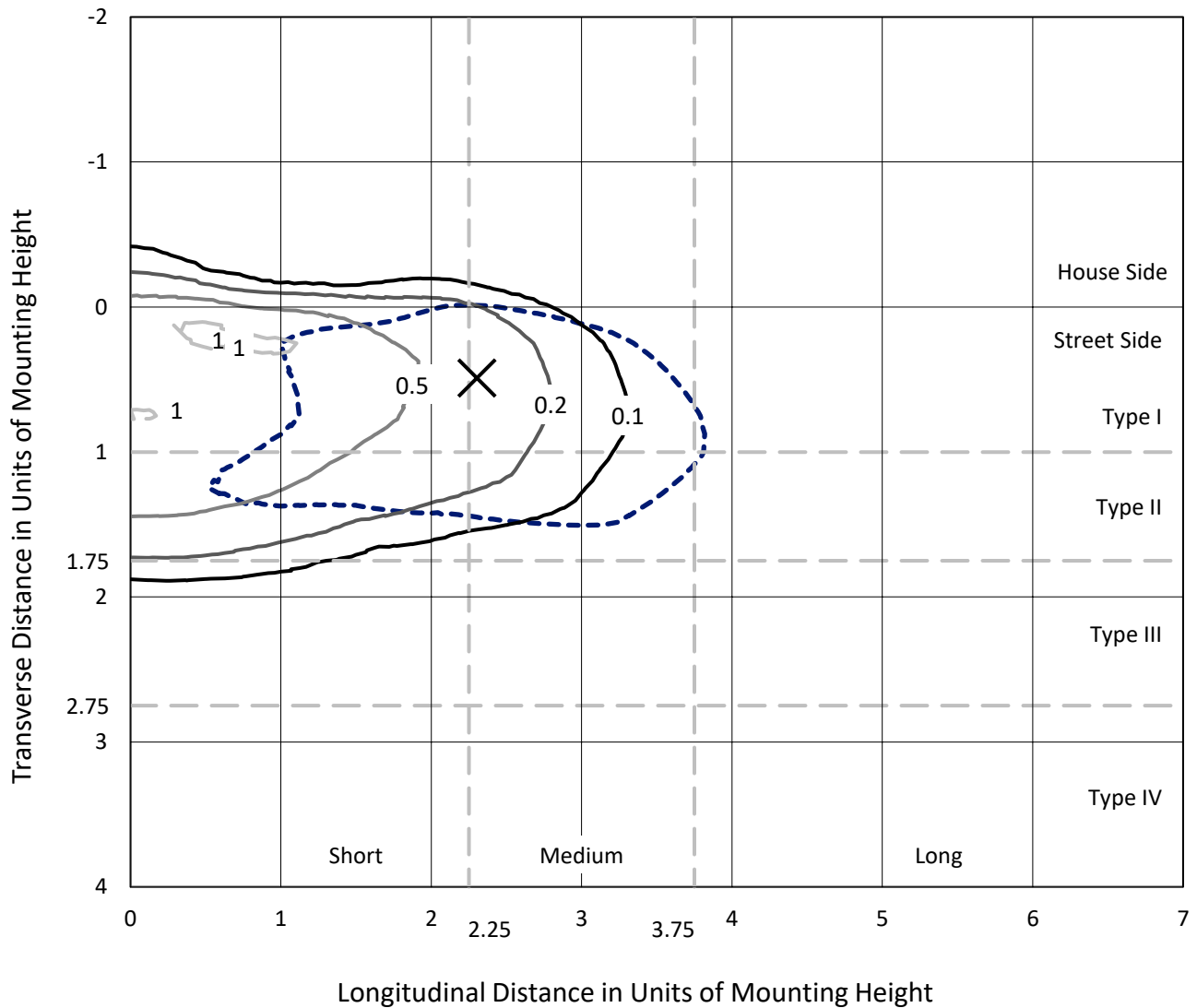
Input Watts (W): 29.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

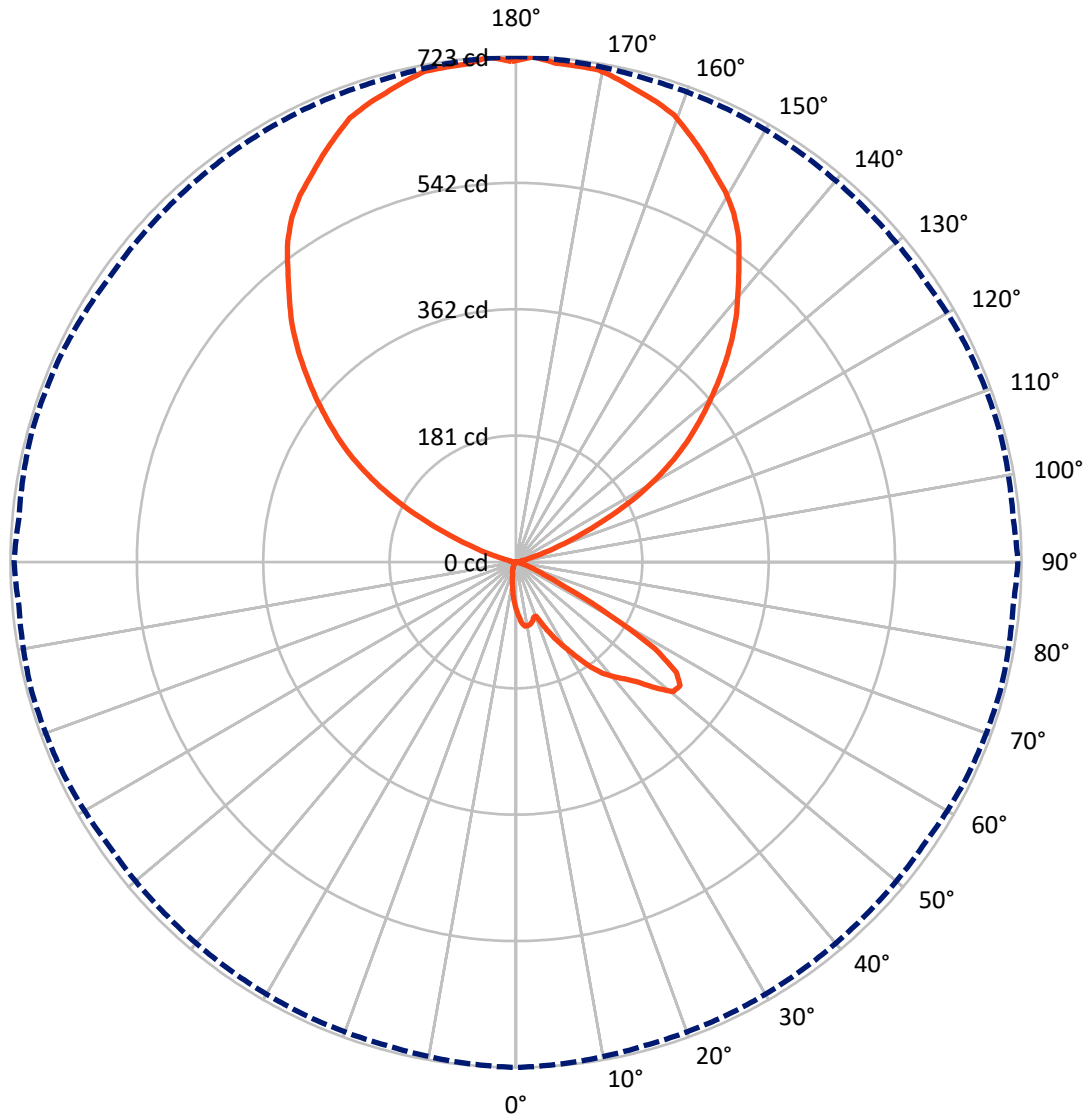
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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

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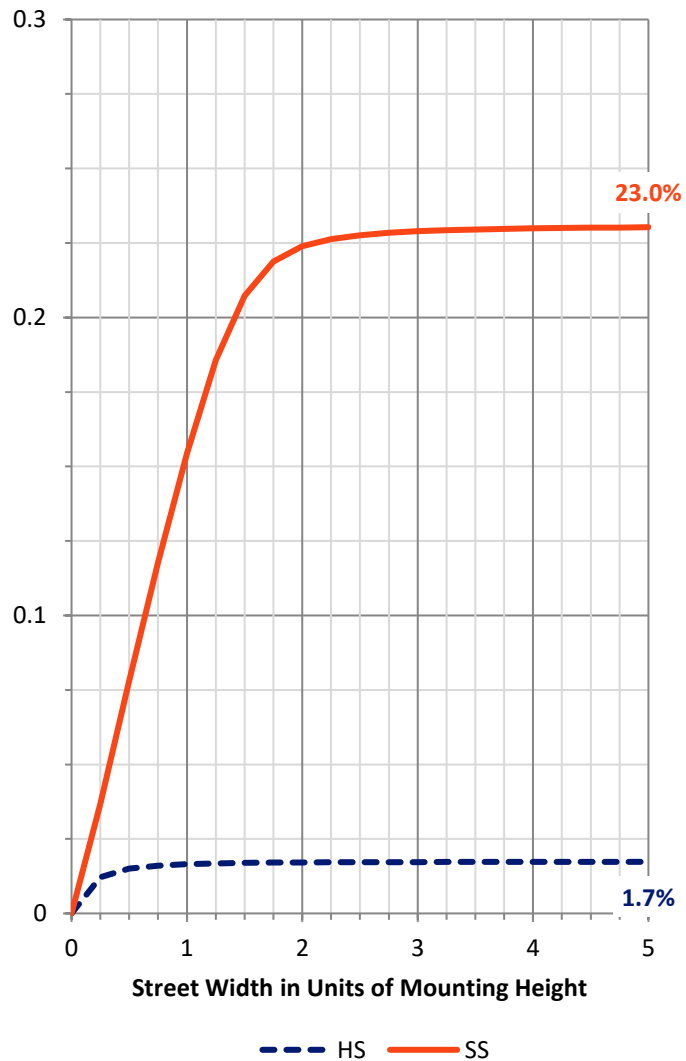
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	41.2	887.0	928.1
	% Fixture	1.7	37.6	39.4
Street Side	Lumens	542.8	887.0	1429.8
	% Fixture	23.0	37.6	60.6
Total	Lumens	584.0	1773.9	2357.9
	% Fixture	24.8	75.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.5	0.3
10°-20°	18.7	0.8
20°-30°	33.1	1.4
30°-40°	58.3	2.5
40°-50°	100.2	4.3
50°-60°	150.9	6.4
60°-70°	148.5	6.3
70°-80°	64.9	2.8
80°-90°	2.9	0.1
90°-100°	8.4	0.4
100°-110°	58.7	2.5
110°-120°	169.9	7.2
120°-130°	279.4	11.9
130°-140°	344.6	14.6
140°-150°	352.5	15.0
150°-160°	297.0	12.6
160°-170°	195.5	8.3
170°-180°	67.8	2.9
0°-90°	584.0	24.8
0°-180°	2357.9	100.0

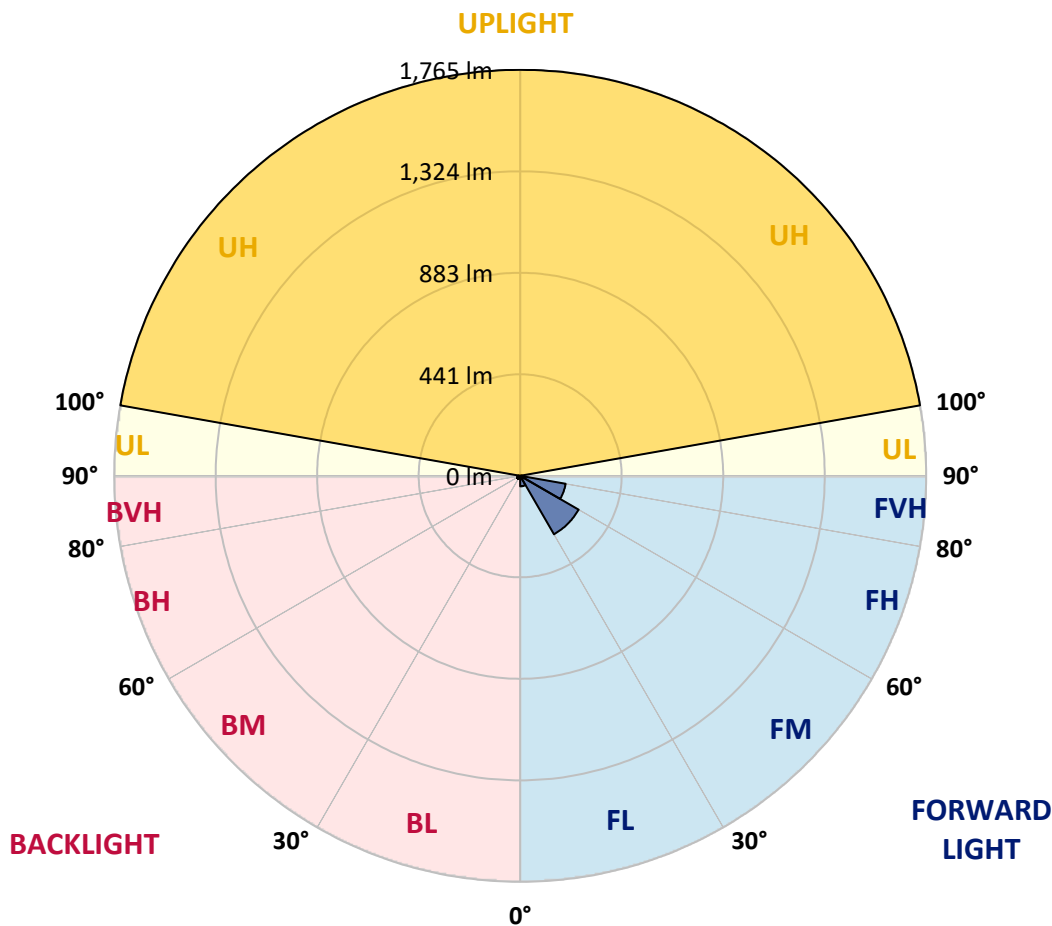


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	45.9	1.9			
FM (30°-60°)	293.8	12.5			
FH (60°-80°)	200.6	8.5			G0/660
FVH (80°-90°)	2.6	0.1			G0/10
BL (0°-30°)	12.4	0.5	B0/110		
BM (30°-60°)	15.7	0.7	B0/220		
BH (60°-80°)	12.8	0.5	B0/110		G0/110
BVH (80°-90°)	0.3	0.0			G0/10
UL (90°-100°)	8.4	0.4		U1/10	
UH (100°-180°)	1765.5	74.9		U5	

BUG Rating: B0-U5-G0
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
2.5°	77.8	78.1	77.7	77.4	76.5	75.4	74.3	72.6	70.9	70.2	69.1
5°	87.3	87.3	87.3	86.5	85.7	83.6	81.1	78.6	75.3	74.1	71.5
7.5°	92.4	92.5	92.8	92.8	92.4	91.0	88.2	85.4	80.4	78.8	74.7
10°	92.9	93.4	94.2	95.6	96.6	97.3	95.7	92.6	86.7	84.7	78.8
12.5°	91.5	91.7	93.2	95.6	98.7	101.9	102.0	100.2	93.6	90.8	83.7
15°	88.2	88.5	90.6	94.5	99.4	105.1	108.4	107.9	101.7	98.5	89.2
17.5°	82.9	83.3	85.9	91.6	98.9	107.2	114.2	117.0	109.7	106.6	94.8
20°	82.7	82.8	83.8	88.1	96.7	108.4	119.9	126.4	119.5	116.2	101.4
22.5°	96.8	95.9	93.7	91.0	94.7	108.1	125.1	136.4	131.6	126.4	108.9
25°	112.5	112.8	110.4	103.9	99.2	107.5	129.0	147.7	142.9	137.7	116.7
27.5°	128.9	128.4	126.3	120.4	112.5	111.5	131.9	156.8	153.7	147.5	123.7
30°	144.9	144.5	143.0	136.9	128.4	121.7	134.1	165.0	164.0	157.1	129.2
32.5°	163.3	164.0	162.1	154.2	143.7	135.5	138.8	173.7	176.5	168.1	135.1
35°	184.5	184.5	180.5	173.2	162.5	151.0	148.2	183.2	192.4	183.3	144.3
37.5°	202.1	203.5	201.1	190.7	180.6	168.5	162.6	195.0	212.1	202.9	156.7
40°	215.9	218.3	218.4	208.1	198.8	190.9	182.7	211.5	236.8	224.9	171.5
42.5°	228.8	229.2	231.1	225.1	215.8	213.7	205.3	231.2	267.6	253.7	191.2
45°	245.1	246.0	244.9	240.5	232.5	235.2	230.5	256.1	302.3	290.5	214.5
47.5°	269.1	271.2	269.6	261.7	251.9	257.1	253.7	280.9	341.4	327.2	239.7
50°	291.6	293.3	295.0	292.5	282.7	277.8	273.6	307.1	375.0	362.9	264.5
52.5°	294.0	295.6	305.2	314.1	320.6	307.6	294.6	333.7	406.1	396.0	287.2
55°	278.4	279.3	295.5	313.0	342.8	347.1	325.4	359.9	432.1	425.2	302.5
57.5°	234.7	238.9	261.8	288.7	337.3	370.6	369.2	390.4	449.0	445.8	322.1
60°	154.2	158.8	186.2	226.9	296.9	364.4	417.3	436.1	472.7	476.2	356.6
62.5°	79.9	85.3	109.4	145.5	215.2	317.3	433.6	511.3	518.1	530.0	418.0
65°	45.6	46.7	58.8	85.3	133.2	227.2	414.0	585.7	577.9	602.1	496.5
67°	33.9	33.9	42.4	57.9	84.4	154.5	353.1	601.4	615.5	628.4	512.3
67.5°	30.4	32.0	39.3	53.4	75.7	137.0	330.4	597.2	617.9	625.9	506.8
70°	20.8	21.9	28.2	38.3	51.0	71.3	216.6	528.2	595.3	587.2	459.3
72.5°	12.5	12.9	18.7	27.5	38.1	38.2	118.2	400.9	504.5	504.4	375.1
75°	7.8	8.2	11.0	18.4	26.7	23.9	54.6	272.8	362.3	355.3	251.4
77.5°	4.4	5.0	6.6	10.1	16.9	15.3	23.0	152.8	195.7	183.7	124.9
80°	1.8	2.1	3.7	4.8	9.5	9.1	9.4	53.8	79.2	71.4	41.8
82.5°	0.4	0.5	1.3	2.3	3.7	3.7	3.0	14.7	18.8	17.4	10.8
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.8	1.6	2.0	2.3	1.8
87.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3	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	6.1	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	7.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	9.2	8.9	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	23.5	22.3	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	43.0	42.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	66.5	65.3	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	92.1	91.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	121.7	120.8	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	152.4	151.8	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	183.1	182.5	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	214.8	214.2	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	250.6	250.0	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	284.4	283.8	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	317.1	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.6	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.1	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	423.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	457.3	458.2	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.9	488.5	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	515.6	517.1	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.5	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	573.9	573.0	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	599.4	598.5	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	617.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	632.2	633.7	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	650.6	651.2	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	664.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	676.2	675.9	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	685.4	684.8	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	695.6	695.0	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	703.8	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	709.9	710.5	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	709.9	710.5	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	712.0	711.4	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	717.1	716.2	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
2.5°	68.2	67.5	65.9	64.3	62.6	61.3	60.2	58.7	58.5	58.5	58.5
5°	69.7	67.9	64.4	60.9	57.4	54.2	51.9	50.0	48.4	47.8	48.3
7.5°	71.8	68.6	62.4	56.3	50.8	46.3	43.0	40.4	39.2	38.5	38.0
10°	74.5	69.6	59.8	50.8	43.9	38.5	35.0	32.5	31.3	30.5	30.6
12.5°	77.5	70.3	56.5	44.9	37.2	32.3	29.3	27.2	25.2	24.0	24.4
15°	80.4	70.9	52.4	39.4	32.0	27.6	23.5	19.7	18.4	18.2	18.1
17.5°	83.7	70.8	47.9	34.2	27.6	21.5	17.3	16.9	16.8	16.8	16.7
20°	87.1	70.2	42.8	30.0	23.3	16.3	15.7	15.5	15.1	15.0	14.9
22.5°	90.8	69.2	38.1	26.2	17.3	14.9	14.0	13.4	12.8	12.5	12.6
25°	94.2	67.4	33.5	22.7	14.8	13.4	12.2	11.2	10.6	10.2	10.3
27.5°	96.6	64.1	29.5	18.3	13.6	11.8	10.4	9.4	8.7	8.3	8.3
30°	96.8	59.4	26.0	15.0	12.4	10.4	8.9	7.8	7.4	7.1	7.0
32.5°	96.6	54.5	23.4	13.8	11.3	9.1	7.6	6.8	6.4	6.1	6.1
35°	97.6	49.6	21.0	12.7	10.1	8.0	6.7	5.9	5.6	5.4	5.4
37.5°	100.9	46.2	18.4	11.6	9.0	7.0	6.0	5.4	5.0	4.8	4.8
40°	105.4	43.3	15.4	10.5	7.9	6.4	5.5	4.9	4.5	4.3	4.3
42.5°	113.3	42.2	12.8	9.4	6.9	5.7	5.0	4.4	3.9	3.7	3.7
45°	125.1	42.8	11.7	8.4	6.3	5.2	4.5	3.8	3.4	3.3	3.3
47.5°	138.0	45.1	11.0	7.6	5.7	4.8	4.1	3.4	3.0	2.9	2.9
50°	152.5	48.7	10.3	6.7	5.2	4.4	3.6	3.0	2.6	2.5	2.5
52.5°	166.3	53.3	9.7	6.0	4.8	3.9	3.2	2.6	2.4	2.3	2.3
55°	176.9	56.3	9.1	5.6	4.5	3.6	2.9	2.5	2.2	2.1	2.1
57.5°	191.6	61.2	8.4	5.0	4.1	3.3	2.6	2.3	2.0	2.0	2.0
60°	221.4	74.5	7.5	4.6	3.6	3.0	2.5	2.1	1.9	1.8	1.8
62.5°	275.2	96.4	6.5	4.3	3.2	2.6	2.2	1.9	1.6	1.4	1.4
65°	327.0	105.5	5.5	3.7	2.9	2.3	2.0	1.6	1.2	1.0	1.0
67°	324.1	90.3	4.6	3.2	2.4	2.1	1.6	1.3	0.9	0.5	0.5
67.5°	316.4	84.0	4.5	3.1	2.3	2.0	1.6	1.2	0.8	0.4	0.4
70°	268.9	58.8	3.5	2.4	2.0	1.8	1.3	0.9	0.4	0.2	0.2
72.5°	218.4	46.6	2.7	2.0	1.6	1.3	1.1	0.5	0.3	0.1	0.1
75°	154.5	28.6	2.4	1.8	1.3	1.0	0.9	0.5	0.3	0.2	0.1
77.5°	76.3	13.2	2.0	1.5	1.2	1.0	0.8	0.7	0.5	0.4	0.2
80°	22.4	4.3	1.3	1.1	1.1	1.0	0.9	0.8	0.7	0.5	0.3
82.5°	5.0	1.5	0.4	0.5	0.8	0.8	0.8	0.5	0.4	0.2	0.1
85°	0.7	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.0	0.0
87.5°	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	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
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-T2-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)