

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-SA1A-740-U-T3-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P400970 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-740-U-T3-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3873.9 lumens
Efficiency: N/A
Efficacy: 105.3 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 - G1

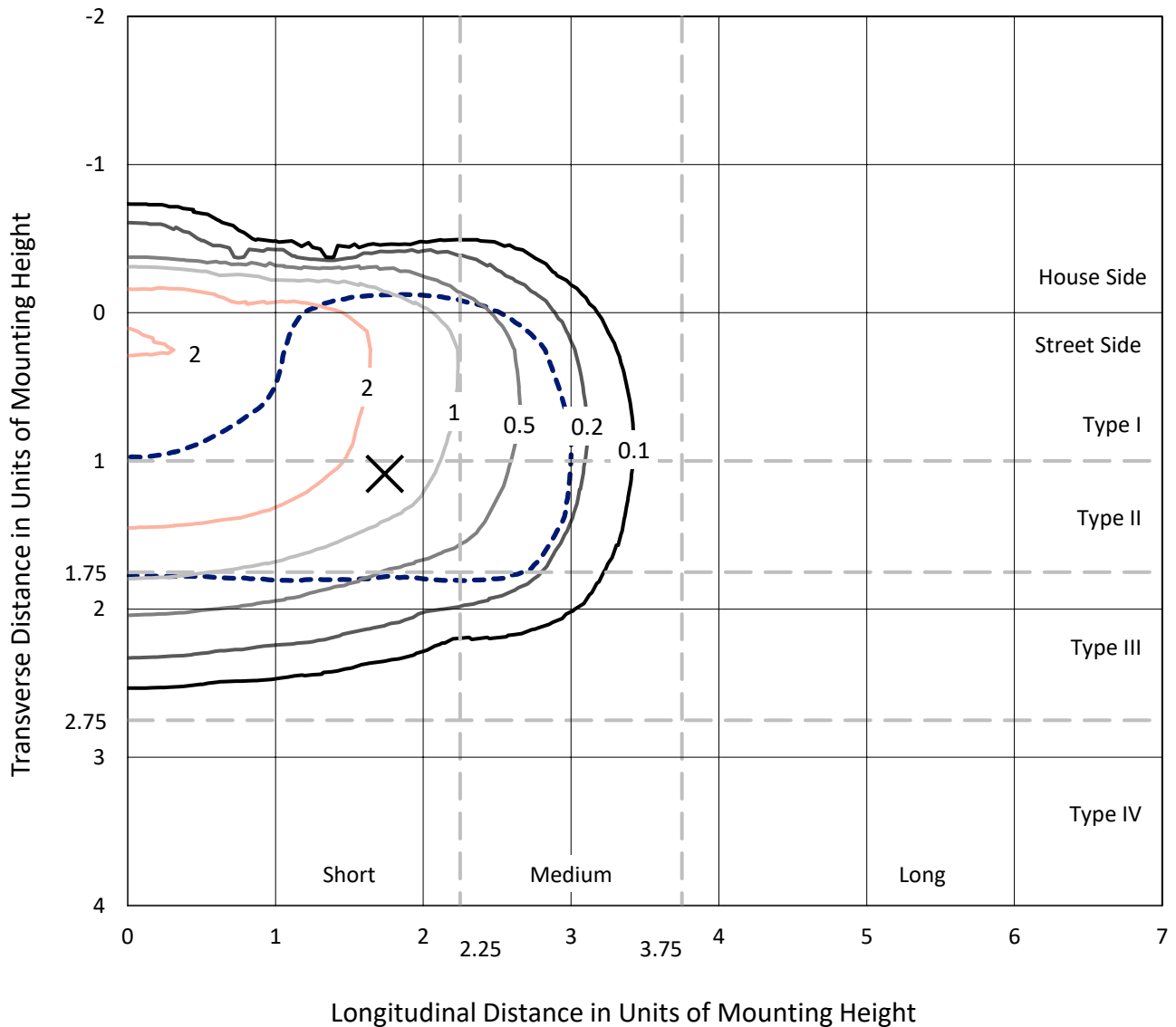
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

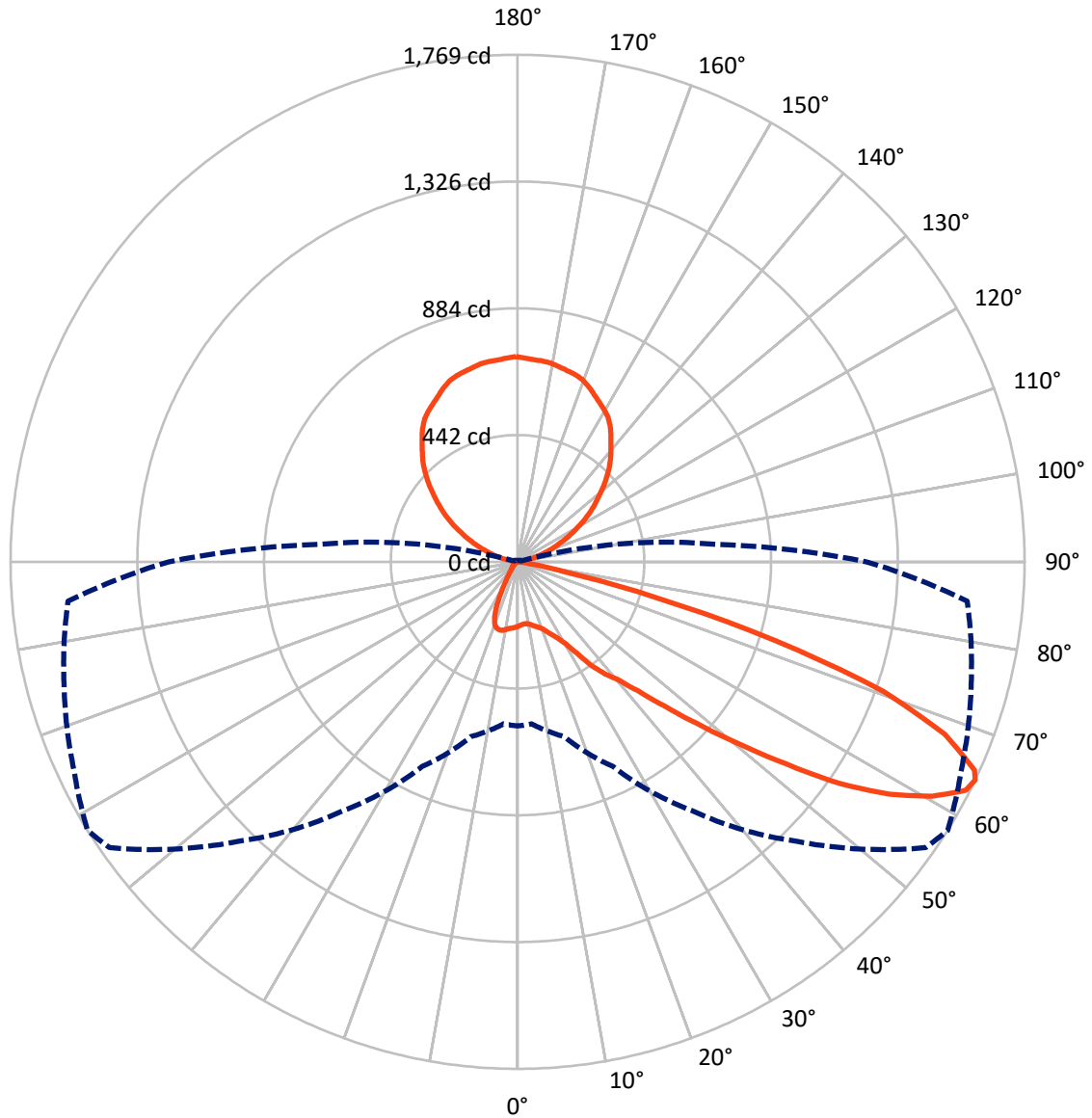
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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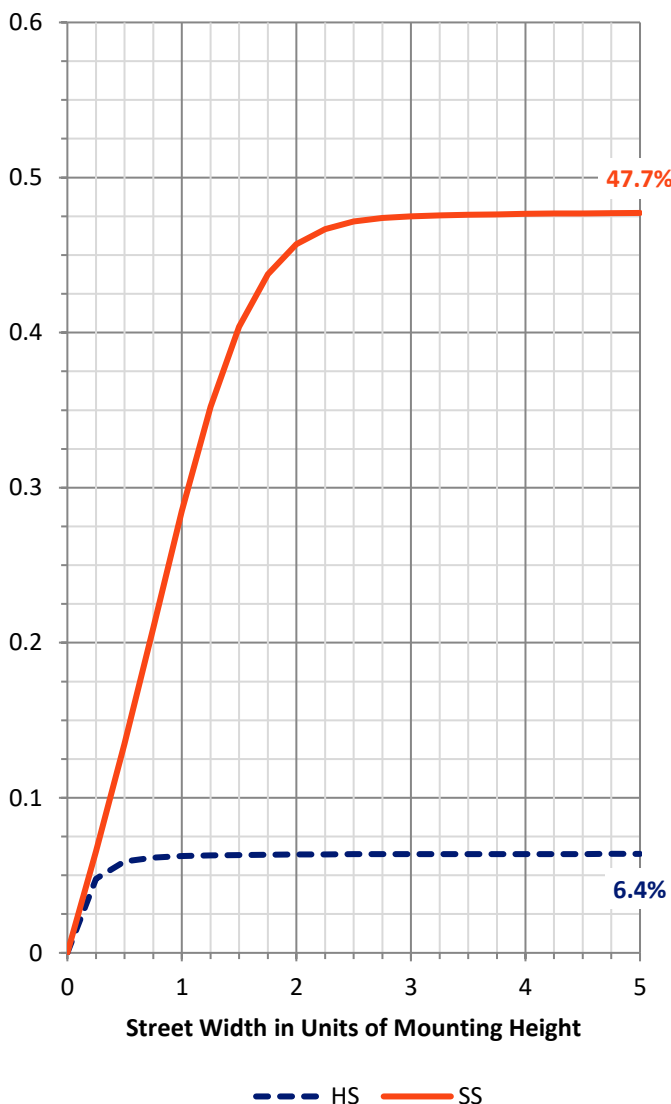
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	250.4	887.0	1137.3
	% Fixture	6.5	22.9	29.4
Street Side	Lumens	1849.6	887.0	2736.6
	% Fixture	47.7	22.9	70.6
Total	Lumens	2100.0	1773.9	3873.9
	% Fixture	54.2	45.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.3	0.5
10°-20°	62.0	1.6
20°-30°	111.3	2.9
30°-40°	195.2	5.0
40°-50°	356.8	9.2
50°-60°	610.4	15.8
60°-70°	592.2	15.3
70°-80°	146.7	3.8
80°-90°	4.2	0.1
90°-100°	8.4	0.2
100°-110°	58.7	1.5
110°-120°	169.9	4.4
120°-130°	279.4	7.2
130°-140°	344.6	8.9
140°-150°	352.5	9.1
150°-160°	297.0	7.7
160°-170°	195.5	5.0
170°-180°	67.8	1.7
0°-90°	2100.0	54.2
0°-180°	3873.9	100.0

Coefficient of Utilization



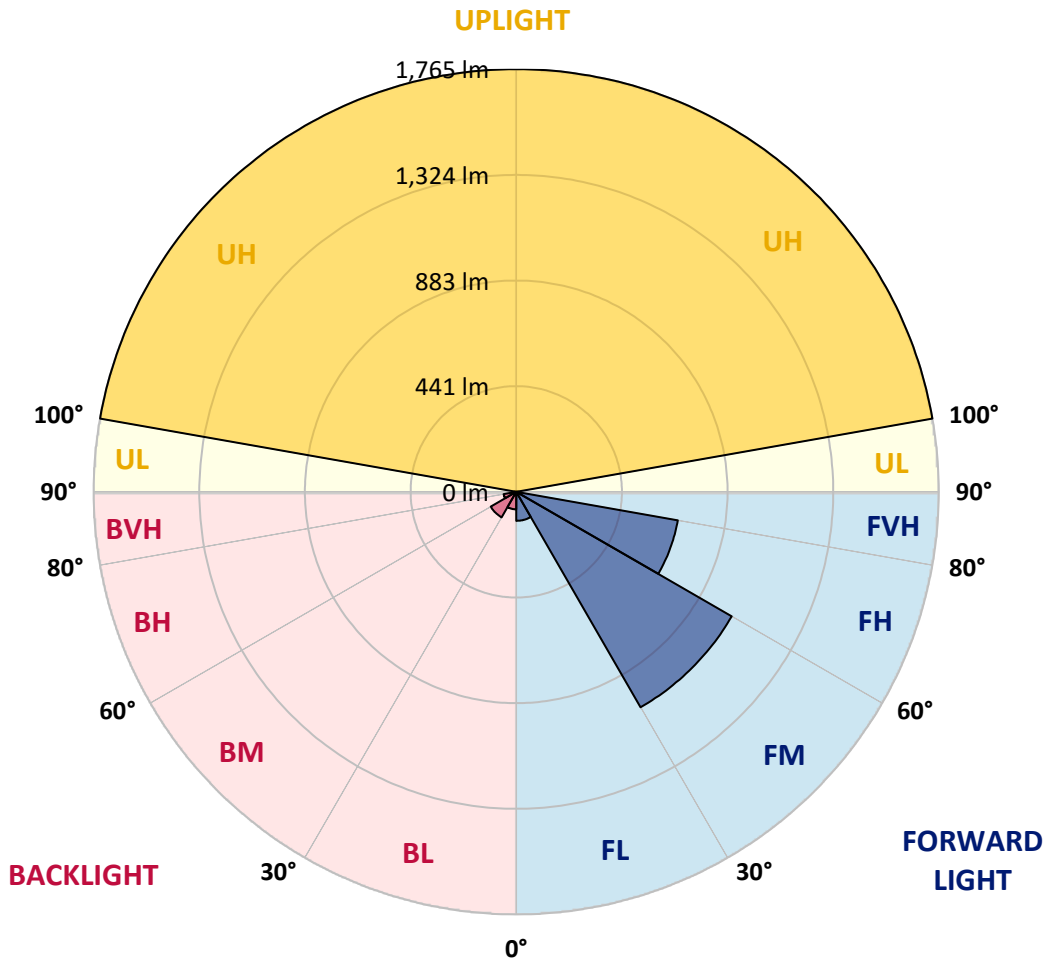
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	121.3	3.1			
FM (30°-60°)	1039.5	26.8			
FH (60°-80°)	685.4	17.7			G1/1800
FVH (80°-90°)	3.5	0.1			G0/10
BL (0°-30°)	73.3	1.9	B0/110		
BM (30°-60°)	123.0	3.2	B0/220		
BH (60°-80°)	53.5	1.4	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	45.6		U5	

BUG Rating: B0-U5-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9
2.5°	215.6	215.6	216.4	216.8	218.0	219.1	220.7	221.1	221.8	223.8	224.6
5°	204.0	204.4	205.1	207.1	209.8	212.9	216.8	218.0	221.1	224.9	227.7
7.5°	199.3	199.7	200.9	203.2	206.7	211.3	216.0	217.6	221.8	228.1	231.9
10°	198.5	198.5	200.1	203.6	207.9	213.7	218.7	220.7	226.5	233.9	240.1
12.5°	198.5	198.5	200.5	204.7	209.8	217.2	224.2	226.9	233.5	242.8	250.6
15°	202.0	202.8	204.0	206.7	212.5	220.7	230.4	233.5	241.7	252.9	262.6
17.5°	226.9	226.1	222.2	218.7	217.6	224.6	236.2	240.5	252.5	266.9	277.4
20°	275.1	274.7	267.7	250.6	235.4	231.5	245.1	250.2	267.7	286.7	294.5
22.5°	333.3	335.3	324.4	301.5	270.4	250.6	258.4	265.3	287.9	310.8	315.5
25°	391.2	393.6	383.5	354.7	316.6	282.1	276.6	282.8	308.5	331.4	329.5
27.5°	459.6	457.7	447.6	414.9	370.6	324.4	301.1	302.3	322.1	347.7	341.5
30°	509.7	507.0	497.3	475.1	433.6	380.7	336.1	332.6	338.4	366.7	360.1
32.5°	555.6	557.5	550.1	520.6	481.4	438.6	388.5	379.2	376.9	400.9	390.1
35°	601.0	600.6	597.9	571.9	533.4	493.0	451.1	444.5	443.7	467.0	437.5
37.5°	655.4	652.7	647.6	621.2	590.5	552.1	507.4	496.9	495.0	499.6	465.0
40°	713.7	717.2	709.0	681.4	648.0	619.3	556.7	540.8	527.6	541.2	519.0
42.5°	800.3	803.0	788.7	769.6	726.5	699.7	636.4	614.6	608.4	629.0	604.1
45°	909.1	904.1	894.3	881.1	845.4	804.6	738.5	718.0	711.4	746.7	705.9
47.5°	993.8	993.0	993.4	990.7	985.3	936.3	857.8	843.8	837.2	888.1	843.1
50°	1047.4	1050.5	1063.7	1097.5	1122.4	1101.8	1009.7	992.6	987.6	1040.4	979.4
52.5°	1087.8	1095.2	1117.3	1184.2	1263.8	1270.8	1194.7	1170.6	1158.9	1173.7	1089.0
55°	1108.4	1111.9	1145.7	1244.4	1369.1	1419.2	1387.4	1367.2	1320.1	1292.2	1217.6
57.5°	1060.2	1054.8	1113.1	1238.6	1423.5	1538.9	1552.5	1529.5	1454.2	1432.4	1373.8
60°	934.0	931.6	997.3	1148.0	1376.1	1566.8	1674.8	1660.5	1591.3	1539.6	1484.5
62.5°	712.5	716.4	785.9	939.4	1207.1	1486.4	1742.8	1754.5	1681.1	1604.1	1566.5
64°	572.3	567.6	631.3	787.5	1059.1	1379.2	1737.8	1768.5	1708.3	1637.9	1573.8
65°	480.6	470.5	531.5	672.9	934.0	1301.5	1702.0	1751.4	1710.2	1646.1	1547.0
67.5°	252.9	258.4	284.4	408.7	630.5	984.1	1532.7	1607.2	1624.0	1534.6	1348.1
70°	113.4	114.2	130.9	208.6	348.9	638.3	1232.7	1353.6	1362.9	1260.7	976.7
72.5°	37.7	38.1	57.9	83.5	146.5	295.7	832.6	942.5	962.7	817.4	529.9
75°	23.3	24.1	30.7	45.1	68.0	103.3	421.9	496.5	500.8	362.5	192.7
77.5°	14.8	15.5	18.6	26.8	37.3	39.2	138.3	167.4	189.6	130.5	59.8
80°	9.3	9.3	12.0	16.3	19.4	16.7	37.7	49.7	59.8	43.9	20.2
82.5°	3.5	3.5	6.2	8.9	8.2	5.8	10.1	13.2	22.9	21.8	9.7
85°	0.0	0.0	0.4	0.8	0.4	0.8	1.9	2.7	4.3	6.2	3.1
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	0.8	0.8	0.8
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	7.5	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.7	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.2	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.0	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.9	96.2	92.1	89.0



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 CATALOG NUMBER: ENV-SA1A-740-U-T3-HSS-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.1	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.0	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.0	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.1	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.9	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.6	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.8	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.2	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.9	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.5	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.1	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.0	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.6	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.6	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.0	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.0	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.6	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	695.4	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.7	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.5	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9
2.5°	225.7	226.5	228.1	228.4	228.8	227.7	228.8	227.7	228.4	228.4	228.4
5°	229.2	230.4	231.5	231.9	231.5	228.8	229.6	227.7	227.3	227.3	227.3
7.5°	233.9	235.0	237.0	235.8	233.5	229.6	229.2	226.5	225.3	225.3	225.7
10°	242.4	243.6	244.4	242.0	237.4	231.5	227.3	221.4	218.7	217.6	217.6
12.5°	253.3	254.5	254.1	250.2	241.7	229.6	217.6	206.3	198.1	195.0	191.9
15°	265.0	266.5	265.7	257.6	241.3	219.9	196.6	170.2	153.8	143.4	141.4
17.5°	278.6	280.1	276.2	261.5	235.4	199.3	155.0	119.3	95.6	86.6	86.2
20°	295.3	294.5	285.2	261.9	224.9	161.2	103.7	74.6	64.5	62.2	61.8
22.5°	314.3	310.8	293.7	259.5	196.2	109.6	66.8	59.1	57.9	57.1	57.1
25°	325.2	319.0	296.8	252.9	151.1	69.9	56.7	55.2	53.6	52.1	51.7
27.5°	333.7	324.4	298.0	231.2	100.6	53.6	51.3	49.7	47.4	45.1	44.7
30°	349.3	335.3	299.9	193.1	61.8	45.8	44.7	42.0	38.5	36.1	35.4
32.5°	377.2	357.0	307.7	144.5	45.1	40.4	37.3	33.8	29.9	27.6	27.6
35°	407.2	377.6	311.6	95.2	39.2	35.4	30.7	26.4	22.9	21.0	20.6
37.5°	434.7	407.2	310.4	58.3	35.0	30.3	25.3	21.0	17.9	16.3	16.3
40°	491.1	458.8	294.5	40.0	30.7	25.6	20.6	16.3	14.4	13.2	13.2
42.5°	571.5	515.5	259.1	34.2	26.8	21.4	16.3	13.6	12.0	10.9	10.9
45°	661.6	578.1	206.7	30.7	23.3	17.9	13.6	11.3	9.7	9.3	9.3
47.5°	779.7	653.9	151.9	27.6	20.2	15.2	11.3	9.3	8.5	8.2	8.2
50°	883.1	715.2	103.7	24.1	17.9	12.8	9.7	8.5	7.8	7.4	7.4
52.5°	977.1	758.0	68.4	21.0	15.9	10.5	8.9	7.8	7.4	7.0	7.0
55°	1087.8	790.6	46.2	18.3	14.0	9.7	8.5	7.8	7.0	7.0	6.6
57.5°	1181.8	810.0	33.0	15.5	12.4	8.9	8.2	7.4	6.6	6.2	6.2
60°	1236.6	787.1	24.1	13.6	10.9	8.2	7.4	6.6	6.2	5.8	5.8
62.5°	1251.8	742.8	18.6	11.7	9.3	7.4	6.6	5.8	5.4	5.1	5.1
64°	1216.8	695.4	15.9	10.1	8.2	6.6	6.2	5.4	4.7	3.9	3.9
65°	1167.5	651.5	14.4	9.3	7.4	6.2	5.8	5.1	3.9	3.1	3.1
67.5°	972.8	519.4	11.7	7.8	5.8	5.4	4.7	3.9	2.7	1.9	1.9
70°	690.8	363.3	8.9	6.2	5.1	5.1	4.3	3.1	1.6	0.8	0.8
72.5°	365.6	188.8	7.4	5.1	3.9	3.9	3.5	1.9	1.2	0.8	0.4
75°	127.8	62.2	6.2	4.3	3.5	2.7	2.3	1.6	1.2	0.8	0.4
77.5°	38.9	20.6	5.4	4.3	3.1	2.3	2.7	2.3	2.3	1.6	1.2
80°	12.4	7.4	3.1	2.7	3.1	3.1	2.7	2.3	2.7	1.9	1.6
82.5°	4.7	2.7	1.2	1.6	1.6	1.9	1.9	1.6	1.2	0.4	0.0
85°	1.6	1.2	0.8	1.2	1.2	1.2	0.8	0.8	0.4	0.0	0.0
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	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
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-SA1A-740-U-T3-HSS-ULG

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)