

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-SA1D-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 P401510 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1D-740-U-T3-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 800mA 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: 6111.9 lumens
Efficiency: N/A
Efficacy: 102.2 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: B1 - U5 - G1

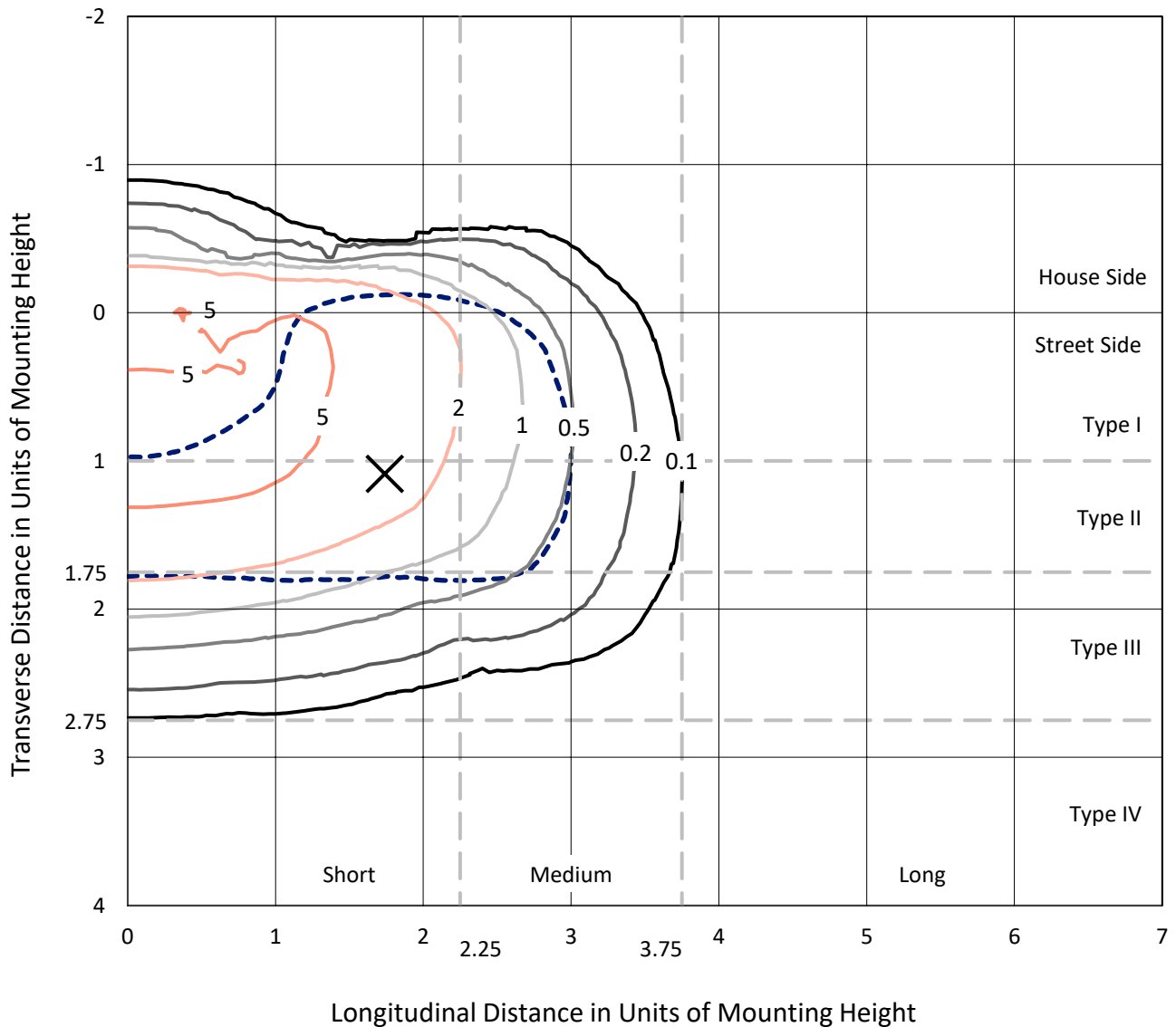
Input Watts (W): 59.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

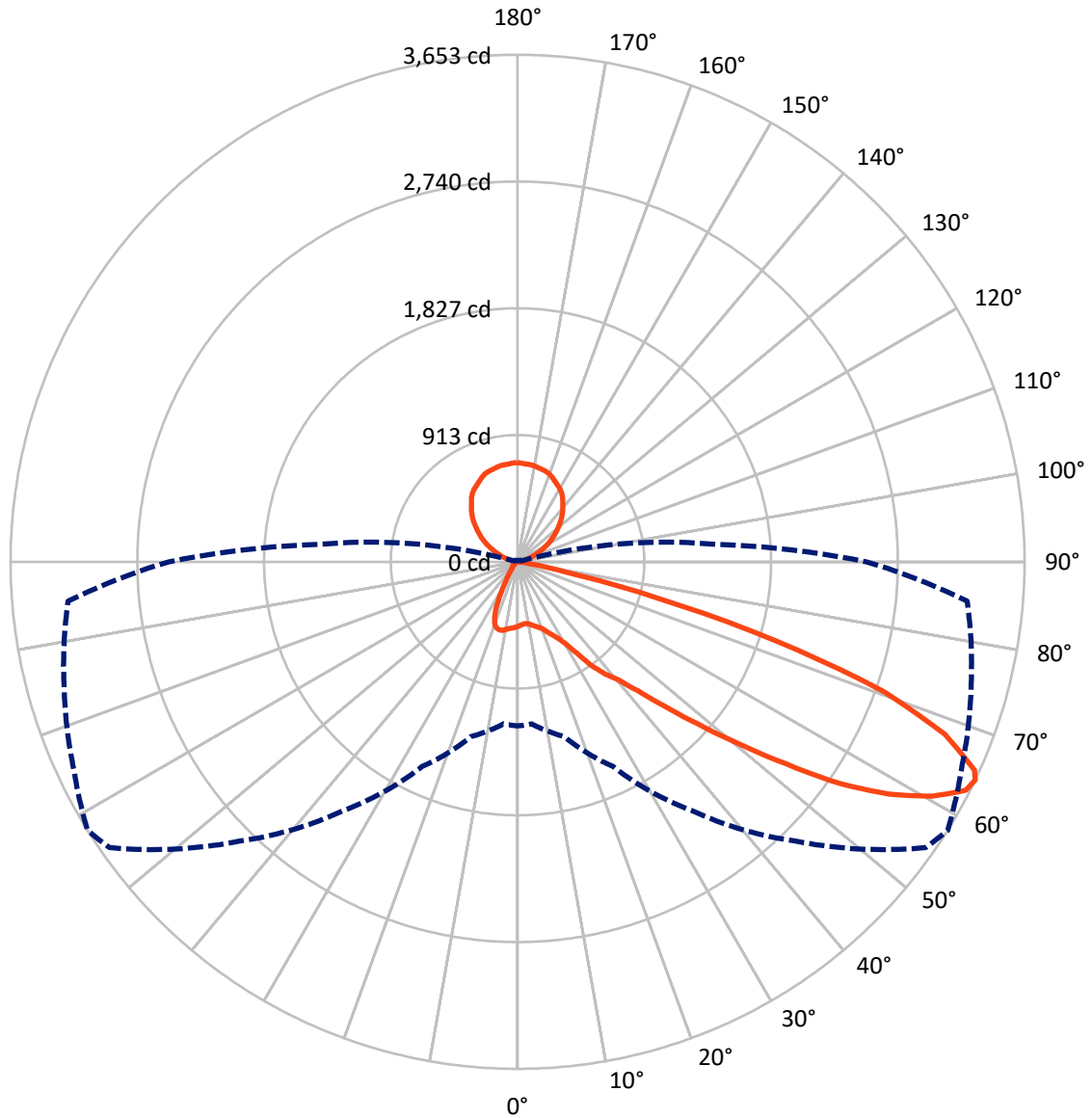
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 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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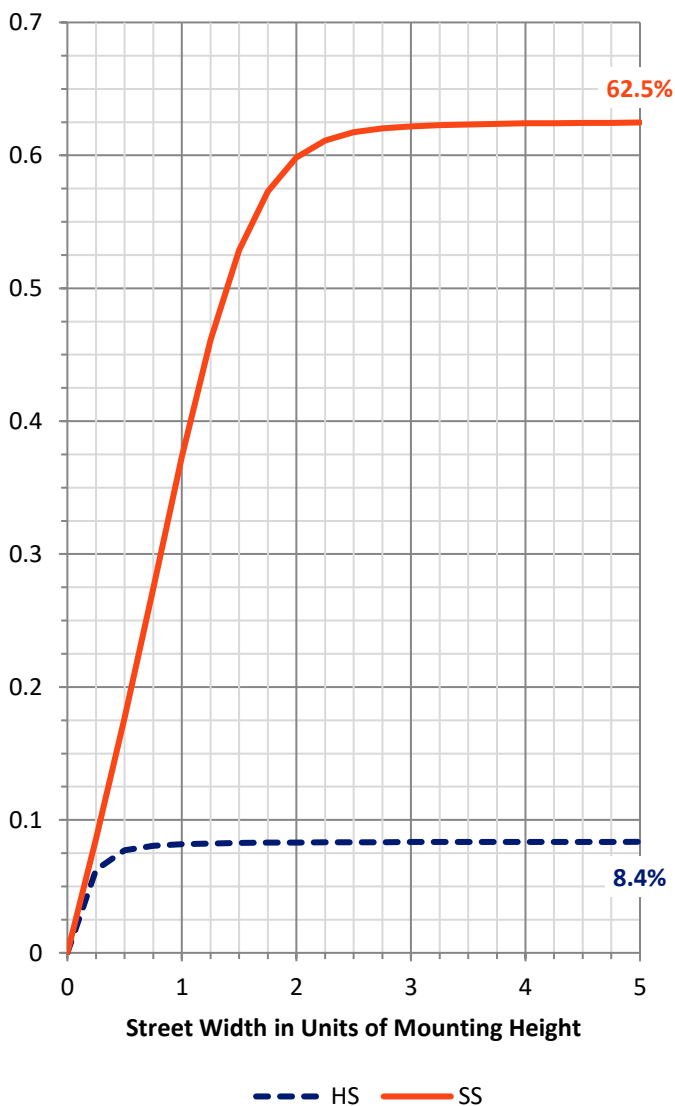
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	517.2	887.0	1404.1
	% Fixture	8.5	14.5	23.0
Street Side	Lumens	3820.8	887.0	4707.8
	% Fixture	62.5	14.5	77.0
Total	Lumens	4338.0	1773.9	6111.9
	% Fixture	71.0	29.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	0.7
10°-20°	128.0	2.1
20°-30°	230.0	3.8
30°-40°	403.1	6.6
40°-50°	737.1	12.1
50°-60°	1261.0	20.6
60°-70°	1223.2	20.0
70°-80°	303.0	5.0
80°-90°	8.6	0.1
90°-100°	8.4	0.1
100°-110°	58.7	1.0
110°-120°	169.9	2.8
120°-130°	279.4	4.6
130°-140°	344.6	5.6
140°-150°	352.5	5.8
150°-160°	297.0	4.9
160°-170°	195.5	3.2
170°-180°	67.8	1.1
0°-90°	4338.0	71.0
0°-180°	6111.9	100.0

Coefficient of Utilization

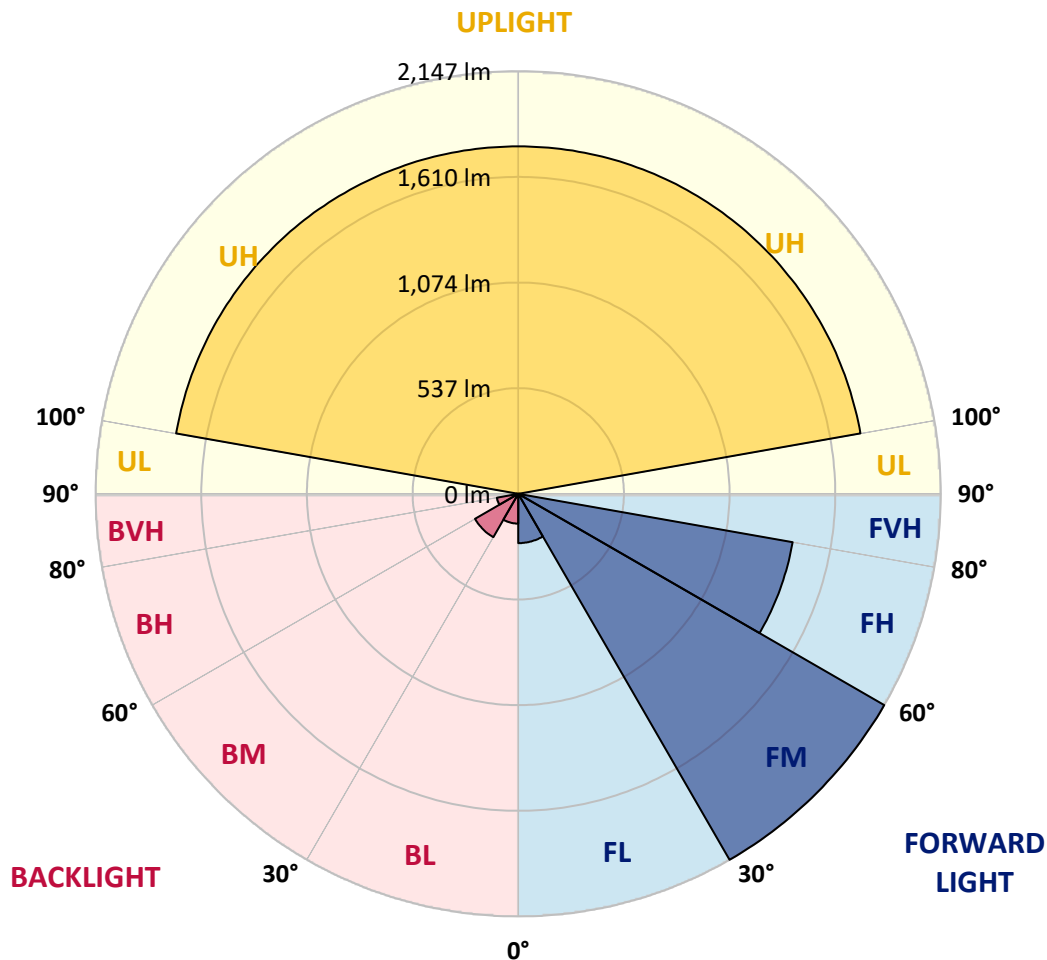


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	250.5	4.1			
FM (30°-60°)	2147.2	35.1			
FH (60°-80°)	1415.8	23.2			G1/1800
FVH (80°-90°)	7.3	0.1			G0/10
BL (0°-30°)	151.4	2.5	B1/500		
BM (30°-60°)	254.0	4.2	B1/1000		
BH (60°-80°)	110.4	1.8	B1/500		G1/500
BVH (80°-90°)	1.3	0.0			G0/10
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	28.9		U5	

BUG Rating: B1-U5-G1
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7
2.5°	445.4	445.4	447.0	447.8	450.2	452.6	455.8	456.6	458.3	462.3	463.9
5°	421.3	422.1	423.7	427.8	433.4	439.8	447.8	450.2	456.6	464.7	470.3
7.5°	411.7	412.5	414.9	419.7	427.0	436.6	446.2	449.4	458.3	471.1	479.1
10°	410.1	410.1	413.3	420.5	429.4	441.4	451.8	455.8	467.9	483.1	496.0
12.5°	410.1	410.1	414.1	422.9	433.4	448.6	463.1	468.7	482.3	501.6	517.6
15°	417.3	418.9	421.3	427.0	439.0	455.8	475.9	482.3	499.2	522.5	542.5
17.5°	468.7	467.1	459.1	451.8	449.4	463.9	487.9	496.8	521.7	551.3	573.0
20°	568.2	567.4	553.0	517.6	486.3	478.3	506.4	516.8	553.0	592.3	608.3
22.5°	688.6	692.6	670.1	622.8	558.6	517.6	533.7	548.1	594.7	642.0	651.7
25°	808.2	813.0	792.1	732.7	654.1	582.6	571.4	584.3	637.2	684.6	680.6
27.5°	949.4	945.4	924.5	857.1	765.6	670.1	622.0	624.4	665.3	718.3	705.4
30°	1052.9	1047.3	1027.3	981.5	895.6	786.5	694.2	687.0	699.0	757.6	744.0
32.5°	1147.6	1151.6	1136.4	1075.4	994.3	906.1	802.5	783.3	778.5	828.2	805.8
35°	1241.5	1240.7	1235.1	1181.3	1101.9	1018.4	931.8	918.1	916.5	964.7	903.7
37.5°	1353.9	1348.3	1337.8	1283.3	1219.9	1140.4	1048.1	1026.5	1022.4	1032.1	960.6
40°	1474.3	1481.5	1464.6	1407.7	1338.6	1279.3	1150.0	1117.1	1089.9	1117.9	1072.2
42.5°	1653.2	1658.9	1629.2	1589.8	1500.8	1445.4	1314.6	1269.6	1256.8	1299.3	1248.0
45°	1877.9	1867.5	1847.5	1820.2	1746.3	1662.1	1525.6	1483.1	1469.5	1542.5	1458.2
47.5°	2052.9	2051.3	2052.1	2046.5	2035.2	1934.1	1772.0	1743.1	1729.5	1834.6	1741.5
50°	2163.7	2170.1	2197.4	2267.2	2318.5	2276.0	2085.8	2050.5	2040.1	2149.2	2023.2
52.5°	2247.1	2262.4	2308.1	2446.1	2610.7	2625.1	2467.8	2418.1	2394.0	2424.5	2249.5
55°	2289.7	2296.9	2366.7	2570.5	2828.2	2931.7	2865.9	2824.1	2727.0	2669.3	2515.2
57.5°	2190.1	2178.9	2299.3	2558.5	2940.5	3178.9	3207.0	3159.6	3003.9	2959.0	2837.8
60°	1929.3	1924.5	2060.1	2371.5	2842.6	3236.7	3459.8	3430.1	3287.2	3180.5	3066.5
62.5°	1471.9	1479.9	1623.5	1940.5	2493.5	3070.5	3600.2	3624.3	3472.6	3313.7	3235.8
64°	1182.1	1172.5	1304.1	1626.8	2187.7	2849.0	3589.8	3653.2	3528.8	3383.5	3251.1
65°	992.7	971.9	1097.9	1390.0	1929.3	2688.5	3515.9	3617.9	3532.8	3400.4	3195.7
67.5°	522.5	533.7	587.5	844.3	1302.5	2032.8	3166.0	3320.1	3354.6	3170.0	2784.8
70°	234.3	235.9	270.5	431.0	720.7	1318.6	2546.5	2796.1	2815.3	2604.2	2017.6
72.5°	77.8	78.6	119.6	172.5	302.6	610.7	1719.8	1947.0	1988.7	1688.5	1094.7
75°	48.2	49.8	63.4	93.1	140.4	213.5	871.6	1025.6	1034.5	748.8	398.1
77.5°	30.5	32.1	38.5	55.4	77.0	81.1	285.7	345.9	391.6	269.7	123.6
80°	19.3	19.3	24.9	33.7	40.1	34.5	77.8	102.7	123.6	90.7	41.7
82.5°	7.2	7.2	12.8	18.5	16.9	12.0	20.9	27.3	47.3	44.9	20.1
85°	0.0	0.0	0.8	1.6	0.8	1.6	4.0	5.6	8.8	12.8	6.4
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6
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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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°	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7
2.5°	466.3	467.9	471.1	471.9	472.7	470.3	472.7	470.3	471.9	471.9	471.9
5°	473.5	475.9	478.3	479.1	478.3	472.7	474.3	470.3	469.5	469.5	469.5
7.5°	483.1	485.5	489.6	487.1	482.3	474.3	473.5	467.9	465.5	465.5	466.3
10°	500.8	503.2	504.8	500.0	490.4	478.3	469.5	457.4	451.8	449.4	449.4
12.5°	523.3	525.7	524.9	516.8	499.2	474.3	449.4	426.1	409.3	402.9	396.5
15°	547.3	550.5	548.9	532.1	498.4	454.2	406.1	351.5	317.8	296.1	292.1
17.5°	575.4	578.6	570.6	540.1	486.3	411.7	320.2	246.4	197.4	179.0	178.2
20°	609.9	608.3	589.1	540.9	464.7	333.1	214.3	154.1	133.2	128.4	127.6
22.5°	649.3	642.0	606.7	536.1	405.3	226.3	138.0	122.0	119.6	118.0	118.0
25°	671.7	658.9	613.1	522.5	312.2	144.5	117.2	114.0	110.8	107.5	106.7
27.5°	689.4	670.1	615.5	477.5	207.9	110.8	105.9	102.7	97.9	93.1	92.3
30°	721.5	692.6	619.6	398.9	127.6	94.7	92.3	86.7	79.5	74.6	73.0
32.5°	779.3	737.5	635.6	298.5	93.1	83.5	77.0	69.8	61.8	57.0	57.0
35°	841.1	780.1	643.6	196.6	81.1	73.0	63.4	54.6	47.3	43.3	42.5
37.5°	898.0	841.1	641.2	120.4	72.2	62.6	52.2	43.3	36.9	33.7	33.7
40°	1014.4	947.8	608.3	82.7	63.4	53.0	42.5	33.7	29.7	27.3	27.3
42.5°	1180.5	1065.0	535.3	70.6	55.4	44.1	33.7	28.1	24.9	22.5	22.5
45°	1366.7	1194.2	427.0	63.4	48.2	36.9	28.1	23.3	20.1	19.3	19.3
47.5°	1610.7	1350.7	313.8	57.0	41.7	31.3	23.3	19.3	17.7	16.9	16.9
50°	1824.2	1477.5	214.3	49.8	36.9	26.5	20.1	17.7	16.1	15.2	15.2
52.5°	2018.4	1565.8	141.2	43.3	32.9	21.7	18.5	16.1	15.2	14.4	14.4
55°	2247.1	1633.2	95.5	37.7	28.9	20.1	17.7	16.1	14.4	14.4	13.6
57.5°	2441.3	1673.3	68.2	32.1	25.7	18.5	16.9	15.2	13.6	12.8	12.8
60°	2554.5	1625.9	49.8	28.1	22.5	16.9	15.2	13.6	12.8	12.0	12.0
62.5°	2585.8	1534.5	38.5	24.1	19.3	15.2	13.6	12.0	11.2	10.4	10.4
64°	2513.6	1436.5	32.9	20.9	16.9	13.6	12.8	11.2	9.6	8.0	8.0
65°	2411.6	1345.9	29.7	19.3	15.2	12.8	12.0	10.4	8.0	6.4	6.4
67.5°	2009.6	1073.0	24.1	16.1	12.0	11.2	9.6	8.0	5.6	4.0	4.0
70°	1426.9	750.4	18.5	12.8	10.4	10.4	8.8	6.4	3.2	1.6	1.6
72.5°	755.2	390.0	15.2	10.4	8.0	8.0	7.2	4.0	2.4	1.6	0.8
75°	264.0	128.4	12.8	8.8	7.2	5.6	4.8	3.2	2.4	1.6	0.8
77.5°	80.3	42.5	11.2	8.8	6.4	4.8	5.6	4.8	4.8	3.2	2.4
80°	25.7	15.2	6.4	5.6	6.4	6.4	5.6	4.8	5.6	4.0	3.2
82.5°	9.6	5.6	2.4	3.2	3.2	4.0	4.0	3.2	2.4	0.8	0.0
85°	3.2	2.4	1.6	2.4	2.4	2.4	1.6	1.6	0.8	0.0	0.0
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	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



REPORT NUMBER:

CATALOG NUMBER: ENV-SA1D-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)