

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-SA1C-740-U-SL4-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401314 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1C-740-U-SL4-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5474.9 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B0 - U5 - G1

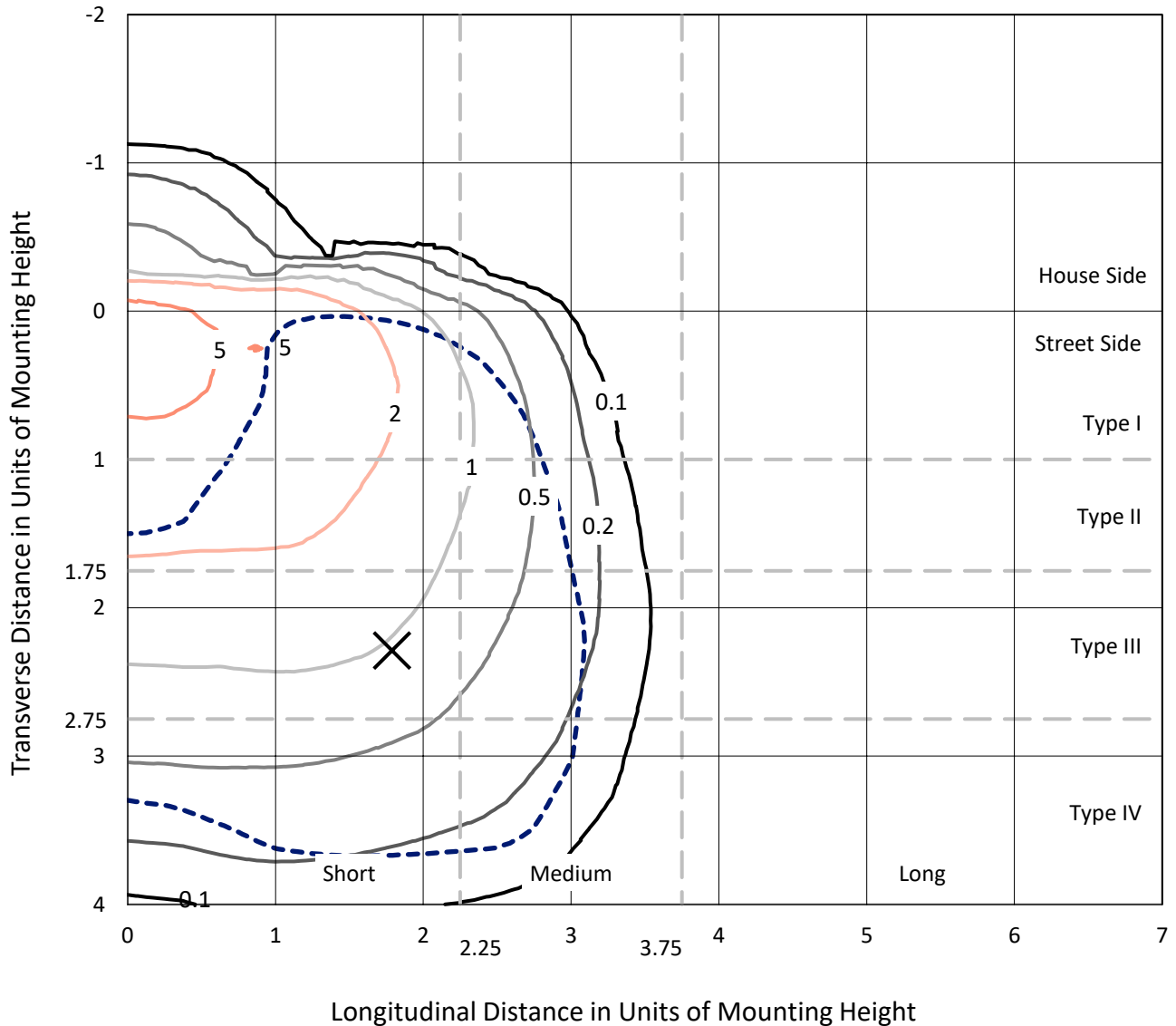
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

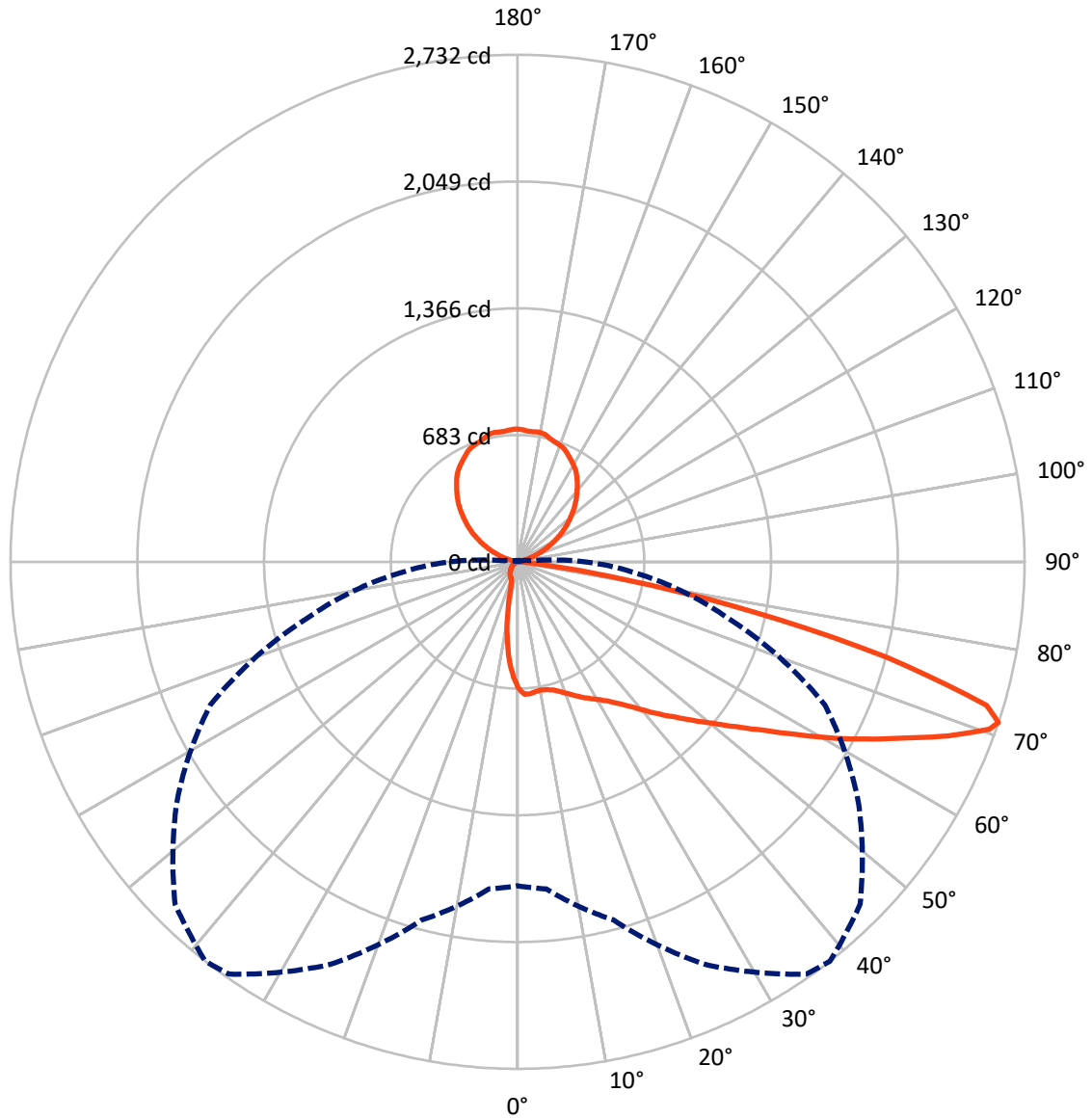
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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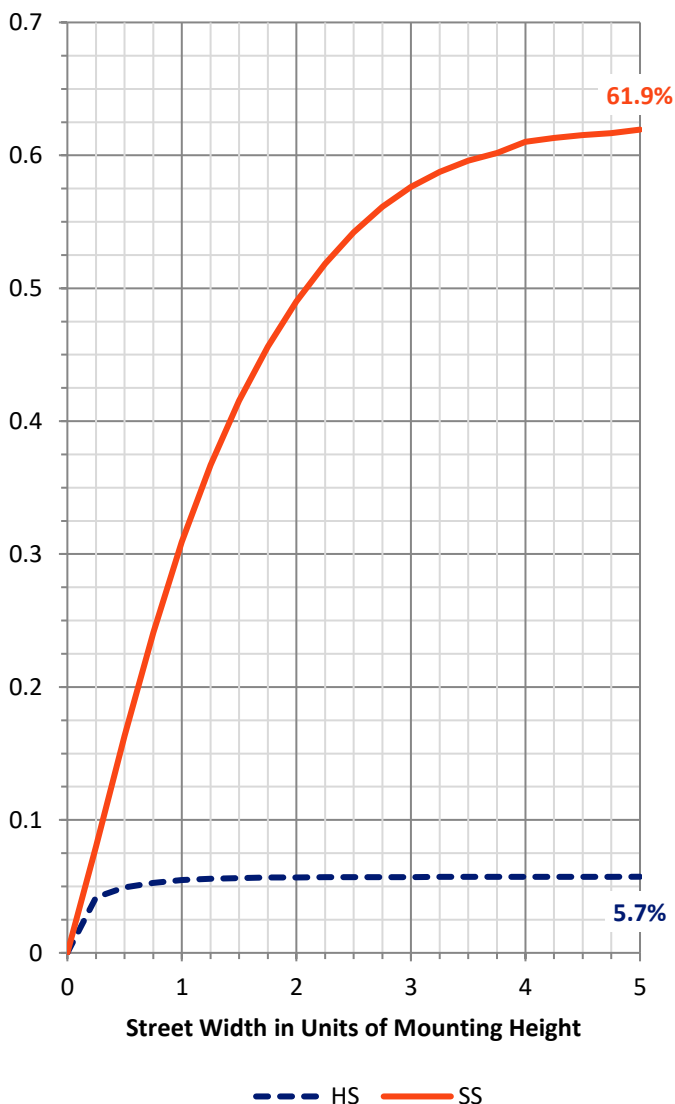
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	316.1	887.0	1203.1
	% Fixture	5.8	16.2	22.0
Street Side	Lumens	3384.9	887.0	4271.8
	% Fixture	61.8	16.2	78.0
Total	Lumens	3701.0	1773.9	5474.9
	% Fixture	67.6	32.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.6	1.1
10°-20°	139.5	2.5
20°-30°	223.7	4.1
30°-40°	340.4	6.2
40°-50°	530.5	9.7
50°-60°	775.7	14.2
60°-70°	994.9	18.2
70°-80°	608.1	11.1
80°-90°	30.5	0.6
90°-100°	8.4	0.2
100°-110°	58.7	1.1
110°-120°	169.9	3.1
120°-130°	279.4	5.1
130°-140°	344.6	6.3
140°-150°	352.5	6.4
150°-160°	297.0	5.4
160°-170°	195.5	3.6
170°-180°	67.8	1.2
0°-90°	3701.0	67.6
0°-180°	5474.9	100.0

Coefficient of Utilization

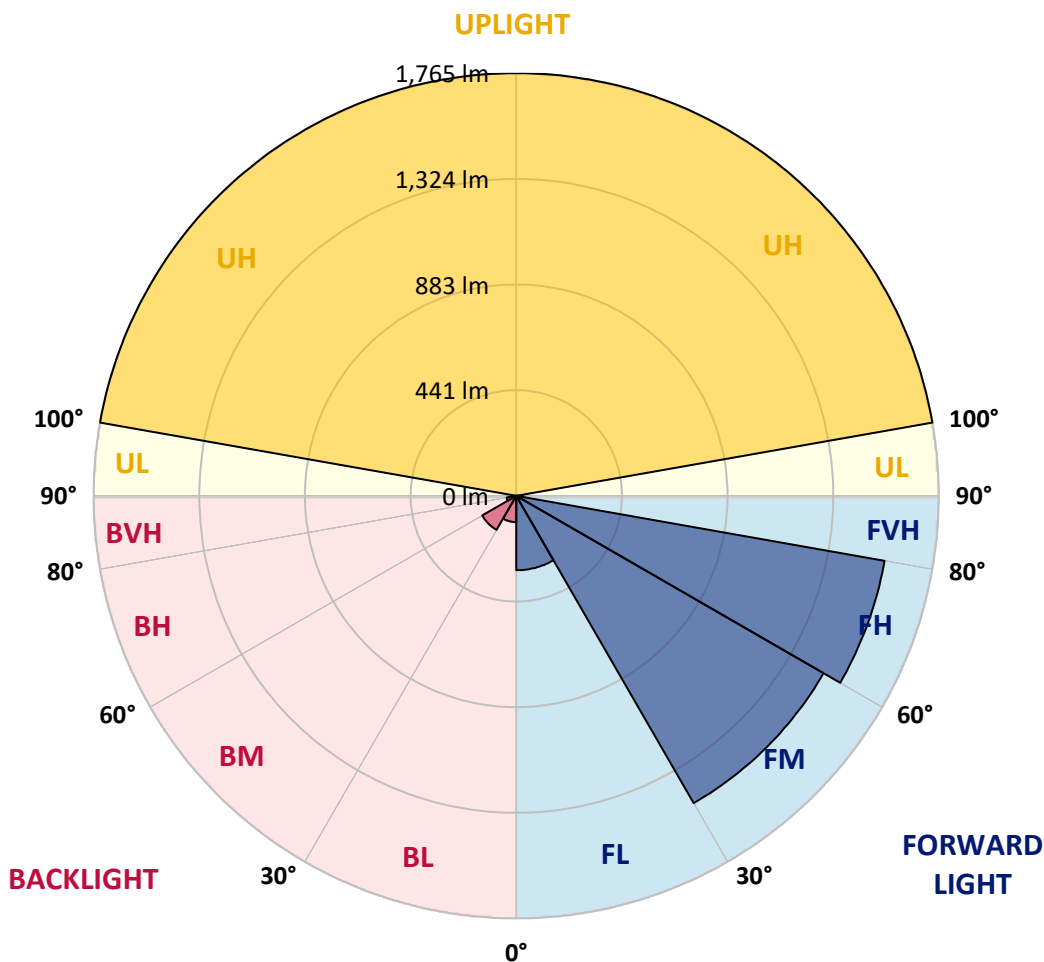


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	311.0	5.7			
FM (30°-60°)	1482.3	27.1			
FH (60°-80°)	1562.4	28.5			G1/1800
FVH (80°-90°)	29.2	0.5			G1/100
BL (0°-30°)	109.9	2.0	B0/110		
BM (30°-60°)	164.2	3.0	B0/220		
BH (60°-80°)	40.6	0.7	B0/110		G0/110
BVH (80°-90°)	1.3	0.0			G0/10
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	32.2		U5	

BUG Rating: B0-U5-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3
2.5°	722.7	720.8	722.7	720.8	716.9	715.0	712.4	705.4	699.0	691.3	679.7
5°	724.0	722.7	722.7	720.1	715.6	713.7	711.1	704.1	695.8	684.2	666.9
7.5°	716.9	716.3	715.0	712.4	707.3	706.0	704.1	695.8	687.4	675.2	654.1
10°	705.4	706.7	706.0	706.0	704.1	702.8	701.5	691.9	682.9	668.8	646.4
12.5°	694.5	695.8	699.0	704.1	706.0	706.7	706.7	697.0	686.1	670.7	647.7
15°	687.4	690.0	699.0	709.2	715.0	716.9	718.8	708.6	695.8	679.1	654.7
17.5°	685.5	689.3	706.7	722.7	733.6	734.9	734.9	722.0	708.6	689.3	663.0
20°	691.9	697.0	719.5	741.9	755.4	756.7	754.1	737.4	721.4	700.2	670.1
22.5°	711.1	715.6	741.3	767.6	780.4	781.7	775.9	752.8	735.5	718.2	679.7
25°	744.5	747.1	774.6	799.6	806.7	808.6	799.0	771.4	751.5	735.5	693.2
27.5°	788.7	790.0	815.0	833.6	834.9	834.3	824.0	795.1	775.3	761.8	713.7
30°	834.9	836.8	857.3	869.5	864.4	861.8	852.9	822.1	804.1	793.9	743.2
32.5°	877.9	879.8	902.2	908.6	897.1	895.2	888.8	856.1	840.7	845.8	785.5
35°	920.2	920.2	945.8	949.0	938.8	938.8	938.8	899.7	897.1	914.4	844.5
37.5°	958.0	964.4	991.4	990.1	988.2	989.4	993.3	963.8	972.8	1002.3	922.1
40°	990.1	998.4	1034.3	1037.5	1045.9	1052.9	1058.7	1043.3	1064.5	1112.6	1021.5
42.5°	1018.9	1028.6	1074.7	1089.5	1112.6	1122.2	1133.1	1129.2	1176.0	1263.9	1148.5
45°	1056.1	1066.4	1113.8	1149.1	1181.2	1194.0	1218.4	1235.0	1312.6	1412.7	1285.7
47.5°	1105.5	1112.6	1156.2	1212.0	1255.6	1278.6	1316.5	1359.4	1453.7	1570.4	1408.2
50°	1172.8	1173.5	1206.2	1278.6	1343.4	1368.4	1433.8	1489.6	1607.6	1709.6	1496.7
52.5°	1247.2	1243.4	1269.0	1360.7	1442.8	1476.8	1553.7	1631.3	1750.0	1810.2	1536.4
55°	1317.8	1319.7	1335.7	1447.9	1567.8	1600.6	1698.0	1776.9	1880.1	1871.8	1558.2
57.5°	1399.2	1398.6	1419.1	1543.5	1714.1	1751.9	1853.8	1918.6	1959.0	1916.0	1562.1
60°	1476.2	1474.2	1505.6	1657.6	1869.9	1925.7	2017.4	2014.8	2037.9	1944.3	1558.9
62.5°	1544.8	1549.3	1604.4	1790.4	2044.3	2104.6	2150.7	2118.7	2125.1	1977.0	1519.1
65°	1628.1	1636.5	1725.6	1951.3	2259.8	2288.6	2306.6	2254.6	2190.5	1950.7	1398.6
67.5°	1733.3	1758.3	1884.0	2188.6	2484.2	2504.1	2504.7	2336.7	2187.9	1817.9	1176.0
70°	1775.0	1801.3	2001.3	2376.5	2673.4	2698.4	2620.1	2323.9	2015.4	1423.6	793.9
71°	1746.1	1769.8	1998.1	2394.4	2712.5	2732.4	2609.9	2239.9	1827.6	1172.8	615.0
72.5°	1537.7	1599.3	1875.0	2281.6	2642.6	2643.2	2443.8	2041.7	1453.7	732.3	309.1
75°	830.4	904.8	1374.2	1736.5	2038.5	2054.6	1880.1	1417.8	703.4	189.8	75.0
77.5°	273.8	308.4	616.2	901.6	1278.6	1303.7	1149.8	629.7	221.9	64.1	39.1
80°	171.9	175.7	208.4	379.0	568.8	589.9	473.2	255.2	100.0	35.3	26.9
82.5°	28.9	34.6	98.1	111.6	200.7	159.0	107.7	130.2	46.8	16.0	23.1
85°	0.0	0.0	0.6	0.6	3.2	0.6	0.6	26.3	2.6	2.6	12.2
87.5°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	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°	4.1	4.1	5.1	6.1	6.1	6.1	6.1	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	9.2	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	15.1	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	31.6	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	53.7	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	79.3	90.0	97.2	96.2	92.1	89.0



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CATALOG NUMBER: ENV-SA1C-740-U-SL4-HSS-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	108.0	116.6	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	139.9	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	173.7	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	207.5	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	244.3	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	279.1	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	313.5	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.1	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	379.1	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	413.6	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	445.6	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	475.8	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	504.1	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	534.2	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	562.9	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.5	588.2	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.0	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	643.9	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	660.5	659.8	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	670.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	676.8	678.2	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.4	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	702.9	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	708.3	706.9	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.8	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	706.6	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	712.4	711.0	709.9	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°	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3
2.5°	674.6	669.5	659.2	648.3	634.8	623.3	619.4	611.1	607.3	604.1	604.1
5°	656.0	647.0	625.2	602.8	581.0	557.9	536.7	516.8	507.2	493.8	500.2
7.5°	640.6	625.2	594.4	559.2	514.3	468.8	433.5	402.7	377.1	368.7	362.9
10°	629.7	610.5	565.6	511.7	446.3	381.5	327.0	276.4	246.9	228.9	228.9
12.5°	628.4	604.1	545.7	463.0	368.7	280.9	213.5	165.4	141.7	130.8	130.2
15°	632.9	603.4	527.7	418.7	297.5	194.9	133.4	112.2	106.4	105.2	105.2
17.5°	636.8	602.8	506.6	368.7	219.3	128.2	105.8	102.0	100.7	100.0	100.0
20°	640.6	599.6	482.2	312.3	155.2	104.5	98.8	96.8	96.2	95.5	95.5
22.5°	645.7	596.4	457.2	248.2	114.8	97.5	94.3	92.3	91.7	91.7	91.7
25°	652.8	594.4	426.4	187.9	98.8	92.3	89.1	87.9	87.9	87.2	87.2
27.5°	666.3	596.4	393.1	134.7	92.3	87.2	85.3	84.0	84.0	83.4	83.4
30°	684.9	602.1	351.4	105.2	87.2	82.1	80.2	79.5	78.9	78.9	78.9
32.5°	711.1	611.1	305.9	89.8	80.8	76.9	75.0	74.4	74.4	74.4	73.7
35°	751.5	629.7	250.1	82.1	75.0	71.2	69.3	69.3	69.3	68.6	69.3
37.5°	813.1	659.8	193.7	75.7	68.6	65.4	64.1	63.5	63.5	63.5	63.5
40°	890.7	708.6	141.1	69.9	62.8	59.6	58.4	57.7	57.1	57.1	57.1
42.5°	990.7	762.4	102.6	63.5	57.7	54.5	53.2	51.9	50.7	50.0	50.0
45°	1094.6	826.6	80.2	58.4	52.6	50.0	48.7	46.8	44.9	43.0	43.0
47.5°	1195.3	875.9	68.6	52.6	48.1	45.5	44.2	41.7	38.5	36.6	36.6
50°	1258.8	891.3	61.6	47.5	43.6	41.7	39.8	36.6	32.1	30.1	30.1
52.5°	1278.6	863.1	55.1	43.0	39.8	37.8	35.3	30.8	26.3	23.7	23.7
55°	1286.3	808.6	48.7	39.8	35.9	33.3	30.1	25.6	21.2	18.6	18.6
57.5°	1276.7	731.7	43.6	35.9	32.1	29.5	25.6	20.5	16.0	14.1	14.1
60°	1244.0	620.1	39.1	32.1	28.2	25.0	21.2	16.0	12.2	9.6	10.3
62.5°	1155.5	479.7	34.0	26.9	24.4	21.2	16.7	12.2	7.7	6.4	6.4
65°	1014.5	332.2	28.9	22.4	20.5	17.3	12.8	8.3	4.5	3.8	3.8
67.5°	824.0	214.8	22.4	18.6	17.3	14.1	9.6	5.1	2.6	2.6	1.9
70°	517.5	106.4	18.0	14.1	14.1	10.9	7.1	3.2	1.9	1.9	1.9
71°	366.2	72.5	16.0	12.8	12.8	10.3	6.4	2.6	1.9	1.9	1.9
72.5°	165.4	45.5	13.5	11.5	10.9	8.3	5.8	2.6	2.6	2.6	2.6
75°	51.9	25.0	9.6	9.0	9.0	7.1	5.1	3.2	3.2	3.2	3.2
77.5°	34.6	19.2	6.4	5.8	7.1	7.1	5.1	3.8	3.8	3.8	3.8
80°	28.2	10.3	3.8	3.8	5.1	6.4	5.1	3.8	4.5	3.8	3.8
82.5°	27.6	5.1	1.3	1.9	3.2	3.8	3.8	3.2	3.8	3.8	3.8
85°	11.5	1.3	0.6	1.3	1.3	1.9	1.9	2.6	3.2	3.2	3.2
87.5°	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.3	1.9	2.6	2.6
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°	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-SA1C-740-U-SL4-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)