

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: P400987

Luminaire Tested: **ENV-SA1A-750-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400987
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-SA1A-750-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5000K, 350mA LIGHTSQUARE 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: 2055 lumens
Efficiency: N/A
Efficacy: 102.2 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 - G1

Input Watts (W): 20.1
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

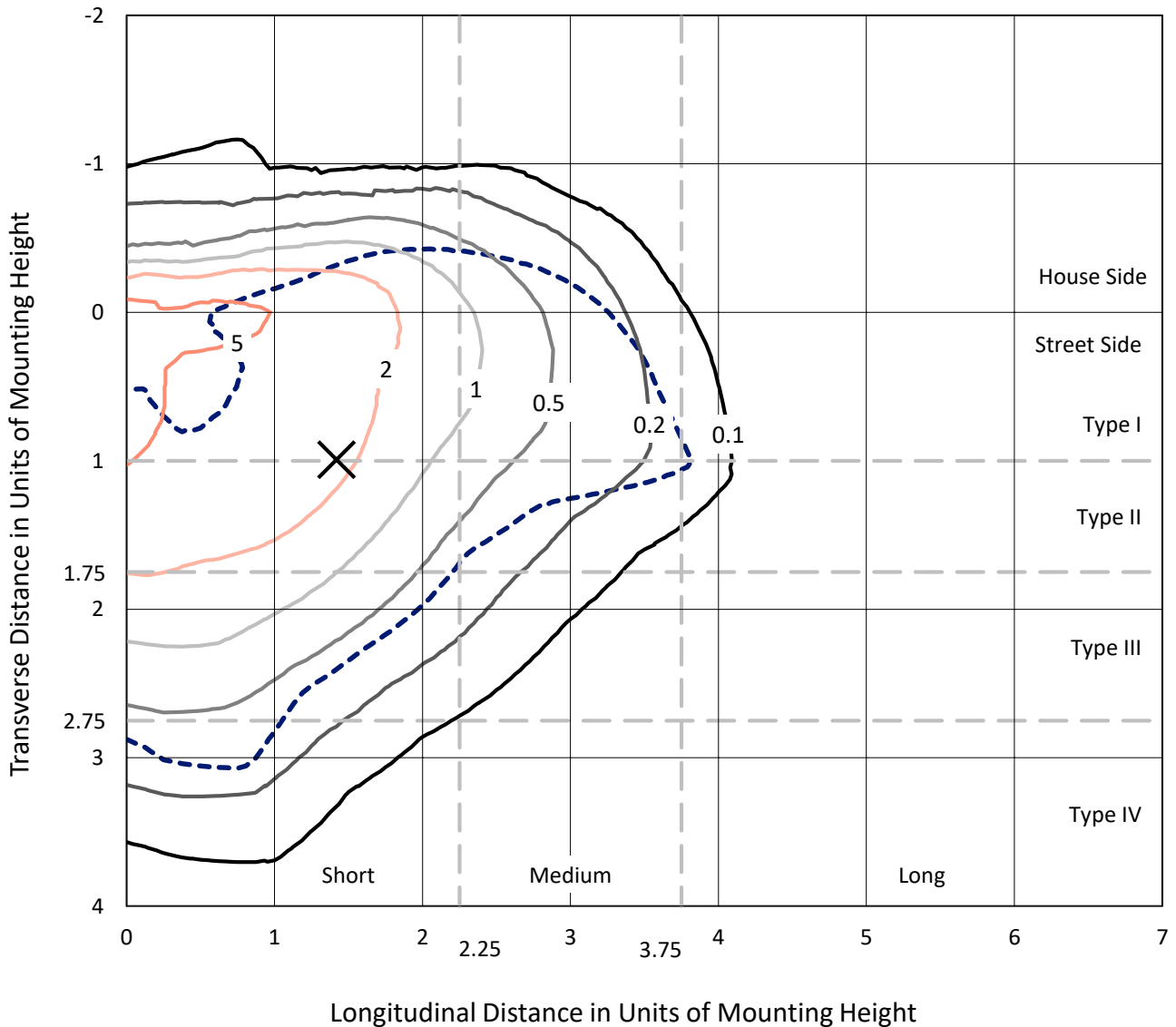


REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

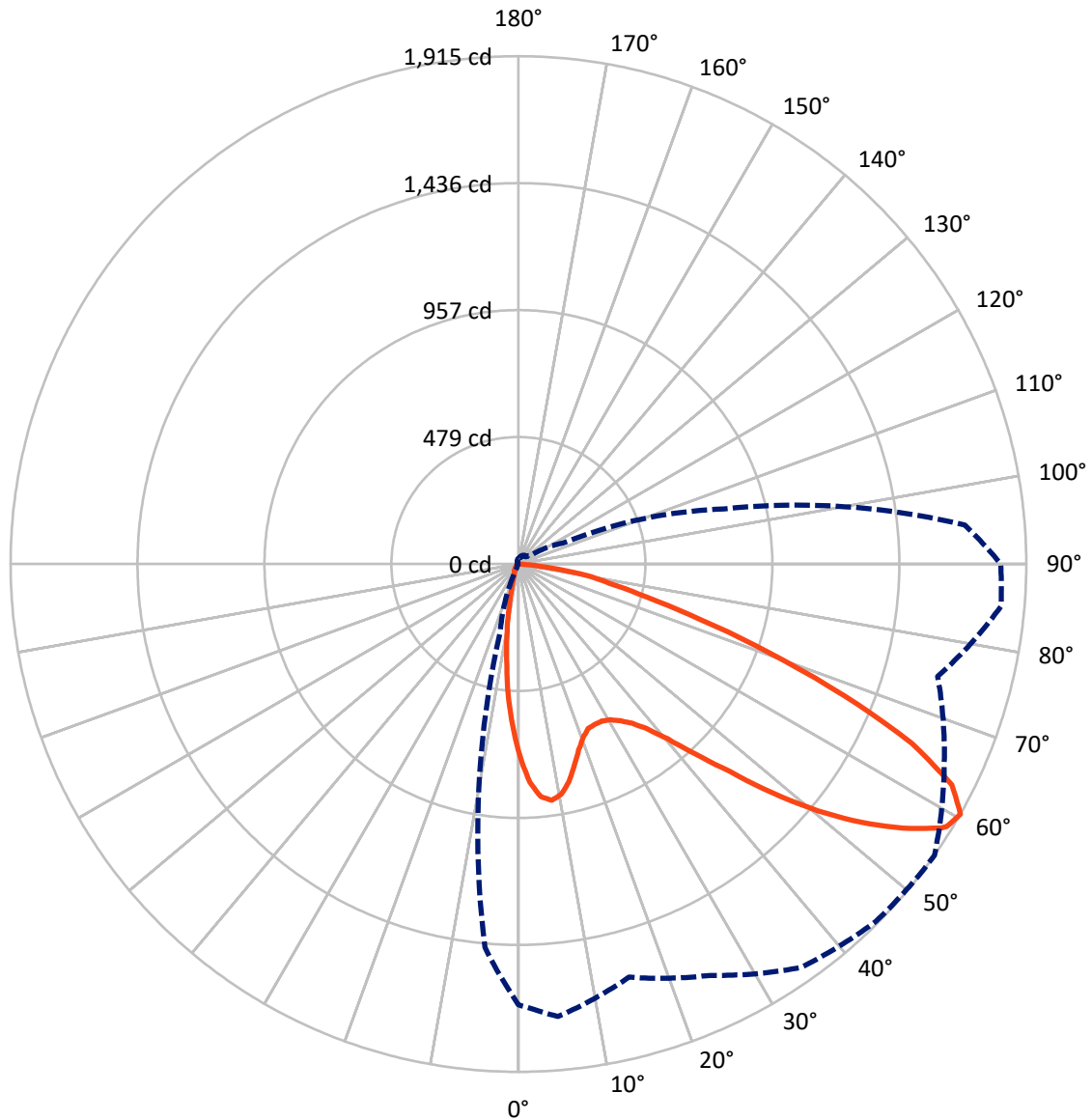
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P400987
CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	363.9	0.0	363.9
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	1691.1	0.0	1691.1
	% Fixture	82.3	0.0	82.3
Total	Lumens	2055.0	0.0	2055.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	2.7
10°-20°	103.9	5.1
20°-30°	148.2	7.2
30°-40°	217.3	10.6
40°-50°	320.4	15.6
50°-60°	474.7	23.1
60°-70°	505.9	24.6
70°-80°	209.8	10.2
80°-90°	20.2	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°	2055.0	100.0
0°-180°	2055.0	100.0



REPORT NUMBER: P400987

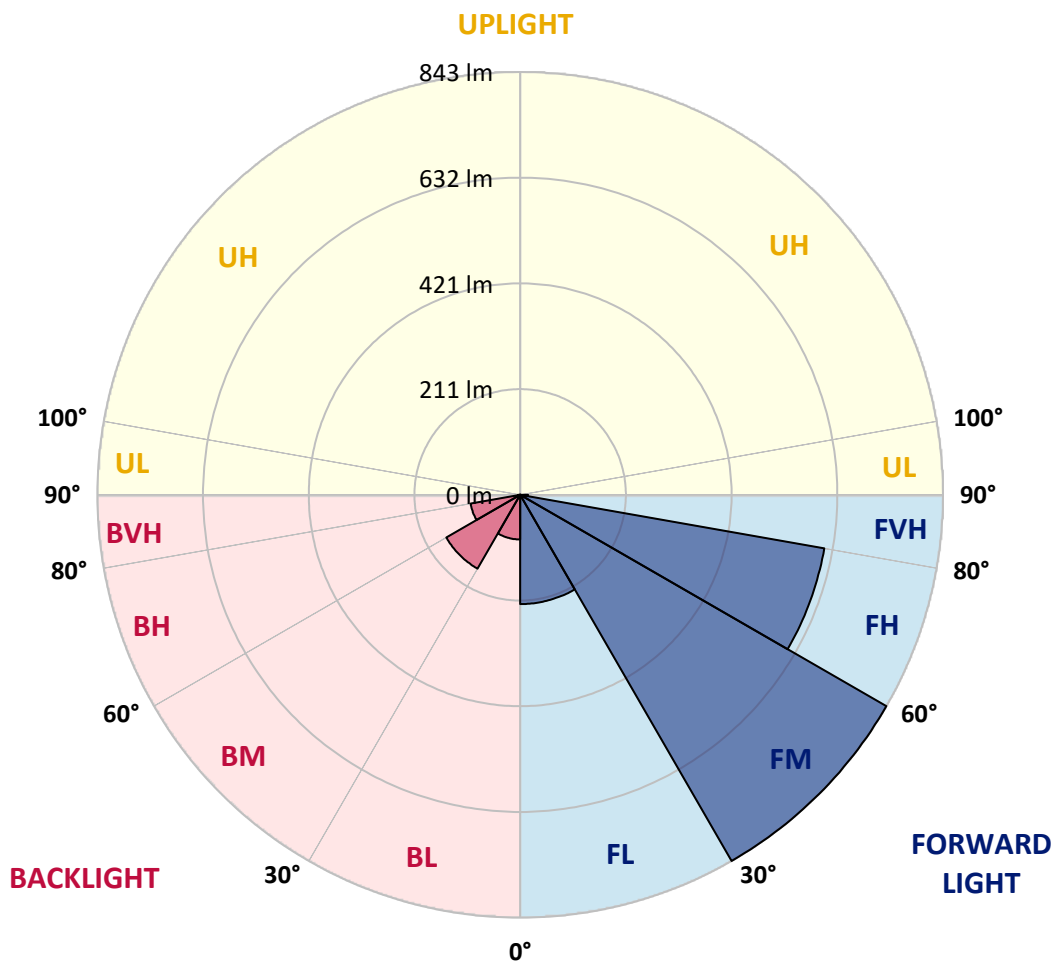
CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	217.7	10.6			
FM	(30°-60°)	842.6	41.0			
FH	(60°-80°)	615.4	29.9			G0/660
FVH	(80°-90°)	15.4	0.8			G1/100
BL	(0°-30°)	89.0	4.3	B0/110		
BM	(30°-60°)	169.9	8.3	B0/220		
BH	(60°-80°)	100.3	4.9	B0/110		G0/110
BVH	(80°-90°)	4.7	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-G1

Type III Short





REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	758.0	756.8	767.7	790.2	804.2	812.8	814.3	823.2	814.3	809.7	792.9
5°	735.8	735.4	756.4	805.8	846.2	876.5	891.2	881.1	865.6	834.9	797.6
7.5°	674.4	674.4	714.1	780.1	847.7	900.2	918.0	899.4	862.5	800.7	733.9
10°	624.3	629.0	667.1	745.9	820.9	878.4	898.2	883.9	835.7	755.6	677.2
12.5°	594.4	597.1	639.5	718.7	788.7	835.3	847.3	843.1	808.1	721.1	637.9
15°	597.1	601.0	649.6	714.5	759.9	778.6	782.8	788.3	773.9	707.1	625.1
17.5°	639.9	642.6	691.5	733.5	731.6	725.7	727.3	736.2	753.3	718.7	651.1
20°	708.3	715.2	764.6	765.4	716.8	689.6	682.6	697.4	743.6	749.4	706.7
22.5°	796.1	798.8	848.9	819.0	718.4	664.7	656.6	673.3	746.7	799.2	783.6
25°	897.8	907.6	934.8	888.5	740.9	661.2	655.8	669.8	758.0	852.0	862.9
27.5°	966.6	974.4	1000.4	935.9	761.1	663.2	653.1	670.2	771.6	901.7	947.6
30°	1028.0	1033.4	1043.1	960.8	784.0	672.9	656.6	681.1	779.0	912.2	1002.4
32.5°	1085.9	1092.5	1086.7	990.7	809.3	691.2	663.2	704.0	794.9	933.2	1050.1
35°	1160.5	1160.9	1141.0	1020.6	838.0	712.9	682.6	736.6	826.0	965.8	1101.4
37.5°	1249.1	1249.8	1199.7	1051.3	870.6	749.4	728.5	787.1	871.0	1003.5	1174.8
40°	1326.4	1329.5	1263.0	1086.7	910.7	820.5	818.6	867.1	928.9	1053.6	1253.7
42.5°	1393.6	1402.5	1321.3	1116.2	967.4	929.7	934.4	978.7	999.2	1095.6	1302.7
45°	1461.6	1461.2	1369.1	1145.7	1062.2	1070.3	1114.6	1112.7	1078.9	1118.1	1341.1
47.5°	1503.9	1502.0	1398.2	1193.9	1190.0	1268.1	1315.1	1289.5	1167.1	1142.2	1389.3
50°	1520.2	1519.5	1421.2	1255.3	1320.2	1447.2	1514.4	1463.1	1275.1	1182.6	1446.8
52.5°	1566.5	1562.6	1474.0	1325.2	1437.9	1619.7	1675.2	1618.1	1382.7	1255.3	1513.6
55°	1638.7	1639.9	1564.9	1407.2	1532.3	1741.3	1809.3	1758.4	1492.6	1355.1	1605.3
57.5°	1687.3	1690.8	1665.5	1498.5	1633.3	1826.4	1892.4	1878.0	1639.1	1474.4	1712.9
58°	1692.0	1694.7	1681.5	1516.0	1648.4	1836.1	1903.7	1893.6	1671.4	1512.5	1738.6
60°	1662.0	1670.2	1712.5	1612.3	1711.0	1856.7	1905.6	1914.6	1771.2	1636.0	1826.4
62.5°	1580.8	1583.6	1660.5	1720.3	1753.7	1805.8	1810.4	1833.8	1812.4	1780.9	1904.9
65°	1481.4	1481.4	1564.5	1725.4	1643.0	1634.5	1607.3	1630.6	1692.3	1871.8	1899.4
67.5°	1308.5	1309.7	1415.7	1536.9	1362.1	1332.6	1315.1	1323.6	1455.4	1796.1	1793.7
70°	1057.5	1056.7	1165.9	1244.4	1010.9	985.6	1006.6	1003.9	1182.2	1596.0	1566.1
72.5°	747.9	754.5	866.8	961.2	686.5	591.7	684.2	719.9	889.3	1345.4	1211.8
75°	421.1	430.1	521.8	667.8	433.2	400.2	447.6	498.5	643.0	1071.1	813.9
77.5°	211.3	214.8	267.3	321.3	262.6	305.0	302.3	350.8	441.0	722.6	465.4
80°	122.0	129.0	146.9	165.9	146.9	193.5	224.6	264.2	271.6	373.7	259.5
82.5°	49.0	54.8	68.8	78.1	61.0	57.5	39.2	123.5	163.6	180.7	99.5
85°	0.0	0.0	0.4	0.8	1.2	1.2	1.9	21.8	40.0	8.9	16.3
87.5°	0.0	0.0	0.4	0.4	0.8	1.2	1.6	2.7	3.5	4.3	14.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	786.7	782.5	768.1	746.3	732.7	711.7	703.2	683.4	673.3	656.6	656.6
5°	779.0	761.5	725.3	678.3	644.9	610.0	598.7	575.4	558.7	538.9	530.7
7.5°	708.3	683.8	627.4	572.7	519.4	484.1	449.1	425.4	402.9	386.6	388.9
10°	643.4	608.4	546.6	477.1	421.9	385.0	353.5	326.0	302.6	279.7	276.2
12.5°	601.0	561.0	487.2	412.6	371.4	344.2	315.1	284.8	256.0	230.8	220.7
15°	583.2	539.6	457.3	387.0	349.3	314.3	280.5	243.2	210.2	179.9	171.7
17.5°	602.6	550.5	454.6	369.9	317.4	273.5	226.5	185.7	146.9	125.1	118.5
20°	655.4	587.8	463.5	352.8	282.1	225.3	167.8	121.6	99.8	86.6	82.4
22.5°	731.9	649.6	478.6	336.1	246.3	167.8	115.8	87.8	75.0	68.0	66.0
25°	815.1	729.2	506.6	322.1	210.6	124.7	85.9	71.9	64.1	59.1	57.1
27.5°	908.7	808.1	540.8	311.6	177.5	99.8	73.8	63.3	57.1	53.6	52.1
30°	967.4	864.8	566.8	292.9	155.0	90.9	70.3	59.8	53.2	50.5	49.3
32.5°	1021.4	909.5	591.7	271.6	137.9	80.4	68.4	62.9	55.2	49.7	47.4
35°	1080.8	955.3	603.7	258.7	126.7	69.9	56.3	49.0	44.7	43.9	42.7
37.5°	1169.4	1009.7	611.5	251.8	119.7	63.7	52.4	44.3	39.2	34.6	32.6
40°	1253.3	1066.1	615.4	245.1	116.2	59.8	50.1	42.0	36.5	32.2	30.3
42.5°	1319.0	1117.3	617.7	240.5	109.9	57.5	48.2	40.4	34.6	30.3	28.4
45°	1372.6	1176.8	615.8	238.9	104.9	59.1	47.4	39.2	33.0	28.7	26.8
47.5°	1425.0	1241.3	623.2	237.0	99.8	56.7	47.8	38.9	31.9	27.6	25.6
50°	1493.8	1319.4	650.0	231.6	96.3	53.2	51.7	39.2	31.5	26.8	25.3
52.5°	1582.8	1427.4	698.5	225.7	92.1	50.1	54.0	39.2	30.7	26.0	24.1
55°	1690.8	1548.6	752.2	217.2	84.7	46.2	51.7	39.2	29.9	25.6	23.3
57.5°	1779.0	1656.6	794.5	207.1	71.1	41.6	47.4	37.7	28.0	24.1	22.1
58°	1786.7	1669.0	800.3	204.4	69.5	40.8	46.2	37.3	27.2	23.7	21.8
60°	1818.2	1689.2	802.7	189.6	57.9	38.9	40.0	36.1	25.6	22.1	20.6
62.5°	1807.3	1622.4	753.3	163.6	51.7	35.4	33.4	36.9	23.7	20.2	18.6
65°	1753.3	1491.1	660.1	146.5	52.1	31.5	28.7	32.2	21.8	18.3	16.7
67.5°	1624.7	1291.8	536.1	137.1	54.4	28.0	24.9	24.1	19.4	16.3	15.2
70°	1385.8	1058.7	406.4	129.0	57.5	24.9	22.9	21.4	17.9	15.2	13.6
72.5°	1020.6	784.0	295.7	120.8	55.9	22.1	21.4	19.4	16.3	13.6	12.8
75°	636.8	455.3	202.4	98.7	50.1	19.4	19.8	18.3	14.8	12.8	11.7
77.5°	371.8	319.7	99.8	73.4	34.6	17.1	17.5	16.7	15.2	12.0	11.3
80°	222.6	198.9	42.7	31.5	19.0	15.2	14.8	15.5	14.4	11.3	10.5
82.5°	96.3	86.2	20.6	17.5	15.5	13.2	12.8	13.2	12.4	9.3	8.9
85°	5.4	14.4	9.7	12.8	11.7	9.7	9.7	10.1	8.9	7.4	7.4
87.5°	5.1	10.9	6.2	7.8	8.5	7.4	7.8	7.8	7.4	6.6	6.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	647.6	643.4	630.5	625.9	605.7	610.7	612.3	610.3	611.1	612.7	618.5
5°	536.5	529.5	512.8	502.0	496.1	492.2	474.0	474.4	477.1	466.6	480.2
7.5°	381.1	388.9	390.5	380.3	374.1	360.9	344.2	334.9	319.0	327.9	329.8
10°	272.7	268.8	276.2	272.7	263.0	258.0	240.1	238.5	237.0	235.8	247.1
12.5°	207.9	196.2	187.6	189.6	182.2	169.8	166.7	167.1	168.6	168.6	171.7
15°	164.7	146.9	133.3	125.1	126.3	113.8	110.3	98.7	97.1	93.6	94.4
17.5°	115.4	108.0	99.8	90.5	86.6	75.4	61.8	55.6	50.9	51.7	54.0
20°	79.6	76.5	74.2	69.5	65.7	52.4	43.9	41.2	40.8	41.6	42.3
22.5°	64.1	61.0	58.7	57.1	52.1	42.3	37.7	35.7	35.7	35.7	36.1
25°	55.2	52.1	49.0	49.0	44.3	36.9	33.4	31.9	31.5	31.1	31.9
27.5°	51.3	47.0	43.9	42.0	38.5	32.6	29.5	28.0	27.6	27.6	28.0
30°	47.4	43.1	40.0	37.3	33.4	29.1	26.0	24.9	24.1	24.1	24.5
32.5°	45.1	40.8	36.9	33.4	29.1	25.6	22.9	21.4	20.6	21.0	21.4
35°	40.0	36.5	33.0	29.5	25.6	22.5	19.8	18.3	17.9	17.9	18.3
37.5°	31.5	28.7	28.0	26.0	22.5	19.4	16.7	15.2	14.8	14.8	15.2
40°	28.4	24.9	23.3	22.5	20.6	16.7	13.6	12.0	12.0	11.7	12.4
42.5°	26.0	22.5	19.8	19.0	17.9	14.4	10.9	9.7	9.3	9.3	9.7
45°	24.5	20.6	17.1	15.2	15.2	11.7	8.9	7.4	7.0	7.0	7.4
47.5°	23.7	19.4	15.2	12.4	12.0	9.7	7.0	5.4	5.1	5.1	5.1
50°	22.9	17.9	13.6	10.5	9.3	8.2	5.4	4.3	3.9	3.9	3.9
52.5°	21.8	17.1	12.4	9.3	7.4	6.2	4.3	3.1	2.7	2.3	2.7
55°	21.0	15.9	12.0	8.5	6.2	4.7	3.1	2.3	1.9	1.9	1.9
57.5°	19.8	14.8	10.9	8.2	5.8	3.5	2.3	1.6	1.2	1.2	1.6
58°	19.4	14.8	10.5	7.8	5.4	3.5	2.3	1.6	1.2	1.2	1.6
60°	18.3	13.6	10.1	7.0	5.1	3.1	1.9	1.2	0.8	0.8	1.2
62.5°	17.1	12.4	8.9	6.2	4.3	2.7	1.6	0.8	0.4	0.4	0.4
65°	15.2	11.3	7.8	5.8	3.5	1.9	1.2	0.4	0.0	0.0	0.0
67.5°	13.6	10.5	7.0	5.1	3.1	1.6	0.8	0.0	0.0	0.0	0.0
70°	12.4	9.7	6.2	4.3	2.7	1.2	0.4	0.0	0.0	0.0	0.0
72.5°	11.7	8.9	5.8	3.9	1.9	1.2	0.4	0.0	0.0	0.0	0.0
75°	11.3	8.5	5.8	3.5	1.9	1.2	0.8	0.4	0.0	0.0	0.4
77.5°	10.9	8.5	5.8	3.5	2.3	1.2	1.2	0.8	0.8	0.4	1.2
80°	10.1	7.8	5.1	3.1	1.9	1.6	1.2	0.8	0.0	0.0	0.0
82.5°	8.5	6.2	4.3	3.1	1.9	1.2	0.4	0.0	0.0	0.0	0.0
85°	7.0	5.1	3.5	1.9	1.2	0.4	0.0	0.0	0.0	0.0	0.0
87.5°	6.2	3.9	2.7	1.6	0.8	0.4	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



REPORT NUMBER: P400987

CATALOG NUMBER: ENV-SA1A-750-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7	725.7
2.5°	623.6	641.4	648.8	673.7	684.6	707.1	726.5	743.2	751.4	758.0
5°	483.7	500.8	519.0	556.0	587.8	622.0	664.7	709.0	721.8	735.8
7.5°	337.6	362.9	393.6	426.6	472.0	523.7	585.1	639.9	667.5	674.4
10°	262.2	292.2	324.8	357.4	395.1	450.3	512.1	582.8	612.3	624.3
12.5°	197.0	237.0	275.8	314.3	346.9	394.7	461.9	546.2	578.9	594.4
15°	118.5	163.6	211.3	263.0	308.5	364.4	440.2	538.5	579.7	597.1
17.5°	59.1	80.8	124.7	202.4	269.6	339.2	439.8	566.4	617.3	639.9
20°	43.9	49.7	66.4	126.3	224.2	318.2	444.5	614.2	689.2	708.3
22.5°	37.7	42.0	47.8	73.8	167.8	298.8	460.8	677.6	770.8	796.1
25°	33.0	36.5	41.2	50.9	115.0	275.8	491.5	766.9	863.3	897.8
27.5°	29.1	32.2	36.1	42.7	76.9	232.7	508.9	841.9	937.9	966.6
30°	25.6	28.0	31.9	36.5	56.7	179.9	525.3	907.9	1005.5	1028.0
32.5°	22.5	24.5	27.6	31.1	43.1	136.4	526.0	964.7	1064.5	1085.9
35°	19.0	21.4	23.7	26.8	34.2	106.5	510.1	1021.0	1134.4	1160.5
37.5°	15.9	17.9	20.6	23.3	31.1	82.4	477.1	1087.0	1219.5	1249.1
40°	13.6	15.5	17.9	21.0	27.6	59.8	424.3	1146.9	1299.2	1326.4
42.5°	10.9	12.8	15.5	20.6	22.9	43.1	371.0	1204.4	1368.3	1393.6
45°	8.5	10.9	14.4	19.8	19.0	30.3	325.2	1255.3	1427.8	1461.6
47.5°	6.2	8.9	14.4	17.9	15.5	21.8	301.9	1304.2	1481.0	1503.9
50°	4.7	7.4	15.5	15.2	13.2	18.6	305.4	1358.6	1505.5	1520.2
52.5°	3.5	6.2	12.0	10.9	11.3	16.3	319.0	1430.5	1556.0	1566.5
55°	3.1	4.7	7.4	8.2	10.1	15.5	315.5	1498.5	1620.5	1638.7
57.5°	2.7	3.9	5.8	6.6	8.9	14.8	295.7	1528.4	1662.0	1687.3
58°	2.3	3.9	5.4	6.6	8.9	14.4	290.6	1520.2	1660.1	1692.0
60°	1.9	3.5	5.1	5.8	7.8	12.8	266.1	1451.1	1617.4	1662.0
62.5°	1.6	2.3	3.9	4.3	6.2	10.5	219.1	1339.2	1525.7	1580.8
65°	0.8	1.6	2.3	3.1	4.3	7.8	155.8	1206.7	1427.4	1481.4
67.5°	0.0	0.8	1.6	1.9	2.7	5.8	89.7	1024.1	1265.8	1308.5
70°	0.0	0.4	0.8	1.2	1.6	3.9	47.4	751.8	980.6	1057.5
72.5°	0.4	0.4	0.4	0.0	0.8	3.1	21.0	446.0	668.6	747.9
75°	0.4	0.4	0.0	0.0	0.0	1.6	8.9	235.0	383.5	421.1
77.5°	1.6	0.8	0.0	0.0	0.0	0.4	4.3	126.7	198.9	211.3
80°	0.4	0.0	0.0	0.0	0.0	0.0	1.6	42.3	119.3	122.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	51.3	49.0
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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