

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: P400935

Luminaire Tested: **ENV-SA1A-735-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400935
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-735-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1931 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - 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

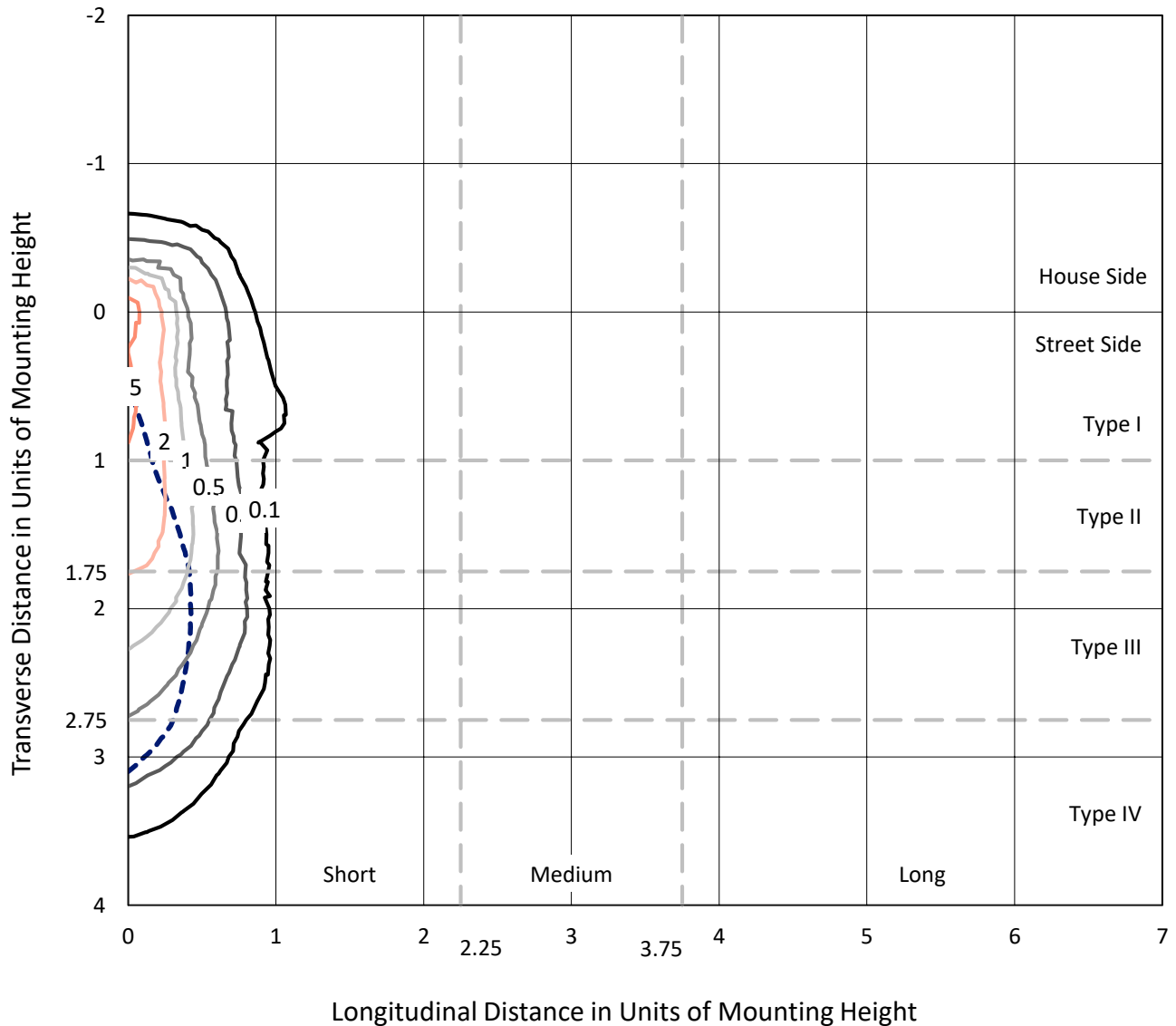


REPORT NUMBER: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

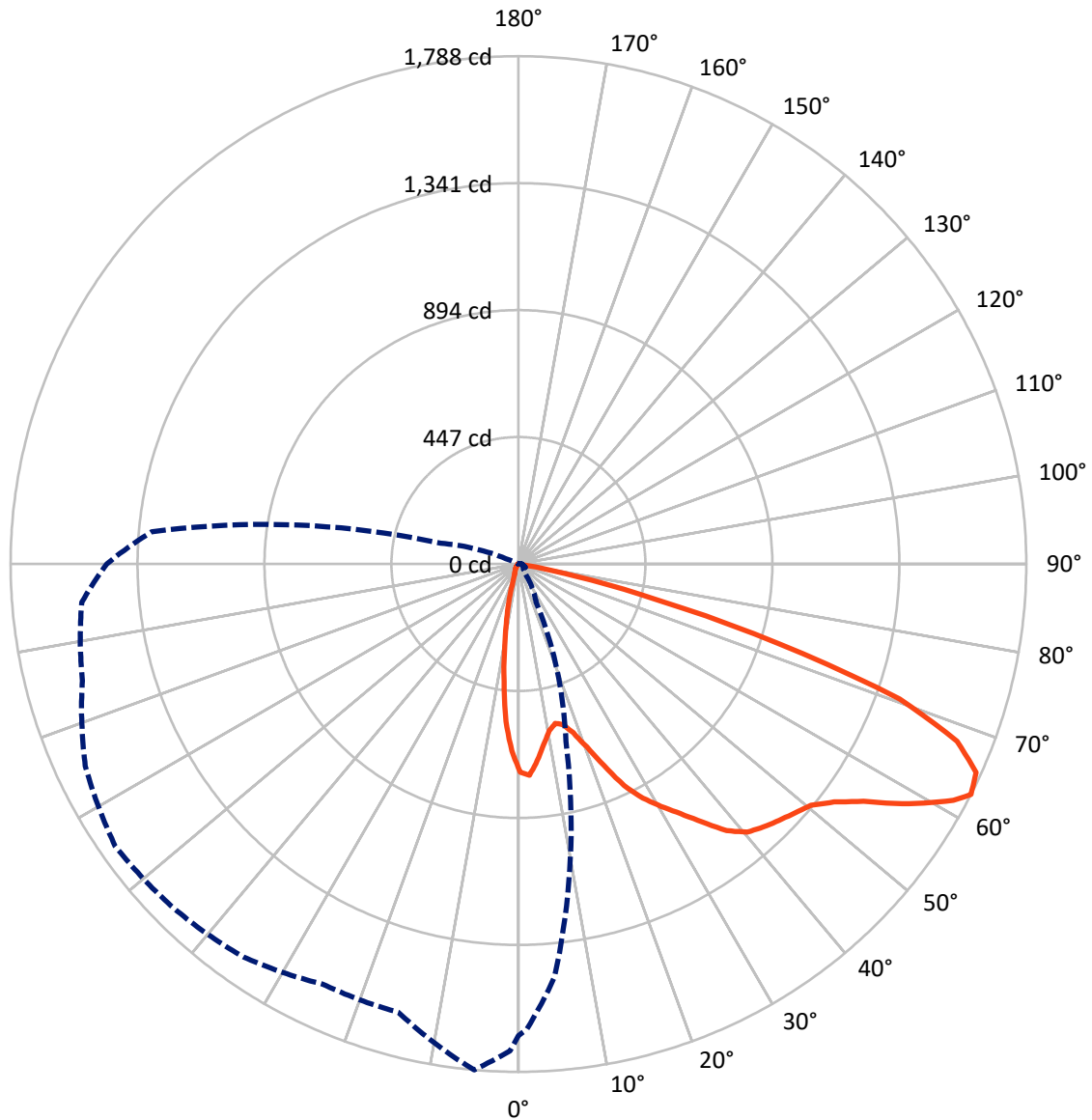


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	271.6	0.0	271.6
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	1659.4	0.0	1659.4
	% Fixture	85.9	0.0	85.9
Total	Lumens	1931.0	0.0	1931.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	2.8
10°-20°	104.4	5.4
20°-30°	145.3	7.5
30°-40°	210.1	10.9
40°-50°	301.3	15.6
50°-60°	437.1	22.6
60°-70°	472.9	24.5
70°-80°	191.0	9.9
80°-90°	14.1	0.7
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°	1931.0	100.0
0°-180°	1931.0	100.0



REPORT NUMBER: P400935

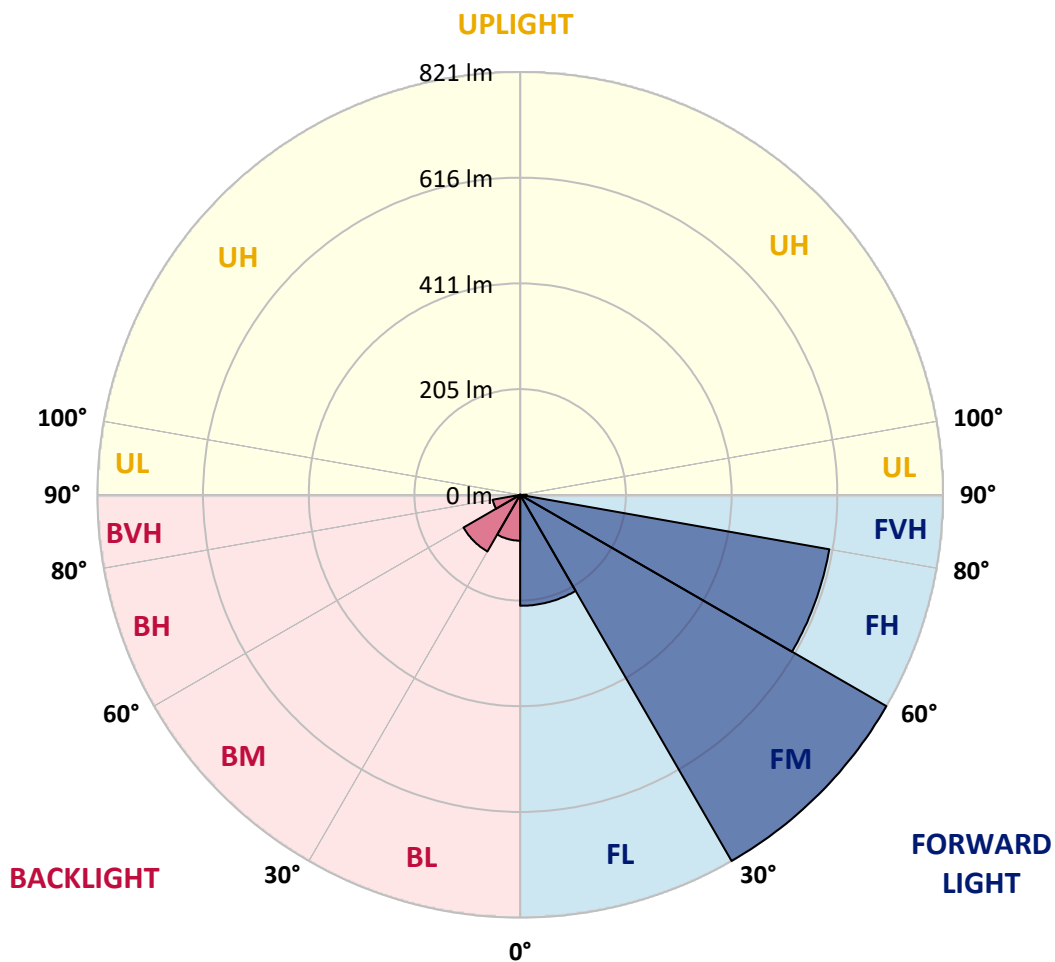
CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	215.6	11.2			
FM (30°-60°)	821.3	42.5			
FH (60°-80°)	609.8	31.6			G0/660
FVH (80°-90°)	12.7	0.7			G1/100
BL (0°-30°)	89.1	4.6	B0/110		
BM (30°-60°)	127.1	6.6	B0/220		
BH (60°-80°)	54.0	2.8	B0/110		G0/110
BVH (80°-90°)	1.4	0.1			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 IV Short





REPORT NUMBER: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5
2.5°	735.5	732.5	725.6	710.7	689.3	675.5	666.7	655.3	643.4	639.6	632.0
5°	671.3	666.4	656.8	619.4	585.7	552.1	528.0	505.1	497.5	482.2	491.4
7.5°	609.4	607.1	585.0	536.5	483.0	439.8	412.3	378.7	368.7	353.1	340.4
10°	560.9	559.0	532.3	468.8	411.1	375.2	353.4	331.7	309.9	287.7	270.1
12.5°	536.5	532.3	501.3	432.9	379.4	349.6	326.7	297.6	274.3	244.5	223.1
15°	540.3	536.5	500.9	427.2	364.1	322.9	288.9	254.5	221.6	192.2	171.2
17.5°	570.8	569.3	526.1	432.1	345.8	291.2	245.7	199.5	160.5	128.8	110.8
20°	630.5	625.9	563.2	442.8	326.7	254.5	192.2	135.3	102.8	81.0	73.4
22.5°	704.2	693.9	621.7	458.5	308.3	215.1	139.1	90.9	73.4	65.0	59.6
25°	790.9	791.3	694.3	479.5	290.0	178.4	97.4	72.2	61.9	55.8	51.2
27.5°	861.2	855.9	759.6	500.5	270.1	146.3	81.8	63.0	54.3	47.8	45.1
30°	913.2	905.2	802.8	515.1	244.5	123.8	73.4	60.0	51.2	43.9	40.5
32.5°	966.7	956.8	841.7	523.1	229.3	113.1	65.0	52.3	45.9	42.8	38.2
35°	1029.4	1020.6	884.9	522.3	221.2	107.0	58.8	47.4	39.0	34.0	30.9
37.5°	1099.3	1081.3	929.6	518.9	215.5	103.9	53.5	43.9	36.3	30.9	27.1
40°	1159.3	1141.3	970.9	514.3	211.7	100.9	50.4	41.6	34.4	28.7	24.8
42.5°	1206.3	1189.1	1009.5	508.6	209.8	94.4	52.0	40.1	32.9	27.1	22.9
45°	1246.8	1229.2	1055.3	507.8	209.0	89.8	51.2	39.7	32.1	25.2	21.4
47.5°	1293.8	1284.6	1115.7	520.4	205.9	86.4	47.0	42.8	31.7	24.5	20.3
50°	1363.3	1355.3	1194.8	557.9	201.4	82.9	42.8	47.0	31.7	23.7	19.1
52.5°	1460.7	1451.6	1319.4	606.8	197.2	79.1	38.6	45.5	32.1	22.5	18.3
55°	1561.6	1560.1	1437.0	658.7	193.3	70.7	34.0	40.9	31.3	21.0	17.2
57.5°	1640.7	1639.6	1525.3	693.9	186.1	56.9	30.9	34.0	29.0	19.1	15.7
60°	1673.2	1663.6	1534.9	693.9	169.3	47.0	28.3	26.7	29.4	17.2	13.8
61°	1673.2	1660.9	1517.7	683.6	160.9	44.7	26.7	24.8	30.2	16.4	13.0
62.5°	1660.2	1639.9	1458.8	646.5	147.5	44.7	24.5	22.2	27.5	15.7	11.8
65°	1602.5	1569.2	1320.9	562.1	133.7	45.9	21.0	18.7	19.9	13.4	10.3
67.5°	1460.0	1422.5	1142.1	444.8	122.7	48.5	17.6	16.4	15.3	11.8	9.2
70°	1202.8	1171.1	931.9	333.2	113.9	49.3	15.3	13.8	13.0	10.3	8.0
72.5°	768.8	716.4	581.9	225.8	91.3	42.8	12.6	13.0	11.8	8.4	6.5
75°	371.4	385.9	338.5	113.9	61.5	27.9	9.9	10.7	9.6	7.6	5.7
77.5°	166.2	163.2	161.6	29.0	15.7	9.6	6.1	7.3	7.6	6.9	5.0
80°	17.2	23.3	13.8	8.8	5.7	4.2	3.4	3.8	4.6	5.0	2.7
82.5°	0.8	0.4	0.4	1.1	1.1	0.8	0.0	0.0	0.8	0.8	0.4
85°	0.0	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	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: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5
2.5°	625.1	635.4	630.8	629.7	635.8	632.7	641.9	642.3	649.2	658.3	664.1
5°	491.4	483.3	499.4	510.1	523.5	519.3	535.3	533.4	542.2	556.7	551.0
7.5°	341.2	342.4	350.8	360.3	396.2	403.5	408.8	413.0	412.7	416.1	422.2
10°	261.0	254.5	248.7	262.1	276.3	291.9	294.2	299.9	284.3	290.8	293.8
12.5°	213.6	205.9	193.3	186.5	189.9	199.1	202.9	206.3	197.2	197.5	204.4
15°	162.0	151.7	146.7	137.6	134.1	133.3	135.3	130.3	129.1	124.9	127.6
17.5°	105.5	102.4	99.7	97.8	95.1	94.4	87.5	75.7	68.8	67.2	67.2
20°	70.3	68.0	68.0	71.8	70.7	67.6	58.5	48.5	43.6	42.0	42.8
22.5°	57.7	56.2	53.9	53.9	55.4	53.1	44.7	37.4	34.0	34.0	34.0
25°	50.1	49.3	47.0	44.7	45.5	43.6	36.3	31.7	29.4	29.0	29.4
27.5°	43.9	43.6	40.9	38.6	38.6	37.1	31.3	27.1	25.6	24.8	25.2
30°	39.7	39.0	35.9	34.0	33.6	32.1	26.7	23.7	22.2	21.8	21.8
32.5°	36.7	35.2	32.5	30.6	29.4	27.1	23.3	20.3	18.7	18.3	18.3
35°	29.4	29.4	28.3	27.1	25.6	22.2	19.5	16.8	15.3	14.9	14.9
37.5°	25.6	24.1	22.2	22.5	21.8	18.7	16.0	13.4	12.2	11.8	11.8
40°	23.3	21.4	18.7	17.6	18.0	16.4	13.4	10.3	8.8	9.2	8.8
42.5°	21.0	19.5	16.4	13.8	13.4	13.8	10.3	7.3	6.1	6.1	6.1
45°	19.5	18.0	14.5	11.5	9.6	10.7	8.0	5.0	3.8	3.8	3.8
47.5°	18.3	16.8	13.0	9.6	6.9	7.3	5.7	3.1	2.3	1.5	1.9
50°	17.6	15.7	11.8	7.6	5.0	4.2	3.8	1.5	0.4	0.4	0.0
52.5°	16.4	14.9	10.7	6.5	3.8	2.7	1.9	0.4	0.0	0.0	0.0
55°	15.7	13.8	9.6	5.7	3.1	1.5	0.4	0.0	0.0	0.0	0.0
57.5°	14.1	12.6	8.4	4.6	2.3	0.8	0.0	0.0	0.0	0.0	0.0
60°	12.6	11.5	7.3	3.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0
61°	11.8	10.7	6.9	3.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	11.1	9.9	6.1	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0
65°	9.6	8.4	5.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	8.4	7.6	4.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	7.3	6.5	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	6.1	5.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.3	4.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.2	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	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: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5
2.5°	669.4	682.8	695.4	711.5	720.2	744.3	761.5	776.0	787.5	789.8	799.0
5°	566.3	585.0	597.2	630.8	649.6	689.7	720.6	757.3	790.2	808.1	824.6
7.5°	426.4	435.6	456.6	490.2	534.5	569.3	621.7	667.9	727.1	759.6	790.2
10°	301.1	309.5	340.4	375.6	416.1	474.6	538.0	598.7	658.7	700.4	736.3
12.5°	211.7	239.2	269.8	314.5	354.2	397.0	464.6	535.7	610.6	650.3	689.3
15°	139.1	163.5	205.9	262.1	311.8	353.4	416.5	499.8	594.9	639.2	676.3
17.5°	68.8	86.7	124.2	184.5	250.7	316.4	392.4	493.3	615.2	665.2	700.0
20°	43.2	48.5	62.3	104.3	180.3	277.4	374.4	506.3	670.2	725.6	748.1
22.5°	34.8	36.3	41.6	55.4	110.0	229.3	358.8	523.8	730.6	798.2	821.5
25°	29.8	30.9	34.0	40.9	63.8	171.9	339.7	554.8	800.9	882.6	888.4
27.5°	25.6	26.7	29.4	34.8	45.5	115.8	312.2	591.1	884.9	956.8	952.9
30°	21.8	23.3	26.0	29.8	35.9	78.3	261.0	627.8	946.8	1004.5	998.4
32.5°	18.7	19.9	22.2	25.6	29.8	53.9	196.0	651.8	998.4	1049.6	1036.2
35°	15.3	16.4	18.3	21.4	24.1	38.2	148.3	652.6	1051.5	1105.4	1071.8
37.5°	12.2	13.0	14.9	17.6	19.9	29.8	108.9	640.0	1117.2	1178.0	1112.3
40°	9.2	10.3	12.2	14.5	16.8	25.2	81.4	609.4	1181.4	1250.6	1161.2
42.5°	6.1	7.6	9.6	11.8	16.0	20.3	57.3	558.6	1233.4	1315.2	1208.9
45°	3.8	5.0	7.3	9.9	16.4	16.0	38.2	497.9	1270.5	1364.4	1241.4
47.5°	1.9	3.1	5.3	9.6	14.5	11.8	23.7	439.8	1304.1	1393.1	1256.3
50°	0.4	1.1	3.8	11.8	12.2	8.8	15.7	403.5	1321.7	1385.8	1254.8
52.5°	0.0	0.0	2.7	11.5	8.8	6.9	12.2	398.1	1349.2	1395.4	1281.2
55°	0.0	0.0	1.1	5.0	5.0	5.7	10.7	390.9	1398.1	1452.3	1360.6
57.5°	0.0	0.0	0.0	2.3	3.1	4.6	9.9	371.8	1449.7	1512.7	1457.3
60°	0.0	0.0	0.0	1.1	1.9	3.8	8.8	328.2	1402.3	1513.1	1537.5
61°	0.0	0.0	0.0	1.1	1.5	3.4	8.0	312.9	1359.9	1488.6	1547.5
62.5°	0.0	0.0	0.0	0.4	1.1	2.7	6.9	282.7	1296.4	1449.3	1542.9
65°	0.0	0.0	0.0	0.0	0.4	1.5	5.3	228.5	1190.6	1350.3	1490.2
67.5°	0.0	0.0	0.0	0.0	0.0	0.4	3.4	160.9	1038.5	1238.4	1377.4
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	93.2	836.8	1048.5	1179.9
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.8	42.4	543.0	809.7	930.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	334.3	585.0	695.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	226.6	389.4	468.1
80°	0.0	0.8	0.4	0.0	0.0	0.0	0.0	3.1	139.5	243.0	264.0
82.5°	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	72.2	171.6	175.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.2	36.3
87.5°	0.0	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	0.0



REPORT NUMBER: P400935

CATALOG NUMBER: ENV-SA1A-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5	732.5
2.5°	807.4	809.7	811.2	808.5	792.1	782.9	764.6	744.3	737.4	735.5
5°	854.4	867.3	865.1	847.5	818.8	783.7	740.1	695.0	677.8	671.3
7.5°	845.2	879.2	885.7	867.3	818.8	757.3	694.3	640.8	615.9	609.4
10°	798.6	841.4	862.0	856.3	810.8	739.7	662.2	596.4	569.3	560.9
12.5°	753.5	794.7	807.7	812.3	787.5	726.0	646.1	575.4	547.2	536.5
15°	723.3	748.9	748.1	756.5	754.6	720.6	656.4	586.1	554.4	540.3
17.5°	713.4	705.7	695.8	702.7	716.0	722.2	690.1	624.3	587.3	570.8
20°	719.5	682.0	660.3	659.9	688.1	734.8	739.3	687.4	652.6	630.5
22.5°	750.8	670.2	636.6	637.3	672.1	753.5	796.3	769.9	731.7	704.2
25°	797.0	672.5	627.4	632.0	670.6	769.9	857.8	863.9	815.0	790.9
27.5°	844.0	692.3	627.8	632.7	677.1	778.7	892.9	933.1	891.0	861.2
30°	876.9	716.8	634.7	640.0	687.4	785.6	906.3	990.0	946.4	913.2
32.5°	907.8	742.0	645.7	651.1	708.0	799.7	931.5	1047.3	999.6	966.7
35°	938.0	766.9	666.4	675.9	741.3	825.3	957.1	1114.6	1074.8	1029.4
37.5°	964.0	794.4	701.9	722.2	786.3	864.7	991.9	1191.0	1150.1	1099.3
40°	985.8	826.8	775.3	797.8	855.1	906.3	1030.5	1241.0	1213.9	1159.3
42.5°	1003.4	884.2	880.3	912.1	952.2	954.1	1041.6	1265.1	1254.8	1206.3
45°	1032.8	986.9	1018.3	1070.2	1067.6	1011.4	1038.5	1287.3	1288.0	1246.8
47.5°	1080.9	1115.7	1206.3	1241.4	1223.5	1089.7	1041.6	1309.0	1326.2	1293.8
50°	1149.7	1261.7	1380.1	1426.7	1374.4	1168.4	1068.7	1335.0	1387.0	1363.3
52.5°	1208.6	1372.1	1540.6	1582.2	1510.8	1252.5	1132.1	1391.2	1468.4	1460.7
55°	1292.6	1467.2	1654.8	1686.9	1629.6	1347.6	1217.3	1473.7	1557.8	1561.6
57.5°	1378.6	1553.2	1729.3	1761.8	1718.3	1466.1	1338.5	1592.2	1641.8	1640.7
60°	1474.1	1633.4	1763.0	1780.9	1756.1	1584.5	1468.8	1700.7	1699.5	1673.2
61°	1528.7	1659.0	1760.7	1766.0	1742.0	1619.3	1536.0	1742.3	1707.9	1673.2
62.5°	1589.1	1682.3	1732.4	1714.4	1688.5	1631.5	1633.4	1787.8	1713.7	1660.2
65°	1650.3	1623.9	1602.1	1516.1	1491.7	1519.2	1715.6	1770.6	1678.9	1602.5
67.5°	1545.6	1391.6	1344.6	1258.2	1161.6	1273.9	1637.6	1665.5	1561.6	1460.0
70°	1263.2	1022.5	966.7	963.6	894.1	1017.5	1444.3	1424.1	1296.1	1202.8
72.5°	990.0	697.7	621.7	639.2	625.5	758.5	1181.4	955.6	831.0	768.8
75°	776.0	496.0	427.9	424.9	410.0	516.6	865.1	503.6	415.7	371.4
77.5°	512.0	357.3	356.1	329.0	317.5	280.1	388.2	201.7	164.7	166.2
80°	295.0	218.9	256.8	203.7	204.0	164.3	157.0	29.4	23.7	17.2
82.5°	169.3	105.1	79.5	31.3	65.7	65.7	12.6	0.4	0.4	0.8
85°	16.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	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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