

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: P400899

Luminaire Tested: **ENV-SA1A-727-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400899
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-727-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 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: 1719 lumens
Efficiency: N/A
Efficacy: 85.5 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

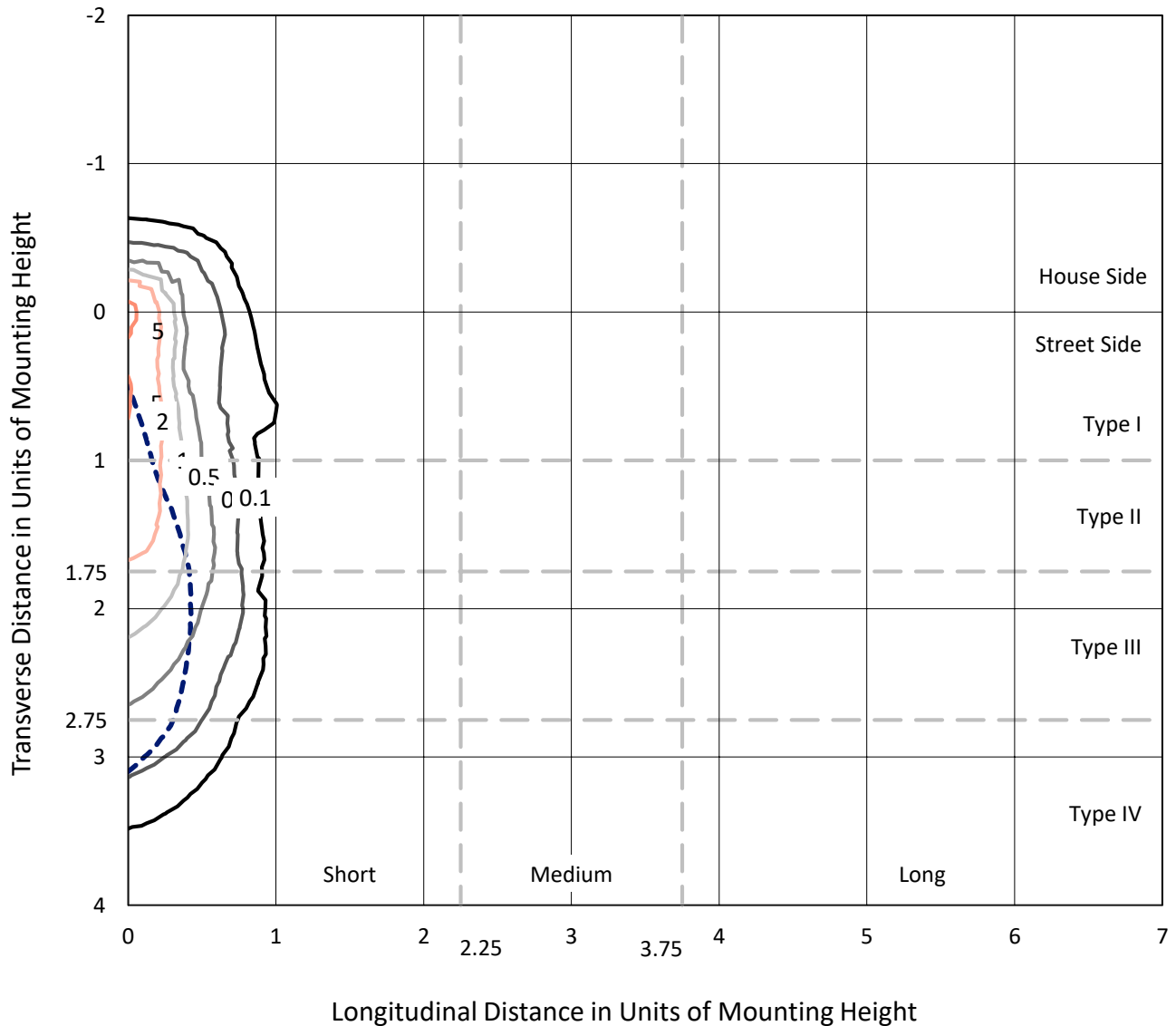


REPORT NUMBER: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

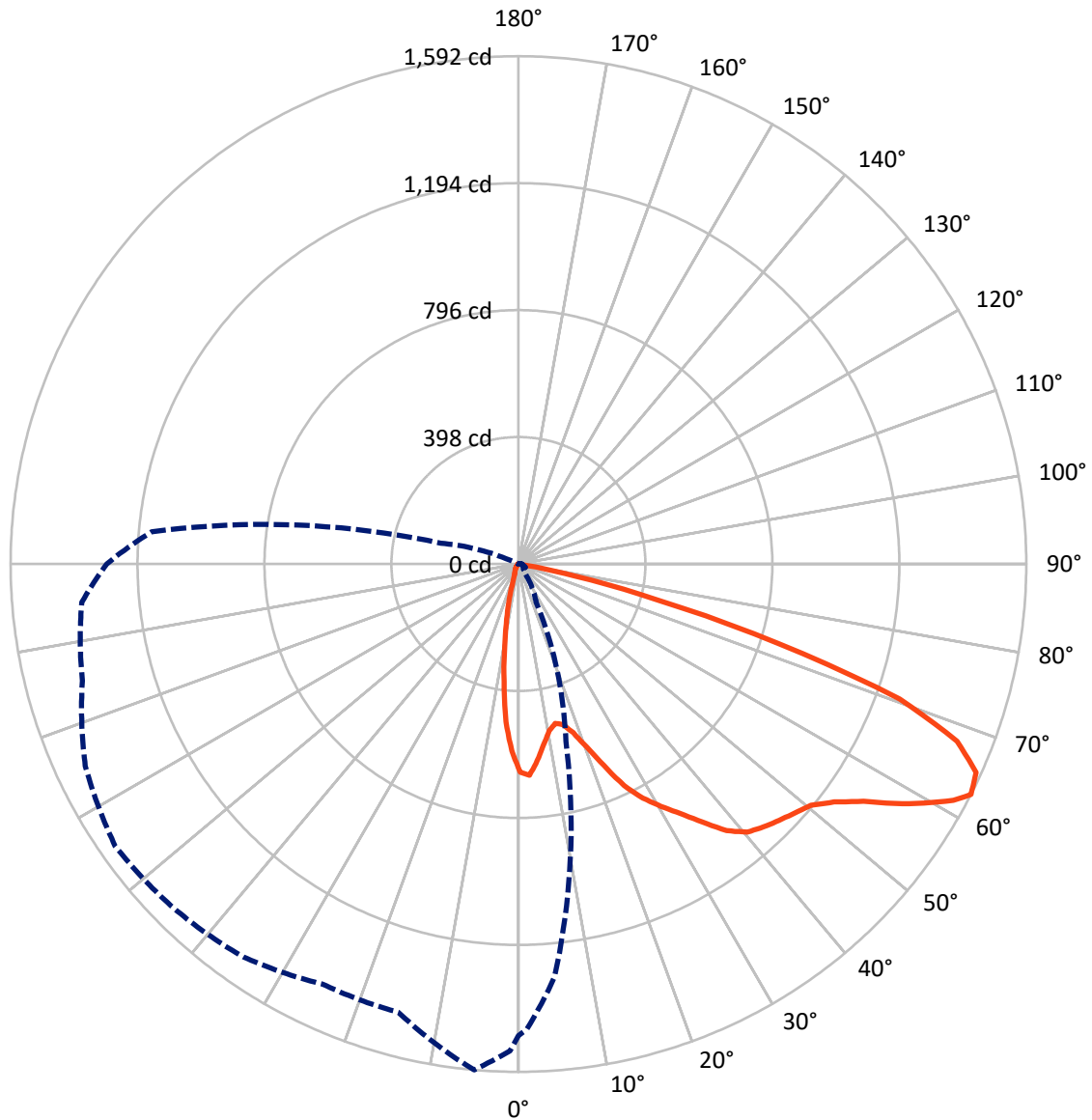


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

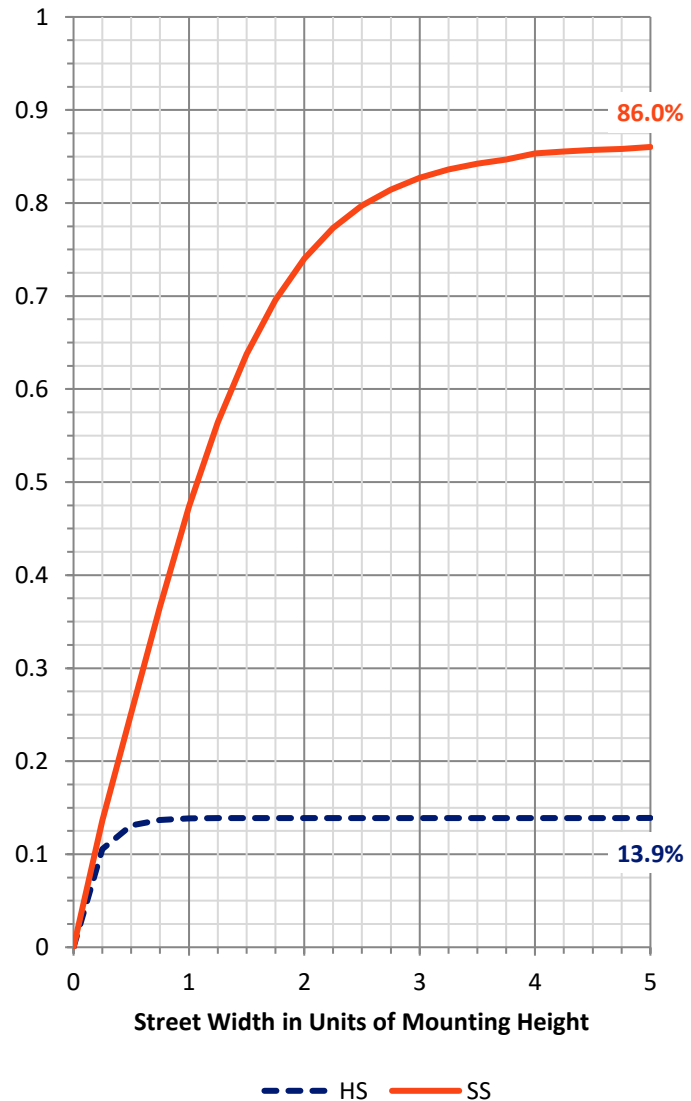
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	241.8	0.0	241.8
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	1477.2	0.0	1477.2
	% Fixture	85.9	0.0	85.9
Total	Lumens	1719.0	0.0	1719.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	2.8
10°-20°	92.9	5.4
20°-30°	129.3	7.5
30°-40°	187.0	10.9
40°-50°	268.2	15.6
50°-60°	389.1	22.6
60°-70°	420.9	24.5
70°-80°	170.0	9.9
80°-90°	12.6	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°	1719.0	100.0
0°-180°	1719.0	100.0



REPORT NUMBER: P400899

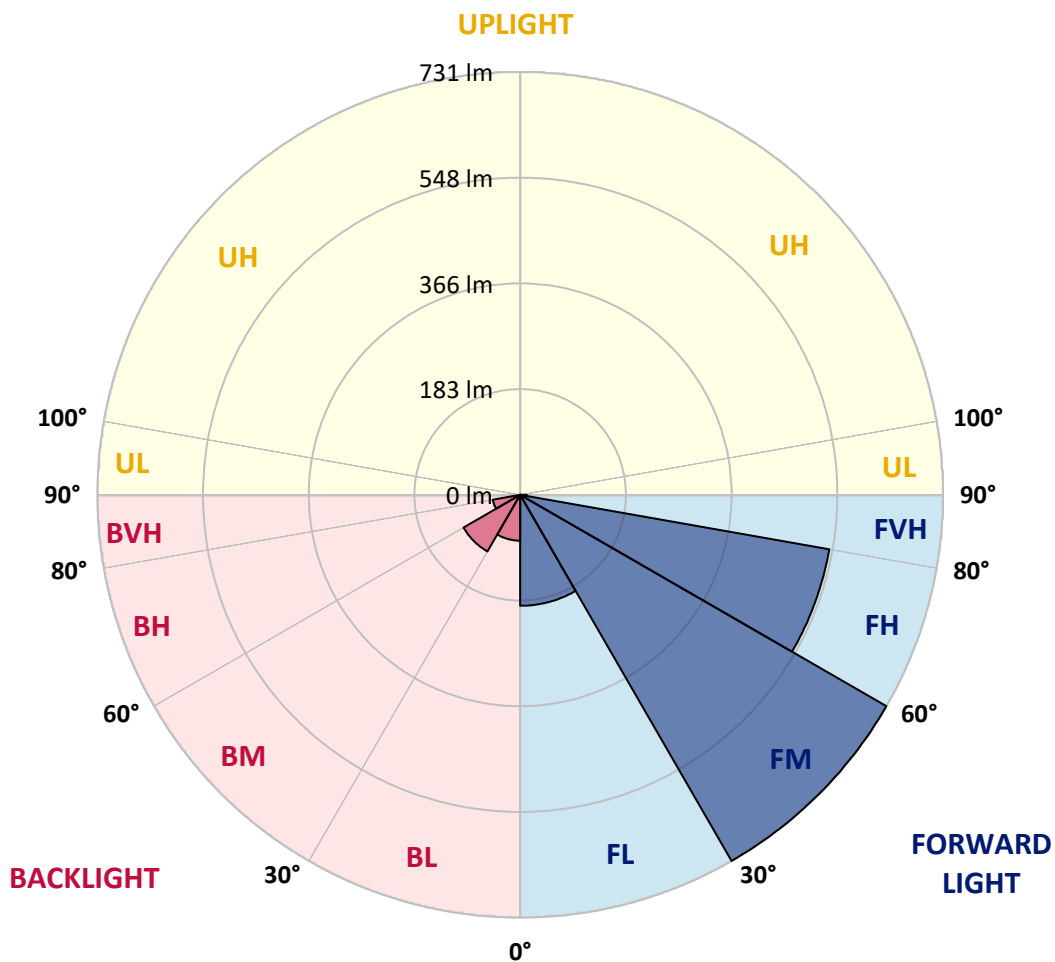
CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	191.9	11.2			
FM	(30°-60°)	731.1	42.5			
FH	(60°-80°)	542.9	31.6			G0/660
FVH	(80°-90°)	11.3	0.7			G1/100
BL	(0°-30°)	79.3	4.6	B0/110		
BM	(30°-60°)	113.1	6.6	B0/220		
BH	(60°-80°)	48.1	2.8	B0/110		G0/110
BVH	(80°-90°)	1.3	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: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1
2.5°	654.8	652.1	645.9	632.7	613.6	601.4	593.5	583.3	572.8	569.4	562.6
5°	597.6	593.2	584.7	551.4	521.4	491.5	470.1	449.7	442.9	429.3	437.4
7.5°	542.5	540.5	520.8	477.6	429.9	391.5	367.0	337.1	328.2	314.3	303.1
10°	499.3	497.6	473.8	417.4	366.0	334.0	314.6	295.2	275.9	256.1	240.5
12.5°	477.6	473.8	446.3	385.4	337.8	311.2	290.8	265.0	244.2	217.7	198.6
15°	481.0	477.6	445.9	380.3	324.2	287.4	257.1	226.5	197.3	171.1	152.4
17.5°	508.2	506.8	468.4	384.7	307.8	259.2	218.7	177.6	142.9	114.6	98.6
20°	561.2	557.2	501.4	394.2	290.8	226.5	171.1	120.4	91.5	72.1	65.3
22.5°	626.9	617.7	553.4	408.2	274.5	191.5	123.8	81.0	65.3	57.8	53.1
25°	704.1	704.4	618.0	426.9	258.2	158.8	86.7	64.3	55.1	49.7	45.6
27.5°	766.7	761.9	676.2	445.6	240.5	130.3	72.8	56.1	48.3	42.5	40.1
30°	812.9	805.8	714.6	458.5	217.7	110.2	65.3	53.4	45.6	39.1	36.1
32.5°	860.6	851.7	749.3	465.7	204.1	100.7	57.8	46.6	40.8	38.1	34.0
35°	916.3	908.5	787.8	465.0	196.9	95.2	52.4	42.2	34.7	30.3	27.6
37.5°	978.6	962.6	827.6	461.9	191.8	92.5	47.6	39.1	32.3	27.6	24.2
40°	1032.0	1016.0	864.3	457.8	188.4	89.8	44.9	37.1	30.6	25.5	22.1
42.5°	1073.8	1058.5	898.7	452.7	186.7	84.0	46.3	35.7	29.3	24.2	20.4
45°	1109.9	1094.2	939.5	452.0	186.1	79.9	45.6	35.4	28.6	22.4	19.0
47.5°	1151.7	1143.6	993.2	463.3	183.3	76.9	41.8	38.1	28.2	21.8	18.0
50°	1213.6	1206.5	1063.6	496.6	179.3	73.8	38.1	41.8	28.2	21.1	17.0
52.5°	1300.4	1292.2	1174.5	540.1	175.5	70.4	34.4	40.5	28.6	20.1	16.3
55°	1390.2	1388.8	1279.3	586.4	172.1	62.9	30.3	36.4	27.9	18.7	15.3
57.5°	1460.6	1459.6	1357.8	617.7	165.6	50.7	27.6	30.3	25.9	17.0	13.9
60°	1489.5	1481.0	1366.4	617.7	150.7	41.8	25.2	23.8	26.2	15.3	12.2
61°	1489.5	1478.6	1351.0	608.5	143.2	39.8	23.8	22.1	26.9	14.6	11.6
62.5°	1477.9	1459.9	1298.7	575.5	131.3	39.8	21.8	19.7	24.5	13.9	10.5
65°	1426.6	1397.0	1175.9	500.3	119.0	40.8	18.7	16.7	17.7	11.9	9.2
67.5°	1299.7	1266.3	1016.7	395.9	109.2	43.2	15.6	14.6	13.6	10.5	8.2
70°	1070.8	1042.5	829.6	296.6	101.4	43.9	13.6	12.2	11.6	9.2	7.1
72.5°	684.4	637.8	518.0	201.0	81.3	38.1	11.2	11.6	10.5	7.5	5.8
75°	330.6	343.5	301.4	101.4	54.8	24.8	8.8	9.5	8.5	6.8	5.1
77.5°	148.0	145.2	143.9	25.9	13.9	8.5	5.4	6.5	6.8	6.1	4.4
80°	15.3	20.7	12.2	7.8	5.1	3.7	3.1	3.4	4.1	4.4	2.4
82.5°	0.7	0.3	0.3	1.0	1.0	0.7	0.0	0.0	0.7	0.7	0.3
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: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1
2.5°	556.5	565.7	561.6	560.6	566.0	563.3	571.4	571.8	577.9	586.1	591.2
5°	437.4	430.3	444.6	454.1	466.0	462.3	476.5	474.8	482.7	495.6	490.5
7.5°	303.7	304.8	312.3	320.8	352.7	359.2	364.0	367.7	367.4	370.4	375.9
10°	232.3	226.5	221.4	233.3	245.9	259.9	261.9	267.0	253.1	258.8	261.6
12.5°	190.1	183.3	172.1	166.0	169.1	177.2	180.6	183.7	175.5	175.9	182.0
15°	144.2	135.0	130.6	122.5	119.4	118.7	120.4	116.0	115.0	111.2	113.6
17.5°	93.9	91.2	88.8	87.1	84.7	84.0	77.9	67.3	61.2	59.9	59.9
20°	62.6	60.5	60.5	63.9	62.9	60.2	52.0	43.2	38.8	37.4	38.1
22.5°	51.4	50.0	48.0	48.0	49.3	47.3	39.8	33.3	30.3	30.3	30.3
25°	44.6	43.9	41.8	39.8	40.5	38.8	32.3	28.2	26.2	25.9	26.2
27.5°	39.1	38.8	36.4	34.4	34.4	33.0	27.9	24.2	22.8	22.1	22.4
30°	35.4	34.7	32.0	30.3	29.9	28.6	23.8	21.1	19.7	19.4	19.4
32.5°	32.7	31.3	28.9	27.2	26.2	24.2	20.7	18.0	16.7	16.3	16.3
35°	26.2	26.2	25.2	24.2	22.8	19.7	17.3	15.0	13.6	13.3	13.3
37.5°	22.8	21.4	19.7	20.1	19.4	16.7	14.3	11.9	10.9	10.5	10.5
40°	20.7	19.0	16.7	15.6	16.0	14.6	11.9	9.2	7.8	8.2	7.8
42.5°	18.7	17.3	14.6	12.2	11.9	12.2	9.2	6.5	5.4	5.4	5.4
45°	17.3	16.0	12.9	10.2	8.5	9.5	7.1	4.4	3.4	3.4	3.4
47.5°	16.3	15.0	11.6	8.5	6.1	6.5	5.1	2.7	2.0	1.4	1.7
50°	15.6	13.9	10.5	6.8	4.4	3.7	3.4	1.4	0.3	0.3	0.0
52.5°	14.6	13.3	9.5	5.8	3.4	2.4	1.7	0.3	0.0	0.0	0.0
55°	13.9	12.2	8.5	5.1	2.7	1.4	0.3	0.0	0.0	0.0	0.0
57.5°	12.6	11.2	7.5	4.1	2.0	0.7	0.0	0.0	0.0	0.0	0.0
60°	11.2	10.2	6.5	3.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
61°	10.5	9.5	6.1	2.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	9.9	8.8	5.4	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
65°	8.5	7.5	4.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7.5	6.8	4.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	6.5	5.8	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	5.4	5.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	4.8	4.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.7	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.3	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: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1
2.5°	595.9	607.8	619.1	633.3	641.2	662.6	677.9	690.8	701.0	703.1	711.2
5°	504.1	520.8	531.6	561.6	578.2	614.0	641.5	674.2	703.4	719.4	734.0
7.5°	379.6	387.8	406.5	436.4	475.9	506.8	553.4	594.6	647.3	676.2	703.4
10°	268.0	275.5	303.1	334.4	370.4	422.5	478.9	533.0	586.4	623.5	655.5
12.5°	188.4	212.9	240.1	279.9	315.3	353.4	413.6	476.9	543.5	578.9	613.6
15°	123.8	145.6	183.3	233.3	277.6	314.6	370.8	444.9	529.6	569.1	602.1
17.5°	61.2	77.2	110.5	164.3	223.1	281.6	349.3	439.1	547.6	592.2	623.1
20°	38.4	43.2	55.4	92.9	160.5	246.9	333.3	450.7	596.6	645.9	666.0
22.5°	31.0	32.3	37.1	49.3	98.0	204.1	319.4	466.3	650.4	710.6	731.3
25°	26.5	27.6	30.3	36.4	56.8	153.1	302.4	493.9	712.9	785.7	790.8
27.5°	22.8	23.8	26.2	31.0	40.5	103.1	277.9	526.2	787.8	851.7	848.3
30°	19.4	20.7	23.1	26.5	32.0	69.7	232.3	558.9	842.9	894.2	888.8
32.5°	16.7	17.7	19.7	22.8	26.5	48.0	174.5	580.3	888.8	934.4	922.5
35°	13.6	14.6	16.3	19.0	21.4	34.0	132.0	581.0	936.1	984.0	954.1
37.5°	10.9	11.6	13.3	15.6	17.7	26.5	96.9	569.7	994.6	1048.7	990.2
40°	8.2	9.2	10.9	12.9	15.0	22.4	72.5	542.5	1051.7	1113.3	1033.7
42.5°	5.4	6.8	8.5	10.5	14.3	18.0	51.0	497.3	1098.0	1170.8	1076.2
45°	3.4	4.4	6.5	8.8	14.6	14.3	34.0	443.2	1131.0	1214.6	1105.1
47.5°	1.7	2.7	4.8	8.5	12.9	10.5	21.1	391.5	1160.9	1240.2	1118.4
50°	0.3	1.0	3.4	10.5	10.9	7.8	13.9	359.2	1176.6	1233.7	1117.0
52.5°	0.0	0.0	2.4	10.2	7.8	6.1	10.9	354.4	1201.0	1242.2	1140.5
55°	0.0	0.0	1.0	4.4	4.4	5.1	9.5	348.0	1244.6	1292.9	1211.2
57.5°	0.0	0.0	0.0	2.0	2.7	4.1	8.8	331.0	1290.5	1346.6	1297.3
60°	0.0	0.0	0.0	1.0	1.7	3.4	7.8	292.2	1248.3	1347.0	1368.7
61°	0.0	0.0	0.0	1.0	1.4	3.1	7.1	278.6	1210.6	1325.2	1377.6
62.5°	0.0	0.0	0.0	0.3	1.0	2.4	6.1	251.7	1154.1	1290.2	1373.5
65°	0.0	0.0	0.0	0.0	0.3	1.4	4.8	203.4	1059.9	1202.1	1326.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.3	3.1	143.2	924.5	1102.4	1226.2
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	83.0	744.9	933.4	1050.4
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	37.8	483.3	720.8	828.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	297.6	520.8	619.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	201.7	346.6	416.7
80°	0.0	0.7	0.3	0.0	0.0	0.0	0.0	2.7	124.2	216.3	235.0
82.5°	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	64.3	152.7	155.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.9	32.3
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: P400899

CATALOG NUMBER: ENV-SA1A-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1	652.1
2.5°	718.7	720.8	722.1	719.7	705.1	697.0	680.6	662.6	656.5	654.8
5°	760.6	772.1	770.1	754.4	728.9	697.6	658.9	618.7	603.4	597.6
7.5°	752.4	782.7	788.4	772.1	728.9	674.2	618.0	570.4	548.3	542.5
10°	710.9	749.0	767.4	762.3	721.8	658.5	589.5	531.0	506.8	499.3
12.5°	670.8	707.5	719.1	723.1	701.0	646.3	575.2	512.3	487.1	477.6
15°	643.9	666.7	666.0	673.5	671.8	641.5	584.4	521.8	493.5	481.0
17.5°	635.0	628.2	619.4	625.5	637.4	642.9	614.3	555.8	522.8	508.2
20°	640.5	607.2	587.8	587.4	612.6	654.1	658.2	611.9	581.0	561.2
22.5°	668.4	596.6	566.7	567.4	598.3	670.8	708.9	685.4	651.4	626.9
25°	709.5	598.7	558.5	562.6	596.9	685.4	763.6	769.1	725.5	704.1
27.5°	751.4	616.3	558.9	563.3	602.7	693.2	794.9	830.6	793.2	766.7
30°	780.6	638.1	565.0	569.7	611.9	699.3	806.8	881.3	842.5	812.9
32.5°	808.2	660.6	574.8	579.6	630.3	711.9	829.3	932.3	889.8	860.6
35°	835.0	682.7	593.2	601.7	659.9	734.7	852.1	992.2	956.8	916.3
37.5°	858.2	707.2	624.8	642.9	700.0	769.7	883.0	1060.2	1023.8	978.6
40°	877.6	736.1	690.1	710.2	761.2	806.8	917.4	1104.8	1080.6	1032.0
42.5°	893.2	787.1	783.7	811.9	847.6	849.3	927.2	1126.2	1117.0	1073.8
45°	919.4	878.6	906.5	952.7	950.4	900.4	924.5	1145.9	1146.6	1109.9
47.5°	962.3	993.2	1073.8	1105.1	1089.1	970.1	927.2	1165.3	1180.6	1151.7
50°	1023.5	1123.1	1228.6	1270.1	1223.5	1040.2	951.4	1188.5	1234.7	1213.6
52.5°	1075.9	1221.5	1371.5	1408.5	1344.9	1115.0	1007.8	1238.5	1307.2	1300.4
55°	1150.7	1306.1	1473.2	1501.7	1450.7	1199.7	1083.7	1311.9	1386.8	1390.2
57.5°	1227.2	1382.7	1539.5	1568.4	1529.6	1305.1	1191.5	1417.4	1461.6	1460.6
60°	1312.3	1454.1	1569.4	1585.4	1563.3	1410.6	1307.5	1514.0	1513.0	1489.5
61°	1360.9	1476.9	1567.4	1572.1	1550.7	1441.5	1367.4	1551.0	1520.4	1489.5
62.5°	1414.7	1497.6	1542.2	1526.2	1503.1	1452.4	1454.1	1591.5	1525.5	1477.9
65°	1469.1	1445.6	1426.2	1349.7	1327.9	1352.4	1527.2	1576.2	1494.6	1426.6
67.5°	1375.9	1238.8	1197.0	1120.1	1034.0	1134.0	1457.8	1482.7	1390.2	1299.7
70°	1124.5	910.2	860.6	857.8	795.9	905.8	1285.7	1267.7	1153.8	1070.8
72.5°	881.3	621.1	553.4	569.1	556.8	675.2	1051.7	850.7	739.8	684.4
75°	690.8	441.5	381.0	378.2	365.0	459.9	770.1	448.3	370.1	330.6
77.5°	455.8	318.0	317.0	292.9	282.7	249.3	345.6	179.6	146.6	148.0
80°	262.6	194.9	228.6	181.3	181.6	146.3	139.8	26.2	21.1	15.3
82.5°	150.7	93.5	70.7	27.9	58.5	58.5	11.2	0.3	0.3	0.7
85°	14.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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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