

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: P401115

Luminaire Tested: **ENV-SA1B-735-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401115
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-SA1B-735-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 450mA 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: 2421 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
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

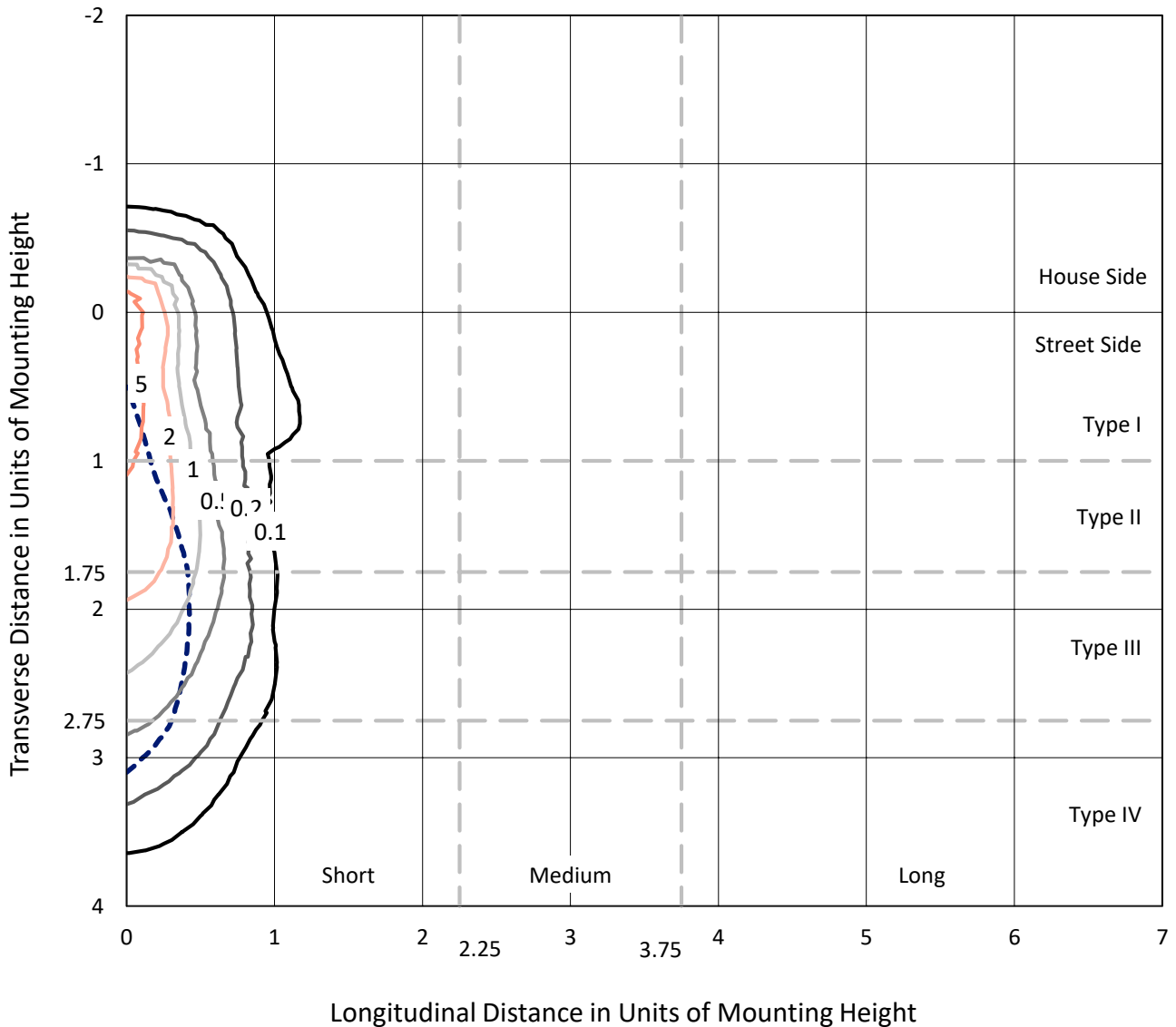


REPORT NUMBER: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

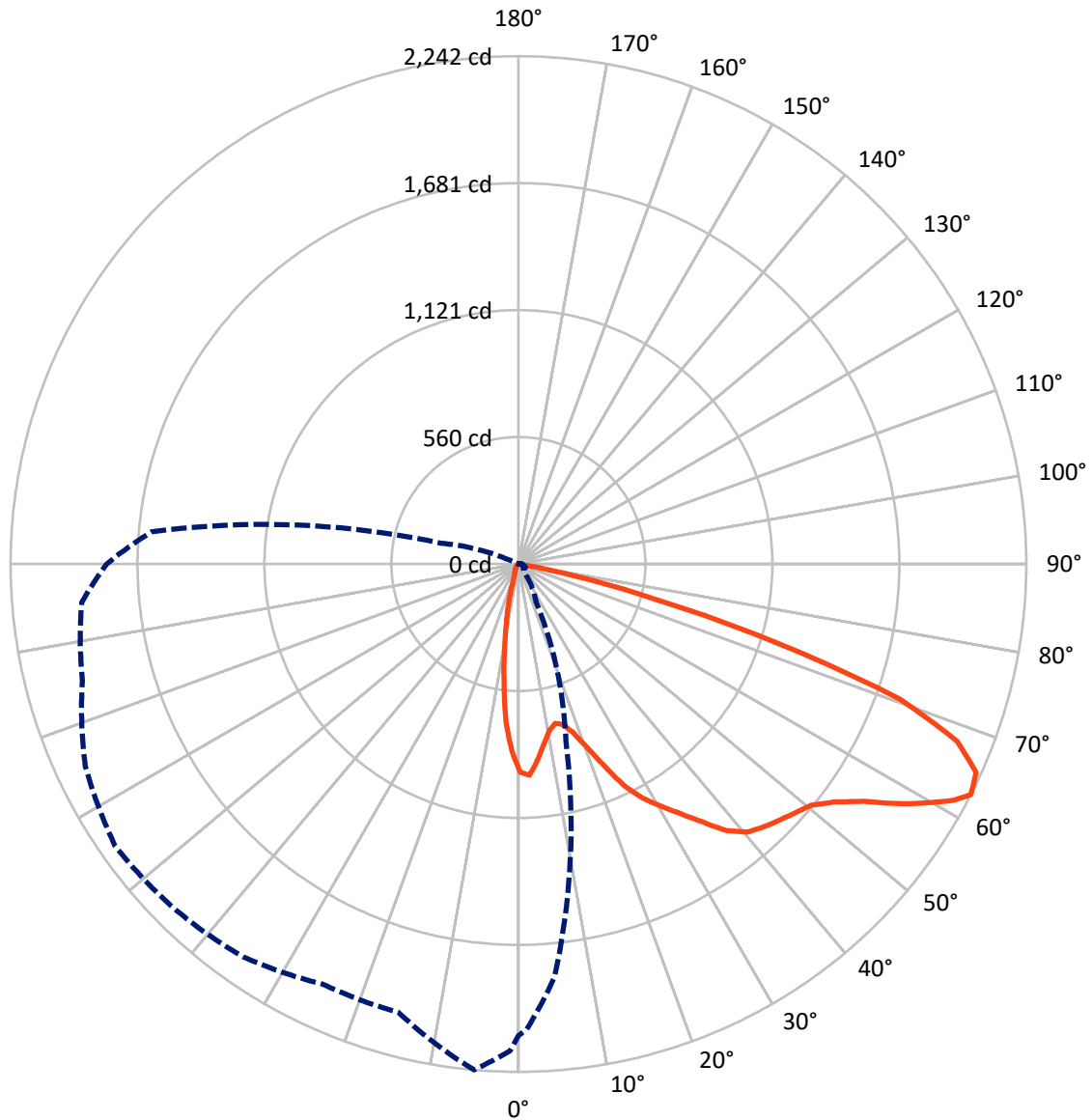
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401115
CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	340.5	0.0	340.5
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	2080.5	0.0	2080.5
	% Fixture	85.9	0.0	85.9
Total	Lumens	2421.0	0.0	2421.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	2.8
10°-20°	130.9	5.4
20°-30°	182.1	7.5
30°-40°	263.4	10.9
40°-50°	377.7	15.6
50°-60°	548.0	22.6
60°-70°	592.8	24.5
70°-80°	239.4	9.9
80°-90°	17.7	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°	2421.0	100.0
0°-180°	2421.0	100.0



REPORT NUMBER: P401115

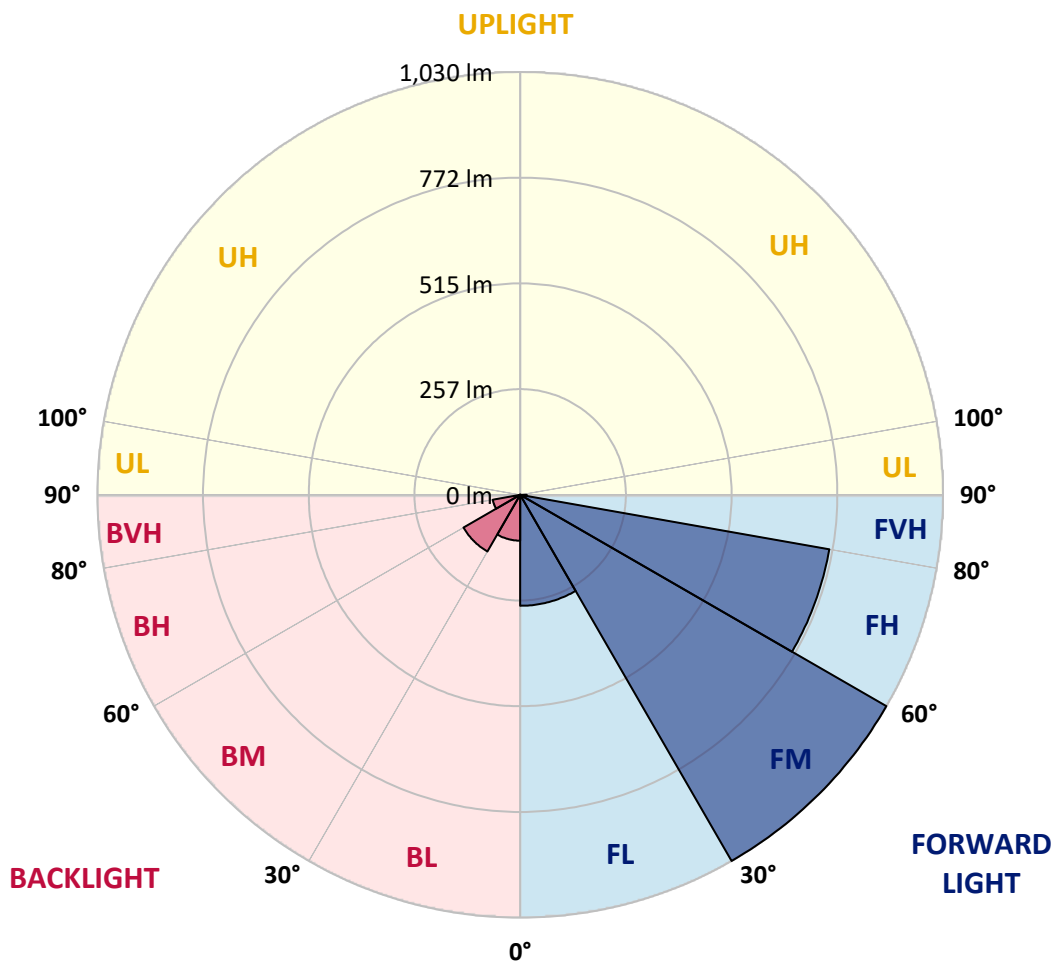
CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	270.3	11.2			
FM	(30°-60°)	1029.7	42.5			
FH	(60°-80°)	764.5	31.6			G1/1800
FVH	(80°-90°)	15.9	0.7			G1/100
BL	(0°-30°)	111.7	4.6	B1/500		
BM	(30°-60°)	159.4	6.6	B0/220		
BH	(60°-80°)	67.7	2.8	B0/110		G0/110
BVH	(80°-90°)	1.8	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





REPORT NUMBER: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3
2.5°	922.2	918.3	909.7	891.0	864.2	847.0	835.9	821.6	806.7	801.9	792.3
5°	841.7	835.5	823.5	776.5	734.4	692.2	662.0	633.3	623.7	604.6	616.1
7.5°	764.1	761.2	733.4	672.6	605.5	551.4	516.9	474.7	462.3	442.6	426.8
10°	703.2	700.8	667.3	587.8	515.5	470.4	443.1	415.8	388.5	360.7	338.7
12.5°	672.6	667.3	628.5	542.8	475.7	438.3	409.6	373.2	344.0	306.6	279.8
15°	677.4	672.6	628.0	535.6	456.5	404.8	362.2	319.0	277.8	241.0	214.6
17.5°	715.7	713.8	659.6	541.8	433.5	365.0	308.0	250.1	201.2	161.4	138.9
20°	790.4	784.7	706.1	555.2	409.6	319.0	241.0	169.6	128.9	101.6	92.0
22.5°	882.9	870.0	779.4	574.9	386.6	269.7	174.4	114.0	92.0	81.4	74.7
25°	991.6	992.1	870.4	601.2	363.6	223.7	122.2	90.5	77.6	69.9	64.2
27.5°	1079.8	1073.1	952.3	627.6	338.7	183.5	102.5	79.0	68.0	59.9	56.5
30°	1144.9	1134.9	1006.5	645.8	306.6	155.2	92.0	75.2	64.2	55.1	50.8
32.5°	1212.0	1199.5	1055.3	655.8	287.4	141.8	81.4	65.6	57.5	53.7	47.9
35°	1290.6	1279.5	1109.5	654.9	277.4	134.1	73.8	59.4	48.9	42.6	38.8
37.5°	1378.2	1355.7	1165.5	650.5	270.2	130.3	67.1	55.1	45.5	38.8	34.0
40°	1453.4	1430.9	1217.3	644.8	265.4	126.5	63.2	52.2	43.1	35.9	31.1
42.5°	1512.4	1490.8	1265.6	637.6	263.0	118.3	65.2	50.3	41.2	34.0	28.7
45°	1563.1	1541.1	1323.1	636.7	262.0	112.6	64.2	49.8	40.2	31.6	26.8
47.5°	1622.1	1610.6	1398.8	652.5	258.2	108.3	58.9	53.7	39.8	30.7	25.4
50°	1709.2	1699.2	1498.0	699.4	252.5	104.0	53.7	58.9	39.8	29.7	24.0
52.5°	1831.4	1819.9	1654.2	760.7	247.2	99.2	48.4	57.0	40.2	28.3	23.0
55°	1957.9	1956.0	1801.7	825.9	242.4	88.6	42.6	51.3	39.3	26.3	21.6
57.5°	2057.0	2055.6	1912.4	870.0	233.3	71.4	38.8	42.6	36.4	24.0	19.6
60°	2097.8	2085.8	1924.3	870.0	212.2	58.9	35.4	33.5	36.9	21.6	17.2
61°	2097.8	2082.4	1902.8	857.0	201.7	56.0	33.5	31.1	37.8	20.6	16.3
62.5°	2081.5	2056.1	1829.0	810.5	184.9	56.0	30.7	27.8	34.5	19.6	14.9
65°	2009.1	1967.5	1656.1	704.7	167.7	57.5	26.3	23.5	24.9	16.8	12.9
67.5°	1830.4	1783.5	1431.9	557.6	153.8	60.8	22.0	20.6	19.2	14.9	11.5
70°	1508.0	1468.3	1168.4	417.7	142.8	61.8	19.2	17.2	16.3	12.9	10.1
72.5°	963.8	898.2	729.6	283.1	114.5	53.7	15.8	16.3	14.9	10.5	8.1
75°	465.6	483.8	424.4	142.8	77.1	35.0	12.5	13.4	12.0	9.6	7.2
77.5°	208.4	204.6	202.6	36.4	19.6	12.0	7.7	9.1	9.6	8.6	6.2
80°	21.6	29.2	17.2	11.0	7.2	5.3	4.3	4.8	5.7	6.2	3.4
82.5°	1.0	0.5	0.5	1.4	1.4	1.0	0.0	0.0	1.0	1.0	0.5
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: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3
2.5°	783.7	796.7	790.9	789.5	797.1	793.3	804.8	805.3	813.9	825.4	832.6
5°	616.1	606.0	626.1	639.5	656.3	651.0	671.1	668.8	679.8	698.0	690.8
7.5°	427.8	429.2	439.8	451.7	496.8	505.9	512.6	517.9	517.4	521.7	529.3
10°	327.2	319.0	311.9	328.6	346.4	366.0	368.9	376.1	356.4	364.6	368.4
12.5°	267.8	258.2	242.4	233.8	238.1	249.6	254.4	258.7	247.2	247.7	256.3
15°	203.1	190.2	184.0	172.5	168.1	167.2	169.6	163.4	161.9	156.6	160.0
17.5°	132.2	128.4	125.0	122.6	119.3	118.3	109.7	94.9	86.2	84.3	84.3
20°	88.1	85.3	85.3	90.1	88.6	84.8	73.3	60.8	54.6	52.7	53.7
22.5°	72.3	70.4	67.5	67.5	69.5	66.6	56.0	46.9	42.6	42.6	42.6
25°	62.8	61.8	58.9	56.0	57.0	54.6	45.5	39.8	36.9	36.4	36.9
27.5°	55.1	54.6	51.3	48.4	48.4	46.5	39.3	34.0	32.1	31.1	31.6
30°	49.8	48.9	45.0	42.6	42.2	40.2	33.5	29.7	27.8	27.3	27.3
32.5°	46.0	44.1	40.7	38.3	36.9	34.0	29.2	25.4	23.5	23.0	23.0
35°	36.9	36.9	35.4	34.0	32.1	27.8	24.4	21.1	19.2	18.7	18.7
37.5°	32.1	30.2	27.8	28.3	27.3	23.5	20.1	16.8	15.3	14.9	14.9
40°	29.2	26.8	23.5	22.0	22.5	20.6	16.8	12.9	11.0	11.5	11.0
42.5°	26.3	24.4	20.6	17.2	16.8	17.2	12.9	9.1	7.7	7.7	7.7
45°	24.4	22.5	18.2	14.4	12.0	13.4	10.1	6.2	4.8	4.8	4.8
47.5°	23.0	21.1	16.3	12.0	8.6	9.1	7.2	3.8	2.9	1.9	2.4
50°	22.0	19.6	14.9	9.6	6.2	5.3	4.8	1.9	0.5	0.5	0.0
52.5°	20.6	18.7	13.4	8.1	4.8	3.4	2.4	0.5	0.0	0.0	0.0
55°	19.6	17.2	12.0	7.2	3.8	1.9	0.5	0.0	0.0	0.0	0.0
57.5°	17.7	15.8	10.5	5.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0
60°	15.8	14.4	9.1	4.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0
61°	14.9	13.4	8.6	3.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	13.9	12.5	7.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	12.0	10.5	6.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	10.5	9.6	5.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	9.1	8.1	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	7.7	7.2	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.7	5.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.3	4.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.5	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: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3
2.5°	839.3	856.1	871.9	892.0	903.0	933.2	954.7	972.9	987.3	990.2	1001.7
5°	709.9	733.4	748.8	790.9	814.4	864.7	903.5	949.5	990.7	1013.2	1033.8
7.5°	534.6	546.1	572.5	614.6	670.2	713.8	779.4	837.4	911.6	952.3	990.7
10°	377.5	388.0	426.8	470.9	521.7	595.0	674.5	750.7	825.9	878.1	923.1
12.5°	265.4	299.9	338.2	394.3	444.1	497.7	582.5	671.6	765.5	815.3	864.2
15°	174.4	205.0	258.2	328.6	390.9	443.1	522.2	626.6	745.9	801.4	847.9
17.5°	86.2	108.7	155.7	231.4	314.3	396.7	492.0	618.5	771.3	834.0	877.6
20°	54.1	60.8	78.1	130.8	226.1	347.8	469.5	634.7	840.3	909.7	938.0
22.5°	43.6	45.5	52.2	69.5	138.0	287.4	449.8	656.8	915.9	1000.7	1030.0
25°	37.4	38.8	42.6	51.3	80.0	215.6	425.9	695.6	1004.1	1106.6	1113.8
27.5°	32.1	33.5	36.9	43.6	57.0	145.2	391.4	741.1	1109.5	1199.5	1194.7
30°	27.3	29.2	32.6	37.4	45.0	98.2	327.2	787.1	1187.1	1259.4	1251.8
32.5°	23.5	24.9	27.8	32.1	37.4	67.5	245.8	817.3	1251.8	1315.9	1299.2
35°	19.2	20.6	23.0	26.8	30.2	47.9	185.9	818.2	1318.3	1385.9	1343.7
37.5°	15.3	16.3	18.7	22.0	24.9	37.4	136.5	802.4	1400.7	1476.9	1394.5
40°	11.5	12.9	15.3	18.2	21.1	31.6	102.0	764.1	1481.2	1567.9	1455.8
42.5°	7.7	9.6	12.0	14.9	20.1	25.4	71.9	700.4	1546.4	1648.9	1515.7
45°	4.8	6.2	9.1	12.5	20.6	20.1	47.9	624.2	1592.8	1710.7	1556.4
47.5°	2.4	3.8	6.7	12.0	18.2	14.9	29.7	551.4	1635.0	1746.6	1575.1
50°	0.5	1.4	4.8	14.9	15.3	11.0	19.6	505.9	1657.0	1737.5	1573.2
52.5°	0.0	0.0	3.4	14.4	11.0	8.6	15.3	499.2	1691.5	1749.5	1606.2
55°	0.0	0.0	1.4	6.2	6.2	7.2	13.4	490.1	1752.8	1820.9	1705.9
57.5°	0.0	0.0	0.0	2.9	3.8	5.7	12.5	466.1	1817.5	1896.6	1827.1
60°	0.0	0.0	0.0	1.4	2.4	4.8	11.0	411.5	1758.1	1897.0	1927.7
61°	0.0	0.0	0.0	1.4	1.9	4.3	10.1	392.3	1704.9	1866.4	1940.1
62.5°	0.0	0.0	0.0	0.5	1.4	3.4	8.6	354.5	1625.4	1817.0	1934.4
65°	0.0	0.0	0.0	0.0	0.5	1.9	6.7	286.5	1492.7	1693.0	1868.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.5	4.3	201.7	1302.1	1552.6	1727.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	116.9	1049.1	1314.5	1479.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	53.2	680.7	1015.1	1167.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	419.2	733.4	871.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	284.1	488.2	586.8
80°	0.0	1.0	0.5	0.0	0.0	0.0	0.0	3.8	174.9	304.7	331.0
82.5°	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	90.5	215.1	219.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.8	45.5
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: P401115

CATALOG NUMBER: ENV-SA1B-735-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3	918.3
2.5°	1012.2	1015.1	1017.0	1013.7	993.1	981.6	958.6	933.2	924.6	922.2
5°	1071.2	1087.4	1084.6	1062.5	1026.6	982.5	927.9	871.4	849.8	841.7
7.5°	1059.7	1102.3	1110.4	1087.4	1026.6	949.5	870.4	803.4	772.2	764.1
10°	1001.2	1054.9	1080.7	1073.5	1016.5	927.4	830.2	747.8	713.8	703.2
12.5°	944.7	996.4	1012.7	1018.5	987.3	910.2	810.1	721.4	686.0	672.6
15°	906.8	938.9	938.0	948.5	946.1	903.5	823.0	734.9	695.1	677.4
17.5°	894.4	884.8	872.3	881.0	897.7	905.4	865.2	782.8	736.3	715.7
20°	902.0	855.1	827.8	827.3	862.8	921.2	927.0	861.8	818.2	790.4
22.5°	941.3	840.3	798.1	799.1	842.6	944.7	998.3	965.3	917.4	882.9
25°	999.3	843.1	786.6	792.3	840.7	965.3	1075.5	1083.1	1021.8	991.6
27.5°	1058.2	868.0	787.1	793.3	848.9	976.3	1119.5	1169.8	1117.1	1079.8
30°	1099.4	898.7	795.7	802.4	861.8	984.9	1136.3	1241.2	1186.6	1144.9
32.5°	1138.2	930.3	809.6	816.3	887.7	1002.6	1167.9	1313.1	1253.2	1212.0
35°	1176.1	961.5	835.5	847.4	929.4	1034.7	1200.0	1397.4	1347.6	1290.6
37.5°	1208.6	995.9	880.0	905.4	985.9	1084.1	1243.6	1493.2	1441.9	1378.2
40°	1235.9	1036.7	972.0	1000.3	1072.1	1136.3	1292.0	1555.9	1521.9	1453.4
42.5°	1258.0	1108.5	1103.7	1143.5	1193.8	1196.2	1305.9	1586.1	1573.2	1512.4
45°	1294.9	1237.4	1276.7	1341.8	1338.5	1268.0	1302.1	1613.9	1614.9	1563.1
47.5°	1355.2	1398.8	1512.4	1556.4	1533.9	1366.2	1305.9	1641.2	1662.8	1622.1
50°	1441.5	1581.8	1730.3	1788.8	1723.1	1464.9	1339.9	1673.8	1738.9	1709.2
52.5°	1515.2	1720.3	1931.5	1983.7	1894.2	1570.3	1419.4	1744.2	1841.0	1831.4
55°	1620.6	1839.5	2074.8	2115.0	2043.1	1689.6	1526.2	1847.7	1953.1	1957.9
57.5°	1728.4	1947.3	2168.2	2208.9	2154.3	1838.1	1678.1	1996.2	2058.5	2057.0
60°	1848.2	2047.9	2210.3	2232.8	2201.7	1986.6	1841.5	2132.2	2130.8	2097.8
61°	1916.7	2080.0	2207.5	2214.2	2184.0	2030.2	1925.8	2184.5	2141.3	2097.8
62.5°	1992.4	2109.3	2172.0	2149.5	2116.9	2045.5	2047.9	2241.5	2148.5	2081.5
65°	2069.0	2036.0	2008.7	1900.9	1870.2	1904.7	2150.9	2219.9	2104.9	2009.1
67.5°	1937.8	1744.7	1685.8	1577.5	1456.3	1597.1	2053.2	2088.2	1957.9	1830.4
70°	1583.7	1281.9	1212.0	1208.2	1121.0	1275.7	1810.8	1785.4	1624.9	1508.0
72.5°	1241.2	874.7	779.4	801.4	784.2	950.9	1481.2	1198.1	1041.9	963.8
75°	972.9	621.8	536.5	532.7	514.0	647.7	1084.6	631.4	521.2	465.6
77.5°	641.9	447.9	446.5	412.5	398.1	351.1	486.7	252.9	206.5	208.4
80°	369.8	274.5	321.9	255.3	255.8	206.0	196.9	36.9	29.7	21.6
82.5°	212.2	131.7	99.6	39.3	82.4	82.4	15.8	0.5	0.5	1.0
85°	20.6	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	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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