

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: P401473

Luminaire Tested: **ENV-SA1D-735-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401473
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-SA1D-735-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 800mA 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: 3988 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

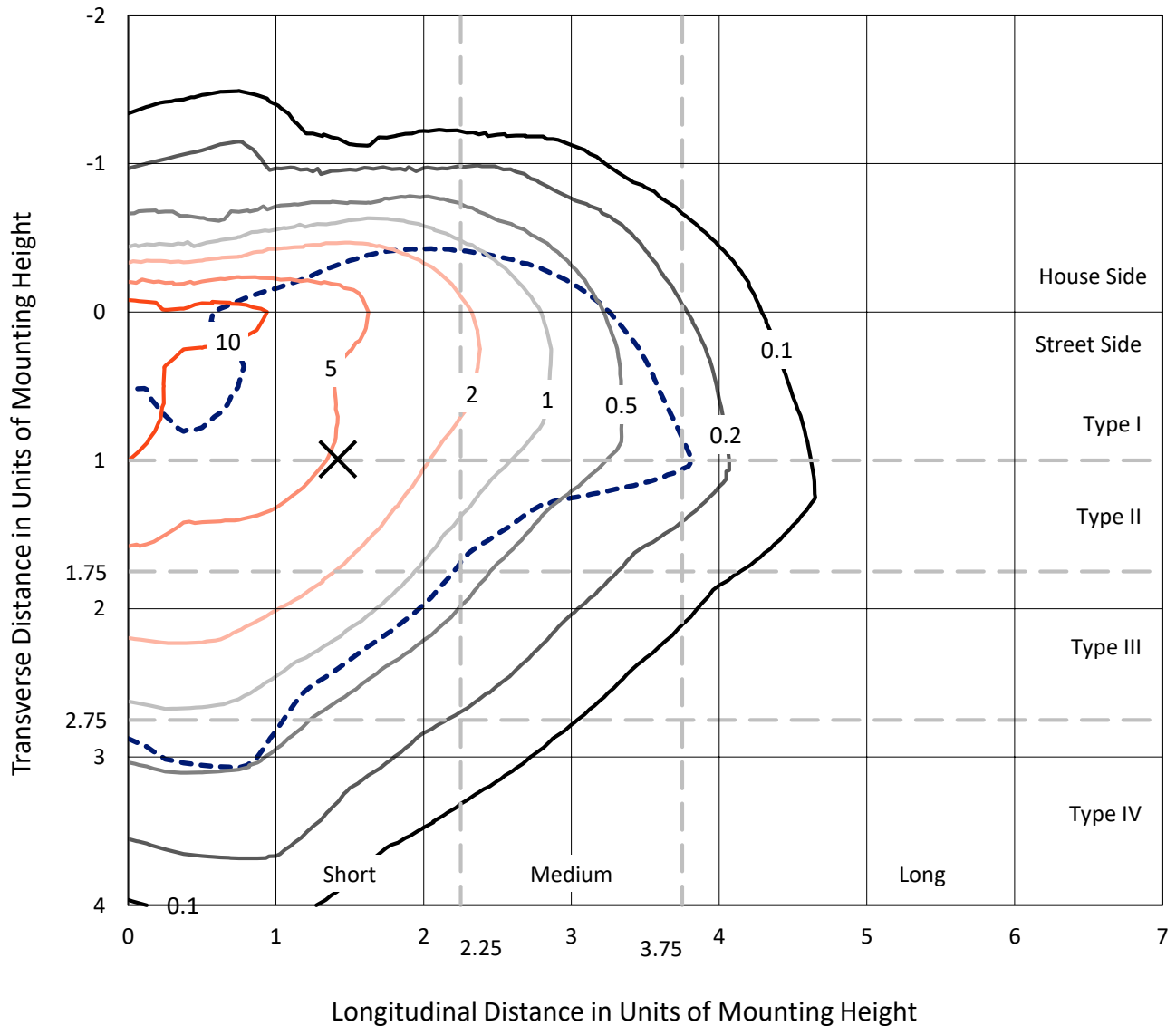
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401473
 CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

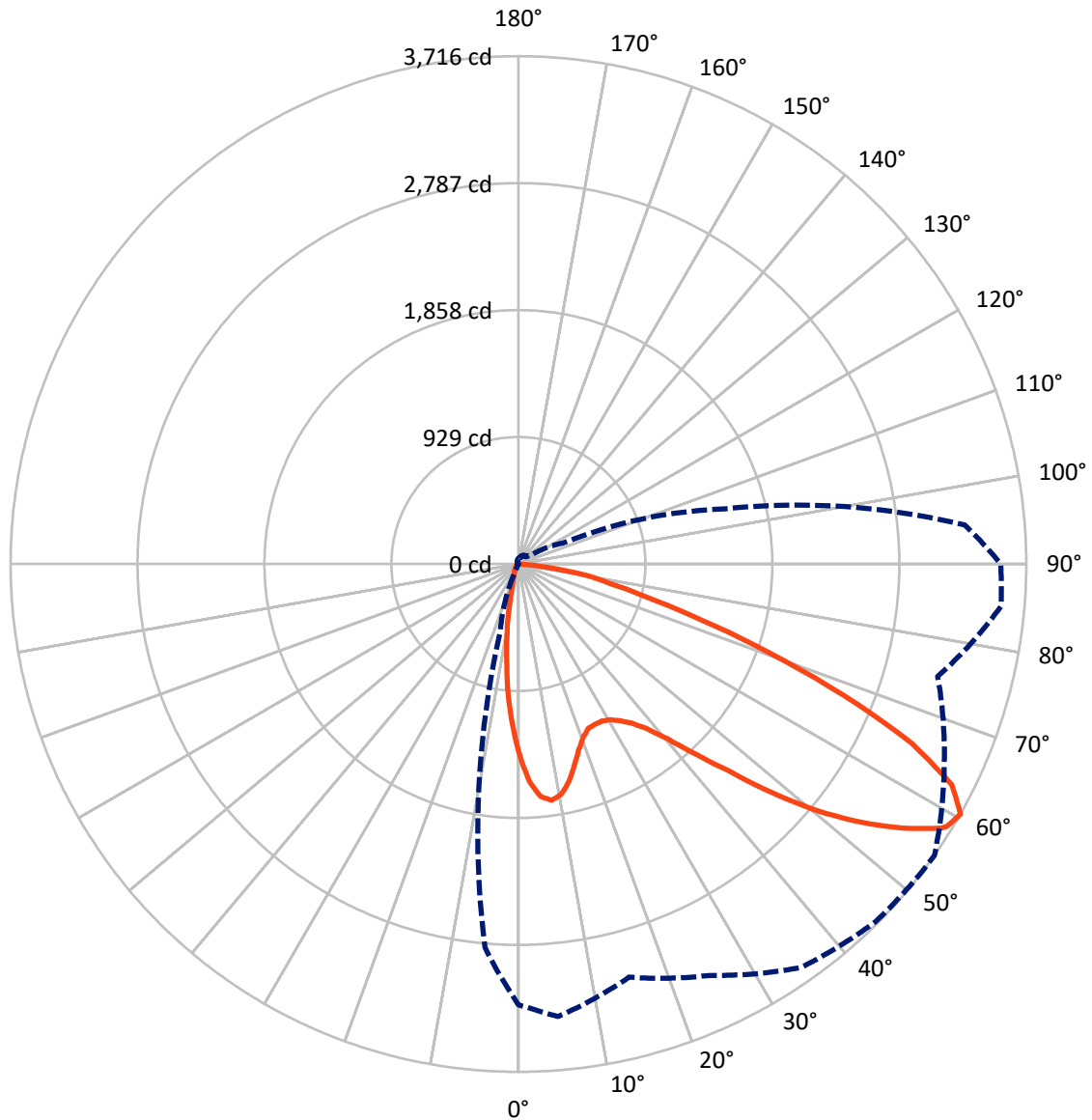


Based on 10 foot mounting height. Maximum calculated value = 16.6 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	706.2	0.0	706.2
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	3281.8	0.0	3281.8
	% Fixture	82.3	0.0	82.3
Total	Lumens	3988.0	0.0	3988.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	2.7
10°-20°	201.6	5.1
20°-30°	287.5	7.2
30°-40°	421.8	10.6
40°-50°	621.9	15.6
50°-60°	921.2	23.1
60°-70°	981.7	24.6
70°-80°	407.2	10.2
80°-90°	39.1	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°	3988.0	100.0
0°-180°	3988.0	100.0



REPORT NUMBER: P401473

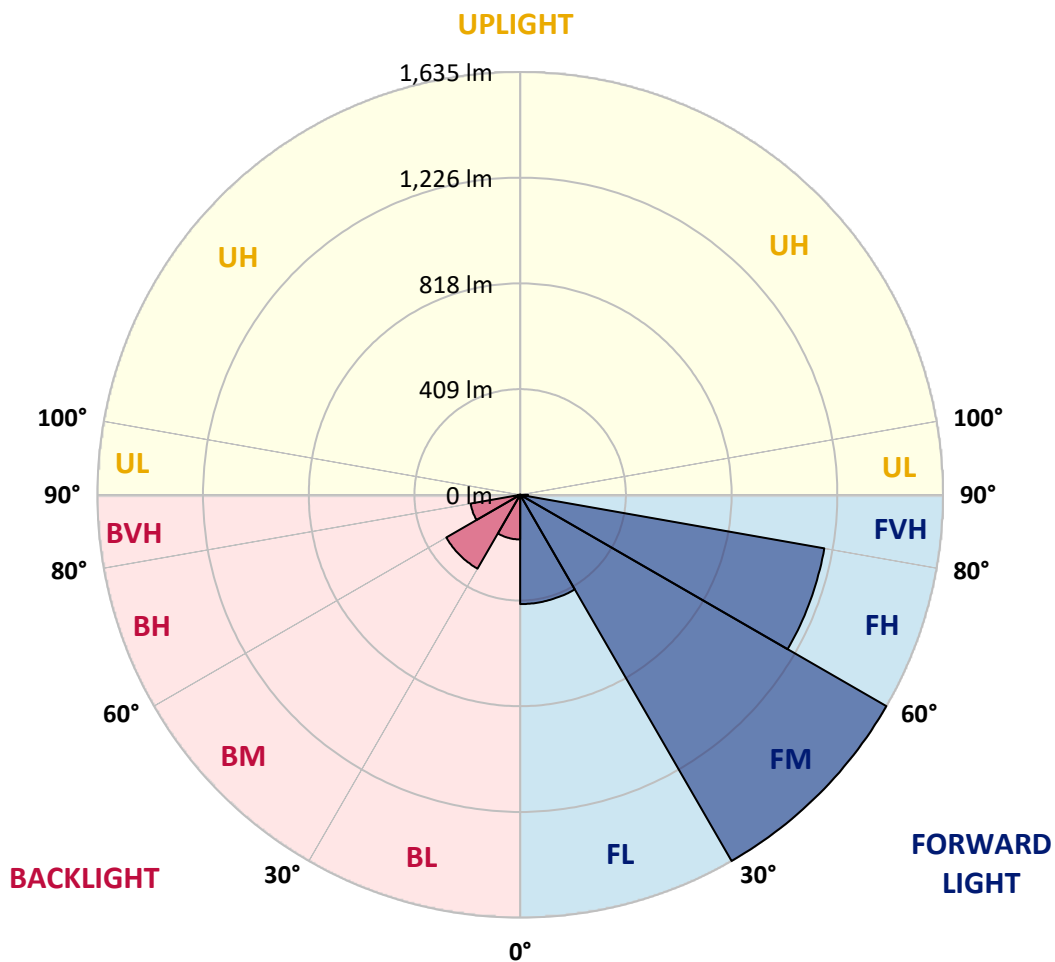
CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	422.4	10.6			
FM	(30°-60°)	1635.1	41.0			
FH	(60°-80°)	1194.3	29.9			G1/1800
FVH	(80°-90°)	30.0	0.8			G1/100
BL	(0°-30°)	172.7	4.3	B1/500		
BM	(30°-60°)	329.7	8.3	B1/1000		
BH	(60°-80°)	194.7	4.9	B1/500		G1/500
BVH	(80°-90°)	9.2	0.2			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 III Short





REPORT NUMBER: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4
2.5°	1471.0	1468.7	1489.8	1533.5	1560.7	1577.3	1580.3	1597.6	1580.3	1571.2	1538.8
5°	1428.0	1427.2	1467.9	1563.7	1642.1	1700.9	1729.6	1710.0	1679.8	1620.2	1547.9
7.5°	1308.9	1308.9	1385.8	1513.9	1645.1	1746.9	1781.6	1745.4	1673.8	1553.9	1424.2
10°	1211.6	1220.6	1294.5	1447.6	1593.1	1704.7	1743.1	1715.2	1621.7	1466.4	1314.1
12.5°	1153.5	1158.8	1241.0	1394.8	1530.5	1621.0	1644.4	1636.1	1568.2	1399.3	1238.0
15°	1158.8	1166.4	1260.6	1386.5	1474.7	1510.9	1519.2	1529.8	1501.9	1372.2	1213.1
17.5°	1241.8	1247.0	1342.0	1423.5	1419.7	1408.4	1411.4	1428.7	1461.9	1394.8	1263.6
20°	1374.5	1388.0	1483.8	1485.3	1391.0	1338.3	1324.7	1353.3	1443.1	1454.4	1371.4
22.5°	1544.8	1550.1	1647.4	1589.3	1394.1	1290.0	1274.2	1306.6	1449.1	1550.9	1520.7
25°	1742.4	1761.2	1814.0	1724.3	1437.8	1283.2	1272.7	1299.8	1471.0	1653.4	1674.5
27.5°	1875.8	1890.9	1941.4	1816.3	1477.0	1287.0	1267.4	1300.6	1497.3	1749.9	1838.9
30°	1995.0	2005.5	2024.4	1864.5	1521.5	1305.8	1274.2	1321.7	1511.7	1770.3	1945.2
32.5°	2107.3	2120.1	2108.8	1922.6	1570.5	1341.3	1287.0	1366.2	1542.6	1811.0	2037.9
35°	2252.1	2252.8	2214.4	1980.6	1626.3	1383.5	1324.7	1429.5	1602.9	1874.3	2137.5
37.5°	2424.0	2425.5	2328.2	2040.2	1689.6	1454.4	1413.7	1527.5	1690.4	1947.5	2279.9
40°	2574.0	2580.0	2451.1	2108.8	1767.3	1592.3	1588.6	1682.8	1802.7	2044.7	2433.0
42.5°	2704.4	2721.8	2564.2	2166.1	1877.3	1804.2	1813.3	1899.2	1939.2	2126.1	2528.0
45°	2836.4	2835.6	2656.9	2223.4	2061.3	2077.1	2163.1	2159.3	2093.7	2169.9	2602.6
47.5°	2918.5	2914.8	2713.5	2316.9	2309.4	2460.9	2552.1	2502.4	2264.9	2216.6	2696.1
50°	2950.2	2948.7	2758.0	2436.0	2561.9	2808.5	2938.9	2839.4	2474.5	2295.0	2807.7
52.5°	3039.9	3032.4	2860.5	2571.7	2790.4	3143.2	3251.0	3140.2	2683.3	2436.0	2937.4
55°	3180.2	3182.4	3036.9	2730.8	2973.6	3379.2	3511.2	3412.4	2896.7	2629.8	3115.3
57.5°	3274.4	3281.2	3232.2	2908.0	3169.6	3544.3	3672.5	3644.6	3180.9	2861.2	3324.2
58°	3283.5	3288.7	3263.1	2941.9	3199.0	3563.2	3694.4	3674.8	3243.5	2935.1	3373.9
60°	3225.4	3241.2	3323.4	3128.9	3320.4	3603.1	3698.1	3715.5	3437.3	3174.9	3544.3
62.5°	3067.8	3073.1	3222.4	3338.5	3403.3	3504.4	3513.4	3558.6	3517.2	3456.1	3696.6
65°	2874.8	2874.8	3036.2	3348.3	3188.5	3171.9	3119.1	3164.3	3284.2	3632.5	3686.1
67.5°	2539.3	2541.6	2747.4	2982.6	2643.4	2586.1	2552.1	2568.7	2824.3	3485.5	3481.0
70°	2052.3	2050.7	2262.6	2414.9	1961.8	1912.8	1953.5	1948.2	2294.3	3097.2	3039.2
72.5°	1451.4	1464.2	1682.1	1865.3	1332.2	1148.3	1327.7	1397.1	1725.8	2610.9	2351.6
75°	817.3	834.6	1012.6	1296.0	840.7	776.6	868.6	967.3	1247.8	2078.6	1579.5
77.5°	410.1	416.9	518.7	623.5	509.7	591.9	586.6	680.8	855.7	1402.3	903.2
80°	236.7	250.3	285.0	321.9	285.0	375.5	435.8	512.7	527.0	725.3	503.6
82.5°	95.0	106.3	133.4	151.5	118.4	111.6	76.1	239.8	317.4	350.6	193.0
85°	0.0	0.0	0.8	1.5	2.3	2.3	3.8	42.2	77.7	17.3	31.7
87.5°	0.0	0.0	0.8	0.8	1.5	2.3	3.0	5.3	6.8	8.3	28.7
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: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4
2.5°	1526.8	1518.5	1490.6	1448.3	1422.0	1381.2	1364.7	1326.2	1306.6	1274.2	1274.2
5°	1511.7	1477.7	1407.6	1316.4	1251.6	1183.7	1161.8	1116.6	1084.2	1045.7	1029.9
7.5°	1374.5	1327.0	1217.6	1111.3	1008.0	939.4	871.6	825.6	781.8	750.2	754.7
10°	1248.5	1180.7	1060.8	925.9	818.8	747.2	686.1	632.6	587.3	542.8	536.1
12.5°	1166.4	1088.7	945.5	800.7	720.8	668.0	611.5	552.6	496.9	447.8	428.2
15°	1131.7	1047.2	887.4	750.9	677.8	609.9	544.4	472.0	407.9	349.1	333.2
17.5°	1169.4	1068.3	882.1	717.8	616.0	530.8	439.6	360.4	285.0	242.8	230.0
20°	1271.9	1140.7	899.5	684.6	547.4	437.3	325.7	236.0	193.8	168.1	159.8
22.5°	1420.4	1260.6	928.9	652.2	478.0	325.7	224.7	170.4	145.5	131.9	128.2
25°	1581.8	1415.2	983.2	625.0	408.6	242.0	166.6	139.5	124.4	114.6	110.8
27.5°	1763.5	1568.2	1049.5	604.7	344.6	193.8	143.3	122.9	110.8	104.0	101.0
30°	1877.3	1678.3	1100.0	568.5	300.8	176.4	136.5	116.1	103.3	98.0	95.8
32.5°	1982.1	1765.0	1148.3	527.0	267.7	156.1	132.7	122.1	107.1	96.5	92.0
35°	2097.5	1854.0	1171.6	502.1	245.8	135.7	109.3	95.0	86.7	85.2	82.9
37.5°	2269.4	1959.5	1186.7	488.6	232.2	123.6	101.8	86.0	76.1	67.1	63.3
40°	2432.2	2068.8	1194.3	475.7	225.4	116.1	97.3	81.4	70.9	62.6	58.8
42.5°	2559.7	2168.4	1198.8	466.7	213.4	111.6	93.5	78.4	67.1	58.8	55.0
45°	2663.7	2283.7	1195.0	463.7	203.6	114.6	92.0	76.1	64.1	55.8	52.0
47.5°	2765.5	2408.9	1209.3	459.9	193.8	110.1	92.7	75.4	61.8	53.5	49.8
50°	2898.9	2560.4	1261.4	449.4	187.0	103.3	100.3	76.1	61.1	52.0	49.0
52.5°	3071.6	2770.0	1355.6	438.0	178.7	97.3	104.8	76.1	59.6	50.5	46.7
55°	3281.2	3005.2	1459.6	421.5	164.4	89.7	100.3	76.1	58.1	49.8	45.2
57.5°	3452.3	3214.8	1541.8	401.9	138.0	80.7	92.0	73.1	54.3	46.7	43.0
58°	3467.4	3239.0	1553.1	396.6	135.0	79.2	89.7	72.4	52.8	46.0	42.2
60°	3528.5	3278.2	1557.7	367.9	112.3	75.4	77.7	70.1	49.8	43.0	40.0
62.5°	3507.4	3148.5	1461.9	317.4	100.3	68.6	64.8	71.6	46.0	39.2	36.2
65°	3402.6	2893.7	1281.0	284.2	101.0	61.1	55.8	62.6	42.2	35.4	32.4
67.5°	3153.0	2506.9	1040.5	266.1	105.6	54.3	48.3	46.7	37.7	31.7	29.4
70°	2689.3	2054.5	788.6	250.3	111.6	48.3	44.5	41.5	34.7	29.4	26.4
72.5°	1980.6	1521.5	573.8	234.5	108.6	43.0	41.5	37.7	31.7	26.4	24.9
75°	1235.7	883.6	392.8	191.5	97.3	37.7	38.5	35.4	28.7	24.9	22.6
77.5°	721.5	620.5	193.8	142.5	67.1	33.2	33.9	32.4	29.4	23.4	21.9
80°	432.0	386.0	82.9	61.1	36.9	29.4	28.7	30.2	27.9	21.9	20.4
82.5°	187.0	167.4	40.0	33.9	30.2	25.6	24.9	25.6	24.1	18.1	17.3
85°	10.6	27.9	18.8	24.9	22.6	18.8	18.8	19.6	17.3	14.3	14.3
87.5°	9.8	21.1	12.1	15.1	16.6	14.3	15.1	15.1	14.3	12.8	12.1
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: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4
2.5°	1256.8	1248.5	1223.7	1214.6	1175.4	1185.2	1188.2	1184.5	1186.0	1189.0	1200.3
5°	1041.2	1027.6	995.2	974.1	962.8	955.3	919.8	920.6	925.9	905.5	931.9
7.5°	739.6	754.7	757.7	738.1	726.1	700.4	668.0	649.9	619.0	636.3	640.1
10°	529.3	521.7	536.1	529.3	510.4	500.6	465.9	462.9	459.9	457.6	479.5
12.5°	403.4	380.7	364.2	367.9	353.6	329.5	323.4	324.2	327.2	327.2	333.2
15°	319.7	285.0	258.6	242.8	245.0	220.9	214.1	191.5	188.5	181.7	183.2
17.5°	223.9	209.6	193.8	175.7	168.1	146.3	119.9	107.8	98.8	100.3	104.8
20°	154.6	148.5	144.0	135.0	127.4	101.8	85.2	79.9	79.2	80.7	82.2
22.5°	124.4	118.4	113.8	110.8	101.0	82.2	73.1	69.4	69.4	69.4	70.1
25°	107.1	101.0	95.0	95.0	86.0	71.6	64.8	61.8	61.1	60.3	61.8
27.5°	99.5	91.2	85.2	81.4	74.6	63.3	57.3	54.3	53.5	53.5	54.3
30°	92.0	83.7	77.7	72.4	64.8	56.5	50.5	48.3	46.7	46.7	47.5
32.5°	87.5	79.2	71.6	64.8	56.5	49.8	44.5	41.5	40.0	40.7	41.5
35°	77.7	70.9	64.1	57.3	49.8	43.7	38.5	35.4	34.7	34.7	35.4
37.5°	61.1	55.8	54.3	50.5	43.7	37.7	32.4	29.4	28.7	28.7	29.4
40°	55.0	48.3	45.2	43.7	40.0	32.4	26.4	23.4	23.4	22.6	24.1
42.5°	50.5	43.7	38.5	36.9	34.7	27.9	21.1	18.8	18.1	18.1	18.8
45°	47.5	40.0	33.2	29.4	29.4	22.6	17.3	14.3	13.6	13.6	14.3
47.5°	46.0	37.7	29.4	24.1	23.4	18.8	13.6	10.6	9.8	9.8	9.8
50°	44.5	34.7	26.4	20.4	18.1	15.8	10.6	8.3	7.5	7.5	7.5
52.5°	42.2	33.2	24.1	18.1	14.3	12.1	8.3	6.0	5.3	4.5	5.3
55°	40.7	30.9	23.4	16.6	12.1	9.0	6.0	4.5	3.8	3.8	3.8
57.5°	38.5	28.7	21.1	15.8	11.3	6.8	4.5	3.0	2.3	2.3	3.0
58°	37.7	28.7	20.4	15.1	10.6	6.8	4.5	3.0	2.3	2.3	3.0
60°	35.4	26.4	19.6	13.6	9.8	6.0	3.8	2.3	1.5	1.5	2.3
62.5°	33.2	24.1	17.3	12.1	8.3	5.3	3.0	1.5	0.8	0.8	0.8
65°	29.4	21.9	15.1	11.3	6.8	3.8	2.3	0.8	0.0	0.0	0.0
67.5°	26.4	20.4	13.6	9.8	6.0	3.0	1.5	0.0	0.0	0.0	0.0
70°	24.1	18.8	12.1	8.3	5.3	2.3	0.8	0.0	0.0	0.0	0.0
72.5°	22.6	17.3	11.3	7.5	3.8	2.3	0.8	0.0	0.0	0.0	0.0
75°	21.9	16.6	11.3	6.8	3.8	2.3	1.5	0.8	0.0	0.0	0.8
77.5°	21.1	16.6	11.3	6.8	4.5	2.3	2.3	1.5	1.5	0.8	2.3
80°	19.6	15.1	9.8	6.0	3.8	3.0	2.3	1.5	0.0	0.0	0.0
82.5°	16.6	12.1	8.3	6.0	3.8	2.3	0.8	0.0	0.0	0.0	0.0
85°	13.6	9.8	6.8	3.8	2.3	0.8	0.0	0.0	0.0	0.0	0.0
87.5°	12.1	7.5	5.3	3.0	1.5	0.8	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: P401473

CATALOG NUMBER: ENV-SA1D-735-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4
2.5°	1210.1	1244.8	1259.1	1307.4	1328.5	1372.2	1409.9	1442.3	1458.1	1471.0
5°	938.7	971.8	1007.3	1078.9	1140.7	1207.1	1290.0	1376.0	1400.8	1428.0
7.5°	655.2	704.2	763.8	827.8	916.1	1016.3	1135.5	1241.8	1295.3	1308.9
10°	508.9	567.0	630.3	693.6	766.8	873.8	993.7	1130.9	1188.2	1211.6
12.5°	382.3	459.9	535.3	609.9	673.3	766.0	896.4	1060.1	1123.4	1153.5
15°	230.0	317.4	410.1	510.4	598.6	707.2	854.2	1045.0	1124.9	1158.8
17.5°	114.6	156.8	242.0	392.8	523.2	658.2	853.5	1099.3	1198.0	1241.8
20°	85.2	96.5	128.9	245.0	435.0	617.5	862.5	1192.0	1337.5	1374.5
22.5°	73.1	81.4	92.7	143.3	325.7	579.8	894.2	1314.9	1495.8	1544.8
25°	64.1	70.9	79.9	98.8	223.2	535.3	953.7	1488.3	1675.3	1742.4
27.5°	56.5	62.6	70.1	82.9	149.3	451.6	987.7	1633.8	1820.0	1875.8
30°	49.8	54.3	61.8	70.9	110.1	349.1	1019.3	1762.0	1951.2	1995.0
32.5°	43.7	47.5	53.5	60.3	83.7	264.6	1020.8	1872.1	2065.8	2107.3
35°	36.9	41.5	46.0	52.0	66.3	206.6	989.9	1981.4	2201.5	2252.1
37.5°	30.9	34.7	40.0	45.2	60.3	159.8	925.9	2109.6	2366.7	2424.0
40°	26.4	30.2	34.7	40.7	53.5	116.1	823.3	2225.7	2521.2	2574.0
42.5°	21.1	24.9	30.2	40.0	44.5	83.7	720.0	2337.2	2655.4	2704.4
45°	16.6	21.1	27.9	38.5	36.9	58.8	631.1	2436.0	2770.8	2836.4
47.5°	12.1	17.3	27.9	34.7	30.2	42.2	585.8	2531.0	2874.1	2918.5
50°	9.0	14.3	30.2	29.4	25.6	36.2	592.6	2636.6	2921.6	2950.2
52.5°	6.8	12.1	23.4	21.1	21.9	31.7	619.0	2776.0	3019.6	3039.9
55°	6.0	9.0	14.3	15.8	19.6	30.2	612.2	2908.0	3144.7	3180.2
57.5°	5.3	7.5	11.3	12.8	17.3	28.7	573.8	2966.0	3225.4	3274.4
58°	4.5	7.5	10.6	12.8	17.3	27.9	564.0	2950.2	3221.6	3283.5
60°	3.8	6.8	9.8	11.3	15.1	24.9	516.5	2816.0	3138.7	3225.4
62.5°	3.0	4.5	7.5	8.3	12.1	20.4	425.2	2598.9	2960.8	3067.8
65°	1.5	3.0	4.5	6.0	8.3	15.1	302.3	2341.8	2770.0	2874.8
67.5°	0.0	1.5	3.0	3.8	5.3	11.3	174.2	1987.4	2456.4	2539.3
70°	0.0	0.8	1.5	2.3	3.0	7.5	92.0	1458.9	1903.0	2052.3
72.5°	0.8	0.8	0.8	0.0	1.5	6.0	40.7	865.5	1297.6	1451.4
75°	0.8	0.8	0.0	0.0	0.0	3.0	17.3	456.1	744.1	817.3
77.5°	3.0	1.5	0.0	0.0	0.0	0.8	8.3	245.8	386.0	410.1
80°	0.8	0.0	0.0	0.0	0.0	0.0	3.0	82.2	231.5	236.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	99.5	95.0
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

(END OF REPORT)