

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: P401637

Luminaire Tested: **ENV-SA1E-730-U-SLR-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401637  
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-SA1E-730-U-SLR-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 1050mA 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: 4817 lumens  
Efficiency: N/A  
Efficacy: 84.2 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): 57.2  
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

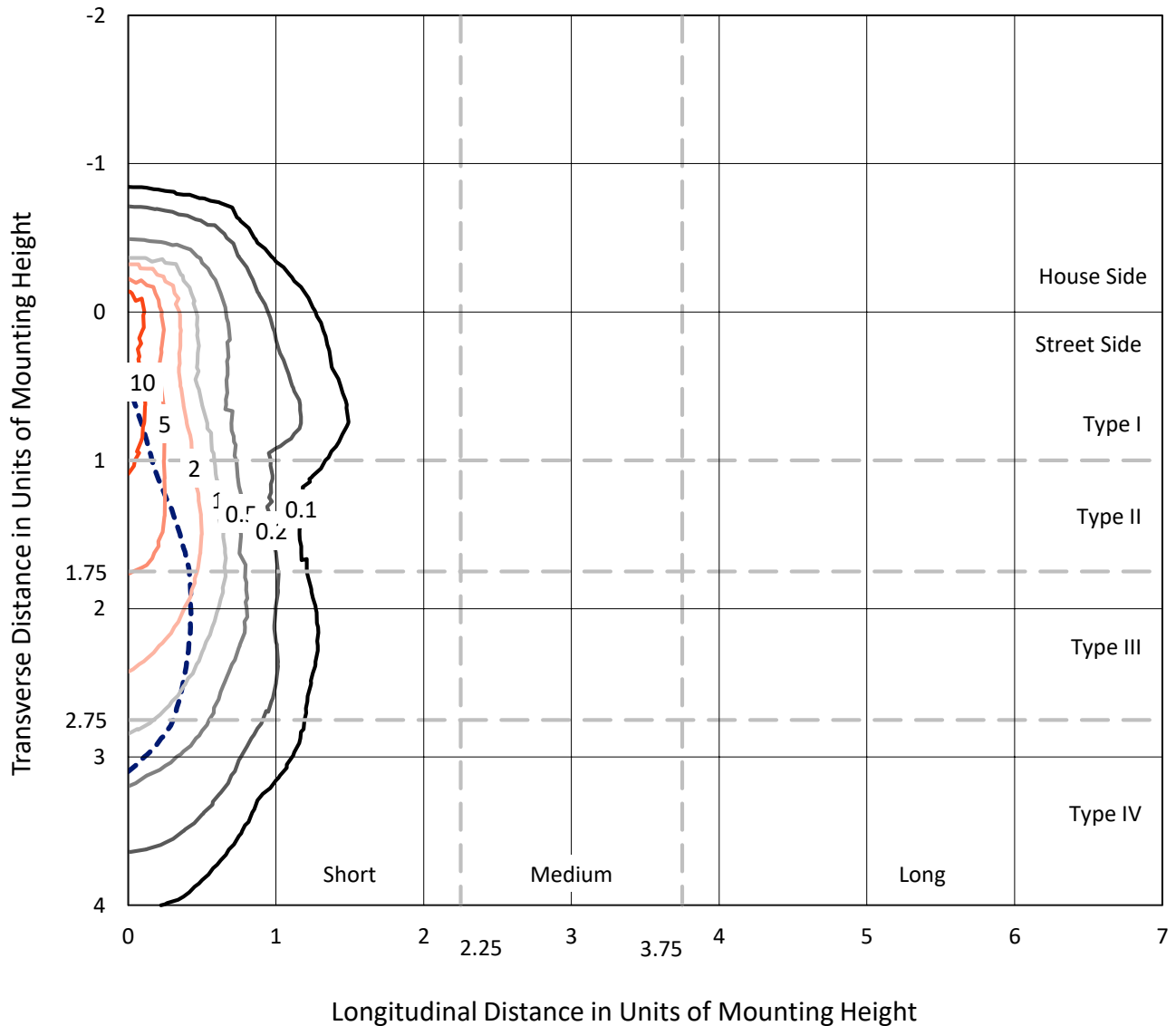


REPORT NUMBER: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

### Iso-Footcandle Lines of Horizontal Illumination

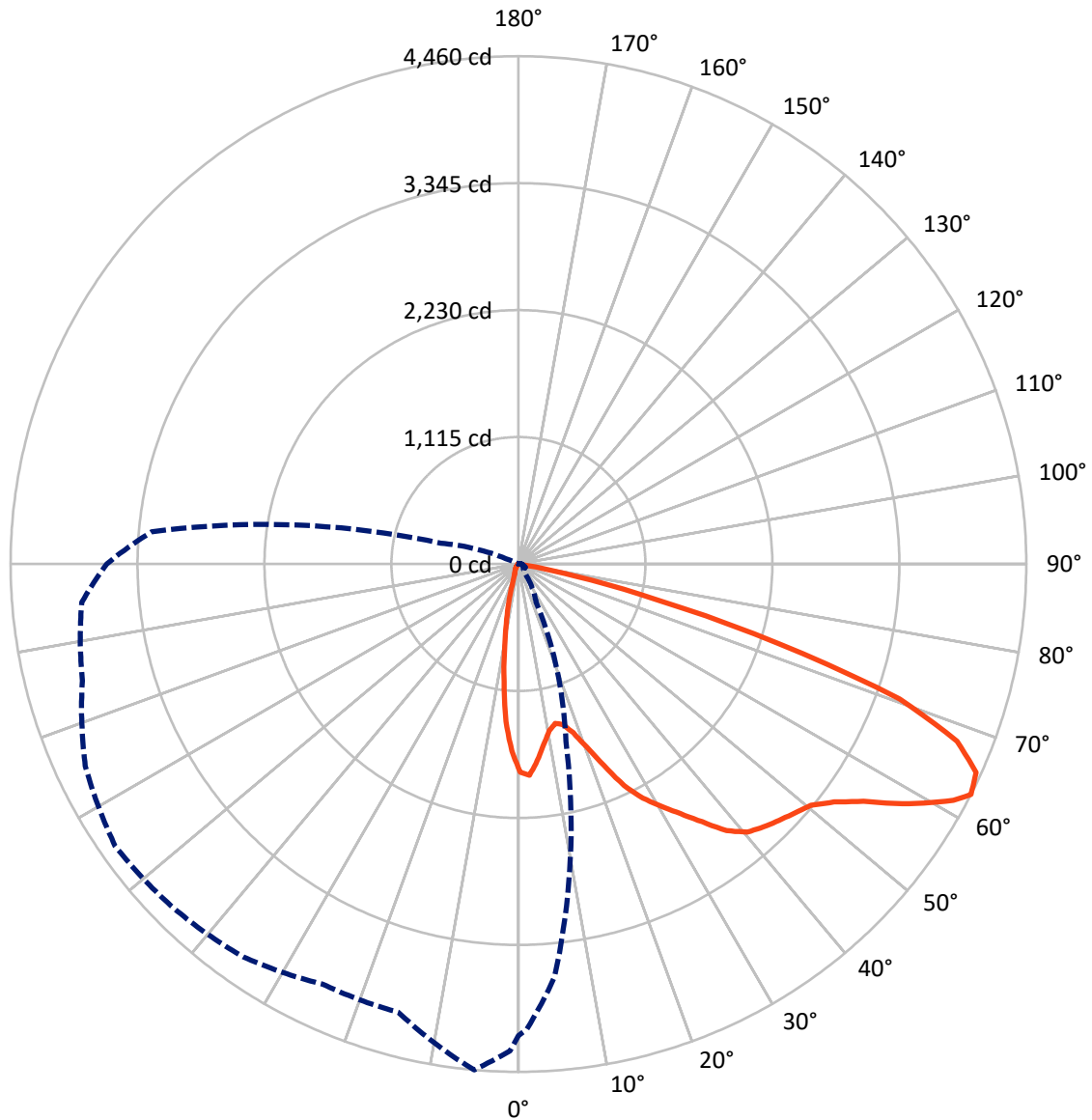
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.3 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401637  
CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	677.6	0.0	677.6
	% Fixture	14.1	0.0	14.1
<b>Street Side</b>	Lumens	4139.4	0.0	4139.4
	% Fixture	85.9	0.0	85.9
<b>Total</b>	Lumens	4817.0	0.0	4817.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	2.8
10°-20°	260.4	5.4
20°-30°	362.4	7.5
30°-40°	524.1	10.9
40°-50°	751.5	15.6
50°-60°	1090.3	22.6
60°-70°	1179.6	24.5
70°-80°	476.4	9.9
80°-90°	35.3	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°	4817.0	100.0
0°-180°	4817.0	100.0



REPORT NUMBER: P401637

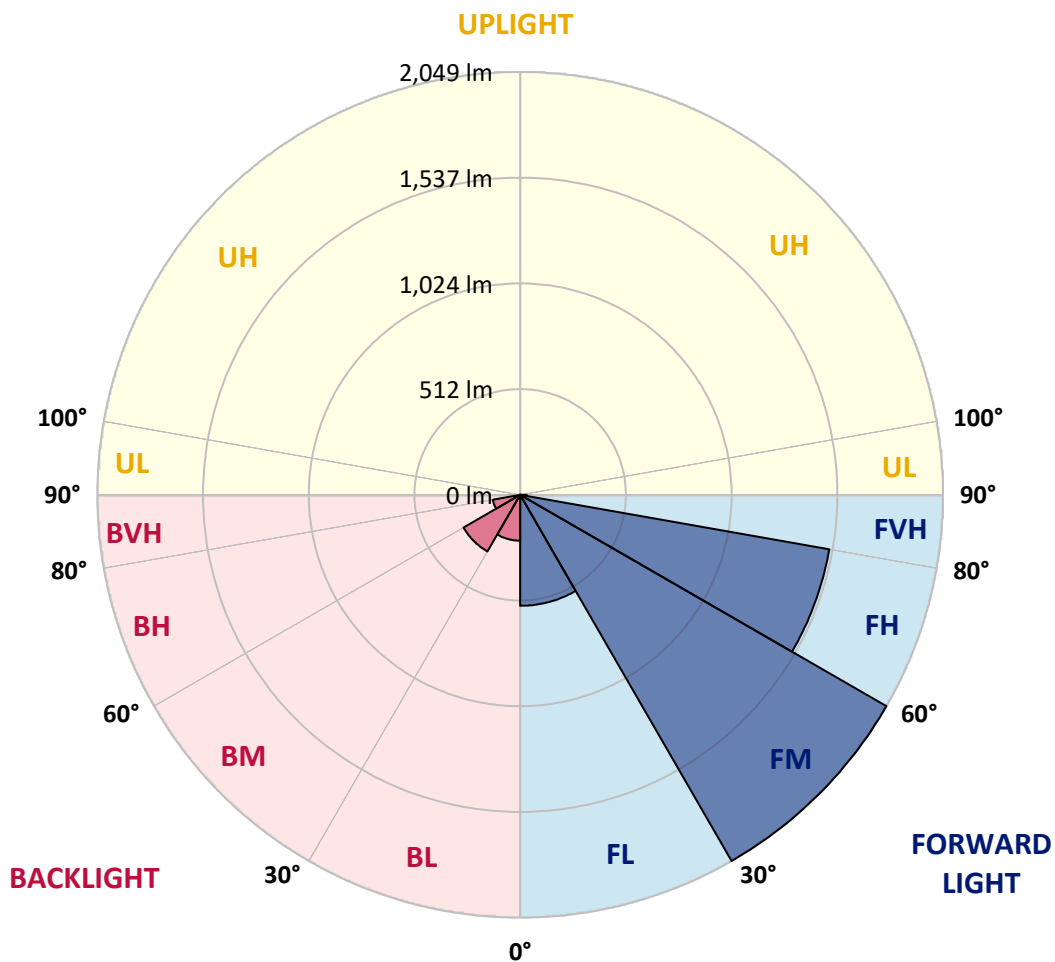
CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.7	11.2			
FM	(30°-60°)	2048.8	42.5			
FH	(60°-80°)	1521.2	31.6			G1/1800
FVH	(80°-90°)	31.7	0.7			G1/100
BL	(0°-30°)	222.2	4.6	B1/500		
BM	(30°-60°)	317.1	6.6	B1/1000		
BH	(60°-80°)	134.8	2.8	B1/500		G1/500
BVH	(80°-90°)	3.6	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: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2
2.5°	1834.8	1827.2	1810.0	1772.9	1719.5	1685.2	1663.2	1634.7	1605.1	1595.6	1576.5
5°	1674.7	1662.3	1638.5	1545.1	1461.2	1377.3	1317.3	1260.1	1241.0	1202.9	1225.8
7.5°	1520.3	1514.6	1459.3	1338.2	1204.8	1097.1	1028.4	944.6	919.8	880.7	849.3
10°	1399.2	1394.5	1327.7	1169.5	1025.6	936.0	881.7	827.3	773.0	717.7	673.9
12.5°	1338.2	1327.7	1250.5	1079.9	946.5	872.1	814.9	742.5	684.4	610.0	556.6
15°	1347.8	1338.2	1249.6	1065.6	908.4	805.4	720.6	634.8	552.8	479.4	427.0
17.5°	1424.0	1420.2	1312.5	1078.0	862.6	726.3	612.9	497.5	400.3	321.2	276.4
20°	1572.7	1561.3	1404.9	1104.7	814.9	634.8	479.4	337.4	256.4	202.1	183.0
22.5°	1756.7	1730.9	1550.8	1143.8	769.2	536.6	346.9	226.8	183.0	162.0	148.7
25°	1973.0	1974.0	1731.9	1196.2	723.4	445.1	243.1	180.1	154.4	139.2	127.7
27.5°	2148.4	2135.1	1894.9	1248.6	673.9	365.1	204.0	157.3	135.3	119.1	112.5
30°	2278.0	2258.0	2002.6	1284.8	610.0	308.8	183.0	149.6	127.7	109.6	101.0
32.5°	2411.5	2386.7	2099.8	1304.9	571.9	282.1	162.0	130.6	114.4	106.8	95.3
35°	2567.8	2545.9	2207.5	1303.0	551.9	266.9	146.8	118.2	97.2	84.8	77.2
37.5°	2742.2	2697.4	2319.0	1294.4	537.6	259.3	133.4	109.6	90.5	77.2	67.7
40°	2891.9	2847.1	2422.0	1282.9	528.0	251.6	125.8	103.9	85.8	71.5	62.0
42.5°	3009.1	2966.2	2518.2	1268.6	523.3	235.4	129.6	100.1	82.0	67.7	57.2
45°	3110.1	3066.3	2632.6	1266.7	521.4	224.0	127.7	99.1	80.1	62.9	53.4
47.5°	3227.4	3204.5	2783.2	1298.2	513.7	215.4	117.2	106.8	79.1	61.0	50.5
50°	3400.8	3380.8	2980.5	1391.6	502.3	206.8	106.8	117.2	79.1	59.1	47.7
52.5°	3643.9	3621.0	3291.2	1513.6	491.8	197.3	96.3	113.4	80.1	56.2	45.8
55°	3895.5	3891.7	3584.8	1643.2	482.3	176.3	84.8	102.0	78.2	52.4	42.9
57.5°	4092.8	4090.0	3805.0	1730.9	464.2	142.0	77.2	84.8	72.4	47.7	39.1
60°	4173.8	4150.0	3828.8	1730.9	422.2	117.2	70.5	66.7	73.4	42.9	34.3
61°	4173.8	4143.3	3785.9	1705.2	401.3	111.5	66.7	62.0	75.3	41.0	32.4
62.5°	4141.4	4090.9	3639.1	1612.7	367.9	111.5	61.0	55.3	68.6	39.1	29.5
65°	3997.5	3914.6	3295.0	1402.1	333.6	114.4	52.4	46.7	49.6	33.4	25.7
67.5°	3642.0	3548.6	2849.0	1109.5	306.0	121.1	43.8	41.0	38.1	29.5	22.9
70°	3000.5	2921.4	2324.7	831.1	284.0	123.0	38.1	34.3	32.4	25.7	20.0
72.5°	1917.7	1787.2	1451.6	563.3	227.8	106.8	31.5	32.4	29.5	21.0	16.2
75°	926.5	962.7	844.5	284.0	153.5	69.6	24.8	26.7	23.8	19.1	14.3
77.5°	414.6	407.0	403.2	72.4	39.1	23.8	15.3	18.1	19.1	17.2	12.4
80°	42.9	58.1	34.3	21.9	14.3	10.5	8.6	9.5	11.4	12.4	6.7
82.5°	1.9	1.0	1.0	2.9	2.9	1.9	0.0	0.0	1.9	1.9	1.0
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: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2
2.5°	1559.4	1585.1	1573.7	1570.8	1586.0	1578.4	1601.3	1602.2	1619.4	1642.3	1656.6
5°	1225.8	1205.7	1245.8	1272.5	1305.8	1295.3	1335.4	1330.6	1352.5	1388.7	1374.4
7.5°	851.2	854.0	875.0	898.8	988.4	1006.5	1019.9	1030.4	1029.4	1038.0	1053.2
10°	651.0	634.8	620.5	653.9	689.1	728.2	733.9	748.2	709.1	725.3	733.0
12.5°	532.8	513.7	482.3	465.1	473.7	496.6	506.1	514.7	491.8	492.8	509.9
15°	404.1	378.4	366.0	343.1	334.6	332.6	337.4	325.0	322.2	311.7	318.4
17.5°	263.1	255.4	248.8	244.0	237.3	235.4	218.3	188.7	171.6	167.8	167.8
20°	175.4	169.7	169.7	179.2	176.3	168.7	145.8	121.1	108.7	104.8	106.8
22.5°	143.9	140.1	134.4	134.4	138.2	132.5	111.5	93.4	84.8	84.8	84.8
25°	124.9	123.0	117.2	111.5	113.4	108.7	90.5	79.1	73.4	72.4	73.4
27.5°	109.6	108.7	102.0	96.3	96.3	92.5	78.2	67.7	63.9	62.0	62.9
30°	99.1	97.2	89.6	84.8	83.9	80.1	66.7	59.1	55.3	54.3	54.3
32.5°	91.5	87.7	81.0	76.3	73.4	67.7	58.1	50.5	46.7	45.8	45.8
35°	73.4	73.4	70.5	67.7	63.9	55.3	48.6	41.9	38.1	37.2	37.2
37.5°	63.9	60.0	55.3	56.2	54.3	46.7	40.0	33.4	30.5	29.5	29.5
40°	58.1	53.4	46.7	43.8	44.8	41.0	33.4	25.7	21.9	22.9	21.9
42.5°	52.4	48.6	41.0	34.3	33.4	34.3	25.7	18.1	15.3	15.3	15.3
45°	48.6	44.8	36.2	28.6	23.8	26.7	20.0	12.4	9.5	9.5	9.5
47.5°	45.8	41.9	32.4	23.8	17.2	18.1	14.3	7.6	5.7	3.8	4.8
50°	43.8	39.1	29.5	19.1	12.4	10.5	9.5	3.8	1.0	1.0	0.0
52.5°	41.0	37.2	26.7	16.2	9.5	6.7	4.8	1.0	0.0	0.0	0.0
55°	39.1	34.3	23.8	14.3	7.6	3.8	1.0	0.0	0.0	0.0	0.0
57.5°	35.3	31.5	21.0	11.4	5.7	1.9	0.0	0.0	0.0	0.0	0.0
60°	31.5	28.6	18.1	8.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0
61°	29.5	26.7	17.2	7.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	27.6	24.8	15.3	5.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0
65°	23.8	21.0	13.3	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	21.0	19.1	11.4	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	18.1	16.2	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	15.3	14.3	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.3	11.4	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.5	9.5	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.7	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	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: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2
2.5°	1669.9	1703.3	1734.7	1774.8	1796.7	1856.7	1899.6	1935.8	1964.4	1970.2	1993.0
5°	1412.6	1459.3	1489.8	1573.7	1620.4	1720.4	1797.6	1889.1	1971.1	2015.9	2056.9
7.5°	1063.7	1086.6	1139.0	1222.9	1333.5	1420.2	1550.8	1666.1	1813.8	1894.9	1971.1
10°	751.1	772.1	849.3	936.9	1038.0	1183.8	1342.0	1493.6	1643.2	1747.1	1836.7
12.5°	528.0	596.7	672.9	784.4	883.6	990.3	1159.0	1336.3	1523.1	1622.3	1719.5
15°	346.9	407.9	513.7	653.9	777.8	881.7	1038.9	1246.7	1484.1	1594.6	1687.1
17.5°	171.6	216.4	309.8	460.4	625.3	789.2	978.9	1230.5	1534.6	1659.4	1746.2
20°	107.7	121.1	155.4	260.2	449.9	692.0	934.1	1262.9	1671.8	1810.0	1866.3
22.5°	86.7	90.5	103.9	138.2	274.5	571.9	895.0	1306.8	1822.4	1991.1	2049.3
25°	74.3	77.2	84.8	102.0	159.2	428.9	847.4	1384.0	1997.8	2201.8	2216.1
27.5°	63.9	66.7	73.4	86.7	113.4	288.8	778.7	1474.5	2207.5	2386.7	2377.2
30°	54.3	58.1	64.8	74.3	89.6	195.4	651.0	1566.0	2361.9	2505.8	2490.6
32.5°	46.7	49.6	55.3	63.9	74.3	134.4	489.0	1626.1	2490.6	2618.3	2584.9
35°	38.1	41.0	45.8	53.4	60.0	95.3	369.8	1628.0	2623.1	2757.5	2673.6
37.5°	30.5	32.4	37.2	43.8	49.6	74.3	271.6	1596.5	2787.0	2938.6	2774.6
40°	22.9	25.7	30.5	36.2	41.9	62.9	203.0	1520.3	2947.1	3119.7	2896.6
42.5°	15.3	19.1	23.8	29.5	40.0	50.5	143.0	1393.5	3076.8	3280.7	3015.8
45°	9.5	12.4	18.1	24.8	41.0	40.0	95.3	1242.0	3169.2	3403.7	3096.8
47.5°	4.8	7.6	13.3	23.8	36.2	29.5	59.1	1097.1	3253.1	3475.2	3134.0
50°	1.0	2.9	9.5	29.5	30.5	21.9	39.1	1006.5	3296.9	3457.1	3130.1
52.5°	0.0	0.0	6.7	28.6	21.9	17.2	30.5	993.2	3365.6	3480.9	3195.9
55°	0.0	0.0	2.9	12.4	12.4	14.3	26.7	975.1	3487.6	3622.9	3394.2
57.5°	0.0	0.0	0.0	5.7	7.6	11.4	24.8	927.4	3616.3	3773.5	3635.3
60°	0.0	0.0	0.0	2.9	4.8	9.5	21.9	818.8	3498.1	3774.5	3835.5
61°	0.0	0.0	0.0	2.9	3.8	8.6	20.0	780.6	3392.3	3713.5	3860.3
62.5°	0.0	0.0	0.0	1.0	2.9	6.7	17.2	705.3	3234.0	3615.3	3848.8
65°	0.0	0.0	0.0	0.0	1.0	3.8	13.3	570.0	2970.0	3368.4	3717.3
67.5°	0.0	0.0	0.0	0.0	0.0	1.0	8.6	401.3	2590.7	3089.2	3436.1
70°	0.0	0.0	0.0	0.0	0.0	0.0	3.8	232.6	2087.4	2615.4	2943.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	105.8	1354.4	2019.7	2321.9
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.8	834.0	1459.3	1734.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	565.2	971.3	1167.6
80°	0.0	1.9	1.0	0.0	0.0	0.0	0.0	7.6	347.9	606.2	658.6
82.5°	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	180.1	428.0	436.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.3	90.5
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: P401637

CATALOG NUMBER: ENV-SA1E-730-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2	1827.2
2.5°	2014.0	2019.7	2023.5	2016.9	1975.9	1953.0	1907.3	1856.7	1839.6	1834.8
5°	2131.2	2163.7	2157.9	2114.1	2042.6	1954.9	1846.3	1733.8	1690.9	1674.7
7.5°	2108.4	2193.2	2209.4	2163.7	2042.6	1889.1	1731.9	1598.4	1536.5	1520.3
10°	1992.1	2098.8	2150.3	2136.0	2022.6	1845.3	1651.8	1487.9	1420.2	1399.2
12.5°	1879.6	1982.6	2015.0	2026.4	1964.4	1811.0	1611.8	1435.4	1364.9	1338.2
15°	1804.3	1868.2	1866.3	1887.2	1882.5	1797.6	1637.5	1462.1	1383.0	1347.8
17.5°	1779.5	1760.5	1735.7	1752.8	1786.2	1801.5	1721.4	1557.4	1465.0	1424.0
20°	1794.8	1701.4	1647.0	1646.1	1716.6	1832.9	1844.3	1714.7	1628.0	1572.7
22.5°	1872.9	1671.8	1587.9	1589.9	1676.6	1879.6	1986.4	1920.6	1825.3	1756.7
25°	1988.3	1677.5	1565.1	1576.5	1672.8	1920.6	2139.8	2155.1	2033.1	1973.0
27.5°	2105.5	1727.1	1566.0	1578.4	1689.0	1942.5	2227.5	2327.6	2222.7	2148.4
30°	2187.5	1788.1	1583.2	1596.5	1714.7	1959.7	2260.9	2469.6	2361.0	2278.0
32.5°	2264.7	1851.0	1610.8	1624.2	1766.2	1994.9	2323.8	2612.6	2493.4	2411.5
35°	2340.0	1913.0	1662.3	1686.1	1849.1	2058.8	2387.6	2780.3	2681.2	2567.8
37.5°	2404.8	1981.6	1750.9	1801.5	1961.6	2157.0	2474.4	2971.0	2869.0	2742.2
40°	2459.1	2062.6	1933.9	1990.2	2133.1	2260.9	2570.6	3095.8	3028.2	2891.9
42.5°	2503.0	2205.6	2196.1	2275.2	2375.2	2380.0	2598.3	3155.9	3130.1	3009.1
45°	2576.4	2462.0	2540.1	2669.8	2663.1	2523.0	2590.7	3211.2	3213.1	3110.1
47.5°	2696.5	2783.2	3009.1	3096.8	3052.0	2718.4	2598.3	3265.5	3308.4	3227.4
50°	2868.0	3147.3	3442.8	3559.1	3428.5	2914.7	2666.0	3330.3	3459.9	3400.8
52.5°	3014.8	3422.8	3843.1	3947.0	3768.8	3124.4	2824.2	3470.4	3663.0	3643.9
55°	3224.5	3660.1	4128.1	4208.2	4065.2	3361.8	3036.7	3676.3	3886.0	3895.5
57.5°	3439.0	3874.6	4314.0	4395.0	4286.3	3657.2	3338.9	3971.8	4095.7	4092.8
60°	3677.3	4074.7	4397.8	4442.6	4380.7	3952.7	3663.9	4242.5	4239.6	4173.8
61°	3813.6	4138.6	4392.1	4405.5	4345.4	4039.4	3831.7	4346.4	4260.6	4173.8
62.5°	3964.2	4196.7	4321.6	4276.8	4212.0	4070.0	4074.7	4459.8	4274.9	4141.4
65°	4116.7	4050.9	3996.6	3782.1	3721.1	3789.7	4279.6	4416.9	4188.1	3997.5
67.5°	3855.5	3471.4	3354.1	3138.7	2897.6	3177.8	4085.2	4154.8	3895.5	3642.0
70°	3151.1	2550.6	2411.5	2403.8	2230.4	2538.2	3602.9	3552.4	3233.1	3000.5
72.5°	2469.6	1740.5	1550.8	1594.6	1560.3	1892.0	2947.1	2383.8	2073.1	1917.7
75°	1935.8	1237.2	1067.5	1059.9	1022.7	1288.7	2157.9	1256.3	1037.0	926.5
77.5°	1277.2	891.2	888.3	820.7	792.1	698.7	968.4	503.3	410.8	414.6
80°	735.8	546.2	640.5	508.0	509.0	409.9	391.7	73.4	59.1	42.9
82.5°	422.2	262.1	198.3	78.2	163.9	163.9	31.5	1.0	1.0	1.9
85°	41.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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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