

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: P401204

Luminaire Tested: **ENV-SA1B-827-U-SLL**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401204
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-7)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-827-U-SLL
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2228 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-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

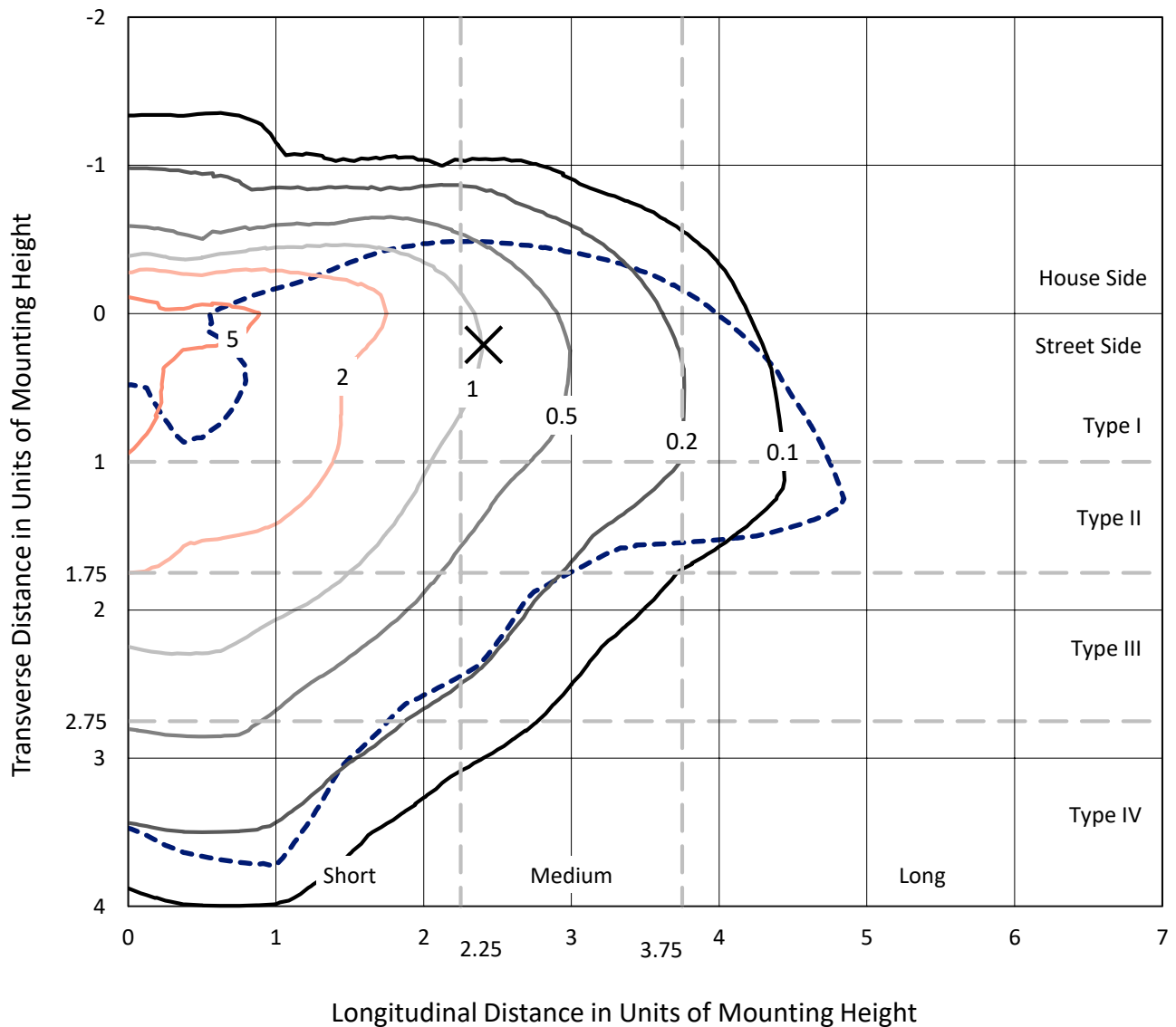


REPORT NUMBER: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

Iso-Footcandle Lines of Horizontal Illumination

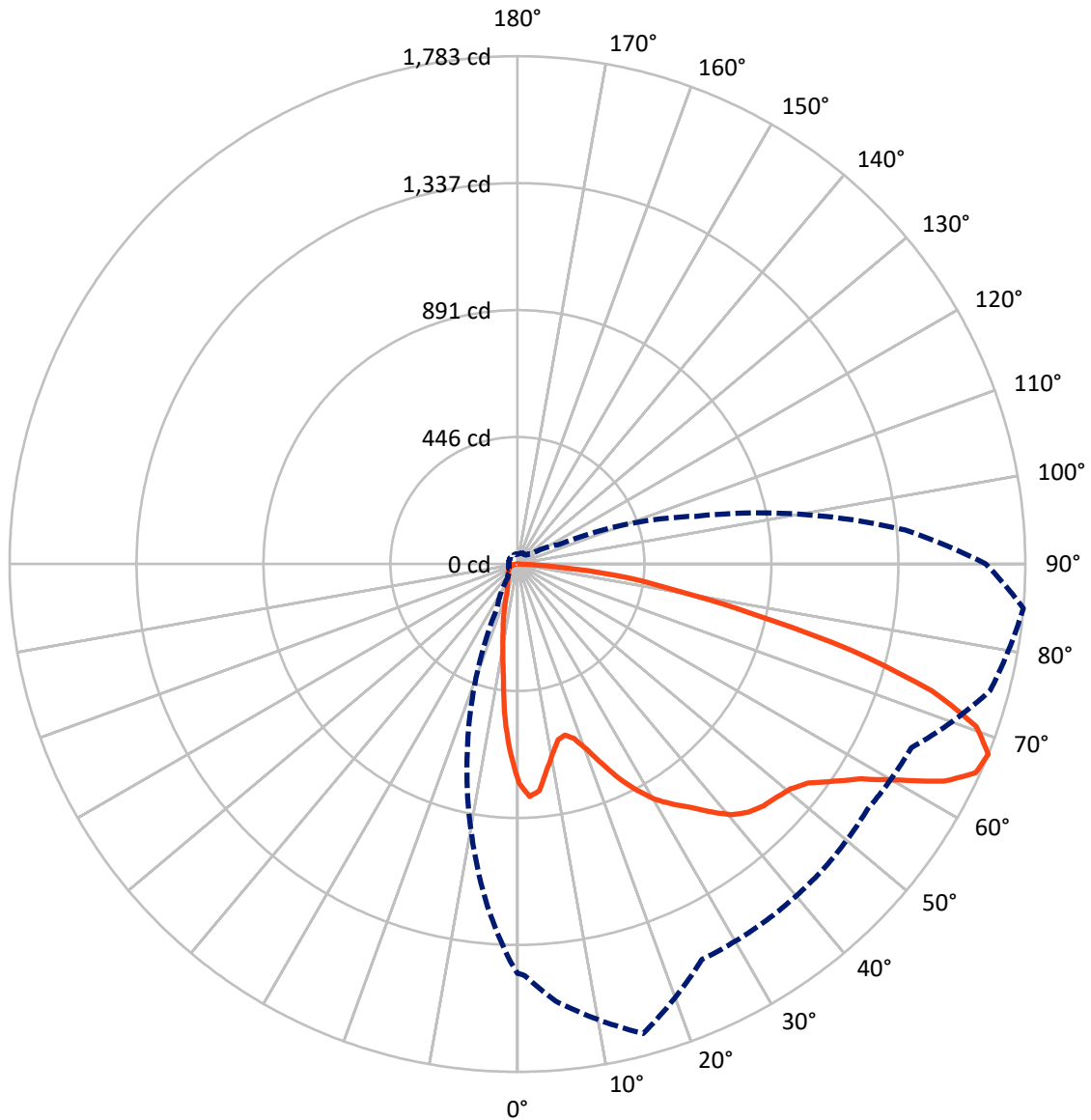
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401204
CATALOG NUMBER: ENV-SA1B-827-U-SLL

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	448.9	0.0	448.9
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	1779.1	0.0	1779.1
	% Fixture	79.9	0.0	79.9
Total	Lumens	2228.0	0.0	2228.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	2.6
10°-20°	115.4	5.2
20°-30°	161.3	7.2
30°-40°	227.3	10.2
40°-50°	315.0	14.1
50°-60°	442.6	19.9
60°-70°	541.1	24.3
70°-80°	318.0	14.3
80°-90°	48.7	2.2
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°	2228.0	100.0
0°-180°	2228.0	100.0



REPORT NUMBER: P401204

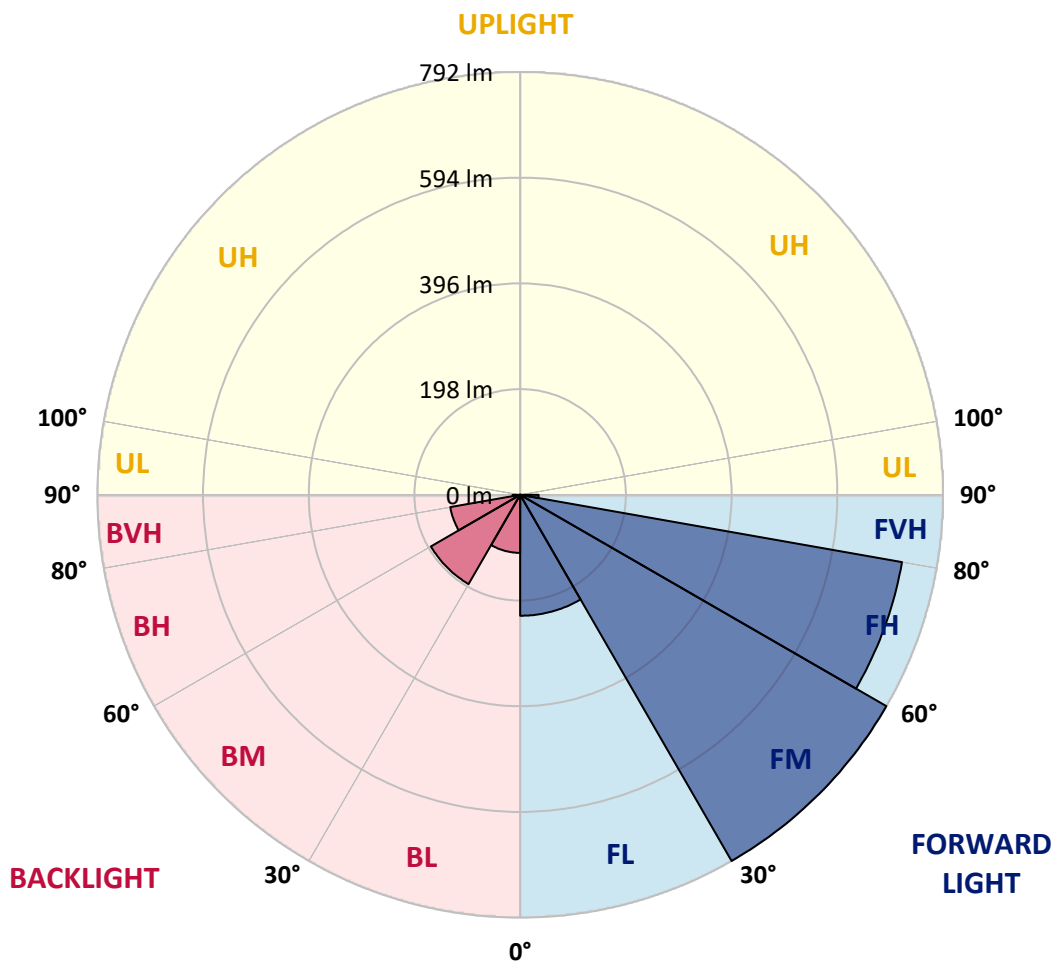
CATALOG NUMBER: ENV-SA1B-827-U-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	226.5	10.2			
FM	(30°-60°)	792.0	35.5			
FH	(60°-80°)	726.2	32.6			G1/1800
FVH	(80°-90°)	34.5	1.5			G1/100
BL	(0°-30°)	108.7	4.9	B0/110		
BM	(30°-60°)	193.0	8.7	B0/220		
BH	(60°-80°)	133.0	6.0	B1/500		G1/500
BVH	(80°-90°)	14.2	0.6			G1/100
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 Medium





REPORT NUMBER: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7
2.5°	790.9	787.3	799.5	817.4	829.5	838.1	841.0	840.7	838.1	831.3	817.0
5°	755.8	752.5	777.3	817.0	851.8	876.8	884.0	874.0	861.4	834.9	799.8
7.5°	689.1	694.2	725.7	781.6	837.4	877.2	886.9	871.1	845.3	791.2	732.1
10°	638.6	641.1	676.6	743.9	803.4	844.2	861.1	847.1	813.4	745.0	676.6
12.5°	607.5	610.0	644.4	706.7	770.1	802.0	807.0	806.6	778.7	712.4	633.3
15°	611.8	615.0	649.4	701.0	736.8	750.7	751.1	755.0	746.8	696.3	622.9
17.5°	653.3	653.3	686.3	717.4	709.2	699.2	706.7	713.9	728.2	706.0	644.0
20°	718.9	721.7	752.2	746.8	696.7	671.6	662.6	675.2	719.6	735.0	693.8
22.5°	789.8	797.3	829.2	789.8	694.5	645.8	635.8	649.4	720.7	780.8	762.2
25°	868.2	877.5	899.0	839.9	701.0	631.5	624.7	637.6	723.5	823.1	836.0
27.5°	939.9	940.6	961.7	882.2	717.8	632.9	621.4	638.3	731.4	856.4	901.2
30°	990.7	990.7	1000.0	903.7	738.6	641.9	624.3	649.0	742.5	874.7	960.3
32.5°	1037.3	1039.8	1035.1	926.3	758.3	654.8	631.1	670.5	760.1	889.7	1005.8
35°	1096.4	1096.0	1075.3	944.2	776.5	668.7	648.0	697.7	785.5	911.9	1049.1
37.5°	1169.5	1165.9	1121.8	960.3	798.7	692.7	679.8	735.0	819.5	938.1	1103.9
40°	1235.7	1230.0	1164.4	975.3	816.3	739.3	731.8	781.2	862.5	970.7	1157.3
42.5°	1287.3	1278.7	1200.6	986.1	842.8	812.4	818.8	864.3	905.8	999.7	1190.6
45°	1330.6	1321.7	1227.8	991.4	906.9	916.6	929.1	967.1	952.0	1007.6	1211.0
47.5°	1361.8	1347.1	1239.7	1007.2	993.6	1038.4	1077.1	1079.6	1017.2	1007.2	1223.5
50°	1380.1	1364.0	1250.8	1046.2	1094.2	1176.6	1217.8	1198.5	1084.9	1013.7	1241.5
52.5°	1417.0	1400.1	1297.0	1109.6	1197.4	1316.7	1338.9	1307.7	1155.1	1047.0	1277.3
55°	1509.7	1502.2	1386.5	1194.9	1298.8	1429.9	1439.9	1408.7	1228.6	1104.6	1345.7
57.5°	1614.7	1598.2	1507.6	1302.0	1395.8	1518.3	1534.4	1491.5	1305.6	1185.6	1422.0
60°	1644.1	1640.8	1610.0	1427.0	1496.1	1612.9	1614.0	1559.2	1395.5	1281.9	1538.4
62.5°	1601.1	1611.5	1652.6	1542.7	1580.3	1676.3	1667.3	1610.4	1489.7	1435.2	1679.9
65°	1526.2	1540.9	1623.6	1651.9	1599.6	1663.8	1644.8	1608.6	1549.1	1600.4	1767.6
67.5°	1436.3	1444.2	1540.5	1706.4	1531.9	1525.9	1516.9	1500.4	1525.5	1717.8	1782.7
70°	1342.8	1349.6	1438.5	1631.5	1328.9	1259.0	1251.5	1237.2	1334.9	1716.4	1708.9
72.5°	1131.9	1127.6	1209.6	1361.8	1014.7	919.8	983.6	952.4	1079.9	1542.0	1522.3
75°	703.1	726.8	829.5	954.9	695.2	630.0	718.2	710.3	876.8	1327.8	1212.1
77.5°	428.4	433.0	491.1	595.3	418.7	436.6	461.7	510.4	650.1	1076.3	845.0
80°	224.2	208.5	251.1	326.7	248.6	293.0	338.5	392.2	412.6	701.7	564.9
82.5°	64.8	64.5	84.9	136.8	117.8	144.0	170.9	246.4	270.4	417.3	386.8
85°	0.4	0.4	0.4	0.7	1.1	1.8	7.5	63.4	83.8	193.4	159.0
87.5°	0.0	0.0	0.4	0.7	0.7	1.4	2.1	2.9	3.6	4.3	15.8
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: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7
2.5°	812.4	807.0	795.5	780.1	769.4	750.7	746.8	735.0	723.2	713.5	713.9
5°	783.0	764.7	736.8	704.5	673.7	646.2	640.8	624.7	620.0	615.4	602.5
7.5°	706.0	684.5	645.4	597.8	559.1	533.0	505.0	488.2	473.2	456.0	460.3
10°	646.9	616.1	562.3	506.5	458.1	423.0	392.2	376.4	354.6	338.8	336.7
12.5°	601.4	568.1	503.6	438.1	392.6	372.2	352.5	327.7	303.4	282.6	271.9
15°	586.3	548.7	473.9	408.7	372.9	348.2	320.6	292.3	262.5	240.3	231.7
17.5°	603.9	559.5	473.5	396.1	351.4	315.2	280.8	248.9	213.8	191.6	184.8
20°	652.2	596.7	483.5	384.3	325.2	276.2	227.8	193.4	157.6	141.8	134.7
22.5°	719.6	647.2	498.9	370.0	296.2	228.5	174.1	130.7	113.2	105.3	103.5
25°	788.7	711.3	520.8	357.8	264.3	182.0	125.0	104.6	96.4	92.8	92.8
27.5°	864.7	775.5	544.4	343.1	231.4	135.4	101.7	92.1	87.8	85.6	85.2
30°	926.3	827.8	571.3	325.9	201.7	111.0	90.3	83.8	79.9	78.8	78.8
32.5°	970.7	866.8	599.6	308.8	174.4	100.3	83.8	78.1	73.8	73.1	73.1
35°	1022.6	904.1	612.5	299.1	158.0	93.5	79.2	73.4	69.5	67.7	67.7
37.5°	1084.9	948.5	619.7	289.8	150.8	87.0	75.9	69.5	65.5	63.4	63.4
40°	1164.1	999.0	627.2	280.5	146.5	81.7	72.4	65.9	62.7	60.2	60.2
42.5°	1220.7	1045.5	632.9	272.6	139.0	79.2	69.5	63.4	59.5	57.3	57.0
45°	1250.4	1088.9	635.4	267.9	130.4	81.3	67.3	61.2	56.6	54.4	54.1
47.5°	1270.5	1124.7	638.6	264.3	123.6	77.4	67.0	59.1	54.4	51.6	51.6
50°	1302.3	1172.0	646.9	257.5	119.6	72.4	72.4	58.0	51.9	49.4	49.1
52.5°	1359.3	1239.7	669.1	250.0	115.3	67.3	74.5	58.4	50.1	47.3	46.6
55°	1445.3	1347.5	706.0	239.3	109.2	61.2	69.5	58.7	48.4	45.8	44.8
57.5°	1557.0	1477.9	749.0	230.7	98.9	56.2	63.4	57.0	46.2	44.1	43.3
60°	1632.2	1564.9	776.2	219.6	84.2	53.0	54.4	55.2	44.1	41.5	41.2
62.5°	1672.7	1566.3	776.5	204.2	70.6	50.1	48.7	56.2	42.3	39.0	38.7
65°	1675.6	1490.0	737.5	184.5	65.9	46.9	44.8	49.8	40.5	37.3	36.9
67.5°	1644.4	1365.7	648.3	161.9	67.7	44.4	41.5	41.9	38.3	35.5	35.1
70°	1532.7	1204.9	520.1	144.0	68.1	41.2	39.0	38.0	36.2	33.7	33.0
72.5°	1322.4	1006.8	394.0	138.3	69.1	38.7	36.2	35.1	33.7	31.5	30.8
75°	997.9	785.5	295.9	128.9	69.8	35.8	33.0	32.2	30.8	28.7	28.3
77.5°	689.5	582.4	205.6	108.9	62.3	32.6	29.7	29.0	27.9	25.8	25.4
80°	465.6	399.4	126.1	81.7	47.3	28.7	25.8	25.8	24.7	22.6	22.6
82.5°	324.2	298.4	72.7	53.4	34.4	23.6	22.6	22.6	21.5	19.3	19.0
85°	135.4	180.5	32.6	29.0	24.0	18.6	18.6	19.0	17.9	16.1	15.8
87.5°	4.7	19.3	12.9	13.6	14.3	12.9	14.3	14.3	14.0	12.5	12.2
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: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7
2.5°	703.5	698.8	684.5	682.7	671.9	671.2	675.9	668.0	668.7	678.4	677.0
5°	605.3	594.6	594.2	582.4	569.2	565.9	554.5	550.2	548.4	544.4	558.8
7.5°	473.5	468.5	472.8	471.4	459.2	452.4	428.0	409.4	400.1	404.0	405.1
10°	336.7	344.2	355.7	366.8	358.2	335.6	325.2	310.2	308.4	307.3	314.5
12.5°	266.8	258.2	263.6	267.6	259.3	249.7	245.4	238.9	242.5	250.7	255.4
15°	221.7	206.7	199.9	195.2	197.4	191.6	193.8	191.6	194.1	196.6	205.2
17.5°	175.2	169.8	156.9	150.8	151.2	148.6	149.4	149.0	147.6	153.3	160.1
20°	131.8	130.4	127.5	123.2	123.9	122.1	121.1	115.0	112.5	114.3	120.0
22.5°	102.8	104.6	106.4	106.0	107.8	103.2	98.9	93.5	92.8	93.1	94.6
25°	92.1	92.8	94.2	96.0	97.1	92.8	86.7	83.5	83.1	83.8	83.8
27.5°	85.6	84.9	86.7	88.8	90.3	84.9	79.9	77.0	76.3	75.6	75.2
30°	78.8	78.8	80.2	82.4	83.5	78.8	74.5	71.6	69.8	68.8	68.4
32.5°	73.8	74.1	74.9	76.3	78.1	73.4	69.8	67.3	64.1	63.0	62.3
35°	68.1	69.5	70.6	70.9	72.4	69.1	65.5	61.6	58.7	57.7	57.7
37.5°	63.4	64.5	66.3	65.9	67.0	64.8	60.9	56.6	55.2	54.8	54.4
40°	59.8	59.8	61.2	62.7	64.1	60.2	55.5	53.4	52.3	51.6	51.9
42.5°	56.6	56.2	56.2	58.7	61.2	55.5	51.6	50.1	49.8	49.1	49.4
45°	53.7	53.4	52.3	53.4	57.0	50.9	48.4	47.3	46.9	46.9	46.9
47.5°	51.2	50.5	49.1	49.4	51.9	47.3	45.1	44.8	44.4	44.4	44.8
50°	48.4	47.6	46.6	46.2	46.9	44.8	43.0	42.3	42.3	42.3	43.0
52.5°	45.8	45.5	44.1	43.7	44.1	42.6	40.8	40.5	40.5	40.5	41.5
55°	44.1	43.3	42.6	41.9	42.6	40.8	39.4	38.7	38.7	39.4	40.1
57.5°	42.3	41.5	41.2	40.5	41.2	39.4	38.0	37.3	37.6	38.0	38.0
60°	40.5	39.8	39.4	38.7	39.8	38.0	36.5	36.2	36.2	35.8	35.8
62.5°	38.7	38.3	37.6	36.9	38.3	36.2	35.1	34.4	34.0	34.0	34.0
65°	36.5	36.2	35.8	35.5	36.2	34.4	33.3	33.0	32.2	31.9	32.2
67.5°	34.7	34.7	34.0	33.3	34.4	32.2	31.5	31.2	30.1	29.7	30.1
70°	32.6	32.6	31.9	31.5	33.0	30.1	29.4	29.0	28.3	27.9	27.9
72.5°	30.4	30.4	29.7	29.4	31.2	27.9	27.2	26.9	25.8	25.4	25.4
75°	28.3	27.9	27.6	27.2	29.4	25.8	24.7	24.0	22.9	22.6	22.2
77.5°	25.8	25.4	24.7	25.1	26.5	22.9	21.5	21.1	20.1	19.7	19.3
80°	22.6	22.2	21.8	22.6	22.6	20.1	18.3	17.6	16.5	15.8	15.4
82.5°	19.3	19.0	19.0	19.7	18.6	17.6	15.4	14.0	12.2	11.1	10.7
85°	15.8	16.5	15.8	16.5	14.0	14.0	10.7	8.2	5.7	4.7	4.3
87.5°	12.2	12.5	12.2	12.5	9.7	9.3	5.0	2.9	0.4	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: P401204

CATALOG NUMBER: ENV-SA1B-827-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7
2.5°	687.7	688.4	703.8	719.2	728.5	751.8	763.3	776.2	783.0	790.9
5°	552.0	565.6	578.1	608.9	624.7	661.6	688.4	731.4	745.0	755.8
7.5°	416.9	437.3	452.7	491.1	520.8	566.6	613.6	664.8	679.5	689.1
10°	331.3	349.9	379.0	409.0	442.4	497.9	548.7	601.7	627.5	638.6
12.5°	278.3	308.0	342.1	370.0	396.5	437.3	501.8	568.8	595.7	607.5
15°	229.6	262.9	297.6	332.0	365.0	411.2	478.9	565.9	600.0	611.8
17.5°	182.3	209.5	244.6	286.2	334.2	392.9	483.2	596.4	637.9	653.3
20°	129.7	156.2	192.0	243.2	300.2	373.9	493.2	642.2	701.3	718.9
22.5°	97.8	112.5	145.4	195.9	269.7	358.9	509.0	704.9	774.0	789.8
25°	86.0	91.0	107.8	156.5	239.3	345.3	529.8	767.2	851.0	868.2
27.5°	76.3	79.2	87.8	125.7	216.7	331.3	554.5	834.6	917.3	939.9
30°	68.8	72.4	79.5	105.3	194.9	311.3	577.0	895.1	973.5	990.7
32.5°	63.0	67.0	73.4	95.3	176.2	296.2	589.9	940.2	1021.5	1037.3
35°	59.1	62.7	69.1	86.3	159.7	285.8	593.9	985.0	1080.3	1096.4
37.5°	55.5	59.1	64.8	77.4	148.3	272.2	600.0	1038.4	1148.3	1169.5
40°	53.0	55.9	61.2	71.3	132.5	257.5	607.1	1100.7	1214.6	1235.7
42.5°	50.5	53.7	58.4	71.6	116.8	245.0	611.8	1148.7	1267.2	1287.3
45°	48.4	51.9	57.3	70.2	104.9	233.5	609.6	1188.8	1315.2	1330.6
47.5°	46.2	50.5	60.2	67.3	101.4	223.1	611.4	1227.5	1349.6	1361.8
50°	44.8	50.1	64.5	63.0	102.1	218.5	628.6	1273.7	1375.4	1380.1
52.5°	43.7	51.2	60.9	57.0	102.1	216.3	661.6	1348.2	1420.2	1417.0
55°	41.9	50.9	57.0	51.6	97.8	217.4	692.7	1446.7	1527.6	1509.7
57.5°	40.5	48.7	51.2	47.6	87.8	217.8	738.9	1529.8	1612.2	1614.7
60°	38.7	52.3	44.4	44.4	75.2	216.0	779.8	1528.4	1627.6	1644.1
62.5°	36.9	51.2	39.8	41.2	66.6	209.2	804.5	1439.2	1570.6	1601.1
65°	34.7	40.5	36.5	38.3	63.0	192.3	769.4	1328.5	1493.6	1526.2
67.5°	32.2	33.3	33.3	35.5	61.6	166.9	680.9	1206.4	1396.9	1436.3
70°	29.4	29.7	30.4	33.7	57.3	143.6	554.5	1076.3	1293.0	1342.8
72.5°	26.5	26.9	26.9	30.4	53.7	123.9	392.6	852.8	1079.6	1131.9
75°	23.3	23.6	23.3	26.5	46.9	92.8	233.2	539.4	644.0	703.1
77.5°	19.7	19.7	19.0	20.8	32.2	58.7	127.5	327.7	391.9	428.4
80°	16.1	14.7	12.2	12.5	17.6	33.7	57.0	188.0	214.9	224.2
82.5°	10.7	8.2	5.0	4.7	5.7	9.3	13.3	74.5	68.4	64.8
85°	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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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