

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: P401080

Luminaire Tested: **ENV-SA1B-727-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401080
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-727-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - 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

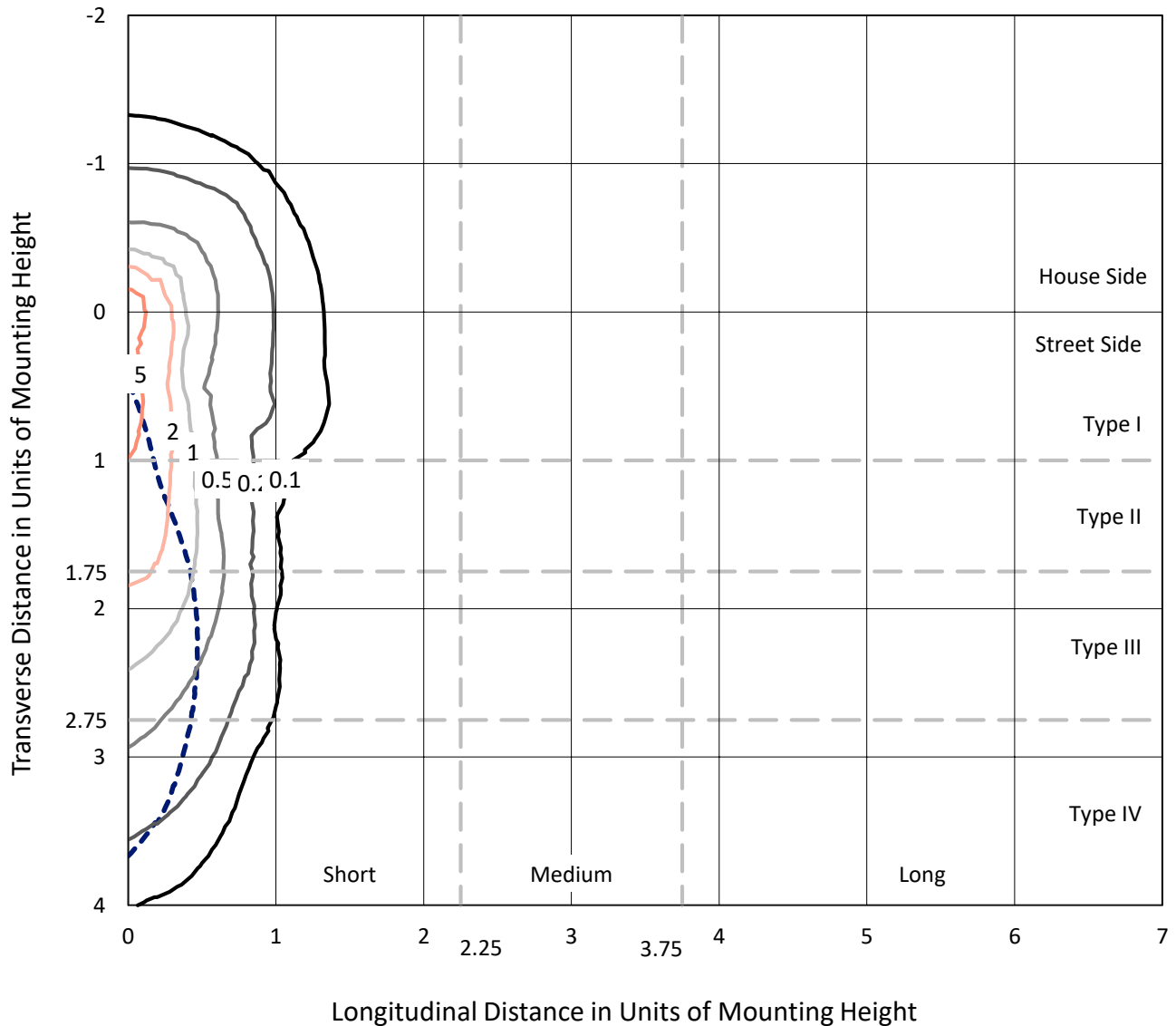


REPORT NUMBER: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

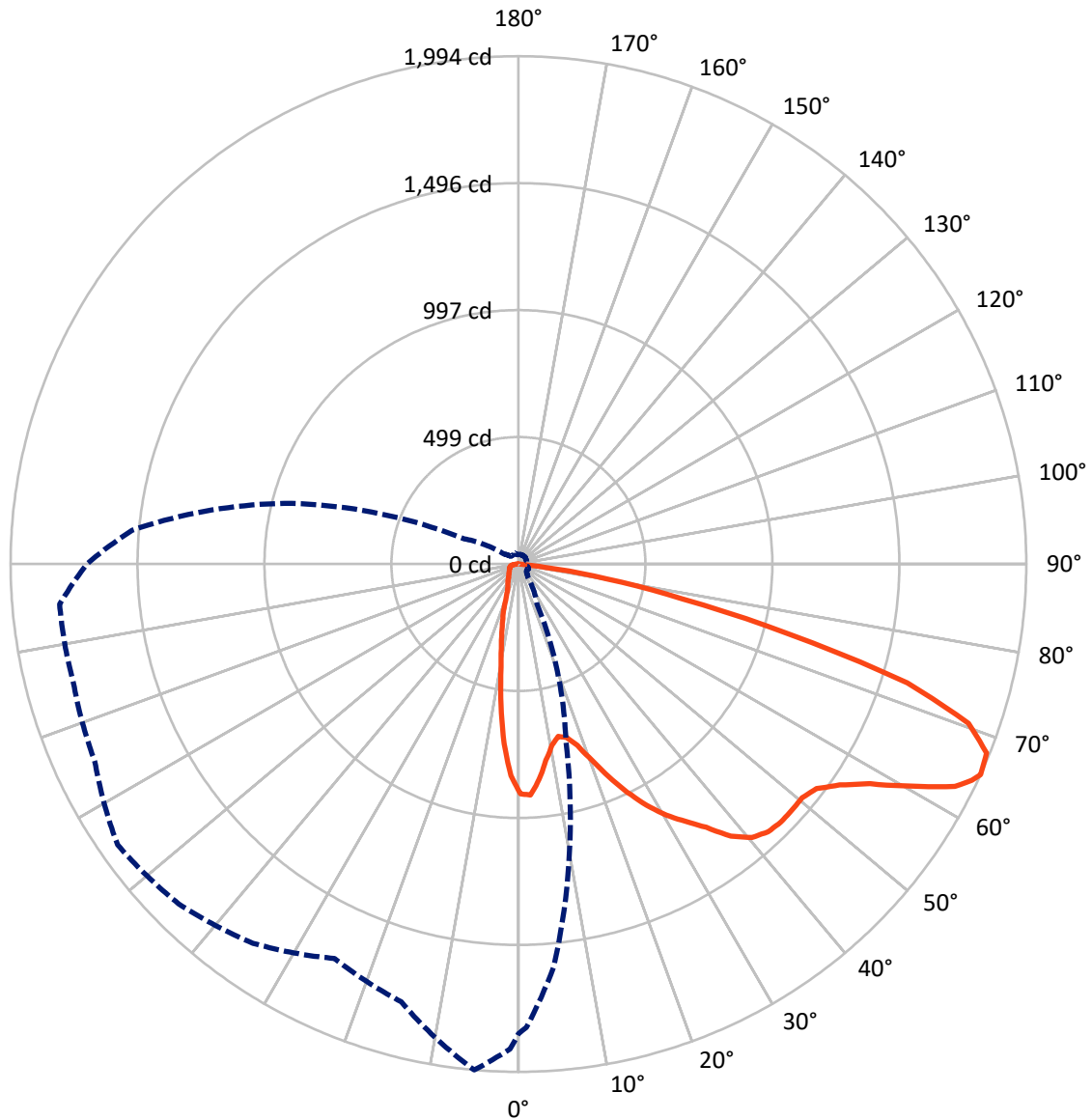


Based on 10 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	520.1	0.0	520.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	2014.9	0.0	2014.9
	% Fixture	79.5	0.0	79.5
Total	Lumens	2535.0	0.0	2535.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	2.7
10°-20°	137.1	5.4
20°-30°	190.1	7.5
30°-40°	265.7	10.5
40°-50°	361.5	14.3
50°-60°	494.4	19.5
60°-70°	604.5	23.8
70°-80°	364.9	14.4
80°-90°	48.1	1.9
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°	2535.0	100.0
0°-180°	2535.0	100.0



REPORT NUMBER: P401080

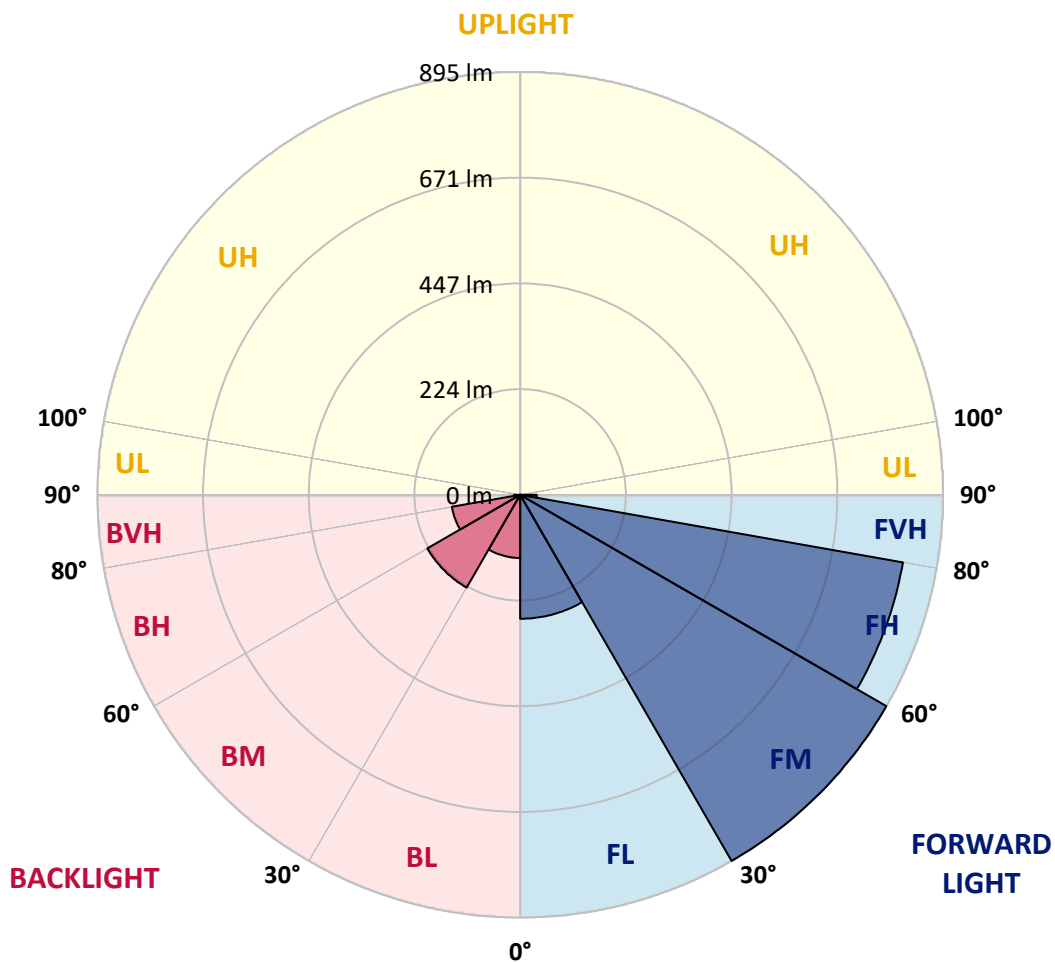
CATALOG NUMBER: ENV-SA1B-727-U-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	262.3	10.3			
FM	(30°-60°)	894.8	35.3			
FH	(60°-80°)	822.6	32.4			G1/1800
FVH	(80°-90°)	35.2	1.4			G1/100
BL	(0°-30°)	133.7	5.3	B1/500		
BM	(30°-60°)	226.7	8.9	B1/1000		
BH	(60°-80°)	146.8	5.8	B1/500		G1/500
BVH	(80°-90°)	13.0	0.5			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 IV Short





REPORT NUMBER: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1
2.5°	900.0	897.4	891.1	874.1	855.9	834.3	830.4	807.1	809.7	802.9	804.6
5°	822.0	818.6	801.2	767.3	721.1	694.4	673.6	661.3	651.1	646.0	652.4
7.5°	746.1	741.4	720.6	660.9	609.6	567.2	533.3	512.5	492.2	476.1	468.4
10°	684.6	682.9	655.4	588.0	523.5	471.8	449.8	427.7	410.3	387.5	368.8
12.5°	653.7	648.6	615.9	537.5	474.8	443.0	422.2	394.2	370.5	342.5	318.4
15°	654.9	649.0	608.3	526.1	457.8	419.2	387.5	354.0	319.2	290.8	266.2
17.5°	691.4	687.2	637.6	536.7	443.4	390.0	340.4	297.2	259.0	223.4	201.4
20°	752.9	746.5	677.8	549.4	425.2	356.5	289.1	229.8	188.6	157.3	139.9
22.5°	833.0	821.1	735.1	565.1	407.0	318.4	233.6	167.4	131.0	115.3	110.6
25°	918.6	909.3	804.2	585.0	387.5	276.8	173.0	121.7	108.9	102.6	99.2
27.5°	997.5	982.2	878.3	607.0	361.6	235.3	131.4	104.7	96.2	93.3	91.1
30°	1053.8	1040.7	929.6	632.5	339.1	192.0	112.3	95.0	88.2	83.5	82.7
32.5°	1107.7	1089.0	966.9	644.3	320.5	168.7	103.9	88.2	81.8	77.2	75.5
35°	1171.3	1152.6	1009.8	646.0	306.5	159.0	95.8	83.1	76.3	72.1	69.9
37.5°	1246.3	1220.9	1058.1	647.3	292.5	155.2	89.0	78.8	72.1	67.4	65.7
40°	1317.5	1298.0	1107.7	645.2	283.2	149.6	84.8	74.2	67.8	63.6	61.5
42.5°	1371.4	1350.6	1150.1	638.8	277.7	140.3	86.5	70.8	64.9	60.2	57.7
45°	1398.9	1380.3	1188.6	632.9	274.7	132.3	84.8	69.5	62.7	57.2	54.7
47.5°	1419.7	1401.5	1228.1	630.4	269.6	126.3	78.0	74.2	60.6	54.3	51.7
50°	1453.2	1437.5	1281.5	644.8	261.6	122.5	71.6	79.3	59.8	51.7	48.7
52.5°	1513.4	1503.2	1369.7	678.3	253.1	116.2	65.3	75.9	60.6	50.0	46.6
55°	1625.7	1619.3	1490.9	722.3	245.0	108.1	58.5	68.7	60.2	47.1	44.5
57.5°	1746.9	1745.2	1638.0	760.9	233.2	94.5	54.3	58.1	57.2	44.5	41.5
60°	1828.3	1822.8	1705.8	782.5	217.9	78.0	50.9	49.2	58.5	42.0	38.6
62.5°	1856.3	1838.1	1685.5	774.5	195.0	67.4	47.1	44.9	54.3	39.4	35.6
64°	1854.6	1827.9	1632.5	744.0	180.2	65.3	44.9	42.0	47.9	37.7	34.3
65°	1844.9	1819.4	1588.4	720.2	172.1	65.3	43.7	40.7	43.7	36.9	33.5
67.5°	1782.5	1749.1	1437.9	610.0	151.3	66.1	40.7	37.3	36.5	33.9	31.4
70°	1640.5	1596.9	1231.5	479.9	140.3	66.6	37.3	33.9	32.6	30.9	28.8
72.5°	1317.5	1259.0	980.1	342.9	128.9	65.3	33.9	30.9	29.7	28.0	25.9
75°	883.4	819.4	722.3	225.9	105.6	58.5	29.2	26.7	26.3	24.6	22.9
77.5°	498.1	471.4	426.5	124.2	72.9	40.3	23.3	21.6	22.0	21.2	19.5
80°	260.3	248.0	228.1	60.2	35.2	19.5	14.8	14.8	17.0	17.0	16.1
82.5°	92.0	92.4	89.4	13.6	7.2	5.9	5.1	7.2	9.7	11.9	11.9
85°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7	3.0
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: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1
2.5°	790.2	792.7	799.5	798.2	805.0	802.0	810.9	815.6	818.1	831.3	837.6
5°	647.3	648.2	672.3	677.4	690.1	683.3	699.0	693.1	705.8	707.5	728.7
7.5°	475.6	477.3	489.2	517.2	544.7	556.2	560.8	568.0	562.1	560.0	563.0
10°	361.6	362.9	364.1	384.1	408.2	432.4	432.4	432.8	422.2	411.6	409.5
12.5°	309.0	301.0	288.3	288.7	305.6	317.1	326.0	316.7	315.0	320.1	325.6
15°	254.3	246.3	237.8	227.6	228.1	236.1	240.8	240.4	248.8	252.7	264.1
17.5°	197.5	186.1	186.5	180.6	172.5	177.6	178.9	186.5	197.5	202.6	204.7
20°	132.7	132.7	136.1	143.3	139.5	142.9	143.3	149.2	154.3	151.3	154.3
22.5°	109.8	109.4	110.6	115.3	119.1	122.1	122.9	122.5	117.4	115.3	119.5
25°	99.6	99.2	99.6	102.2	106.4	110.2	108.5	106.0	100.0	99.6	100.5
27.5°	91.1	91.6	92.4	94.1	96.7	101.3	99.6	94.5	91.6	90.7	90.7
30°	83.9	83.9	85.6	87.3	90.3	94.5	91.6	87.3	84.4	83.5	83.1
32.5°	76.7	78.0	79.3	81.0	83.5	87.7	85.2	81.4	78.4	76.7	75.5
35°	69.5	70.4	72.9	75.5	77.6	81.0	79.3	75.9	72.9	69.1	67.4
37.5°	65.3	65.3	66.6	70.4	72.1	74.6	73.8	70.8	66.1	63.2	62.7
40°	61.5	61.5	61.9	64.0	67.0	69.9	68.2	63.6	60.6	59.3	58.9
42.5°	57.7	57.7	58.1	58.1	61.9	67.0	62.7	58.1	56.8	56.0	55.5
45°	54.3	54.3	54.3	53.8	56.0	62.3	57.7	53.8	53.0	53.0	52.6
47.5°	51.7	51.3	50.9	50.0	51.3	56.4	52.6	50.4	50.0	50.4	50.0
50°	48.3	47.9	47.5	47.1	47.9	50.0	49.2	47.1	47.5	47.5	47.9
52.5°	45.4	44.9	44.5	44.1	44.9	46.6	46.6	44.9	44.9	45.4	45.8
55°	43.7	42.8	42.4	42.4	42.8	44.9	44.5	43.2	43.2	44.1	44.5
57.5°	41.1	40.3	40.3	39.8	40.7	43.2	42.8	41.5	41.5	42.0	42.8
60°	38.6	38.2	37.7	38.6	39.0	41.5	41.1	40.3	39.8	41.1	41.1
62.5°	35.6	35.6	35.6	36.5	36.9	39.8	39.4	39.0	39.0	39.4	39.0
64°	33.9	33.9	34.3	34.8	35.6	38.2	38.2	38.2	38.2	38.2	37.7
65°	33.1	33.1	33.9	34.3	34.8	37.7	37.3	37.7	38.2	37.7	36.9
67.5°	30.9	30.9	32.2	32.2	32.6	36.0	35.6	36.5	37.3	36.5	35.6
70°	28.4	28.8	30.1	29.7	30.5	34.3	33.1	34.8	36.5	35.2	34.3
72.5°	25.9	26.3	28.0	27.1	27.6	32.2	30.5	32.2	34.8	33.9	33.1
75°	23.3	23.7	25.0	24.6	25.4	29.7	28.0	29.7	32.2	32.2	31.8
77.5°	19.9	20.8	21.6	21.2	22.9	26.7	25.0	26.3	28.4	30.1	29.2
80°	16.1	17.4	17.8	18.2	19.9	22.9	21.6	22.0	24.2	25.4	25.9
82.5°	11.0	13.1	14.0	14.4	17.0	17.8	18.2	17.8	19.1	20.8	19.5
85°	3.4	4.2	8.1	10.2	12.7	12.7	14.8	14.0	14.8	13.1	11.0
87.5°	0.0	0.0	0.0	3.0	7.6	7.6	10.6	9.7	10.2	7.6	6.8
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: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1
2.5°	838.9	846.1	862.2	880.9	891.1	913.1	926.7	941.1	955.5	958.5	963.1
5°	732.9	741.4	759.6	784.7	809.7	838.9	872.8	908.9	948.7	965.7	982.2
7.5°	571.0	572.7	598.6	643.9	666.0	707.5	755.8	811.4	872.8	904.6	938.5
10°	421.8	439.2	458.7	496.4	551.9	599.8	659.6	724.5	788.5	834.7	869.9
12.5°	331.5	353.5	385.8	427.3	469.3	514.6	583.7	653.2	732.1	773.6	816.9
15°	273.0	301.0	342.9	386.6	425.6	465.9	527.3	612.6	713.4	755.8	794.4
17.5°	216.2	247.1	292.1	337.9	384.5	433.7	504.9	610.4	733.4	782.5	822.4
20°	165.7	189.9	227.6	273.8	328.5	395.9	487.1	626.5	792.3	853.8	880.0
22.5°	122.9	136.9	166.6	214.9	279.4	362.4	469.3	649.4	865.2	937.3	957.2
25°	101.7	105.6	119.1	161.1	227.6	324.7	455.7	679.1	938.1	1019.1	1033.5
27.5°	91.6	93.7	100.0	115.7	178.0	293.8	437.9	713.4	1014.8	1100.1	1098.8
30°	82.7	83.1	86.9	97.9	144.6	266.2	417.1	751.6	1083.1	1158.1	1154.3
32.5°	74.6	74.6	79.7	88.2	123.4	241.2	392.1	779.1	1142.4	1205.6	1193.3
35°	67.4	68.7	73.3	81.8	109.4	213.2	368.8	789.3	1193.3	1262.8	1228.1
37.5°	62.3	64.0	68.7	76.7	97.5	192.5	349.7	801.2	1256.1	1331.9	1267.1
40°	58.9	60.2	64.4	71.2	88.2	175.1	329.0	809.2	1318.4	1405.7	1308.2
42.5°	55.5	56.8	61.0	67.4	83.9	154.7	309.0	813.9	1383.2	1469.7	1342.5
45°	52.6	54.3	58.5	64.4	84.4	136.5	292.5	812.2	1422.2	1515.9	1369.2
47.5°	50.4	52.1	56.8	64.4	81.8	125.9	278.5	806.3	1451.0	1546.0	1381.5
50°	48.3	50.0	55.5	71.2	77.6	122.9	267.9	805.4	1481.1	1551.9	1381.5
52.5°	46.2	49.2	56.0	71.6	71.2	121.7	259.4	827.9	1522.7	1562.1	1393.8
55°	44.9	47.5	57.7	66.1	62.3	117.4	254.3	858.8	1592.6	1618.1	1455.7
57.5°	43.2	45.4	56.8	61.9	55.5	107.7	250.1	888.5	1684.6	1721.9	1579.1
60°	41.1	43.7	55.1	53.0	50.4	91.6	247.6	913.1	1719.0	1788.9	1711.8
62.5°	39.0	42.0	60.2	46.2	46.6	76.3	242.9	936.8	1646.5	1772.8	1797.0
64°	37.7	40.7	56.0	43.2	44.5	69.5	238.2	938.1	1582.5	1734.6	1813.1
65°	36.9	39.4	52.1	41.5	42.8	67.8	234.0	920.3	1522.3	1694.0	1808.4
67.5°	35.6	37.3	40.3	38.6	39.8	64.9	205.2	841.9	1394.2	1589.2	1735.9
70°	33.9	35.2	35.6	35.2	37.3	62.7	173.4	730.4	1254.4	1479.5	1623.2
72.5°	32.2	32.2	32.2	31.8	34.3	59.8	156.0	590.1	1083.9	1335.3	1482.8
75°	30.9	29.7	29.2	28.4	31.4	58.1	140.7	443.0	837.6	1112.3	1242.5
77.5°	28.4	27.1	25.9	25.0	28.0	51.7	117.4	312.8	617.6	809.2	958.9
80°	24.6	23.7	22.0	20.8	23.3	40.7	89.0	193.3	451.9	546.4	629.1
82.5°	19.9	19.5	17.8	16.1	17.0	29.2	60.6	98.3	301.4	296.7	351.4
85°	12.3	15.3	13.1	10.6	11.4	17.0	24.6	31.4	92.4	55.5	86.1
87.5°	7.2	9.7	8.1	5.5	4.2	7.6	6.8	6.4	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: P401080

CATALOG NUMBER: ENV-SA1B-727-U-SLR

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1	902.1
2.5°	974.1	979.7	982.6	971.6	959.7	949.1	928.8	908.4	897.8	900.0
5°	1014.0	1023.3	1025.9	1009.8	976.3	941.9	892.3	849.5	823.7	822.0
7.5°	998.7	1029.3	1034.3	1017.0	969.1	905.1	837.6	777.9	752.0	746.1
10°	944.5	991.1	1006.4	1000.4	953.8	880.5	798.6	722.8	696.9	684.6
12.5°	888.9	937.7	947.0	953.0	924.6	862.7	772.8	694.8	663.8	653.7
15°	852.5	886.0	888.5	894.0	888.1	854.2	784.7	706.2	668.9	654.9
17.5°	847.4	835.5	827.5	838.9	846.1	854.6	815.6	749.1	709.2	691.4
20°	848.2	811.4	788.5	787.6	818.6	865.6	878.3	821.1	769.4	752.9
22.5°	879.2	798.6	760.5	755.8	793.6	884.3	942.4	906.7	855.0	833.0
25°	925.4	791.0	740.6	741.8	779.6	896.6	997.0	992.4	947.0	918.6
27.5°	969.9	803.7	738.0	741.4	784.2	904.6	1042.4	1072.9	1022.1	997.5
30°	1005.5	832.1	745.7	748.6	798.6	915.6	1064.9	1144.6	1083.1	1053.8
32.5°	1036.5	858.8	757.1	759.2	821.5	931.3	1086.1	1204.8	1142.4	1107.7
35°	1064.4	881.7	774.5	781.7	850.8	953.8	1107.7	1270.0	1214.9	1171.3
37.5°	1089.0	909.7	808.8	820.7	893.6	986.4	1135.7	1356.1	1295.9	1246.3
40°	1103.0	934.7	859.7	877.5	949.1	1028.8	1171.3	1412.1	1373.5	1317.5
42.5°	1113.6	969.1	941.5	973.7	1035.2	1068.7	1188.2	1437.1	1419.3	1371.4
45°	1119.1	1036.9	1064.4	1094.5	1132.3	1112.3	1178.9	1445.5	1440.0	1398.9
47.5°	1144.1	1139.1	1206.9	1248.4	1246.3	1178.1	1161.1	1444.7	1453.6	1419.7
50°	1195.0	1258.2	1353.1	1393.8	1378.1	1239.5	1157.7	1443.4	1480.7	1453.2
52.5°	1255.6	1377.3	1511.2	1528.2	1495.1	1301.8	1183.1	1465.5	1531.6	1513.4
55°	1335.3	1489.2	1635.5	1641.0	1594.3	1362.5	1237.4	1530.3	1626.5	1625.7
57.5°	1446.4	1589.7	1739.7	1733.0	1667.2	1446.4	1324.7	1627.4	1732.1	1746.9
60°	1567.2	1695.6	1824.1	1820.3	1750.3	1543.0	1444.7	1771.1	1824.5	1828.3
62.5°	1682.9	1794.0	1905.5	1887.3	1808.4	1643.1	1610.9	1923.7	1884.7	1856.3
64°	1758.4	1827.1	1926.3	1897.4	1822.4	1691.0	1706.7	1973.3	1901.7	1854.6
65°	1808.4	1835.1	1921.6	1886.8	1817.7	1708.8	1779.2	1994.1	1904.6	1844.9
67.5°	1898.3	1788.9	1795.3	1767.7	1705.8	1692.3	1897.9	1982.6	1872.0	1782.5
70°	1873.3	1602.8	1515.5	1498.1	1423.9	1500.2	1883.0	1875.0	1749.5	1640.5
72.5°	1659.6	1287.0	1161.5	1145.8	1042.8	1136.9	1624.9	1596.9	1407.8	1317.5
75°	1367.5	975.4	829.6	842.7	764.3	851.2	1292.5	1094.1	937.3	883.4
77.5°	1061.5	689.3	573.1	557.4	541.8	551.1	888.5	657.1	547.7	498.1
80°	676.6	433.2	429.8	393.0	380.2	320.5	456.6	349.7	275.1	260.3
82.5°	359.5	249.7	283.6	227.2	182.7	131.4	154.7	103.9	87.7	92.0
85°	98.3	51.7	14.4	0.0	0.0	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	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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