

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: P401135

Luminaire Tested: **ENV-SA1B-740-U-SL4-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401135
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-740-U-SL4-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5028 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G1

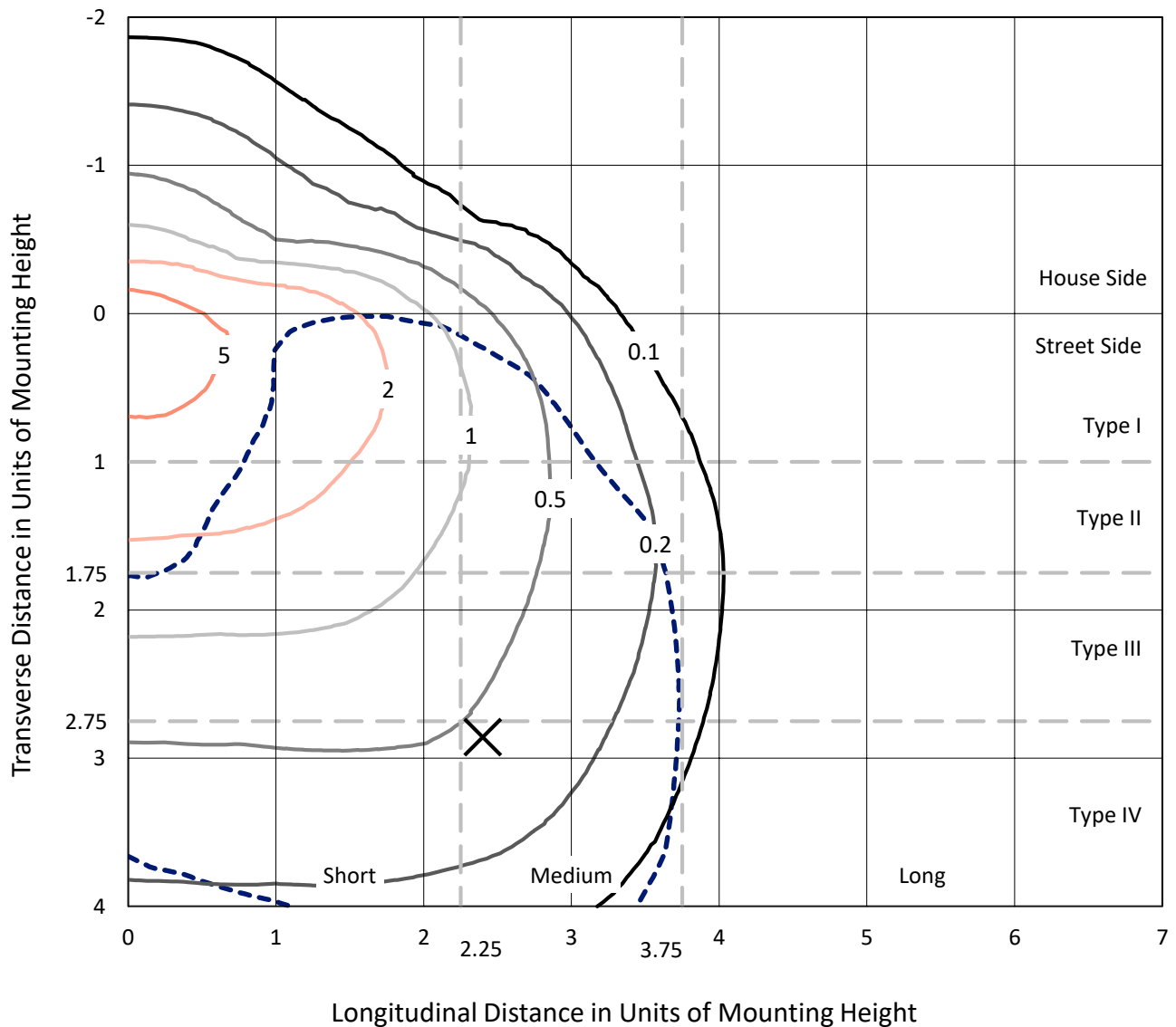
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

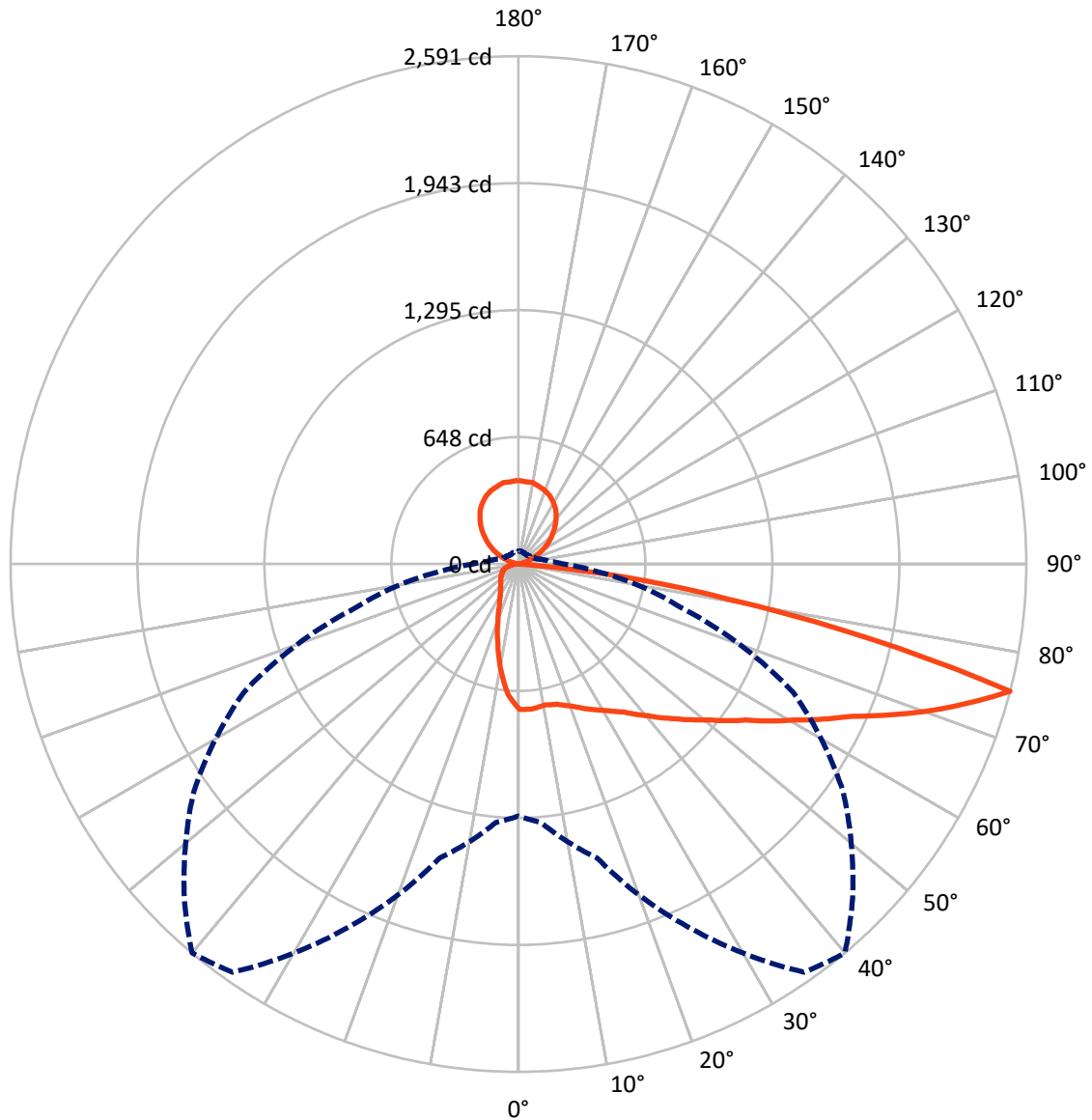
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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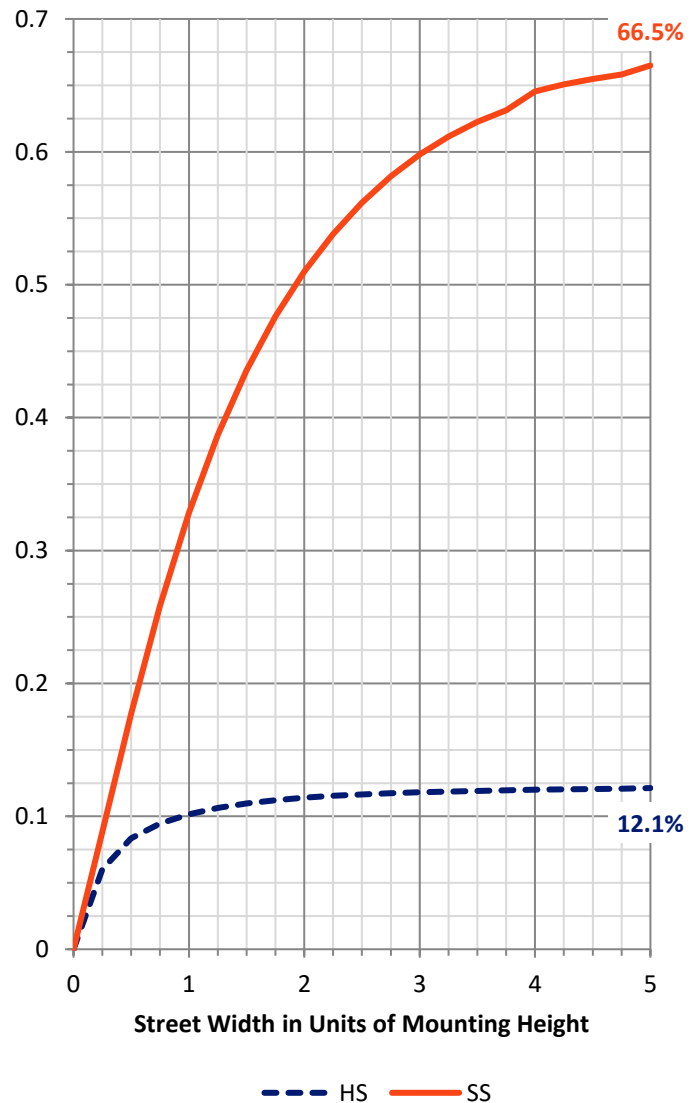
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	620.8	529.4	1150.2
	% Fixture	12.3	10.5	22.9
Street Side	Lumens	3348.4	529.4	3877.8
	% Fixture	66.6	10.5	77.1
Total	Lumens	3969.1	1058.9	5028.0
	% Fixture	78.9	21.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	1.3
10°-20°	169.3	3.4
20°-30°	259.3	5.2
30°-40°	374.3	7.4
40°-50°	538.0	10.7
50°-60°	742.0	14.8
60°-70°	934.6	18.6
70°-80°	791.5	15.7
80°-90°	94.3	1.9
90°-100°	5.2	0.1
100°-110°	35.8	0.7
110°-120°	101.8	2.0
120°-130°	166.6	3.3
130°-140°	205.4	4.1
140°-150°	210.0	4.2
150°-160°	177.1	3.5
160°-170°	116.6	2.3
170°-180°	40.4	0.8
0°-90°	3969.1	78.9
0°-180°	5028.0	100.0



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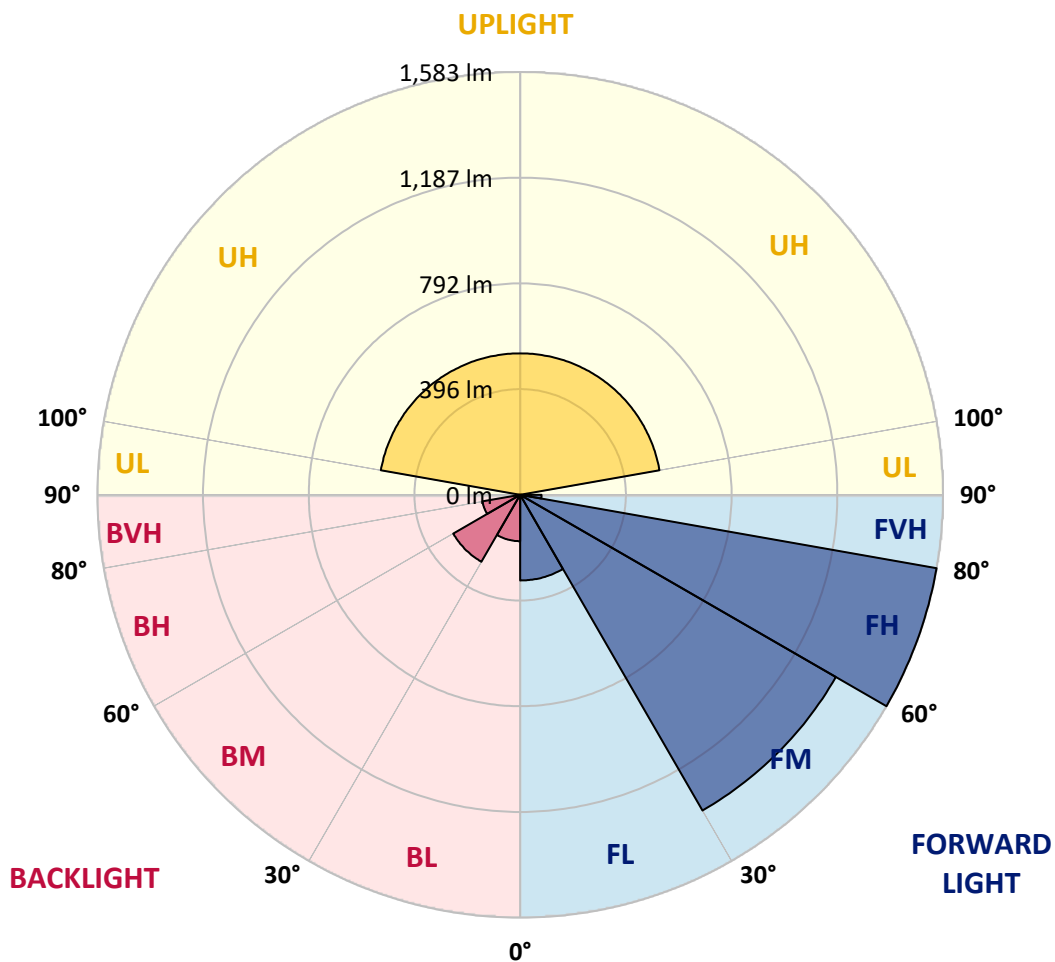
CATALOG NUMBER: ENV-SA1B-740-U-SL4-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	320.8	6.4			
FM (30°-60°)	1364.7	27.1			
FH (60°-80°)	1583.0	31.5			G1/1800
FVH (80°-90°)	79.8	1.6			G1/100
BL (0°-30°)	173.6	3.5	B1/500		
BM (30°-60°)	289.5	5.8	B1/1000		
BH (60°-80°)	143.1	2.8	B1/500		G1/500
BVH (80°-90°)	14.5	0.3			G1/100
UL (90°-100°)	5.2	0.1		U1/10	
UH (100°-180°)	529.4	10.5		U4/1000	

BUG Rating: B1-U5-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2
5°	748.8	748.8	748.8	748.8	748.2	747.6	745.8	744.0	742.8	741.6	738.9
10°	729.1	729.1	729.4	729.7	730.9	732.1	731.5	730.9	731.5	730.9	727.3
15°	707.0	710.0	714.5	719.0	724.9	730.9	734.5	738.0	742.2	743.4	740.1
20°	707.0	711.2	722.2	733.3	744.6	755.9	763.4	770.8	773.8	775.0	769.9
25°	750.6	754.1	765.2	776.2	789.3	802.4	808.4	814.4	819.1	816.1	808.1
30°	826.9	831.0	840.6	850.1	857.6	865.0	865.3	865.6	866.2	864.4	854.9
35°	911.5	912.1	922.3	932.4	933.6	934.8	930.9	927.0	927.6	931.2	919.0
40°	979.5	983.7	995.6	1007.5	1006.9	1006.3	1009.6	1012.9	1018.2	1022.4	1017.0
45°	1018.2	1026.6	1049.2	1071.9	1082.0	1092.2	1101.7	1111.2	1126.1	1139.9	1143.4
50°	1078.5	1083.2	1105.9	1128.5	1159.5	1190.5	1206.0	1221.5	1249.6	1280.0	1295.8
55°	1179.2	1176.8	1189.6	1202.5	1252.8	1303.2	1332.1	1361.0	1405.7	1461.8	1482.9
60°	1284.1	1277.6	1291.9	1306.2	1368.8	1431.4	1493.7	1556.0	1616.2	1668.1	1688.6
65°	1371.2	1376.5	1406.3	1436.1	1524.1	1612.0	1714.0	1815.9	1871.3	1907.1	1912.5
70°	1464.2	1477.9	1540.5	1603.1	1735.1	1867.2	2012.0	2156.9	2236.8	2270.8	2235.6
75°	1285.9	1323.5	1437.9	1552.4	1796.5	2040.7	2291.6	2542.6	2590.9	2410.9	2216.2
80°	420.3	442.4	515.4	588.4	699.0	809.6	949.4	1089.2	1085.0	1010.5	820.0
85°	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.8	15.5	13.1	27.4
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.0	3.0	3.3	3.6	4.0	4.3	4.3	4.3	4.3	4.3	4.3
100°	4.9	4.9	5.2	5.5	5.8	6.1	6.7	7.3	10.1	12.8	15.3
105°	12.8	13.4	15.0	16.5	19.2	21.9	25.6	29.3	33.9	38.4	41.2
110°	40.2	41.5	43.3	45.1	49.1	53.1	57.6	62.2	65.9	69.5	71.4
115°	85.4	84.8	87.2	89.7	93.3	96.9	99.7	102.5	104.3	106.1	107.7
120°	137.2	136.0	136.9	137.8	140.0	142.1	143.3	144.5	146.4	148.2	149.1
125°	181.7	179.3	179.9	180.5	181.5	182.4	184.2	186.0	187.6	189.0	190.0
130°	221.4	220.2	220.5	220.8	222.0	223.2	224.5	225.6	226.2	226.8	228.4
135°	261.6	259.8	259.8	259.8	261.7	263.4	264.4	265.3	265.9	266.5	268.3
140°	297.6	295.8	296.4	297.0	297.6	298.2	298.9	299.5	301.3	303.1	304.0
145°	335.4	333.0	332.4	331.8	332.7	333.6	334.5	335.4	335.7	336.0	337.5
150°	362.9	361.0	361.3	361.6	361.6	361.6	361.6	361.6	361.6	361.6	362.9
155°	383.6	381.1	381.1	381.1	381.8	382.4	383.3	384.2	383.6	383.0	382.4
160°	404.3	402.5	402.2	401.9	401.0	400.1	399.8	399.4	399.4	399.4	400.4
165°	415.3	413.5	412.9	412.2	412.2	412.2	411.4	410.4	410.4	410.4	410.1
170°	425.7	423.9	423.0	422.0	422.0	422.0	422.3	422.6	422.0	421.4	419.9
175°	426.9	425.7	425.4	425.1	424.5	423.9	422.7	421.4	421.1	420.8	420.8
180°	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9



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CATALOG NUMBER: ENV-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2
5°	736.3	734.5	732.7	729.7	726.7	722.2	717.8	713.6	711.2	707.6	704.1
10°	723.7	720.5	717.2	711.5	705.9	698.7	691.5	682.6	673.7	662.0	650.4
15°	736.9	732.4	727.9	721.1	714.2	705.0	695.7	680.8	664.1	640.9	617.6
20°	764.9	758.9	753.0	744.9	736.9	722.8	708.8	686.2	658.8	620.6	582.4
25°	800.0	792.3	784.5	775.9	767.3	748.2	729.1	696.3	651.0	596.2	541.3
30°	845.4	838.2	831.0	825.4	819.7	797.1	774.4	724.9	657.6	578.6	499.6
35°	906.8	906.8	906.8	910.9	915.1	888.6	862.0	785.7	686.8	573.5	460.2
40°	1011.7	1021.2	1030.8	1054.0	1077.3	1040.9	1004.5	894.8	749.4	584.5	419.7
45°	1147.0	1173.5	1200.1	1238.5	1277.0	1231.1	1185.2	1036.7	837.6	612.3	386.9
50°	1311.6	1351.2	1390.8	1439.4	1488.0	1420.9	1353.9	1164.3	913.3	640.6	367.8
55°	1504.1	1550.9	1597.7	1633.2	1668.7	1569.1	1469.5	1246.6	950.9	655.8	360.7
60°	1709.2	1747.9	1786.7	1795.3	1804.0	1665.1	1526.2	1267.4	928.8	626.3	323.7
65°	1917.8	1939.6	1961.4	1904.4	1847.5	1650.2	1452.8	1143.4	744.6	482.0	219.4
70°	2200.4	2128.0	2055.6	1861.8	1668.1	1378.9	1089.8	773.8	447.7	298.4	149.0
75°	2021.6	1783.4	1545.2	1201.6	857.9	619.7	381.5	230.1	156.8	127.9	99.0
80°	629.5	437.6	245.6	190.5	135.3	116.8	98.4	91.8	85.3	74.2	63.2
85°	41.7	31.6	21.5	15.8	10.1	13.7	17.3	22.1	29.2	25.6	22.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.3	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3
100°	17.7	16.8	15.9	15.0	14.0	12.8	11.6	11.6	11.6	12.8	14.0
105°	43.9	43.3	42.7	41.1	39.6	38.4	37.2	37.2	37.2	38.5	39.6
110°	73.2	73.5	73.8	73.2	72.6	71.7	70.8	71.4	70.8	71.7	72.6
115°	109.2	110.1	111.0	110.1	109.2	108.6	108.0	108.6	108.0	108.6	109.2
120°	150.0	151.2	152.4	150.9	149.4	148.8	148.2	148.2	148.2	148.8	149.4
125°	190.9	191.5	192.1	190.6	189.0	189.0	189.0	189.0	189.0	189.0	189.0
130°	229.9	231.1	232.3	232.3	232.3	231.7	231.1	231.7	231.1	231.7	232.3
135°	270.2	271.7	273.2	272.9	272.6	273.5	274.4	275.1	274.4	273.5	272.6
140°	304.9	305.5	306.1	306.7	307.4	308.9	310.4	311.6	310.4	308.9	307.4
145°	339.1	340.9	342.7	342.4	342.1	341.2	340.3	341.5	340.3	341.2	342.1
150°	364.1	365.0	365.9	366.8	367.7	368.7	369.6	372.0	369.6	368.7	367.7
155°	381.8	383.3	384.8	386.3	387.9	388.5	389.1	390.9	389.1	388.5	387.9
160°	401.3	403.1	404.9	404.0	403.1	402.8	402.5	406.2	402.5	402.8	403.1
165°	409.8	411.4	412.8	413.8	414.7	414.1	413.5	415.9	413.5	414.1	414.7
170°	418.3	419.3	420.2	421.7	423.2	423.9	424.5	427.5	424.5	423.9	423.2
175°	420.8	422.3	423.9	424.2	424.5	423.9	423.2	426.3	423.2	423.9	424.5
180°	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9



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CATALOG NUMBER: ENV-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2
5°	699.9	695.7	690.9	686.2	678.7	671.3	668.9	666.5	662.0	657.6	654.9
10°	635.5	620.6	605.1	589.6	574.1	558.6	545.2	531.8	522.5	513.3	506.4
15°	589.0	560.4	530.6	500.8	472.2	443.5	419.7	395.9	378.3	360.7	349.6
20°	539.8	497.2	456.1	414.9	378.9	342.8	313.6	284.4	264.1	243.8	233.7
25°	482.9	424.5	376.2	327.9	292.1	256.3	233.7	211.0	199.1	187.2	183.0
30°	423.9	348.2	298.7	249.2	224.5	199.7	187.8	175.9	170.5	165.1	163.0
35°	370.5	280.8	238.5	196.1	181.2	166.3	160.4	154.4	151.7	149.0	148.1
40°	321.9	224.2	194.3	164.5	154.7	144.9	141.3	137.7	136.5	135.3	135.0
45°	286.2	185.4	165.1	144.9	137.7	130.6	127.9	125.2	124.6	124.0	123.7
50°	267.1	166.3	149.0	131.8	126.1	120.4	118.0	115.7	114.8	113.9	113.6
55°	259.0	157.4	140.1	122.8	116.5	110.3	108.2	106.1	105.5	104.9	104.3
60°	237.9	152.0	135.3	118.6	109.7	100.8	98.4	96.0	96.6	97.2	97.2
65°	176.2	132.9	121.6	110.3	101.6	93.0	90.0	87.0	90.0	93.0	94.8
70°	127.9	106.7	100.2	93.6	87.3	81.1	79.0	76.9	80.2	83.5	85.5
75°	88.2	77.5	74.2	70.9	67.1	63.2	62.6	62.0	62.9	63.8	64.4
80°	56.6	50.1	48.3	46.5	45.3	44.1	44.4	44.7	45.0	45.3	46.8
85°	21.5	20.9	22.1	23.3	24.4	25.6	27.1	28.6	29.5	30.4	31.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.6	4.9	4.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.0
100°	15.0	15.9	16.8	17.7	15.3	12.8	10.1	7.3	6.7	6.1	5.8
105°	41.2	42.7	43.3	43.9	41.2	38.4	33.9	29.3	25.6	21.9	19.2
110°	73.2	73.8	73.5	73.2	71.4	69.5	65.9	62.2	57.6	53.1	49.1
115°	110.1	111.0	110.1	109.2	107.7	106.1	104.3	102.5	99.7	96.9	93.3
120°	150.9	152.4	151.2	150.0	149.1	148.2	146.4	144.5	143.3	142.1	140.0
125°	190.6	192.1	191.5	190.9	190.0	189.0	187.6	186.0	184.2	182.4	181.5
130°	232.3	232.3	231.1	229.9	228.4	226.8	226.2	225.6	224.5	223.2	222.0
135°	272.9	273.2	271.7	270.2	268.3	266.5	265.9	265.3	264.4	263.4	261.7
140°	306.8	306.1	305.5	304.9	304.0	303.1	301.3	299.5	298.9	298.2	297.6
145°	342.4	342.7	340.9	339.1	337.5	336.0	335.7	335.4	334.5	333.6	332.7
150°	366.8	365.9	365.0	364.1	362.9	361.6	361.6	361.6	361.6	361.6	361.6
155°	386.4	384.8	383.3	381.8	382.4	383.0	383.6	384.2	383.3	382.4	381.8
160°	404.0	404.9	403.1	401.3	400.4	399.4	399.4	399.4	399.8	400.1	401.0
165°	413.8	412.8	411.4	409.8	410.1	410.4	410.4	410.4	411.4	412.2	412.2
170°	421.7	420.2	419.3	418.3	419.9	421.4	422.0	422.6	422.3	422.0	422.0
175°	424.2	423.9	422.3	420.8	420.8	420.8	421.1	421.4	422.7	423.9	424.5
180°	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9	426.9



REPORT NUMBER: P401135

CATALOG NUMBER: ENV-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	742.2	742.2	742.2	742.2
5°	652.2	651.3	650.4	651.6
10°	499.6	494.2	488.9	488.9
15°	338.6	331.8	324.9	329.7
20°	223.6	219.1	214.6	214.6
25°	178.8	177.1	175.3	174.7
30°	161.0	160.4	159.8	159.8
35°	147.3	147.3	147.3	147.8
40°	134.7	135.3	135.9	137.1
45°	123.4	124.0	124.6	125.8
50°	113.3	113.0	112.7	113.3
55°	103.7	102.8	101.9	101.9
60°	97.2	96.0	94.8	94.8
65°	96.6	95.7	94.8	94.2
70°	87.6	88.2	88.8	88.8
75°	65.0	65.9	66.8	66.8
80°	48.3	48.6	48.9	48.3
85°	31.6	31.6	31.6	31.6
90°	0.0	0.0	0.0	0.0
95°	3.6	3.3	3.0	3.0
100°	5.5	5.2	4.9	4.9
105°	16.5	15.0	13.4	12.8
110°	45.1	43.3	41.5	40.2
115°	89.7	87.2	84.8	85.4
120°	137.8	136.9	136.0	137.2
125°	180.5	179.9	179.3	181.7
130°	220.8	220.5	220.2	221.4
135°	259.8	259.8	259.8	261.6
140°	297.0	296.4	295.8	297.6
145°	331.8	332.4	333.0	335.4
150°	361.6	361.3	361.0	362.9
155°	381.1	381.1	381.1	383.6
160°	401.9	402.2	402.5	404.3
165°	412.2	412.9	413.5	415.3
170°	422.0	423.0	423.9	425.7
175°	425.1	425.4	425.7	426.9
180°	426.9	426.9	426.9	426.9

(END OF REPORT)