

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: P401129

Luminaire Tested: **ENV-SA1B-740-U-SL3-HSS-ULG**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401129
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-SL3-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4650 lumens
Efficiency: N/A
Efficacy: 110.5 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 - 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

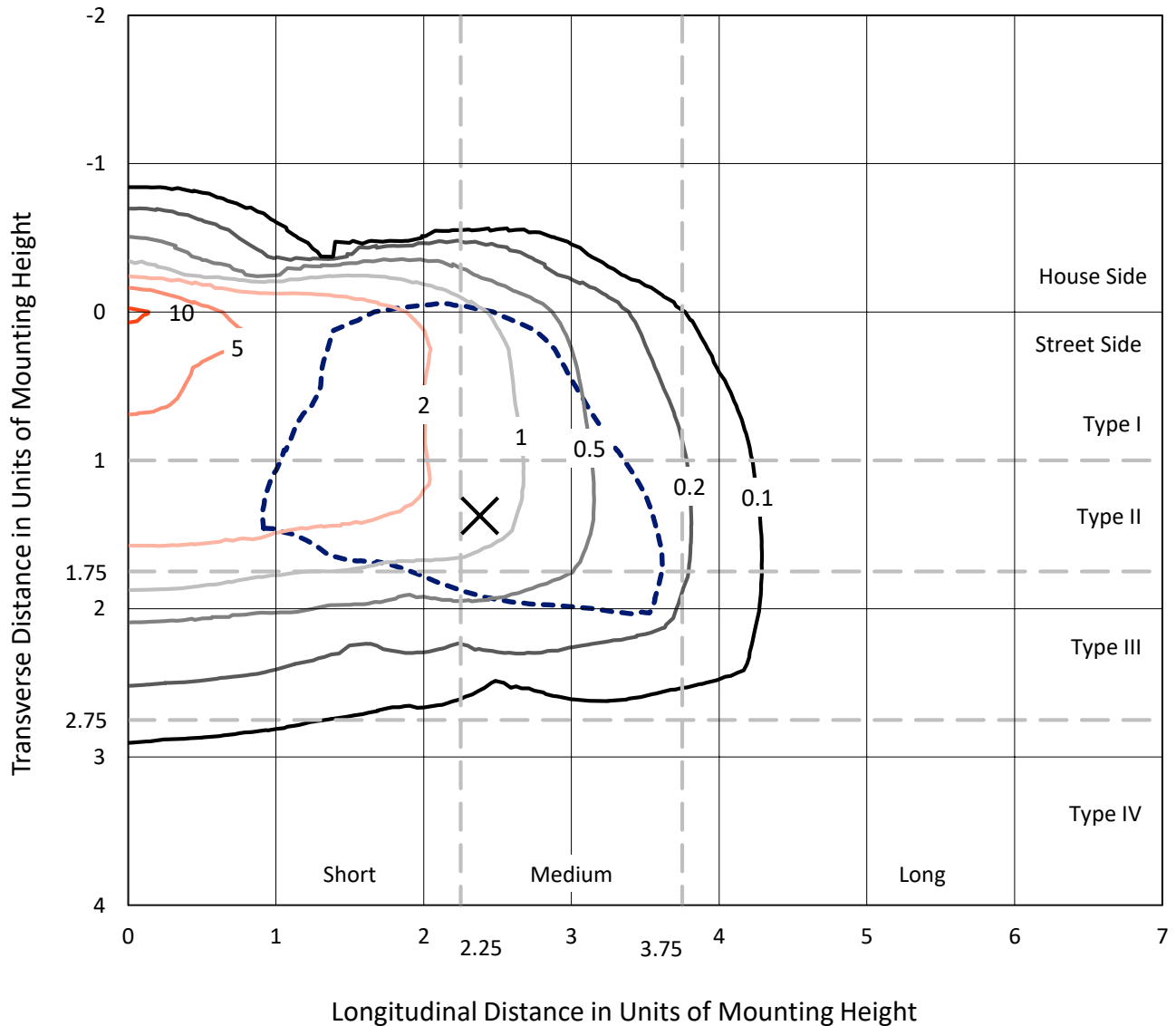


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

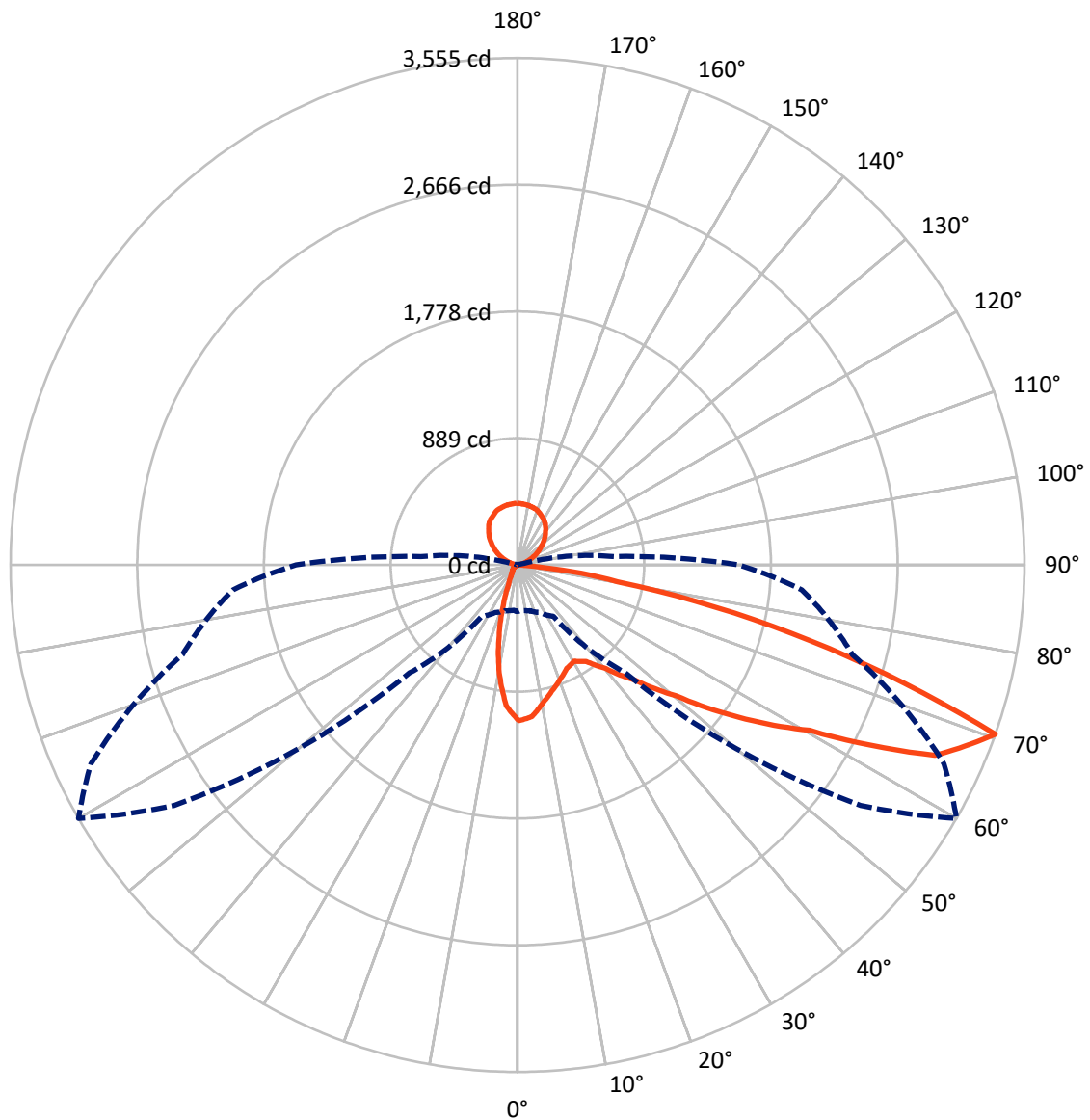


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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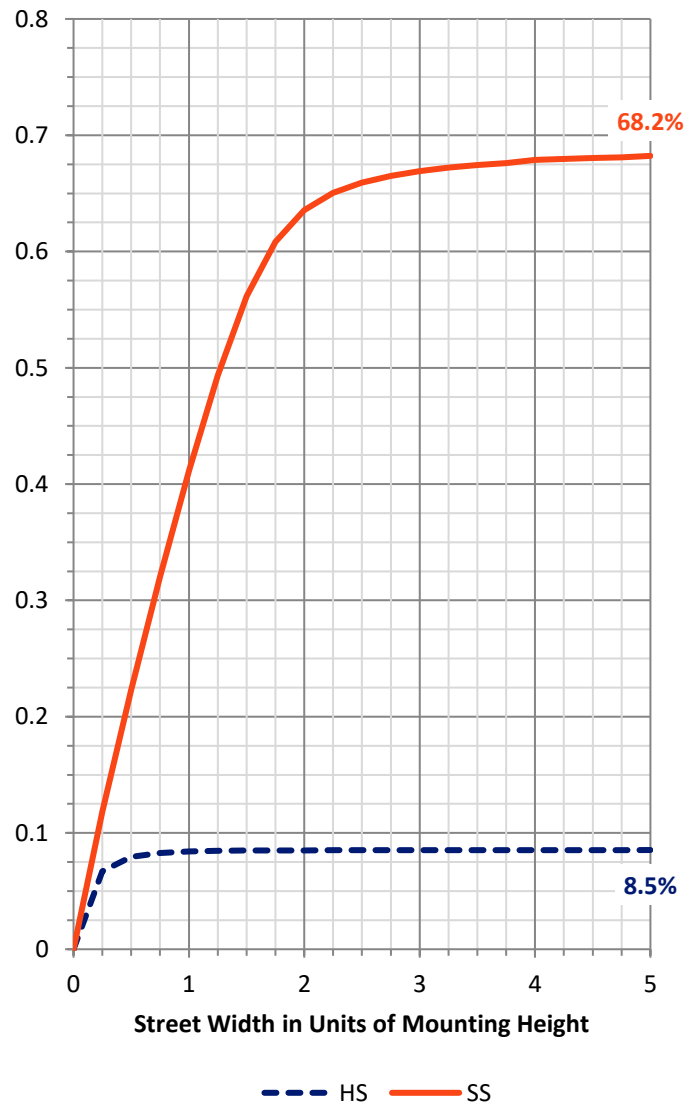
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	401.6	537.9	939.6
	% Fixture	8.6	11.6	20.2
Street Side	Lumens	3172.4	537.9	3710.4
	% Fixture	68.2	11.6	79.8
Total	Lumens	3574.1	1075.9	4650.0
	% Fixture	76.9	23.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	1.9
10°-20°	182.9	3.9
20°-30°	239.1	5.1
30°-40°	329.5	7.1
40°-50°	499.5	10.7
50°-60°	801.6	17.2
60°-70°	944.4	20.3
70°-80°	456.1	9.8
80°-90°	31.8	0.7
90°-100°	5.3	0.1
100°-110°	36.4	0.8
110°-120°	103.4	2.2
120°-130°	169.3	3.6
130°-140°	208.7	4.5
140°-150°	213.4	4.6
150°-160°	179.9	3.9
160°-170°	118.5	2.5
170°-180°	41.1	0.9
0°-90°	3574.1	76.9
0°-180°	4650.0	100.0



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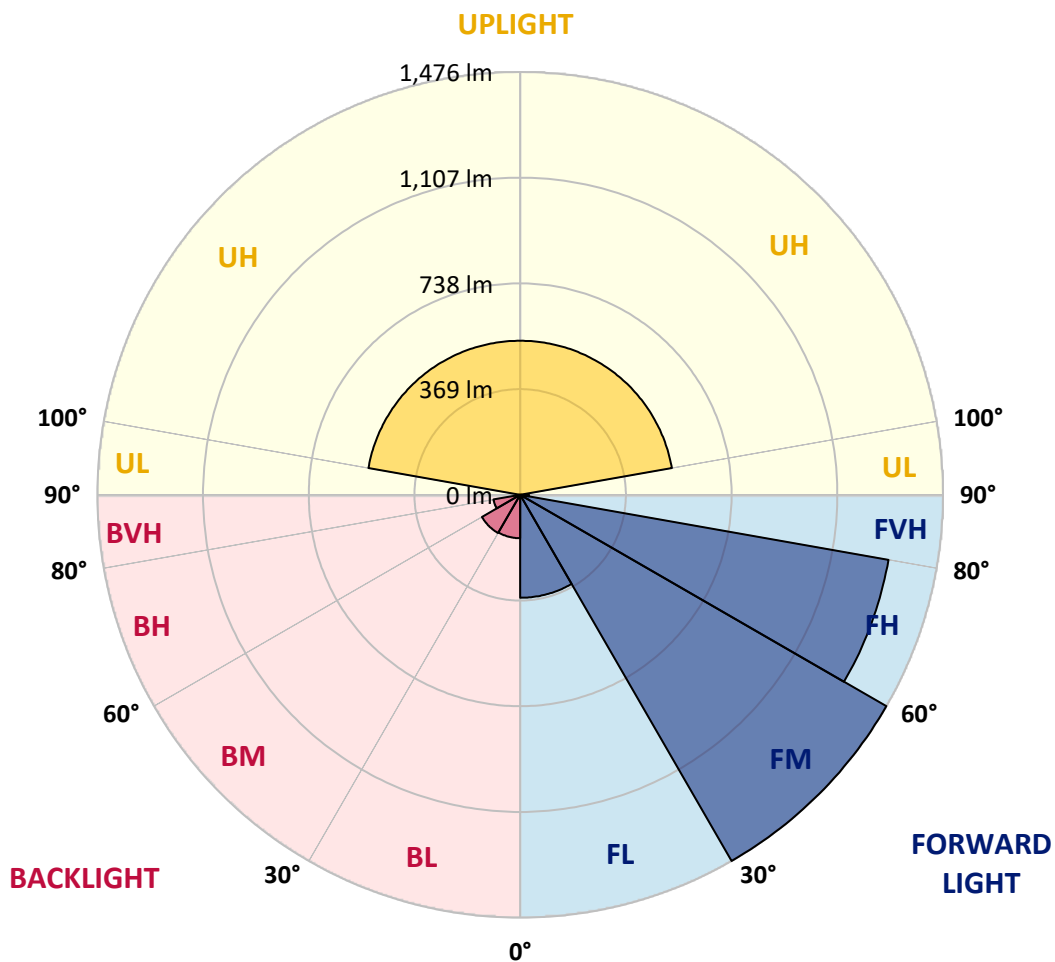
CATALOG NUMBER: ENV-SA1B-740-U-SL3-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	359.5	7.7			
FM	(30°-60°)	1476.4	31.8			
FH	(60°-80°)	1305.9	28.1			G1/1800
FVH	(80°-90°)	30.6	0.7			G1/100
BL	(0°-30°)	151.7	3.3	B1/500		
BM	(30°-60°)	154.2	3.3	B0/220		
BH	(60°-80°)	94.6	2.0	B0/110		G0/110
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	5.3	0.1		U1/10	
UH	(100°-180°)	537.9	11.6		U4/1000	

BUG Rating: B1-U5-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8
5°	1009.2	1013.4	1016.4	1019.5	1023.4	1027.3	1031.3	1035.2	1044.3	1053.4	1057.0
10°	878.3	881.4	883.5	885.6	892.3	898.9	908.0	917.1	931.3	945.6	955.9
15°	779.6	780.2	782.9	785.7	792.3	799.0	809.9	820.8	839.6	858.3	875.9
20°	743.9	742.6	741.4	740.2	739.3	738.4	744.8	751.1	766.6	782.0	805.9
25°	768.7	768.7	765.1	761.4	753.2	745.1	740.8	736.6	738.7	740.8	756.9
30°	832.9	829.3	824.1	819.0	812.9	806.9	797.2	787.5	775.1	762.6	762.0
35°	907.4	906.8	907.4	908.0	905.9	903.8	895.6	887.4	870.2	852.9	837.7
40°	972.2	973.4	983.1	992.8	1003.4	1014.0	1014.9	1015.8	1001.3	986.8	971.6
45°	1032.2	1041.9	1061.3	1080.7	1107.0	1133.4	1150.6	1167.9	1168.2	1168.5	1164.2
50°	1137.0	1147.3	1170.0	1192.7	1229.1	1265.4	1310.2	1355.1	1385.6	1416.2	1426.8
55°	1365.4	1381.1	1405.9	1430.8	1464.1	1497.4	1549.2	1601.0	1665.2	1729.4	1799.1
60°	1223.0	1230.9	1288.1	1345.4	1438.9	1532.5	1708.2	1883.9	2100.4	2317.0	2344.2
65°	543.4	541.5	569.7	597.9	696.3	794.7	1036.7	1278.7	1799.1	2319.4	2801.3
70°	326.5	318.6	325.3	331.9	349.8	367.7	403.7	439.8	754.8	1069.7	2004.4
75°	137.5	145.4	168.4	191.4	222.9	254.4	298.3	342.2	352.2	362.2	879.2
80°	17.6	17.6	26.3	35.1	64.8	94.5	138.4	182.3	200.8	219.3	316.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.2	1.2	28.8
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.1	3.1	3.4	3.7	4.1	4.4	4.4	4.4	4.4	4.4	4.4
100°	5.0	5.0	5.3	5.6	5.9	6.2	6.8	7.5	10.2	13.0	15.5
105°	13.0	13.6	15.2	16.7	19.5	22.3	26.0	29.7	34.4	39.0	41.9
110°	40.9	42.2	44.0	45.9	49.9	53.9	58.6	63.2	66.9	70.6	72.5
115°	86.7	86.1	88.6	91.1	94.8	98.5	101.3	104.1	106.0	107.8	109.4
120°	139.4	138.2	139.1	140.0	142.2	144.3	145.6	146.8	148.7	150.6	151.5
125°	184.6	182.1	182.8	183.4	184.4	185.3	187.2	189.0	190.6	192.1	193.1
130°	224.9	223.7	224.0	224.3	225.6	226.8	228.1	229.3	229.9	230.5	232.1
135°	265.8	264.0	264.0	264.0	265.9	267.7	268.6	269.6	270.2	270.8	272.6
140°	302.4	300.5	301.2	301.8	302.4	303.0	303.7	304.3	306.1	308.0	308.9
145°	340.8	338.3	337.7	337.1	338.1	339.0	339.9	340.8	341.1	341.4	343.0
150°	368.7	366.8	367.1	367.4	367.4	367.4	367.4	367.4	367.4	367.4	368.7
155°	389.7	387.3	387.3	387.3	387.9	388.5	389.5	390.4	389.8	389.1	388.5
160°	410.8	408.9	408.6	408.3	407.4	406.5	406.2	405.8	405.8	405.8	406.8
165°	422.0	420.1	419.5	418.9	418.9	418.9	418.0	417.0	417.0	417.0	416.7
170°	432.5	430.7	429.8	428.8	428.8	428.8	429.1	429.4	428.8	428.2	426.6
175°	433.8	432.5	432.2	431.9	431.3	430.7	429.5	428.2	427.9	427.5	427.5
180°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7



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CATALOG NUMBER: ENV-SA1B-740-U-SL3-HSS-ULG

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8
5°	1060.7	1067.9	1072.8	1074.6	1076.4	1073.1	1069.7	1064.9	1058.2	1047.0	1035.8
10°	966.2	981.9	996.5	1007.7	1018.9	1016.1	1013.4	1001.3	980.1	945.0	909.8
15°	893.5	913.5	936.5	953.4	970.4	971.3	972.2	945.6	902.6	832.6	762.6
20°	829.9	855.9	888.0	915.6	943.1	943.4	943.8	899.5	827.4	721.7	616.0
25°	772.9	803.2	846.8	890.4	934.1	929.5	925.0	857.7	751.1	608.5	465.8
30°	761.4	782.6	824.4	886.8	949.2	936.5	923.8	832.9	694.8	511.9	328.9
35°	822.6	831.1	861.4	930.4	999.5	974.9	950.4	829.9	653.6	428.9	204.1
40°	956.5	955.9	970.4	1037.6	1104.9	1068.5	1032.2	875.3	645.7	380.7	115.7
45°	1160.0	1151.5	1155.2	1223.3	1291.5	1256.0	1220.6	1014.6	696.6	385.9	75.1
50°	1437.4	1441.1	1428.3	1491.3	1554.3	1536.2	1518.0	1273.3	824.4	440.7	56.9
55°	1868.7	1883.9	1796.0	1826.9	1857.8	1835.7	1813.6	1545.3	977.1	511.6	46.0
60°	2371.5	2355.1	2172.2	2130.7	2089.2	2083.8	2078.3	1829.4	1123.1	578.8	34.5
65°	3283.1	3218.9	2797.9	2638.6	2479.3	2475.1	2470.8	2090.4	1103.7	563.9	24.2
70°	2939.1	3555.1	3300.7	2866.1	2431.5	2216.4	2001.4	1553.1	679.0	347.1	15.1
75°	1396.2	2122.5	2083.2	1790.3	1497.4	1161.2	825.0	607.6	182.3	95.4	8.5
80°	413.1	712.4	490.0	324.4	158.7	113.0	67.2	50.9	18.8	11.5	4.2
85°	56.3	56.9	26.7	15.7	4.8	9.7	14.5	11.5	2.4	2.1	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.4	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4
100°	18.0	17.0	16.1	15.2	14.2	13.0	11.8	11.8	11.8	13.0	14.2
105°	44.6	44.0	43.4	41.8	40.3	39.0	37.8	37.8	37.8	39.1	40.3
110°	74.4	74.7	75.0	74.4	73.7	72.8	71.9	72.5	71.9	72.8	73.7
115°	110.9	111.8	112.8	111.8	110.9	110.3	109.7	110.3	109.7	110.3	110.9
120°	152.4	153.7	154.9	153.4	151.8	151.2	150.6	150.6	150.6	151.2	151.8
125°	194.0	194.6	195.2	193.7	192.1	192.1	192.1	192.1	192.1	192.1	192.1
130°	233.6	234.8	236.1	236.1	236.1	235.5	234.8	235.5	234.8	235.5	236.1
135°	274.5	276.0	277.6	277.3	277.0	277.9	278.8	279.5	278.8	277.9	277.0
140°	309.8	310.4	311.1	311.7	312.3	313.8	315.4	316.6	315.4	313.9	312.3
145°	344.5	346.4	348.2	347.9	347.6	346.7	345.8	347.0	345.8	346.7	347.6
150°	369.9	370.8	371.8	372.7	373.6	374.6	375.5	378.0	375.5	374.6	373.6
155°	387.9	389.4	391.0	392.5	394.1	394.7	395.3	397.2	395.3	394.7	394.1
160°	407.7	409.6	411.4	410.5	409.6	409.3	408.9	412.7	408.9	409.3	409.6
165°	416.4	418.0	419.5	420.4	421.4	420.8	420.1	422.6	420.1	420.8	421.4
170°	425.1	426.0	426.9	428.5	430.0	430.7	431.3	434.4	431.3	430.7	430.0
175°	427.5	429.1	430.7	431.0	431.3	430.7	430.0	433.1	430.0	430.7	431.3
180°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8	1092.8
5°	1022.2	1008.6	990.1	971.6	949.8	928.0	915.3	902.6	885.0	867.4	863.8
10°	864.4	819.0	769.9	720.8	669.7	618.5	580.6	542.7	507.3	471.9	452.2
15°	681.8	600.9	514.3	427.7	359.2	290.8	245.3	199.9	176.0	152.0	143.9
20°	500.0	384.0	292.6	201.1	162.6	124.2	115.4	106.6	103.9	101.2	100.3
25°	332.6	199.3	152.3	105.4	98.1	90.9	88.7	86.6	85.4	84.2	83.0
30°	217.8	106.6	92.7	78.7	75.7	72.7	70.0	67.2	64.5	61.8	59.4
35°	139.0	73.9	68.8	63.6	59.7	55.7	52.1	48.5	44.8	41.2	38.8
40°	87.5	59.4	55.7	52.1	47.2	42.4	38.2	33.9	30.9	27.9	25.7
45°	62.7	50.3	45.7	41.2	36.0	30.9	27.6	24.2	21.8	19.4	17.6
50°	49.1	41.2	36.3	31.5	26.7	21.8	19.4	17.0	14.5	12.1	10.9
55°	39.7	33.3	28.2	23.0	19.4	15.7	13.3	10.9	9.1	7.3	6.1
60°	29.7	24.8	20.0	15.1	12.7	10.3	8.5	6.7	5.5	4.2	3.3
65°	20.3	16.4	13.0	9.7	7.9	6.1	4.8	3.6	3.0	2.4	1.8
70°	12.1	9.1	7.3	5.5	4.5	3.6	3.0	2.4	1.8	1.2	0.9
75°	6.7	4.8	3.9	3.0	2.7	2.4	2.1	1.8	1.8	1.8	1.5
80°	3.3	2.4	2.7	3.0	3.0	3.0	3.3	3.6	3.3	3.0	3.0
85°	1.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	4.7	5.0	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.1
100°	15.2	16.1	17.1	18.0	15.5	13.0	10.2	7.5	6.8	6.2	5.9
105°	41.9	43.4	44.0	44.6	41.9	39.0	34.4	29.7	26.0	22.3	19.5
110°	74.4	75.0	74.7	74.4	72.5	70.6	66.9	63.2	58.6	53.9	49.9
115°	111.9	112.8	111.9	110.9	109.4	107.8	106.0	104.1	101.3	98.5	94.8
120°	153.4	154.9	153.7	152.4	151.5	150.6	148.7	146.8	145.6	144.3	142.2
125°	193.7	195.2	194.6	194.0	193.1	192.1	190.6	189.0	187.2	185.3	184.4
130°	236.1	236.1	234.8	233.6	232.1	230.5	229.9	229.3	228.1	226.8	225.6
135°	277.3	277.6	276.1	274.5	272.6	270.8	270.2	269.6	268.6	267.7	265.9
140°	311.7	311.1	310.4	309.8	308.9	308.0	306.1	304.3	303.7	303.0	302.4
145°	347.9	348.2	346.4	344.5	343.0	341.4	341.1	340.8	339.9	339.0	338.1
150°	372.7	371.8	370.9	369.9	368.7	367.4	367.4	367.4	367.4	367.4	367.4
155°	392.6	391.0	389.5	387.9	388.5	389.1	389.8	390.4	389.5	388.5	387.9
160°	410.5	411.4	409.6	407.7	406.8	405.8	405.8	405.8	406.2	406.5	407.4
165°	420.4	419.5	418.0	416.4	416.7	417.0	417.0	417.0	418.0	418.9	418.9
170°	428.5	426.9	426.0	425.1	426.6	428.2	428.8	429.4	429.1	428.8	428.8
175°	431.0	430.7	429.1	427.5	427.5	427.5	427.9	428.2	429.5	430.7	431.3
180°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7



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CATALOG NUMBER: ENV-SA1B-740-U-SL3-HSS-ULG

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1092.8	1092.8	1092.8	1092.8
5°	860.2	850.5	840.8	852.3
10°	432.5	414.0	395.6	394.3
15°	135.7	131.7	127.8	129.0
20°	99.3	98.7	98.1	98.1
25°	81.8	80.9	80.0	80.0
30°	56.9	55.4	53.9	53.3
35°	36.3	34.8	33.3	32.7
40°	23.6	22.4	21.2	21.2
45°	15.7	14.8	13.9	13.9
50°	9.7	8.8	7.9	7.9
55°	4.8	4.2	3.6	3.6
60°	2.4	2.1	1.8	1.2
65°	1.2	0.9	0.6	0.6
70°	0.6	0.6	0.6	0.0
75°	1.2	0.9	0.6	0.6
80°	3.0	2.7	2.4	2.4
85°	1.2	0.9	0.6	0.6
90°	0.0	0.0	0.0	0.0
95°	3.7	3.4	3.1	3.1
100°	5.6	5.3	5.0	5.0
105°	16.7	15.2	13.6	13.0
110°	45.9	44.0	42.2	40.9
115°	91.1	88.6	86.1	86.7
120°	140.0	139.1	138.2	139.4
125°	183.4	182.8	182.1	184.6
130°	224.3	224.0	223.7	224.9
135°	264.0	264.0	264.0	265.8
140°	301.8	301.2	300.5	302.4
145°	337.1	337.7	338.3	340.8
150°	367.4	367.1	366.8	368.7
155°	387.3	387.3	387.3	389.7
160°	408.3	408.6	408.9	410.8
165°	418.9	419.5	420.1	422.0
170°	428.8	429.8	430.7	432.5
175°	431.9	432.2	432.5	433.8
180°	433.7	433.7	433.7	433.7

(END OF REPORT)