

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:

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

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401130 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-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: 4645.9 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Short
BUG Rating: B1 - U5 - G1

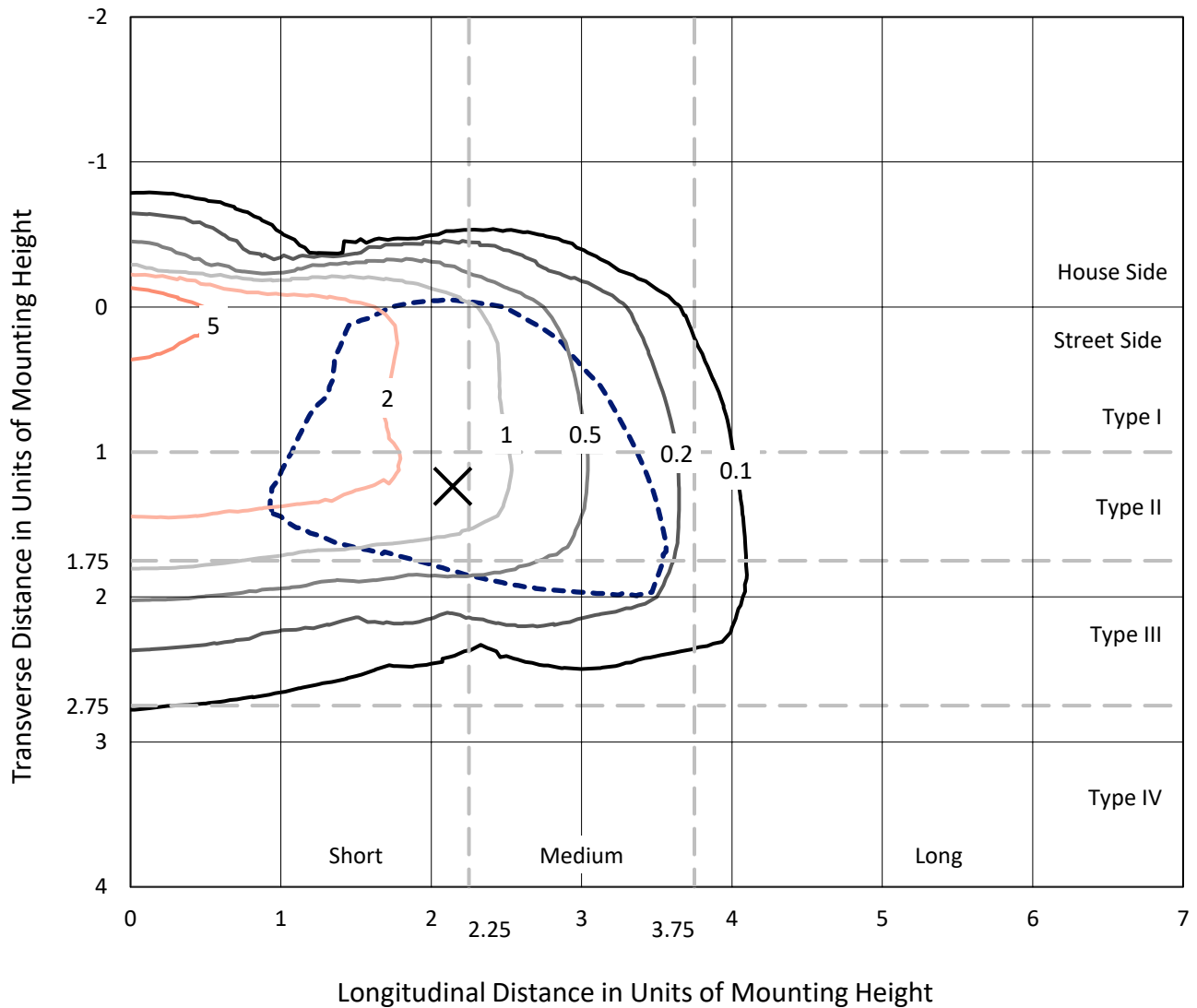
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

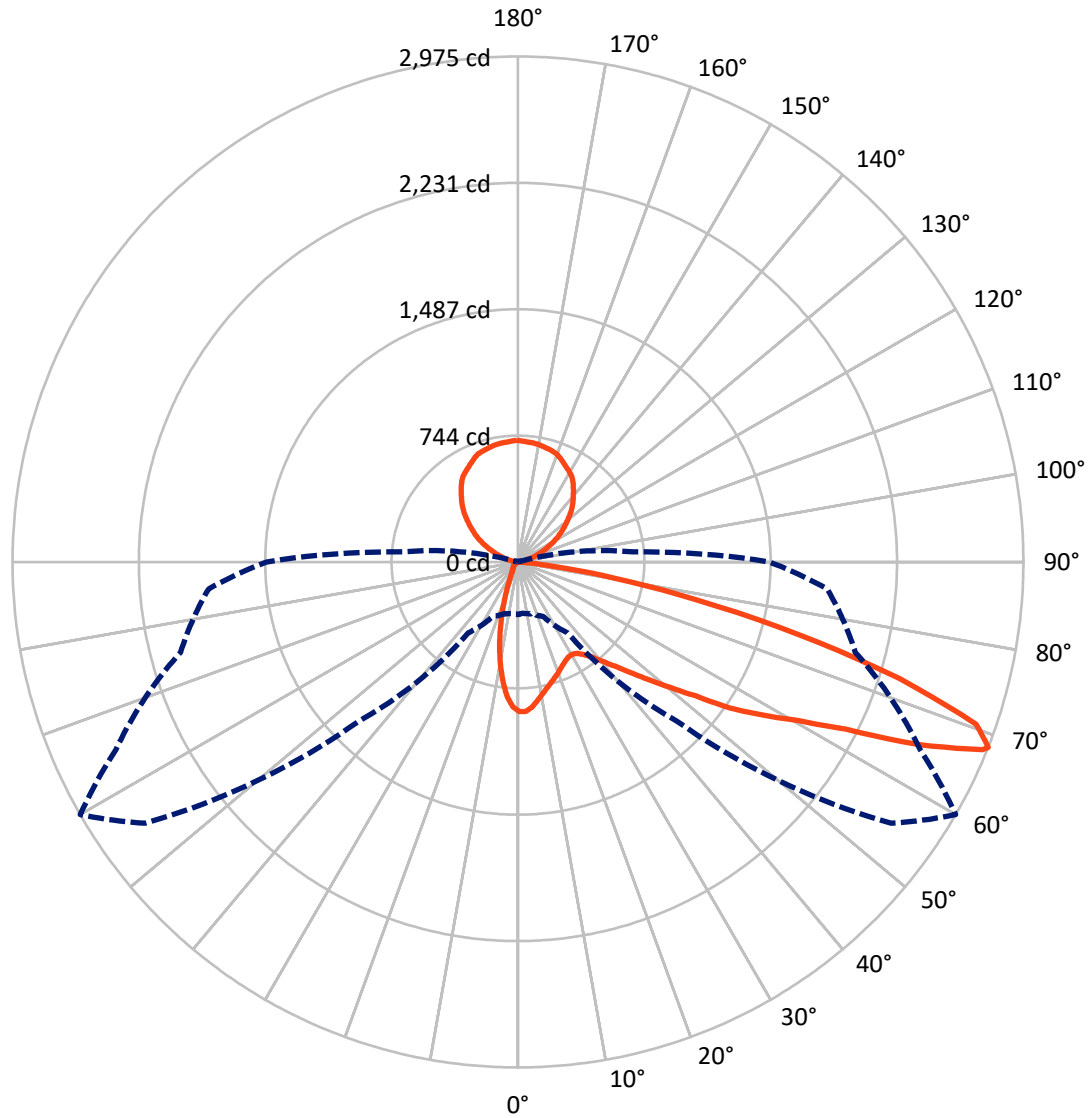
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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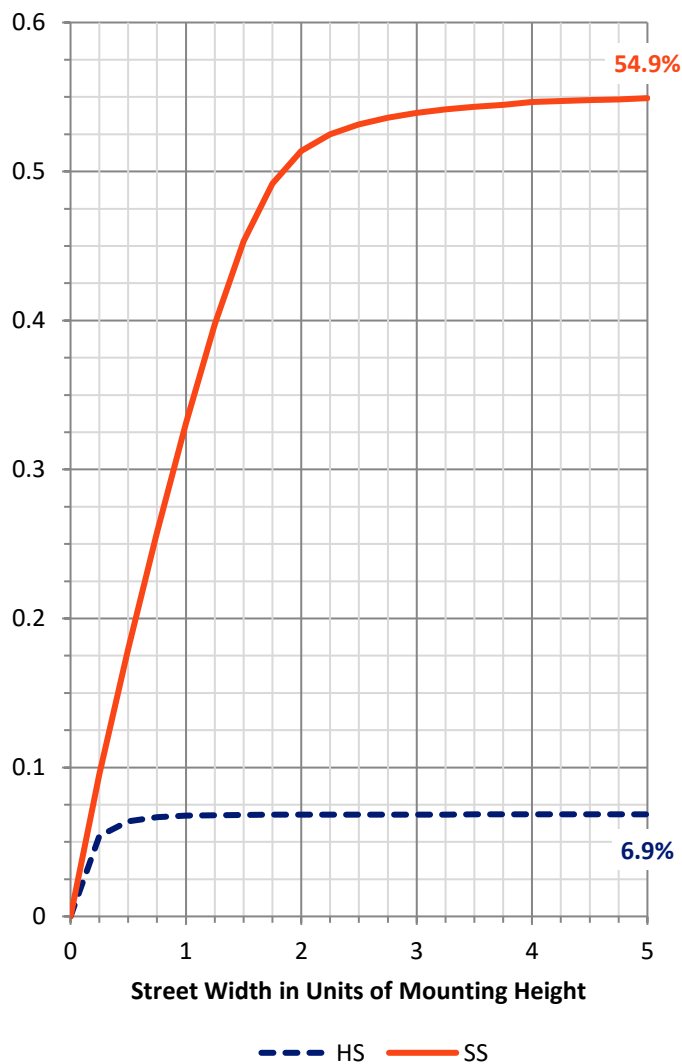
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	321.1	887.0	1208.1
	% Fixture	6.9	19.1	26.0
Street Side	Lumens	2550.9	887.0	3437.9
	% Fixture	54.9	19.1	74.0
Total	Lumens	2872.0	1773.9	4645.9
	% Fixture	61.8	38.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.5
10°-20°	145.5	3.1
20°-30°	191.6	4.1
30°-40°	264.4	5.7
40°-50°	400.7	8.6
50°-60°	646.6	13.9
60°-70°	768.2	16.5
70°-80°	362.1	7.8
80°-90°	21.6	0.5
90°-100°	8.4	0.2
100°-110°	58.7	1.3
110°-120°	169.9	3.7
120°-130°	279.4	6.0
130°-140°	344.6	7.4
140°-150°	352.5	7.6
150°-160°	297.0	6.4
160°-170°	195.5	4.2
170°-180°	67.8	1.5
0°-90°	2872.0	61.8
0°-180°	4645.9	100.0

Coefficient of Utilization



REPORT NUMBER:

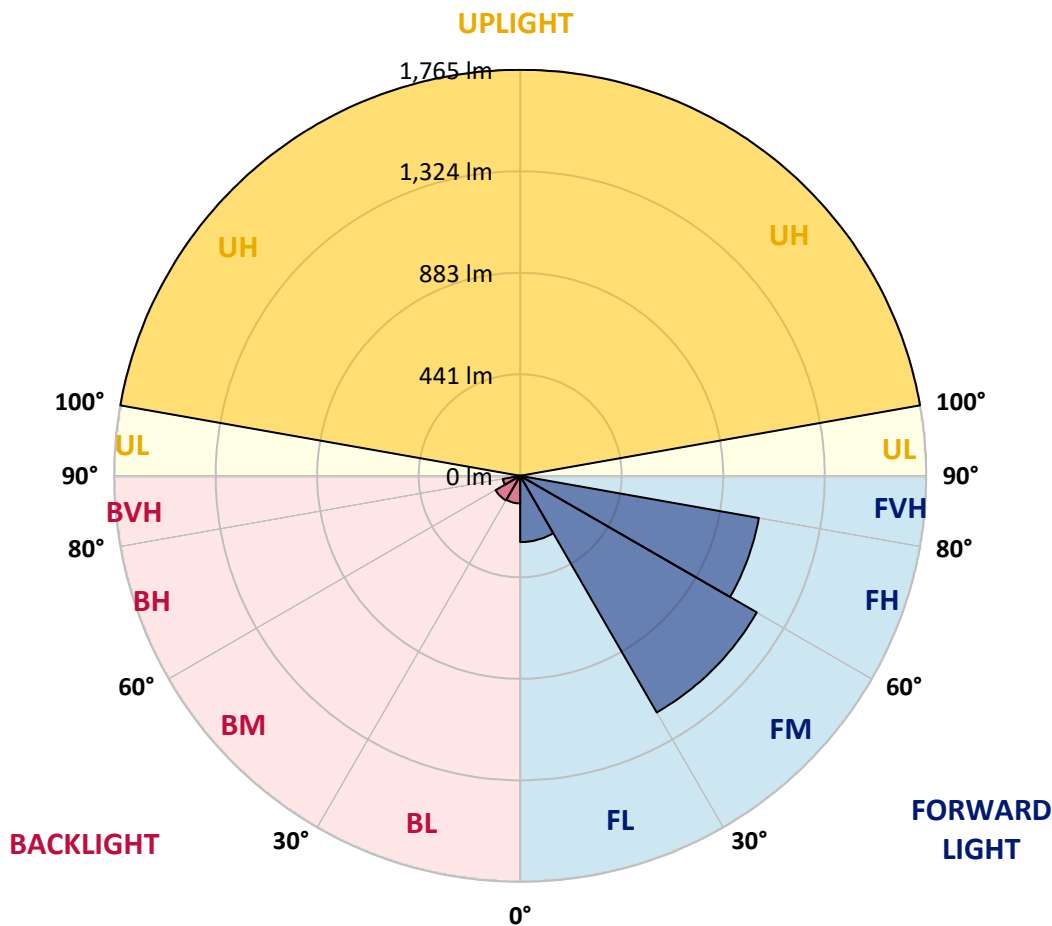
CATALOG NUMBER: ENT-SA1B-740-U-SL3-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	288.2	6.2			
FM	(30°-60°)	1188.3	25.6			
FH	(60°-80°)	1053.6	22.7			G1/1800
FVH	(80°-90°)	20.7	0.4			G1/100
BL	(0°-30°)	120.2	2.6	B1/500		
BM	(30°-60°)	123.4	2.7	B0/220		
BH	(60°-80°)	76.6	1.6	B0/110		G0/110
BVH	(80°-90°)	0.9	0.0			G0/10
UL	(90°-100°)	8.4	0.2		U1/10	
UH	(100°-180°)	1765.5	38.0		U5	

BUG Rating: B1-U5-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1
2.5°	871.3	869.3	874.7	876.2	877.6	880.5	880.1	880.5	881.0	880.1	874.2
5°	811.8	815.3	820.1	826.5	832.8	847.4	853.3	859.1	863.0	865.9	860.6
7.5°	753.4	760.2	764.1	775.8	785.5	800.6	813.3	823.5	833.3	844.0	838.6
10°	706.6	709.0	712.4	723.2	737.8	760.7	777.2	789.9	801.6	819.6	815.3
12.5°	660.8	662.2	669.1	680.8	695.9	724.1	746.1	760.7	773.8	796.2	796.7
15°	627.2	627.6	632.0	642.7	660.3	690.5	718.8	734.8	753.4	780.7	782.1
17.5°	605.2	604.7	605.7	612.5	629.1	657.9	692.0	711.0	732.9	768.0	769.4
20°	598.4	597.4	595.5	594.0	604.3	629.1	667.6	688.6	714.4	758.7	759.2
22.5°	604.3	602.3	597.9	589.6	592.6	608.6	640.8	666.1	697.8	753.9	750.4
25°	618.4	618.4	612.5	599.4	592.6	596.0	621.8	646.2	681.2	751.4	744.1
27.5°	641.8	640.8	633.0	619.4	606.7	597.4	610.1	633.0	669.1	754.3	741.2
30°	670.0	667.1	658.8	649.1	633.5	613.5	612.5	629.6	663.2	763.6	743.1
32.5°	696.8	696.8	693.4	684.2	669.1	642.7	627.6	641.3	670.5	778.7	749.5
35°	730.0	729.5	730.5	727.0	713.9	686.1	661.8	668.6	692.9	804.0	764.6
37.5°	756.3	756.8	765.1	770.9	765.1	735.8	710.5	710.5	730.9	842.1	790.4
40°	782.1	783.1	798.7	815.7	817.2	793.8	769.4	769.0	780.7	888.8	830.4
42.5°	805.5	809.4	831.8	861.1	878.1	862.5	844.5	838.6	844.5	959.5	895.2
45°	830.4	838.2	869.3	911.7	939.5	940.0	933.2	926.4	929.3	1038.9	981.9
47.5°	862.5	871.3	910.3	962.4	1015.0	1028.7	1035.0	1032.6	1024.8	1139.3	1094.0
50°	914.7	922.9	959.5	1018.0	1090.1	1139.3	1156.4	1159.3	1149.1	1250.4	1221.2
52.5°	1003.3	1008.2	1042.3	1088.6	1169.5	1261.6	1306.4	1306.9	1284.0	1380.5	1358.6
55°	1098.4	1111.0	1151.0	1204.6	1287.9	1391.2	1503.3	1515.5	1444.8	1494.5	1459.0
57.5°	1099.8	1112.0	1178.3	1281.1	1455.6	1592.5	1692.4	1701.2	1622.7	1586.2	1553.5
60°	983.9	990.2	1082.3	1232.9	1515.5	1863.9	1907.8	1894.6	1747.5	1680.7	1671.9
62.5°	694.4	697.3	806.5	1004.8	1383.0	1993.5	2235.7	2165.1	1924.8	1820.1	1849.3
65°	437.1	435.6	481.0	639.3	1028.7	1865.9	2641.2	2589.5	2250.8	1994.5	1987.7
67.5°	322.6	314.8	327.0	376.2	587.7	1464.8	2715.7	2948.6	2561.2	2067.1	1867.8
68°	309.4	302.6	315.3	353.3	508.3	1325.9	2679.7	2974.5	2610.5	2055.4	1826.9
70°	262.7	256.3	267.0	295.8	353.8	860.6	2364.4	2860.0	2655.3	1956.0	1610.0
72.5°	186.6	190.0	218.3	253.9	299.7	441.5	1741.1	2348.8	2284.0	1739.7	1225.1
75°	110.6	117.0	154.0	204.7	275.3	291.4	1123.2	1707.5	1675.8	1204.6	663.7
77.5°	39.0	41.4	76.5	136.4	227.1	231.0	625.7	1073.5	998.5	492.2	195.9
80°	14.1	14.1	28.3	76.0	146.7	176.4	332.3	573.1	394.2	127.7	54.1
82.5°	2.4	2.4	6.3	25.8	64.8	94.0	154.5	203.7	117.0	28.3	26.8
85°	0.0	0.0	0.0	0.0	1.0	1.0	45.3	45.8	21.4	3.9	11.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.0	1.0	1.0	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.7	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.1	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.6	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.6	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.7	96.2	92.1	89.0



REPORT NUMBER:

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

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.3	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.6	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.9	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.7	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.4	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	423.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	542.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	612.2	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.6	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	676.2	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.4	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	690.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.3	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.3	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	708.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.5	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1	879.1
2.5°	871.8	870.8	865.4	855.7	847.4	833.8	831.3	818.2	813.3	809.4	813.3
5°	856.7	851.3	833.3	811.4	781.6	746.5	726.1	697.8	692.0	676.4	685.6
7.5°	831.8	819.6	786.0	738.7	684.2	630.6	589.6	550.2	516.5	504.8	501.4
10°	805.5	788.4	731.9	658.8	579.9	497.5	436.6	379.6	347.9	318.2	317.2
12.5°	780.7	754.8	673.0	571.1	461.0	363.0	284.1	224.2	186.6	166.2	171.5
15°	760.7	726.1	613.5	483.4	344.0	233.9	160.8	122.3	109.2	102.8	103.8
17.5°	741.2	695.4	556.0	391.8	245.1	144.2	104.3	91.1	87.2	85.8	84.8
20°	723.6	665.7	495.6	308.9	161.8	99.9	85.8	81.4	79.9	78.9	78.9
22.5°	706.1	634.5	435.2	229.0	110.6	81.9	77.0	75.0	74.1	72.6	72.6
25°	690.0	604.3	374.7	160.3	84.8	73.1	69.7	67.7	65.8	64.3	64.3
27.5°	677.8	581.3	318.7	113.5	71.1	65.8	62.4	59.0	56.5	54.6	54.6
30°	670.0	558.9	264.6	85.8	63.3	58.5	54.1	49.7	45.8	43.4	42.9
32.5°	665.7	540.4	214.4	70.2	56.5	51.2	45.8	40.9	36.5	33.6	33.6
35°	667.6	525.8	164.2	59.5	51.2	44.8	39.0	33.1	29.2	26.8	26.3
37.5°	680.3	517.5	122.3	52.6	45.8	39.0	33.1	27.3	23.4	21.4	21.0
40°	704.1	519.5	93.1	47.8	41.9	34.1	27.3	22.4	19.0	17.1	17.1
42.5°	752.4	533.6	73.6	43.9	37.5	29.2	22.9	18.5	15.6	14.1	13.6
45°	816.2	560.4	60.4	40.4	33.1	24.9	19.5	15.6	12.7	11.2	11.2
47.5°	912.7	603.3	52.1	37.0	28.8	21.0	16.1	12.7	9.7	8.8	8.3
50°	1024.3	663.2	45.8	33.1	25.3	17.5	13.6	9.7	7.8	6.3	6.3
52.5°	1138.3	730.0	41.4	29.7	21.9	15.1	10.7	7.3	5.4	4.4	4.4
55°	1243.1	786.0	37.0	26.8	18.5	12.7	8.8	5.8	3.9	2.9	2.9
57.5°	1344.5	837.2	32.2	23.4	15.1	10.2	6.8	4.4	2.9	1.9	1.9
60°	1471.6	903.5	27.8	20.0	12.2	8.3	5.4	3.4	1.9	1.5	1.0
62.5°	1625.1	951.7	23.4	16.1	9.7	6.3	3.9	2.4	1.5	0.5	0.5
65°	1681.7	887.9	19.5	13.2	7.8	4.9	2.9	1.9	1.0	0.5	0.5
67.5°	1523.8	715.4	15.6	10.2	5.8	3.4	2.4	1.5	1.0	0.5	0.5
68°	1479.9	680.3	15.1	9.7	5.4	3.4	1.9	1.5	0.5	0.5	0.0
70°	1249.4	546.3	12.2	7.3	4.4	2.9	1.9	1.0	0.5	0.5	0.0
72.5°	926.4	376.7	8.8	4.9	2.9	1.9	1.5	1.0	0.5	0.5	0.0
75°	488.8	146.7	6.8	3.9	2.4	1.9	1.5	1.5	1.0	0.5	0.5
77.5°	140.3	46.3	5.4	2.9	2.4	2.4	2.4	1.9	1.9	1.5	1.0
80°	40.9	15.1	3.4	1.9	2.4	2.4	2.9	2.4	2.4	1.9	1.9
82.5°	21.9	5.8	1.9	1.5	1.5	1.9	2.4	1.9	1.5	1.0	0.5
85°	9.3	1.9	1.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
87.5°	0.5	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



REPORT NUMBER:

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)