

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-SA1-740-U-SL2-HSS-ULG-XXB**

Issue Date: 3/30/2022

**Test Information**

Test Method: LM-79-08  
Report Number: REPORT IS A COMBINATION OF REPORTS P400766 AND P226775  
Test Lab: INNOVATION CENTER  
Issue Date: 3/30/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-740-U-SL2-HSS-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

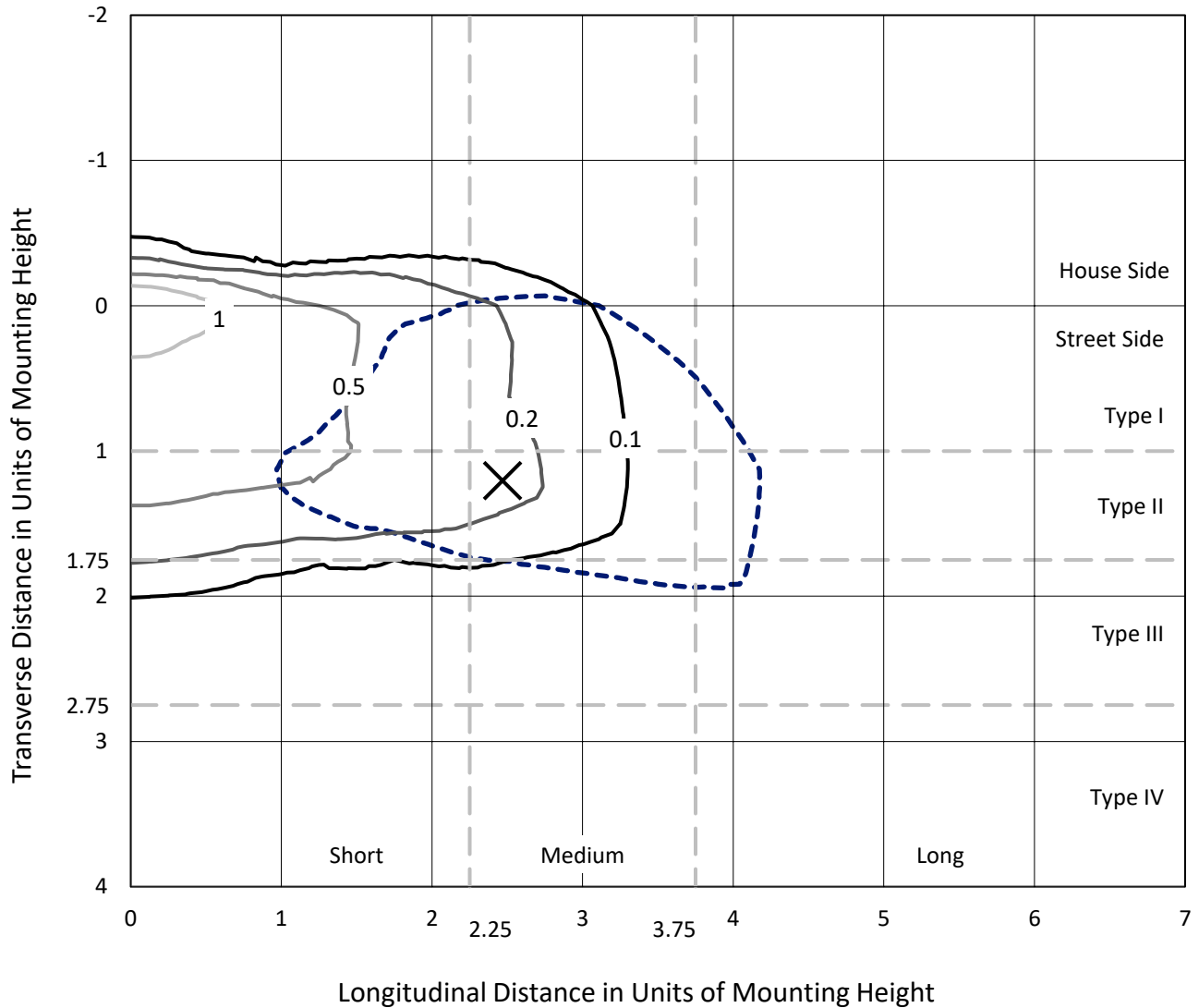
Lumens per Lamp: N/A  
Luminaire Lumens: 2397.9 lumens  
Efficiency: N/A  
Efficacy: 80.7 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')  
IES Classification: Type III - Short  
BUG Rating: B0 - U5 - G0  
  
Input Watts (W): 29.7  
Input Voltage (V): NR  
Input Current (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

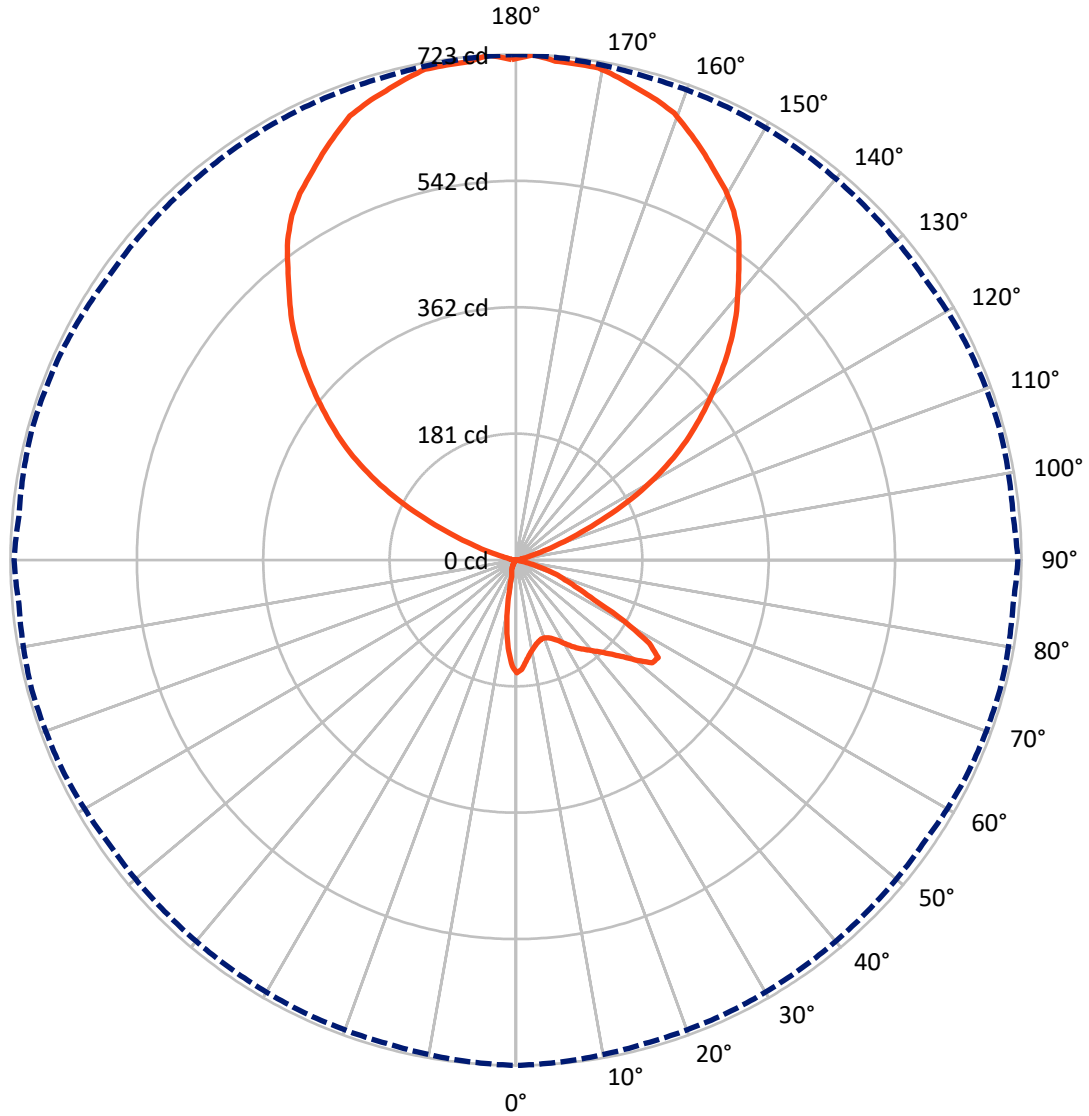
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral    - - - Horizontal Cone Through 177.5-Deg Vertical

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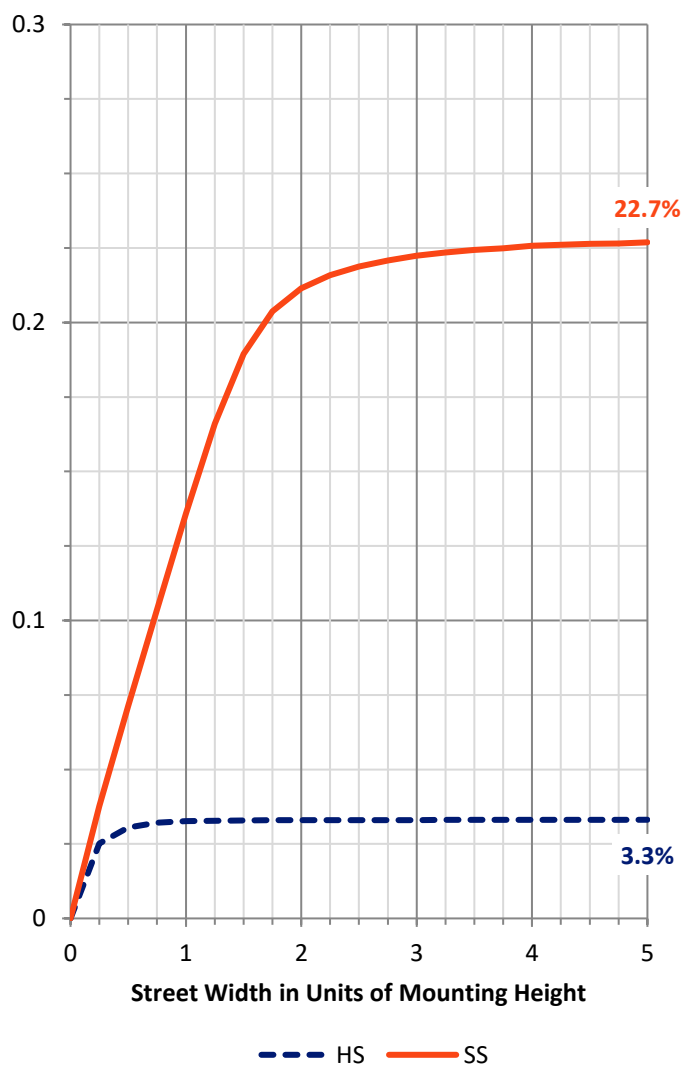
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	80.2	887.0	967.1
	% Fixture	3.3	37.0	40.3
<b>Street Side</b>	Lumens	543.8	887.0	1430.8
	% Fixture	22.7	37.0	59.7
<b>Total</b>	Lumens	624.0	1773.9	2397.9
	% Fixture	26.0	74.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	13.6	0.6
10°-20°	30.2	1.3
20°-30°	41.6	1.7
30°-40°	57.3	2.4
40°-50°	85.4	3.6
50°-60°	134.9	5.6
60°-70°	152.8	6.4
70°-80°	100.4	4.2
80°-90°	7.9	0.3
90°-100°	8.4	0.4
100°-110°	58.7	2.4
110°-120°	169.9	7.1
120°-130°	279.4	11.7
130°-140°	344.6	14.4
140°-150°	352.5	14.7
150°-160°	297.0	12.4
160°-170°	195.5	8.2
170°-180°	67.8	2.8
0°-90°	624.0	26.0
0°-180°	2397.9	100.0

**Coefficient of Utilization**

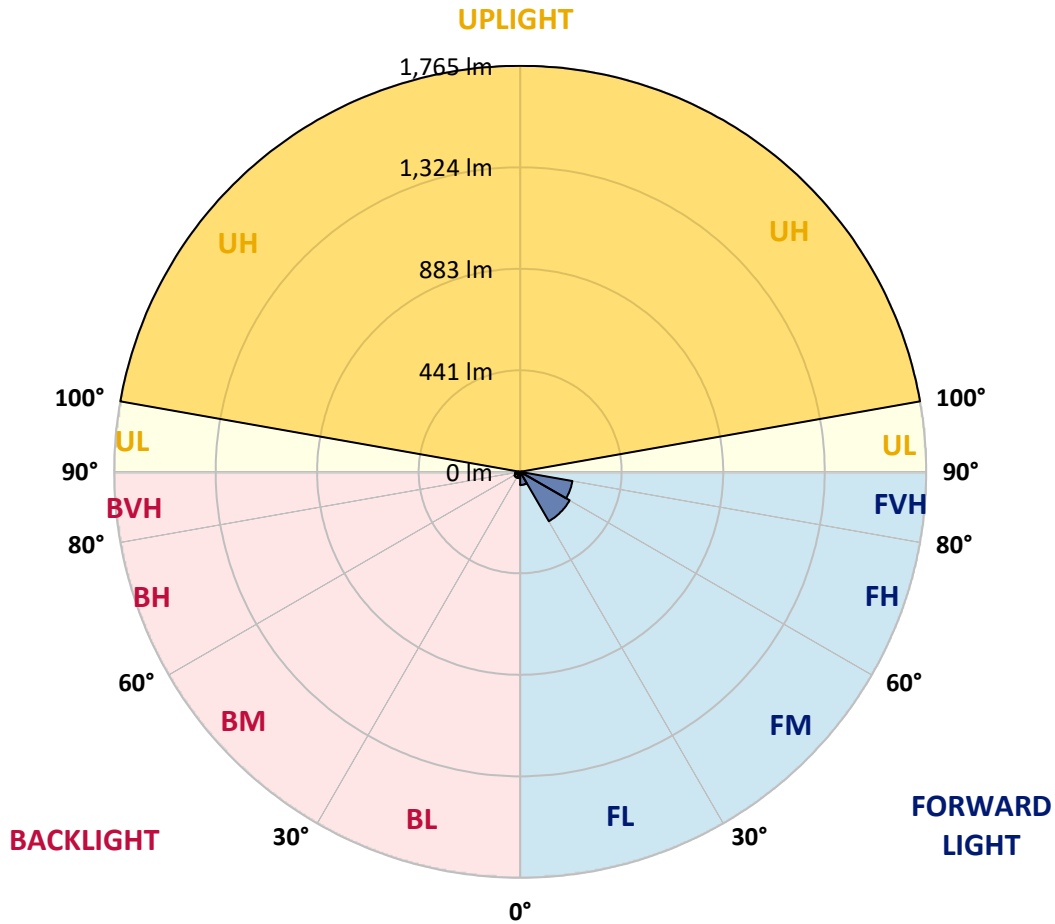


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	57.5	2.4			
FM (30°-60°)	248.3	10.4			
FH (60°-80°)	230.6	9.6			G0/660
FVH (80°-90°)	7.4	0.3			G0/10
BL (0°-30°)	27.9	1.2	B0/110		
BM (30°-60°)	29.2	1.2	B0/220		
BH (60°-80°)	22.6	0.9	B0/110		G0/110
BVH (80°-90°)	0.4	0.0			G0/10
UL (90°-100°)	8.4	0.4		U1/10	
UH (100°-180°)	1765.5	73.6		U5	

**BUG Rating: B0-U5-G0**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5
2.5°	157.0	157.0	157.8	158.6	159.0	160.2	161.1	161.7	161.7	162.2	161.4
5°	146.6	146.6	147.3	149.1	151.1	153.6	156.5	159.3	159.9	162.0	161.9
7.5°	136.9	137.8	138.9	140.8	142.9	146.6	150.6	155.5	156.0	161.1	162.2
10°	130.3	130.8	131.5	133.5	136.6	140.9	145.2	151.0	152.0	159.6	162.2
12.5°	124.9	125.0	126.0	128.3	131.2	135.4	140.2	146.6	147.8	156.8	161.7
15°	121.0	120.9	122.0	124.2	127.1	131.4	136.1	142.8	144.1	154.5	161.6
17.5°	118.7	118.8	119.7	121.4	124.1	128.2	133.0	139.6	140.9	152.6	162.2
20°	118.7	118.7	119.3	120.1	122.1	125.8	130.5	137.3	138.6	151.4	163.0
22.5°	121.0	120.8	121.3	120.6	121.6	124.1	128.9	135.7	137.2	150.9	164.2
25°	125.2	124.8	125.1	123.7	122.6	123.7	128.0	135.1	136.6	151.0	165.3
27.5°	131.0	131.0	130.4	128.4	125.6	124.4	127.8	134.6	136.2	151.0	166.0
30°	139.1	138.8	137.8	135.9	131.6	127.5	128.9	134.6	136.2	151.1	166.2
32.5°	147.3	147.5	148.0	146.1	140.2	132.8	131.6	135.6	136.9	151.0	165.9
35°	155.5	155.6	158.0	158.2	150.8	141.2	136.1	138.3	139.1	152.1	166.1
37.5°	162.7	163.3	168.0	170.3	164.2	152.1	143.2	143.2	143.6	155.1	167.5
40°	170.9	172.3	178.0	183.1	180.7	166.0	153.6	150.4	150.7	160.4	170.4
42.5°	180.3	182.1	189.5	197.0	196.9	183.1	166.8	162.0	162.2	169.8	176.5
45°	192.3	193.5	202.9	212.2	214.2	202.0	183.4	177.0	177.2	183.9	188.2
47.5°	206.9	208.3	217.4	228.6	233.6	224.7	204.9	198.0	197.3	202.0	205.1
50°	225.9	228.7	234.1	244.8	257.0	251.1	230.1	223.2	222.3	226.1	227.0
52.5°	244.2	246.7	248.9	258.8	282.3	283.8	261.1	253.5	252.6	253.5	254.7
55°	246.9	248.3	250.0	263.4	302.9	325.4	296.3	287.3	284.8	283.1	287.2
57.5°	225.1	224.2	229.7	247.9	306.3	371.3	343.9	326.5	324.0	314.9	310.9
60°	178.2	177.0	182.2	207.1	287.2	394.2	410.0	369.8	363.9	333.4	329.4
62.5°	125.2	123.8	130.5	145.2	222.8	389.7	484.5	410.8	399.1	349.7	344.3
65°	96.5	95.8	99.4	102.7	136.0	337.5	525.5	491.0	466.7	367.5	360.6
67.5°	75.6	76.5	81.0	90.5	87.8	210.4	521.7	613.2	588.9	400.2	395.8
70°	60.8	61.0	66.6	81.9	82.8	107.1	441.7	676.4	676.1	453.0	423.8
72.5°	36.8	37.7	46.9	70.8	83.6	82.0	296.9	619.8	628.3	465.3	382.2
75°	17.7	18.7	24.3	47.5	83.1	79.8	160.7	469.2	480.2	417.2	309.9
77.5°	6.6	7.5	11.2	23.3	61.6	73.1	84.5	316.4	325.0	305.4	209.9
80°	2.1	2.4	4.4	10.6	31.3	60.4	54.4	178.4	184.2	133.7	70.6
82.5°	0.2	0.3	1.2	3.6	12.1	30.7	31.9	67.2	70.1	26.1	14.3
85°	0.0	0.0	0.0	0.0	0.2	0.2	7.9	12.8	10.5	2.5	4.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.4
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	8.1	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.4	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.9	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.4	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.3	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.7	123.8	121.7	118.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	185.9	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.1	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.8	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	457.8	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	544.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.3	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	597.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.5	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	627.8	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.0	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.5	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	678.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.1	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.5	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.6	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	710.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	714.5	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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5	161.5
2.5°	161.3	161.3	160.5	159.3	157.8	155.6	155.1	153.3	153.3	151.9	151.7
5°	161.5	160.9	158.3	154.6	149.5	143.9	140.4	136.5	133.2	131.1	131.4
7.5°	161.5	160.1	155.1	146.8	137.2	127.5	120.2	111.6	107.7	105.0	106.2
10°	161.1	158.7	149.9	137.4	122.1	108.7	96.7	86.8	80.0	77.1	74.7
12.5°	160.1	156.6	143.4	125.6	106.1	88.6	71.9	58.9	49.9	45.4	44.9
15°	159.2	154.4	135.9	112.8	88.0	65.1	46.4	34.0	26.3	24.6	24.8
17.5°	159.0	152.3	128.6	99.2	70.3	43.3	26.8	21.6	20.5	20.1	20.0
20°	159.1	150.4	120.7	85.7	49.8	27.0	20.3	19.1	18.7	18.4	18.3
22.5°	159.6	148.4	112.9	71.5	34.0	19.8	18.1	17.3	16.8	16.5	16.4
25°	159.6	146.1	104.2	56.5	22.3	17.3	16.2	15.3	14.5	14.0	14.0
27.5°	159.2	143.4	95.3	42.9	17.7	15.5	14.3	12.9	12.0	11.4	11.4
30°	158.2	140.2	86.6	30.0	15.5	13.8	12.3	10.6	9.4	8.9	8.7
32.5°	156.8	136.8	76.6	21.1	13.9	12.1	10.3	8.6	7.5	6.8	6.8
35°	155.3	133.4	65.8	16.1	12.6	10.6	8.7	6.9	5.9	5.5	5.4
37.5°	154.5	129.8	55.3	13.9	11.3	9.1	7.0	5.6	4.8	4.5	4.4
40°	155.1	127.1	45.0	12.5	10.1	7.7	5.8	4.7	4.1	3.6	3.6
42.5°	158.3	125.5	35.2	11.4	9.0	6.5	4.8	3.8	3.2	2.9	2.9
45°	165.0	126.6	26.8	10.4	7.7	5.4	4.1	3.1	2.4	2.1	2.1
47.5°	176.2	131.0	20.3	9.5	6.6	4.4	3.3	2.4	1.9	1.6	1.5
50°	192.6	139.7	15.9	8.7	5.5	3.7	2.7	1.9	1.4	1.2	1.2
52.5°	216.2	154.7	13.6	7.7	4.5	3.1	2.2	1.4	1.1	0.9	0.9
55°	245.1	173.8	12.3	6.8	3.6	2.5	1.8	1.1	0.8	0.7	0.5
57.5°	268.6	189.0	11.5	5.9	3.1	2.2	1.3	0.9	0.7	0.4	0.4
60°	289.4	198.7	10.2	4.9	2.6	1.8	1.1	0.7	0.4	0.3	0.3
62.5°	306.2	205.1	8.4	4.0	2.2	1.4	0.9	0.5	0.4	0.3	0.3
65°	325.3	210.3	6.9	3.1	1.9	1.2	0.8	0.4	0.3	0.3	0.3
67.5°	362.7	221.8	5.2	2.4	1.4	1.0	0.7	0.4	0.3	0.2	0.2
70°	377.3	208.3	4.1	2.0	1.1	0.9	0.7	0.4	0.2	0.2	0.2
72.5°	321.1	155.9	3.2	1.6	1.0	0.8	0.7	0.4	0.3	0.3	0.2
75°	254.7	105.3	2.5	1.3	1.0	0.9	0.7	0.7	0.5	0.4	0.4
77.5°	162.6	46.6	2.0	1.1	1.0	1.1	1.0	0.7	0.7	0.5	0.5
80°	48.5	11.2	1.4	0.9	0.8	0.9	1.0	0.7	0.4	0.3	0.3
82.5°	10.5	2.6	0.9	0.4	0.5	0.4	0.7	0.7	0.4	0.3	0.3
85°	3.5	1.0	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2
87.5°	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
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
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



REPORT NUMBER:

CATALOG NUMBER: ENT-SA1-740-U-SL2-HSS-ULG-XXB

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)