

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-T4FT-ULG-XXB**

Issue Date: 3/30/2022

**Test Information**

Test Method: LM-79-08  
Report Number: REPORT IS A COMBINATION OF REPORTS P400796 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-T4FT-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

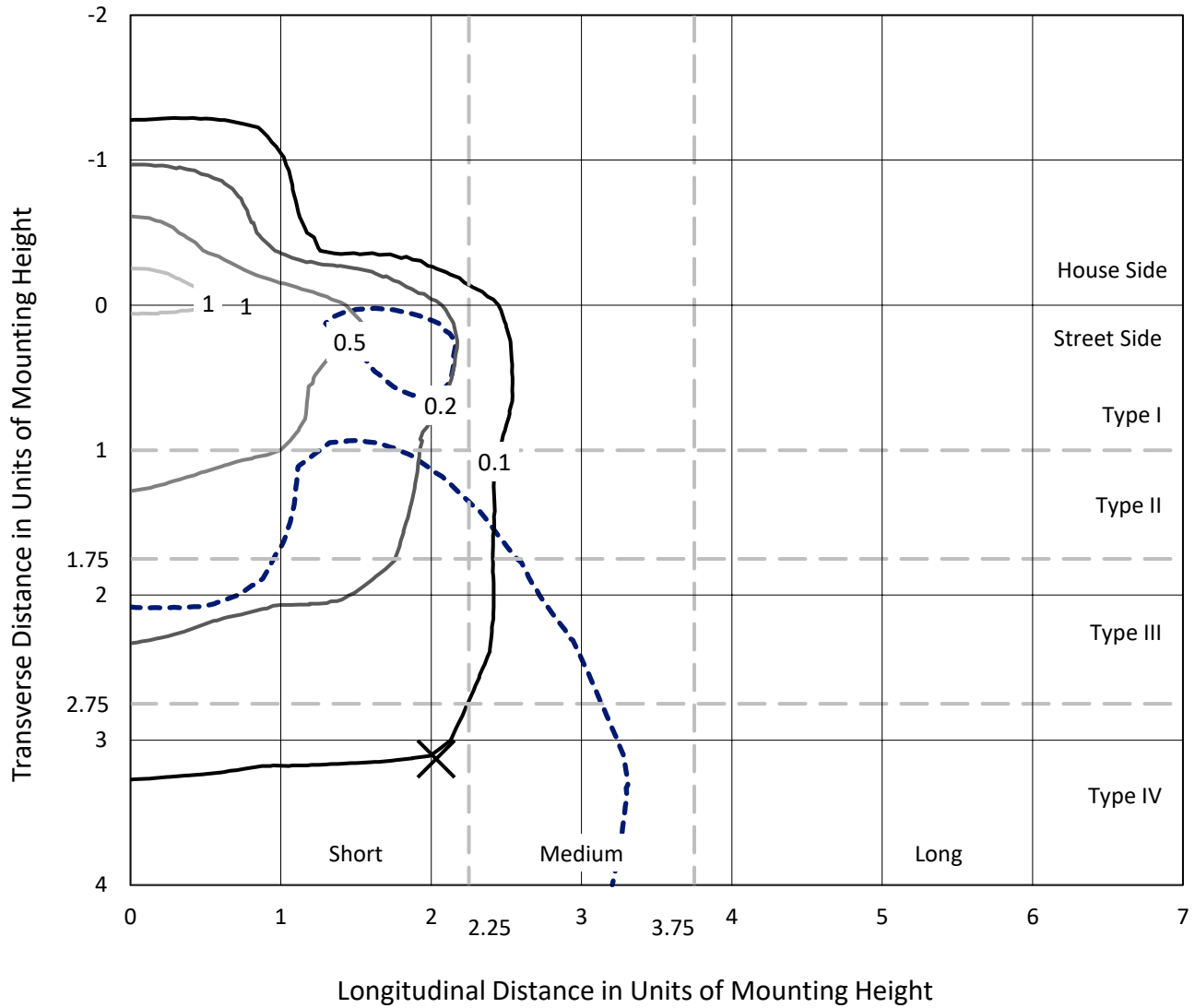
Lumens per Lamp: N/A  
Luminaire Lumens: 2512.9 lumens  
Efficiency: N/A  
Efficacy: 84.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U5 - G0  
  
Input Watts (W): 29.7  
Input Voltage (V): NR  
Input Current (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

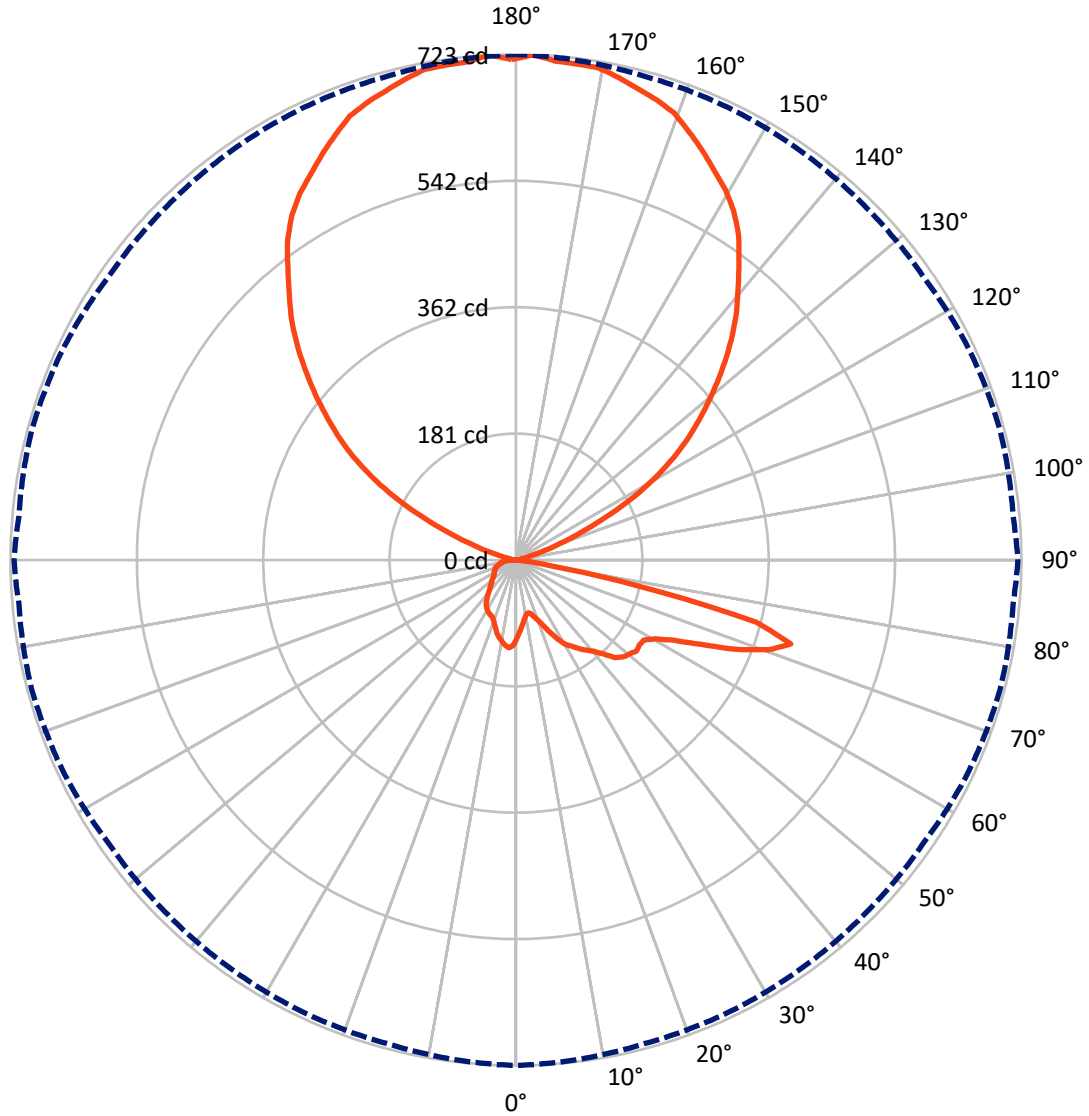
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.2 fc  
 Type IV - 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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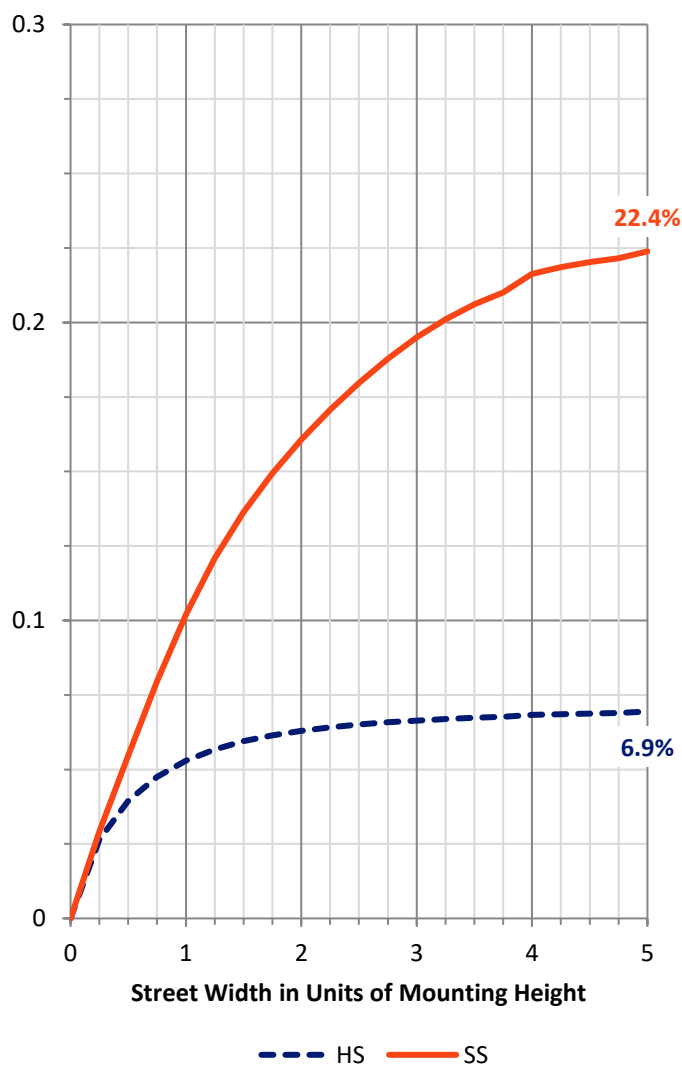
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	179.5	887.0	1066.5
	% Fixture	7.1	35.3	42.4
<b>Street Side</b>	Lumens	559.5	887.0	1446.4
	% Fixture	22.3	35.3	57.6
<b>Total</b>	Lumens	739.0	1773.9	2512.9
	% Fixture	29.4	70.6	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.6	0.4
10°-20°	29.8	1.2
20°-30°	49.5	2.0
30°-40°	73.8	2.9
40°-50°	103.1	4.1
50°-60°	137.6	5.5
60°-70°	170.6	6.8
70°-80°	147.5	5.9
80°-90°	16.5	0.7
90°-100°	8.4	0.3
100°-110°	58.7	2.3
110°-120°	169.9	6.8
120°-130°	279.4	11.1
130°-140°	344.6	13.7
140°-150°	352.5	14.0
150°-160°	297.0	11.8
160°-170°	195.5	7.8
170°-180°	67.8	2.7
0°-90°	739.0	29.4
0°-180°	2512.9	100.0

**Coefficient of Utilization**



REPORT NUMBER:

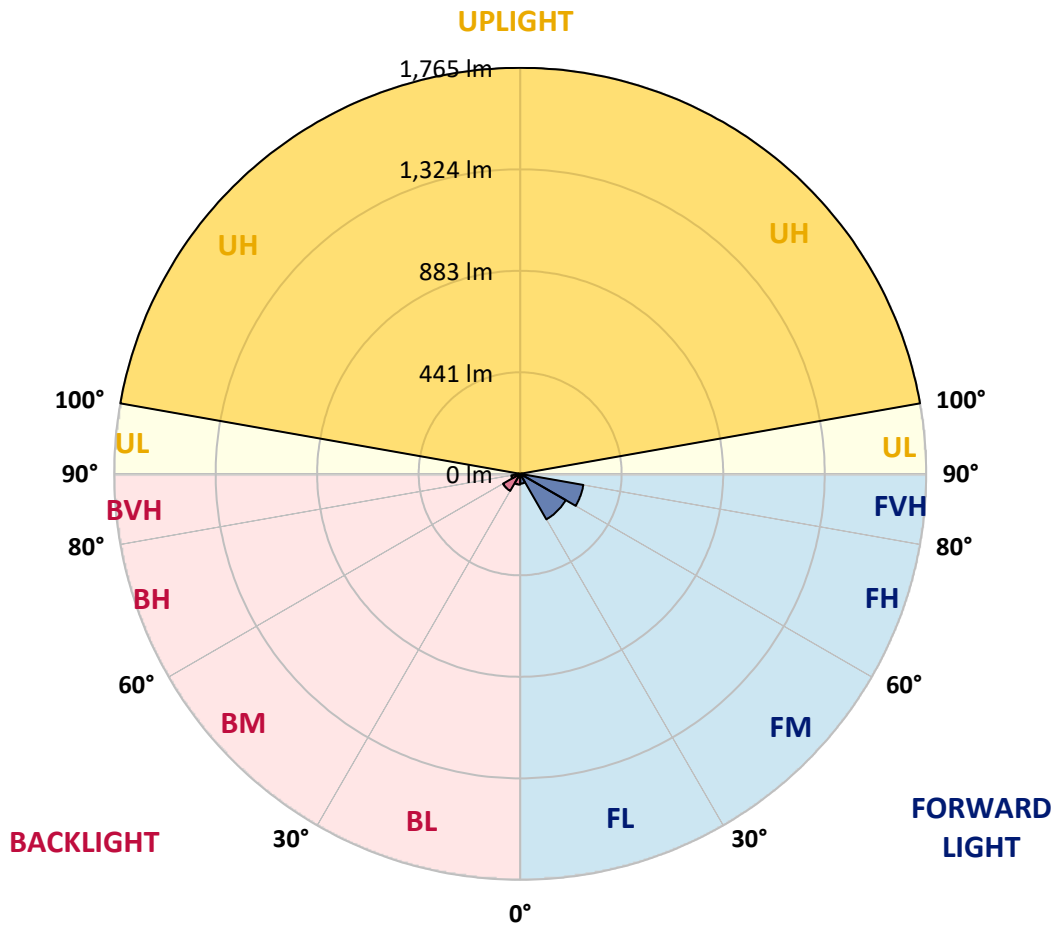
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	42.8	1.7			
FM (30°-60°)	228.5	9.1			
FH (60°-80°)	278.9	11.1			G0/660
FVH (80°-90°)	9.3	0.4			G0/10
BL (0°-30°)	47.0	1.9	B0/110		
BM (30°-60°)	86.0	3.4	B0/220		
BH (60°-80°)	39.3	1.6	B0/110		G0/110
BVH (80°-90°)	7.2	0.3			G0/10
UL (90°-100°)	8.4	0.3		U1/10	
UH (100°-180°)	1765.5	70.3		U5	

**BUG Rating: B0-U5-G0**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2
2.5°	102.7	102.9	103.6	104.3	104.8	104.8	106.0	107.4	109.2	110.7	112.4
5°	94.1	94.5	95.0	96.0	97.2	97.4	99.9	102.4	105.6	109.0	112.2
7.5°	85.7	86.4	87.5	88.8	90.6	91.1	94.5	97.9	102.3	107.4	112.8
10°	79.2	79.7	80.2	82.1	84.4	85.1	89.6	93.9	100.0	106.3	113.5
12.5°	77.5	77.5	77.5	78.3	80.2	80.9	85.6	91.1	97.9	105.6	114.4
15°	80.0	79.9	78.7	78.0	79.1	79.7	83.7	89.1	96.8	105.8	116.3
17.5°	85.7	85.4	82.5	80.3	81.1	81.4	84.0	88.7	96.4	106.7	119.1
20°	93.2	92.4	88.0	84.7	84.6	84.8	86.8	90.0	97.0	108.2	122.0
22.5°	103.0	102.6	96.1	91.1	90.2	90.2	91.1	93.0	98.4	109.9	126.1
25°	115.8	114.6	106.8	100.0	98.0	97.4	97.3	97.3	100.9	112.6	131.1
27.5°	128.8	127.4	119.5	110.3	107.6	106.7	104.9	103.6	104.2	115.4	137.2
30°	140.6	138.6	131.9	122.3	118.4	116.9	113.7	110.9	109.2	119.4	145.2
32.5°	147.0	146.3	141.7	133.0	128.5	127.8	122.6	118.9	115.9	124.5	155.9
35°	155.7	154.7	151.8	144.6	139.2	137.6	133.6	129.4	124.4	131.5	169.5
37.5°	163.7	163.2	162.1	157.1	151.4	149.8	146.2	141.7	135.0	141.7	184.8
40°	171.8	171.2	170.7	169.0	164.9	163.8	162.1	156.8	147.8	152.8	199.8
42.5°	183.7	182.3	177.6	177.5	177.9	178.7	178.9	173.0	161.8	166.8	213.0
45°	199.2	195.2	184.9	184.6	188.4	190.7	196.3	191.4	176.4	181.0	227.7
47.5°	207.1	203.0	192.3	191.7	196.7	200.1	214.0	209.1	191.6	197.1	242.9
50°	210.9	208.3	198.9	201.0	206.2	209.5	230.8	226.9	207.3	214.4	262.1
52.5°	216.3	211.9	205.3	209.7	217.4	220.8	245.8	245.1	220.5	233.3	283.2
55°	214.4	212.1	213.3	219.2	228.9	233.9	260.9	260.9	234.0	253.5	304.0
57.5°	215.9	214.4	224.4	229.7	241.8	249.1	279.1	274.3	245.5	270.4	318.1
60°	229.0	224.6	232.4	242.8	258.5	265.5	300.0	288.4	254.8	285.0	320.6
62.5°	252.0	248.5	249.3	261.3	281.6	289.7	320.6	300.8	261.0	291.1	311.2
65°	290.2	288.6	279.1	286.4	314.4	321.7	346.4	311.5	259.3	286.5	286.3
67.5°	341.6	335.0	322.3	328.7	361.0	368.5	377.5	315.6	247.9	259.0	230.1
70°	384.1	378.7	372.8	389.9	426.9	431.0	409.8	311.7	220.1	202.7	154.3
72.5°	411.3	407.3	412.7	462.7	522.1	514.4	441.8	284.8	171.7	124.1	77.1
75°	355.0	353.1	383.8	485.3	565.4	562.6	430.7	213.2	99.6	54.6	35.1
77.5°	178.5	198.8	231.2	344.3	449.9	450.4	313.8	102.5	41.9	30.6	24.1
80°	50.3	50.9	77.1	142.0	224.6	239.3	118.7	34.8	23.9	22.8	18.0
82.5°	12.0	11.1	19.8	42.0	75.4	78.5	35.7	12.5	13.4	14.3	11.1
85°	0.1	0.1	0.1	0.1	0.1	0.2	1.3	1.3	3.2	4.1	3.2
87.5°	0.0	0.0	0.0	0.1	0.1	0.1	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
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.1	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.0	9.2	9.2	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	11.9	12.3	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	25.8	27.6	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	46.6	49.1	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	71.6	74.7	90.0	97.2	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	101.2	104.3	116.6	122.8	123.8	121.7	118.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	134.4	137.1	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	170.0	171.9	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	205.6	206.6	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	241.6	242.4	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	276.4	277.2	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	310.8	312.0	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	345.6	346.8	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	377.7	378.5	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	412.7	413.3	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	444.4	445.0	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	473.8	474.6	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	501.9	502.3	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	532.4	533.0	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.0	562.6	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.2	588.2	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	623.8	624.0	624.0	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	643.9	644.5	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.4	660.8	659.8	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.2	670.0	670.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	677.0	676.2	678.2	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	689.0	688.4	688.4	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.4	703.8	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.7	708.9	706.9	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	706.4	705.8	705.8	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	707.7	706.9	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.4	713.0	711.0	709.9	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°	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2
2.5°	113.1	114.2	116.0	117.5	118.8	119.8	121.4	121.6	122.0	122.2	122.5
5°	114.1	116.2	119.5	122.3	124.3	124.9	126.2	126.1	126.2	126.2	126.1
7.5°	115.4	118.3	122.9	126.1	127.2	126.8	126.5	125.3	124.3	123.9	123.3
10°	117.1	120.4	125.7	128.0	127.5	125.7	123.7	121.5	119.7	118.8	118.6
12.5°	118.7	123.0	128.0	128.7	126.5	123.3	119.8	117.4	115.1	113.9	113.9
15°	121.5	126.2	129.9	128.6	124.6	120.6	115.8	112.5	109.8	108.2	108.1
17.5°	124.8	129.8	131.9	128.0	122.3	116.6	110.8	106.5	103.1	101.5	100.5
20°	128.8	133.5	132.9	126.3	118.9	111.9	104.7	99.5	96.0	94.3	93.9
22.5°	133.4	137.4	133.2	123.4	114.3	105.3	97.4	92.3	90.0	88.7	88.8
25°	139.0	142.1	133.3	120.0	107.8	96.7	89.8	87.3	87.0	86.5	86.7
27.5°	146.0	147.0	132.9	115.4	99.3	87.6	83.5	84.5	85.4	85.0	85.3
30°	154.4	153.0	131.9	108.7	88.9	79.2	79.4	81.6	82.8	82.5	82.6
32.5°	164.1	158.9	130.0	100.6	79.0	74.2	75.9	78.1	79.3	79.3	79.4
35°	175.1	166.0	126.4	90.1	72.1	71.1	72.6	74.4	75.2	74.7	75.1
37.5°	186.6	172.2	120.6	78.3	66.9	68.7	69.6	70.0	69.9	69.2	68.9
40°	197.4	177.0	110.2	66.7	62.7	66.2	66.6	65.4	64.0	62.8	62.0
42.5°	205.6	179.5	95.7	58.3	58.6	63.3	63.6	61.2	58.5	56.6	56.2
45°	214.1	180.4	81.3	51.5	54.2	60.5	61.3	58.0	54.3	52.1	51.8
47.5°	223.7	182.6	67.2	46.7	50.5	58.5	59.9	55.9	51.7	48.4	47.8
50°	236.7	186.8	56.5	43.1	47.8	57.5	59.5	54.1	48.8	45.2	44.8
52.5°	253.1	192.9	46.6	40.3	45.8	56.0	58.8	52.3	46.7	42.4	41.7
55°	267.3	195.2	40.3	37.9	43.6	54.1	58.3	51.7	44.4	39.5	38.7
57.5°	273.8	188.6	35.8	35.4	41.3	51.8	57.2	49.5	41.9	38.1	37.4
60°	270.8	172.3	32.4	33.2	38.6	48.8	54.3	47.3	40.2	37.0	36.3
62.5°	257.6	153.4	29.8	31.2	35.7	45.1	51.0	45.3	38.6	35.8	34.9
65°	234.5	132.7	28.0	29.3	33.0	41.5	48.4	43.0	36.9	34.0	33.2
67.5°	191.4	105.6	26.0	27.4	30.8	38.5	46.0	41.1	34.9	33.0	32.4
70°	126.6	71.0	24.1	25.6	28.6	35.7	43.5	39.2	33.0	31.8	30.9
72.5°	58.2	38.2	22.2	23.6	26.1	32.5	40.3	36.2	30.5	29.7	28.4
75°	28.7	23.5	19.8	21.1	23.0	28.6	36.5	33.7	28.2	26.9	25.3
77.5°	21.0	17.6	17.0	18.3	20.0	25.3	32.6	31.1	25.9	24.0	23.2
80°	15.6	13.6	14.3	15.6	17.1	22.9	30.5	29.1	23.9	22.1	21.4
82.5°	9.5	9.1	11.0	12.5	14.4	21.1	29.1	26.6	21.5	19.8	19.0
85°	2.7	3.3	5.6	8.1	10.2	17.0	27.1	23.3	18.1	15.1	14.6
87.5°	0.0	0.3	1.8	3.7	6.0	11.3	20.8	18.2	13.8	11.2	10.8
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-T4FT-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

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