

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-T3-HSS-ULG-XXB**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P400790 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-T3-HSS-ULG-XXB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2366.9 lumens
Efficiency: N/A
Efficacy: 79.7 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

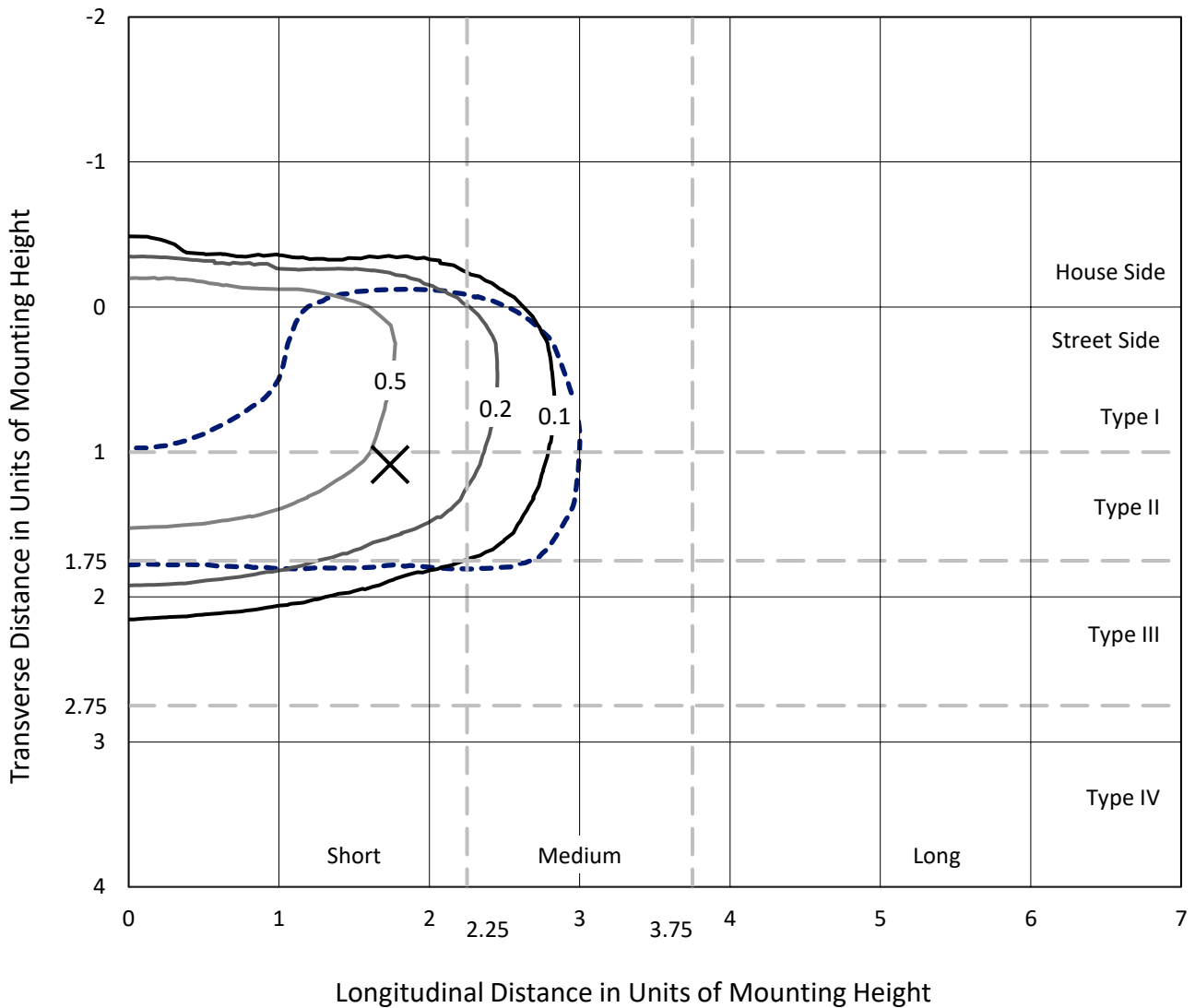
Input Watts (W): 29.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

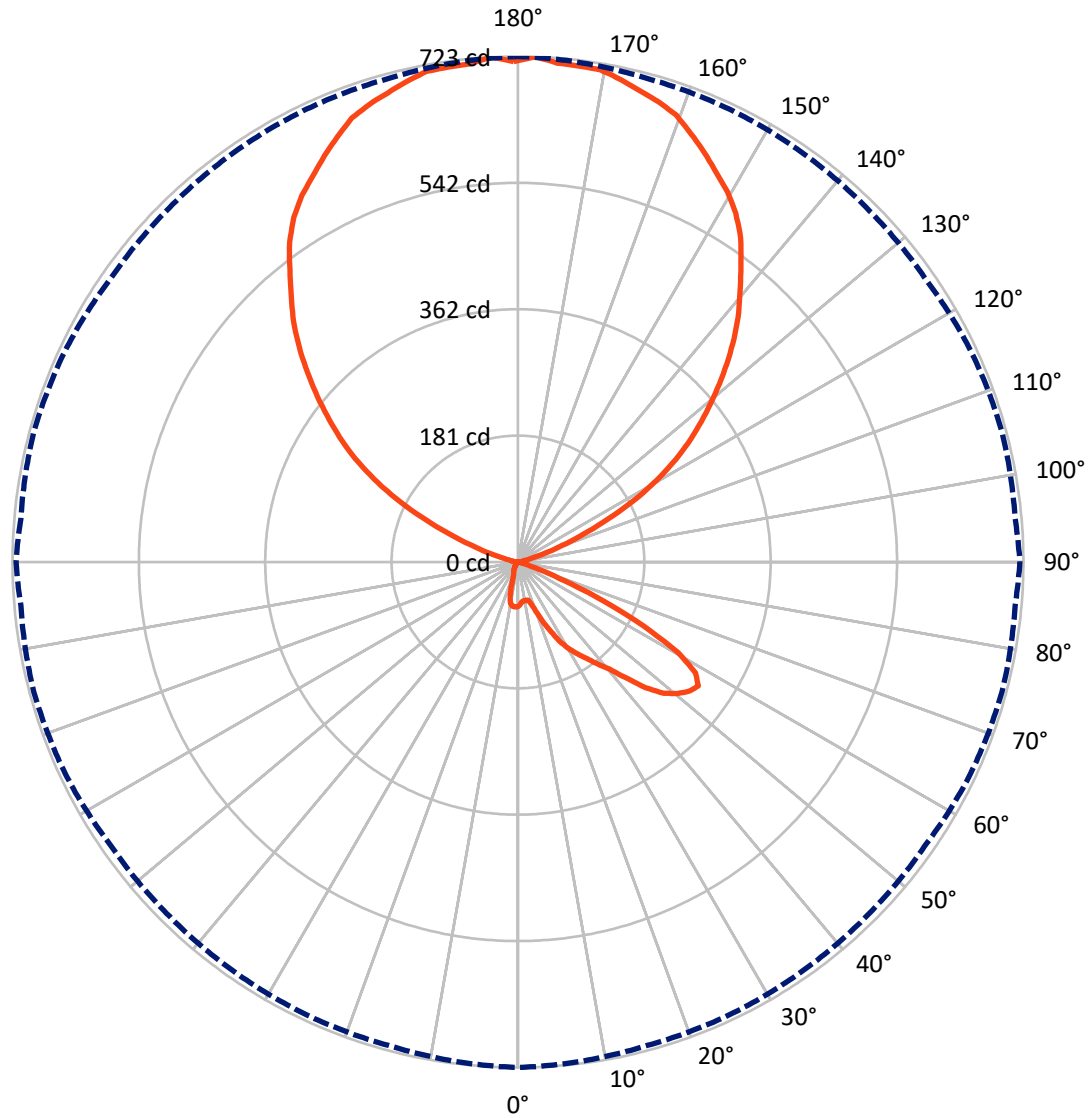
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 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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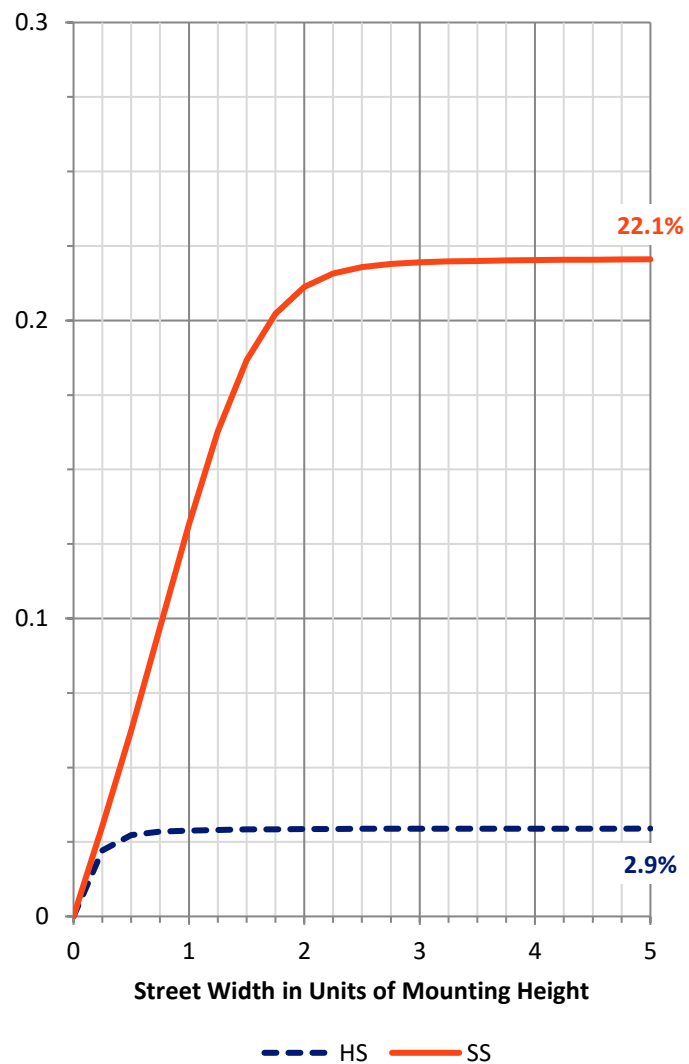
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	70.7	887.0	957.6
	% Fixture	3.0	37.5	40.5
Street Side	Lumens	522.3	887.0	1409.3
	% Fixture	22.1	37.5	59.5
Total	Lumens	593.0	1773.9	2366.9
	% Fixture	25.1	74.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.0	0.3
10°-20°	17.5	0.7
20°-30°	31.4	1.3
30°-40°	55.1	2.3
40°-50°	100.8	4.3
50°-60°	172.4	7.3
60°-70°	167.2	7.1
70°-80°	41.4	1.8
80°-90°	1.2	0.0
90°-100°	8.4	0.4
100°-110°	58.7	2.5
110°-120°	169.9	7.2
120°-130°	279.4	11.8
130°-140°	344.6	14.6
140°-150°	352.5	14.9
150°-160°	297.0	12.5
160°-170°	195.5	8.3
170°-180°	67.8	2.9
0°-90°	593.0	25.1
0°-180°	2366.9	100.0

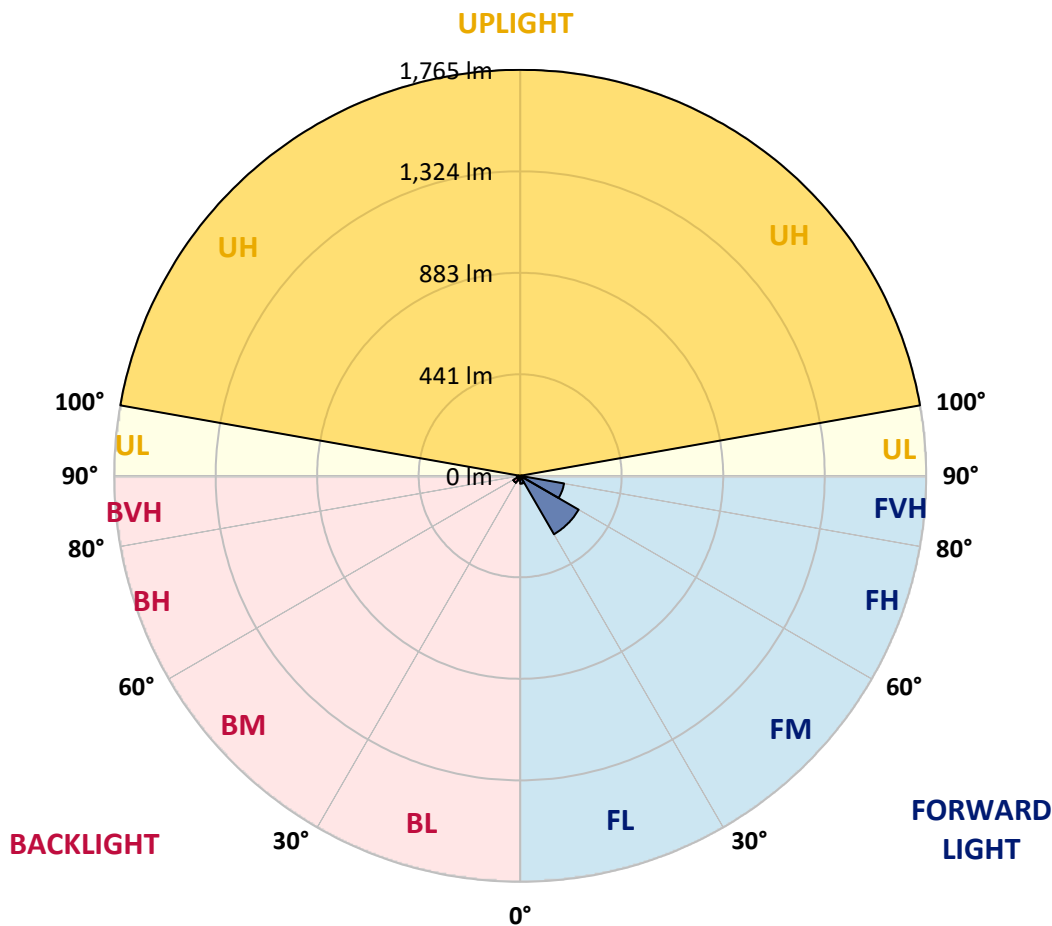


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	34.2	1.4			
FM (30°-60°)	293.5	12.4			
FH (60°-80°)	193.5	8.2			G0/660
FVH (80°-90°)	1.0	0.0			G0/10
BL (0°-30°)	20.7	0.9	B0/110		
BM (30°-60°)	34.7	1.5	B0/220		
BH (60°-80°)	15.1	0.6	B0/110		G0/110
BVH (80°-90°)	0.2	0.0			G0/10
UL (90°-100°)	8.4	0.4		U1/10	
UH (100°-180°)	1765.5	74.6		U5	

BUG Rating: B0-U5-G0
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
2.5°	60.9	60.9	61.1	61.2	61.5	61.9	62.3	62.4	62.6	63.2	63.4
5°	57.6	57.7	57.9	58.5	59.2	60.1	61.2	61.5	62.4	63.5	64.3
7.5°	56.3	56.4	56.7	57.4	58.4	59.7	61.0	61.4	62.6	64.4	65.5
10°	56.1	56.1	56.5	57.5	58.7	60.3	61.8	62.3	64.0	66.0	67.8
12.5°	56.1	56.1	56.6	57.8	59.2	61.3	63.3	64.1	65.9	68.6	70.8
15°	57.0	57.3	57.6	58.4	60.0	62.3	65.1	65.9	68.2	71.4	74.2
17.5°	64.1	63.8	62.8	61.8	61.4	63.4	66.7	67.9	71.3	75.4	78.3
20°	77.7	77.6	75.6	70.8	66.5	65.4	69.2	70.7	75.6	81.0	83.2
22.5°	94.1	94.7	91.6	85.1	76.4	70.8	73.0	74.9	81.3	87.8	89.1
25°	110.5	111.1	108.3	100.2	89.4	79.6	78.1	79.9	87.1	93.6	93.0
27.5°	129.8	129.2	126.4	117.2	104.7	91.6	85.0	85.4	90.9	98.2	96.4
30°	143.9	143.2	140.4	134.2	122.4	107.5	94.9	93.9	95.6	103.6	101.7
32.5°	156.9	157.4	155.3	147.0	135.9	123.9	109.7	107.1	106.4	113.2	110.1
35°	169.7	169.6	168.8	161.5	150.6	139.2	127.4	125.5	125.3	131.9	123.5
37.5°	185.1	184.3	182.9	175.4	166.8	155.9	143.3	140.3	139.8	141.1	131.3
40°	201.5	202.5	200.2	192.4	183.0	174.9	157.2	152.7	149.0	152.8	146.6
42.5°	226.0	226.8	222.7	217.3	205.2	197.6	179.7	173.6	171.8	177.6	170.6
45°	256.7	255.3	252.5	248.8	238.7	227.2	208.6	202.7	200.9	210.9	199.3
47.5°	280.6	280.4	280.5	279.8	278.2	264.4	242.2	238.3	236.4	250.8	238.1
50°	295.8	296.6	300.4	309.9	316.9	311.1	285.1	280.3	278.9	293.8	276.6
52.5°	307.2	309.3	315.5	334.4	356.9	358.9	337.3	330.5	327.3	331.4	307.5
55°	313.0	314.0	323.5	351.4	386.6	400.8	391.8	386.1	372.8	364.9	343.8
57.5°	299.4	297.9	314.3	349.7	402.0	434.5	438.4	431.9	410.6	404.5	387.9
60°	263.7	263.1	281.6	324.2	388.6	442.4	472.9	468.9	449.4	434.8	419.2
62.5°	201.2	202.3	221.9	265.3	340.9	419.7	492.1	495.4	474.7	453.0	442.3
64°	161.6	160.3	178.3	222.4	299.1	389.5	490.7	499.4	482.4	462.5	444.4
65°	135.7	132.9	150.1	190.0	263.7	367.5	480.6	494.6	482.9	464.8	436.9
67.5°	71.4	73.0	80.3	115.4	178.1	277.9	432.8	453.9	458.6	433.3	380.7
70°	32.0	32.3	37.0	58.9	98.5	180.2	348.1	382.2	384.9	356.0	275.8
72.5°	10.6	10.8	16.3	23.6	41.4	83.5	235.1	266.1	271.9	230.8	149.6
75°	6.6	6.8	8.7	12.7	19.2	29.2	119.1	140.2	141.4	102.4	54.4
77.5°	4.2	4.4	5.3	7.6	10.5	11.1	39.1	47.3	53.5	36.9	16.9
80°	2.6	2.6	3.4	4.6	5.5	4.7	10.6	14.0	16.9	12.4	5.7
82.5°	1.0	1.0	1.8	2.5	2.3	1.6	2.9	3.7	6.5	6.1	2.7
85°	0.0	0.0	0.1	0.2	0.1	0.2	0.5	0.8	1.2	1.8	0.9
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	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°	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	7.5	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.7	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.2	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.0	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.9	96.2	92.1	89.0



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CATALOG NUMBER: ENT-SA1-740-U-T3-HSS-ULG-XXB

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.1	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.0	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.0	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.1	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.9	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.6	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.8	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.2	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.9	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.5	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.1	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.0	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.6	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.6	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.0	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.0	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.6	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	695.4	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.7	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.5	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°	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
2.5°	63.7	64.0	64.4	64.5	64.6	64.3	64.6	64.3	64.5	64.5	64.5
5°	64.7	65.1	65.4	65.5	65.4	64.6	64.8	64.3	64.2	64.2	64.2
7.5°	66.0	66.4	66.9	66.6	65.9	64.8	64.7	64.0	63.6	63.6	63.7
10°	68.5	68.8	69.0	68.3	67.0	65.4	64.2	62.5	61.8	61.4	61.4
12.5°	71.5	71.9	71.7	70.7	68.2	64.8	61.4	58.3	56.0	55.1	54.2
15°	74.8	75.3	75.0	72.7	68.1	62.1	55.5	48.1	43.4	40.5	39.9
17.5°	78.7	79.1	78.0	73.8	66.5	56.3	43.8	33.7	27.0	24.5	24.4
20°	83.4	83.2	80.5	73.9	63.5	45.5	29.3	21.1	18.2	17.6	17.4
22.5°	88.8	87.8	82.9	73.3	55.4	30.9	18.9	16.7	16.3	16.1	16.1
25°	91.8	90.1	83.8	71.4	42.7	19.7	16.0	15.6	15.1	14.7	14.6
27.5°	94.2	91.6	84.1	65.3	28.4	15.1	14.5	14.0	13.4	12.7	12.6
30°	98.6	94.7	84.7	54.5	17.4	12.9	12.6	11.8	10.9	10.2	10.0
32.5°	106.5	100.8	86.9	40.8	12.7	11.4	10.5	9.5	8.4	7.8	7.8
35°	115.0	106.6	88.0	26.9	11.1	10.0	8.7	7.5	6.5	5.9	5.8
37.5°	122.8	115.0	87.7	16.5	9.9	8.6	7.1	5.9	5.0	4.6	4.6
40°	138.7	129.6	83.2	11.3	8.7	7.2	5.8	4.6	4.1	3.7	3.7
42.5°	161.4	145.6	73.2	9.7	7.6	6.0	4.6	3.8	3.4	3.1	3.1
45°	186.8	163.2	58.4	8.7	6.6	5.0	3.8	3.2	2.7	2.6	2.6
47.5°	220.2	184.6	42.9	7.8	5.7	4.3	3.2	2.6	2.4	2.3	2.3
50°	249.4	202.0	29.3	6.8	5.0	3.6	2.7	2.4	2.2	2.1	2.1
52.5°	275.9	214.0	19.3	5.9	4.5	3.0	2.5	2.2	2.1	2.0	2.0
55°	307.2	223.3	13.1	5.2	3.9	2.7	2.4	2.2	2.0	2.0	1.9
57.5°	333.7	228.7	9.3	4.4	3.5	2.5	2.3	2.1	1.9	1.8	1.8
60°	349.2	222.3	6.8	3.8	3.1	2.3	2.1	1.9	1.8	1.6	1.6
62.5°	353.5	209.8	5.3	3.3	2.6	2.1	1.9	1.6	1.5	1.4	1.4
64°	343.6	196.4	4.5	2.9	2.3	1.9	1.8	1.5	1.3	1.1	1.1
65°	329.7	184.0	4.1	2.6	2.1	1.8	1.6	1.4	1.1	0.9	0.9
67.5°	274.7	146.7	3.3	2.2	1.6	1.5	1.3	1.1	0.8	0.5	0.5
70°	195.1	102.6	2.5	1.8	1.4	1.4	1.2	0.9	0.4	0.2	0.2
72.5°	103.2	53.3	2.1	1.4	1.1	1.1	1.0	0.5	0.3	0.2	0.1
75°	36.1	17.6	1.8	1.2	1.0	0.8	0.7	0.4	0.3	0.2	0.1
77.5°	11.0	5.8	1.5	1.2	0.9	0.7	0.8	0.7	0.7	0.4	0.3
80°	3.5	2.1	0.9	0.8	0.9	0.9	0.8	0.7	0.8	0.5	0.4
82.5°	1.3	0.8	0.3	0.4	0.4	0.5	0.5	0.4	0.3	0.1	0.0
85°	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.0
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	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°	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-SA1-740-U-T3-HSS-ULG-XXB

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)