

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-SL3-ULG-XXB**

Issue Date: 3/30/2022

**Test Information**

Test Method: LM-79-08  
Report Number: REPORT IS A COMBINATION OF REPORTS P400772 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-SL3-ULG-XXB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT  
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

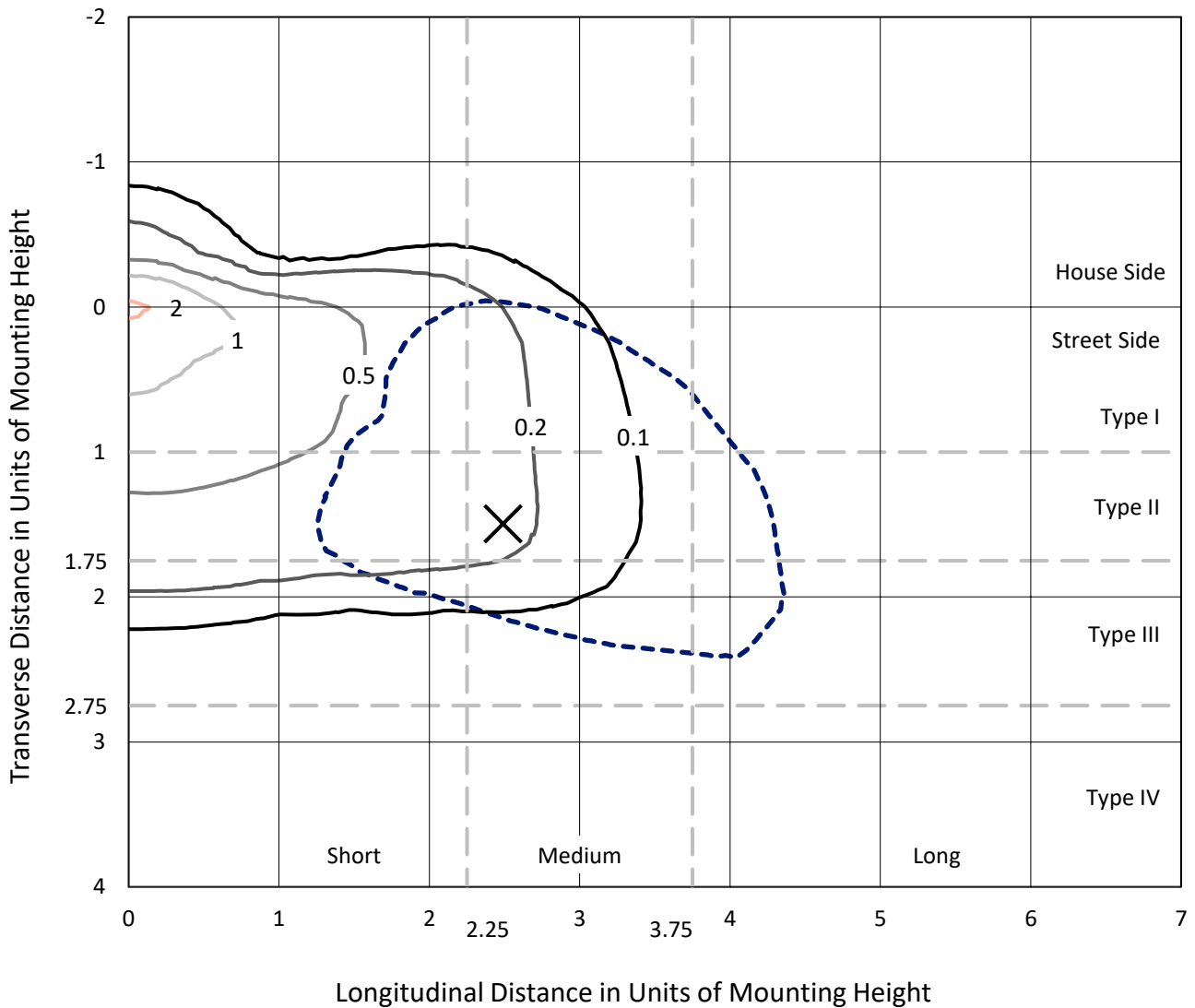
Lumens per Lamp: N/A  
Luminaire Lumens: 2530.9 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')  
IES Classification: Type III - Medium  
BUG Rating: B0 - U5 - G1  
  
Input Watts (W): 29.7  
Input Voltage (V): NR  
Input Current (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

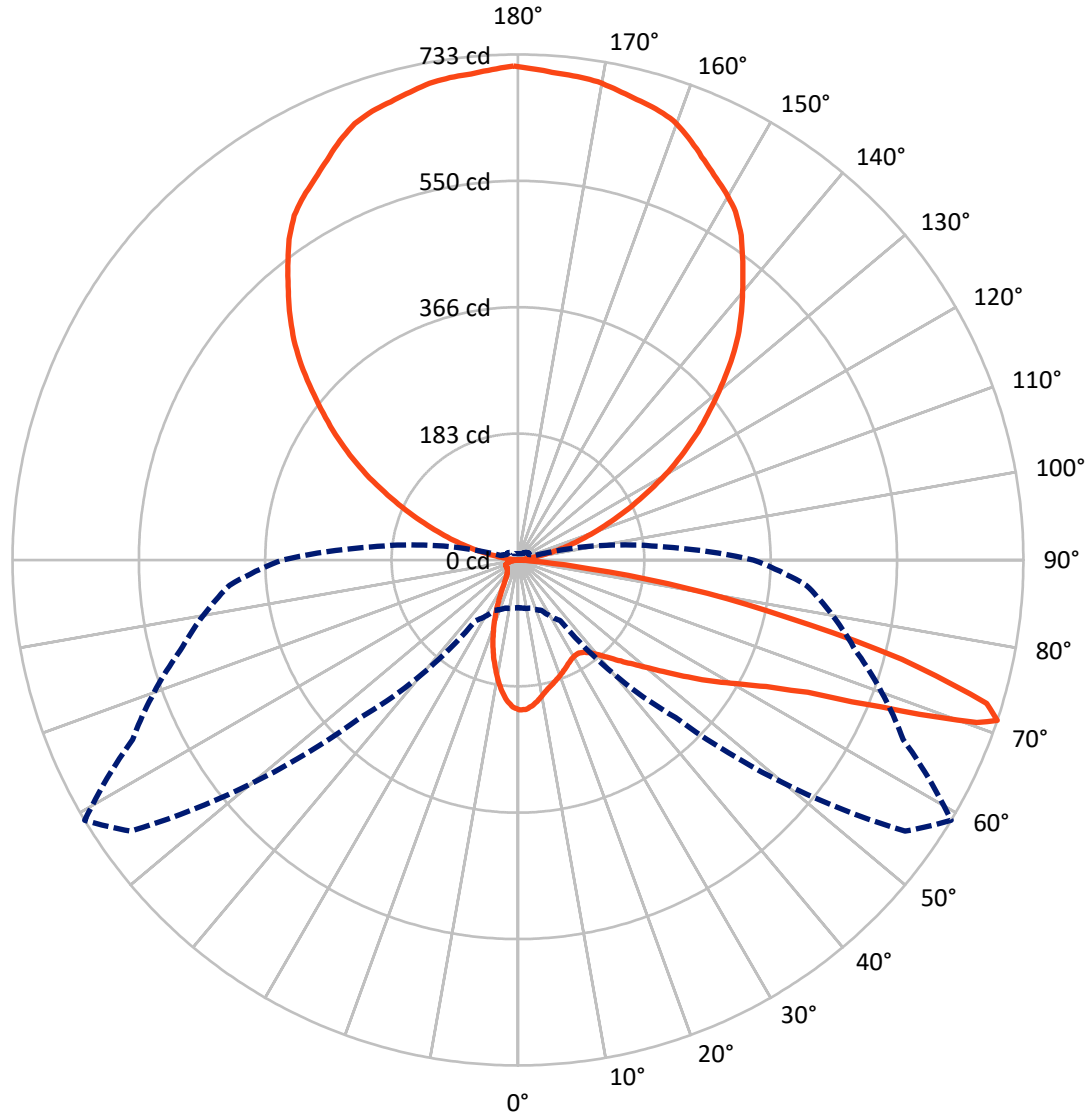
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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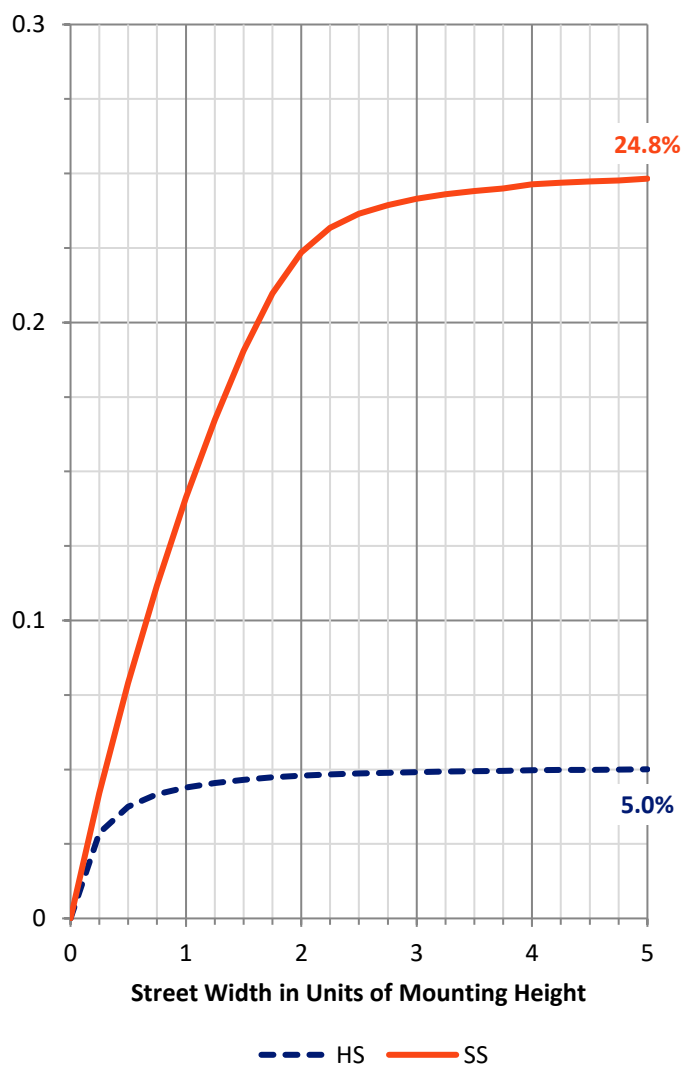
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	128.5	887.0	1015.4
	% Fixture	5.1	35.0	40.1
<b>Street Side</b>	Lumens	628.5	887.0	1515.5
	% Fixture	24.8	35.0	59.9
<b>Total</b>	Lumens	757.0	1773.9	2530.9
	% Fixture	29.9	70.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.8	0.7
10°-20°	42.2	1.7
20°-30°	53.6	2.1
30°-40°	68.5	2.7
40°-50°	95.1	3.8
50°-60°	140.7	5.6
60°-70°	190.2	7.5
70°-80°	134.9	5.3
80°-90°	13.1	0.5
90°-100°	8.4	0.3
100°-110°	58.7	2.3
110°-120°	169.9	6.7
120°-130°	279.4	11.0
130°-140°	344.6	13.6
140°-150°	352.5	13.9
150°-160°	297.0	11.7
160°-170°	195.5	7.7
170°-180°	67.8	2.7
0°-90°	757.0	29.9
0°-180°	2530.9	100.0

**Coefficient of Utilization**

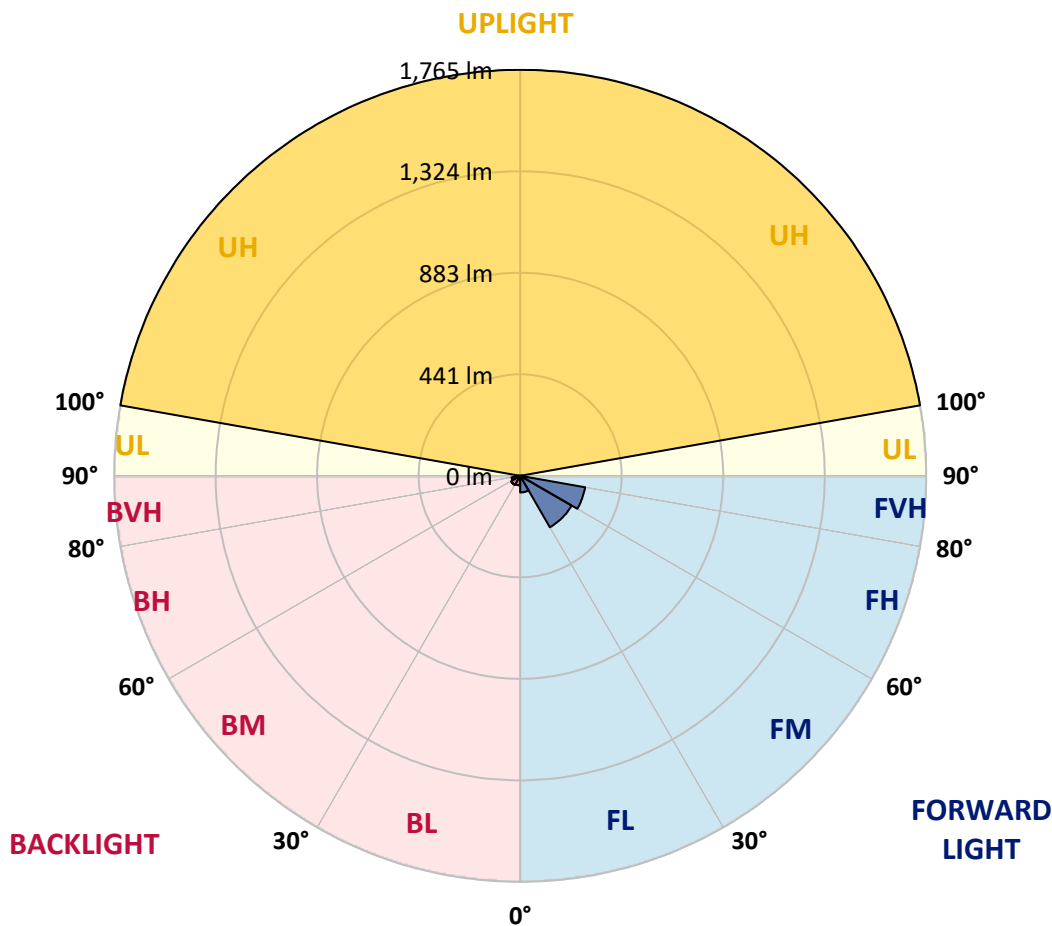


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	72.8	2.9			
FM (30°-60°)	258.3	10.2			
FH (60°-80°)	286.8	11.3			G0/660
FVH (80°-90°)	10.6	0.4			G1/100
BL (0°-30°)	41.7	1.6	B0/110		
BM (30°-60°)	46.0	1.8	B0/220		
BH (60°-80°)	38.3	1.5	B0/110		G0/110
BVH (80°-90°)	2.5	0.1			G0/10
UL (90°-100°)	8.4	0.3		U1/10	
UH (100°-180°)	1765.5	69.8		U5	

**BUG Rating: B0-U5-G1**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2
2.5°	215.3	216.1	216.4	217.0	217.0	217.2	217.0	216.9	217.3	216.9	215.6
5°	205.8	206.1	207.1	208.2	209.3	211.6	212.2	212.7	213.7	213.9	212.7
7.5°	192.8	194.0	195.4	196.8	199.1	202.3	205.0	206.1	208.0	209.1	207.3
10°	181.9	182.5	183.2	185.7	189.3	193.7	196.6	198.6	201.6	203.0	201.4
12.5°	170.9	171.4	172.8	176.2	179.9	185.2	190.3	192.0	195.5	198.3	197.0
15°	162.4	162.4	163.4	167.2	171.1	178.1	184.2	186.7	191.1	195.1	193.5
17.5°	155.0	155.3	156.0	158.4	163.9	171.2	178.9	182.1	187.6	192.8	190.6
20°	150.8	150.6	151.0	152.2	156.6	164.4	173.6	177.4	184.2	191.4	187.9
22.5°	149.4	149.2	148.8	148.7	151.6	158.2	168.0	172.6	181.1	190.6	185.4
25°	150.5	150.5	149.5	147.6	149.0	153.5	163.0	167.9	177.7	190.1	183.1
27.5°	153.5	153.5	152.0	149.6	149.1	151.0	158.6	163.9	174.8	190.4	181.2
30°	157.5	157.4	156.0	153.9	152.2	151.6	156.5	161.4	172.9	191.8	180.3
32.5°	162.1	161.9	161.2	159.8	157.8	155.0	156.7	161.0	172.4	194.4	180.4
35°	167.6	167.3	167.6	166.8	165.0	161.9	160.8	164.2	174.6	199.1	182.3
37.5°	172.4	172.2	173.9	174.3	173.9	169.8	168.4	170.6	179.8	206.5	186.1
40°	176.5	176.7	179.7	182.8	183.5	180.0	179.0	180.9	188.1	215.6	193.1
42.5°	181.0	181.6	186.0	191.7	193.9	191.6	192.2	193.5	198.6	228.0	203.0
45°	185.4	186.8	192.8	200.2	205.8	205.8	207.6	209.0	212.2	243.6	217.6
47.5°	193.1	194.0	200.6	209.5	218.1	220.8	226.0	225.5	228.0	260.7	234.7
50°	203.0	204.7	211.4	220.6	231.4	239.2	245.2	246.0	247.0	278.3	255.0
52.5°	216.9	218.8	224.3	232.9	245.7	258.4	270.9	270.4	269.1	297.4	278.3
55°	230.8	232.9	238.0	244.9	260.1	279.6	300.0	299.2	293.2	316.9	299.8
57.5°	244.9	246.7	252.1	258.1	276.0	304.6	330.7	331.3	318.9	338.6	321.1
60°	250.9	253.5	266.8	278.4	300.8	332.4	362.1	363.5	345.5	360.5	344.5
62.5°	224.1	227.3	249.2	280.6	334.8	385.9	402.9	403.8	377.7	384.8	370.2
65°	165.8	165.7	188.4	235.4	328.0	457.7	475.6	461.8	417.6	416.9	404.1
67.5°	95.0	97.8	105.1	140.4	249.9	471.0	605.0	568.9	488.3	466.9	449.3
70°	76.6	75.9	78.1	87.5	136.2	387.3	689.4	705.8	588.8	507.7	439.1
71°	69.0	70.0	72.2	80.7	107.5	323.1	685.2	732.7	616.2	506.6	419.7
72.5°	59.3	59.6	64.6	74.7	88.3	227.9	633.6	710.6	645.0	492.3	391.1
75°	40.4	40.9	48.8	60.1	80.6	108.3	453.3	574.8	587.0	460.0	323.0
77.5°	23.1	23.6	29.3	44.0	68.7	76.3	278.3	397.2	422.1	336.4	173.2
80°	12.0	12.5	16.2	27.8	52.4	61.8	159.6	249.8	240.1	116.3	40.1
82.5°	3.2	3.6	4.7	10.0	25.3	40.3	70.7	103.3	73.8	24.1	14.6
85°	0.0	0.0	0.0	0.1	0.2	5.6	14.9	18.5	10.3	4.7	3.9
87.5°	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	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	7.6	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.5	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.4	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.9	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.8	96.2	92.1	89.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.2	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.3	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.0	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.3	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.2	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.4	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.9	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.3	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.4	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.5	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.0	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.0	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.0	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.0	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°	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2	217.2
2.5°	215.4	215.4	214.8	213.8	212.7	210.2	210.6	208.6	208.8	208.6	208.6
5°	211.7	211.0	209.4	206.3	202.9	198.4	197.8	194.1	192.1	191.4	192.2
7.5°	206.5	204.7	200.5	195.1	188.7	182.8	177.5	172.6	169.0	167.5	166.8
10°	199.7	197.4	190.6	181.2	172.3	163.2	154.8	149.3	142.0	139.9	139.2
12.5°	194.1	190.2	180.0	166.8	153.0	140.9	129.5	118.0	111.1	106.2	105.4
15°	189.3	183.7	169.1	152.1	134.9	118.2	102.8	87.3	77.5	73.4	70.4
17.5°	185.0	177.8	158.3	136.2	115.0	92.9	74.0	59.2	53.1	49.9	50.0
20°	180.7	171.4	147.0	120.3	95.2	70.7	52.3	45.4	42.3	41.7	41.4
22.5°	176.5	164.2	135.0	104.6	75.0	52.0	42.1	38.7	38.0	38.0	38.0
25°	171.8	156.9	123.0	88.6	56.8	41.0	36.2	35.0	35.2	35.6	35.8
27.5°	167.9	150.5	111.0	70.1	44.1	34.9	32.4	32.1	33.0	34.0	34.0
30°	164.5	144.7	98.1	54.7	35.1	30.6	29.7	30.1	30.9	31.8	32.1
32.5°	162.2	139.4	86.4	42.6	29.9	27.6	27.4	27.9	28.7	29.2	29.5
35°	161.2	135.6	73.9	34.3	26.7	25.4	25.3	25.7	26.1	26.2	26.1
37.5°	162.3	132.9	61.1	29.1	24.6	23.9	23.8	23.8	23.8	23.9	23.8
40°	165.5	132.0	49.6	25.7	23.3	22.7	22.4	22.0	21.8	21.8	21.7
42.5°	172.2	133.5	39.8	23.7	22.3	21.6	21.0	20.5	20.2	20.1	20.1
45°	183.0	137.8	33.1	22.4	21.4	20.4	19.6	19.2	18.9	19.0	18.9
47.5°	197.8	144.9	29.3	21.5	20.5	19.2	18.4	18.0	17.9	18.2	18.3
50°	214.5	155.0	27.0	20.8	19.9	18.2	17.3	17.0	17.1	17.8	17.9
52.5°	234.3	168.0	26.0	20.4	19.3	17.3	16.6	16.2	16.5	17.2	17.3
55°	255.6	183.0	27.4	20.6	18.8	16.8	15.9	15.5	15.8	16.5	16.6
57.5°	277.2	201.4	32.2	20.7	18.1	16.3	15.2	14.6	14.8	15.4	15.5
60°	299.0	219.7	40.6	20.8	17.9	15.9	14.7	13.7	13.8	14.1	14.3
62.5°	324.7	243.0	51.6	21.3	18.1	15.6	13.7	12.6	12.6	12.8	12.8
65°	363.6	277.6	58.8	21.1	18.6	15.2	12.7	11.6	11.5	11.6	11.6
67.5°	391.6	282.2	41.0	19.9	19.0	15.4	12.2	10.7	10.5	10.4	10.4
70°	362.0	237.5	27.1	18.8	18.4	15.6	11.7	10.2	9.8	9.4	9.3
71°	341.5	214.0	25.1	18.3	18.0	15.4	11.5	9.9	9.4	9.2	9.1
72.5°	311.1	191.0	23.1	17.7	17.0	14.9	11.2	9.5	9.0	8.7	8.6
75°	245.8	146.4	20.3	16.2	14.7	12.3	10.3	8.9	8.3	7.9	7.8
77.5°	111.1	58.2	15.6	14.0	12.0	9.8	9.0	8.2	7.6	7.2	7.1
80°	31.0	22.2	11.4	11.1	9.0	7.6	7.2	7.0	6.8	6.4	6.4
82.5°	14.4	12.9	8.1	7.8	6.1	5.4	5.7	5.8	5.8	5.4	5.3
85°	3.9	4.3	3.7	4.2	3.9	3.6	4.2	4.5	4.7	4.3	3.9
87.5°	0.3	0.8	1.0	1.6	2.0	2.1	2.6	3.2	3.3	2.6	2.7
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



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CATALOG NUMBER: ENT-SA1-740-U-SL3-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)