

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: P139865

Luminaire Tested: **ENT-F01-LED-E1-GZW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P139865  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33649)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-F01-LED-E1-GZW  
Description: ENTRI LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE  
Light Source: (7) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2298.9 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.17' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.9  
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: 25 FT

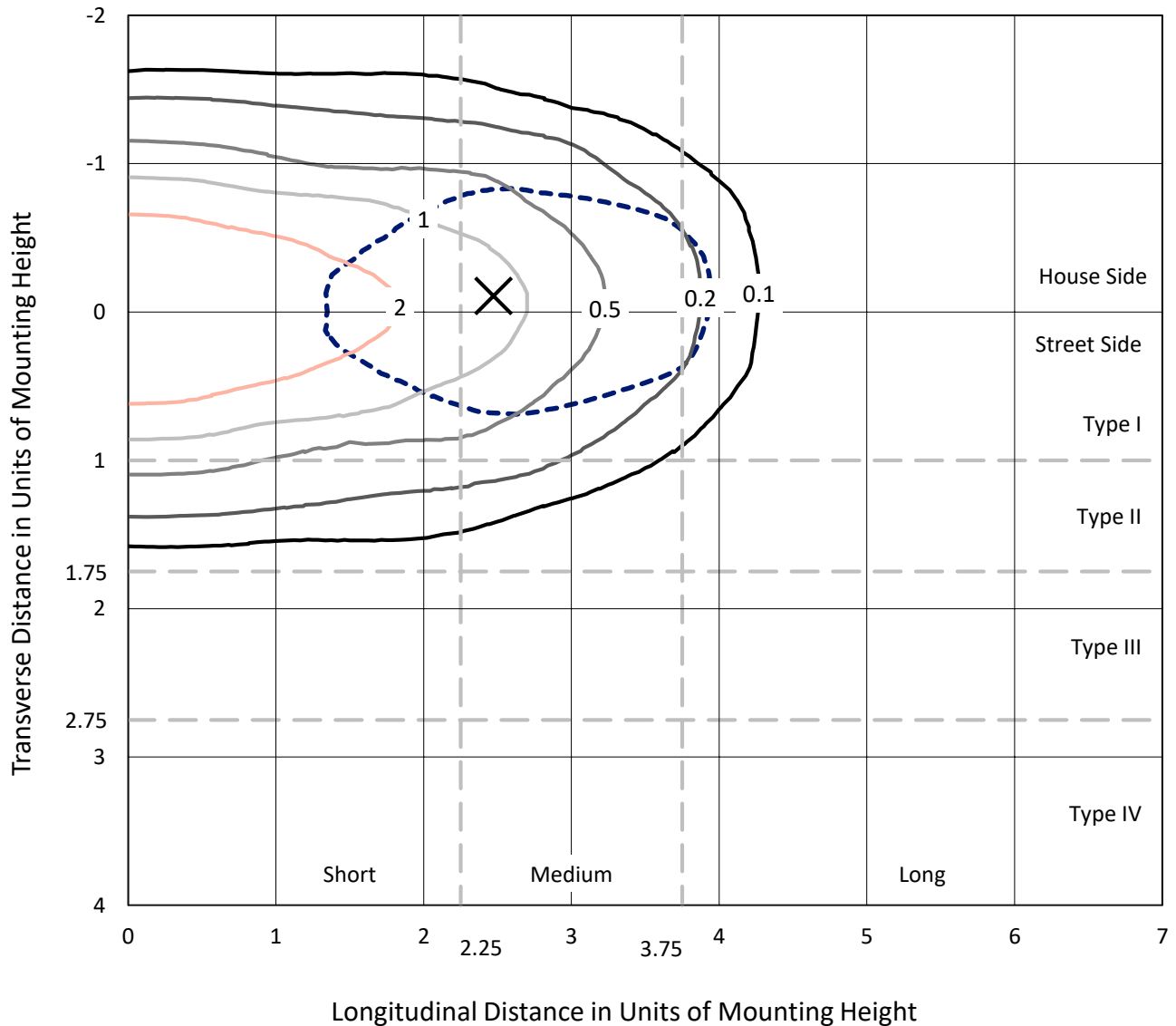


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

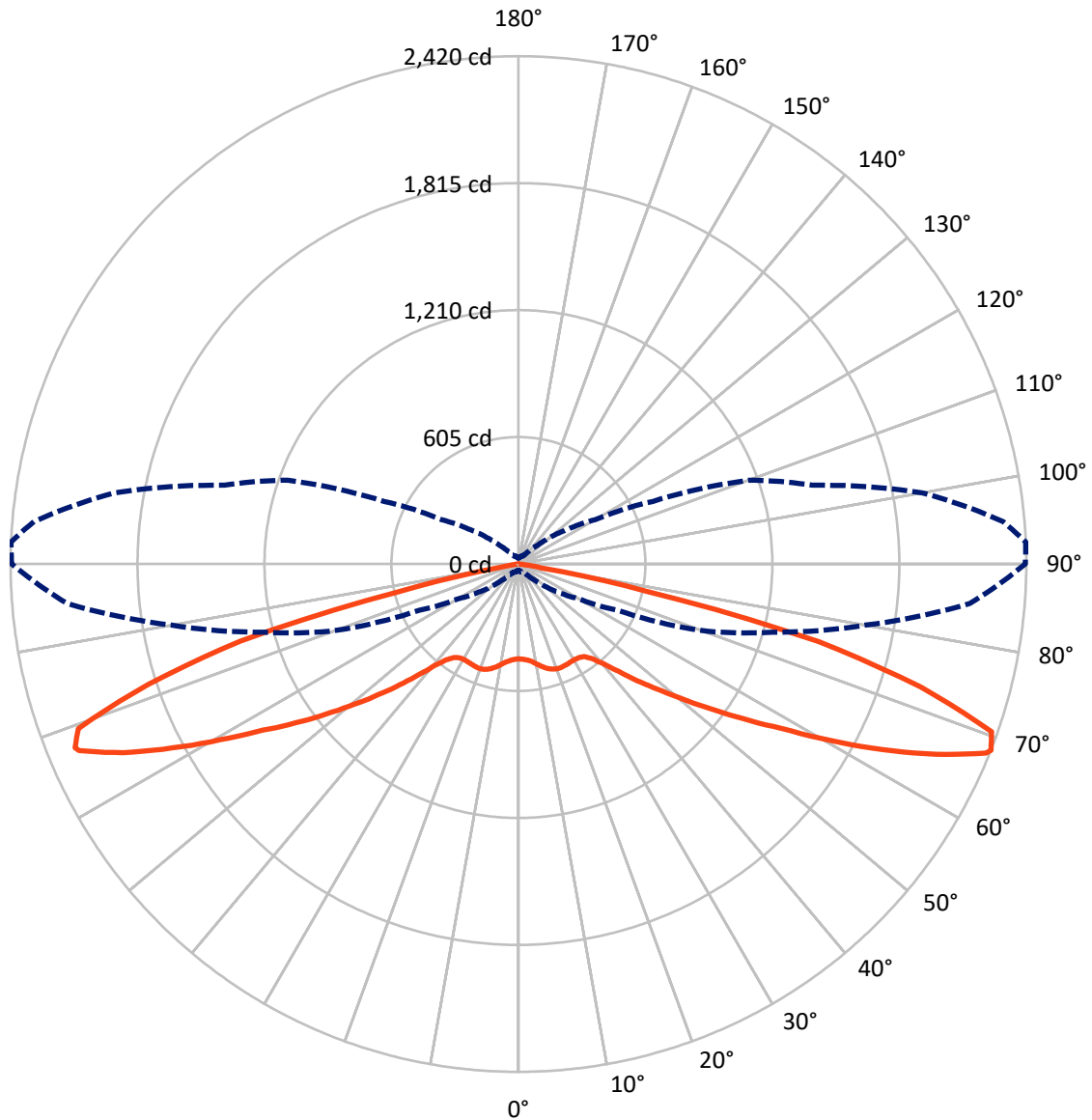


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 92.5-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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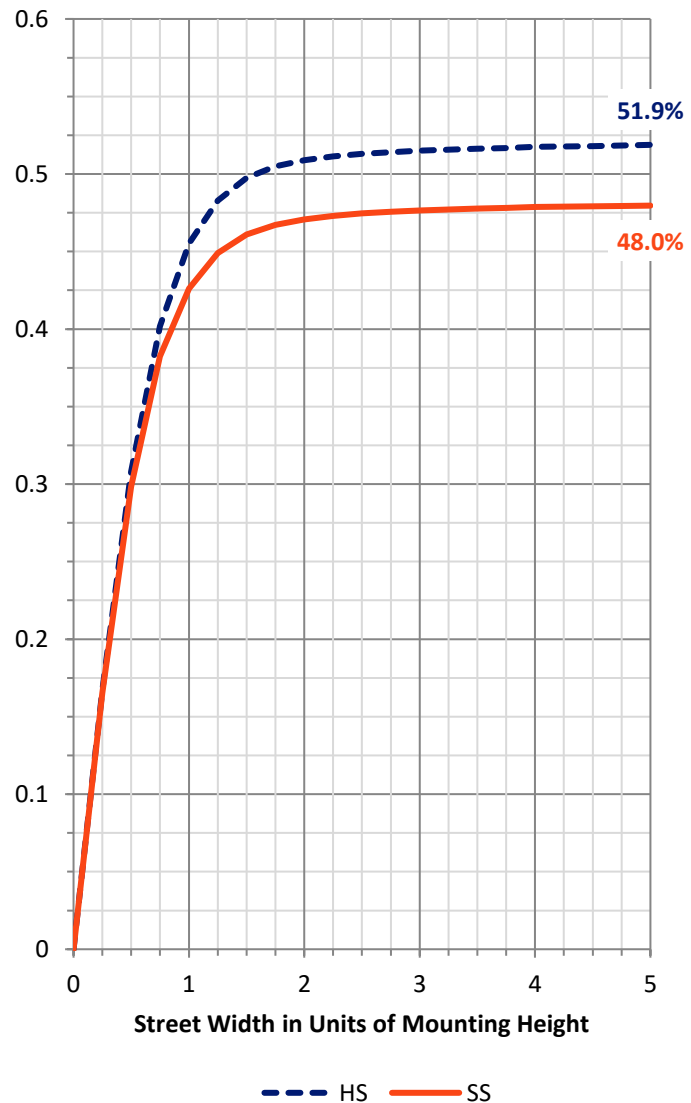
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1201.0	0.0	1201.0
	% Fixture	52.2	0.0	52.2
<b>Street Side</b>	Lumens	1098.0	0.0	1098.0
	% Fixture	47.8	0.0	47.8
<b>Total</b>	Lumens	2298.9	0.0	2298.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	1.9
10°-20°	140.6	6.1
20°-30°	228.0	9.9
30°-40°	283.4	12.3
40°-50°	352.3	15.3
50°-60°	433.4	18.9
60°-70°	512.4	22.3
70°-80°	287.0	12.5
80°-90°	17.4	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2298.9	100.0
0°-180°	2298.9	100.0



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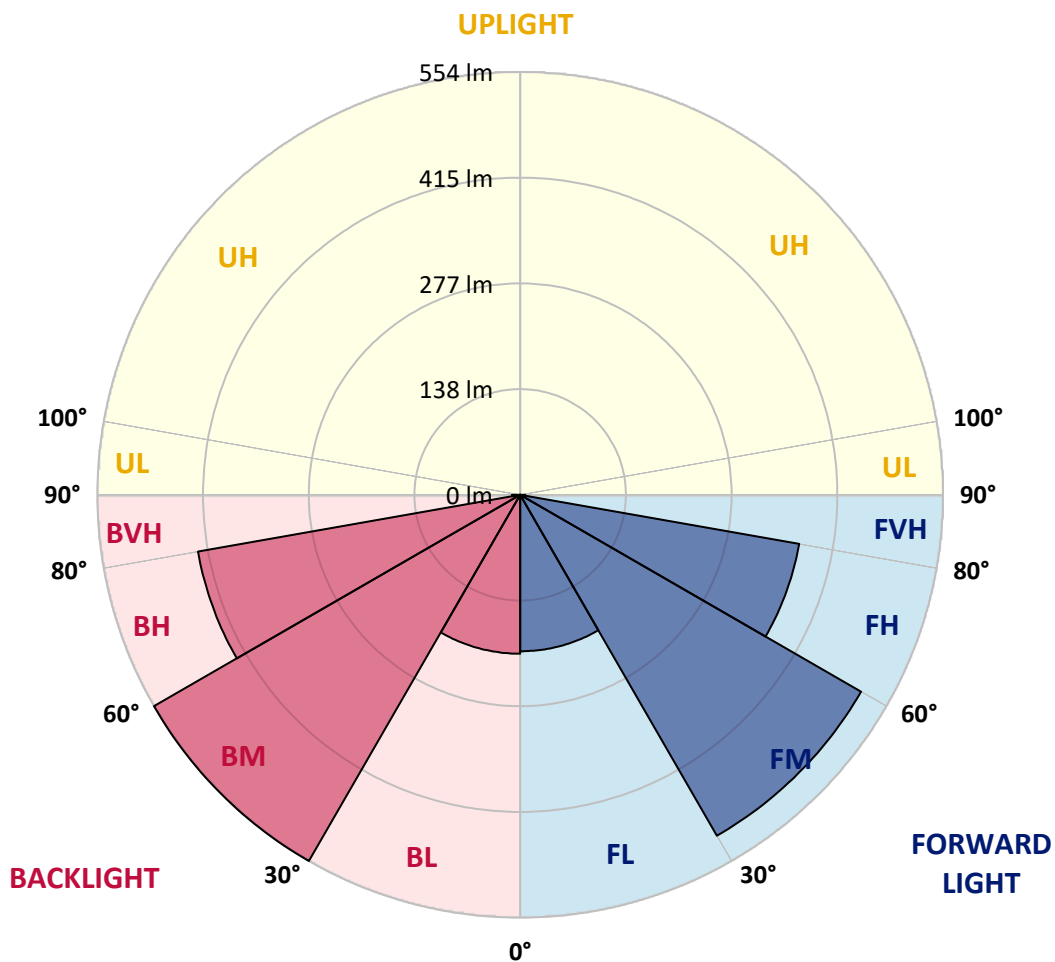
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	204.9	8.9			
FM	(30°-60°)	515.5	22.4			
FH	(60°-80°)	371.0	16.1			G0/660
FVH	(80°-90°)	6.6	0.3			G0/10
BL	(0°-30°)	208.1	9.1	B1/500		
BM	(30°-60°)	553.7	24.1	B1/1000		
BH	(60°-80°)	428.4	18.6	B1/500		G1/500
BVH	(80°-90°)	10.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0
2.5°	454.0	454.0	454.0	454.5	454.9	455.7	455.3	456.1	454.9	456.5	456.5
5°	459.4	459.8	460.2	460.2	461.1	461.5	461.1	462.3	461.1	462.7	463.1
7.5°	464.4	464.4	464.8	465.2	466.0	466.8	467.2	468.5	468.1	469.7	471.4
10°	468.1	467.7	468.1	468.9	471.0	472.2	473.9	475.5	476.3	478.0	480.5
12.5°	469.7	469.3	470.5	472.6	474.7	477.2	479.6	483.3	485.8	488.3	492.0
15°	468.9	468.9	470.5	473.0	477.2	481.7	486.2	491.2	495.7	501.1	504.8
17.5°	461.1	461.9	464.4	468.5	474.7	481.7	489.1	497.4	504.8	512.2	517.2
20°	447.0	447.8	452.4	457.3	465.6	475.9	487.5	499.4	511.0	520.9	527.9
22.5°	429.7	428.9	433.0	439.6	450.7	463.1	478.0	495.7	511.4	525.4	535.4
25°	402.9	402.9	407.4	415.7	427.6	442.9	461.1	483.8	504.8	523.0	537.0
27.5°	374.4	374.8	380.6	387.6	401.2	415.7	436.7	463.1	488.7	512.7	533.3
30°	345.9	347.1	352.1	359.1	373.6	388.8	410.3	436.3	463.9	493.7	521.7
32.5°	316.6	318.2	322.4	330.6	346.3	363.2	385.1	408.2	434.6	467.2	503.6
35°	288.9	290.2	293.5	303.4	319.5	337.6	362.0	384.3	411.1	441.2	481.3
37.5°	262.9	264.2	267.9	278.2	294.3	312.5	336.4	361.6	389.2	419.0	458.6
40°	234.9	237.8	242.7	252.6	267.5	288.1	312.5	338.9	368.2	402.0	442.5
42.5°	209.3	211.7	216.3	225.0	239.8	261.7	287.3	314.5	346.3	384.7	430.5
45°	185.7	187.8	192.3	200.2	215.9	233.2	256.3	284.8	317.8	362.0	417.7
47.5°	163.0	165.1	170.1	179.6	192.3	209.3	229.9	255.1	285.6	330.6	393.4
50°	140.3	142.4	147.4	156.8	169.2	185.7	204.7	227.4	257.6	296.4	357.9
52.5°	115.6	117.6	122.6	132.1	144.1	159.7	179.1	202.7	230.7	267.5	318.2
55°	88.7	91.6	96.2	104.0	116.8	132.5	151.9	177.5	206.0	241.9	288.9
57.5°	64.0	66.0	71.4	77.6	88.3	104.8	122.2	148.6	180.4	217.1	263.8
60°	46.6	48.7	52.4	57.4	64.8	76.8	92.0	116.8	151.9	193.2	241.1
62.5°	38.8	40.5	44.2	49.1	53.2	59.0	68.1	87.1	121.4	167.2	217.5
65°	34.3	35.5	38.8	43.8	47.1	49.5	53.2	66.0	94.1	139.1	194.4
67.5°	30.5	31.8	34.3	38.4	42.1	43.3	45.4	54.1	73.9	113.1	170.1
68°	30.1	31.4	33.4	37.1	40.9	42.1	44.2	52.8	71.8	107.7	163.5
70°	28.1	28.9	31.0	33.8	36.7	37.6	40.0	48.7	67.3	94.1	132.5
72.5°	25.6	26.0	27.2	29.7	32.6	33.0	35.5	42.5	52.8	69.3	98.7
75°	21.5	21.9	23.5	25.6	27.2	28.1	28.9	32.2	35.9	42.9	58.2
77.5°	16.5	17.3	18.6	19.8	22.3	23.1	22.3	24.8	26.4	29.3	35.5
80°	9.9	9.9	11.1	12.4	13.6	15.7	14.9	17.3	18.6	20.2	23.9
82.5°	1.7	2.1	2.1	2.9	3.7	4.5	5.0	6.2	7.8	9.5	12.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	92.5°	95°	100°
0°	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0
2.5°	454.0	455.3	455.3	454.9	454.9	454.9	453.6	454.0	454.5	455.7	454.0
5°	460.6	461.9	461.5	461.1	461.1	461.1	459.4	459.8	460.2	461.1	459.4
7.5°	469.3	470.5	471.0	471.0	471.0	471.8	469.3	469.3	470.1	471.0	468.5
10°	482.1	482.1	483.3	484.2	485.0	485.8	484.2	483.3	485.0	485.0	482.1
12.5°	494.1	494.9	497.0	498.6	499.0	500.7	500.7	500.3	501.5	501.1	497.8
15°	507.7	508.5	510.2	512.2	512.7	514.3	514.3	514.7	516.0	516.8	511.8
17.5°	520.5	521.7	521.7	522.1	523.0	524.2	525.0	525.4	526.7	527.5	522.6
20°	531.2	532.5	530.4	528.7	527.1	527.9	529.6	531.2	532.1	532.5	526.3
22.5°	539.5	539.9	536.6	532.1	527.5	527.1	529.2	532.1	532.9	532.5	523.8
25°	544.0	545.3	542.0	534.9	526.7	523.8	525.9	529.6	531.2	529.6	519.3
27.5°	544.0	548.6	546.9	539.5	528.3	520.5	521.7	527.5	528.7	526.7	514.7
30°	539.9	549.4	551.5	546.9	535.4	521.7	520.1	526.7	528.3	524.6	512.7
32.5°	531.6	549.0	557.2	557.6	548.6	531.6	523.4	530.0	531.2	526.7	516.8
35°	520.1	548.6	564.7	572.5	569.6	552.7	538.2	542.4	541.5	536.6	532.9
37.5°	507.3	548.6	575.4	593.6	600.2	591.5	572.5	570.4	572.5	565.1	563.0
40°	493.3	549.8	590.7	622.9	642.7	645.6	628.6	622.9	625.3	618.3	621.2
42.5°	485.0	551.5	610.9	657.1	695.5	724.8	717.4	700.0	698.8	699.6	705.8
45°	480.9	555.6	631.1	695.9	749.6	814.8	821.8	790.9	792.5	797.0	806.5
47.5°	476.3	563.4	654.6	736.4	808.6	900.2	934.5	892.8	889.5	906.4	909.3
50°	459.8	572.9	681.5	781.8	870.5	996.4	1050.5	1008.0	1008.8	1024.5	1018.7
52.5°	421.8	573.3	710.0	827.2	932.4	1091.3	1173.5	1145.4	1143.4	1158.6	1128.1
55°	369.4	547.3	733.1	871.8	991.0	1179.7	1300.6	1306.8	1302.7	1305.2	1239.1
57.5°	327.3	483.3	735.5	909.3	1040.6	1263.5	1431.0	1475.6	1476.0	1465.3	1348.1
60°	300.1	411.5	703.3	940.3	1098.4	1370.4	1601.1	1701.0	1706.8	1663.0	1493.8
62.5°	277.4	375.2	636.9	972.1	1164.8	1478.5	1784.4	1948.7	1949.1	1876.0	1654.4
65°	259.6	355.4	563.8	960.1	1216.0	1583.4	1978.4	2198.0	2187.2	2106.7	1806.7
67.5°	239.8	337.6	530.0	941.5	1259.8	1680.4	2149.3	2401.5	2404.3	2305.3	1947.8
68°	235.7	331.0	521.3	925.8	1254.8	1677.1	2158.3	2415.1	2420.0	2318.1	1954.0
70°	203.1	288.9	453.6	808.6	1165.6	1587.5	2100.5	2376.7	2392.0	2278.0	1885.1
72.5°	135.4	199.8	303.0	571.3	898.2	1261.4	1719.6	1990.8	2003.5	1926.8	1565.6
75°	85.9	121.4	161.0	329.4	603.5	905.2	1296.5	1454.6	1475.6	1450.4	1172.2
77.5°	52.0	85.0	99.1	159.7	317.8	423.5	585.7	596.0	620.0	605.1	607.6
80°	34.3	59.0	72.2	108.6	110.2	91.2	103.6	104.4	110.6	117.6	122.6
82.5°	19.4	35.9	50.4	74.3	65.6	33.8	28.9	30.1	31.0	31.8	37.6
85°	2.9	6.6	14.0	23.1	23.5	11.1	10.3	9.5	9.9	10.7	13.6
87.5°	0.0	0.0	0.0	0.0	0.4	0.8	1.2	1.2	1.2	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0	452.0
2.5°	453.6	453.2	453.6	452.4	453.6	453.2	453.2	453.2	452.8	453.2	453.2
5°	458.6	458.6	458.6	457.8	458.6	458.6	458.6	458.6	458.2	458.6	459.0
7.5°	468.1	468.1	467.7	466.4	467.2	467.2	466.8	466.0	465.2	465.6	465.2
10°	480.9	481.7	479.2	479.2	478.0	476.3	475.1	473.9	473.4	472.6	471.0
12.5°	496.6	496.1	492.8	491.6	490.8	487.5	485.0	483.8	482.1	480.0	477.6
15°	510.6	508.9	506.5	505.2	504.0	500.3	497.0	494.1	492.0	489.1	485.4
17.5°	520.1	518.4	517.2	516.8	516.8	513.5	510.6	506.9	502.3	497.0	490.8
20°	522.1	522.1	522.6	525.0	527.5	526.3	523.0	518.4	511.8	503.2	493.7
22.5°	519.3	520.9	524.6	530.8	536.2	536.6	533.3	526.7	515.5	503.2	489.1
25°	514.3	518.8	526.7	535.4	542.8	542.8	537.0	527.5	512.2	494.5	475.9
27.5°	511.8	520.9	532.1	541.1	546.1	543.2	532.9	519.3	498.2	475.5	454.0
30°	514.7	528.7	540.7	546.9	547.7	538.2	520.5	500.3	475.5	448.3	426.4
32.5°	525.4	542.4	551.5	552.7	546.9	529.2	501.5	473.4	445.8	420.6	398.3
35°	547.3	561.8	565.1	560.1	545.7	516.0	476.3	443.3	418.5	394.6	371.5
37.5°	582.8	589.4	583.2	568.8	541.5	499.9	453.2	421.0	394.6	371.1	345.5
40°	633.2	625.7	608.0	579.5	537.0	482.1	435.1	402.9	373.6	347.5	322.0
42.5°	695.9	669.9	633.2	591.9	532.1	470.5	421.8	384.7	352.5	323.6	296.8
45°	766.1	717.8	667.8	605.9	530.4	463.5	406.2	362.4	324.8	296.0	269.5
47.5°	837.5	768.6	702.9	621.2	532.5	451.1	382.2	333.1	293.9	265.8	241.1
50°	909.7	825.5	743.8	641.0	531.2	426.0	349.6	299.7	263.3	238.2	215.9
52.5°	982.4	886.2	785.9	658.8	514.7	386.3	313.7	271.2	236.1	211.7	189.9
55°	1053.8	945.2	827.2	664.1	466.8	344.7	283.6	242.7	208.0	183.3	159.3
57.5°	1121.5	998.5	856.1	632.8	407.8	312.0	256.7	216.7	180.0	151.5	128.0
60°	1205.7	1049.2	864.3	556.8	360.8	284.8	232.4	186.6	145.3	115.2	93.7
62.5°	1297.7	1118.2	851.5	484.2	333.1	260.9	202.3	151.1	111.0	81.7	65.6
65°	1365.4	1146.7	786.7	445.4	315.8	237.3	170.1	117.2	76.8	56.1	49.9
67.5°	1455.4	1174.7	719.9	426.4	296.8	206.8	131.3	84.6	59.4	46.6	42.9
68°	1449.2	1166.9	705.8	421.4	291.0	196.1	123.8	83.0	57.8	45.4	41.7
70°	1365.4	1070.7	613.0	373.6	241.1	152.7	106.5	75.5	53.2	41.3	38.0
72.5°	1120.2	830.5	439.6	246.0	156.8	111.9	78.8	57.0	44.2	36.3	33.8
75°	792.9	519.3	220.4	141.6	98.7	64.8	44.6	36.7	32.6	28.9	28.9
77.5°	445.8	271.6	116.4	97.0	55.7	37.6	29.7	27.7	25.6	23.5	26.0
80°	145.3	141.6	85.9	66.5	38.8	27.7	23.1	21.9	20.6	18.6	23.1
82.5°	78.4	97.0	61.9	47.5	28.5	19.8	17.3	17.7	16.1	14.4	17.3
85°	35.1	46.2	41.3	33.0	17.7	11.1	9.1	10.7	9.5	8.7	8.3
87.5°	13.6	22.7	16.5	9.5	4.1	2.5	2.5	2.1	1.7	1.7	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	452.0	452.0	452.0	452.0	452.0
2.5°	452.0	452.0	451.6	451.1	450.3
5°	457.8	457.8	457.3	456.9	456.1
7.5°	463.9	463.5	463.1	462.7	461.9
10°	470.5	469.7	469.7	470.1	469.7
12.5°	477.2	475.9	474.7	474.3	475.5
15°	483.8	481.3	479.2	478.8	478.8
17.5°	487.5	483.3	479.6	478.4	478.4
20°	486.6	479.2	474.3	471.8	472.2
22.5°	478.8	468.5	461.9	458.6	457.3
25°	462.3	449.9	441.7	437.1	437.5
27.5°	437.5	424.3	415.2	412.8	410.3
30°	408.2	395.0	385.9	380.6	381.0
32.5°	379.3	364.9	356.6	350.4	349.6
35°	351.7	336.0	326.1	321.5	320.7
37.5°	324.4	307.9	298.8	294.7	291.8
40°	299.3	284.4	273.7	267.5	266.2
42.5°	274.5	257.6	246.8	242.3	241.1
45°	246.4	230.3	220.8	217.1	216.3
47.5°	221.2	206.0	198.1	193.2	191.5
50°	196.9	182.4	173.4	168.8	168.0
52.5°	171.3	156.8	147.4	143.6	140.3
55°	143.2	128.0	118.5	111.9	109.4
57.5°	110.6	97.0	87.1	82.6	78.0
60°	79.3	67.3	59.4	55.7	52.4
62.5°	56.1	48.3	43.3	39.6	37.6
65°	46.2	42.5	37.1	33.8	32.2
67.5°	40.9	37.1	33.0	30.1	28.9
68°	40.0	36.3	32.2	29.3	28.5
70°	36.7	33.0	29.3	27.2	26.4
72.5°	32.6	29.7	26.4	24.4	23.5
75°	28.1	25.2	23.1	21.5	20.2
77.5°	24.8	20.6	19.8	18.2	17.3
80°	20.6	18.6	16.9	15.7	14.9
82.5°	16.9	14.0	12.0	10.7	10.3
85°	9.5	8.7	7.0	5.4	5.0
87.5°	0.8	0.4	0.4	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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