

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: P141865

Luminaire Tested: **ECM-F01-LED-E1-T3**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141865  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F01-LED-E1-T3  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3  
Light Source: (7) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2424 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

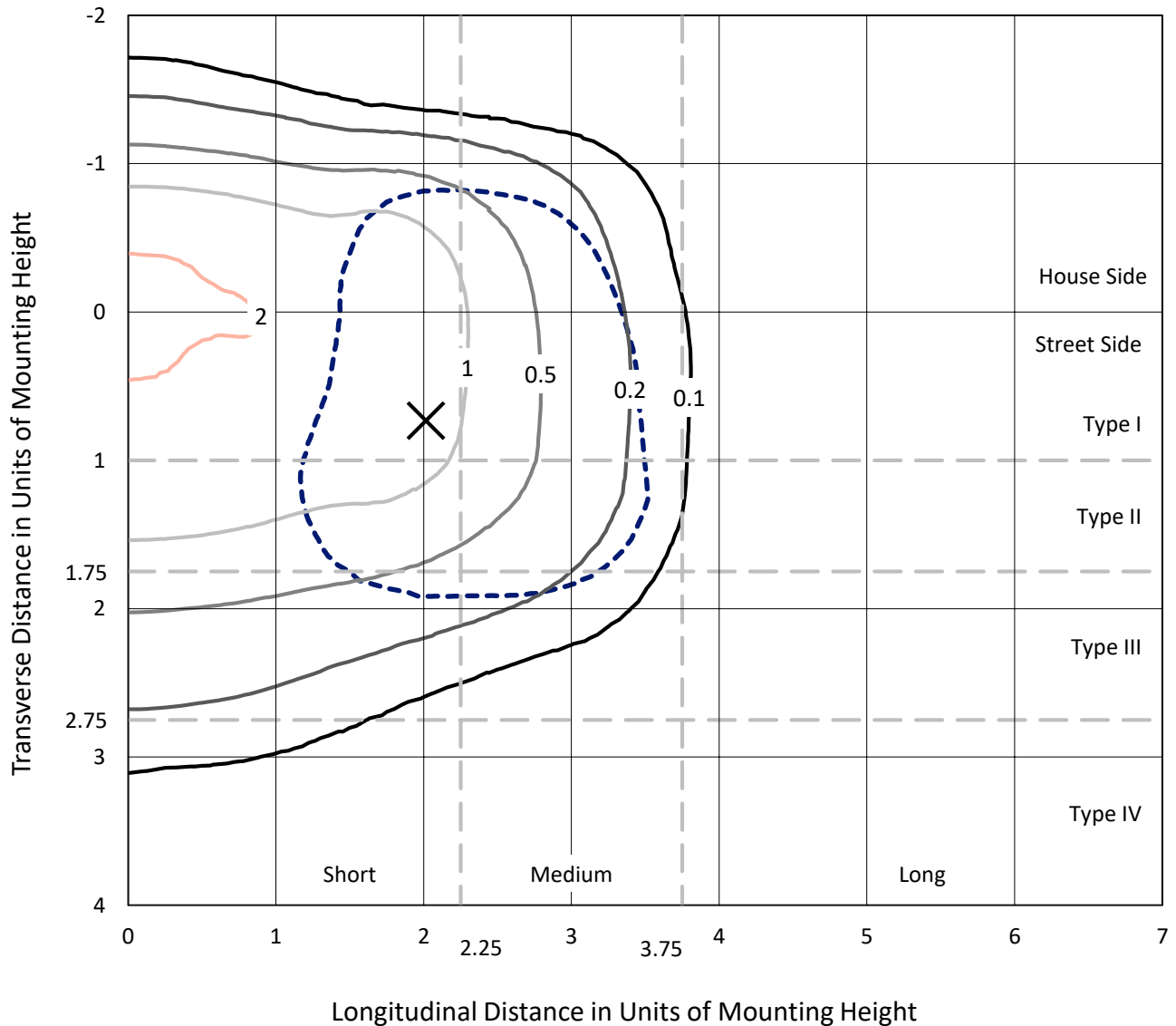
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

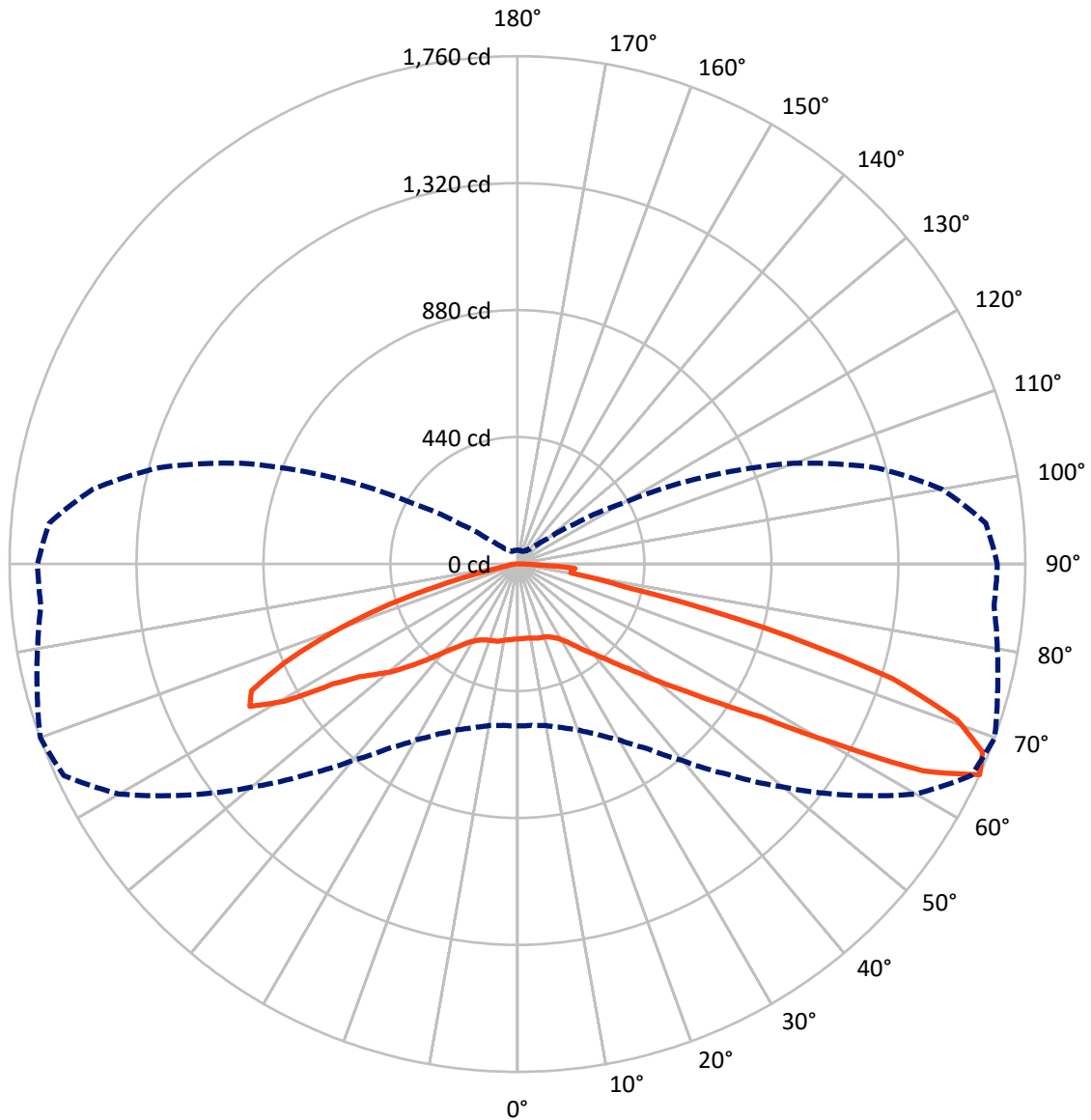
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.6 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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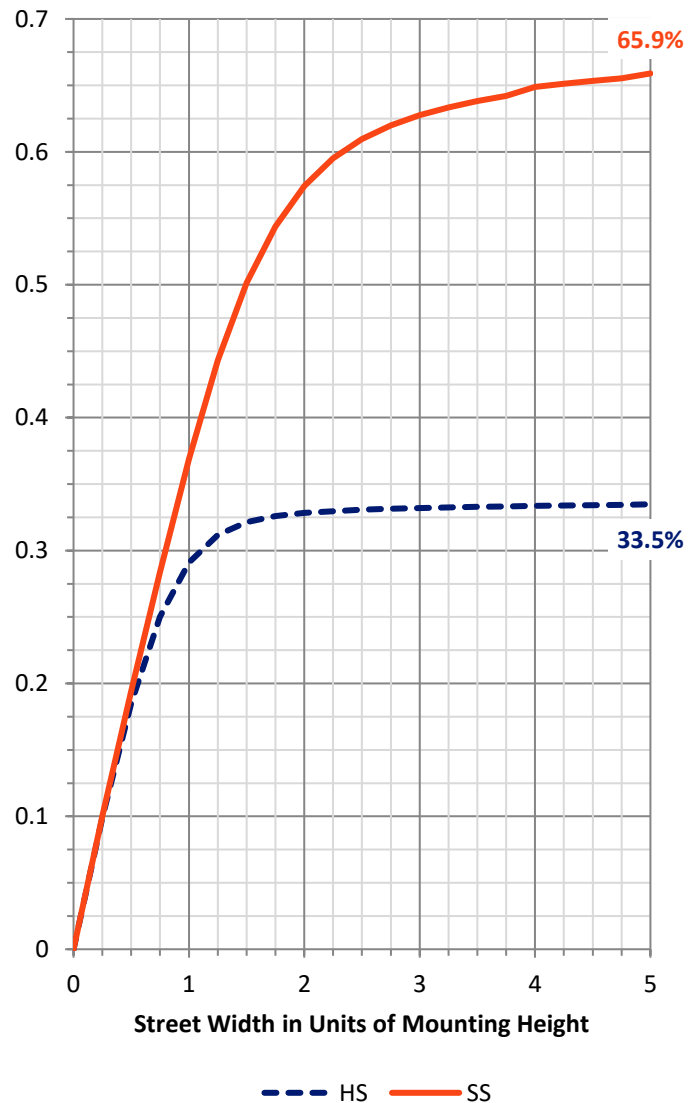
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	818.3	0.0	818.3
	% Fixture	33.8	0.0	33.8
<b>Street Side</b>	Lumens	1605.7	0.0	1605.7
	% Fixture	66.2	0.0	66.2
<b>Total</b>	Lumens	2424.0	0.0	2424.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.0	1.0
10°-20°	74.1	3.1
20°-30°	127.3	5.3
30°-40°	204.1	8.4
40°-50°	334.2	13.8
50°-60°	523.0	21.6
60°-70°	735.0	30.3
70°-80°	347.8	14.3
80°-90°	53.4	2.2
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°	2424.0	100.0
0°-180°	2424.0	100.0

**Coefficient of Utilization**



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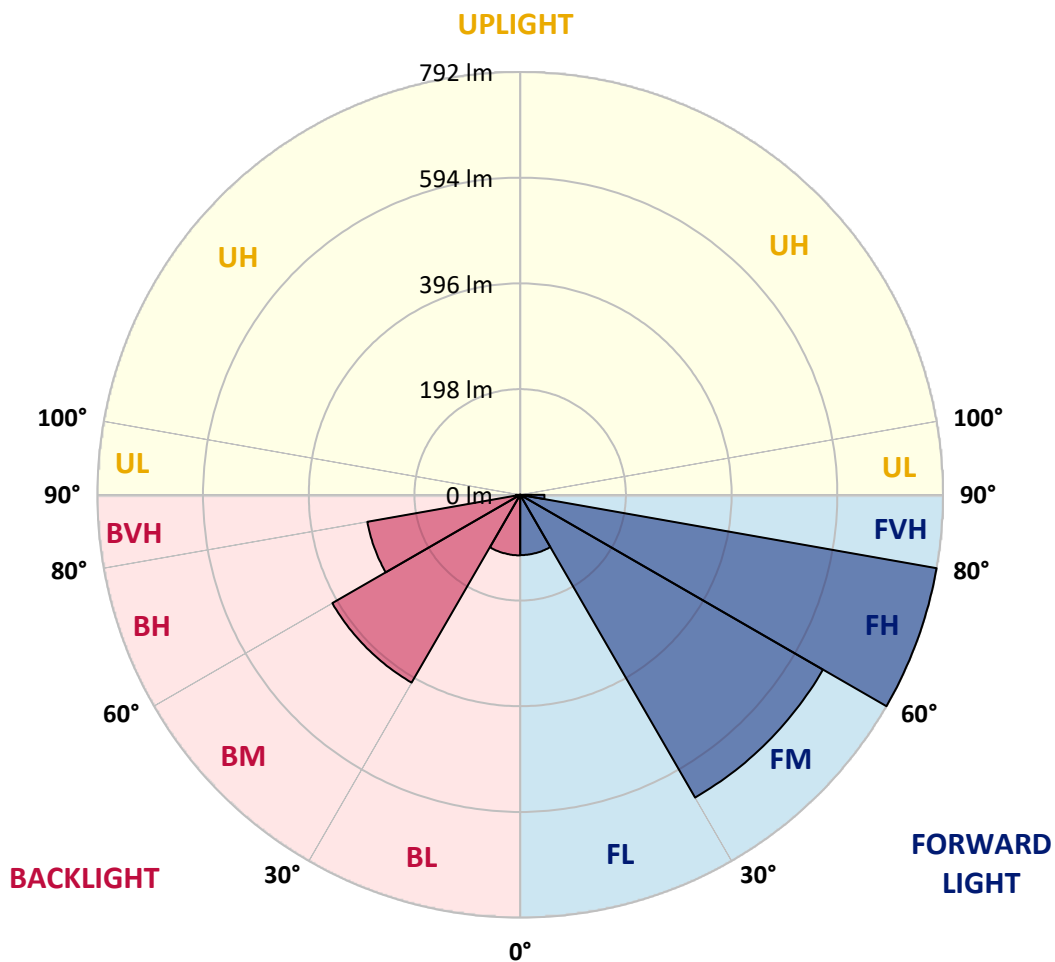
CATALOG NUMBER: ECM-F01-LED-E1-T3

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	112.9	4.7			
FM	(30°-60°)	655.0	27.0			
FH	(60°-80°)	792.2	32.7			G1/1800
FVH	(80°-90°)	45.5	1.9			G1/100
BL	(0°-30°)	113.5	4.7	B1/500		
BM	(30°-60°)	406.3	16.8	B1/1000		
BH	(60°-80°)	290.7	12.0	B1/500		G1/500
BVH	(80°-90°)	7.9	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8
2.5°	258.4	258.7	258.7	258.1	258.1	258.4	258.4	258.7	258.7	258.7	258.9
5°	258.4	258.7	258.7	258.4	258.1	258.7	258.4	258.7	258.7	258.7	258.7
7.5°	257.8	258.1	258.1	257.8	258.1	258.4	258.4	258.9	259.2	259.2	259.5
10°	255.1	255.4	255.6	255.6	256.2	257.0	257.3	258.4	258.7	259.5	260.0
12.5°	250.1	250.1	250.7	251.2	252.1	253.7	254.5	256.2	257.6	258.7	260.6
15°	245.7	245.7	246.3	246.6	248.2	249.3	251.0	252.9	255.4	257.6	260.6
17.5°	247.9	247.9	247.7	247.4	247.7	247.7	249.0	251.0	253.2	256.2	260.0
20°	256.5	256.2	255.1	254.5	254.3	253.2	252.3	252.1	253.2	255.4	259.2
22.5°	263.9	263.3	263.1	262.5	263.3	262.8	261.7	260.3	258.7	257.8	260.0
25°	268.3	268.6	268.6	268.6	270.2	270.8	271.3	269.7	267.7	265.0	265.3
27.5°	274.3	274.6	274.1	275.2	277.1	278.5	279.9	281.0	279.9	278.2	276.3
30°	287.3	287.3	286.5	287.3	288.9	290.3	292.2	294.2	294.2	292.5	290.6
32.5°	300.8	301.0	301.0	301.6	304.1	305.2	307.9	309.8	311.2	310.1	311.2
35°	317.0	316.7	317.6	317.8	321.7	323.1	328.6	329.9	332.1	332.7	333.5
37.5°	344.0	344.5	342.9	341.8	345.1	345.1	352.2	356.1	355.5	359.4	362.1
40°	387.4	385.0	384.1	383.6	385.5	385.2	385.0	390.2	392.7	393.2	394.6
42.5°	435.6	436.4	435.6	437.5	437.5	436.2	435.1	434.2	438.9	441.9	442.5
45°	492.0	493.1	491.5	490.1	493.7	495.6	495.6	497.8	501.6	503.0	502.2
47.5°	537.1	540.2	538.8	540.7	546.5	553.1	561.9	567.7	571.8	575.7	581.7
50°	577.9	579.2	582.5	588.9	597.4	607.9	622.2	636.5	644.7	654.4	661.5
52.5°	602.6	606.8	611.7	622.2	636.5	651.1	673.1	696.5	717.4	728.1	736.6
55°	617.5	620.5	627.1	641.4	661.5	683.3	710.8	743.0	770.8	794.4	812.9
57.5°	616.9	619.4	628.5	644.2	668.1	695.4	729.8	769.9	810.9	850.3	885.0
60°	605.1	607.3	616.4	633.2	659.3	691.8	733.1	782.3	837.9	897.1	957.9
62.5°	586.9	588.6	596.6	613.4	639.8	674.5	722.9	787.6	866.5	959.8	1077.9
65°	561.4	561.4	568.8	586.1	611.4	650.2	703.6	779.6	888.8	1030.8	1202.5
67.5°	523.7	523.7	529.7	544.0	563.8	590.8	644.2	723.2	838.5	1008.5	1209.4
70°	452.4	453.5	453.5	462.3	471.1	483.2	508.5	569.1	677.2	843.4	1041.0
72.5°	331.6	311.5	327.2	341.5	351.4	358.0	372.6	391.6	446.1	570.7	749.6
75°	208.9	214.1	225.9	242.2	266.6	292.0	319.8	331.6	326.6	341.5	461.7
77.5°	126.6	122.2	133.7	158.0	185.5	219.9	271.9	317.0	342.9	341.2	326.9
80°	54.8	53.4	61.1	72.6	86.1	117.2	164.8	226.7	295.5	335.4	329.4
82.5°	19.5	19.8	25.0	29.7	35.8	46.0	65.2	104.3	165.4	235.5	291.1
85°	5.8	6.3	8.8	12.4	14.0	16.0	22.0	32.7	55.9	89.2	158.5
87.5°	1.7	1.9	2.5	4.4	4.1	3.9	4.4	6.9	5.2	4.4	22.0
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°	95°	100°	105°
0°	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8
2.5°	258.7	258.7	258.7	258.9	258.7	258.7	258.9	258.9	259.2	259.5	260.0
5°	258.4	258.4	258.7	258.7	258.7	258.9	259.2	259.5	260.0	260.9	261.7
7.5°	259.2	259.2	258.9	259.2	259.2	259.5	260.0	260.3	261.4	262.2	263.6
10°	260.0	260.0	260.3	260.6	260.6	261.1	262.0	262.2	263.3	265.0	266.4
12.5°	261.1	262.0	263.1	263.6	264.2	264.7	265.5	266.1	267.5	269.7	271.3
15°	262.0	263.9	265.0	266.4	267.2	267.5	268.3	269.4	270.8	273.0	274.9
17.5°	262.0	264.4	266.1	267.5	268.8	269.7	270.5	271.6	273.5	275.7	277.7
20°	261.7	265.3	267.5	269.7	272.1	273.0	274.3	275.5	277.7	280.4	281.8
22.5°	263.1	267.2	270.2	274.1	276.8	279.0	280.7	282.6	284.3	286.2	286.7
25°	267.2	271.3	276.3	281.0	284.8	288.1	290.3	292.0	293.9	294.7	293.6
27.5°	274.1	277.1	284.0	290.9	296.9	301.0	303.5	305.7	306.3	307.9	303.8
30°	286.5	287.8	295.0	304.9	311.8	318.7	322.0	324.2	324.4	323.3	316.2
32.5°	306.8	304.3	310.7	323.9	334.3	340.1	345.3	346.7	345.9	342.3	330.8
35°	331.6	327.7	330.8	350.0	361.6	370.1	375.1	376.4	374.5	368.2	352.2
37.5°	362.1	360.8	362.1	380.6	400.7	408.6	410.8	412.5	407.8	396.3	375.3
40°	396.0	396.3	394.6	411.4	436.7	448.3	453.5	449.9	444.1	427.6	404.5
42.5°	442.8	441.1	435.3	450.5	482.9	494.8	499.4	496.7	490.9	470.0	443.0
45°	504.7	499.2	493.7	501.6	533.0	548.4	555.3	553.4	543.2	517.9	492.6
47.5°	580.3	574.6	564.4	563.0	594.7	612.8	615.3	612.3	604.6	579.2	548.1
50°	659.9	658.2	653.5	642.5	670.9	689.0	687.4	685.2	676.7	644.5	612.5
52.5°	742.1	745.4	742.4	734.7	765.0	772.4	773.0	766.4	756.5	726.7	683.3
55°	828.6	840.9	845.6	851.7	875.6	874.5	868.2	852.5	855.0	821.1	760.9
57.5°	920.2	958.2	988.2	1001.6	1024.5	1031.1	1015.1	1020.3	1018.1	983.2	888.3
60°	1041.0	1131.8	1209.9	1258.1	1288.9	1277.1	1299.4	1300.5	1338.2	1261.4	1113.4
62.5°	1233.6	1400.4	1539.1	1580.6	1588.6	1585.8	1559.4	1585.8	1578.7	1485.1	1293.3
65°	1395.7	1594.1	1735.0	1760.3	1723.1	1689.0	1658.2	1663.4	1629.3	1493.9	1288.1
67.5°	1417.7	1615.3	1746.0	1738.8	1657.7	1594.4	1543.2	1503.0	1433.4	1310.9	1131.5
70°	1243.5	1452.9	1621.3	1615.8	1503.0	1418.5	1335.4	1274.9	1203.9	1109.2	939.4
72.5°	967.2	1153.8	1317.0	1359.4	1248.2	1154.9	1078.7	1001.6	928.4	838.5	731.4
75°	658.5	798.8	874.8	886.3	784.5	714.6	685.2	622.2	544.6	525.3	446.1
77.5°	382.5	436.4	413.3	382.5	307.9	226.2	172.8	147.8	148.3	170.3	163.2
80°	310.9	296.1	233.6	187.4	127.4	64.9	43.5	37.4	37.7	43.8	42.4
82.5°	320.6	329.1	270.5	189.3	130.4	68.8	33.0	24.5	28.6	31.1	30.5
85°	237.5	311.2	279.0	200.9	140.1	73.2	21.5	13.5	19.0	23.1	24.8
87.5°	66.6	104.6	81.2	53.7	39.1	13.2	8.5	7.2	8.8	12.1	12.1
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8	259.8
2.5°	260.3	261.4	261.1	261.7	262.0	262.8	263.3	263.1	263.1	263.6	264.2
5°	262.5	263.9	263.9	264.7	265.5	266.6	267.5	266.9	267.2	267.7	268.3
7.5°	264.7	266.4	266.6	267.5	268.0	268.6	269.1	268.3	268.0	268.0	267.7
10°	267.5	269.1	268.8	268.8	268.6	268.0	266.9	265.0	263.6	262.8	262.2
12.5°	272.1	273.2	271.6	269.9	267.2	265.3	262.8	260.6	258.9	257.6	257.0
15°	276.3	275.7	273.8	270.8	266.9	263.9	261.4	258.4	256.5	254.8	254.0
17.5°	278.5	276.6	273.8	271.0	267.7	265.0	262.0	258.4	255.4	253.2	252.1
20°	280.7	277.7	274.1	271.3	268.8	266.6	264.4	260.0	256.2	252.9	251.2
22.5°	284.0	279.9	276.3	273.8	271.3	269.1	266.9	262.8	258.7	254.3	251.8
25°	288.7	283.2	280.7	278.2	275.5	273.2	270.2	266.4	262.0	256.7	253.2
27.5°	296.1	291.1	288.4	285.9	282.6	279.0	275.7	270.5	266.4	260.3	255.6
30°	306.8	301.6	299.1	296.6	292.8	288.1	283.4	276.8	271.0	264.2	258.1
32.5°	320.3	317.6	314.5	310.4	305.2	299.4	292.5	283.7	275.5	266.9	259.2
35°	341.2	336.5	331.6	327.5	319.8	311.8	301.3	288.4	277.4	266.9	257.6
37.5°	365.2	360.2	353.6	346.2	334.6	322.0	307.4	291.1	276.6	263.9	253.4
40°	394.1	387.7	378.9	364.9	347.8	328.8	309.3	288.9	271.9	257.3	245.2
42.5°	432.3	419.4	402.3	381.7	357.5	331.6	306.8	283.2	263.9	247.9	235.8
45°	475.5	454.9	427.3	396.5	363.0	330.5	301.3	273.8	252.1	234.4	221.8
47.5°	522.0	489.8	449.4	405.9	363.5	324.4	290.6	259.8	235.3	216.6	200.9
50°	574.6	521.5	464.8	410.6	359.9	313.7	275.2	239.7	214.4	192.1	177.8
52.5°	619.7	549.2	475.5	408.6	347.3	295.0	249.9	215.5	185.7	165.9	151.9
55°	673.1	576.2	481.3	399.0	326.9	265.8	222.6	184.4	156.3	138.7	126.6
57.5°	763.1	621.9	486.2	379.5	293.3	229.2	184.9	149.1	127.1	111.7	103.2
60°	936.7	710.5	506.6	350.3	250.7	185.2	142.8	116.7	97.7	87.5	81.5
62.5°	1050.3	770.8	497.5	305.4	195.9	138.7	104.6	84.2	73.2	65.8	63.0
65°	1021.4	710.0	422.1	242.2	136.5	92.2	70.2	57.8	52.8	49.0	47.3
67.5°	877.3	572.6	306.0	156.6	86.4	56.1	46.0	41.0	38.8	37.1	36.9
70°	698.9	403.7	181.9	83.1	47.9	37.1	32.7	30.8	30.0	30.0	30.0
72.5°	507.1	232.5	89.4	44.9	32.2	28.3	26.4	25.9	25.6	25.6	25.9
75°	289.8	100.7	46.0	30.8	26.4	24.5	23.4	23.4	23.4	23.4	23.7
77.5°	101.0	46.0	32.5	25.9	22.8	21.7	21.2	21.7	22.0	22.0	22.0
80°	36.9	32.5	27.8	22.6	20.4	19.3	19.3	20.1	20.6	20.1	19.8
82.5°	29.2	25.6	22.6	19.5	17.9	17.3	17.6	18.2	17.9	17.6	16.8
85°	22.3	16.8	15.7	14.6	14.3	14.3	15.4	15.7	14.6	14.0	13.2
87.5°	11.0	8.8	8.0	9.4	9.1	8.3	8.5	8.5	7.2	6.6	6.9
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):**

	165°	170°	175°	180°
0°	259.8	259.8	259.8	259.8
2.5°	264.2	264.4	265.3	265.0
5°	268.0	268.3	268.8	268.8
7.5°	267.2	267.5	267.5	267.5
10°	260.9	260.9	261.4	261.4
12.5°	255.9	255.6	255.6	255.1
15°	252.9	252.3	252.6	251.8
17.5°	250.7	250.4	250.4	249.9
20°	249.9	249.3	249.0	248.5
22.5°	249.3	249.0	248.5	247.9
25°	250.7	249.3	249.0	248.5
27.5°	252.1	250.7	249.6	249.3
30°	253.4	251.0	249.6	249.0
32.5°	253.2	249.9	247.9	247.1
35°	250.1	246.0	243.5	242.7
37.5°	244.4	239.7	235.8	234.4
40°	236.1	230.0	226.5	224.5
42.5°	226.2	219.3	216.3	214.6
45°	210.0	204.5	200.9	199.5
47.5°	191.8	184.4	181.1	179.7
50°	168.4	162.4	159.6	157.7
52.5°	143.6	138.1	135.7	134.6
55°	119.7	116.9	113.1	112.3
57.5°	97.1	96.3	93.6	93.3
60°	79.0	77.6	75.7	75.7
62.5°	62.2	60.8	60.0	60.0
65°	47.9	47.6	47.1	46.8
67.5°	36.9	37.7	38.0	37.4
70°	30.8	31.1	31.1	31.1
72.5°	26.7	26.7	26.7	26.4
75°	24.2	24.2	23.7	23.4
77.5°	22.3	22.0	22.3	22.0
80°	19.5	19.3	18.7	18.2
82.5°	16.2	16.0	14.6	14.6
85°	12.7	11.8	10.7	9.6
87.5°	7.2	6.3	4.7	3.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)