

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: P141066

Luminaire Tested: **ECM-F01-LED-E1-SL3-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141066  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)  
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-SL3-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL  
Light Source: (7) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2451.3 lumens  
Efficiency: N/A  
Efficacy: 94.6 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

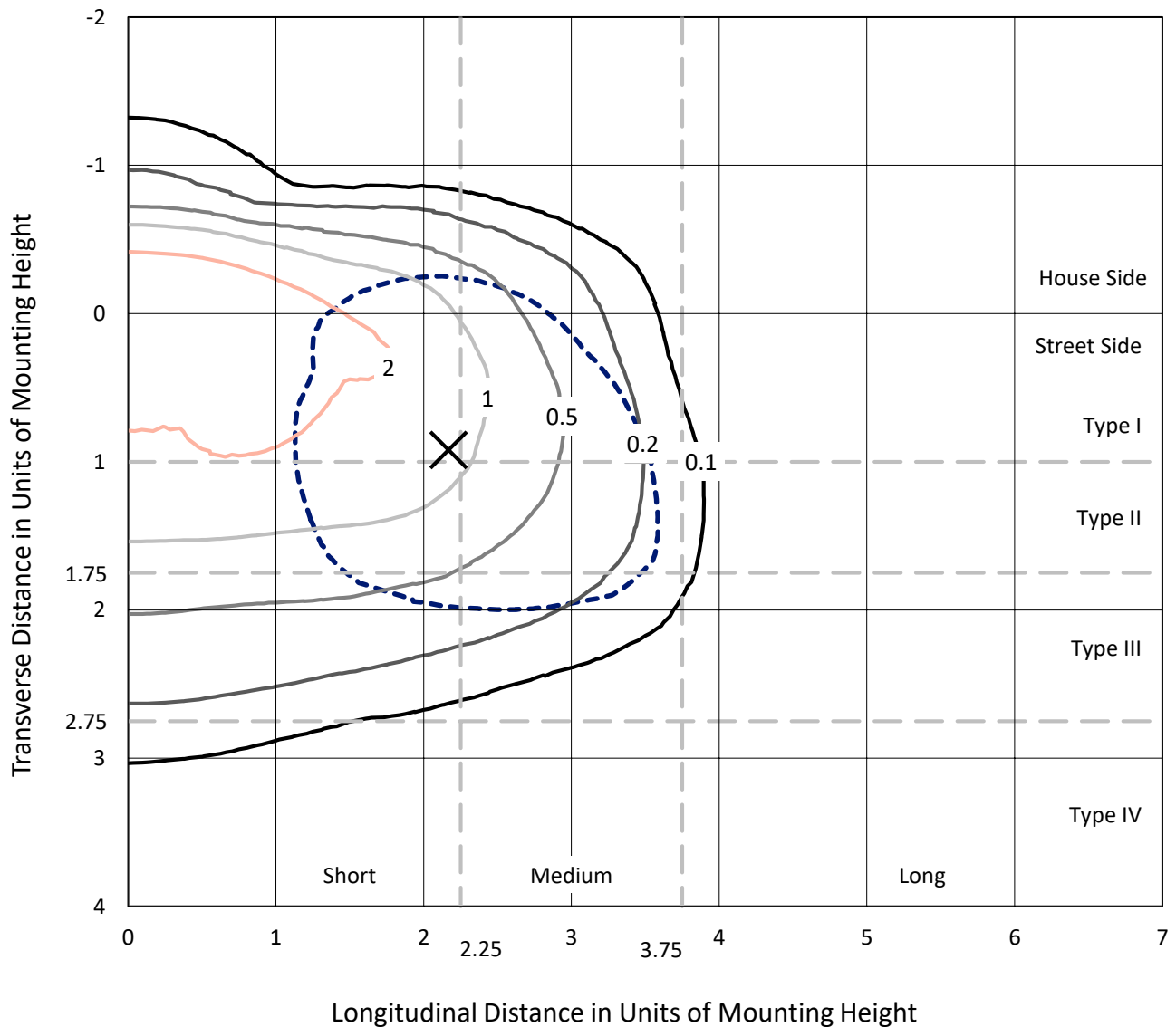
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

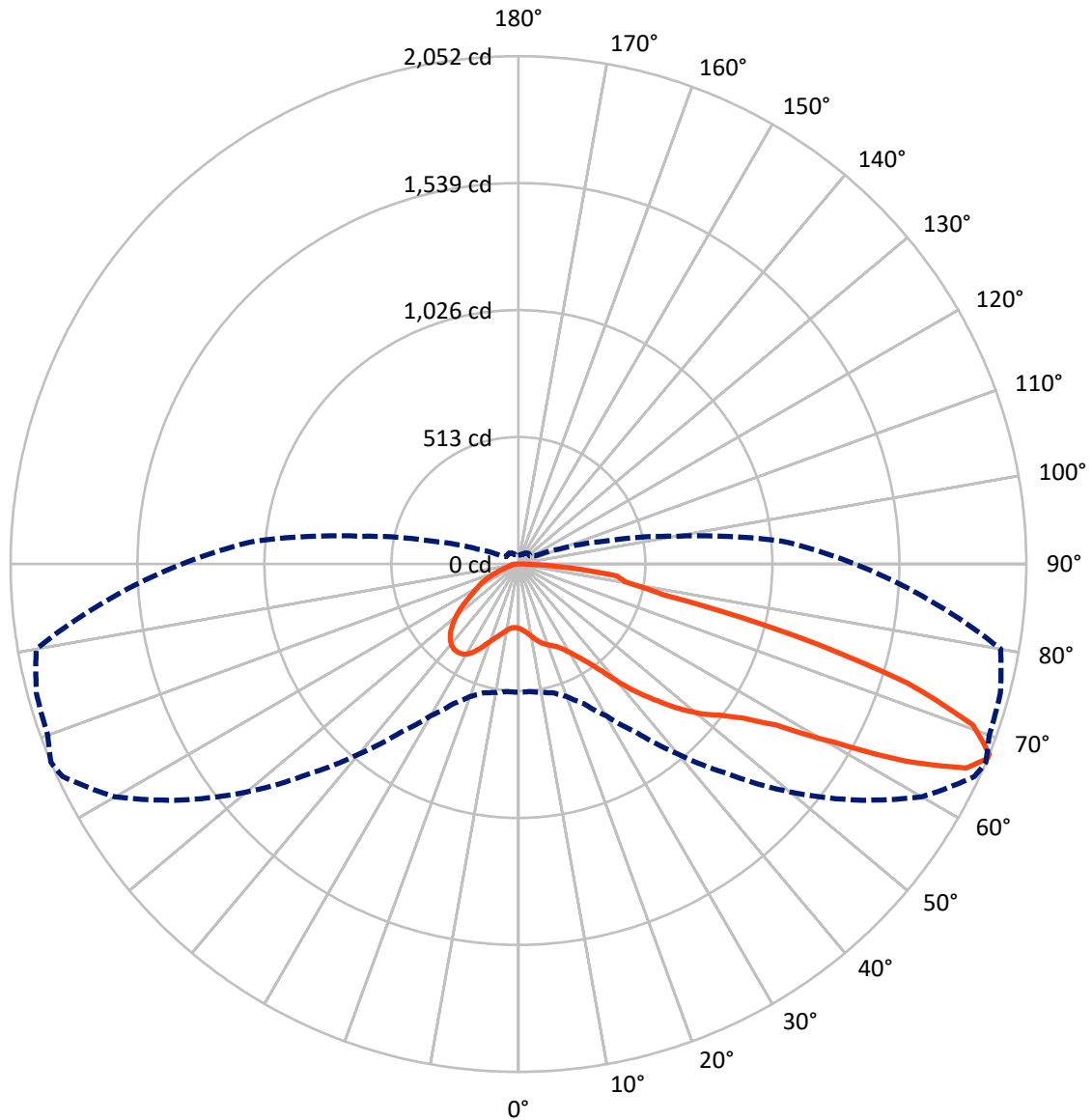
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	563.9	0.0	563.9
	% Fixture	23.0	0.0	23.0
<b>Street Side</b>	Lumens	1887.4	0.0	1887.4
	% Fixture	77.0	0.0	77.0
<b>Total</b>	Lumens	2451.3	0.0	2451.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.1	1.1
10°-20°	90.1	3.7
20°-30°	160.4	6.5
30°-40°	230.7	9.4
40°-50°	351.6	14.3
50°-60°	513.5	20.9
60°-70°	691.9	28.2
70°-80°	339.7	13.9
80°-90°	47.2	1.9
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°	2451.3	100.0
0°-180°	2451.3	100.0



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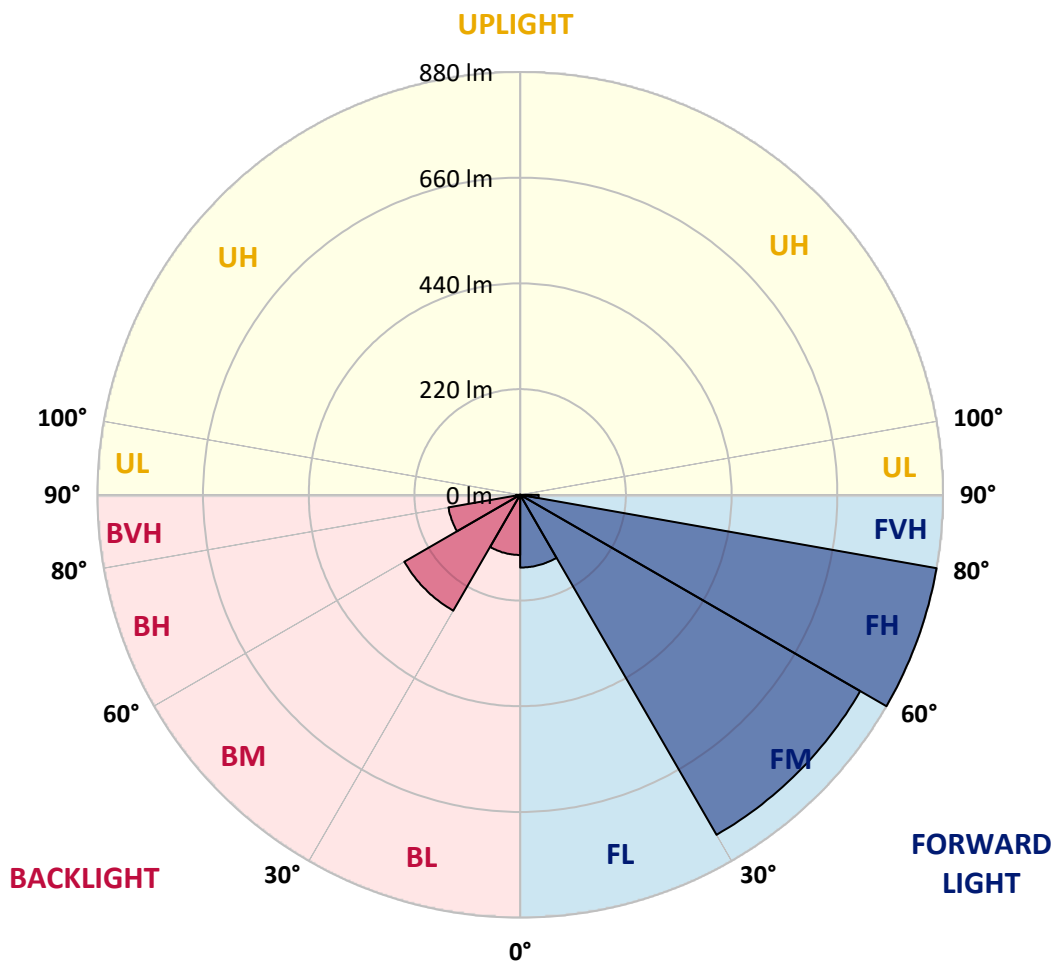
CATALOG NUMBER: ECM-F01-LED-E1-SL3-7050

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	151.4	6.2			
FM (30°-60°)	817.2	33.3			
FH (60°-80°)	880.0	35.9			G1/1800
FVH (80°-90°)	38.7	1.6			G1/100
BL (0°-30°)	125.2	5.1	B1/500		
BM (30°-60°)	278.6	11.4	B1/1000		
BH (60°-80°)	151.6	6.2	B1/500		G1/500
BVH (80°-90°)	8.5	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°	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1
2.5°	273.6	272.2	273.3	273.0	272.2	271.1	271.6	270.8	270.2	269.4	268.5
5°	291.4	290.5	290.0	289.1	288.6	287.7	287.2	285.7	283.8	282.4	281.2
7.5°	308.9	308.6	307.8	306.6	304.4	303.8	301.8	300.4	298.7	295.9	293.7
10°	329.5	329.2	327.8	326.1	323.6	321.0	318.8	315.4	312.0	309.5	307.5
12.5°	354.4	352.9	350.1	347.9	345.0	341.1	337.4	333.5	328.7	324.7	322.5
15°	379.2	377.5	375.3	372.1	367.9	362.5	357.2	351.3	343.9	338.8	335.7
17.5°	399.5	398.4	395.9	391.6	387.4	380.9	373.8	365.7	356.6	349.0	344.2
20°	414.2	413.1	409.1	404.1	398.4	391.1	383.4	374.4	363.7	354.4	349.0
22.5°	420.4	418.7	414.2	407.4	399.8	390.8	382.6	375.0	365.1	358.0	352.4
25°	422.4	420.4	414.5	406.0	396.1	384.6	375.3	369.3	363.4	360.9	358.9
27.5°	421.3	419.6	413.1	402.6	389.4	375.8	365.9	361.7	362.0	366.8	369.0
30°	417.3	415.3	409.4	397.8	383.7	369.0	360.3	358.9	365.4	377.5	386.5
32.5°	410.8	409.4	404.6	394.7	382.0	369.3	363.1	366.2	377.5	396.4	412.0
35°	409.1	408.9	406.6	401.2	391.9	383.7	381.2	389.9	408.6	434.5	454.3
37.5°	408.9	410.3	411.4	411.4	409.4	408.9	416.5	428.6	456.3	488.8	521.0
40°	414.5	417.0	422.7	430.0	437.1	447.3	462.8	485.7	514.5	554.0	594.1
42.5°	432.0	437.7	447.3	460.0	478.3	497.2	522.4	550.9	587.9	627.7	667.5
45°	466.2	474.4	481.4	501.5	525.8	548.1	580.8	618.4	659.0	709.0	751.9
47.5°	511.4	517.3	532.0	553.1	582.8	614.7	646.3	679.1	727.9	780.2	832.1
50°	556.5	561.0	576.6	601.4	640.4	675.4	711.5	744.0	786.1	841.4	892.3
52.5°	590.1	596.3	609.9	634.2	677.9	717.8	759.0	794.8	842.3	892.0	945.1
55°	613.3	617.2	629.7	653.4	694.6	740.1	786.7	830.7	887.2	943.4	996.2
57.5°	617.0	620.9	632.2	653.1	693.2	740.9	794.3	848.2	916.5	990.8	1060.0
60°	612.7	615.8	625.7	642.9	680.8	733.0	796.5	864.3	948.4	1044.2	1143.0
62.5°	593.8	596.9	605.9	620.1	653.7	710.1	789.8	888.0	993.9	1114.2	1259.0
65°	558.2	560.2	568.7	580.0	613.8	671.2	759.0	883.2	1029.8	1193.5	1381.0
67°	517.8	517.0	526.6	537.9	569.0	621.8	707.6	829.9	1001.2	1199.7	1432.1
67.5°	505.4	507.7	517.0	524.9	555.1	606.2	688.4	809.2	977.0	1185.6	1431.3
70°	417.3	421.6	426.6	431.7	458.3	495.8	556.2	673.1	808.7	1006.3	1299.4
72.5°	286.3	277.8	281.5	279.8	288.0	311.7	353.8	456.6	564.2	734.1	964.5
75°	145.1	154.5	153.3	160.4	172.0	186.9	206.4	244.8	329.2	429.2	596.9
77.5°	81.3	79.1	87.0	88.7	95.4	111.2	145.7	196.2	234.9	275.9	337.4
80°	37.0	40.9	43.5	39.5	40.9	44.3	57.6	90.4	151.9	231.3	266.0
82.5°	20.6	22.0	25.7	26.0	27.1	28.0	30.2	35.0	47.2	95.4	187.8
85°	13.0	13.6	17.2	18.9	19.8	19.8	19.8	20.9	24.0	28.2	48.6
87.5°	4.8	5.1	7.9	10.4	10.7	10.2	9.6	11.0	10.2	10.4	15.8
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°	67°	70°	75°	80°	85°	90°	95°	100°
0°	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1
2.5°	268.0	266.8	265.7	265.4	264.6	264.0	262.6	261.5	260.3	259.5	258.6
5°	278.7	276.4	274.5	273.6	272.5	271.1	268.2	266.3	264.6	262.9	261.2
7.5°	290.8	288.0	285.2	284.1	282.4	279.8	276.7	274.5	271.6	269.1	266.8
10°	304.4	301.3	299.0	297.9	296.5	292.8	290.8	286.9	283.8	280.4	277.6
12.5°	319.1	317.7	314.5	313.4	312.0	309.5	306.6	303.3	299.3	295.6	292.2
15°	332.3	330.1	328.1	327.8	327.0	325.6	321.9	318.2	314.8	310.0	307.2
17.5°	340.5	339.7	339.4	339.1	338.5	337.7	336.0	332.1	328.9	325.0	321.0
20°	345.6	346.5	347.9	349.0	349.6	350.1	349.3	345.3	342.2	338.8	335.4
22.5°	351.0	353.2	356.9	358.6	360.6	363.4	362.8	360.3	358.6	354.6	352.1
25°	358.6	363.1	369.3	371.6	375.3	378.9	379.8	378.4	376.7	373.8	373.8
27.5°	371.6	378.1	386.3	391.1	394.7	399.8	401.5	400.7	400.9	399.3	403.2
30°	391.9	400.9	412.0	417.0	421.6	427.5	428.6	430.3	429.2	432.3	437.1
32.5°	422.7	434.0	445.3	450.1	454.0	460.2	463.9	462.8	466.7	468.7	475.5
35°	470.1	481.4	490.2	491.0	495.5	498.9	502.3	501.2	511.9	516.2	519.8
37.5°	535.6	545.2	550.6	548.6	543.3	549.8	554.3	561.0	567.8	575.4	561.9
40°	620.6	635.9	633.6	630.8	620.6	622.0	624.0	627.7	639.0	636.4	597.8
42.5°	701.4	716.9	714.4	711.3	697.7	690.6	696.0	702.5	708.7	684.7	627.1
45°	783.0	797.1	785.0	789.2	777.1	773.9	784.4	788.1	781.0	737.0	652.0
47.5°	867.7	882.9	877.0	872.8	864.0	863.2	869.1	874.7	846.8	774.8	670.6
50°	932.6	955.2	952.1	949.6	940.0	938.8	953.0	956.9	906.7	814.9	689.2
52.5°	982.6	1012.0	1017.6	1014.2	1012.0	1012.5	1053.2	1047.3	977.8	863.5	711.0
55°	1041.6	1072.1	1092.7	1097.0	1102.6	1110.8	1191.3	1182.5	1076.1	933.5	733.8
57.5°	1119.8	1176.3	1207.4	1226.6	1242.1	1295.2	1397.4	1363.8	1212.2	1023.8	761.0
60°	1235.0	1347.1	1411.5	1460.4	1491.1	1583.7	1707.7	1584.0	1370.3	1132.3	796.5
62.5°	1420.0	1602.9	1726.1	1753.7	1766.7	1854.8	1943.5	1752.6	1484.4	1204.0	802.2
65°	1599.3	1828.0	1971.7	1987.8	1978.2	2001.9	2026.8	1757.7	1457.8	1170.1	736.1
67°	1662.5	1881.1	2032.1	2051.6	2023.4	2015.8	1977.9	1665.1	1358.7	1066.2	644.1
67.5°	1659.1	1874.9	2031.6	2051.3	2023.4	2011.2	1955.6	1627.8	1319.7	1040.8	626.3
70°	1529.3	1736.5	1911.0	1948.0	1932.5	1900.3	1752.3	1378.8	1093.6	853.9	482.8
72.5°	1241.5	1465.4	1603.8	1644.7	1655.8	1573.0	1305.1	965.1	788.3	610.2	350.1
75°	833.5	1056.0	1169.2	1148.6	1081.7	940.8	689.0	509.1	432.0	354.9	216.6
77.5°	472.7	644.3	635.6	600.0	543.5	402.4	195.4	105.9	101.1	118.0	91.8
80°	315.7	397.3	424.4	438.2	435.1	297.6	80.8	40.9	35.3	35.3	34.7
82.5°	263.4	343.3	388.8	400.9	373.6	226.2	48.3	26.8	21.5	24.0	26.8
85°	111.0	173.1	229.0	220.2	175.1	88.1	24.6	14.1	14.1	18.6	23.4
87.5°	26.8	39.8	56.2	54.5	43.8	20.3	12.4	8.8	8.8	14.4	20.3
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°	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1
2.5°	258.4	257.2	257.2	256.1	255.5	255.0	254.7	255.0	254.1	253.3	253.6
5°	259.8	258.1	257.2	255.3	254.1	253.0	252.1	251.9	250.5	249.6	249.6
7.5°	264.6	262.3	260.6	258.4	256.1	254.4	253.0	252.1	250.2	248.8	248.5
10°	274.5	271.3	268.8	265.4	262.3	260.1	257.5	256.1	253.8	252.4	251.9
12.5°	289.1	284.6	280.7	275.6	271.9	268.5	267.1	264.9	264.0	263.2	263.4
15°	303.0	297.6	293.9	290.0	285.7	283.8	280.9	280.7	280.9	279.5	279.5
17.5°	317.1	312.9	308.6	307.2	303.3	301.8	299.9	298.7	296.2	293.7	290.5
20°	331.8	329.5	327.8	326.1	325.3	321.9	316.8	310.9	302.7	295.3	289.1
22.5°	350.7	349.3	349.6	348.1	343.6	335.2	323.6	311.2	297.9	286.0	276.7
25°	374.7	376.1	374.4	367.3	354.4	337.1	319.3	301.8	284.3	270.2	257.5
27.5°	405.2	404.1	396.1	378.1	355.8	331.2	308.3	287.4	266.5	250.2	234.4
30°	438.5	430.3	409.7	381.5	350.1	320.5	292.2	268.0	243.7	224.5	206.7
32.5°	472.1	448.7	415.3	377.5	340.2	305.2	273.6	245.1	217.1	195.7	175.1
35°	497.5	460.0	414.5	369.0	325.3	285.2	248.5	213.2	180.7	155.0	134.1
37.5°	521.0	466.2	408.9	356.1	304.7	258.6	212.9	174.8	142.0	116.3	98.3
40°	535.4	465.6	397.8	334.6	276.1	219.7	170.0	130.7	101.9	83.0	73.1
42.5°	543.8	459.7	378.9	306.1	236.9	175.9	125.4	90.1	72.6	64.4	59.9
45°	548.1	447.0	355.5	268.0	189.5	125.6	86.4	64.9	57.9	55.6	54.5
47.5°	545.5	429.2	321.9	225.0	141.2	86.1	61.8	54.8	52.5	51.4	51.1
50°	539.6	406.0	286.6	178.5	100.2	61.8	52.0	50.0	49.1	48.8	48.3
52.5°	531.1	378.6	246.2	138.4	71.2	51.4	48.6	47.7	47.2	46.3	46.0
55°	517.0	344.8	205.0	101.9	57.0	48.6	47.2	46.9	45.7	44.9	44.3
57.5°	500.1	308.6	166.0	79.9	52.5	47.4	46.6	46.3	45.2	44.0	42.9
60°	491.6	283.2	136.7	69.2	51.7	48.0	47.4	46.9	45.5	43.8	42.4
62.5°	470.7	255.8	117.7	65.8	52.8	50.0	49.7	48.6	46.6	44.9	42.6
65°	416.8	217.1	100.2	62.4	54.5	53.1	53.6	52.2	50.0	47.2	43.5
67°	352.1	176.5	84.7	59.9	56.5	57.3	58.2	57.3	53.6	49.4	44.6
67.5°	334.6	164.3	80.5	59.0	57.0	58.2	59.6	58.7	54.8	50.0	45.2
70°	251.6	117.7	63.8	55.9	59.0	62.1	64.9	64.7	60.7	54.8	47.2
72.5°	173.9	80.5	51.7	52.2	57.3	63.0	66.6	68.3	64.4	57.3	48.3
75°	104.8	51.4	43.5	47.2	52.2	57.9	63.8	64.4	59.9	52.8	45.2
77.5°	51.4	37.0	35.9	37.3	42.1	46.9	49.4	46.3	43.5	38.7	35.9
80°	31.1	29.1	28.5	31.6	34.4	33.6	31.6	29.1	27.7	26.5	25.4
82.5°	26.0	26.3	26.8	27.4	26.8	23.7	20.3	18.6	17.5	17.5	17.8
85°	26.5	27.1	24.8	22.9	20.3	16.9	13.8	11.9	12.1	12.4	12.4
87.5°	20.6	19.8	17.5	14.4	11.6	8.5	6.8	5.6	6.2	5.9	6.5
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):**

	160°	165°	170°	175°	180°
0°	260.1	260.1	260.1	260.1	260.1
2.5°	253.6	253.3	253.6	253.6	253.8
5°	249.0	248.5	248.5	248.8	248.8
7.5°	247.9	247.3	247.3	247.6	247.3
10°	251.9	251.6	252.1	251.9	251.9
12.5°	263.7	263.7	264.9	265.4	264.9
15°	279.8	279.3	280.1	280.4	280.7
17.5°	288.9	286.3	285.5	286.0	284.9
20°	283.8	279.5	277.8	277.6	275.6
22.5°	269.4	263.2	260.6	259.5	257.2
25°	249.0	241.7	238.3	235.5	234.1
27.5°	224.8	215.7	210.9	208.7	207.8
30°	194.3	185.5	178.5	174.8	173.7
32.5°	160.4	147.7	140.3	135.8	132.7
35°	119.7	107.6	102.2	98.8	94.9
37.5°	87.0	79.6	75.1	72.8	72.0
40°	67.2	63.5	61.3	61.0	60.7
42.5°	58.2	56.5	56.2	55.6	55.1
45°	53.6	53.1	53.4	52.5	52.0
47.5°	50.5	50.3	50.3	49.7	49.4
50°	48.0	48.0	47.7	47.4	47.4
52.5°	45.7	46.0	46.0	45.5	45.5
55°	43.8	43.8	44.0	43.8	43.8
57.5°	42.4	42.1	42.4	42.4	42.4
60°	41.5	40.9	40.7	40.9	40.9
62.5°	40.7	39.8	39.5	39.5	39.8
65°	40.7	39.2	38.7	38.7	38.4
67°	40.9	38.7	37.6	37.0	36.7
67.5°	40.9	38.4	37.0	36.7	36.4
70°	40.9	37.3	35.3	33.9	33.9
72.5°	40.7	36.1	33.0	31.6	31.1
75°	38.7	34.2	31.3	29.6	29.1
77.5°	32.5	29.6	28.2	26.8	26.5
80°	24.6	23.2	22.0	18.9	17.5
82.5°	17.5	16.7	14.7	13.6	12.7
85°	12.4	11.6	10.7	9.6	9.6
87.5°	6.8	6.5	6.2	5.6	5.1
90°	0.0	0.0	0.0	0.0	0.0

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