

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: P677480

Luminaire Tested: **CCW-SA-2E-830-U-SLR-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677480  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2E-830-U-SLR-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/  
SLR distribution lens and House Side Shield  
Light Source: (32) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

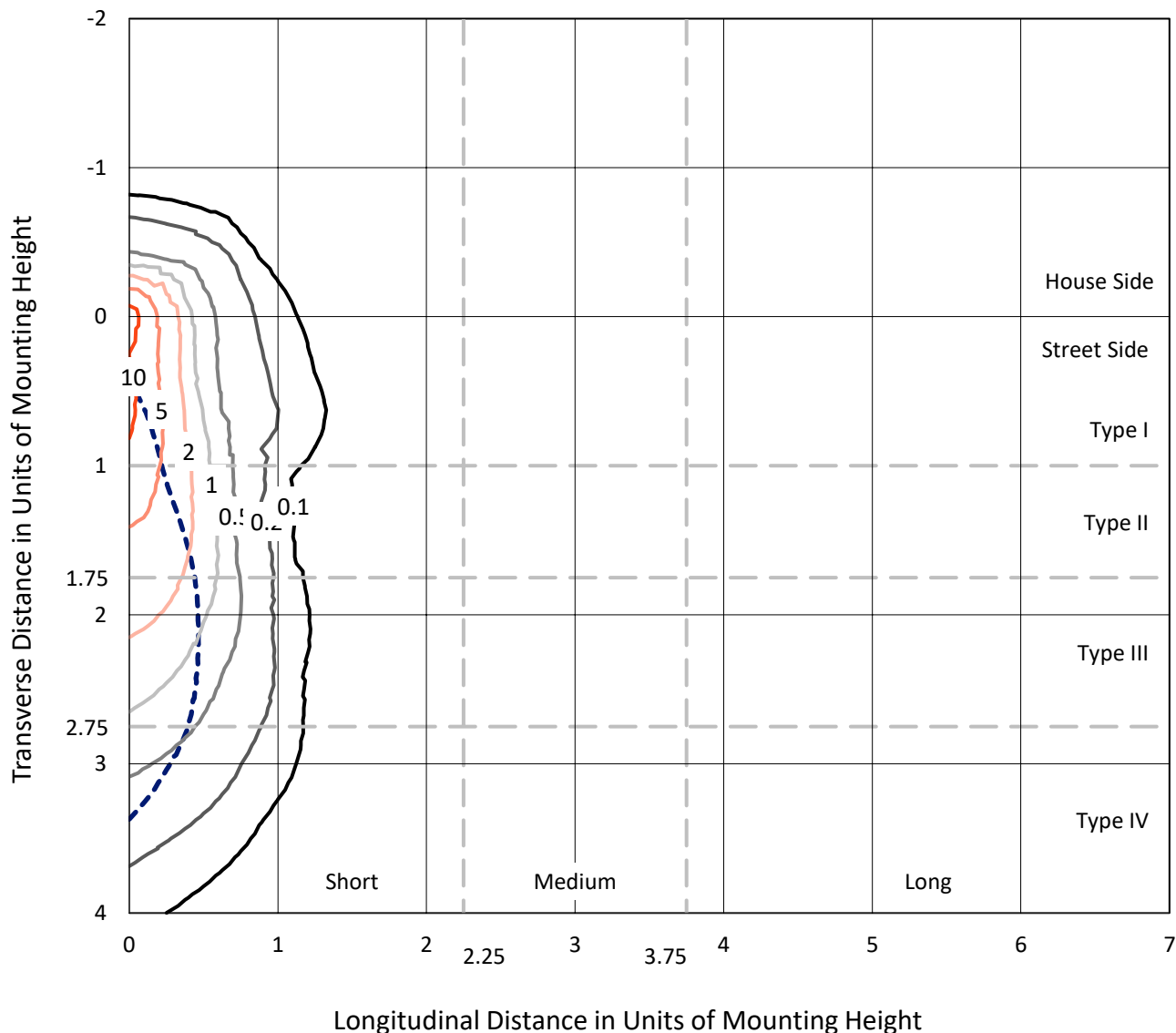
Lumens per Lamp: N/A  
Luminaire Lumens: 7807.7 lumens  
Efficiency: N/A  
Efficacy: 73.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 106.6  
Input Voltage (V): 120  
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

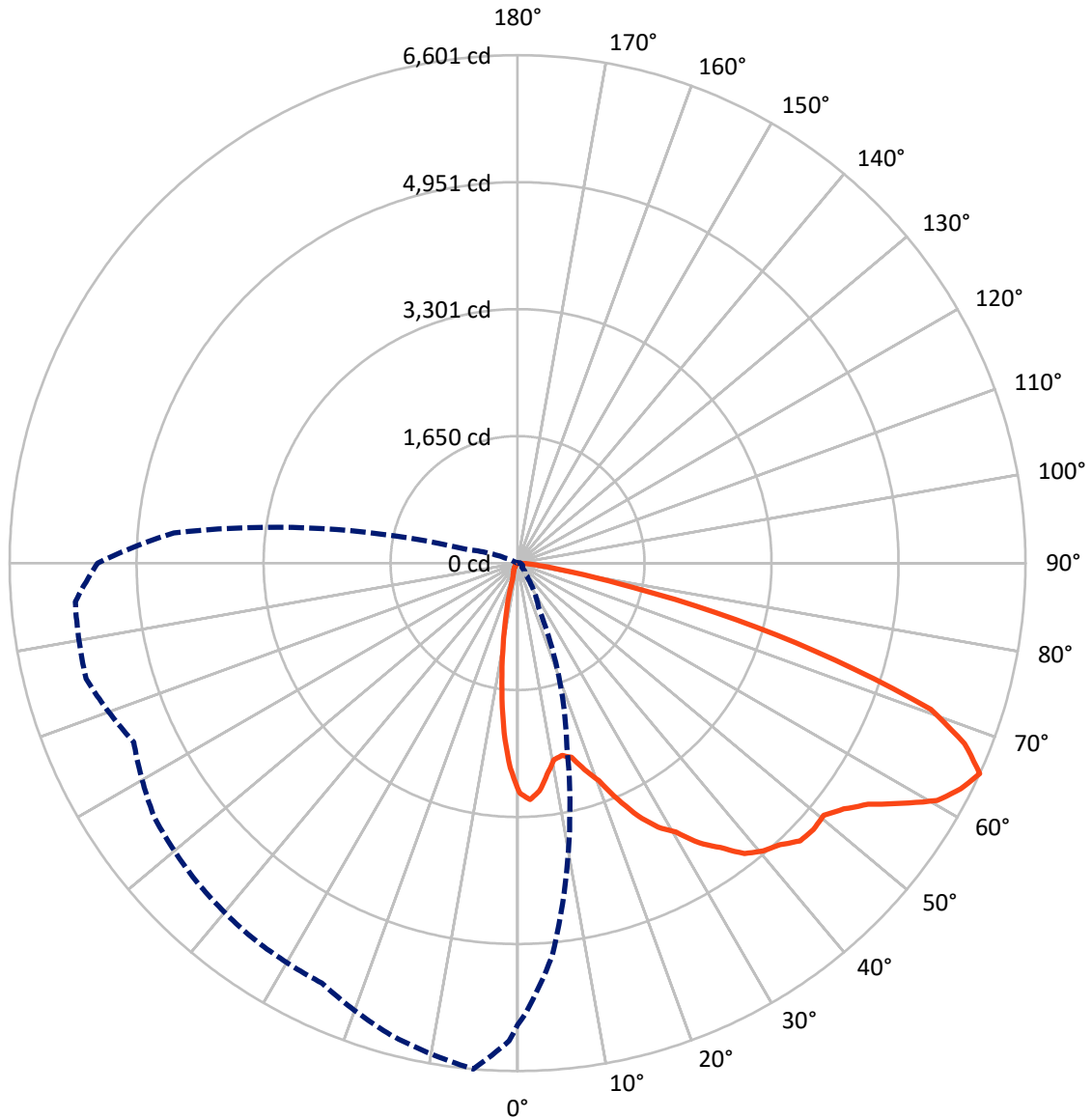
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 13.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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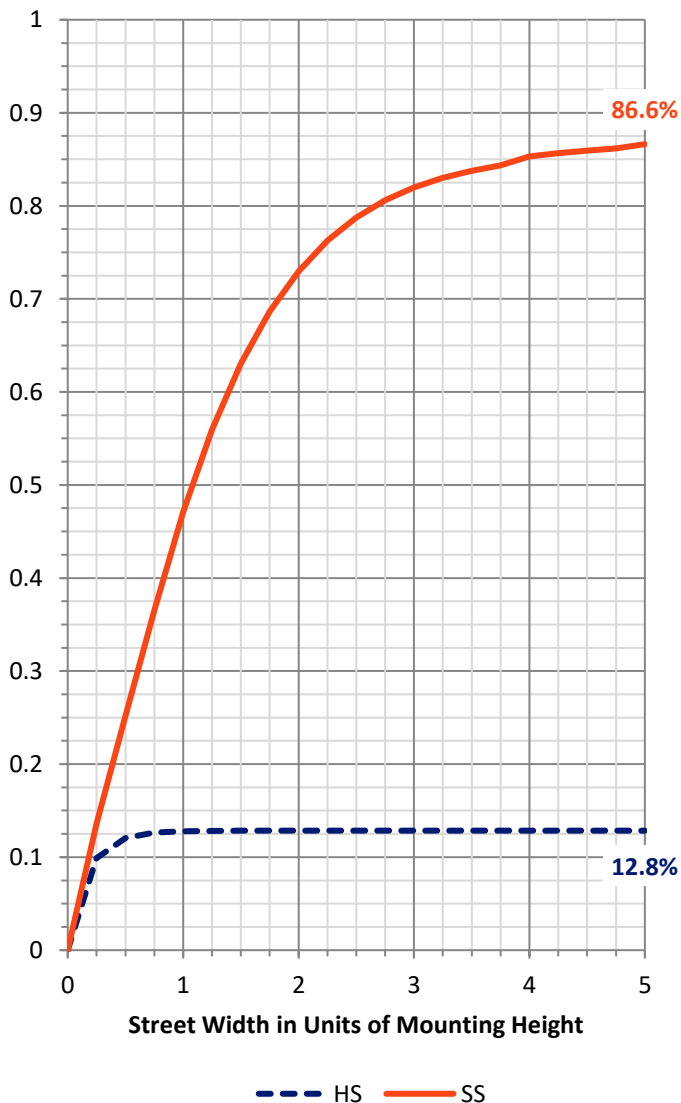
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1013.7	0.0	1013.7
	% Fixture	13.0	0.0	13.0
<b>Street Side</b>	Lumens	6793.9	0.0	6793.9
	% Fixture	87.0	0.0	87.0
<b>Total</b>	Lumens	7807.7	0.0	7807.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.1	2.9
10°-20°	437.8	5.6
20°-30°	609.8	7.8
30°-40°	866.4	11.1
40°-50°	1201.5	15.4
50°-60°	1637.1	21.0
60°-70°	1799.9	23.1
70°-80°	884.6	11.3
80°-90°	144.5	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°	7807.7	100.0
0°-180°	7807.7	100.0



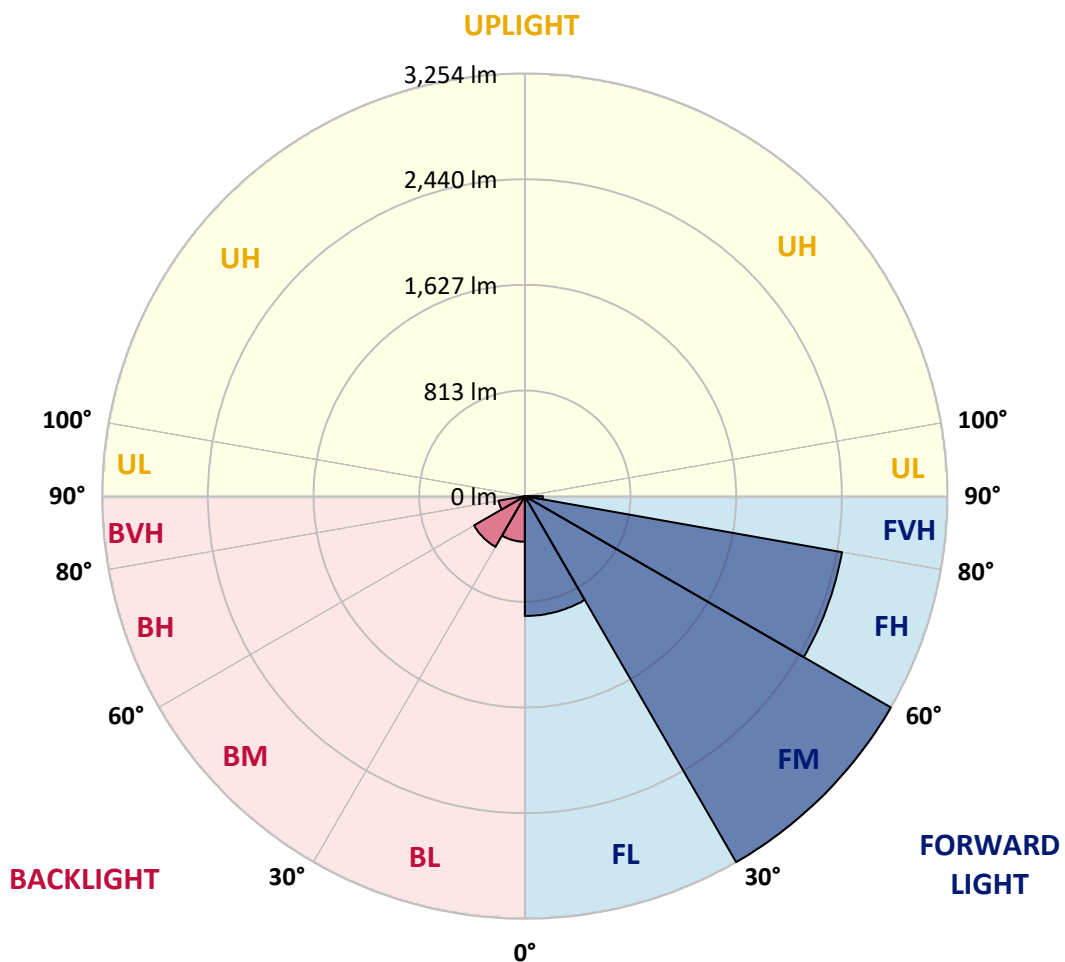
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	922.7	11.8			
FM (30°-60°)	3253.7	41.7			
FH (60°-80°)	2479.6	31.8			G2/5000
FVH (80°-90°)	137.9	1.8			G2/225
BL (0°-30°)	351.0	4.5	B1/500		
BM (30°-60°)	451.3	5.8	B1/1000		
BH (60°-80°)	204.9	2.6	B1/500		G1/500
BVH (80°-90°)	6.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9
2.5°	3045.9	3081.7	3048.0	2930.1	2909.1	2852.2	2765.9	2759.6	2669.1	2679.6	2631.2
5°	2862.8	2898.6	2827.0	2671.2	2526.0	2410.2	2340.7	2216.5	2189.2	2128.1	2128.1
7.5°	2675.4	2673.3	2551.2	2420.7	2203.9	1991.3	1894.5	1715.6	1610.3	1553.5	1498.7
10°	2519.7	2486.0	2410.2	2140.8	1905.0	1684.0	1564.0	1446.1	1336.7	1241.9	1147.2
12.5°	2410.2	2431.3	2311.3	2018.7	1713.5	1559.8	1431.4	1307.2	1176.7	1069.3	964.1
15°	2467.0	2433.4	2292.3	1991.3	1681.9	1471.4	1300.9	1149.3	1004.1	863.0	783.1
17.5°	2643.9	2557.6	2391.3	1991.3	1616.6	1336.7	1130.4	951.5	795.7	669.4	570.4
20°	2881.7	2782.8	2603.9	2065.0	1568.2	1237.7	955.7	730.4	568.3	450.5	374.7
22.5°	3125.9	3048.0	2778.6	2094.5	1511.4	1105.1	753.6	528.3	378.9	303.1	265.2
25°	3418.5	3309.0	3014.3	2212.3	1427.2	976.7	593.6	368.4	282.1	242.1	218.9
27.5°	3652.1	3633.2	3235.4	2283.9	1364.0	871.5	469.4	292.6	233.7	204.2	189.4
30°	3946.8	3843.7	3504.8	2427.0	1292.5	751.5	391.5	263.1	214.7	183.1	172.6
32.5°	4123.7	4075.2	3645.8	2507.0	1212.5	652.5	336.8	231.5	195.8	172.6	162.1
35°	4380.5	4283.6	3847.9	2557.6	1170.4	595.7	303.1	210.5	164.2	141.0	128.4
37.5°	4666.7	4631.0	4090.0	2555.4	1109.3	562.0	280.0	195.8	155.8	130.5	115.8
40°	4959.3	4814.1	4237.3	2614.4	1077.7	536.8	263.1	187.3	147.3	124.2	105.2
42.5°	5178.3	5012.0	4407.8	2593.3	1039.9	492.6	256.8	174.7	141.0	113.7	96.8
45°	5237.2	5178.3	4561.5	2587.0	1012.5	456.8	246.3	172.6	136.8	107.4	90.5
47.5°	5350.9	5310.9	4750.9	2597.5	991.4	429.4	221.0	176.8	130.5	101.0	86.3
50°	5401.4	5329.8	4904.6	2622.8	943.0	395.7	197.9	185.2	128.4	98.9	82.1
52.5°	5609.8	5546.6	5115.1	2694.4	903.0	351.5	174.7	176.8	132.6	92.6	77.9
55°	5814.0	5742.4	5439.3	2858.6	846.2	315.7	149.5	155.8	126.3	84.2	69.5
57.5°	6093.9	5976.0	5656.1	2925.9	795.7	267.3	132.6	128.4	117.9	75.8	61.0
60°	6136.0	6184.4	5624.5	2883.8	743.1	235.8	115.8	98.9	126.3	67.4	52.6
62.5°	6277.1	6075.0	5477.2	2787.0	705.2	216.8	103.1	82.1	109.5	58.9	44.2
65°	6005.5	5856.1	5131.9	2475.5	656.8	218.9	90.5	67.4	69.5	48.4	35.8
67.5°	5607.7	5489.8	4559.4	2136.6	608.3	214.7	80.0	58.9	52.6	42.1	31.6
70°	4921.4	4666.7	3873.2	1734.5	536.8	200.0	67.4	52.6	44.2	33.7	23.2
72.5°	3580.6	3477.4	2778.6	1340.9	482.0	181.0	63.1	44.2	37.9	25.3	18.9
75°	2410.2	2239.7	1753.4	879.9	387.3	157.9	52.6	40.0	29.5	18.9	14.7
77.5°	1273.5	1204.0	993.6	418.9	214.7	73.7	29.5	23.2	16.8	14.7	8.4
80°	551.5	490.5	429.4	170.5	75.8	33.7	18.9	12.6	10.5	8.4	4.2
82.5°	282.1	269.4	223.1	73.7	44.2	25.3	10.5	8.4	6.3	4.2	2.1
85°	138.9	143.1	117.9	23.2	25.3	14.7	2.1	2.1	0.0	0.0	0.0
87.5°	10.5	10.5	8.4	4.2	6.3	2.1	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9
2.5°	2612.3	2641.7	2591.2	2622.8	2608.1	2614.4	2620.7	2603.9	2608.1	2667.0	2669.1
5°	2092.4	2149.2	2128.1	2157.6	2208.1	2182.9	2206.0	2201.8	2206.0	2214.4	2252.3
7.5°	1492.4	1475.6	1515.6	1593.5	1684.0	1738.7	1711.3	1696.6	1688.2	1667.1	1692.4
10°	1126.2	1117.7	1107.2	1130.4	1189.3	1250.4	1284.0	1227.2	1195.6	1155.6	1140.9
12.5°	934.6	882.0	852.5	816.7	833.6	888.3	890.4	835.7	785.2	764.1	787.3
15°	736.7	701.0	648.3	597.8	572.6	614.7	578.9	526.2	461.0	452.6	450.5
17.5°	526.2	505.2	467.3	446.3	416.8	406.3	368.4	288.4	242.1	229.4	233.7
20°	357.8	341.0	338.9	320.0	307.3	298.9	237.9	185.2	170.5	172.6	174.7
22.5°	265.2	256.8	246.3	244.2	233.7	223.1	174.7	155.8	145.2	145.2	151.6
25°	216.8	212.6	202.1	197.9	193.7	178.9	147.3	132.6	128.4	124.2	130.5
27.5°	185.2	183.1	176.8	170.5	166.3	151.6	128.4	115.8	111.6	111.6	111.6
30°	166.3	166.3	157.9	145.2	145.2	128.4	109.5	101.0	96.8	96.8	94.7
32.5°	155.8	151.6	141.0	132.6	126.3	109.5	96.8	88.4	82.1	82.1	84.2
35°	126.3	126.3	124.2	117.9	109.5	92.6	82.1	73.7	69.5	67.4	69.5
37.5°	111.6	105.2	96.8	98.9	94.7	80.0	69.5	63.1	56.8	56.8	56.8
40°	101.0	94.7	86.3	80.0	77.9	71.6	61.0	50.5	44.2	42.1	42.1
42.5°	90.5	86.3	73.7	63.1	61.0	61.0	46.3	37.9	31.6	31.6	31.6
45°	84.2	77.9	67.4	54.7	44.2	46.3	37.9	27.4	23.2	21.0	21.0
47.5°	80.0	73.7	58.9	46.3	33.7	33.7	27.4	18.9	14.7	12.6	12.6
50°	73.7	67.4	52.6	37.9	25.3	21.0	16.8	10.5	6.3	4.2	4.2
52.5°	69.5	63.1	46.3	31.6	21.0	14.7	10.5	2.1	0.0	0.0	0.0
55°	63.1	54.7	40.0	25.3	16.8	8.4	2.1	0.0	0.0	0.0	0.0
57.5°	54.7	48.4	31.6	18.9	10.5	2.1	0.0	0.0	0.0	0.0	0.0
60°	46.3	40.0	25.3	14.7	4.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	37.9	33.7	18.9	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	31.6	25.3	14.7	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	27.4	21.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	21.0	14.7	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	14.7	10.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	10.5	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	6.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9
2.5°	2677.5	2740.7	2799.6	2816.5	2862.8	2991.2	2991.2	3052.2	3161.7	3201.7	3210.1
5°	2258.6	2326.0	2338.6	2469.1	2530.2	2660.7	2747.0	2953.3	3077.5	3155.4	3203.8
7.5°	1717.7	1740.8	1789.2	1911.3	2031.3	2189.2	2353.4	2616.5	2835.4	2923.8	3088.0
10°	1180.9	1250.4	1355.6	1465.1	1652.4	1827.1	2039.7	2288.1	2557.6	2667.0	2808.0
12.5°	795.7	892.5	1060.9	1216.7	1389.3	1566.1	1768.2	2100.8	2406.0	2557.6	2698.6
15°	465.2	583.1	728.3	980.9	1210.4	1408.2	1610.3	1947.1	2317.6	2513.3	2686.0
17.5°	235.8	271.5	391.5	610.4	913.6	1237.7	1538.7	1968.2	2384.9	2624.9	2768.0
20°	176.8	187.3	221.0	324.2	625.2	1023.0	1471.4	1999.7	2572.3	2864.9	2942.8
22.5°	153.7	162.1	176.8	210.5	351.5	783.1	1376.7	2077.6	2827.0	3102.7	3266.9
25°	130.5	138.9	151.6	172.6	225.2	532.6	1260.9	2159.7	3054.3	3401.6	3555.3
27.5°	113.7	120.0	132.6	149.5	183.1	338.9	1060.9	2269.2	3401.6	3763.7	3803.7
30°	96.8	103.1	113.7	132.6	155.8	240.0	778.8	2283.9	3593.2	3921.6	4033.1
32.5°	84.2	86.3	98.9	115.8	130.5	189.4	547.3	2298.6	3734.2	4125.8	4148.9
35°	69.5	73.7	86.3	96.8	113.7	149.5	414.7	2225.0	3917.4	4336.3	4329.9
37.5°	56.8	63.1	71.6	80.0	92.6	126.3	330.5	2088.1	4146.8	4662.5	4464.7
40°	44.2	50.5	58.9	69.5	77.9	113.7	248.4	1881.9	4386.8	4822.5	4612.0
42.5°	31.6	35.8	44.2	54.7	69.5	94.7	178.9	1637.7	4481.5	5009.9	4788.8
45°	23.2	27.4	33.7	46.3	71.6	75.8	124.2	1414.5	4582.5	5091.9	4748.8
47.5°	12.6	16.8	25.3	40.0	63.1	56.8	88.4	1214.6	4698.3	5165.6	4780.4
50°	4.2	6.3	14.7	42.1	50.5	44.2	69.5	1107.2	4812.0	5180.4	4843.6
52.5°	0.0	0.0	8.4	44.2	37.9	33.7	61.0	1065.1	4782.5	5226.7	4803.6
55°	0.0	0.0	2.1	18.9	21.0	25.3	50.5	1063.0	4990.9	5241.4	5022.5
57.5°	0.0	0.0	0.0	6.3	12.6	21.0	44.2	995.7	5123.5	5607.7	5317.2
60°	0.0	0.0	0.0	2.1	8.4	14.7	33.7	936.7	5258.2	5771.9	5632.9
62.5°	0.0	0.0	0.0	0.0	2.1	6.3	23.2	846.2	4986.7	5759.2	5938.1
65°	0.0	0.0	0.0	0.0	0.0	0.0	14.7	669.4	4485.7	5458.2	5769.8
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	8.4	463.1	3927.9	5079.3	5460.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	280.0	3170.1	4454.1	4631.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	120.0	2262.9	3536.4	3799.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	1399.8	2584.9	2909.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	907.2	1957.6	2208.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	484.1	1227.2	1427.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	210.5	745.2	858.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.4	452.6	515.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.5	92.6
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):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9	2984.9
2.5°	3214.3	3275.3	3298.5	3262.7	3266.9	3193.3	3182.7	3079.6	3037.5	3045.9
5°	3361.7	3450.1	3498.5	3458.5	3368.0	3226.9	3098.5	2976.4	2900.7	2862.8
7.5°	3328.0	3426.9	3488.0	3525.8	3422.7	3195.4	2999.6	2770.2	2673.3	2675.4
10°	3142.7	3349.0	3473.2	3424.8	3376.4	3149.0	2845.9	2597.5	2511.2	2519.7
12.5°	2993.3	3222.7	3296.4	3334.3	3235.4	3054.3	2850.1	2566.0	2469.1	2410.2
15°	2900.7	3071.2	3075.4	3134.3	3094.3	3094.3	2894.3	2616.5	2532.3	2467.0
17.5°	2900.7	2938.6	2934.3	2955.4	3022.8	3102.7	3005.9	2820.7	2654.4	2643.9
20°	2965.9	2848.0	2820.7	2829.1	2885.9	3123.8	3252.2	3020.6	2915.4	2881.7
22.5°	3117.5	2858.6	2692.3	2662.8	2837.5	3121.7	3410.1	3336.4	3153.3	3125.9
25°	3325.9	2839.6	2658.6	2620.7	2753.3	3197.5	3626.9	3641.6	3475.3	3418.5
27.5°	3523.7	2923.8	2654.4	2646.0	2820.7	3180.6	3776.3	3885.8	3698.4	3652.1
30°	3591.1	3008.0	2732.3	2620.7	2845.9	3241.7	3772.1	4058.4	3936.3	3946.8
32.5°	3671.1	3092.2	2740.7	2696.5	2953.3	3340.6	3892.1	4336.3	4247.8	4123.7
35°	3789.0	3205.9	2820.7	2780.7	3029.1	3429.0	3917.4	4540.4	4525.7	4380.5
37.5°	3890.0	3317.4	2987.0	2993.3	3260.6	3572.2	4028.9	4790.9	4765.7	4666.7
40°	3961.6	3473.2	3245.9	3262.7	3462.7	3732.1	4226.8	4917.2	5104.6	4959.3
42.5°	3972.1	3612.1	3542.7	3677.4	3864.7	3980.5	4306.8	5003.5	5273.0	5178.3
45°	4012.1	3833.2	4026.8	4125.8	4279.4	4199.4	4302.6	5150.9	5285.6	5237.2
47.5°	4167.9	4235.2	4479.4	4780.4	4835.1	4572.0	4403.6	5174.0	5357.2	5350.9
50°	4329.9	4666.7	5009.9	5209.8	5279.3	4828.8	4498.3	5155.1	5451.9	5401.4
52.5°	4511.0	5041.4	5536.1	5782.4	5744.5	5113.0	4605.7	5308.8	5626.6	5609.8
55°	4624.6	5209.8	5875.0	6218.1	6188.6	5430.8	4946.7	5529.8	5856.1	5814.0
57.5°	4925.7	5483.5	6211.8	6371.8	6449.7	5847.6	5184.6	5891.8	6047.6	6093.9
60°	5174.0	5662.4	6300.2	6531.8	6559.1	6096.0	5601.4	6264.4	6291.8	6136.0
62.5°	5538.2	5731.9	6112.9	6321.3	6462.3	6237.1	5976.0	6464.4	6287.6	6277.1
65°	5805.5	5504.5	5763.4	5879.2	5969.7	6022.3	6352.8	6601.2	6209.7	6005.5
67.5°	5656.1	5075.1	5026.7	5033.0	5060.4	5378.2	6226.5	6266.5	5776.1	5607.7
70°	4978.3	4163.7	4098.4	4148.9	4012.1	4395.2	5715.0	5696.1	5096.2	4921.4
72.5°	4026.8	3035.4	2923.8	2993.3	3024.9	3431.1	4807.8	4319.4	3717.4	3580.6
75°	3199.6	2225.0	1877.6	2046.0	2153.4	2498.6	3755.3	2934.3	2595.4	2410.2
77.5°	2513.3	1684.0	1460.9	1393.5	1492.4	1816.6	2732.3	1540.8	1359.8	1273.5
80°	1593.5	1237.7	1343.0	1246.1	1288.2	1296.7	1423.0	701.0	557.8	551.5
82.5°	959.9	846.2	1006.2	553.6	1008.3	900.9	591.5	317.9	282.1	282.1
85°	679.9	524.1	347.3	225.2	448.4	494.7	229.4	164.2	143.1	138.9
87.5°	341.0	162.1	77.9	50.5	56.8	92.6	27.4	12.6	12.6	10.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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