

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: P676327

Luminaire Tested: **CCW-SA-2D-830-U-T2-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676327  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-2D-830-U-T2-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @800mA w/  
T2 distribution lens and House Side Shield  
Light Source: (32) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

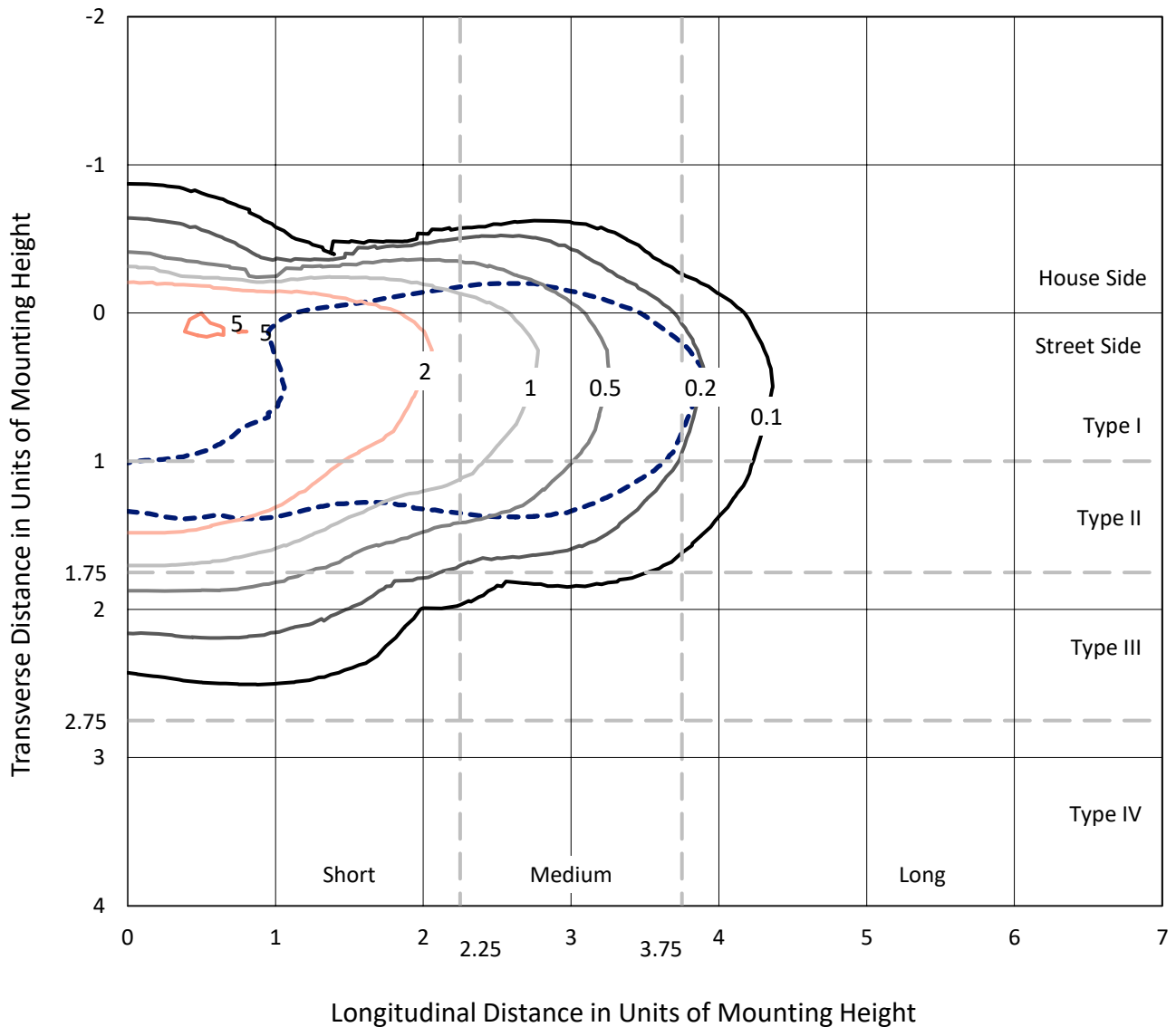
Lumens per Lamp: N/A  
Luminaire Lumens: 6841.8 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 80.8  
Input Voltage (V): 120  
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

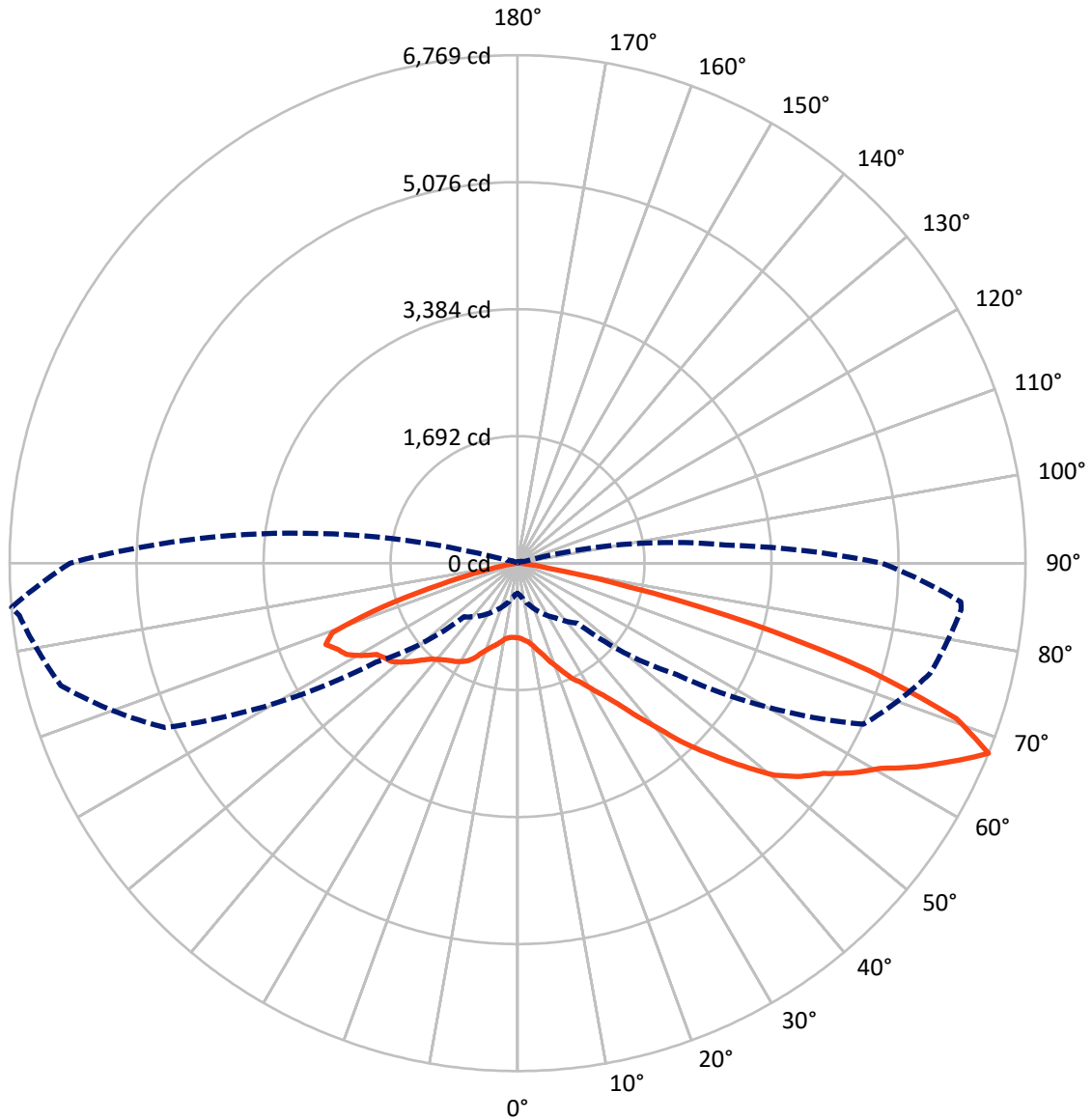
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 5.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 275-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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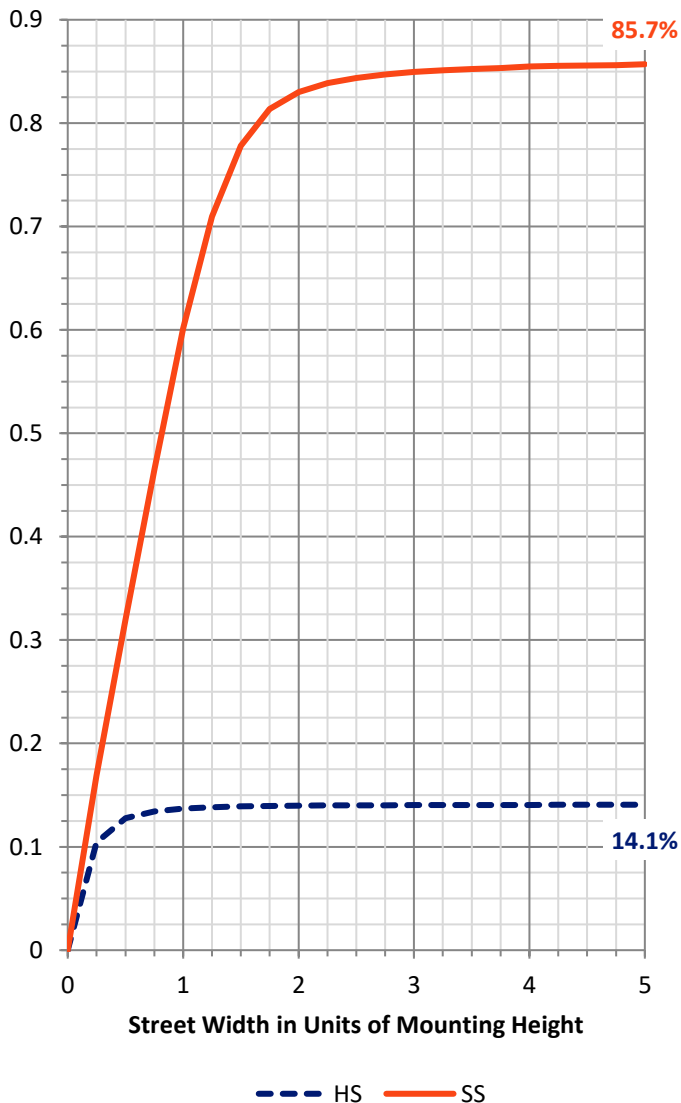
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	972.0	0.0	972.0
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	5869.8	0.0	5869.8
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	6841.8	0.0	6841.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.7	1.3
10°-20°	244.0	3.6
20°-30°	405.1	5.9
30°-40°	697.0	10.2
40°-50°	1252.5	18.3
50°-60°	1783.1	26.1
60°-70°	1625.6	23.8
70°-80°	692.2	10.1
80°-90°	51.5	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°	6841.8	100.0
0°-180°	6841.8	100.0



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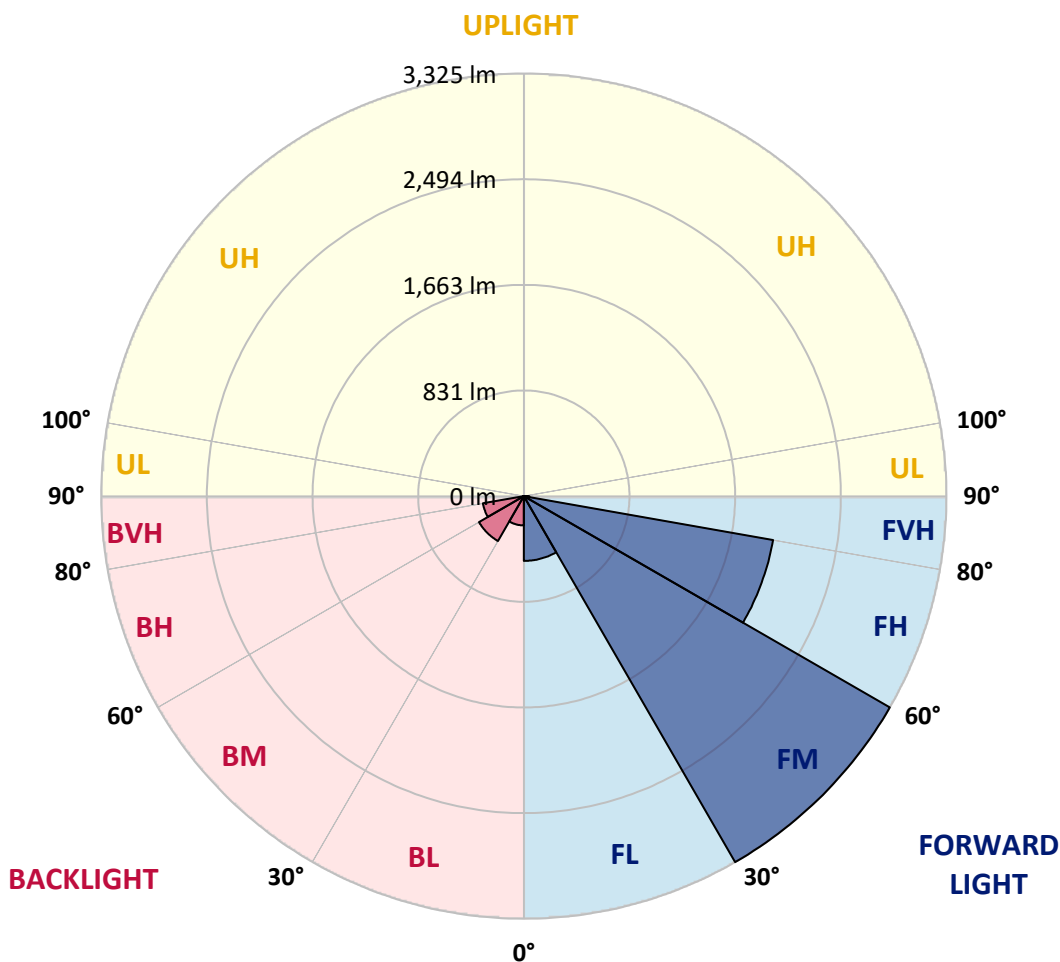
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	509.7	7.4			
FM (30°-60°)	3325.1	48.6			
FH (60°-80°)	1991.2	29.1			G2/5000
FVH (80°-90°)	43.8	0.6			G1/100
BL (0°-30°)	230.1	3.4	B1/500		
BM (30°-60°)	407.5	6.0	B1/1000		
BH (60°-80°)	326.6	4.8	B1/500		G1/500
BVH (80°-90°)	7.8	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9
2.5°	1030.8	1040.6	1040.6	1037.3	1027.5	1021.0	1017.7	1011.2	1004.7	1004.7	1007.9
5°	1040.6	1030.8	1043.8	1027.5	1027.5	1027.5	1040.6	1034.0	1030.8	1014.5	1014.5
7.5°	1040.6	1030.8	1030.8	1040.6	1030.8	1037.3	1053.6	1047.1	1060.1	1030.8	1037.3
10°	1011.2	1007.9	1014.5	1027.5	1030.8	1043.8	1060.1	1092.8	1096.0	1076.4	1073.2
12.5°	952.5	949.2	972.1	978.6	1017.7	1050.4	1099.3	1125.4	1154.7	1144.9	1125.4
15°	910.1	916.6	932.9	959.0	994.9	1053.6	1109.1	1167.8	1220.0	1206.9	1200.4
17.5°	926.4	923.1	926.4	942.7	988.4	1047.1	1141.7	1210.2	1285.2	1285.2	1291.7
20°	975.3	985.1	981.9	972.1	994.9	1043.8	1141.7	1262.4	1386.3	1376.5	1376.5
22.5°	1060.1	1063.4	1043.8	1037.3	1034.0	1063.4	1161.3	1327.6	1471.1	1490.7	1484.2
25°	1148.2	1151.5	1144.9	1125.4	1099.3	1105.8	1197.1	1379.8	1588.6	1621.2	1614.7
27.5°	1295.0	1291.7	1275.4	1252.6	1213.4	1184.1	1252.6	1419.0	1679.9	1735.4	1719.1
30°	1441.8	1432.0	1409.2	1379.8	1343.9	1288.5	1321.1	1494.0	1794.1	1846.3	1810.4
32.5°	1621.2	1601.6	1608.1	1562.5	1487.5	1399.4	1392.9	1562.5	1885.4	1960.4	1931.1
35°	1849.5	1826.7	1794.1	1751.7	1679.9	1562.5	1526.6	1673.4	2038.7	2094.2	2094.2
37.5°	2149.6	2172.5	2133.3	1957.2	1878.9	1768.0	1693.0	1787.6	2172.5	2306.2	2273.6
40°	2456.3	2475.8	2404.1	2273.6	2104.0	1967.0	1921.3	1973.5	2374.7	2534.5	2472.6
42.5°	2704.2	2730.3	2704.2	2534.5	2400.8	2224.7	2143.1	2192.0	2635.7	2828.1	2746.6
45°	2965.1	2991.2	2961.9	2851.0	2720.5	2619.4	2413.9	2475.8	2909.7	3196.7	3105.4
47.5°	3160.8	3193.5	3141.3	3118.4	3014.1	2997.7	2648.7	2717.2	3196.7	3568.6	3454.4
50°	3206.5	3242.4	3288.1	3314.2	3278.3	3317.4	2965.1	3023.8	3496.8	3911.1	3800.2
52.5°	3098.9	3134.7	3235.9	3356.6	3522.9	3640.3	3284.8	3333.7	3810.0	4194.9	4136.2
55°	2782.5	2815.1	3020.6	3183.7	3581.6	3774.1	3591.4	3796.9	4035.0	4491.7	4348.2
57.5°	2250.8	2289.9	2560.6	2811.8	3385.9	3699.1	3774.1	4181.8	4406.9	4710.3	4543.9
60°	1598.4	1621.2	1856.1	2299.7	2844.4	3323.9	3738.2	4468.9	4700.5	5003.8	4915.8
62.5°	919.9	939.4	1184.1	1601.6	2146.4	2775.9	3578.4	4739.6	5016.9	5326.8	5277.9
65°	610.0	616.5	782.9	1011.2	1396.1	2045.3	3173.9	4981.0	5330.0	5584.5	5529.0
67.5°	401.2	437.1	567.6	724.2	893.8	1131.9	2586.7	5082.1	5688.9	5943.3	5930.2
70°	287.1	300.1	407.7	557.8	672.0	636.1	1513.6	4367.8	5672.6	6041.2	5933.5
72.5°	169.6	182.7	270.7	417.5	528.4	404.5	707.8	3089.1	4700.5	4821.2	4791.8
75°	124.0	124.0	166.4	300.1	384.9	290.3	332.7	1953.9	3121.7	3389.2	3385.9
77.5°	88.1	91.3	114.2	179.4	296.8	212.0	182.7	1086.2	1706.0	1865.8	1777.8
80°	52.2	55.5	78.3	107.6	215.3	153.3	120.7	495.8	655.7	662.2	629.6
82.5°	39.1	39.1	52.2	75.0	150.1	104.4	75.0	189.2	212.0	192.5	163.1
85°	22.8	19.6	39.1	55.5	88.1	58.7	52.2	88.1	97.9	71.8	65.2
87.5°	6.5	6.5	16.3	19.6	39.1	32.6	22.8	32.6	45.7	26.1	19.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9
2.5°	1001.4	991.6	975.3	968.8	946.0	936.2	929.7	913.3	916.6	906.8	906.8
5°	991.6	991.6	959.0	923.1	887.3	864.4	838.3	805.7	805.7	792.7	795.9
7.5°	1027.5	1001.4	959.0	893.8	835.1	782.9	760.0	727.4	707.8	698.1	698.1
10°	1050.4	1024.3	952.5	874.2	799.2	733.9	685.0	639.3	613.2	613.2	610.0
12.5°	1112.3	1073.2	978.6	870.9	760.0	662.2	587.2	535.0	499.1	473.0	479.5
15°	1164.5	1122.1	991.6	844.8	691.5	554.5	463.2	365.3	316.4	290.3	280.5
17.5°	1246.1	1167.8	1021.0	799.2	587.2	433.8	300.1	218.6	199.0	195.7	195.7
20°	1314.6	1223.2	1024.3	711.1	482.8	277.3	192.5	179.4	169.6	166.4	163.1
22.5°	1409.2	1295.0	1011.2	610.0	345.8	185.9	163.1	150.1	143.5	133.7	133.7
25°	1507.0	1389.6	985.1	515.4	212.0	159.8	143.5	130.5	117.4	110.9	114.2
27.5°	1611.4	1461.4	910.1	401.2	163.1	140.3	117.4	107.6	101.1	97.9	97.9
30°	1696.2	1507.0	799.2	267.5	146.8	124.0	104.4	94.6	88.1	84.8	84.8
32.5°	1758.2	1546.2	675.2	179.4	133.7	110.9	94.6	84.8	78.3	75.0	75.0
35°	1862.6	1575.5	561.1	153.3	120.7	97.9	81.5	75.0	68.5	68.5	68.5
37.5°	2022.4	1614.7	446.9	140.3	110.9	88.1	78.3	68.5	65.2	62.0	62.0
40°	2162.7	1663.6	319.7	127.2	101.1	81.5	68.5	62.0	58.7	55.5	55.5
42.5°	2364.9	1719.1	208.8	114.2	91.3	75.0	62.0	55.5	52.2	48.9	48.9
45°	2622.6	1810.4	163.1	101.1	81.5	68.5	58.7	52.2	45.7	45.7	42.4
47.5°	2896.6	1921.3	146.8	94.6	75.0	62.0	52.2	45.7	42.4	39.1	39.1
50°	3151.1	2028.9	137.0	88.1	68.5	58.7	48.9	42.4	35.9	32.6	32.6
52.5°	3379.4	2130.1	130.5	81.5	65.2	52.2	42.4	35.9	32.6	29.4	29.4
55°	3500.1	2175.7	127.2	78.3	58.7	48.9	39.1	32.6	29.4	26.1	26.1
57.5°	3689.3	2234.4	124.0	75.0	55.5	42.4	35.9	29.4	26.1	22.8	22.8
60°	3995.9	2426.9	120.7	71.8	52.2	42.4	32.6	26.1	19.6	16.3	16.3
62.5°	4250.3	2586.7	107.6	62.0	45.7	35.9	26.1	19.6	13.0	9.8	9.8
65°	4540.7	2661.8	94.6	55.5	39.1	29.4	19.6	13.0	9.8	3.3	3.3
67.5°	4857.1	2775.9	78.3	48.9	35.9	22.8	16.3	9.8	3.3	0.0	0.0
70°	4690.7	2632.4	65.2	42.4	32.6	19.6	13.0	6.5	0.0	0.0	0.0
72.5°	3676.2	1885.4	52.2	39.1	29.4	19.6	13.0	3.3	0.0	0.0	0.0
75°	2456.3	1066.7	45.7	32.6	22.8	16.3	9.8	3.3	0.0	0.0	0.0
77.5°	1334.1	479.5	39.1	29.4	19.6	13.0	9.8	3.3	0.0	0.0	0.0
80°	433.8	189.2	32.6	26.1	19.6	13.0	9.8	3.3	0.0	0.0	0.0
82.5°	117.4	58.7	32.6	26.1	19.6	13.0	9.8	3.3	0.0	0.0	0.0
85°	48.9	39.1	32.6	26.1	19.6	13.0	9.8	3.3	0.0	0.0	0.0
87.5°	19.6	13.0	13.0	16.3	13.0	9.8	6.5	3.3	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°	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9
2.5°	910.1	916.6	919.9	919.9	936.2	952.5	972.1	988.4	988.4	998.2	1007.9
5°	799.2	805.7	815.5	844.8	877.5	913.3	949.2	975.3	1011.2	1027.5	1037.3
7.5°	707.8	714.4	740.5	769.8	815.5	877.5	939.4	998.2	1034.0	1050.4	1063.4
10°	613.2	623.0	652.4	704.6	763.3	838.3	910.1	1011.2	1069.9	1102.5	1115.6
12.5°	476.2	502.3	541.5	596.9	672.0	786.1	919.9	1024.3	1125.4	1164.5	1190.6
15°	300.1	322.9	384.9	473.0	574.1	707.8	893.8	1043.8	1184.1	1223.2	1265.6
17.5°	192.5	195.7	215.3	309.9	440.4	610.0	854.6	1073.2	1249.3	1304.8	1370.0
20°	163.1	169.6	172.9	185.9	293.6	502.3	773.1	1109.1	1327.6	1402.6	1464.6
22.5°	137.0	140.3	146.8	156.6	176.1	365.3	662.2	1109.1	1396.1	1507.0	1578.8
25°	110.9	117.4	124.0	133.7	153.3	228.3	548.0	1089.5	1477.7	1614.7	1706.0
27.5°	97.9	97.9	104.4	114.2	130.5	159.8	433.8	1030.8	1539.6	1679.9	1800.6
30°	84.8	88.1	91.3	101.1	117.4	140.3	300.1	936.2	1604.9	1807.1	1944.1
32.5°	75.0	75.0	81.5	88.1	104.4	127.2	192.5	792.7	1689.7	1905.0	2097.4
35°	68.5	68.5	71.8	78.3	94.6	114.2	150.1	672.0	1790.8	2090.9	2302.9
37.5°	62.0	62.0	65.2	71.8	84.8	101.1	137.0	577.4	1895.2	2276.8	2586.7
40°	55.5	55.5	58.7	65.2	75.0	91.3	124.0	466.5	2025.7	2550.9	2896.6
42.5°	48.9	48.9	52.2	58.7	68.5	81.5	107.6	349.0	2198.6	2847.7	3297.8
45°	42.4	42.4	45.7	52.2	58.7	75.0	97.9	267.5	2387.8	3177.2	3650.1
47.5°	35.9	39.1	42.4	48.9	55.5	68.5	88.1	234.9	2573.7	3526.2	4041.6
50°	32.6	32.6	35.9	42.4	52.2	62.0	81.5	231.6	2762.9	3793.7	4442.8
52.5°	29.4	29.4	32.6	39.1	48.9	58.7	78.3	238.1	2919.5	4041.6	4723.3
55°	26.1	26.1	29.4	32.6	42.4	55.5	71.8	244.6	3030.4	4292.7	4948.4
57.5°	22.8	22.8	26.1	32.6	39.1	48.9	65.2	251.2	3209.8	4540.7	5274.6
60°	16.3	16.3	22.8	29.4	35.9	42.4	62.0	257.7	3496.8	4883.2	5551.9
62.5°	9.8	9.8	13.0	22.8	29.4	39.1	55.5	244.6	3764.3	5323.5	5975.9
65°	3.3	6.5	9.8	13.0	22.8	32.6	45.7	221.8	3989.4	5763.9	6367.3
67.5°	0.0	0.0	3.3	9.8	19.6	26.1	39.1	163.1	4025.3	5962.9	6768.6
70°	0.0	0.0	3.3	9.8	16.3	26.1	35.9	91.3	3428.3	5326.8	6204.3
72.5°	0.0	0.0	0.0	6.5	16.3	22.8	32.6	68.5	2528.0	4015.5	4902.7
75°	0.0	0.0	0.0	3.3	13.0	19.6	29.4	52.2	1536.4	2678.1	3200.0
77.5°	0.0	0.0	0.0	3.3	9.8	19.6	29.4	45.7	541.5	1275.4	1503.8
80°	0.0	0.0	0.0	6.5	13.0	19.6	26.1	39.1	130.5	319.7	430.6
82.5°	0.0	0.0	0.0	3.3	9.8	16.3	22.8	32.6	52.2	94.6	150.1
85°	0.0	0.0	0.0	3.3	6.5	16.3	22.8	29.4	35.9	45.7	65.2
87.5°	0.0	0.0	0.0	0.0	3.3	6.5	9.8	13.0	13.0	13.0	22.8
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):**

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9	994.9
2.5°	1004.7	1017.7	1024.3	1037.3	1043.8	1040.6	1037.3	1047.1	1040.6	1030.8
5°	1040.6	1040.6	1050.4	1053.6	1053.6	1043.8	1050.4	1047.1	1040.6	1040.6
7.5°	1079.7	1096.0	1096.0	1076.4	1073.2	1066.7	1066.7	1040.6	1030.8	1040.6
10°	1118.9	1131.9	1135.2	1112.3	1083.0	1069.9	1053.6	1021.0	1004.7	1011.2
12.5°	1200.4	1200.4	1164.5	1138.4	1099.3	1053.6	1014.5	968.8	946.0	952.5
15°	1259.1	1272.2	1223.2	1164.5	1096.0	1011.2	968.8	932.9	919.9	910.1
17.5°	1373.3	1347.2	1268.9	1184.1	1086.2	998.2	968.8	936.2	926.4	926.4
20°	1471.1	1458.1	1340.7	1187.4	1083.0	1024.3	1004.7	988.4	985.1	975.3
22.5°	1604.9	1546.2	1396.1	1223.2	1118.9	1066.7	1060.1	1076.4	1066.7	1060.1
25°	1706.0	1657.1	1438.5	1275.4	1174.3	1158.0	1167.8	1184.1	1158.0	1148.2
27.5°	1843.0	1751.7	1520.1	1343.9	1249.3	1265.6	1298.3	1301.5	1285.2	1295.0
30°	1970.2	1872.4	1582.1	1422.2	1376.5	1392.9	1441.8	1477.7	1454.8	1441.8
32.5°	2152.9	2002.8	1706.0	1552.7	1536.4	1578.8	1634.2	1657.1	1627.7	1621.2
35°	2345.4	2152.9	1833.2	1699.5	1728.8	1787.6	1836.5	1875.6	1830.0	1849.5
37.5°	2645.5	2394.3	2048.5	1931.1	1944.1	1967.0	2058.3	2165.9	2188.8	2149.6
40°	2958.6	2655.2	2247.5	2156.2	2185.5	2247.5	2355.1	2456.3	2508.4	2456.3
42.5°	3320.7	2906.4	2554.1	2446.5	2475.8	2563.9	2707.4	2789.0	2782.5	2704.2
45°	3767.6	3255.4	2841.2	2707.4	2815.1	2893.4	3036.9	3046.7	2984.7	2965.1
47.5°	4110.1	3549.0	3151.1	3066.2	3213.0	3216.3	3248.9	3252.2	3183.7	3160.8
50°	4488.5	3888.3	3496.8	3372.9	3620.8	3506.6	3418.5	3359.8	3255.4	3206.5
52.5°	4860.3	4129.6	3816.5	3689.3	3947.0	3643.6	3483.8	3304.4	3151.1	3098.9
55°	5059.3	4527.6	4283.0	3986.1	4018.7	3682.8	3281.5	3056.5	2795.5	2782.5
57.5°	5294.2	4795.1	4677.7	4188.4	3898.0	3408.8	2860.7	2563.9	2283.4	2250.8
60°	5571.4	5219.1	5095.2	4155.7	3470.7	2864.0	2267.1	1885.4	1621.2	1598.4
62.5°	5881.3	5721.5	5352.9	3836.1	2756.4	2015.9	1497.2	1177.6	932.9	919.9
65°	6370.6	6142.3	5489.9	3229.3	1823.4	1291.7	994.9	763.3	616.5	610.0
67.5°	6677.2	6302.1	5183.3	2302.9	1011.2	854.6	698.1	554.5	427.3	401.2
70°	6243.4	5783.5	4100.3	1317.8	587.2	649.1	538.2	371.9	293.6	287.1
72.5°	4987.5	4292.7	2759.6	619.8	365.3	508.9	391.4	251.2	176.1	169.6
75°	3402.2	2700.9	1732.1	287.1	257.7	371.9	287.1	146.8	124.0	124.0
77.5°	1520.1	1376.5	887.3	176.1	192.5	283.8	166.4	101.1	91.3	88.1
80°	463.2	486.0	362.1	120.7	143.5	215.3	101.1	68.5	55.5	52.2
82.5°	156.6	182.7	163.1	71.8	97.9	153.3	68.5	45.7	39.1	39.1
85°	75.0	91.3	81.5	45.7	52.2	75.0	55.5	35.9	22.8	22.8
87.5°	29.4	42.4	29.4	19.6	29.4	39.1	22.8	16.3	6.5	6.5
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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