

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: P676328

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

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P676328  
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-T2-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA 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: 8387.9 lumens  
Efficiency: N/A  
Efficacy: 78.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

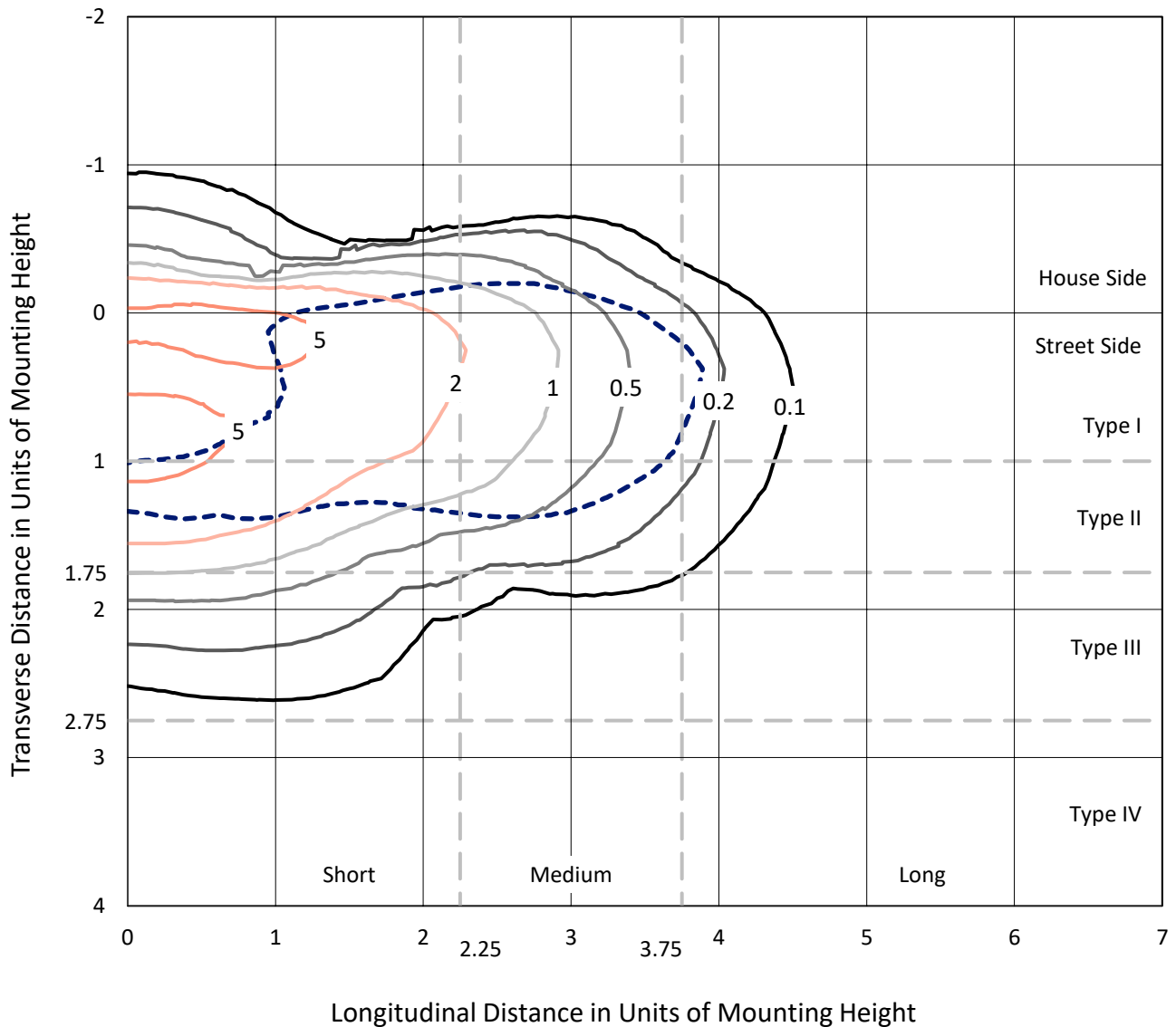
Input Watts (W): 106.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

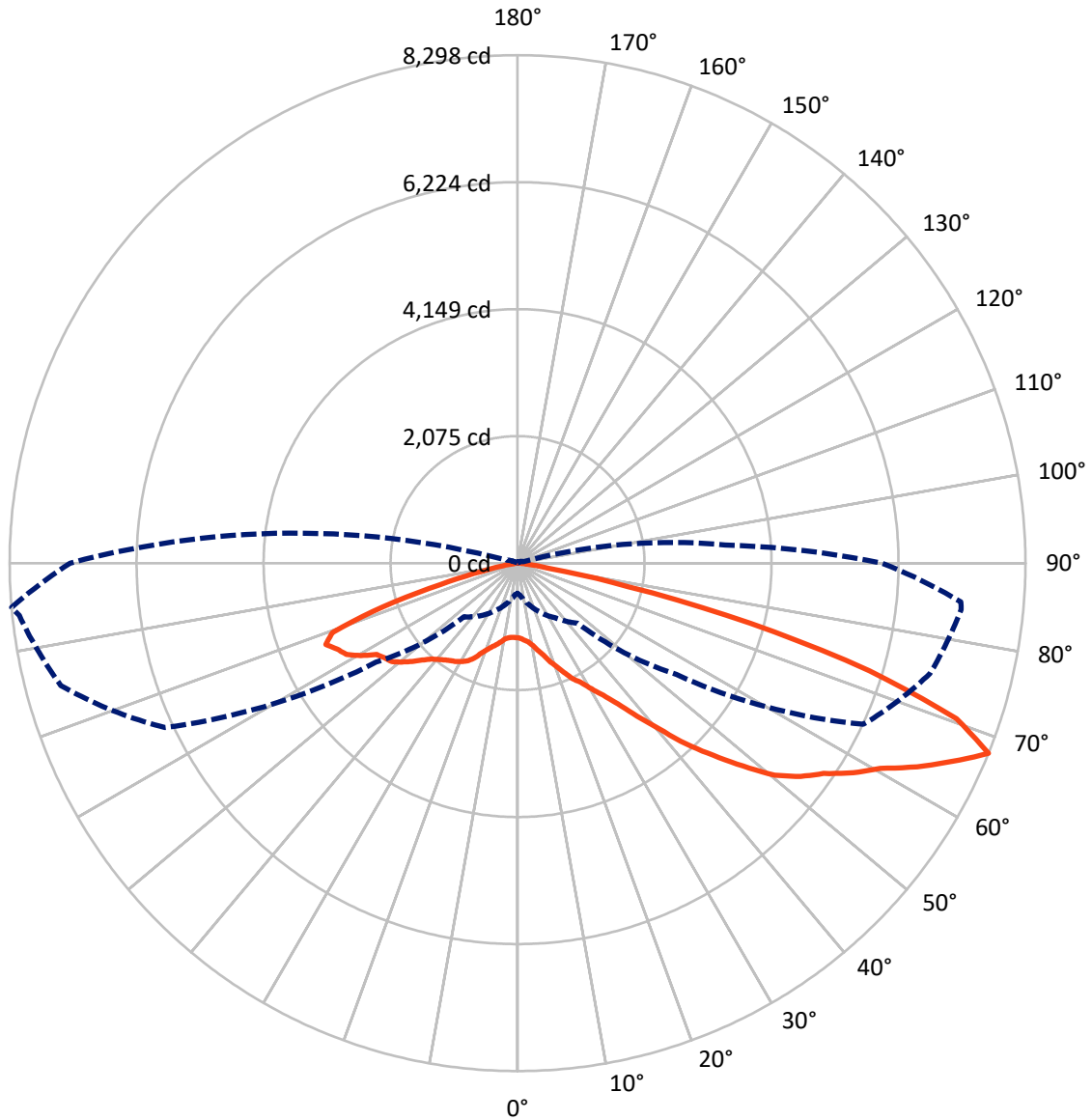
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.4 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	1191.7	0.0	1191.7
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	7196.3	0.0	7196.3
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	8387.9	0.0	8387.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.2	1.3
10°-20°	299.1	3.6
20°-30°	496.7	5.9
30°-40°	854.5	10.2
40°-50°	1535.6	18.3
50°-60°	2186.1	26.1
60°-70°	1993.0	23.8
70°-80°	848.7	10.1
80°-90°	63.2	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°	8387.9	100.0
0°-180°	8387.9	100.0



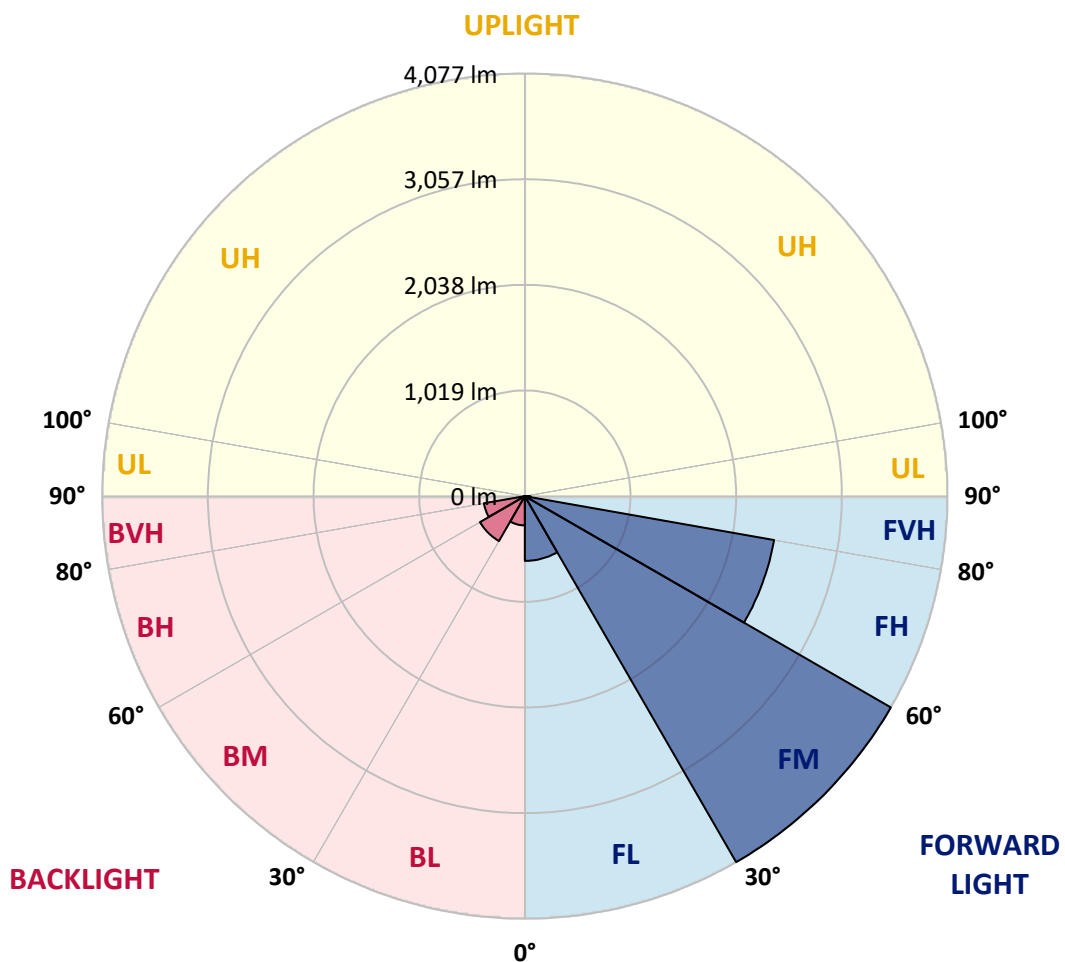
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	624.9	7.4			
FM (30°-60°)	4076.5	48.6			
FH (60°-80°)	2441.2	29.1			G2/5000
FVH (80°-90°)	53.7	0.6			G1/100
BL (0°-30°)	282.1	3.4	B1/500		
BM (30°-60°)	499.6	6.0	B1/1000		
BH (60°-80°)	400.4	4.8	B1/500		G1/500
BVH (80°-90°)	9.5	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7
2.5°	1263.7	1275.7	1275.7	1271.7	1259.7	1251.7	1247.7	1239.7	1231.7	1231.7	1235.7
5°	1275.7	1263.7	1279.7	1259.7	1259.7	1259.7	1275.7	1267.7	1263.7	1243.7	1243.7
7.5°	1275.7	1263.7	1263.7	1275.7	1263.7	1271.7	1291.7	1283.7	1299.7	1263.7	1271.7
10°	1239.7	1235.7	1243.7	1259.7	1263.7	1279.7	1299.7	1339.7	1343.7	1319.7	1315.7
12.5°	1167.7	1163.7	1191.7	1199.7	1247.7	1287.7	1347.7	1379.7	1415.7	1403.7	1379.7
15°	1115.7	1123.7	1143.7	1175.7	1219.7	1291.7	1359.7	1431.7	1495.7	1479.7	1471.7
17.5°	1135.7	1131.7	1135.7	1155.7	1211.7	1283.7	1399.7	1483.7	1575.6	1575.6	1583.6
20°	1195.7	1207.7	1203.7	1191.7	1219.7	1279.7	1399.7	1547.6	1699.6	1687.6	1687.6
22.5°	1299.7	1303.7	1279.7	1271.7	1267.7	1303.7	1423.7	1627.6	1803.6	1827.6	1819.6
25°	1407.7	1411.7	1403.7	1379.7	1347.7	1355.7	1467.7	1691.6	1947.6	1987.5	1979.6
27.5°	1587.6	1583.6	1563.6	1535.7	1487.7	1451.7	1535.7	1739.6	2059.5	2127.5	2107.5
30°	1767.6	1755.6	1727.6	1691.6	1647.6	1579.6	1619.6	1831.6	2199.5	2263.5	2219.5
32.5°	1987.5	1963.6	1971.6	1915.6	1823.6	1715.6	1707.6	1915.6	2311.5	2403.5	2367.5
35°	2267.5	2239.5	2199.5	2147.5	2059.5	1915.6	1871.6	2051.5	2499.4	2567.4	2567.4
37.5°	2635.4	2663.4	2615.4	2399.5	2303.5	2167.5	2075.5	2191.5	2663.4	2827.4	2787.4
40°	3011.3	3035.3	2947.3	2787.4	2579.4	2411.5	2355.5	2419.5	2911.3	3107.3	3031.3
42.5°	3315.2	3347.2	3315.2	3107.3	2943.3	2727.4	2627.4	2687.4	3231.3	3467.2	3367.2
45°	3635.2	3667.2	3631.2	3495.2	3335.2	3211.3	2959.3	3035.3	3567.2	3919.1	3807.1
47.5°	3875.1	3915.1	3851.1	3823.1	3695.2	3675.2	3247.3	3331.2	3919.1	4375.0	4235.0
50°	3931.1	3975.1	4031.1	4063.1	4019.1	4067.1	3635.2	3707.2	4287.0	4794.9	4658.9
52.5°	3799.1	3843.1	3967.1	4115.1	4319.0	4463.0	4027.1	4087.1	4670.9	5142.8	5070.8
55°	3411.2	3451.2	3703.2	3903.1	4391.0	4626.9	4403.0	4654.9	4946.9	5506.7	5330.8
57.5°	2759.4	2807.4	3139.3	3447.2	4151.1	4535.0	4626.9	5126.8	5402.8	5774.7	5570.7
60°	1959.6	1987.5	2275.5	2819.4	3487.2	4075.1	4583.0	5478.8	5762.7	6134.6	6026.6
62.5°	1127.7	1151.7	1451.7	1963.6	2631.4	3403.2	4387.0	5810.7	6150.6	6530.5	6470.5
65°	747.8	755.8	959.8	1239.7	1711.6	2507.4	3891.1	6106.6	6534.5	6846.4	6778.5
67.5°	491.9	535.9	695.8	887.8	1095.8	1387.7	3171.3	6230.6	6974.4	7286.3	7270.3
70°	351.9	367.9	499.9	683.8	823.8	779.8	1855.6	5354.8	6954.4	7406.3	7274.3
72.5°	208.0	223.9	331.9	511.9	647.9	495.9	867.8	3787.1	5762.7	5910.7	5874.7
75°	152.0	152.0	204.0	367.9	471.9	355.9	407.9	2395.5	3827.1	4155.1	4151.1
77.5°	108.0	112.0	140.0	220.0	363.9	259.9	223.9	1331.7	2091.5	2287.5	2179.5
80°	64.0	68.0	96.0	132.0	263.9	188.0	148.0	607.9	803.8	811.8	771.8
82.5°	48.0	48.0	64.0	92.0	184.0	128.0	92.0	231.9	259.9	235.9	200.0
85°	28.0	24.0	48.0	68.0	108.0	72.0	64.0	108.0	120.0	88.0	80.0
87.5°	8.0	8.0	20.0	24.0	48.0	40.0	28.0	40.0	56.0	32.0	24.0
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°	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7
2.5°	1227.7	1215.7	1195.7	1187.7	1159.7	1147.7	1139.7	1119.7	1123.7	1111.7	1111.7
5°	1215.7	1215.7	1175.7	1131.7	1087.8	1059.8	1027.8	987.8	987.8	971.8	975.8
7.5°	1259.7	1227.7	1175.7	1095.8	1023.8	959.8	931.8	891.8	867.8	855.8	855.8
10°	1287.7	1255.7	1167.7	1071.8	979.8	899.8	839.8	783.8	751.8	751.8	747.8
12.5°	1363.7	1315.7	1199.7	1067.8	931.8	811.8	719.8	655.9	611.9	579.9	587.9
15°	1427.7	1375.7	1215.7	1035.8	847.8	679.8	567.9	447.9	387.9	355.9	343.9
17.5°	1527.7	1431.7	1251.7	979.8	719.8	531.9	367.9	267.9	243.9	239.9	239.9
20°	1611.6	1499.7	1255.7	871.8	591.9	339.9	235.9	220.0	208.0	204.0	200.0
22.5°	1727.6	1587.6	1239.7	747.8	423.9	227.9	200.0	184.0	176.0	164.0	164.0
25°	1847.6	1703.6	1207.7	631.9	259.9	196.0	176.0	160.0	144.0	136.0	140.0
27.5°	1975.6	1791.6	1115.7	491.9	200.0	172.0	144.0	132.0	124.0	120.0	120.0
30°	2079.5	1847.6	979.8	327.9	180.0	152.0	128.0	116.0	108.0	104.0	104.0
32.5°	2155.5	1895.6	827.8	220.0	164.0	136.0	116.0	104.0	96.0	92.0	92.0
35°	2283.5	1931.6	687.8	188.0	148.0	120.0	100.0	92.0	84.0	84.0	84.0
37.5°	2479.4	1979.6	547.9	172.0	136.0	108.0	96.0	84.0	80.0	76.0	76.0
40°	2651.4	2039.5	391.9	156.0	124.0	100.0	84.0	76.0	72.0	68.0	68.0
42.5°	2899.3	2107.5	255.9	140.0	112.0	92.0	76.0	68.0	64.0	60.0	60.0
45°	3215.3	2219.5	200.0	124.0	100.0	84.0	72.0	64.0	56.0	56.0	52.0
47.5°	3551.2	2355.5	180.0	116.0	92.0	76.0	64.0	56.0	52.0	48.0	48.0
50°	3863.1	2487.4	168.0	108.0	84.0	72.0	60.0	52.0	44.0	40.0	40.0
52.5°	4143.1	2611.4	160.0	100.0	80.0	64.0	52.0	44.0	40.0	36.0	36.0
55°	4291.0	2667.4	156.0	96.0	72.0	60.0	48.0	40.0	36.0	32.0	32.0
57.5°	4523.0	2739.4	152.0	92.0	68.0	52.0	44.0	36.0	32.0	28.0	28.0
60°	4898.9	2975.3	148.0	88.0	64.0	52.0	40.0	32.0	24.0	20.0	20.0
62.5°	5210.8	3171.3	132.0	76.0	56.0	44.0	32.0	24.0	16.0	12.0	12.0
65°	5566.7	3263.3	116.0	68.0	48.0	36.0	24.0	16.0	12.0	4.0	4.0
67.5°	5954.6	3403.2	96.0	60.0	44.0	28.0	20.0	12.0	4.0	0.0	0.0
70°	5750.7	3227.3	80.0	52.0	40.0	24.0	16.0	8.0	0.0	0.0	0.0
72.5°	4507.0	2311.5	64.0	48.0	36.0	24.0	16.0	4.0	0.0	0.0	0.0
75°	3011.3	1307.7	56.0	40.0	28.0	20.0	12.0	4.0	0.0	0.0	0.0
77.5°	1635.6	587.9	48.0	36.0	24.0	16.0	12.0	4.0	0.0	0.0	0.0
80°	531.9	231.9	40.0	32.0	24.0	16.0	12.0	4.0	0.0	0.0	0.0
82.5°	144.0	72.0	40.0	32.0	24.0	16.0	12.0	4.0	0.0	0.0	0.0
85°	60.0	48.0	40.0	32.0	24.0	16.0	12.0	4.0	0.0	0.0	0.0
87.5°	24.0	16.0	16.0	20.0	16.0	12.0	8.0	4.0	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°	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7
2.5°	1115.7	1123.7	1127.7	1127.7	1147.7	1167.7	1191.7	1211.7	1211.7	1223.7	1235.7
5°	979.8	987.8	999.8	1035.8	1075.8	1119.7	1163.7	1195.7	1239.7	1259.7	1271.7
7.5°	867.8	875.8	907.8	943.8	999.8	1075.8	1151.7	1223.7	1267.7	1287.7	1303.7
10°	751.8	763.8	799.8	863.8	935.8	1027.8	1115.7	1239.7	1311.7	1351.7	1367.7
12.5°	583.9	615.9	663.8	731.8	823.8	963.8	1127.7	1255.7	1379.7	1427.7	1459.7
15°	367.9	395.9	471.9	579.9	703.8	867.8	1095.8	1279.7	1451.7	1499.7	1551.6
17.5°	235.9	239.9	263.9	379.9	539.9	747.8	1047.8	1315.7	1531.7	1599.6	1679.6
20°	200.0	208.0	212.0	227.9	359.9	615.9	947.8	1359.7	1627.6	1719.6	1795.6
22.5°	168.0	172.0	180.0	192.0	216.0	447.9	811.8	1359.7	1711.6	1847.6	1935.6
25°	136.0	144.0	152.0	164.0	188.0	279.9	671.8	1335.7	1811.6	1979.6	2091.5
27.5°	120.0	120.0	128.0	140.0	160.0	196.0	531.9	1263.7	1887.6	2059.5	2207.5
30°	104.0	108.0	112.0	124.0	144.0	172.0	367.9	1147.7	1967.6	2215.5	2383.5
32.5°	92.0	92.0	100.0	108.0	128.0	156.0	235.9	971.8	2071.5	2335.5	2571.4
35°	84.0	84.0	88.0	96.0	116.0	140.0	184.0	823.8	2195.5	2563.4	2823.4
37.5°	76.0	76.0	80.0	88.0	104.0	124.0	168.0	707.8	2323.5	2791.4	3171.3
40°	68.0	68.0	72.0	80.0	92.0	112.0	152.0	571.9	2483.4	3127.3	3551.2
42.5°	60.0	60.0	64.0	72.0	84.0	100.0	132.0	427.9	2695.4	3491.2	4043.1
45°	52.0	52.0	56.0	64.0	72.0	92.0	120.0	327.9	2927.3	3895.1	4475.0
47.5°	44.0	48.0	52.0	60.0	68.0	84.0	108.0	287.9	3155.3	4323.0	4954.9
50°	40.0	40.0	44.0	52.0	64.0	76.0	100.0	283.9	3387.2	4650.9	5446.8
52.5°	36.0	36.0	40.0	48.0	60.0	72.0	96.0	291.9	3579.2	4954.9	5790.7
55°	32.0	32.0	36.0	40.0	52.0	68.0	88.0	299.9	3715.2	5262.8	6066.6
57.5°	28.0	28.0	32.0	40.0	48.0	60.0	80.0	307.9	3935.1	5566.7	6466.5
60°	20.0	20.0	28.0	36.0	44.0	52.0	76.0	315.9	4287.0	5986.6	6806.5
62.5°	12.0	12.0	16.0	28.0	36.0	48.0	68.0	299.9	4615.0	6526.5	7326.3
65°	4.0	8.0	12.0	16.0	28.0	40.0	56.0	271.9	4890.9	7066.4	7806.2
67.5°	0.0	0.0	4.0	12.0	24.0	32.0	48.0	200.0	4934.9	7310.3	8298.1
70°	0.0	0.0	4.0	12.0	20.0	32.0	44.0	112.0	4203.0	6530.5	7606.3
72.5°	0.0	0.0	0.0	8.0	20.0	28.0	40.0	84.0	3099.3	4922.9	6010.6
75°	0.0	0.0	0.0	4.0	16.0	24.0	36.0	64.0	1883.6	3283.3	3923.1
77.5°	0.0	0.0	0.0	4.0	12.0	24.0	36.0	56.0	663.8	1563.6	1843.6
80°	0.0	0.0	0.0	8.0	16.0	24.0	32.0	48.0	160.0	391.9	527.9
82.5°	0.0	0.0	0.0	4.0	12.0	20.0	28.0	40.0	64.0	116.0	184.0
85°	0.0	0.0	0.0	4.0	8.0	20.0	28.0	36.0	44.0	56.0	80.0
87.5°	0.0	0.0	0.0	0.0	4.0	8.0	12.0	16.0	16.0	16.0	28.0
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):**

	276°	285°	295°	305°	315°	325°	335°	345°	355°	360°
0°	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7	1219.7
2.5°	1231.7	1247.7	1255.7	1271.7	1279.7	1275.7	1271.7	1283.7	1275.7	1263.7
5°	1275.7	1275.7	1287.7	1291.7	1291.7	1279.7	1287.7	1283.7	1275.7	1275.7
7.5°	1323.7	1343.7	1343.7	1319.7	1315.7	1307.7	1307.7	1275.7	1263.7	1275.7
10°	1371.7	1387.7	1391.7	1363.7	1327.7	1311.7	1291.7	1251.7	1231.7	1239.7
12.5°	1471.7	1471.7	1427.7	1395.7	1347.7	1291.7	1243.7	1187.7	1159.7	1167.7
15°	1543.6	1559.6	1499.7	1427.7	1343.7	1239.7	1187.7	1143.7	1127.7	1115.7
17.5°	1683.6	1651.6	1555.6	1451.7	1331.7	1223.7	1187.7	1147.7	1135.7	1135.7
20°	1803.6	1787.6	1643.6	1455.7	1327.7	1255.7	1231.7	1211.7	1207.7	1195.7
22.5°	1967.6	1895.6	1711.6	1499.7	1371.7	1307.7	1299.7	1319.7	1307.7	1299.7
25°	2091.5	2031.5	1763.6	1563.6	1439.7	1419.7	1431.7	1451.7	1419.7	1407.7
27.5°	2259.5	2147.5	1863.6	1647.6	1531.7	1551.6	1591.6	1595.6	1575.6	1587.6
30°	2415.5	2295.5	1939.6	1743.6	1687.6	1707.6	1767.6	1811.6	1783.6	1767.6
32.5°	2639.4	2455.4	2091.5	1903.6	1883.6	1935.6	2003.5	2031.5	1995.5	1987.5
35°	2875.3	2639.4	2247.5	2083.5	2119.5	2191.5	2251.5	2299.5	2243.5	2267.5
37.5°	3243.3	2935.3	2511.4	2367.5	2383.5	2411.5	2523.4	2655.4	2683.4	2635.4
40°	3627.2	3255.3	2755.4	2643.4	2679.4	2755.4	2887.3	3011.3	3075.3	3011.3
42.5°	4071.1	3563.2	3131.3	2999.3	3035.3	3143.3	3319.2	3419.2	3411.2	3315.2
45°	4619.0	3991.1	3483.2	3319.2	3451.2	3547.2	3723.2	3735.2	3659.2	3635.2
47.5°	5038.9	4351.0	3863.1	3759.1	3939.1	3943.1	3983.1	3987.1	3903.1	3875.1
50°	5502.8	4766.9	4287.0	4135.1	4439.0	4299.0	4191.0	4119.1	3991.1	3931.1
52.5°	5958.6	5062.9	4678.9	4523.0	4838.9	4467.0	4271.0	4051.1	3863.1	3799.1
55°	6202.6	5550.7	5250.8	4886.9	4926.9	4515.0	4023.1	3747.1	3427.2	3411.2
57.5°	6490.5	5878.7	5734.7	5134.8	4778.9	4179.1	3507.2	3143.3	2799.4	2759.4
60°	6830.4	6398.5	6246.6	5094.8	4255.0	3511.2	2779.4	2311.5	1987.5	1959.6
62.5°	7210.4	7014.4	6562.5	4702.9	3379.2	2471.4	1835.6	1443.7	1143.7	1127.7
65°	7810.2	7530.3	6730.5	3959.1	2235.5	1583.6	1219.7	935.8	755.8	747.8
67.5°	8186.1	7726.2	6354.6	2823.4	1239.7	1047.8	855.8	679.8	523.9	491.9
70°	7654.3	7090.4	5026.9	1615.6	719.8	795.8	659.9	455.9	359.9	351.9
72.5°	6114.6	5262.8	3383.2	759.8	447.9	623.9	479.9	307.9	216.0	208.0
75°	4171.1	3311.2	2123.5	351.9	315.9	455.9	351.9	180.0	152.0	152.0
77.5°	1863.6	1687.6	1087.8	216.0	235.9	347.9	204.0	124.0	112.0	108.0
80°	567.9	595.9	443.9	148.0	176.0	263.9	124.0	84.0	68.0	64.0
82.5°	192.0	223.9	200.0	88.0	120.0	188.0	84.0	56.0	48.0	48.0
85°	92.0	112.0	100.0	56.0	64.0	92.0	68.0	44.0	28.0	28.0
87.5°	36.0	52.0	36.0	24.0	36.0	48.0	28.0	20.0	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)