

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: P676361

Luminaire Tested: **CCW-SA-2E-850-U-T2-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676361
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-2E-850-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) 5000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

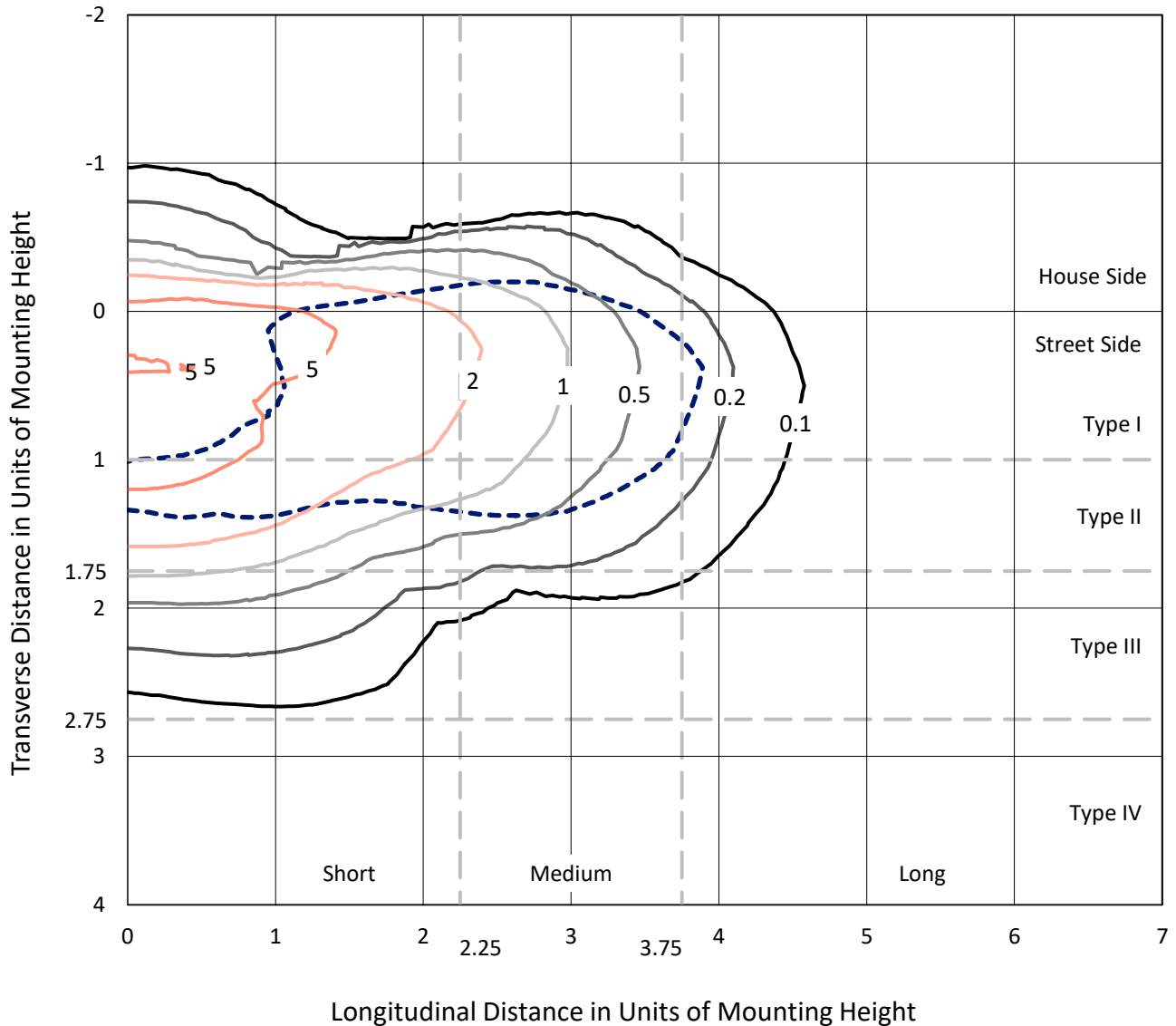
Lumens per Lamp: N/A
Luminaire Lumens: 9211.3 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

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

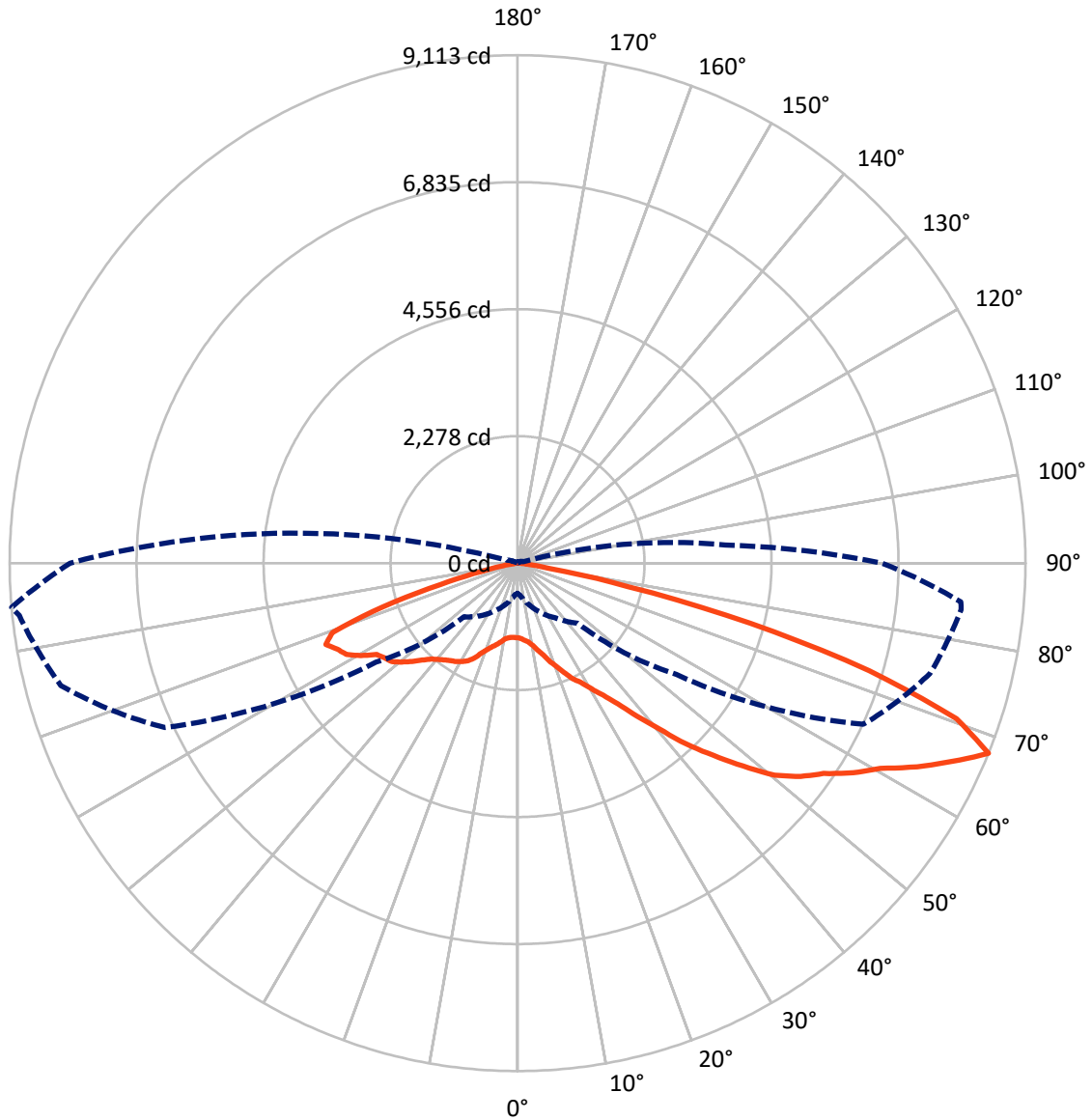
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7 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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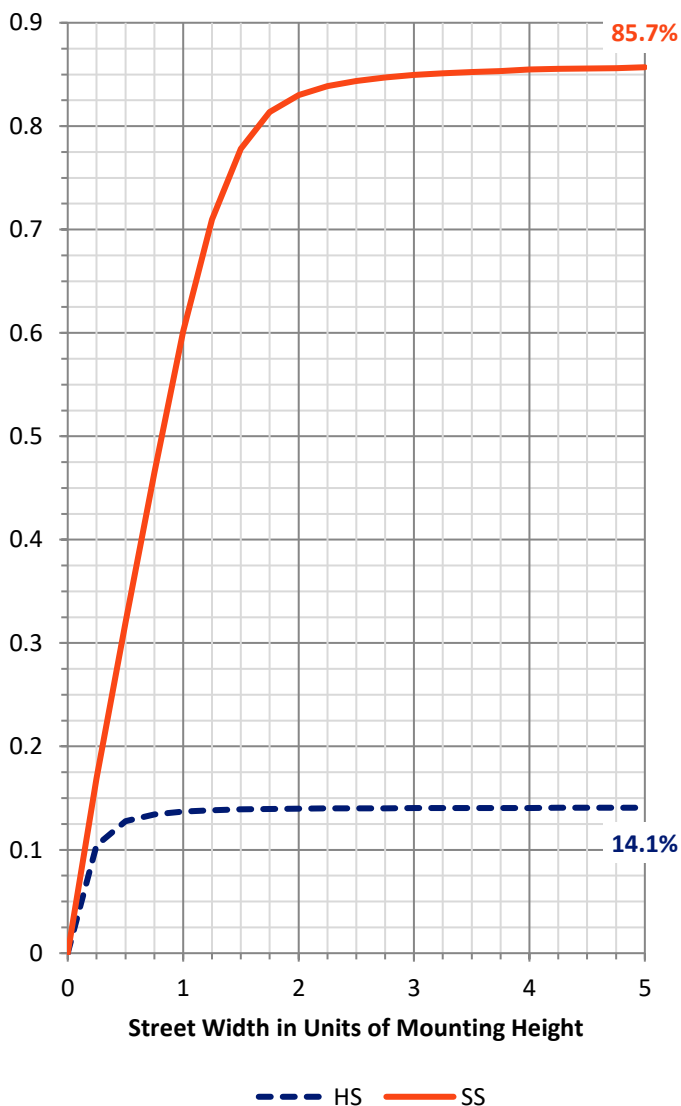
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1308.6	0.0	1308.6
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	7902.7	0.0	7902.7
	% Fixture	85.8	0.0	85.8
Total	Lumens	9211.3	0.0	9211.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.1	1.3
10°-20°	328.4	3.6
20°-30°	545.4	5.9
30°-40°	938.4	10.2
40°-50°	1686.3	18.3
50°-60°	2400.6	26.1
60°-70°	2188.6	23.8
70°-80°	932.0	10.1
80°-90°	69.4	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°	9211.3	100.0
0°-180°	9211.3	100.0



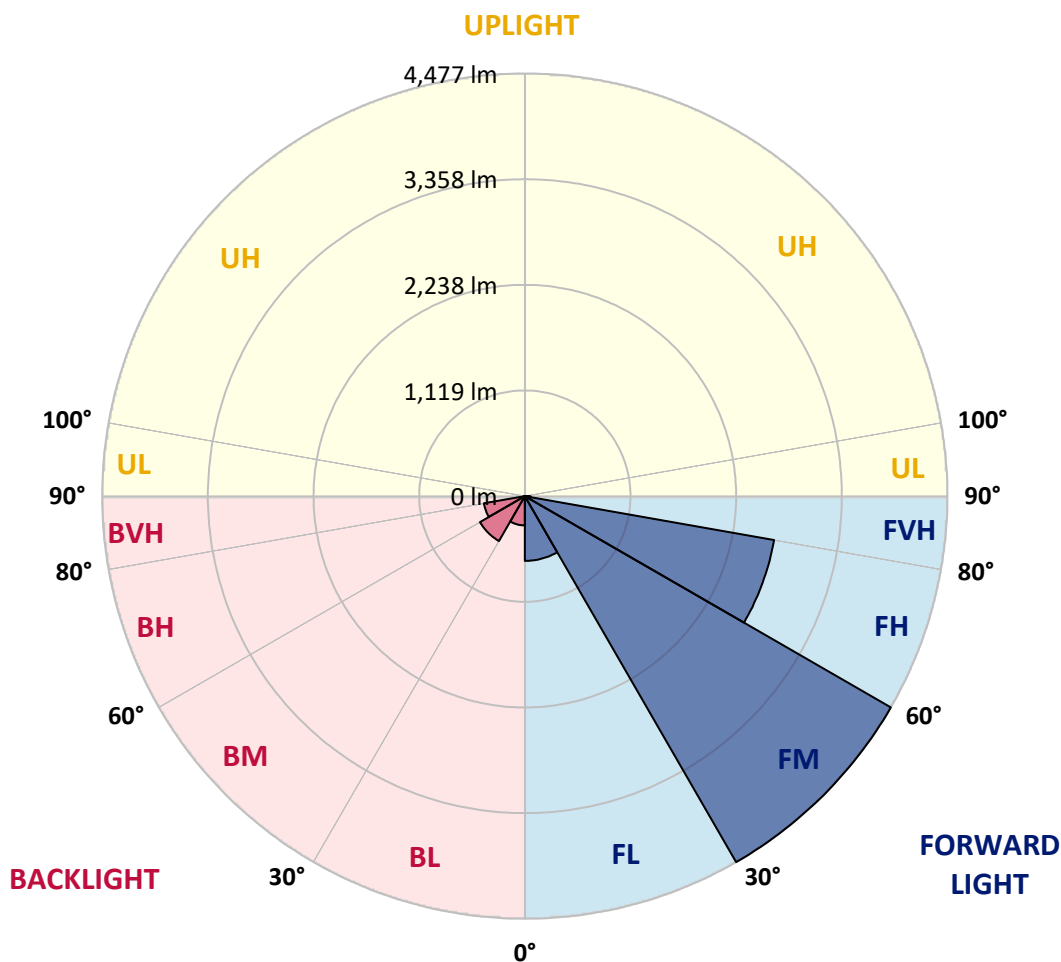
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	686.2	7.4			
FM (30°-60°)	4476.7	48.6			
FH (60°-80°)	2680.9	29.1			G2/5000
FVH (80°-90°)	58.9	0.6			G1/100
BL (0°-30°)	309.8	3.4	B1/500		
BM (30°-60°)	548.6	6.0	B1/1000		
BH (60°-80°)	439.7	4.8	B1/500		G1/500
BVH (80°-90°)	10.5	0.1			G1/100
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°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5
2.5°	1387.8	1400.9	1400.9	1396.5	1383.4	1374.6	1370.2	1361.4	1352.6	1352.6	1357.0
5°	1400.9	1387.8	1405.3	1383.4	1383.4	1383.4	1400.9	1392.2	1387.8	1365.8	1365.8
7.5°	1400.9	1387.8	1387.8	1400.9	1387.8	1396.5	1418.5	1409.7	1427.3	1387.8	1396.5
10°	1361.4	1357.0	1365.8	1383.4	1387.8	1405.3	1427.3	1471.2	1475.6	1449.2	1444.9
12.5°	1282.4	1278.0	1308.7	1317.5	1370.2	1414.1	1480.0	1515.1	1554.6	1541.5	1515.1
15°	1225.3	1234.1	1256.0	1291.1	1339.5	1418.5	1493.2	1572.2	1642.5	1624.9	1616.1
17.5°	1247.2	1242.8	1247.2	1269.2	1330.7	1409.7	1537.1	1629.3	1730.3	1730.3	1739.1
20°	1313.1	1326.3	1321.9	1308.7	1339.5	1405.3	1537.1	1699.6	1866.5	1853.3	1853.3
22.5°	1427.3	1431.7	1405.3	1396.5	1392.2	1431.7	1563.4	1787.4	1980.6	2007.0	1998.2
25°	1545.9	1550.3	1541.5	1515.1	1480.0	1488.8	1611.7	1857.7	2138.7	2182.7	2173.9
27.5°	1743.5	1739.1	1717.1	1686.4	1633.7	1594.2	1686.4	1910.4	2261.7	2336.4	2314.4
30°	1941.1	1927.9	1897.2	1857.7	1809.4	1734.7	1778.6	2011.4	2415.4	2485.7	2437.4
32.5°	2182.7	2156.3	2165.1	2103.6	2002.6	1884.0	1875.2	2103.6	2538.4	2639.4	2599.9
35°	2490.1	2459.3	2415.4	2358.3	2261.7	2103.6	2055.3	2252.9	2744.8	2819.4	2819.4
37.5°	2894.1	2924.8	2872.1	2635.0	2529.6	2380.3	2279.3	2406.6	2924.8	3104.9	3061.0
40°	3306.9	3333.3	3236.6	3061.0	2832.6	2648.2	2586.7	2657.0	3197.1	3412.3	3328.9
42.5°	3640.7	3675.8	3640.7	3412.3	3232.3	2995.1	2885.3	2951.2	3548.5	3807.6	3697.8
45°	3992.0	4027.1	3987.6	3838.3	3662.6	3526.5	3249.8	3333.3	3917.4	4303.8	4180.9
47.5°	4255.5	4299.4	4229.2	4198.4	4057.9	4035.9	3566.0	3658.2	4303.8	4804.5	4650.8
50°	4317.0	4365.3	4426.8	4461.9	4413.6	4466.3	3992.0	4071.1	4707.9	5265.6	5116.3
52.5°	4172.1	4220.4	4356.5	4519.0	4743.0	4901.1	4422.4	4488.3	5129.5	5647.7	5568.6
55°	3746.1	3790.0	4066.7	4286.3	4822.0	5081.1	4835.2	5111.9	5432.5	6047.3	5854.1
57.5°	3030.2	3082.9	3447.4	3785.6	4558.5	4980.1	5081.1	5630.1	5933.1	6341.5	6117.6
60°	2151.9	2182.7	2498.9	3096.1	3829.5	4475.1	5032.8	6016.6	6328.4	6736.8	6618.2
62.5°	1238.4	1264.8	1594.2	2156.3	2889.7	3737.3	4817.6	6381.1	6754.4	7171.6	7105.7
65°	821.2	830.0	1054.0	1361.4	1879.6	2753.6	4273.1	6706.1	7176.0	7518.5	7443.9
67.5°	540.2	588.5	764.1	974.9	1203.3	1523.9	3482.6	6842.2	7659.0	8001.6	7984.0
70°	386.5	404.0	549.0	751.0	904.7	856.4	2037.7	5880.4	7637.1	8133.3	7988.4
72.5°	228.4	245.9	364.5	562.1	711.4	544.6	953.0	4158.9	6328.4	6490.9	6451.3
75°	166.9	166.9	224.0	404.0	518.2	390.9	447.9	2630.6	4202.8	4562.9	4558.5
77.5°	118.6	123.0	153.7	241.5	399.6	285.5	245.9	1462.4	2296.8	2512.0	2393.5
80°	70.3	74.7	105.4	144.9	289.8	206.4	162.5	667.5	882.7	891.5	847.6
82.5°	52.7	52.7	70.3	101.0	202.0	140.5	101.0	254.7	285.5	259.1	219.6
85°	30.7	26.3	52.7	74.7	118.6	79.0	70.3	118.6	131.7	96.6	87.8
87.5°	8.8	8.8	22.0	26.3	52.7	43.9	30.7	43.9	61.5	35.1	26.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5
2.5°	1348.2	1335.1	1313.1	1304.3	1273.6	1260.4	1251.6	1229.7	1234.1	1220.9	1220.9
5°	1335.1	1335.1	1291.1	1242.8	1194.5	1163.8	1128.7	1084.7	1084.7	1067.2	1071.6
7.5°	1383.4	1348.2	1291.1	1203.3	1124.3	1054.0	1023.3	979.3	953.0	939.8	939.8
10°	1414.1	1379.0	1282.4	1177.0	1076.0	988.1	922.2	860.8	825.6	825.6	821.2
12.5°	1497.6	1444.9	1317.5	1172.6	1023.3	891.5	790.5	720.2	671.9	636.8	645.6
15°	1567.8	1510.7	1335.1	1137.4	931.0	746.6	623.6	491.9	426.0	390.9	377.7
17.5°	1677.6	1572.2	1374.6	1076.0	790.5	584.1	404.0	294.2	267.9	263.5	263.5
20°	1769.8	1646.9	1379.0	957.4	650.0	373.3	259.1	241.5	228.4	224.0	219.6
22.5°	1897.2	1743.5	1361.4	821.2	465.5	250.3	219.6	202.0	193.2	180.1	180.1
25°	2028.9	1870.8	1326.3	693.9	285.5	215.2	193.2	175.7	158.1	149.3	153.7
27.5°	2169.5	1967.5	1225.3	540.2	219.6	188.8	158.1	144.9	136.1	131.7	131.7
30°	2283.7	2028.9	1076.0	360.1	197.6	166.9	140.5	127.4	118.6	114.2	114.2
32.5°	2367.1	2081.6	909.1	241.5	180.1	149.3	127.4	114.2	105.4	101.0	101.0
35°	2507.6	2121.2	755.4	206.4	162.5	131.7	109.8	101.0	92.2	92.2	92.2
37.5°	2722.8	2173.9	601.7	188.8	149.3	118.6	105.4	92.2	87.8	83.4	83.4
40°	2911.7	2239.7	430.4	171.3	136.1	109.8	92.2	83.4	79.0	74.7	74.7
42.5°	3183.9	2314.4	281.1	153.7	123.0	101.0	83.4	74.7	70.3	65.9	65.9
45°	3530.9	2437.4	219.6	136.1	109.8	92.2	79.0	70.3	61.5	61.5	57.1
47.5°	3899.8	2586.7	197.6	127.4	101.0	83.4	70.3	61.5	57.1	52.7	52.7
50°	4242.3	2731.6	184.4	118.6	92.2	79.0	65.9	57.1	48.3	43.9	43.9
52.5°	4549.8	2867.7	175.7	109.8	87.8	70.3	57.1	48.3	43.9	39.5	39.5
55°	4712.2	2929.2	171.3	105.4	79.0	65.9	52.7	43.9	39.5	35.1	35.1
57.5°	4967.0	3008.3	166.9	101.0	74.7	57.1	48.3	39.5	35.1	30.7	30.7
60°	5379.8	3267.4	162.5	96.6	70.3	57.1	43.9	35.1	26.3	22.0	22.0
62.5°	5722.3	3482.6	144.9	83.4	61.5	48.3	35.1	26.3	17.6	13.2	13.2
65°	6113.2	3583.6	127.4	74.7	52.7	39.5	26.3	17.6	13.2	4.4	4.4
67.5°	6539.2	3737.3	105.4	65.9	48.3	30.7	22.0	13.2	4.4	0.0	0.0
70°	6315.2	3544.1	87.8	57.1	43.9	26.3	17.6	8.8	0.0	0.0	0.0
72.5°	4949.4	2538.4	70.3	52.7	39.5	26.3	17.6	4.4	0.0	0.0	0.0
75°	3306.9	1436.1	61.5	43.9	30.7	22.0	13.2	4.4	0.0	0.0	0.0
77.5°	1796.2	645.6	52.7	39.5	26.3	17.6	13.2	4.4	0.0	0.0	0.0
80°	584.1	254.7	43.9	35.1	26.3	17.6	13.2	4.4	0.0	0.0	0.0
82.5°	158.1	79.0	43.9	35.1	26.3	17.6	13.2	4.4	0.0	0.0	0.0
85°	65.9	52.7	43.9	35.1	26.3	17.6	13.2	4.4	0.0	0.0	0.0
87.5°	26.3	17.6	17.6	22.0	17.6	13.2	8.8	4.4	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°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5
2.5°	1225.3	1234.1	1238.4	1238.4	1260.4	1282.4	1308.7	1330.7	1330.7	1343.8	1357.0
5°	1076.0	1084.7	1097.9	1137.4	1181.4	1229.7	1278.0	1313.1	1361.4	1383.4	1396.5
7.5°	953.0	961.8	996.9	1036.4	1097.9	1181.4	1264.8	1343.8	1392.2	1414.1	1431.7
10°	825.6	838.8	878.3	948.6	1027.6	1128.7	1225.3	1361.4	1440.5	1484.4	1501.9
12.5°	641.2	676.3	729.0	803.7	904.7	1058.4	1238.4	1379.0	1515.1	1567.8	1603.0
15°	404.0	434.8	518.2	636.8	772.9	953.0	1203.3	1405.3	1594.2	1646.9	1704.0
17.5°	259.1	263.5	289.8	417.2	592.9	821.2	1150.6	1444.9	1682.0	1756.7	1844.5
20°	219.6	228.4	232.8	250.3	395.2	676.3	1040.8	1493.2	1787.4	1888.4	1971.9
22.5°	184.4	188.8	197.6	210.8	237.1	491.9	891.5	1493.2	1879.6	2028.9	2125.6
25°	149.3	158.1	166.9	180.1	206.4	307.4	737.8	1466.8	1989.4	2173.9	2296.8
27.5°	131.7	131.7	140.5	153.7	175.7	215.2	584.1	1387.8	2072.9	2261.7	2424.2
30°	114.2	118.6	123.0	136.1	158.1	188.8	404.0	1260.4	2160.7	2433.0	2617.4
32.5°	101.0	101.0	109.8	118.6	140.5	171.3	259.1	1067.2	2274.9	2564.7	2823.8
35°	92.2	92.2	96.6	105.4	127.4	153.7	202.0	904.7	2411.0	2815.0	3100.5
37.5°	83.4	83.4	87.8	96.6	114.2	136.1	184.4	777.3	2551.6	3065.4	3482.6
40°	74.7	74.7	79.0	87.8	101.0	123.0	166.9	628.0	2727.2	3434.3	3899.8
42.5°	65.9	65.9	70.3	79.0	92.2	109.8	144.9	469.9	2960.0	3833.9	4440.0
45°	57.1	57.1	61.5	70.3	79.0	101.0	131.7	360.1	3214.7	4277.5	4914.3
47.5°	48.3	52.7	57.1	65.9	74.7	92.2	118.6	316.2	3465.0	4747.4	5441.3
50°	43.9	43.9	48.3	57.1	70.3	83.4	109.8	311.8	3719.7	5107.5	5981.4
52.5°	39.5	39.5	43.9	52.7	65.9	79.0	105.4	320.6	3930.5	5441.3	6359.1
55°	35.1	35.1	39.5	43.9	57.1	74.7	96.6	329.4	4079.8	5779.4	6662.1
57.5°	30.7	30.7	35.1	43.9	52.7	65.9	87.8	338.2	4321.4	6113.2	7101.3
60°	22.0	22.0	30.7	39.5	48.3	57.1	83.4	346.9	4707.9	6574.3	7474.6
62.5°	13.2	13.2	17.6	30.7	39.5	52.7	74.7	329.4	5068.0	7167.2	8045.5
65°	4.4	8.8	13.2	17.6	30.7	43.9	61.5	298.6	5371.0	7760.1	8572.5
67.5°	0.0	0.0	4.4	13.2	26.3	35.1	52.7	219.6	5419.3	8027.9	9112.7
70°	0.0	0.0	4.4	13.2	22.0	35.1	48.3	123.0	4615.6	7171.6	8352.9
72.5°	0.0	0.0	0.0	8.8	22.0	30.7	43.9	92.2	3403.5	5406.1	6600.7
75°	0.0	0.0	0.0	4.4	17.6	26.3	39.5	70.3	2068.5	3605.5	4308.2
77.5°	0.0	0.0	0.0	4.4	13.2	26.3	39.5	61.5	729.0	1717.1	2024.6
80°	0.0	0.0	0.0	8.8	17.6	26.3	35.1	52.7	175.7	430.4	579.7
82.5°	0.0	0.0	0.0	4.4	13.2	22.0	30.7	43.9	70.3	127.4	202.0
85°	0.0	0.0	0.0	4.4	8.8	22.0	30.7	39.5	48.3	61.5	87.8
87.5°	0.0	0.0	0.0	0.0	4.4	8.8	13.2	17.6	17.6	17.6	30.7
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°	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5	1339.5
2.5°	1352.6	1370.2	1379.0	1396.5	1405.3	1400.9	1396.5	1409.7	1400.9	1387.8
5°	1400.9	1400.9	1414.1	1418.5	1418.5	1405.3	1414.1	1409.7	1400.9	1400.9
7.5°	1453.6	1475.6	1475.6	1449.2	1444.9	1436.1	1436.1	1400.9	1387.8	1400.9
10°	1506.3	1523.9	1528.3	1497.6	1458.0	1440.5	1418.5	1374.6	1352.6	1361.4
12.5°	1616.1	1616.1	1567.8	1532.7	1480.0	1418.5	1365.8	1304.3	1273.6	1282.4
15°	1695.2	1712.7	1646.9	1567.8	1475.6	1361.4	1304.3	1256.0	1238.4	1225.3
17.5°	1848.9	1813.8	1708.4	1594.2	1462.4	1343.8	1304.3	1260.4	1247.2	1247.2
20°	1980.6	1963.1	1805.0	1598.6	1458.0	1379.0	1352.6	1330.7	1326.3	1313.1
22.5°	2160.7	2081.6	1879.6	1646.9	1506.3	1436.1	1427.3	1449.2	1436.1	1427.3
25°	2296.8	2231.0	1936.7	1717.1	1581.0	1559.0	1572.2	1594.2	1559.0	1545.9
27.5°	2481.3	2358.3	2046.5	1809.4	1682.0	1704.0	1747.9	1752.3	1730.3	1743.5
30°	2652.6	2520.8	2130.0	1914.8	1853.3	1875.2	1941.1	1989.4	1958.7	1941.1
32.5°	2898.5	2696.5	2296.8	2090.4	2068.5	2125.6	2200.2	2231.0	2191.4	2182.7
35°	3157.6	2898.5	2468.1	2288.1	2327.6	2406.6	2472.5	2525.2	2463.7	2490.1
37.5°	3561.6	3223.5	2758.0	2599.9	2617.4	2648.2	2771.1	2916.1	2946.8	2894.1
40°	3983.2	3574.8	3025.8	2902.9	2942.4	3025.8	3170.8	3306.9	3377.2	3306.9
42.5°	4470.7	3913.0	3438.7	3293.7	3333.3	3451.8	3645.1	3754.9	3746.1	3640.7
45°	5072.4	4382.9	3825.1	3645.1	3790.0	3895.4	4088.6	4101.8	4018.4	3992.0
47.5°	5533.5	4778.1	4242.3	4128.2	4325.8	4330.2	4374.1	4378.5	4286.3	4255.5
50°	6042.9	5234.9	4707.9	4541.0	4874.7	4721.0	4602.5	4523.4	4382.9	4317.0
52.5°	6543.6	5559.8	5138.2	4967.0	5313.9	4905.5	4690.3	4448.7	4242.3	4172.1
55°	6811.5	6095.6	5766.2	5366.6	5410.5	4958.2	4418.0	4115.0	3763.6	3746.1
57.5°	7127.7	6455.7	6297.6	5638.9	5248.0	4589.3	3851.5	3451.8	3074.2	3030.2
60°	7500.9	7026.6	6859.8	5595.0	4672.7	3855.9	3052.2	2538.4	2182.7	2151.9
62.5°	7918.2	7703.0	7206.7	5164.6	3710.9	2714.0	2015.8	1585.4	1256.0	1238.4
65°	8576.9	8269.5	7391.2	4347.7	2454.9	1739.1	1339.5	1027.6	830.0	821.2
67.5°	8989.7	8484.7	6978.3	3100.5	1361.4	1150.6	939.8	746.6	575.3	540.2
70°	8405.6	7786.4	5520.3	1774.2	790.5	873.9	724.6	500.6	395.2	386.5
72.5°	6714.8	5779.4	3715.3	834.4	491.9	685.1	527.0	338.2	237.1	228.4
75°	4580.5	3636.3	2332.0	386.5	346.9	500.6	386.5	197.6	166.9	166.9
77.5°	2046.5	1853.3	1194.5	237.1	259.1	382.1	224.0	136.1	123.0	118.6
80°	623.6	654.4	487.5	162.5	193.2	289.8	136.1	92.2	74.7	70.3
82.5°	210.8	245.9	219.6	96.6	131.7	206.4	92.2	61.5	52.7	52.7
85°	101.0	123.0	109.8	61.5	70.3	101.0	74.7	48.3	30.7	30.7
87.5°	39.5	57.1	39.5	26.3	39.5	52.7	30.7	22.0	8.8	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)