

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: P676164

Luminaire Tested: **CCW-SA-1B-827-U-T1**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676164
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1B-827-U-T1
Description: INVUE CLEAR CURVE Wall Pack MOUNT LIGHT SQUARE LUMINAIRE @450mA w/
T1 distribution lens
Light Source: (16) 2700K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

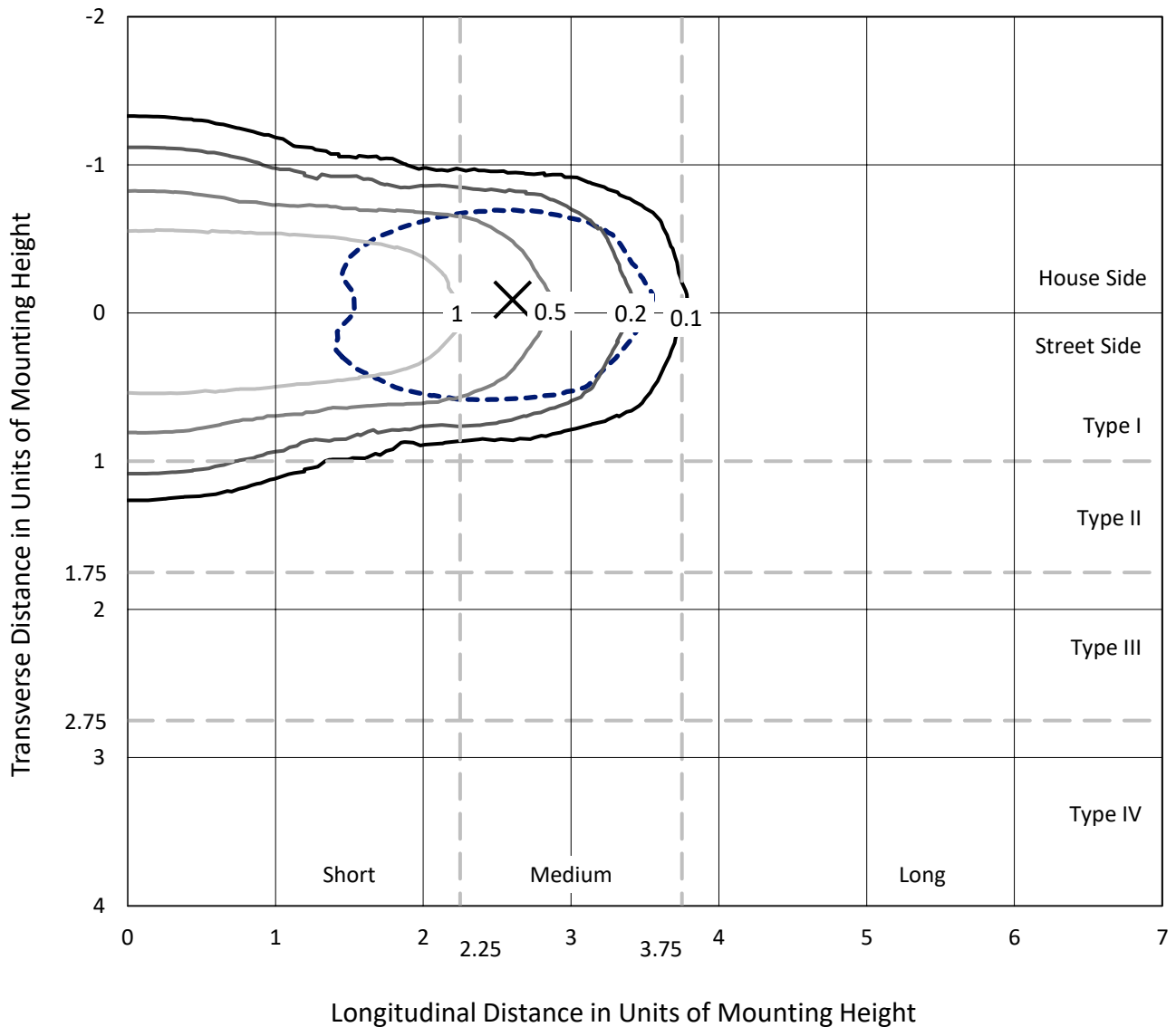
Lumens per Lamp: N/A
Luminaire Lumens: 2472.2 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type I - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 24
Input Voltage (V): 120
Input Current (A_{in}): 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

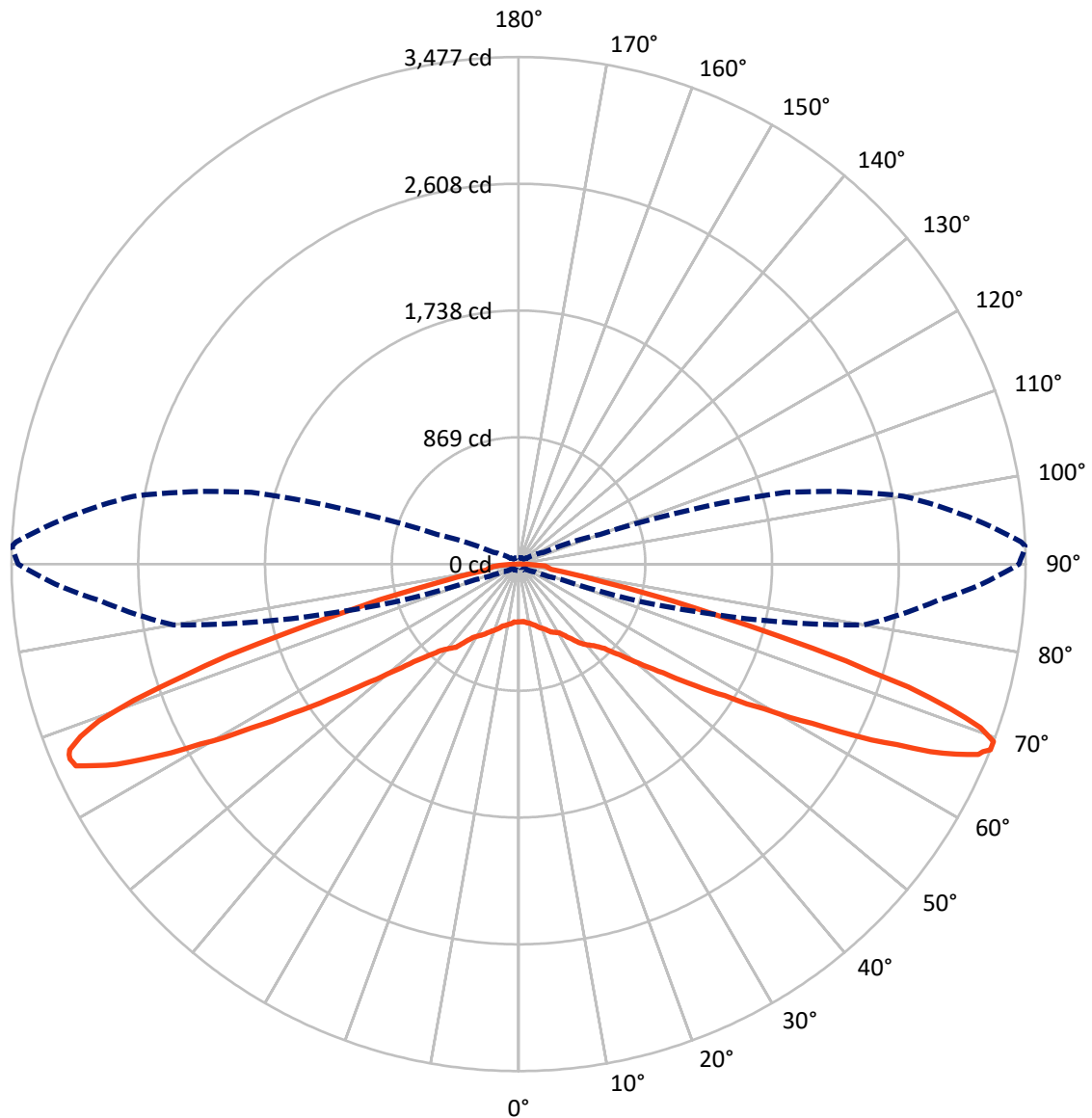
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.9 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 92-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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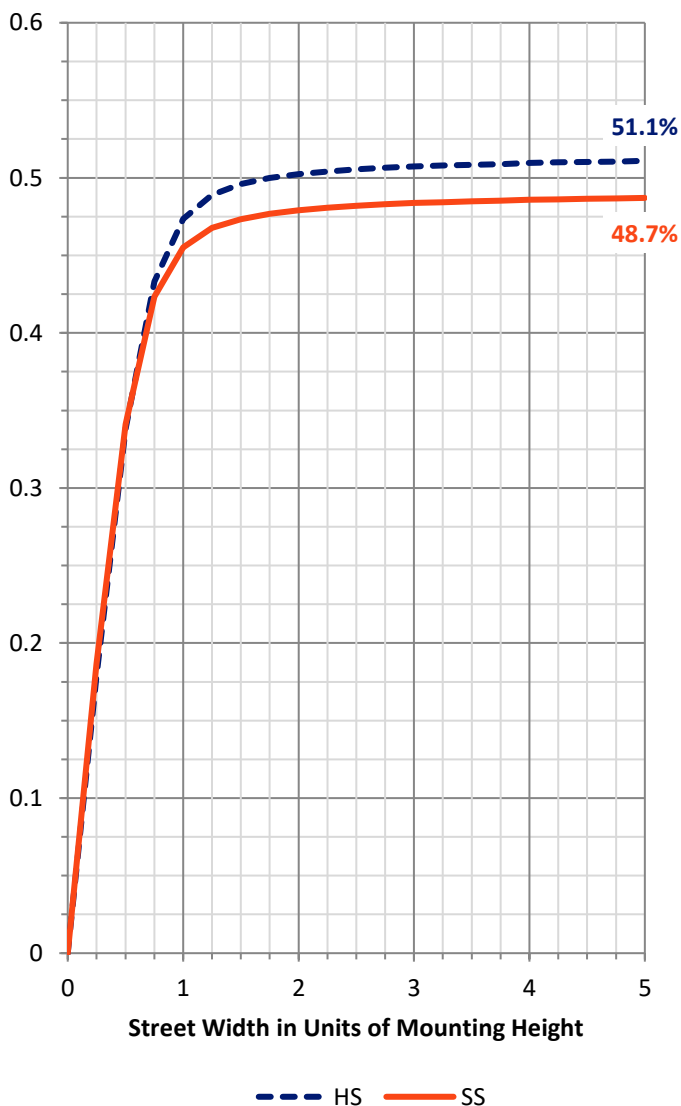
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1273.1	0.0	1273.1
	% Fixture	51.5	0.0	51.5
Street Side	Lumens	1199.0	0.0	1199.0
	% Fixture	48.5	0.0	48.5
Total	Lumens	2472.2	0.0	2472.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	1.6
10°-20°	128.2	5.2
20°-30°	218.9	8.9
30°-40°	305.6	12.4
40°-50°	388.7	15.7
50°-60°	491.5	19.9
60°-70°	606.2	24.5
70°-80°	264.8	10.7
80°-90°	28.7	1.2
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°	2472.2	100.0
0°-180°	2472.2	100.0



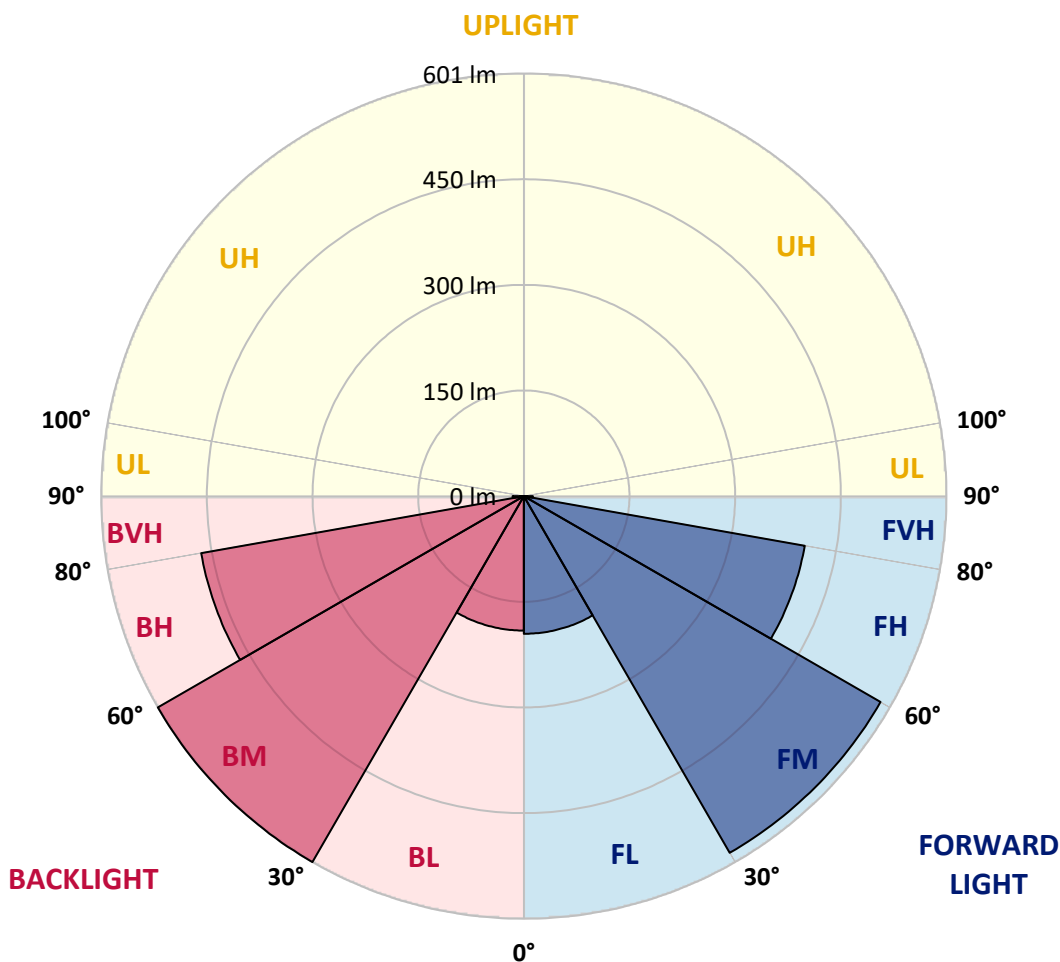
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	195.7	7.9			
FM (30°-60°)	585.3	23.7			
FH (60°-80°)	405.4	16.4			G0/660
FVH (80°-90°)	12.7	0.5			G1/100
BL (0°-30°)	191.1	7.7	B1/500		
BM (30°-60°)	600.5	24.3	B1/1000		
BH (60°-80°)	465.6	18.8	B1/500		G1/500
BVH (80°-90°)	16.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	403.7	403.2	404.6	405.5	401.4	402.7	401.8	400.9	397.6	396.2	393.5
5°	414.8	416.2	420.8	416.7	418.5	416.2	408.8	411.1	406.9	406.0	403.2
7.5°	434.3	431.5	438.0	433.4	434.8	430.1	426.9	422.7	421.8	415.3	415.7
10°	438.5	444.0	446.8	445.9	446.8	449.1	443.1	436.6	427.8	425.9	419.4
12.5°	435.7	440.8	448.2	454.2	458.4	459.4	457.0	455.6	451.9	441.3	440.8
15°	432.9	429.2	433.8	454.7	468.6	477.9	481.2	473.3	474.2	460.3	454.7
17.5°	414.3	408.8	426.9	447.3	464.5	484.9	500.6	498.3	498.3	487.2	479.3
20°	389.8	399.0	408.3	434.3	465.8	496.5	526.6	525.2	519.7	516.4	499.3
22.5°	368.9	373.0	390.2	417.6	457.0	499.7	535.4	561.0	548.0	535.0	524.8
25°	354.5	350.8	372.6	400.9	448.7	494.2	552.2	578.6	585.6	575.8	556.3
27.5°	334.1	334.1	351.2	378.2	421.8	491.4	568.4	608.8	619.0	604.6	576.3
30°	310.9	313.7	328.5	359.1	401.8	471.0	574.9	643.6	651.9	639.4	610.1
32.5°	292.8	292.8	309.5	342.0	387.9	461.7	570.7	677.9	693.7	684.4	654.2
35°	273.3	271.9	284.0	319.7	365.6	443.6	569.3	705.3	740.5	741.0	709.4
37.5°	245.5	251.0	266.3	294.6	348.0	425.9	565.1	738.2	801.3	812.0	790.2
40°	226.9	229.2	243.1	274.2	320.6	405.1	559.1	765.1	841.7	878.3	848.2
42.5°	200.0	203.2	213.9	252.4	294.2	375.4	532.7	784.1	899.2	941.0	915.5
45°	171.7	173.5	189.3	220.9	265.9	340.1	504.4	814.8	954.9	1040.3	1025.4
47.5°	137.8	138.7	152.2	185.1	232.0	304.8	460.7	813.4	999.9	1139.6	1181.3
50°	107.6	110.0	120.2	147.1	191.2	261.7	410.2	802.2	1056.5	1252.8	1334.9
52.5°	85.8	86.3	92.8	114.1	147.5	218.5	355.9	767.0	1109.9	1363.7	1523.3
55°	71.0	71.0	74.7	87.7	113.2	166.1	292.3	708.5	1116.4	1486.2	1728.8
56°	68.2	67.3	70.5	81.7	102.1	149.9	262.6	669.1	1125.6	1542.8	1831.8
57°	64.5	65.0	66.8	74.7	91.9	132.7	229.7	630.6	1119.1	1589.2	1907.9
58°	62.6	61.7	65.4	70.5	81.2	117.9	206.9	585.1	1108.9	1627.2	2018.8
59°	59.9	59.4	61.7	66.4	75.6	104.9	179.1	535.9	1089.0	1676.4	2101.4
60°	58.9	58.5	59.4	63.1	69.6	91.9	157.8	478.4	1035.6	1727.0	2204.0
61°	56.1	56.6	58.5	60.8	65.9	82.6	142.0	419.4	1000.8	1769.7	2317.2
62°	56.6	55.7	56.6	58.5	62.2	76.1	124.3	361.4	938.7	1817.9	2402.1
63°	53.8	53.4	54.8	57.1	58.9	68.7	108.6	312.3	868.1	1829.1	2474.0
64°	52.9	52.4	52.9	56.1	56.6	64.5	96.0	266.8	766.1	1848.1	2566.3
65°	50.6	50.6	51.5	52.9	54.8	60.8	85.8	231.5	664.4	1798.0	2594.6
66°	48.7	49.2	49.2	51.5	52.9	56.6	78.9	196.7	567.0	1718.2	2622.0
67°	47.3	47.3	47.8	49.6	51.0	53.4	71.0	170.3	478.4	1623.0	2579.8
67.5°	46.4	46.9	46.9	48.7	50.1	53.4	67.7	161.5	427.8	1518.6	2548.2
68°	45.0	45.5	45.5	47.3	48.7	51.5	65.4	147.5	394.4	1450.9	2489.8
69°	44.1	43.6	43.6	45.5	47.3	49.2	60.8	129.0	313.7	1261.6	2404.4
70°	41.3	41.3	42.2	43.6	45.0	46.9	56.1	113.7	265.4	1044.4	2184.5
71°	39.9	39.4	39.9	41.3	42.7	45.0	51.5	100.7	217.1	867.2	1968.3
72°	37.1	38.0	38.0	39.4	40.8	42.2	48.3	87.7	182.3	693.2	1730.2
72.5°	36.7	36.7	37.1	38.5	39.4	41.8	46.4	84.0	166.6	611.1	1630.5
73°	35.3	35.3	35.7	37.1	38.0	40.4	45.0	75.6	151.7	543.8	1443.9
74°	33.9	33.4	33.4	35.3	35.7	38.0	42.2	66.8	127.1	409.7	1159.1
75°	31.6	31.6	32.0	32.9	33.4	35.3	39.0	59.4	107.2	317.8	906.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
77.5°	26.0	26.4	26.9	27.8	27.8	29.2	32.0	41.3	65.4	161.0	416.2
80°	19.0	20.0	21.3	22.7	22.3	22.3	25.1	29.7	39.0	72.4	159.6
82.5°	15.3	16.2	14.8	16.7	16.7	15.8	18.1	21.8	26.4	35.7	57.1
85°	10.2	10.7	8.8	10.2	9.7	9.7	12.1	13.0	16.2	20.0	28.3
87.5°	4.6	4.6	3.7	4.2	4.2	4.2	6.0	4.6	7.0	9.7	16.7
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):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
0°	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	396.2	398.1	398.1	396.2	394.9	396.2	395.3	393.0	395.3	396.2	396.7
5°	401.8	398.1	400.0	395.8	398.6	398.1	397.2	399.5	400.0	400.0	403.2
7.5°	407.8	412.5	406.5	406.9	408.3	402.7	404.6	405.5	403.7	407.4	410.2
10°	418.5	420.4	418.5	411.6	416.2	412.5	411.1	415.3	414.3	415.3	419.4
12.5°	428.3	431.5	426.4	425.9	423.6	420.4	422.2	421.8	428.3	429.2	434.3
15°	448.2	439.9	438.0	437.5	436.6	435.2	436.2	436.6	445.0	446.4	458.4
17.5°	465.4	464.0	453.8	457.5	457.5	451.9	449.6	457.5	464.0	471.0	479.3
20°	483.0	481.6	470.5	471.0	466.8	471.9	469.1	476.5	487.7	490.0	497.4
22.5°	503.9	497.9	490.0	490.9	492.3	488.6	486.7	496.9	508.1	514.6	515.0
25°	536.8	521.5	515.0	516.0	514.1	511.3	512.7	525.7	531.3	545.2	542.4
27.5°	554.5	545.7	541.0	530.3	530.8	526.6	532.2	551.7	562.8	573.5	552.2
30°	575.8	570.2	549.8	546.1	545.7	543.8	554.0	579.1	595.8	601.8	571.2
32.5°	617.6	595.3	590.2	586.9	579.5	581.8	586.9	619.9	646.3	644.9	588.8
35°	665.4	650.1	635.7	632.9	632.0	625.5	634.3	672.8	693.2	687.2	595.3
37.5°	741.9	718.7	699.2	688.6	686.7	682.1	702.9	733.6	760.0	736.4	600.4
40°	779.5	753.5	735.4	728.9	730.3	736.8	757.2	804.1	815.7	772.1	604.6
42.5°	833.3	805.0	769.3	766.1	761.9	765.1	804.6	867.7	877.4	820.3	588.8
45°	928.9	886.2	844.9	826.4	827.3	836.1	897.4	966.5	948.4	853.7	563.7
47.5°	1049.5	986.9	953.5	928.4	940.5	930.8	1028.2	1083.4	1021.7	896.0	533.1
50°	1231.0	1143.3	1097.8	1067.6	1072.7	1081.1	1179.9	1226.8	1102.9	916.4	486.3
52.5°	1459.7	1347.0	1280.2	1239.8	1243.5	1261.6	1389.2	1374.8	1195.7	933.6	423.6
55°	1733.5	1617.5	1488.0	1471.3	1467.1	1510.3	1650.9	1529.8	1279.2	906.2	358.7
56°	1878.2	1754.8	1620.3	1585.9	1575.7	1605.9	1771.1	1607.3	1308.0	875.6	327.6
57°	2001.2	1883.3	1735.8	1677.3	1690.3	1746.9	1890.3	1680.1	1334.4	844.0	298.3
58°	2170.1	2035.5	1879.6	1835.1	1823.5	1868.5	2018.8	1753.4	1343.3	811.5	271.4
59°	2338.5	2177.0	2036.5	1955.3	1958.5	2040.6	2145.5	1840.7	1356.7	770.2	237.1
60°	2466.6	2385.4	2197.5	2136.7	2128.3	2247.1	2271.7	1899.1	1371.1	714.5	213.0
61°	2648.0	2542.2	2367.3	2288.9	2311.6	2406.7	2408.1	1972.4	1349.8	644.0	183.3
62°	2778.4	2750.5	2566.8	2492.1	2485.1	2611.3	2550.1	2036.9	1331.2	577.2	161.9
63°	2931.0	2931.0	2763.5	2705.1	2708.3	2808.1	2611.8	2101.4	1309.8	503.4	142.4
64°	3010.4	3110.1	2955.6	2873.5	2894.8	2981.1	2721.8	2143.6	1244.0	428.7	125.3
65°	3079.0	3228.9	3143.1	3105.0	3072.6	3123.6	2816.9	2183.1	1143.3	364.7	111.4
66°	3137.0	3340.7	3312.4	3271.6	3268.4	3256.8	2835.5	2181.7	1039.3	308.1	97.4
67°	3107.8	3343.1	3394.6	3411.7	3406.6	3284.1	2803.0	2132.0	906.2	260.3	86.8
67.5°	3081.4	3324.0	3443.7	3434.0	3455.3	3307.3	2808.5	2071.3	811.5	235.7	81.7
68°	3058.2	3298.5	3463.7	3476.2	3465.6	3310.1	2777.9	2023.0	747.0	221.3	77.0
69°	2882.3	3177.4	3431.7	3476.7	3449.3	3203.9	2680.5	1897.3	593.4	188.8	71.0
70°	2706.0	3020.6	3276.2	3358.8	3325.0	2998.3	2557.5	1697.3	489.5	161.5	64.0
71°	2461.9	2729.2	3069.3	3119.0	3078.1	2764.5	2303.3	1486.2	380.9	136.9	57.1
72°	2130.7	2357.5	2682.3	2802.5	2742.2	2428.1	2046.2	1228.2	308.6	115.1	52.0
72.5°	1966.4	2198.9	2512.1	2521.8	2533.4	2281.9	1937.2	1078.8	269.1	106.7	50.6
73°	1810.5	2038.3	2309.3	2343.6	2294.4	2035.5	1774.3	964.6	245.9	97.4	48.7
74°	1467.1	1597.1	1821.6	1855.0	1811.9	1659.7	1450.0	739.6	195.8	84.0	44.5
75°	1154.4	1225.9	1429.1	1408.7	1344.2	1290.8	1124.3	565.1	158.7	73.8	41.3



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CANDELA DISTRIBUTION (continued):

	85°	87.5°	90°	92°	92.5°	95°	100°	105°	110°	115°	125°
77.5°	518.7	561.9	595.8	595.8	599.5	572.1	518.3	259.4	97.9	53.4	33.9
80°	197.7	221.3	228.7	229.2	232.5	240.8	224.1	127.6	58.0	38.0	27.4
82.5°	143.4	200.4	215.8	204.6	205.5	185.6	85.8	56.6	36.7	26.4	20.0
85°	129.9	174.5	184.7	183.3	183.7	171.7	50.6	27.8	21.3	16.7	13.9
87.5°	63.1	61.7	65.4	73.8	71.9	93.3	42.7	13.9	9.3	7.0	7.0
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):

	135°	145°	155°	165°	175°	180°
0°	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	393.0	392.5	399.0	392.5	396.2	393.5
5°	397.6	399.5	400.9	403.7	397.2	403.7
7.5°	411.6	413.4	413.9	416.2	413.4	413.0
10°	422.2	426.9	429.7	420.4	425.9	425.5
12.5°	443.1	438.5	438.0	436.2	431.0	429.2
15°	458.0	451.0	446.8	439.4	433.4	431.0
17.5°	478.8	465.4	448.2	432.9	422.2	413.9
20°	491.8	467.7	433.4	415.3	399.0	402.7
22.5°	500.2	465.4	419.9	396.7	380.5	385.1
25°	503.0	453.8	410.6	381.9	366.1	362.8
27.5°	495.1	440.3	392.5	360.1	346.1	348.9
30°	491.4	420.8	375.8	343.8	325.3	328.0
32.5°	481.6	400.9	353.6	321.1	307.6	303.0
35°	467.7	384.2	332.2	301.6	285.4	281.6
37.5°	450.5	363.3	313.7	276.5	262.2	259.4
40°	425.0	338.2	286.7	254.7	238.0	237.6
42.5°	402.7	314.1	261.7	228.7	212.0	213.0
45°	374.4	281.6	232.9	204.6	187.9	188.8
47.5°	338.2	251.5	205.5	174.0	160.1	159.1
50°	295.6	217.1	172.1	145.2	133.6	131.3
52.5°	254.7	182.3	141.1	116.9	107.2	106.3
55°	203.2	142.0	110.0	91.9	84.4	84.9
56°	184.7	130.8	100.2	84.0	78.4	78.4
57°	167.0	116.0	90.9	77.5	72.4	72.4
58°	147.5	102.1	82.6	70.1	67.7	65.9
59°	134.1	92.8	74.7	66.4	62.6	62.2
60°	118.3	83.5	69.6	62.2	59.4	58.9
61°	104.9	75.2	64.0	58.0	57.1	57.1
62°	93.7	69.6	59.4	56.1	55.7	54.3
63°	84.0	64.0	57.1	53.4	52.0	53.4
64°	75.2	58.9	55.2	52.4	50.6	51.5
65°	68.2	56.6	52.9	51.0	49.2	49.6
66°	63.6	52.9	51.0	48.7	47.8	48.3
67°	57.5	51.0	49.2	46.9	46.4	46.9
67.5°	55.7	49.6	48.3	45.9	45.5	45.9
68°	54.3	48.7	47.8	45.5	45.0	44.5
69°	50.6	46.9	45.5	44.5	43.6	43.2
70°	47.3	45.0	44.1	42.7	41.8	41.3
71°	45.5	42.7	42.2	40.8	39.9	39.4
72°	43.2	41.3	40.4	38.5	38.0	38.5
72.5°	42.7	40.4	39.9	38.0	37.6	37.6
73°	41.3	38.5	39.0	37.1	36.2	37.1
74°	38.5	37.6	36.7	35.3	34.8	34.8
75°	36.2	35.3	34.3	33.4	33.4	33.4



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CANDELA DISTRIBUTION (continued):

	135°	145°	155°	165°	175°	180°
77.5°	30.6	30.2	30.6	28.8	28.3	27.8
80°	24.6	24.6	25.1	23.7	22.7	22.3
82.5°	18.6	19.0	20.0	18.6	17.6	16.7
85°	12.1	12.5	12.5	11.1	13.0	12.1
87.5°	6.0	6.5	6.0	5.6	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)