

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: STREETWORKS

Report Number: P165562

Luminaire Tested: **VST-F12-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165562
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F12-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19916.5 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

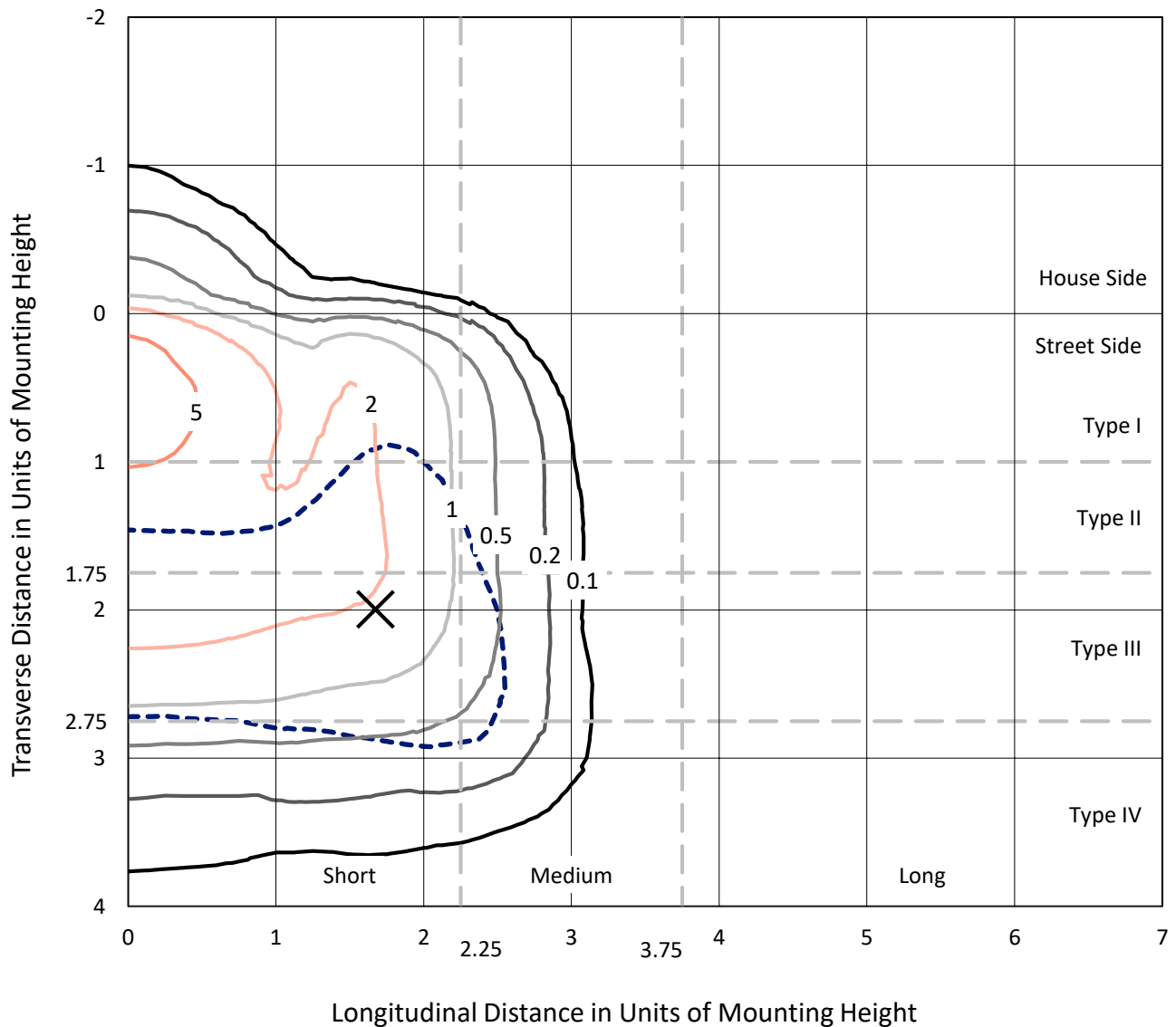
Input Watts (W): 306.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

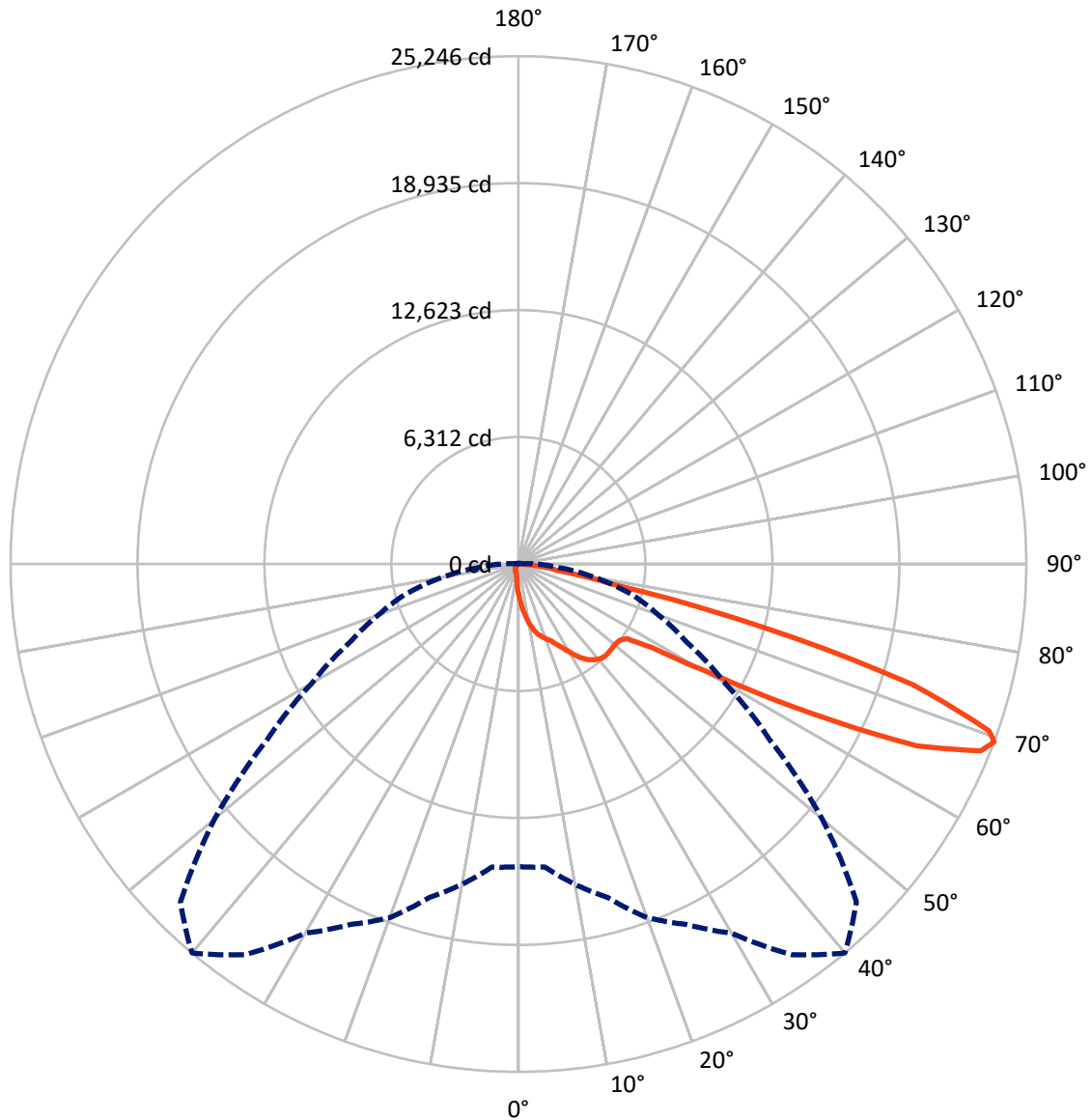


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	593.1	0.0	593.1
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	19323.4	0.0	19323.4
	% Fixture	97.0	0.0	97.0
Total	Lumens	19916.5	0.0	19916.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.6	0.8
10°-20°	533.0	2.7
20°-30°	1020.1	5.1
30°-40°	1696.5	8.5
40°-50°	2295.7	11.5
50°-60°	3590.2	18.0
60°-70°	7381.4	37.1
70°-80°	2970.2	14.9
80°-90°	274.7	1.4
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°	19916.5	100.0
0°-180°	19916.5	100.0



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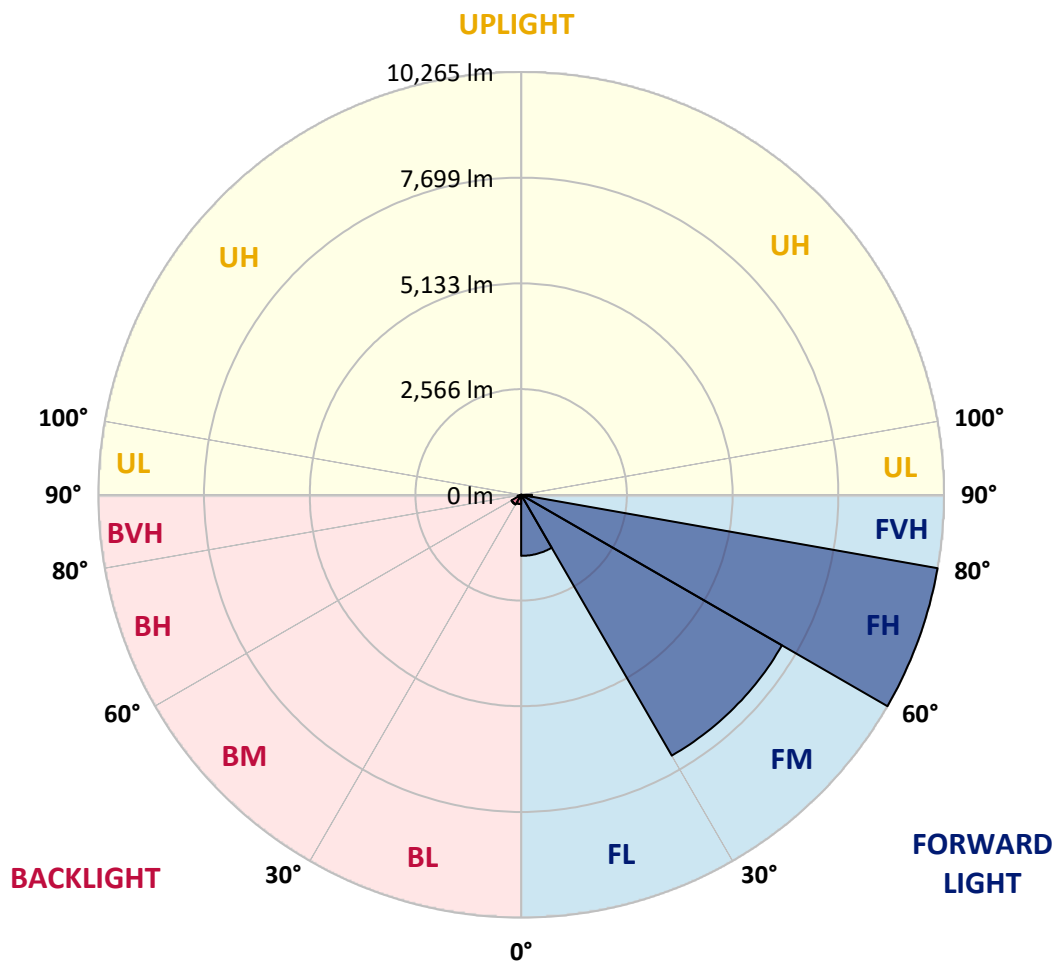
CATALOG NUMBER: VST-F12-LED-E-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1482.2	7.4			
FM	(30°-60°)	7311.7	36.7			
FH	(60°-80°)	10265.1	51.5			G4/12000
FVH	(80°-90°)	264.5	1.3			G3/500
BL	(0°-30°)	225.6	1.1	B1/500		
BM	(30°-60°)	270.8	1.4	B1/1000		
BH	(60°-80°)	86.5	0.4	B0/110		G0/110
BVH	(80°-90°)	10.2	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2
2.5°	2006.6	1983.6	1957.5	1957.5	1925.0	1925.0	1905.4	1853.3	1846.7	1817.2	1787.9
5°	2561.2	2541.6	2509.1	2479.5	2453.6	2407.8	2375.1	2313.1	2244.8	2179.4	2120.7
7.5°	3102.9	3092.9	3034.3	3024.4	2982.0	2907.1	2841.7	2750.4	2632.9	2541.6	2434.0
10°	3605.3	3582.3	3569.2	3513.8	3451.9	3370.3	3269.1	3158.3	3021.2	2877.6	2724.2
12.5°	4003.3	3990.3	3931.4	3908.6	3843.4	3761.8	3634.6	3491.0	3354.1	3168.0	2988.5
15°	4300.1	4277.3	4238.1	4202.3	4124.0	4052.3	3934.8	3778.1	3611.8	3409.6	3194.2
17.5°	4548.2	4505.8	4495.9	4440.4	4359.0	4274.0	4143.6	4000.0	3804.2	3601.9	3367.0
20°	4880.8	4822.2	4802.6	4720.9	4626.4	4509.0	4359.0	4179.5	3973.8	3752.1	3510.6
22.5°	5272.3	5229.9	5187.5	5115.8	4995.2	4828.7	4610.2	4414.4	4153.3	3908.6	3647.7
25°	5827.1	5791.2	5722.7	5624.8	5474.6	5275.7	5011.4	4724.3	4417.6	4104.4	3797.7
27.5°	6365.4	6332.7	6283.8	6208.9	6039.1	5820.5	5494.2	5128.9	4740.6	4362.1	4022.7
30°	6871.2	6841.7	6792.7	6717.9	6567.7	6352.3	5983.6	5592.1	5109.3	4668.8	4261.1
32.5°	7416.1	7406.1	7350.7	7243.1	7112.5	6822.3	6420.9	6000.0	5510.7	5001.7	4525.2
35°	8032.6	7957.5	7905.4	7797.6	7575.9	7265.9	6796.1	6336.1	5820.5	5298.5	4766.7
37.5°	8554.7	8483.0	8417.6	8280.7	8009.8	7615.0	7083.2	6577.4	6045.6	5513.8	4972.2
40°	8936.3	8900.4	8822.2	8642.7	8339.3	7869.6	7295.2	6743.8	6208.9	5673.7	5138.6
42.5°	9220.2	9164.7	9076.7	8890.7	8531.9	7996.8	7380.0	6812.4	6283.8	5771.6	5246.4
45°	9324.6	9279.0	9197.4	8995.1	8606.8	8032.6	7376.8	6792.7	6287.1	5800.9	5318.1
47.5°	9262.6	9217.0	9145.1	8955.9	8574.3	7990.2	7318.2	6737.3	6254.4	5810.8	5383.3
50°	9057.1	9031.0	8975.5	8815.6	8473.1	7908.6	7265.9	6708.0	6247.9	5859.8	5474.6
52.5°	9037.5	9021.3	8952.7	8792.8	8443.7	7882.4	7259.3	6724.4	6303.4	5921.8	5540.0
55°	11043.9	10812.3	10293.6	9853.2	9128.9	8267.6	7588.8	6988.5	6538.4	6166.5	5898.8
57.5°	15696.5	15350.8	14668.9	13830.4	12166.3	10531.8	9223.6	8277.3	7810.7	7641.1	7742.2
60°	17875.9	17814.1	17706.3	17308.3	16456.7	15050.6	13484.5	11791.3	11112.5	11053.8	11259.3
62.5°	18910.3	18871.1	18903.8	18854.9	18590.6	18179.4	17729.1	16998.4	16326.2	15892.3	14972.2
65°	19386.6	19412.8	19598.6	19745.4	19778.1	19885.7	20215.4	21125.6	21791.1	20672.1	18117.4
67.5°	18176.1	18329.4	18757.0	19291.9	19918.4	20525.3	21504.0	23422.5	24789.5	23474.8	19846.7
69°	15047.3	15122.4	16166.3	17174.6	18704.7	19775.0	21194.1	23709.5	25246.4	23761.8	19709.6
70°	11846.5	11915.1	13034.3	14404.6	16991.9	18368.7	20225.1	23223.5	24818.8	23380.1	19004.8
72.5°	5344.3	5246.4	5641.0	6375.1	9187.5	11373.6	14619.9	18815.6	20476.3	18730.8	14218.5
75°	3732.5	3690.1	3732.5	3735.7	4172.9	5383.3	6792.7	10198.9	12613.3	10884.2	6792.7
77.5°	2890.7	2861.3	2832.0	2799.3	2851.6	3194.2	3331.1	3618.2	4698.2	4443.8	2590.5
80°	2287.2	2261.0	2332.7	2310.0	2310.0	2349.2	2323.0	2215.2	2013.0	1866.1	1670.4
82.5°	1063.5	1070.1	1070.1	1161.4	1399.8	1634.5	1709.6	1602.0	1422.5	1210.4	975.6
85°	101.0	114.1	192.6	297.0	590.6	665.5	668.9	554.6	554.6	437.3	352.3
87.5°	0.0	3.2	3.2	3.2	29.3	81.6	68.6	19.6	9.7	9.7	16.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2
2.5°	1735.8	1725.9	1686.8	1647.6	1611.8	1572.5	1536.7	1500.8	1461.6	1432.3	1396.4
5°	2029.4	1957.5	1876.1	1797.8	1719.3	1637.9	1553.1	1478.0	1399.8	1327.8	1259.3
7.5°	2326.2	2185.9	2075.0	1934.7	1807.5	1680.3	1562.8	1442.2	1331.2	1226.8	1128.9
10°	2577.4	2407.8	2234.9	2055.6	1872.7	1703.1	1540.0	1396.4	1249.6	1122.4	1001.7
12.5°	2783.1	2567.7	2355.7	2130.4	1925.0	1709.6	1507.3	1334.4	1161.4	1018.0	893.9
15°	2968.9	2721.1	2466.5	2205.5	1944.6	1699.9	1474.7	1259.3	1083.2	920.1	779.8
17.5°	3119.1	2835.2	2548.1	2254.5	1973.9	1686.8	1432.3	1207.2	1001.7	831.9	695.0
20°	3249.7	2952.7	2642.8	2313.1	1993.5	1683.5	1396.4	1142.0	929.8	750.5	616.6
22.5°	3370.3	3073.3	2740.7	2388.2	2022.9	1680.3	1363.7	1093.1	867.8	688.5	554.6
25°	3507.4	3194.2	2845.1	2466.5	2075.0	1693.4	1344.3	1053.8	812.3	629.6	505.6
27.5°	3660.8	3331.1	2968.9	2564.3	2143.5	1719.3	1337.7	1011.4	763.4	574.2	466.6
30°	3875.9	3494.3	3092.9	2662.2	2205.5	1748.9	1331.2	985.3	714.4	531.8	427.4
32.5°	4065.3	3654.2	3230.0	2763.5	2274.1	1778.2	1327.8	949.4	668.9	489.4	398.0
35°	4264.3	3801.0	3347.5	2861.3	2332.7	1810.7	1324.7	923.3	626.5	447.0	368.7
37.5°	4437.2	3924.9	3438.9	2946.1	2398.1	1840.2	1327.8	900.5	587.2	411.1	342.6
40°	4584.0	4052.3	3539.9	3024.4	2466.5	1885.8	1331.2	877.7	548.2	378.4	319.8
42.5°	4714.6	4172.9	3647.7	3112.6	2544.9	1938.1	1350.8	858.1	515.5	349.1	297.0
45°	4815.7	4283.9	3765.0	3236.6	2672.1	2022.9	1386.7	845.0	482.8	322.9	277.4
47.5°	4920.1	4446.9	3964.1	3432.3	2858.2	2156.6	1448.7	841.8	456.7	303.3	260.9
50°	5063.7	4610.2	4140.2	3631.3	3027.8	2293.7	1523.6	845.0	424.2	283.9	244.7
52.5°	5168.1	4776.4	4368.7	3977.2	3432.3	2711.2	1814.0	903.7	407.7	267.5	225.1
55°	5784.7	5716.1	5725.8	5791.2	5370.4	4613.4	3034.3	1305.1	479.7	303.3	221.9
57.5°	8156.6	8398.0	8538.2	8535.1	7840.0	6502.5	4075.1	1676.9	535.1	352.3	264.3
60°	11275.7	11093.1	10835.3	10198.9	9275.7	7422.6	4557.9	1804.3	463.2	280.5	241.5
62.5°	14032.7	12962.4	12013.0	10982.1	9771.6	7742.2	4655.8	1794.4	404.6	212.0	169.6
65°	15752.0	13827.0	12293.7	11001.5	9575.8	7474.7	4404.5	1647.6	342.6	173.0	140.3
67.5°	16163.1	13360.4	11190.9	9543.1	7999.9	5817.4	3233.2	1239.9	267.5	143.6	124.0
69°	15265.8	11876.1	9272.5	7403.0	5820.5	3859.7	2000.1	783.0	205.5	130.6	114.1
70°	14042.4	10329.5	7553.0	5941.2	4310.0	2711.2	1399.8	551.4	166.4	120.7	104.4
72.5°	9034.3	5425.7	3712.9	2584.0	1778.2	1080.0	548.2	248.1	127.2	101.0	84.8
75°	3504.1	2006.6	1455.2	1105.9	864.6	600.3	332.9	159.9	107.6	84.8	65.2
77.5°	1725.9	1321.3	1080.0	740.6	430.7	267.5	179.5	124.0	88.2	62.0	42.4
80°	1363.7	907.0	541.7	336.0	254.4	192.6	137.1	101.0	65.2	39.2	29.3
82.5°	698.2	381.8	280.5	228.4	189.2	150.2	111.0	71.7	42.4	26.2	22.8
85°	218.5	159.9	143.6	140.3	130.6	107.6	78.3	45.8	26.2	16.2	16.2
87.5°	16.2	22.8	29.3	22.8	26.2	22.8	29.3	19.6	13.1	13.1	9.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2	1504.2
2.5°	1370.2	1331.2	1295.3	1272.4	1230.0	1213.7	1197.5	1190.9	1161.4	1168.0	1142.0
5°	1197.5	1128.9	1076.6	1024.5	975.6	939.7	910.2	874.3	845.0	831.9	805.8
7.5°	1040.8	952.8	884.2	828.8	769.9	724.3	685.1	659.0	633.0	606.9	593.8
10°	903.7	809.1	730.9	675.4	619.9	580.7	551.4	531.8	515.5	505.6	502.4
12.5°	776.5	685.1	613.4	564.5	522.1	502.4	489.4	479.7	476.3	473.1	473.1
15°	678.6	587.2	531.8	495.9	476.3	466.6	463.2	456.7	450.3	447.0	447.0
17.5°	587.2	518.7	479.7	460.0	450.3	443.8	437.3	430.7	424.2	420.8	420.8
20°	525.2	469.8	450.3	437.3	427.4	420.8	411.1	404.6	401.4	398.0	394.9
22.5°	476.3	440.4	427.4	417.6	404.6	394.9	388.3	381.8	375.3	371.9	368.7
25°	440.4	417.6	407.7	394.9	381.8	371.9	362.2	352.3	345.9	342.6	336.0
27.5°	414.3	398.0	385.0	368.7	355.6	345.9	336.0	326.3	319.8	313.2	309.9
30°	391.5	375.3	358.8	345.9	329.5	319.8	306.7	297.0	293.6	287.1	280.5
32.5°	368.7	352.3	336.0	319.8	303.3	290.5	283.9	270.8	264.3	260.9	254.4
35°	342.6	326.3	306.7	293.6	277.4	264.3	254.4	244.7	238.1	231.6	228.4
37.5°	319.8	300.2	280.5	264.3	251.2	238.1	228.4	218.5	212.0	205.5	202.3
40°	293.6	274.0	254.4	238.1	225.1	215.4	205.5	195.7	189.2	186.0	186.0
42.5°	270.8	248.1	228.4	215.4	205.5	192.6	182.7	173.0	169.6	166.4	169.6
45°	248.1	225.1	208.8	195.7	186.0	173.0	163.1	156.5	153.3	156.5	159.9
47.5°	228.4	205.5	189.2	179.5	169.6	159.9	150.2	143.6	143.6	150.2	156.5
50°	208.8	186.0	173.0	166.4	156.5	146.8	133.7	130.6	133.7	140.3	146.8
52.5°	189.2	163.1	153.3	150.2	140.3	130.6	120.7	117.5	120.7	127.2	124.0
55°	169.6	143.6	140.3	137.1	127.2	114.1	104.4	104.4	104.4	101.0	94.7
57.5°	163.1	127.2	124.0	120.7	111.0	97.9	91.3	84.8	81.6	71.7	68.6
60°	169.6	114.1	114.1	107.6	97.9	84.8	75.1	65.2	58.6	52.1	52.1
62.5°	137.1	104.4	101.0	94.7	81.6	68.6	58.6	48.9	45.8	42.4	42.4
65°	111.0	94.7	88.2	78.3	68.6	55.5	45.8	39.2	35.9	35.9	39.2
67.5°	101.0	84.8	75.1	65.2	55.5	42.4	35.9	32.7	32.7	35.9	35.9
69°	94.7	78.3	68.6	58.6	48.9	39.2	32.7	32.7	32.7	32.7	35.9
70°	88.2	75.1	65.2	55.5	42.4	32.7	29.3	29.3	32.7	32.7	35.9
72.5°	68.6	58.6	55.5	45.8	32.7	29.3	26.2	29.3	29.3	32.7	32.7
75°	52.1	42.4	42.4	35.9	26.2	22.8	22.8	26.2	26.2	29.3	29.3
77.5°	35.9	29.3	29.3	26.2	22.8	19.6	19.6	22.8	26.2	26.2	29.3
80°	26.2	22.8	19.6	22.8	19.6	16.2	19.6	22.8	22.8	26.2	26.2
82.5°	19.6	19.6	19.6	19.6	16.2	16.2	19.6	19.6	22.8	26.2	26.2
85°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	19.6	19.6	22.8	22.8
87.5°	9.7	9.7	9.7	13.1	13.1	16.2	16.2	16.2	16.2	19.6	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):

	165°	170°	175°	180°
0°	1504.2	1504.2	1504.2	1504.2
2.5°	1135.5	1132.1	1119.0	1122.4
5°	796.1	776.5	789.5	786.4
7.5°	584.1	580.7	577.5	584.1
10°	499.3	499.3	495.9	499.3
12.5°	469.8	469.8	469.8	469.8
15°	447.0	447.0	443.8	443.8
17.5°	420.8	420.8	420.8	417.6
20°	394.9	391.5	391.5	391.5
22.5°	365.3	362.2	362.2	362.2
25°	336.0	332.9	332.9	332.9
27.5°	306.7	303.3	300.2	300.2
30°	277.4	274.0	270.8	270.8
32.5°	248.1	244.7	241.5	241.5
35°	221.9	221.9	218.5	215.4
37.5°	199.1	199.1	199.1	199.1
40°	182.7	186.0	186.0	186.0
42.5°	173.0	176.1	179.5	182.7
45°	166.4	173.0	176.1	176.1
47.5°	163.1	166.4	169.6	169.6
50°	150.2	146.8	146.8	146.8
52.5°	120.7	114.1	111.0	107.6
55°	88.2	84.8	78.3	78.3
57.5°	62.0	62.0	58.6	58.6
60°	48.9	48.9	45.8	48.9
62.5°	42.4	42.4	42.4	42.4
65°	39.2	39.2	39.2	39.2
67.5°	39.2	39.2	39.2	39.2
69°	35.9	35.9	35.9	35.9
70°	35.9	35.9	35.9	35.9
72.5°	32.7	32.7	32.7	32.7
75°	29.3	32.7	32.7	32.7
77.5°	29.3	29.3	29.3	29.3
80°	26.2	26.2	29.3	29.3
82.5°	26.2	26.2	26.2	26.2
85°	22.8	22.8	26.2	26.2
87.5°	19.6	19.6	22.8	22.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)