

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: P165312

Luminaire Tested: **VST-F09-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165312
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F09-LED-E-U-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12727.8 lumens
Efficiency: N/A
Efficacy: 54.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.5' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

Input Watts (W): 234.8
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



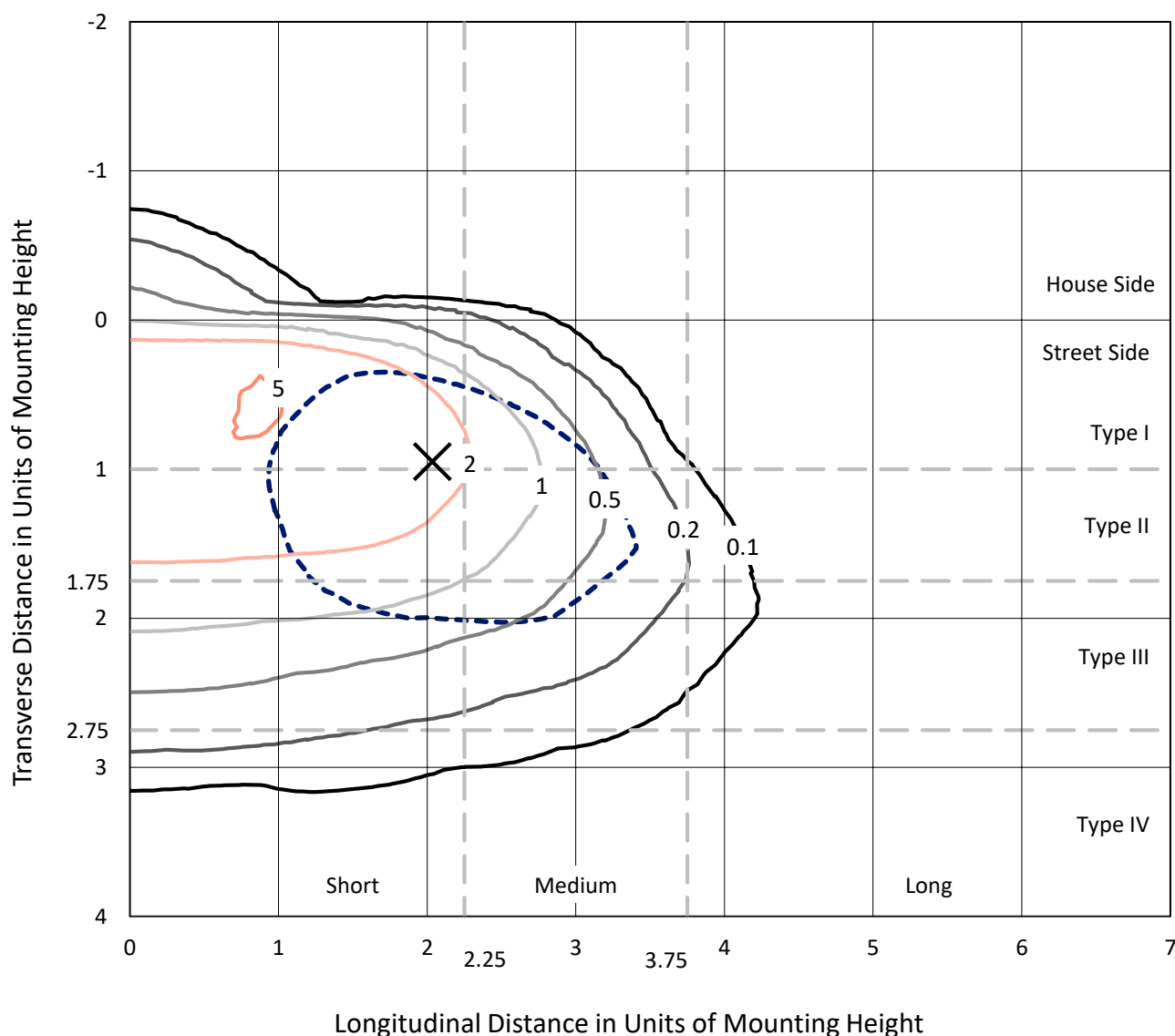
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

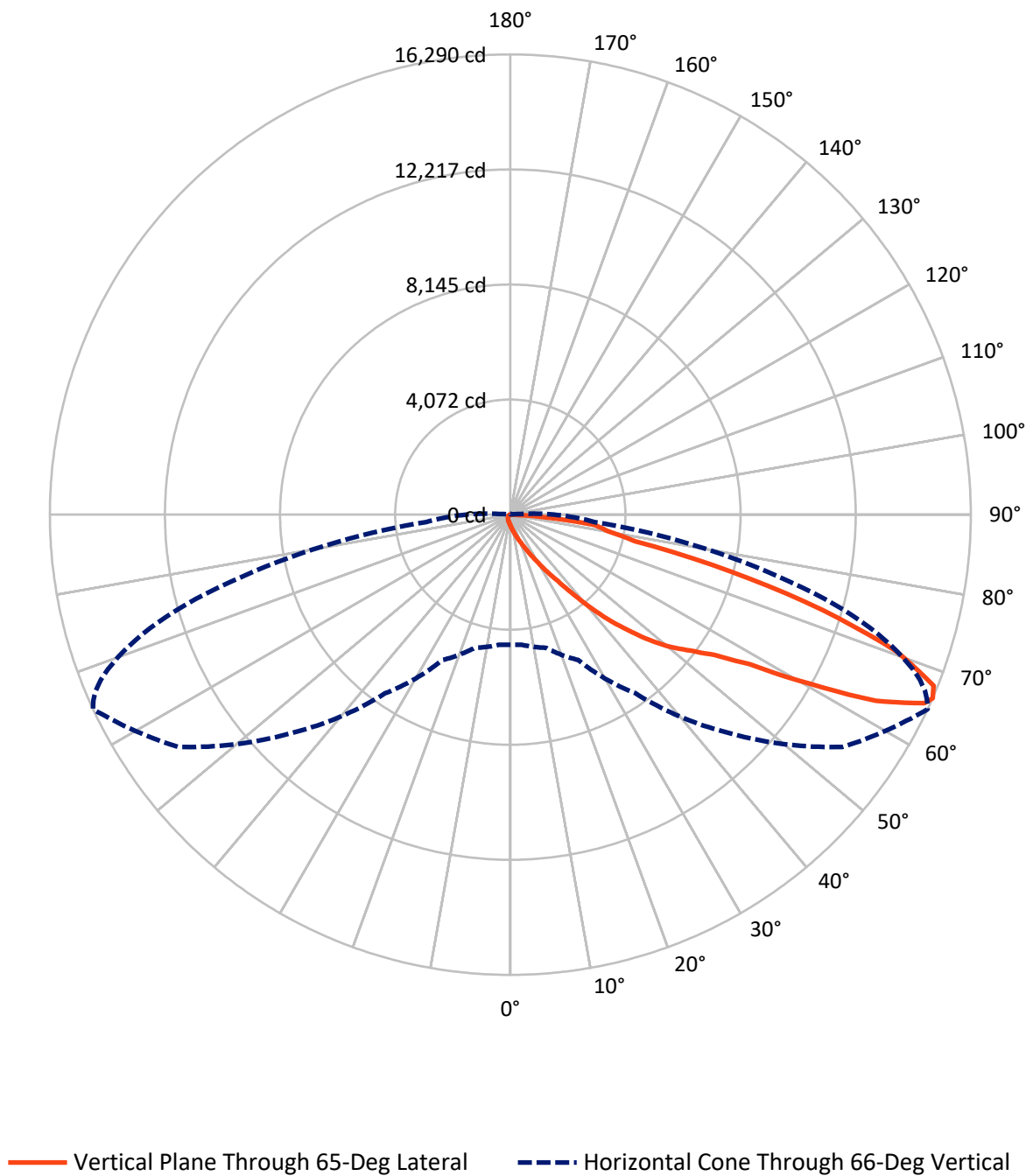


Based on 20 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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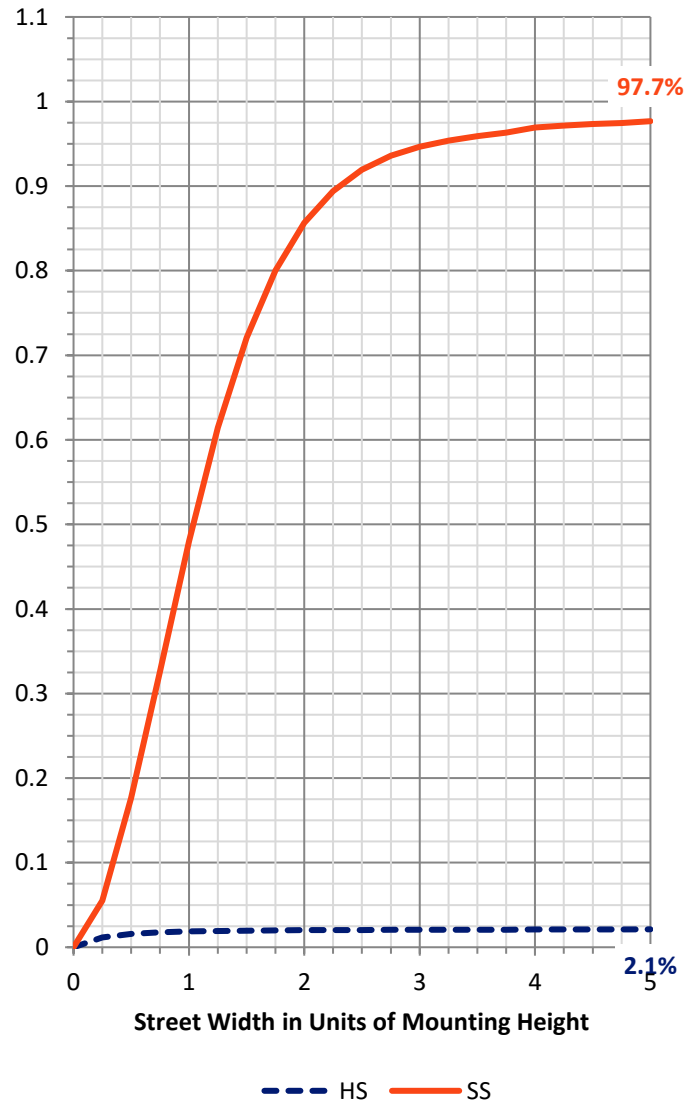
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	275.8	0.0	275.8
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	12452.0	0.0	12452.0
	% Fixture	97.8	0.0	97.8
Total	Lumens	12727.8	0.0	12727.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	0.3
10°-20°	182.4	1.4
20°-30°	393.3	3.1
30°-40°	839.9	6.6
40°-50°	1857.5	14.6
50°-60°	3147.8	24.7
60°-70°	4200.5	33.0
70°-80°	1850.3	14.5
80°-90°	213.1	1.7
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°	12727.8	100.0
0°-180°	12727.8	100.0

Coefficient of Utilization



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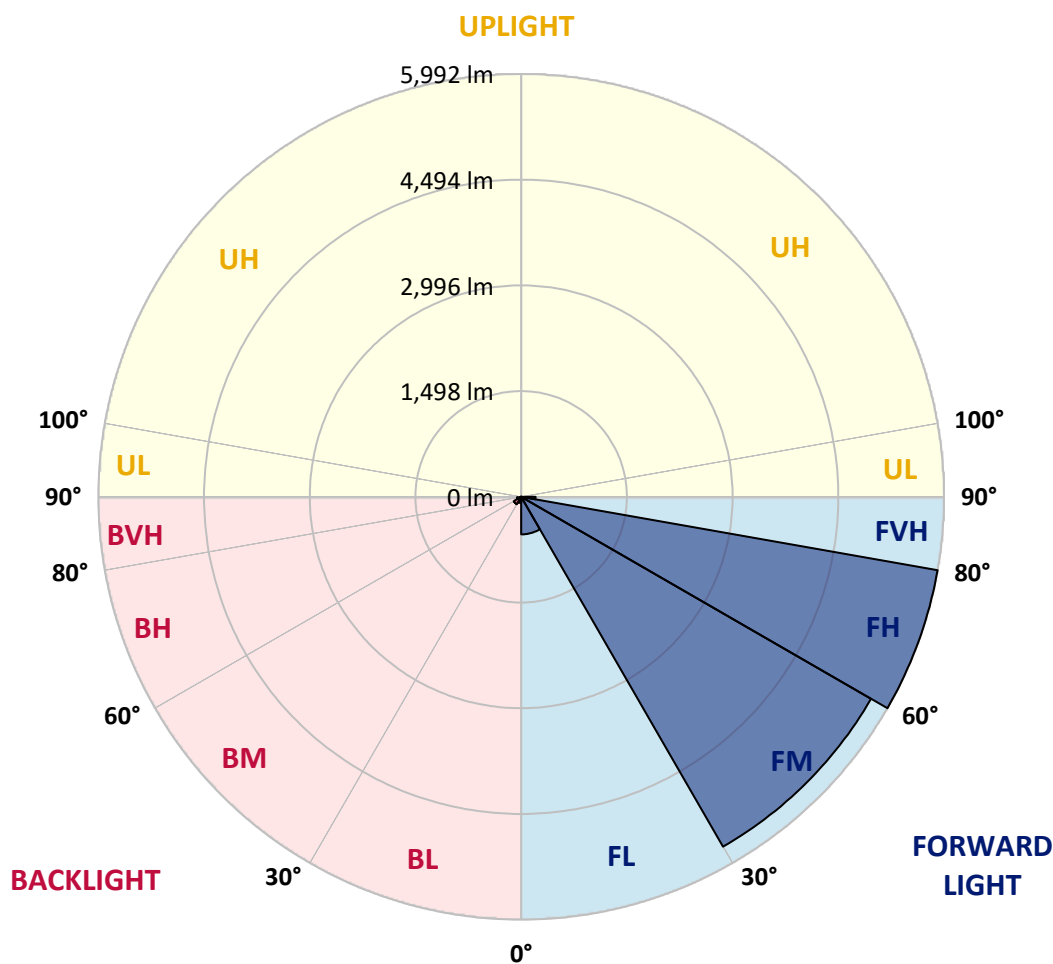
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	531.6	4.2			
FM	(30°-60°)	5724.1	45.0			
FH	(60°-80°)	5991.6	47.1			G3/7500
FVH	(80°-90°)	204.6	1.6			G2/225
BL	(0°-30°)	87.0	0.7	B0/110		
BM	(30°-60°)	121.1	1.0	B0/220		
BH	(60°-80°)	59.2	0.5	B0/110		G0/110
BVH	(80°-90°)	8.5	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1
2.5°	484.6	482.0	472.2	472.2	457.5	447.9	435.5	423.3	423.3	420.8	418.4
5°	641.0	626.5	623.9	597.1	575.1	543.3	513.8	474.8	469.9	465.0	462.4
7.5°	814.9	812.4	790.4	758.6	714.6	655.7	597.1	533.5	523.6	518.7	508.9
10°	1040.0	1027.7	998.4	944.5	878.5	800.2	704.8	604.3	592.1	582.3	577.4
12.5°	1255.3	1233.3	1216.1	1147.6	1064.4	949.4	834.4	690.1	680.3	668.1	648.5
15°	1455.9	1436.3	1407.0	1348.3	1255.3	1110.9	976.4	800.2	775.7	758.6	743.9
17.5°	1612.5	1600.4	1566.0	1500.1	1399.6	1272.4	1110.9	912.7	893.2	871.1	844.2
20°	1761.9	1744.6	1690.9	1600.4	1492.6	1394.7	1270.0	1059.5	1032.6	1005.7	976.4
22.5°	1903.8	1886.6	1798.6	1649.3	1534.2	1492.6	1448.6	1225.9	1184.3	1162.3	1132.9
25°	2102.0	2065.3	1928.2	1690.9	1536.8	1568.6	1644.3	1441.2	1402.1	1370.3	1323.8
27.5°	2368.7	2319.7	2104.4	1752.1	1546.4	1651.8	1869.5	1703.0	1661.4	1624.7	1573.5
30°	2669.6	2637.8	2380.9	1898.9	1617.5	1774.1	2121.5	2035.9	1987.0	1942.9	1881.8
32.5°	2973.1	2929.1	2674.6	2177.8	1808.2	2011.4	2437.2	2422.5	2358.9	2317.3	2251.2
35°	3239.8	3217.8	3029.4	2635.3	2243.9	2427.4	2858.1	2875.2	2819.0	2774.9	2701.4
37.5°	3420.9	3420.9	3384.2	3127.2	2936.4	3073.4	3477.1	3479.6	3423.3	3323.0	3286.3
40°	3513.8	3540.7	3673.0	3721.8	3712.0	3888.3	4289.6	4245.5	4199.0	4147.6	4025.3
42.5°	3704.8	3729.1	4010.6	4348.3	4568.5	4800.9	5077.5	5062.8	5006.6	4913.6	4800.9
45°	4027.8	4059.6	4394.8	4930.7	5383.3	5713.8	5889.8	5821.3	5765.0	5677.1	5618.2
47.5°	4438.8	4500.0	4879.2	5542.4	6088.1	6633.7	6817.2	6636.2	6587.3	6518.7	6423.3
50°	4876.9	4935.6	5339.3	6097.9	6714.5	7365.4	7671.3	7365.4	7294.5	7272.4	7164.8
52.5°	5256.1	5305.1	5694.1	6526.1	7194.1	7957.5	8402.9	7999.1	7947.7	7874.3	7796.0
55°	5481.2	5520.4	5884.9	6731.6	7519.6	8491.0	9110.2	8755.3	8679.4	8650.1	8537.5
57.5°	5557.1	5596.2	5924.2	6758.5	7695.7	8977.9	9969.1	9981.2	9890.7	9785.5	9751.2
60°	5557.1	5601.1	5877.7	6692.5	7867.0	9496.7	11114.1	12134.5	11938.8	11919.2	11794.4
62.5°	5327.1	5368.7	5647.6	6489.4	8097.1	10196.6	12709.6	14510.5	14454.4	14327.0	14121.5
65°	4827.8	4852.4	5126.4	5970.7	8008.9	10840.1	14092.1	16091.3	16000.8	15751.2	15487.0
66°	4602.7	4622.3	4879.2	5674.5	7720.2	10928.2	14336.8	16289.5	16140.3	15929.8	15631.2
67.5°	4277.3	4311.6	4492.6	5124.0	7027.8	10622.3	14182.7	16150.1	16020.4	15765.9	15467.3
70°	2855.7	2831.2	3469.8	3932.3	5354.0	8655.0	12724.3	14500.7	14503.3	14383.4	14263.4
72.5°	1355.6	1370.3	1556.2	2420.0	3504.0	5782.3	10128.1	11574.2	11740.6	11525.3	11375.9
75°	973.9	995.9	1108.5	1480.4	2089.7	3469.8	6565.2	8094.5	8099.4	7717.7	7377.7
77.5°	283.8	296.1	415.9	912.7	1566.0	2341.7	3770.7	4500.0	4394.8	4120.7	3863.8
80°	117.4	117.4	122.3	291.2	628.9	1590.6	2637.8	3464.9	3452.7	3347.5	3195.8
82.5°	44.0	46.5	58.7	119.9	149.3	391.5	1759.4	3007.4	3000.0	2850.8	2743.1
85°	4.9	4.9	14.7	51.4	56.3	73.4	352.3	1326.2	1318.9	1326.2	1162.3
87.5°	0.0	0.0	2.4	4.9	7.3	9.8	14.7	51.4	56.3	53.8	48.9
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1
2.5°	418.4	413.5	413.5	411.2	411.2	411.2	408.6	406.3	406.3	403.7	401.4
5°	457.5	452.6	450.2	445.3	443.0	440.4	435.5	433.2	428.2	425.7	423.3
7.5°	504.0	494.2	491.8	484.6	477.1	472.2	467.3	460.0	455.1	445.3	443.0
10°	562.9	550.5	540.7	530.9	523.6	511.5	504.0	494.2	484.6	477.1	469.9
12.5°	638.7	621.6	606.9	597.1	580.0	565.3	550.5	543.3	523.6	513.8	501.7
15°	721.9	702.3	685.2	665.6	653.4	628.9	609.2	587.2	577.4	560.3	540.7
17.5°	829.5	797.7	770.8	751.3	726.8	702.3	680.3	658.3	628.9	609.2	584.9
20°	944.5	917.6	880.9	846.7	817.3	788.0	756.0	726.8	699.9	668.1	638.7
22.5°	1091.4	1052.2	1008.2	973.9	934.8	903.0	858.9	819.8	775.7	734.1	699.9
25°	1277.3	1225.9	1184.3	1135.4	1088.9	1040.0	986.1	937.2	880.9	841.8	783.1
27.5°	1507.3	1458.5	1402.1	1338.5	1292.0	1218.6	1147.6	1086.5	1020.4	959.2	893.2
30°	1801.0	1730.1	1671.2	1610.2	1517.1	1446.1	1362.9	1279.8	1189.2	1128.1	1027.7
32.5°	2153.3	2077.5	1989.4	1901.3	1815.7	1715.4	1612.5	1509.7	1409.4	1296.9	1194.1
35°	2584.1	2493.4	2393.1	2297.7	2165.6	2057.9	1928.2	1786.3	1673.8	1544.0	1414.3
37.5°	3154.2	3004.9	2916.8	2816.5	2637.8	2491.0	2346.6	2204.7	2006.5	1869.5	1686.0
40°	3868.7	3780.5	3636.3	3474.7	3313.2	3119.9	2924.2	2735.8	2505.7	2314.8	2102.0
42.5°	4707.9	4578.3	4431.5	4199.0	4035.1	3807.4	3584.8	3335.2	3053.8	2809.2	2559.5
45°	5495.9	5341.8	5229.2	4996.8	4825.5	4556.2	4287.1	4022.9	3697.3	3381.7	3093.0
47.5°	6347.5	6220.2	6034.3	5845.9	5672.1	5368.7	5077.5	4757.0	4414.3	4040.0	3665.5
50°	7096.3	6996.0	6868.6	6641.1	6447.8	6193.3	5850.8	5500.8	5067.7	4695.7	4270.0
52.5°	7732.4	7654.1	7475.5	7314.0	7140.3	6900.4	6594.6	6259.4	5792.1	5383.3	4898.9
55°	8483.7	8427.4	8270.8	8170.5	8016.4	7786.4	7500.0	7189.3	6694.9	6249.6	5701.4
57.5°	9714.5	9670.5	9533.4	9491.8	9340.1	9139.5	8787.1	8454.3	7876.8	7323.8	6697.5
60°	11752.8	11664.8	11464.1	11361.4	11040.7	10771.6	10314.1	9856.4	9159.1	8454.3	7700.6
62.5°	13935.5	13688.4	13306.6	12978.8	12523.7	12056.2	11444.5	10744.7	9927.4	9090.6	8224.3
65°	15112.5	14691.7	14209.6	13688.4	13098.8	12411.1	11640.3	10801.0	9922.5	9039.2	8124.0
66°	15247.1	14772.4	14261.1	13681.1	13025.3	12293.7	11510.6	10629.7	9716.9	8855.6	7940.4
67.5°	15078.3	14581.6	14040.8	13397.3	12687.6	11929.0	11106.8	10191.7	9313.2	8439.6	7548.9
70°	13896.4	13402.0	12920.0	12242.3	11486.1	10722.7	9944.5	8921.8	8089.8	7287.1	6494.3
72.5°	11097.0	10761.8	10284.7	9704.7	8968.1	8072.5	7424.1	6509.0	5787.2	5009.0	4394.8
75°	6934.8	6462.5	5872.8	5133.8	4570.9	3844.1	3464.9	2769.9	2358.9	1999.2	1651.8
77.5°	3545.6	3190.9	2777.4	2361.3	1962.5	1566.0	1211.2	856.5	577.4	401.4	298.5
80°	2929.1	2615.9	2273.2	1894.0	1541.7	1196.6	861.4	587.2	374.5	244.7	190.8
82.5°	2420.0	2155.8	1849.9	1497.5	1191.7	939.7	653.4	425.7	264.2	171.3	134.6
85°	1030.2	934.8	721.9	572.5	430.6	318.1	222.7	149.3	105.2	85.6	78.3
87.5°	44.0	48.9	46.5	36.7	26.9	26.9	24.5	19.6	19.6	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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1	384.1
2.5°	401.4	398.8	396.5	396.5	393.9	391.5	376.8	364.7	349.9	340.1	330.3
5°	418.4	415.9	411.2	408.6	403.7	401.4	369.6	342.5	320.5	303.4	291.2
7.5°	435.5	433.2	425.7	418.4	415.9	411.2	359.7	325.4	296.1	276.5	264.2
10°	457.5	450.2	443.0	433.2	425.7	418.4	349.9	305.8	274.0	256.9	244.7
12.5°	489.3	477.1	465.0	452.6	443.0	430.6	345.0	288.7	256.9	237.3	225.1
15°	526.2	508.9	494.2	479.7	462.4	450.2	335.2	274.0	242.2	222.7	208.0
17.5°	560.3	540.7	518.7	496.8	479.7	462.4	325.4	259.4	227.5	208.0	193.3
20°	609.2	580.0	553.1	526.2	501.7	479.7	310.7	244.7	215.3	193.3	178.6
22.5°	663.2	628.9	594.7	558.0	526.2	496.8	298.5	232.4	203.1	181.1	163.9
25°	731.7	690.1	643.6	597.1	560.3	521.3	286.3	220.2	190.8	168.8	151.7
27.5°	827.1	768.4	717.0	658.3	602.0	558.0	276.5	210.4	178.6	156.6	139.5
30°	956.8	871.1	790.4	726.8	660.7	597.1	266.7	198.2	168.8	144.4	124.8
32.5°	1101.1	1000.8	907.8	812.4	729.2	655.7	256.9	188.4	156.6	132.1	115.0
35°	1279.8	1152.5	1027.7	917.6	817.3	719.3	247.1	178.6	146.8	119.9	102.8
37.5°	1536.8	1377.6	1213.7	1071.8	942.1	812.4	239.8	168.8	134.6	107.7	90.5
40°	1889.1	1683.6	1482.8	1289.5	1120.7	959.2	230.0	159.0	124.8	97.9	80.7
42.5°	2270.8	2021.2	1757.0	1539.1	1306.7	1103.6	220.2	149.3	115.0	88.1	71.0
45°	2745.6	2434.7	2114.2	1818.1	1534.2	1272.4	210.4	139.5	102.8	78.3	61.2
47.5°	3264.3	2867.9	2505.7	2133.8	1796.1	1482.8	198.2	132.1	93.0	68.5	53.8
50°	3797.8	3379.3	2921.7	2498.3	2097.1	1693.4	186.0	119.9	83.2	61.2	44.0
52.5°	4372.7	3878.5	3411.1	2885.0	2417.6	1969.8	173.7	110.1	75.8	53.8	36.7
55°	5104.4	4551.4	4003.3	3413.5	2850.8	2290.4	161.5	97.9	66.1	46.5	29.4
57.5°	6024.5	5368.7	4695.7	4030.2	3347.5	2711.3	151.7	85.6	56.3	39.1	24.5
60°	6893.1	6127.3	5312.4	4546.5	3775.6	3034.3	137.0	75.8	48.9	31.8	24.5
62.5°	7343.4	6469.8	5591.3	4747.1	3925.0	3149.3	122.3	63.6	41.6	26.9	22.0
65°	7233.3	6342.6	5491.0	4639.4	3834.5	3075.9	107.7	56.3	36.7	24.5	22.0
66°	7074.3	6193.3	5336.9	4526.9	3758.5	2997.6	100.3	53.8	34.3	24.5	19.6
67.5°	6726.7	5875.1	5057.9	4304.2	3550.5	2848.3	90.5	48.9	31.8	22.0	19.6
70°	5745.6	4972.3	4318.9	3648.4	3034.3	2400.5	73.4	41.6	26.9	19.6	19.6
72.5°	3802.5	3276.5	2841.0	2444.5	2043.2	1585.7	61.2	34.3	22.0	19.6	17.1
75°	1433.9	1296.9	1113.4	1000.8	873.6	765.9	48.9	22.0	17.1	17.1	17.1
77.5°	254.5	234.9	208.0	190.8	176.2	161.5	39.1	14.7	14.7	17.1	17.1
80°	171.3	159.0	144.4	132.1	122.3	110.1	26.9	12.2	14.7	14.7	17.1
82.5°	122.3	115.0	107.7	97.9	90.5	80.7	17.1	12.2	14.7	14.7	14.7
85°	73.4	68.5	63.6	58.7	51.4	48.9	12.2	12.2	12.2	14.7	14.7
87.5°	19.6	17.1	19.6	19.6	14.7	17.1	9.8	9.8	9.8	12.2	12.2
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):

	145°	155°	165°	175°	180°
0°	384.1	384.1	384.1	384.1	384.1
2.5°	325.4	325.4	320.5	327.9	327.9
5°	281.4	281.4	278.9	281.4	281.4
7.5°	256.9	254.5	254.5	254.5	256.9
10°	234.9	232.4	232.4	232.4	232.4
12.5°	215.3	212.9	210.4	212.9	212.9
15°	198.2	193.3	193.3	193.3	193.3
17.5°	183.5	178.6	176.2	176.2	176.2
20°	168.8	161.5	161.5	161.5	161.5
22.5°	154.1	146.8	146.8	146.8	146.8
25°	139.5	132.1	132.1	132.1	132.1
27.5°	127.2	119.9	119.9	119.9	119.9
30°	112.6	107.7	107.7	110.1	107.7
32.5°	102.8	95.4	95.4	97.9	97.9
35°	90.5	85.6	85.6	85.6	85.6
37.5°	78.3	73.4	73.4	73.4	73.4
40°	68.5	63.6	61.2	63.6	63.6
42.5°	58.7	53.8	51.4	51.4	51.4
45°	51.4	44.0	41.6	44.0	44.0
47.5°	41.6	36.7	36.7	39.1	39.1
50°	31.8	31.8	34.3	39.1	39.1
52.5°	29.4	29.4	34.3	39.1	39.1
55°	26.9	29.4	34.3	36.7	39.1
57.5°	24.5	29.4	34.3	36.7	36.7
60°	24.5	26.9	31.8	36.7	36.7
62.5°	22.0	24.5	29.4	34.3	34.3
65°	22.0	24.5	29.4	34.3	34.3
66°	22.0	24.5	29.4	34.3	34.3
67.5°	22.0	24.5	29.4	34.3	34.3
70°	22.0	24.5	29.4	31.8	31.8
72.5°	19.6	22.0	26.9	31.8	31.8
75°	19.6	22.0	26.9	31.8	31.8
77.5°	19.6	22.0	26.9	31.8	31.8
80°	19.6	22.0	26.9	29.4	31.8
82.5°	17.1	22.0	24.5	29.4	29.4
85°	17.1	19.6	24.5	26.9	29.4
87.5°	14.7	17.1	19.6	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)