

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: P165563

Luminaire Tested: **VST-F12-LED-E-U-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165563
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-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20436.4 lumens
Efficiency: N/A
Efficacy: 66.7 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

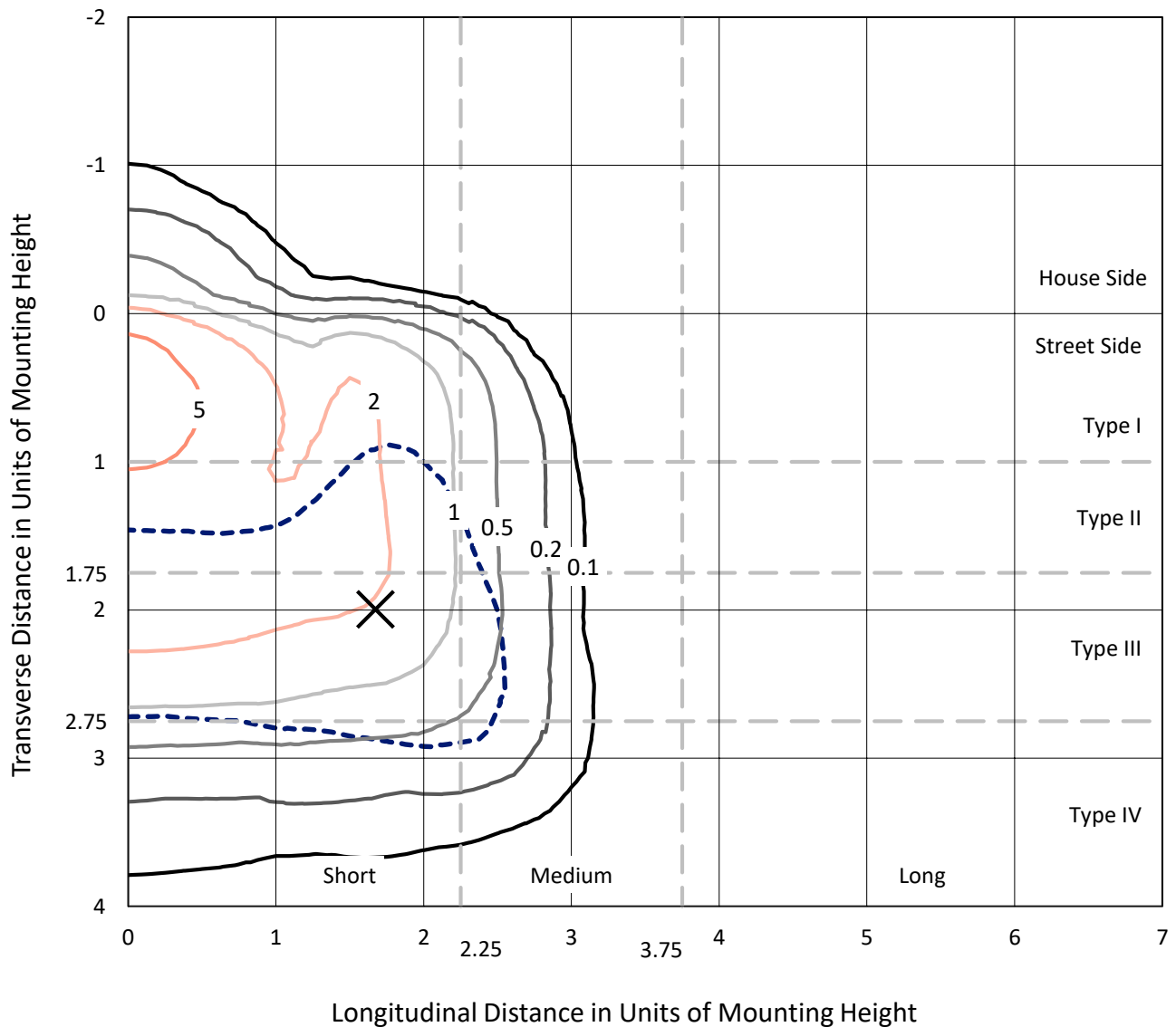
Input Watts (W): 306.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

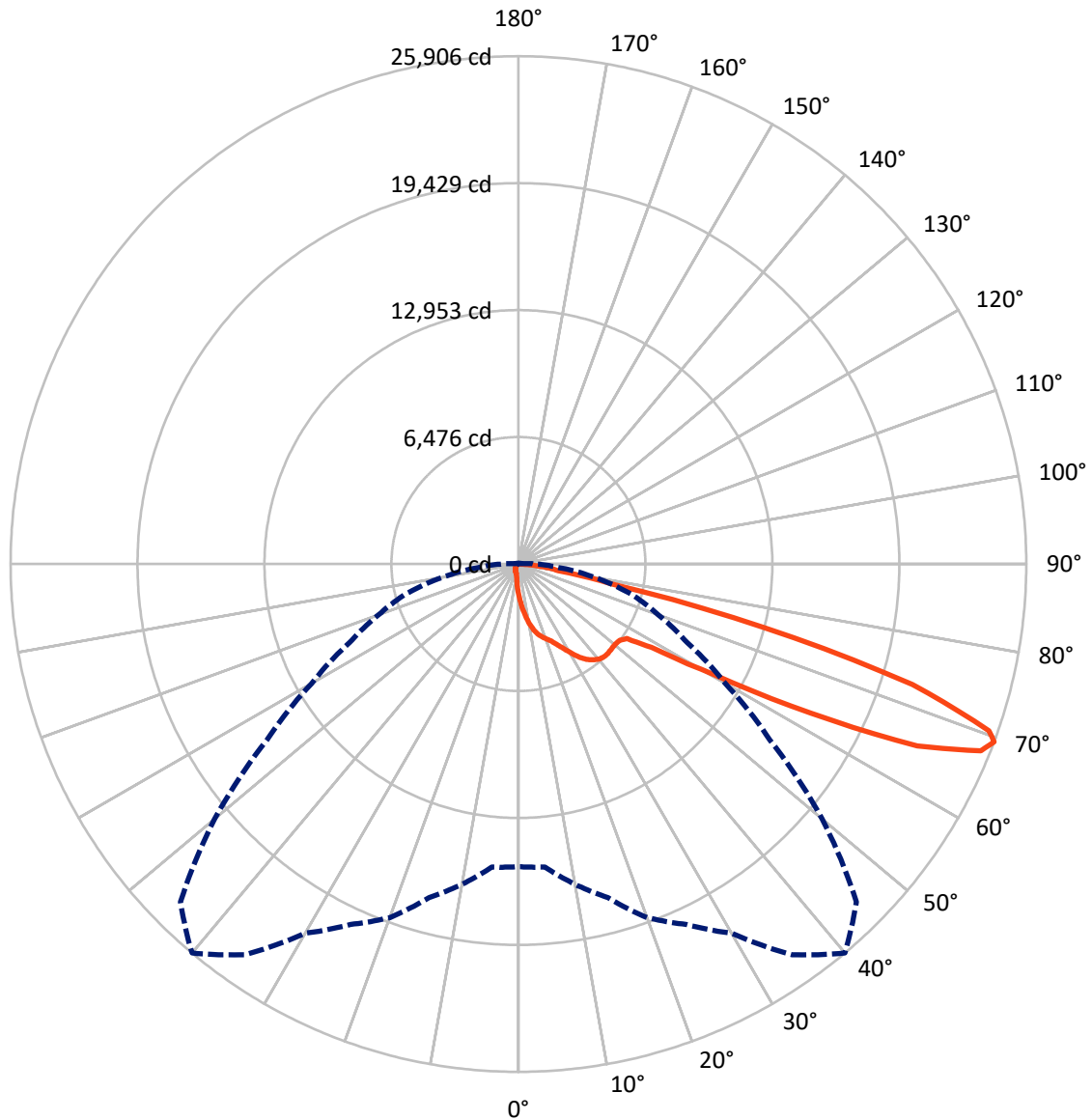
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 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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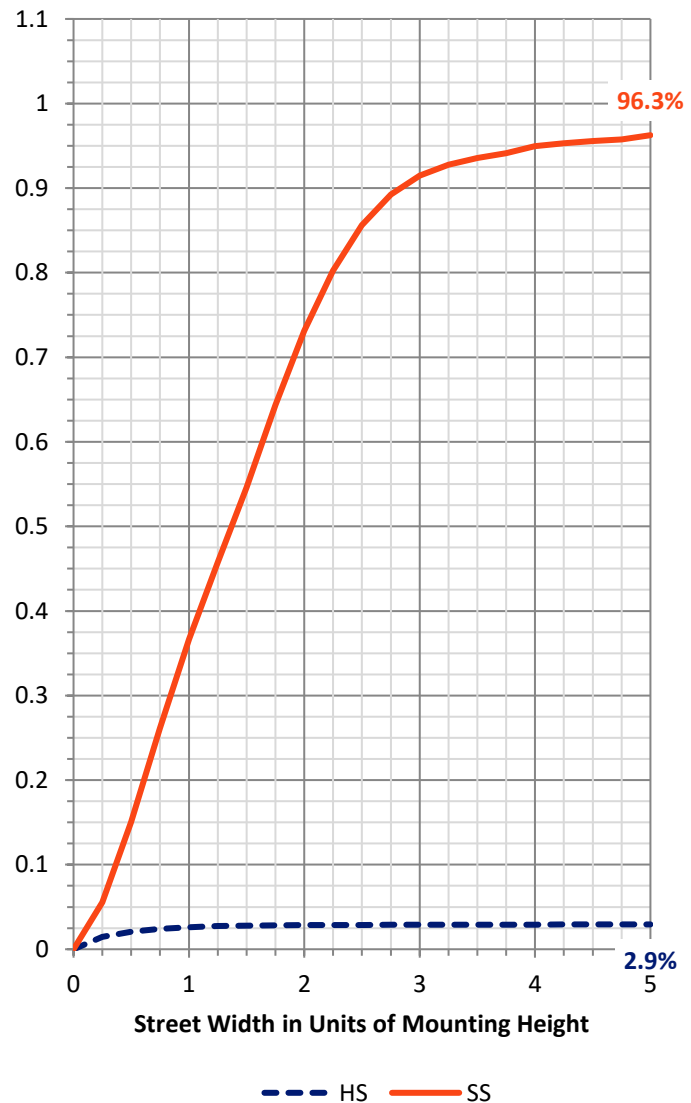
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	608.6	0.0	608.6
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	19827.9	0.0	19827.9
	% Fixture	97.0	0.0	97.0
Total	Lumens	20436.4	0.0	20436.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.6	0.8
10°-20°	546.9	2.7
20°-30°	1046.8	5.1
30°-40°	1740.8	8.5
40°-50°	2355.6	11.5
50°-60°	3683.9	18.0
60°-70°	7574.1	37.1
70°-80°	3047.7	14.9
80°-90°	281.9	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°	20436.4	100.0
0°-180°	20436.4	100.0



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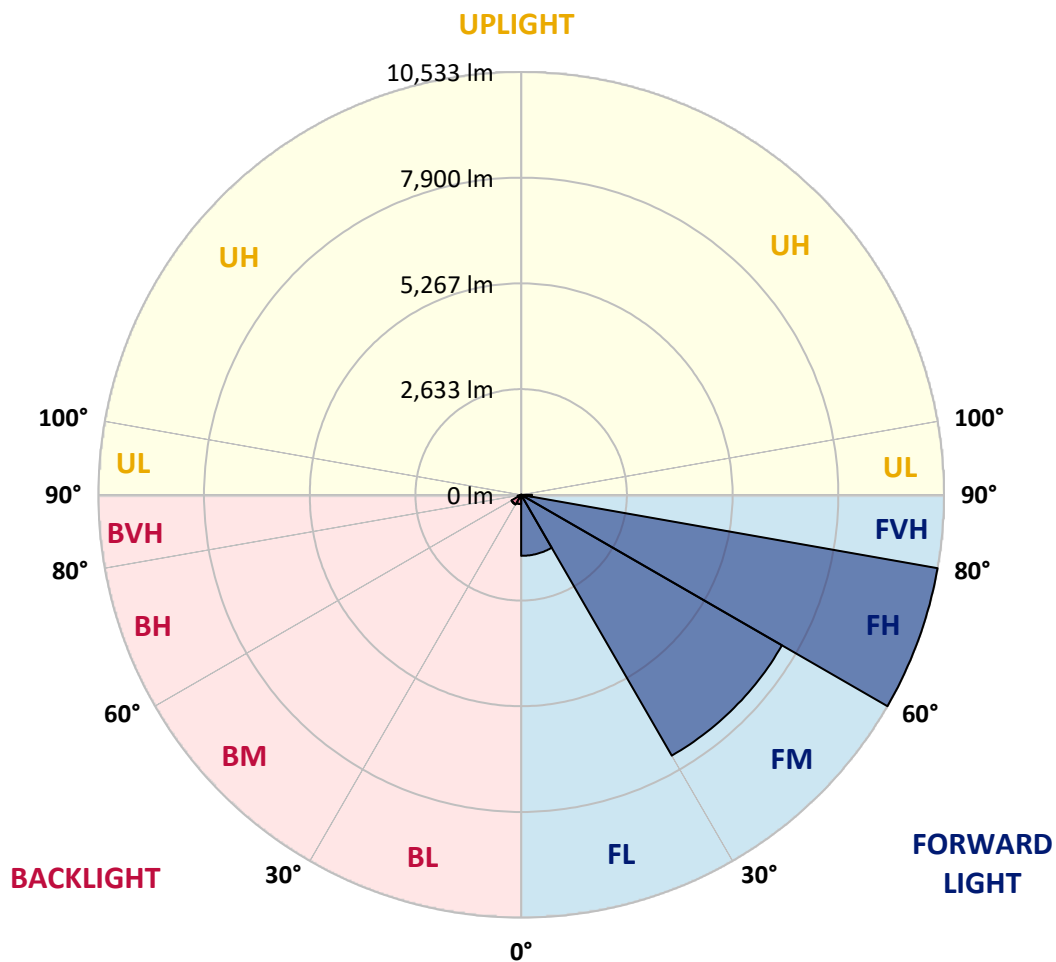
CATALOG NUMBER: VST-F12-LED-E-U-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1520.9	7.4			
FM	(30°-60°)	7502.5	36.7			
FH	(60°-80°)	10533.0	51.5			G4/12000
FVH	(80°-90°)	271.4	1.3			G3/500
BL	(0°-30°)	231.5	1.1	B1/500		
BM	(30°-60°)	277.9	1.4	B1/1000		
BH	(60°-80°)	88.8	0.4	B0/110		G0/110
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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4
2.5°	2059.0	2035.4	2008.6	2008.6	1975.2	1975.2	1955.1	1901.7	1894.9	1864.7	1834.6
5°	2628.0	2607.9	2574.6	2544.3	2517.6	2470.7	2437.1	2373.5	2303.4	2236.3	2176.1
7.5°	3183.9	3173.7	3113.5	3103.3	3059.8	2983.0	2915.9	2822.2	2701.6	2607.9	2497.5
10°	3699.4	3675.8	3662.4	3605.5	3542.1	3458.3	3354.4	3240.8	3100.1	2952.7	2795.3
12.5°	4107.8	4094.4	4034.0	4010.7	3943.8	3860.0	3729.5	3582.1	3441.6	3250.7	3066.5
15°	4412.4	4389.0	4348.8	4312.0	4231.7	4158.1	4037.5	3876.7	3706.1	3498.6	3277.6
17.5°	4666.9	4623.4	4613.2	4556.3	4472.8	4385.5	4251.8	4104.4	3903.5	3696.0	3454.8
20°	5008.2	4948.1	4927.9	4844.2	4747.2	4626.7	4472.8	4288.6	4077.6	3850.1	3602.2
22.5°	5410.0	5366.5	5323.0	5249.4	5125.6	4954.8	4730.5	4529.7	4261.7	4010.7	3742.9
25°	5979.2	5942.4	5872.1	5771.6	5617.5	5413.4	5142.2	4847.6	4532.9	4211.5	3896.8
27.5°	6531.6	6498.0	6447.8	6371.0	6196.7	5972.5	5637.7	5262.8	4864.3	4476.0	4127.8
30°	7050.6	7020.3	6970.1	6893.2	6739.1	6518.1	6139.8	5738.1	5242.7	4790.7	4372.3
32.5°	7609.7	7599.5	7542.6	7432.2	7298.2	7000.4	6588.5	6156.7	5654.5	5132.3	4643.3
35°	8242.3	8165.3	8111.8	8001.2	7773.7	7455.6	6973.5	6501.5	5972.5	5436.8	4891.2
37.5°	8778.0	8704.4	8637.3	8496.8	8218.9	7813.8	7268.1	6749.1	6203.4	5657.8	5102.0
40°	9169.6	9132.8	9052.5	8868.3	8557.0	8075.0	7485.6	6919.9	6371.0	5821.8	5272.7
42.5°	9460.9	9404.0	9313.7	9122.8	8754.6	8205.5	7572.7	6990.2	6447.8	5922.3	5383.3
45°	9568.0	9521.3	9437.5	9229.9	8831.5	8242.3	7569.4	6970.1	6451.3	5952.4	5456.9
47.5°	9504.4	9457.6	9383.8	9189.7	8798.1	8198.8	7509.2	6913.2	6417.7	5962.5	5523.8
50°	9293.6	9266.7	9209.8	9045.8	8694.2	8115.1	7455.6	6883.1	6411.0	6012.7	5617.5
52.5°	9273.4	9256.8	9186.4	9022.4	8664.2	8088.2	7448.8	6899.9	6467.9	6076.4	5684.6
55°	11332.2	11094.6	10562.4	10110.4	9367.2	8483.4	7786.9	7170.9	6709.0	6327.5	6052.8
57.5°	16106.3	15751.5	15051.8	14191.4	12483.9	10806.7	9464.3	8493.4	8014.6	7840.6	7944.3
60°	18342.6	18279.1	18168.6	17760.1	16886.4	15443.5	13836.5	12099.1	11402.6	11342.4	11553.2
62.5°	19404.0	19363.7	19397.3	19347.1	19075.9	18654.0	18191.9	17442.2	16752.4	16307.2	15363.0
65°	19892.7	19919.6	20110.3	20260.9	20294.4	20404.8	20743.1	21677.1	22360.0	21211.7	18590.4
67.5°	18650.6	18807.9	19246.6	19795.5	20438.4	21061.1	22065.4	24033.9	25436.7	24087.6	20364.8
69°	15440.1	15517.1	16588.3	17622.9	19193.0	20291.2	21747.4	24328.5	25905.5	24382.2	20224.1
70°	12155.8	12226.1	13374.6	14780.6	17435.5	18848.2	20753.1	23829.8	25466.8	23990.4	19501.0
72.5°	5483.8	5383.3	5788.3	6541.5	9427.3	11670.5	15001.6	19306.8	21010.9	19219.8	14589.7
75°	3829.9	3786.4	3829.9	3833.2	4281.9	5523.8	6970.1	10465.2	12942.6	11168.4	6970.1
77.5°	2966.1	2936.0	2905.9	2872.4	2926.1	3277.6	3418.1	3712.6	4820.8	4559.8	2658.1
80°	2346.9	2320.0	2393.6	2370.3	2370.3	2410.5	2383.7	2273.1	2065.5	1914.9	1714.0
82.5°	1091.3	1098.0	1098.0	1191.7	1436.3	1677.2	1754.3	1643.9	1459.7	1241.9	1001.0
85°	103.7	117.1	197.6	304.7	606.0	682.9	686.3	569.0	569.0	448.7	361.5
87.5°	0.0	3.3	3.3	3.3	30.1	83.8	70.3	20.1	10.0	10.0	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4
2.5°	1781.1	1770.9	1730.9	1690.6	1653.8	1613.6	1576.8	1540.0	1499.7	1469.6	1432.8
5°	2082.4	2008.6	1925.0	1844.7	1764.2	1680.7	1593.7	1516.6	1436.3	1362.5	1292.2
7.5°	2386.9	2243.0	2129.1	1985.2	1854.7	1724.2	1603.6	1479.8	1366.0	1258.8	1158.4
10°	2644.7	2470.7	2293.2	2109.2	1921.6	1747.6	1580.2	1432.8	1282.2	1151.7	1027.9
12.5°	2855.7	2634.7	2417.2	2186.1	1975.2	1754.3	1546.7	1369.2	1191.7	1044.5	917.3
15°	3046.4	2792.1	2530.9	2263.1	1995.4	1744.3	1513.1	1292.2	1111.4	944.1	800.2
17.5°	3200.5	2909.2	2614.6	2313.3	2025.5	1730.9	1469.6	1238.7	1027.9	853.6	713.2
20°	3334.5	3029.8	2711.8	2373.5	2045.6	1727.4	1432.8	1171.8	954.1	770.1	632.7
22.5°	3458.3	3153.6	2812.2	2450.6	2075.7	1724.2	1399.3	1121.6	890.4	706.5	569.0
25°	3599.0	3277.6	2919.4	2530.9	2129.1	1737.6	1379.4	1081.3	833.5	646.1	518.8
27.5°	3756.3	3418.1	3046.4	2631.3	2199.5	1764.2	1372.7	1037.8	783.3	589.2	478.8
30°	3977.1	3585.6	3173.7	2731.7	2263.1	1794.5	1366.0	1011.0	733.1	545.7	438.5
32.5°	4171.5	3749.6	3314.4	2835.6	2333.5	1824.6	1362.5	974.2	686.3	502.1	408.4
35°	4375.6	3900.3	3434.9	2936.0	2393.6	1857.9	1359.3	947.4	642.8	458.6	378.3
37.5°	4553.1	4027.3	3528.6	3023.0	2460.7	1888.2	1362.5	924.0	602.6	421.8	351.5
40°	4703.7	4158.1	3632.3	3103.3	2530.9	1935.0	1366.0	900.6	562.5	388.3	328.1
42.5°	4837.7	4281.9	3742.9	3193.8	2611.4	1988.7	1386.1	880.5	529.0	358.2	304.7
45°	4941.4	4395.7	3863.3	3321.1	2741.9	2075.7	1422.9	867.1	495.4	331.4	284.6
47.5°	5048.5	4563.0	4067.6	3521.9	2932.8	2212.9	1486.5	863.8	468.6	311.2	267.7
50°	5195.9	4730.5	4248.3	3726.0	3106.8	2353.6	1563.4	867.1	435.3	291.3	251.1
52.5°	5303.0	4901.1	4482.7	4081.0	3521.9	2781.9	1861.4	927.2	418.4	274.5	230.9
55°	5935.7	5865.4	5875.3	5942.4	5510.6	4733.8	3113.5	1339.1	492.2	311.2	227.7
57.5°	8369.6	8617.2	8761.1	8757.9	8044.7	6672.2	4181.4	1720.7	549.1	361.5	271.2
60°	11570.1	11382.7	11118.2	10465.2	9517.8	7616.4	4676.9	1851.4	475.3	287.9	247.8
62.5°	14399.0	13300.8	12326.6	11268.8	10026.7	7944.3	4777.3	1841.3	415.1	217.5	174.0
65°	16163.2	14188.0	12614.7	11288.7	9825.8	7669.8	4519.5	1690.6	351.5	177.5	143.9
67.5°	16585.1	13709.2	11483.1	9792.3	8208.8	5969.2	3317.6	1272.2	274.5	147.4	127.3
69°	15664.3	12186.1	9514.6	7596.2	5972.5	3960.5	2052.3	803.4	210.8	134.0	117.1
70°	14409.0	10599.2	7750.1	6096.3	4422.5	2781.9	1436.3	565.8	170.8	123.8	107.1
72.5°	9270.2	5567.3	3809.8	2651.4	1824.6	1108.2	562.5	254.5	130.5	103.7	87.0
75°	3595.5	2059.0	1493.2	1134.8	887.2	616.0	341.5	164.1	110.4	87.0	66.9
77.5°	1770.9	1355.8	1108.2	759.9	442.0	274.5	184.2	127.3	90.5	63.6	43.5
80°	1399.3	930.7	555.8	344.8	261.0	197.6	140.7	103.7	66.9	40.3	30.1
82.5°	716.4	391.8	287.9	234.4	194.1	154.1	113.8	73.6	43.5	26.8	23.4
85°	224.2	164.1	147.4	143.9	134.0	110.4	80.3	47.0	26.8	16.7	16.7
87.5°	16.7	23.4	30.1	23.4	26.8	23.4	30.1	20.1	13.4	13.4	10.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4	1543.4
2.5°	1406.0	1366.0	1329.2	1305.6	1262.1	1245.4	1228.7	1222.0	1191.7	1198.4	1171.8
5°	1228.7	1158.4	1104.7	1051.3	1001.0	964.2	934.0	897.2	867.1	853.6	826.8
7.5°	1067.9	977.7	907.3	850.4	790.0	743.3	703.0	676.2	649.5	622.7	609.3
10°	927.2	830.3	750.0	693.0	636.1	595.9	565.8	545.7	529.0	518.8	515.6
12.5°	796.7	703.0	629.4	579.2	535.7	515.6	502.1	492.2	488.7	485.5	485.5
15°	696.3	602.6	545.7	508.9	488.7	478.8	475.3	468.6	462.1	458.6	458.6
17.5°	602.6	532.2	492.2	472.1	462.1	455.4	448.7	442.0	435.3	431.8	431.8
20°	538.9	482.0	462.1	448.7	438.5	431.8	421.8	415.1	411.9	408.4	405.2
22.5°	488.7	451.9	438.5	428.6	415.1	405.2	398.5	391.8	385.0	381.6	378.3
25°	451.9	428.6	418.4	405.2	391.8	381.6	371.6	361.5	355.0	351.5	344.8
27.5°	425.1	408.4	395.0	378.3	364.9	355.0	344.8	334.8	328.1	321.4	318.0
30°	401.7	385.0	368.2	355.0	338.1	328.1	314.7	304.7	301.3	294.6	287.9
32.5°	378.3	361.5	344.8	328.1	311.2	298.0	291.3	277.9	271.2	267.7	261.0
35°	351.5	334.8	314.7	301.3	284.6	271.2	261.0	251.1	244.4	237.7	234.4
37.5°	328.1	308.0	287.9	271.2	257.8	244.4	234.4	224.2	217.5	210.8	207.6
40°	301.3	281.2	261.0	244.4	230.9	221.0	210.8	200.9	194.1	190.9	190.9
42.5°	277.9	254.5	234.4	221.0	210.8	197.6	187.4	177.5	174.0	170.8	174.0
45°	254.5	230.9	214.3	200.9	190.9	177.5	167.3	160.6	157.4	160.6	164.1
47.5°	234.4	210.8	194.1	184.2	174.0	164.1	154.1	147.4	147.4	154.1	160.6
50°	214.3	190.9	177.5	170.8	160.6	150.6	137.2	134.0	137.2	143.9	150.6
52.5°	194.1	167.3	157.4	154.1	143.9	134.0	123.8	120.6	123.8	130.5	127.3
55°	174.0	147.4	143.9	140.7	130.5	117.1	107.1	107.1	107.1	103.7	97.2
57.5°	167.3	130.5	127.3	123.8	113.8	100.4	93.7	87.0	83.8	73.6	70.3
60°	174.0	117.1	117.1	110.4	100.4	87.0	77.0	66.9	60.2	53.5	53.5
62.5°	140.7	107.1	103.7	97.2	83.8	70.3	60.2	50.2	47.0	43.5	43.5
65°	113.8	97.2	90.5	80.3	70.3	56.9	47.0	40.3	36.8	36.8	40.3
67.5°	103.7	87.0	77.0	66.9	56.9	43.5	36.8	33.5	33.5	36.8	36.8
69°	97.2	80.3	70.3	60.2	50.2	40.3	33.5	33.5	33.5	33.5	36.8
70°	90.5	77.0	66.9	56.9	43.5	33.5	30.1	30.1	33.5	33.5	36.8
72.5°	70.3	60.2	56.9	47.0	33.5	30.1	26.8	30.1	30.1	33.5	33.5
75°	53.5	43.5	43.5	36.8	26.8	23.4	23.4	26.8	26.8	30.1	30.1
77.5°	36.8	30.1	30.1	26.8	23.4	20.1	20.1	23.4	26.8	26.8	30.1
80°	26.8	23.4	20.1	23.4	20.1	16.7	20.1	23.4	23.4	26.8	26.8
82.5°	20.1	20.1	20.1	20.1	16.7	16.7	20.1	20.1	23.4	26.8	26.8
85°	16.7	16.7	16.7	16.7	16.7	16.7	16.7	20.1	20.1	23.4	23.4
87.5°	10.0	10.0	10.0	13.4	13.4	16.7	16.7	16.7	16.7	20.1	20.1
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°	1543.4	1543.4	1543.4	1543.4
2.5°	1165.1	1161.6	1148.2	1151.7
5°	816.9	796.7	810.1	806.9
7.5°	599.3	595.9	592.6	599.3
10°	512.3	512.3	508.9	512.3
12.5°	482.0	482.0	482.0	482.0
15°	458.6	458.6	455.4	455.4
17.5°	431.8	431.8	431.8	428.6
20°	405.2	401.7	401.7	401.7
22.5°	374.9	371.6	371.6	371.6
25°	344.8	341.5	341.5	341.5
27.5°	314.7	311.2	308.0	308.0
30°	284.6	281.2	277.9	277.9
32.5°	254.5	251.1	247.8	247.8
35°	227.7	227.7	224.2	221.0
37.5°	204.3	204.3	204.3	204.3
40°	187.4	190.9	190.9	190.9
42.5°	177.5	180.7	184.2	187.4
45°	170.8	177.5	180.7	180.7
47.5°	167.3	170.8	174.0	174.0
50°	154.1	150.6	150.6	150.6
52.5°	123.8	117.1	113.8	110.4
55°	90.5	87.0	80.3	80.3
57.5°	63.6	63.6	60.2	60.2
60°	50.2	50.2	47.0	50.2
62.5°	43.5	43.5	43.5	43.5
65°	40.3	40.3	40.3	40.3
67.5°	40.3	40.3	40.3	40.3
69°	36.8	36.8	36.8	36.8
70°	36.8	36.8	36.8	36.8
72.5°	33.5	33.5	33.5	33.5
75°	30.1	33.5	33.5	33.5
77.5°	30.1	30.1	30.1	30.1
80°	26.8	26.8	30.1	30.1
82.5°	26.8	26.8	26.8	26.8
85°	23.4	23.4	26.8	26.8
87.5°	20.1	20.1	23.4	23.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)