

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: P165555

Luminaire Tested: **VST-E12-LED-E-U-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165555
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-E12-LED-E-U-SL4-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (252) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20362 lumens
Efficiency: N/A
Efficacy: 69.8 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

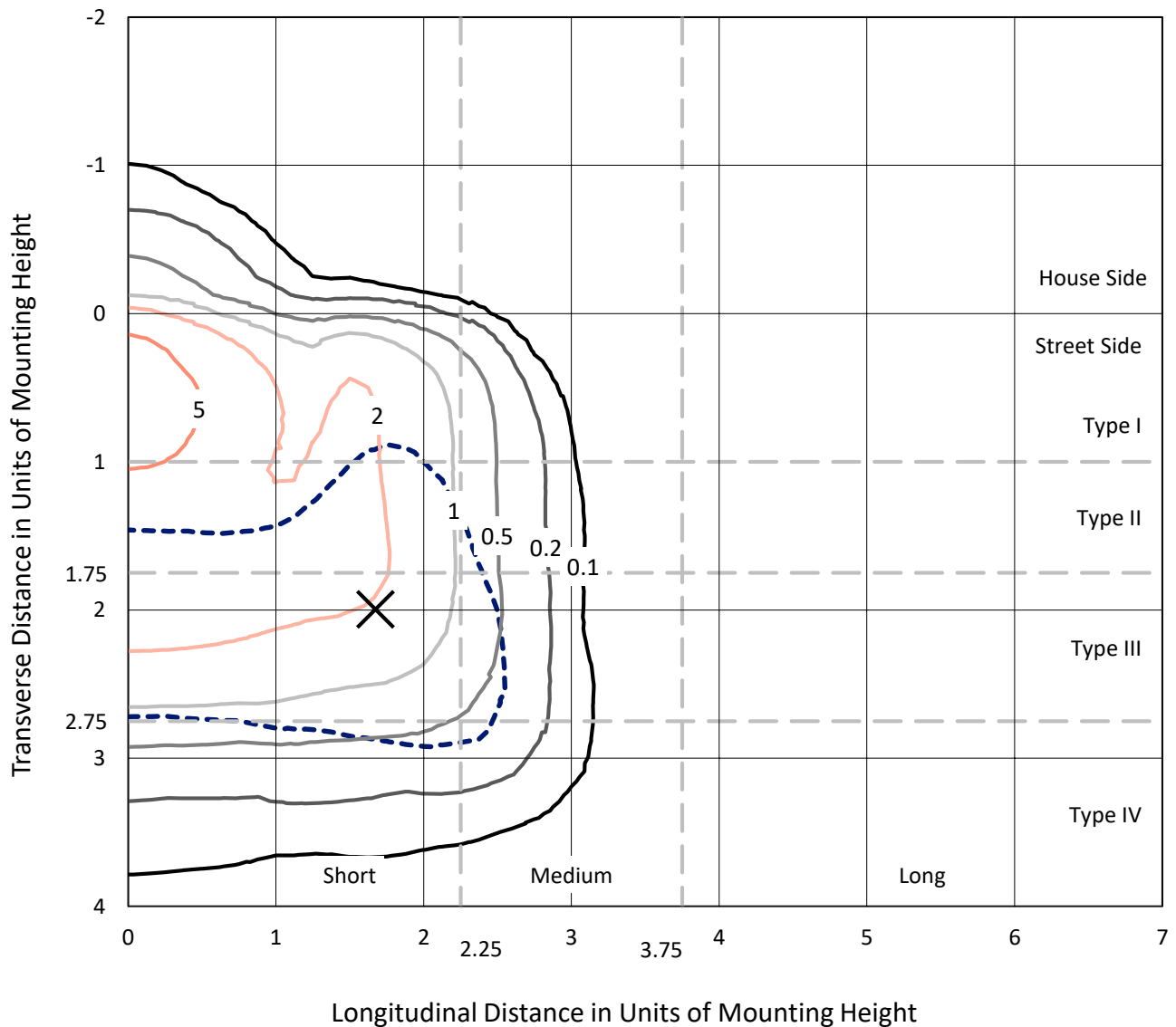
Input Watts (W): 291.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

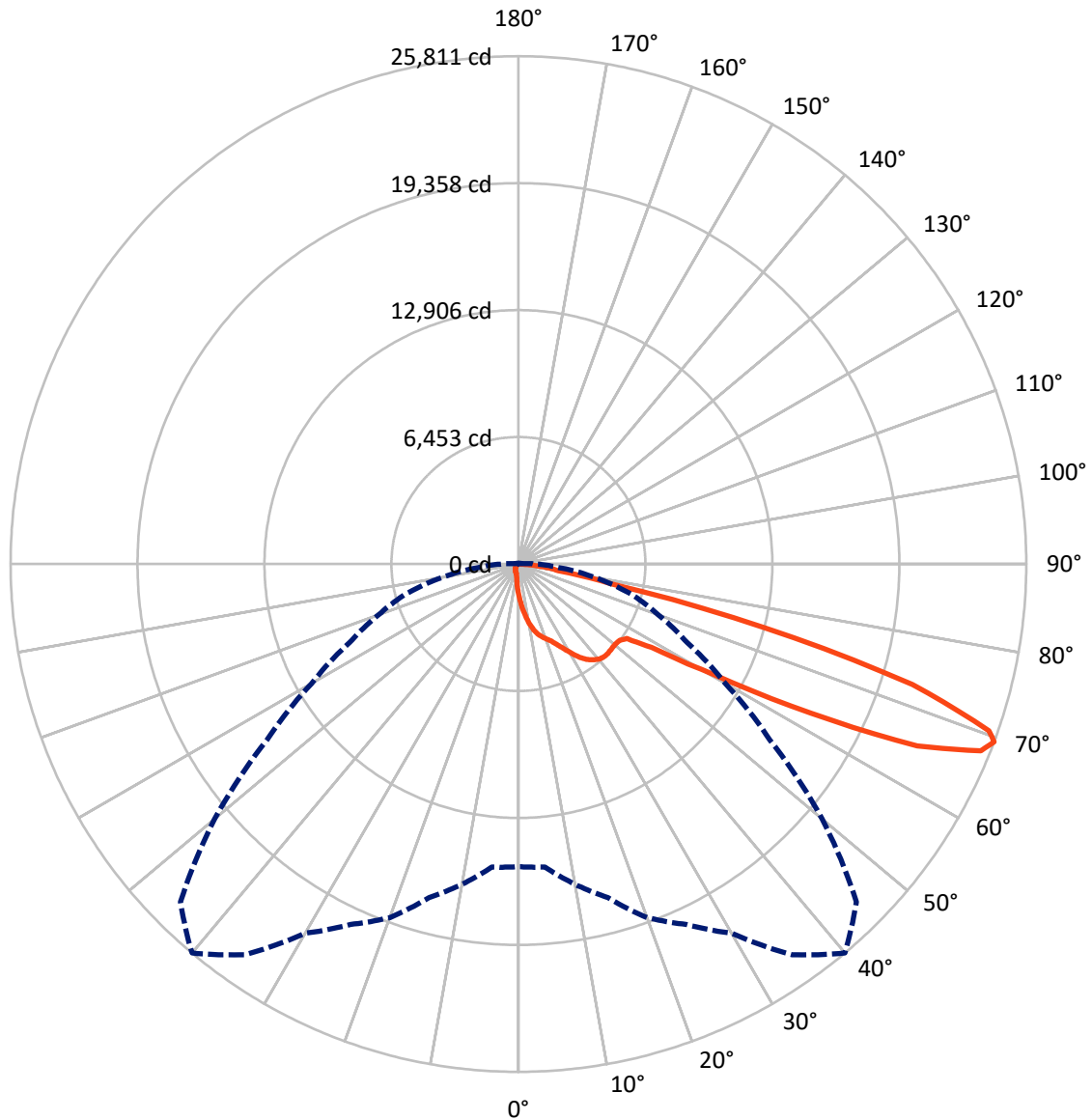
✕ Max cd
 - - - 1/2 Max cd



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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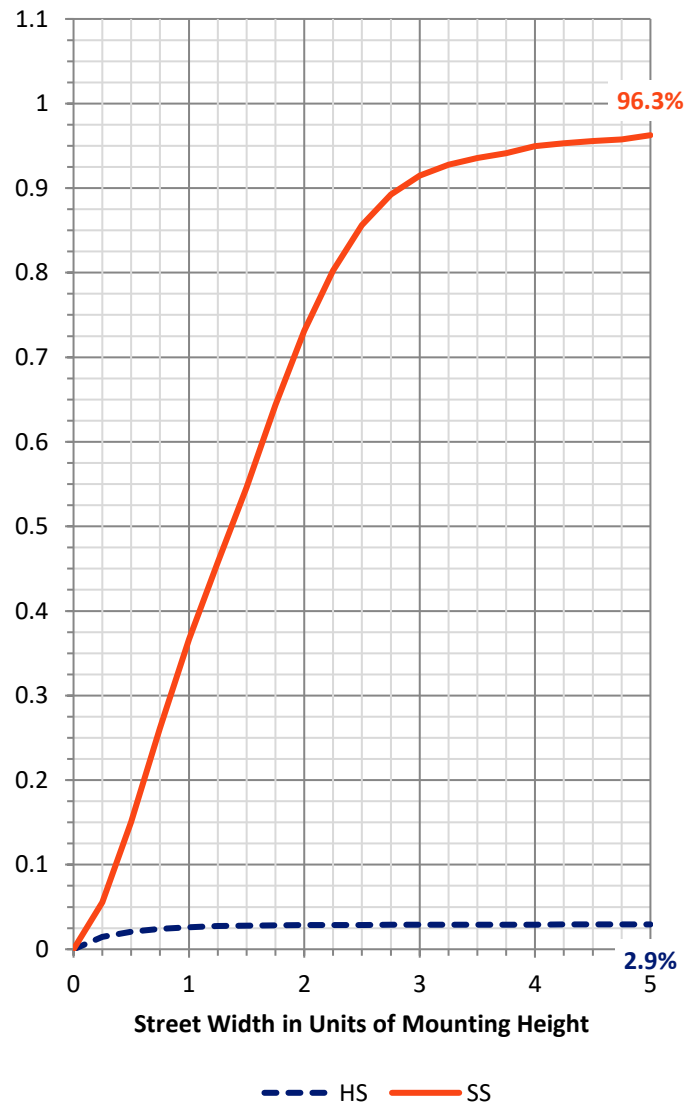
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	606.4	0.0	606.4
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	19755.7	0.0	19755.7
	% Fixture	97.0	0.0	97.0
Total	Lumens	20362.0	0.0	20362.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.1	0.8
10°-20°	544.9	2.7
20°-30°	1043.0	5.1
30°-40°	1734.5	8.5
40°-50°	2347.0	11.5
50°-60°	3670.5	18.0
60°-70°	7546.5	37.1
70°-80°	3036.6	14.9
80°-90°	280.9	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°	20362.0	100.0
0°-180°	20362.0	100.0



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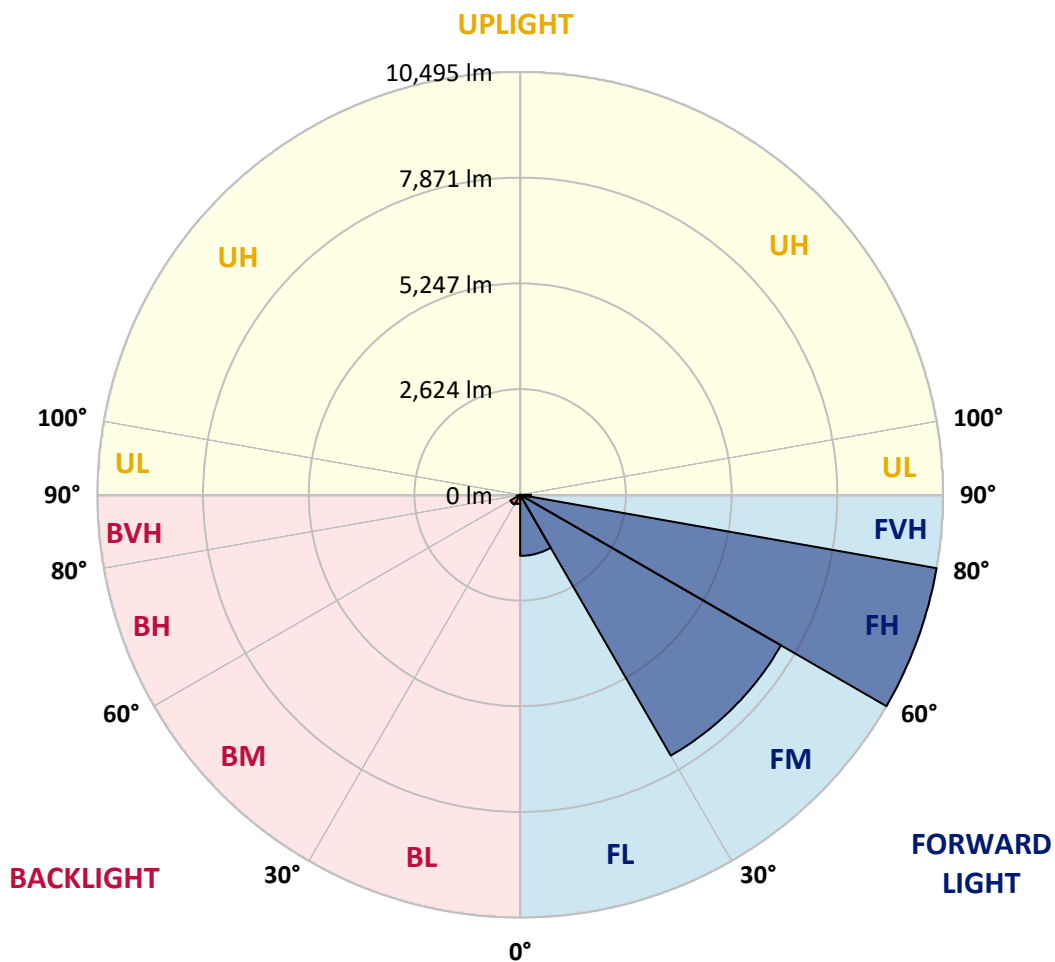
CATALOG NUMBER: VST-E12-LED-E-U-SL4-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1515.3	7.4			
FM (30°-60°)	7475.2	36.7			
FH (60°-80°)	10494.7	51.5			G4/12000
FVH (80°-90°)	270.4	1.3			G3/500
BL (0°-30°)	230.6	1.1	B1/500		
BM (30°-60°)	276.9	1.4	B1/1000		
BH (60°-80°)	88.4	0.4	B0/110		G0/110
BVH (80°-90°)	10.4	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°	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8
2.5°	2051.5	2028.0	2001.3	2001.3	1968.1	1968.1	1948.0	1894.7	1888.0	1857.9	1827.9
5°	2618.5	2598.4	2565.2	2535.0	2508.5	2461.7	2428.3	2364.9	2295.0	2228.1	2168.2
7.5°	3172.3	3162.1	3102.2	3092.0	3048.7	2972.1	2905.3	2811.9	2691.8	2598.4	2488.4
10°	3685.9	3662.4	3649.1	3592.4	3529.2	3445.7	3342.2	3229.0	3088.8	2941.9	2785.2
12.5°	4092.9	4079.5	4019.4	3996.1	3929.4	3846.0	3715.9	3569.1	3429.1	3238.9	3055.4
15°	4396.3	4373.0	4332.9	4296.3	4216.2	4142.9	4022.8	3862.6	3692.6	3485.8	3265.6
17.5°	4649.9	4606.6	4596.4	4539.7	4456.5	4369.6	4236.3	4089.4	3889.3	3682.5	3442.3
20°	4990.0	4930.1	4910.0	4826.5	4729.9	4609.8	4456.5	4273.0	4062.7	3836.0	3589.1
22.5°	5390.3	5346.9	5303.6	5230.2	5106.9	4936.7	4713.3	4513.2	4246.2	3996.1	3729.3
25°	5957.4	5920.8	5850.7	5750.6	5597.1	5393.7	5123.5	4830.0	4516.4	4196.2	3882.6
27.5°	6507.8	6474.4	6424.3	6347.8	6174.2	5950.7	5617.1	5243.6	4846.6	4459.7	4112.7
30°	7024.9	6994.7	6944.7	6868.1	6714.6	6494.4	6117.4	5717.2	5223.6	4773.3	4356.4
32.5°	7581.9	7571.8	7515.1	7405.1	7271.6	6974.9	6564.5	6134.3	5633.9	5113.6	4626.4
35°	8212.3	8135.5	8082.3	7972.1	7745.4	7428.4	6948.1	6477.8	5950.7	5417.0	4873.3
37.5°	8746.0	8672.7	8605.9	8465.9	8189.0	7785.3	7241.6	6724.5	6180.8	5637.2	5083.4
40°	9136.2	9099.5	9019.5	8836.0	8525.9	8045.6	7458.4	6894.7	6347.8	5800.6	5253.5
42.5°	9426.4	9369.7	9279.8	9089.6	8722.7	8175.6	7545.1	6964.7	6424.3	5900.7	5363.7
45°	9533.2	9486.6	9403.1	9196.3	8799.3	8212.3	7541.8	6944.7	6427.8	5930.7	5437.1
47.5°	9469.8	9423.2	9349.7	9156.2	8766.1	8169.0	7481.9	6888.0	6394.3	5940.8	5503.7
50°	9259.7	9233.0	9176.3	9012.8	8662.6	8085.5	7428.4	6858.0	6387.7	5990.9	5597.1
52.5°	9239.7	9223.1	9153.0	8989.5	8632.6	8058.8	7421.7	6874.8	6444.4	6054.3	5663.9
55°	11291.0	11054.2	10523.9	10073.6	9333.1	8452.5	7758.6	7144.8	6684.6	6304.4	6030.8
57.5°	16047.6	15694.2	14997.0	14139.8	12438.5	10767.4	9429.9	8462.5	7985.4	7812.0	7915.4
60°	18275.8	18212.6	18102.4	17695.5	16824.9	15387.3	13786.1	12055.0	11361.1	11301.1	11511.2
62.5°	19333.3	19293.2	19326.6	19276.6	19006.4	18586.1	18125.7	17378.7	16691.4	16247.8	15307.1
65°	19820.3	19847.0	20037.0	20187.1	20220.5	20330.5	20667.6	21598.1	22278.5	21134.5	18522.7
67.5°	18582.7	18739.4	19176.6	19723.5	20363.9	20984.4	21985.0	23946.4	25344.0	23999.9	20290.6
69°	15383.9	15460.6	16527.9	17558.7	19123.1	20217.3	21668.2	24239.9	25811.1	24293.4	20150.5
70°	12111.5	12181.6	13325.9	14726.8	17372.0	18779.5	20677.5	23743.0	25374.0	23903.0	19430.0
72.5°	5463.8	5363.7	5767.2	6517.7	9393.0	11628.0	14946.9	19236.5	20934.4	19149.8	14536.6
75°	3816.0	3772.6	3816.0	3819.2	4266.3	5503.7	6944.7	10427.1	12895.4	11127.7	6944.7
77.5°	2955.3	2925.3	2895.4	2861.9	2915.4	3265.6	3405.6	3699.1	4803.3	4543.2	2648.4
80°	2338.3	2311.6	2384.9	2361.6	2361.6	2401.7	2375.0	2264.8	2058.0	1907.9	1707.8
82.5°	1087.3	1094.0	1094.0	1187.4	1431.1	1671.1	1747.9	1637.9	1454.4	1237.4	997.4
85°	103.3	116.7	196.9	303.6	603.8	680.4	683.8	567.0	567.0	447.0	360.1
87.5°	0.0	3.2	3.2	3.2	30.0	83.5	70.1	20.1	9.9	9.9	16.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8
2.5°	1774.6	1764.5	1724.6	1684.5	1647.8	1607.7	1571.0	1534.4	1494.3	1464.3	1427.6
5°	2074.8	2001.3	1918.0	1838.0	1757.8	1674.5	1587.9	1511.1	1431.1	1357.5	1287.5
7.5°	2378.2	2234.8	2121.4	1978.0	1847.9	1717.9	1597.8	1474.4	1361.0	1254.2	1154.2
10°	2635.1	2461.7	2284.9	2101.5	1914.6	1741.2	1574.5	1427.6	1277.5	1147.5	1024.1
12.5°	2845.3	2625.1	2408.4	2178.1	1968.1	1747.9	1541.1	1364.2	1187.4	1040.7	913.9
15°	3035.3	2781.9	2521.6	2254.9	1988.1	1737.9	1507.6	1287.5	1107.4	940.7	797.3
17.5°	3188.9	2898.6	2605.1	2304.9	2018.1	1724.6	1464.3	1234.2	1024.1	850.5	710.6
20°	3322.4	3018.7	2701.9	2364.9	2038.1	1721.1	1427.6	1167.5	950.6	767.3	630.4
22.5°	3445.7	3142.1	2802.0	2441.6	2068.1	1717.9	1394.2	1117.5	887.2	703.9	567.0
25°	3585.9	3265.6	2908.7	2521.6	2121.4	1731.3	1374.4	1077.4	830.5	643.7	516.9
27.5°	3742.7	3405.6	3035.3	2621.7	2191.5	1757.8	1367.7	1034.1	780.5	587.0	477.0
30°	3962.6	3572.5	3162.1	2721.8	2254.9	1788.0	1361.0	1007.3	730.4	543.7	436.9
32.5°	4156.3	3736.0	3302.3	2825.3	2325.0	1818.0	1357.5	970.7	683.8	500.3	406.9
35°	4359.7	3886.1	3422.4	2925.3	2384.9	1851.2	1354.3	943.9	640.5	457.0	377.0
37.5°	4536.5	4012.7	3515.8	3012.0	2451.8	1881.4	1357.5	920.6	600.4	420.3	350.2
40°	4686.6	4142.9	3619.1	3092.0	2521.6	1927.9	1361.0	897.3	560.5	386.9	326.9
42.5°	4820.1	4266.3	3729.3	3182.2	2601.9	1981.4	1381.0	877.3	527.1	356.9	303.6
45°	4923.4	4379.7	3849.2	3309.0	2731.9	2068.1	1417.7	863.9	493.6	330.2	283.6
47.5°	5030.1	4546.4	4052.8	3509.1	2922.1	2204.8	1481.1	860.7	466.9	310.1	266.8
50°	5177.0	4713.3	4232.9	3712.5	3095.5	2345.0	1557.7	863.9	433.7	290.3	250.2
52.5°	5283.7	4883.3	4466.4	4066.1	3509.1	2771.8	1854.6	923.9	416.9	273.5	230.1
55°	5914.1	5844.0	5853.9	5920.8	5490.5	4716.6	3102.2	1334.2	490.4	310.1	226.9
57.5°	8339.1	8585.8	8729.2	8726.0	8015.4	6647.9	4166.2	1714.4	547.1	360.1	270.2
60°	11528.0	11341.2	11077.7	10427.1	9483.1	7588.6	4659.8	1844.7	473.6	286.8	246.9
62.5°	14346.6	13252.3	12281.7	11227.8	9990.2	7915.4	4759.9	1834.6	413.6	216.7	173.4
65°	16104.4	14136.3	12568.7	11247.6	9790.0	7641.9	4503.1	1684.5	350.2	176.8	143.4
67.5°	16524.7	13659.3	11441.3	9756.6	8178.9	5947.5	3305.5	1267.6	273.5	146.9	126.8
69°	15607.3	12141.7	9479.9	7568.6	5950.7	3946.0	2044.8	800.5	210.1	133.5	116.7
70°	14356.5	10560.6	7721.9	6074.1	4406.4	2771.8	1431.1	563.7	170.1	123.4	106.7
72.5°	9236.4	5547.0	3795.9	2641.8	1818.0	1104.1	560.5	253.6	130.0	103.3	86.7
75°	3582.4	2051.5	1487.8	1130.7	884.0	613.8	340.3	163.5	110.0	86.7	66.6
77.5°	1764.5	1350.9	1104.1	757.2	440.4	273.5	183.5	126.8	90.1	63.4	43.3
80°	1394.2	927.3	553.8	343.5	260.1	196.9	140.2	103.3	66.6	40.1	30.0
82.5°	713.8	390.3	286.8	233.5	193.4	153.5	113.4	73.3	43.3	26.7	23.3
85°	223.4	163.5	146.9	143.4	133.5	110.0	80.0	46.8	26.7	16.6	16.6
87.5°	16.6	23.3	30.0	23.3	26.7	23.3	30.0	20.1	13.4	13.4	9.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8	1537.8
2.5°	1400.9	1361.0	1324.3	1300.8	1257.5	1240.9	1224.3	1217.6	1187.4	1194.1	1167.5
5°	1224.3	1154.2	1100.7	1047.4	997.4	960.7	930.6	893.9	863.9	850.5	823.8
7.5°	1064.0	974.1	904.0	847.3	787.1	740.6	700.4	673.7	647.2	620.4	607.1
10°	923.9	827.2	747.2	690.5	633.8	593.7	563.7	543.7	527.1	516.9	513.7
12.5°	793.8	700.4	627.1	577.1	533.7	513.7	500.3	490.4	486.9	483.7	483.7
15°	693.8	600.4	543.7	507.0	486.9	477.0	473.6	466.9	460.4	457.0	457.0
17.5°	600.4	530.3	490.4	470.3	460.4	453.7	447.0	440.4	433.7	430.2	430.2
20°	537.0	480.3	460.4	447.0	436.9	430.2	420.3	413.6	410.4	406.9	403.7
22.5°	486.9	450.3	436.9	427.0	413.6	403.7	397.0	390.3	383.6	380.2	377.0
25°	450.3	427.0	416.9	403.7	390.3	380.2	370.3	360.1	353.7	350.2	343.5
27.5°	423.5	406.9	393.6	377.0	363.6	353.7	343.5	333.6	326.9	320.2	316.8
30°	400.3	383.6	366.8	353.7	336.9	326.9	313.6	303.6	300.2	293.5	286.8
32.5°	377.0	360.1	343.5	326.9	310.1	296.9	290.3	276.9	270.2	266.8	260.1
35°	350.2	333.6	313.6	300.2	283.6	270.2	260.1	250.2	243.5	236.8	233.5
37.5°	326.9	306.9	286.8	270.2	256.8	243.5	233.5	223.4	216.7	210.1	206.8
40°	300.2	280.1	260.1	243.5	230.1	220.2	210.1	200.1	193.4	190.2	190.2
42.5°	276.9	253.6	233.5	220.2	210.1	196.9	186.8	176.8	173.4	170.1	173.4
45°	253.6	230.1	213.5	200.1	190.2	176.8	166.7	160.0	156.8	160.0	163.5
47.5°	233.5	210.1	193.4	183.5	173.4	163.5	153.5	146.9	146.9	153.5	160.0
50°	213.5	190.2	176.8	170.1	160.0	150.1	136.7	133.5	136.7	143.4	150.1
52.5°	193.4	166.7	156.8	153.5	143.4	133.5	123.4	120.1	123.4	130.0	126.8
55°	173.4	146.9	143.4	140.2	130.0	116.7	106.7	106.7	106.7	103.3	96.8
57.5°	166.7	130.0	126.8	123.4	113.4	100.1	93.4	86.7	83.5	73.3	70.1
60°	173.4	116.7	116.7	110.0	100.1	86.7	76.8	66.6	60.0	53.3	53.3
62.5°	140.2	106.7	103.3	96.8	83.5	70.1	60.0	50.0	46.8	43.3	43.3
65°	113.4	96.8	90.1	80.0	70.1	56.7	46.8	40.1	36.7	36.7	40.1
67.5°	103.3	86.7	76.8	66.6	56.7	43.3	36.7	33.4	33.4	36.7	36.7
69°	96.8	80.0	70.1	60.0	50.0	40.1	33.4	33.4	33.4	33.4	36.7
70°	90.1	76.8	66.6	56.7	43.3	33.4	30.0	30.0	33.4	33.4	36.7
72.5°	70.1	60.0	56.7	46.8	33.4	30.0	26.7	30.0	30.0	33.4	33.4
75°	53.3	43.3	43.3	36.7	26.7	23.3	23.3	26.7	26.7	30.0	30.0
77.5°	36.7	30.0	30.0	26.7	23.3	20.1	20.1	23.3	26.7	26.7	30.0
80°	26.7	23.3	20.1	23.3	20.1	16.6	20.1	23.3	23.3	26.7	26.7
82.5°	20.1	20.1	20.1	20.1	16.6	16.6	20.1	20.1	23.3	26.7	26.7
85°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	20.1	20.1	23.3	23.3
87.5°	9.9	9.9	9.9	13.4	13.4	16.6	16.6	16.6	16.6	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°	1537.8	1537.8	1537.8	1537.8
2.5°	1160.9	1157.4	1144.0	1147.5
5°	813.9	793.8	807.2	804.0
7.5°	597.1	593.7	590.5	597.1
10°	510.4	510.4	507.0	510.4
12.5°	480.3	480.3	480.3	480.3
15°	457.0	457.0	453.7	453.7
17.5°	430.2	430.2	430.2	427.0
20°	403.7	400.3	400.3	400.3
22.5°	373.5	370.3	370.3	370.3
25°	343.5	340.3	340.3	340.3
27.5°	313.6	310.1	306.9	306.9
30°	283.6	280.1	276.9	276.9
32.5°	253.6	250.2	246.9	246.9
35°	226.9	226.9	223.4	220.2
37.5°	203.6	203.6	203.6	203.6
40°	186.8	190.2	190.2	190.2
42.5°	176.8	180.1	183.5	186.8
45°	170.1	176.8	180.1	180.1
47.5°	166.7	170.1	173.4	173.4
50°	153.5	150.1	150.1	150.1
52.5°	123.4	116.7	113.4	110.0
55°	90.1	86.7	80.0	80.0
57.5°	63.4	63.4	60.0	60.0
60°	50.0	50.0	46.8	50.0
62.5°	43.3	43.3	43.3	43.3
65°	40.1	40.1	40.1	40.1
67.5°	40.1	40.1	40.1	40.1
69°	36.7	36.7	36.7	36.7
70°	36.7	36.7	36.7	36.7
72.5°	33.4	33.4	33.4	33.4
75°	30.0	33.4	33.4	33.4
77.5°	30.0	30.0	30.0	30.0
80°	26.7	26.7	30.0	30.0
82.5°	26.7	26.7	26.7	26.7
85°	23.3	23.3	26.7	26.7
87.5°	20.1	20.1	23.3	23.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)