

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: P158723

Luminaire Tested: **VST-F10-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158723
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F10-LED-E-U-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (70) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20211.8 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

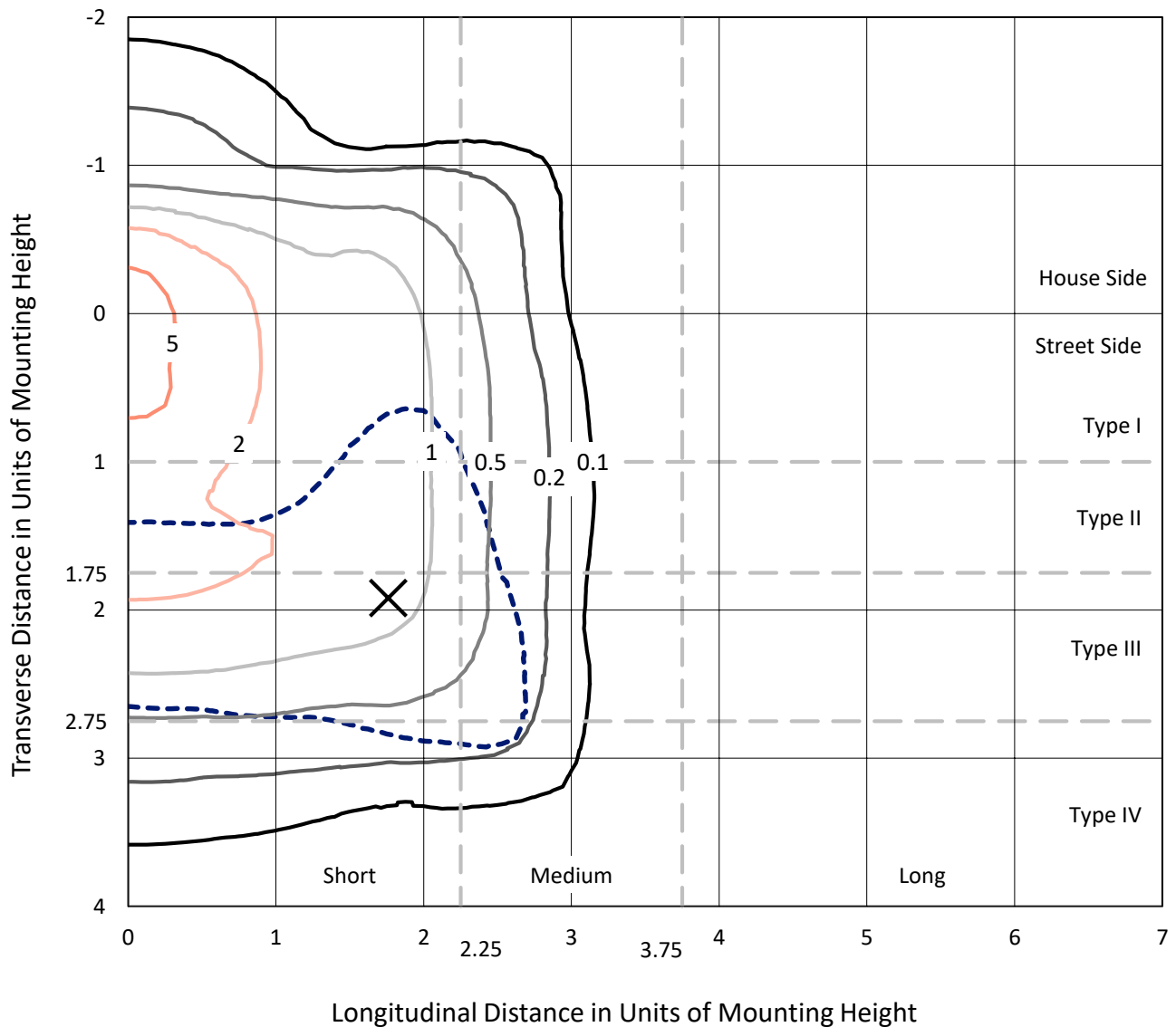
Input Watts (W): 258.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

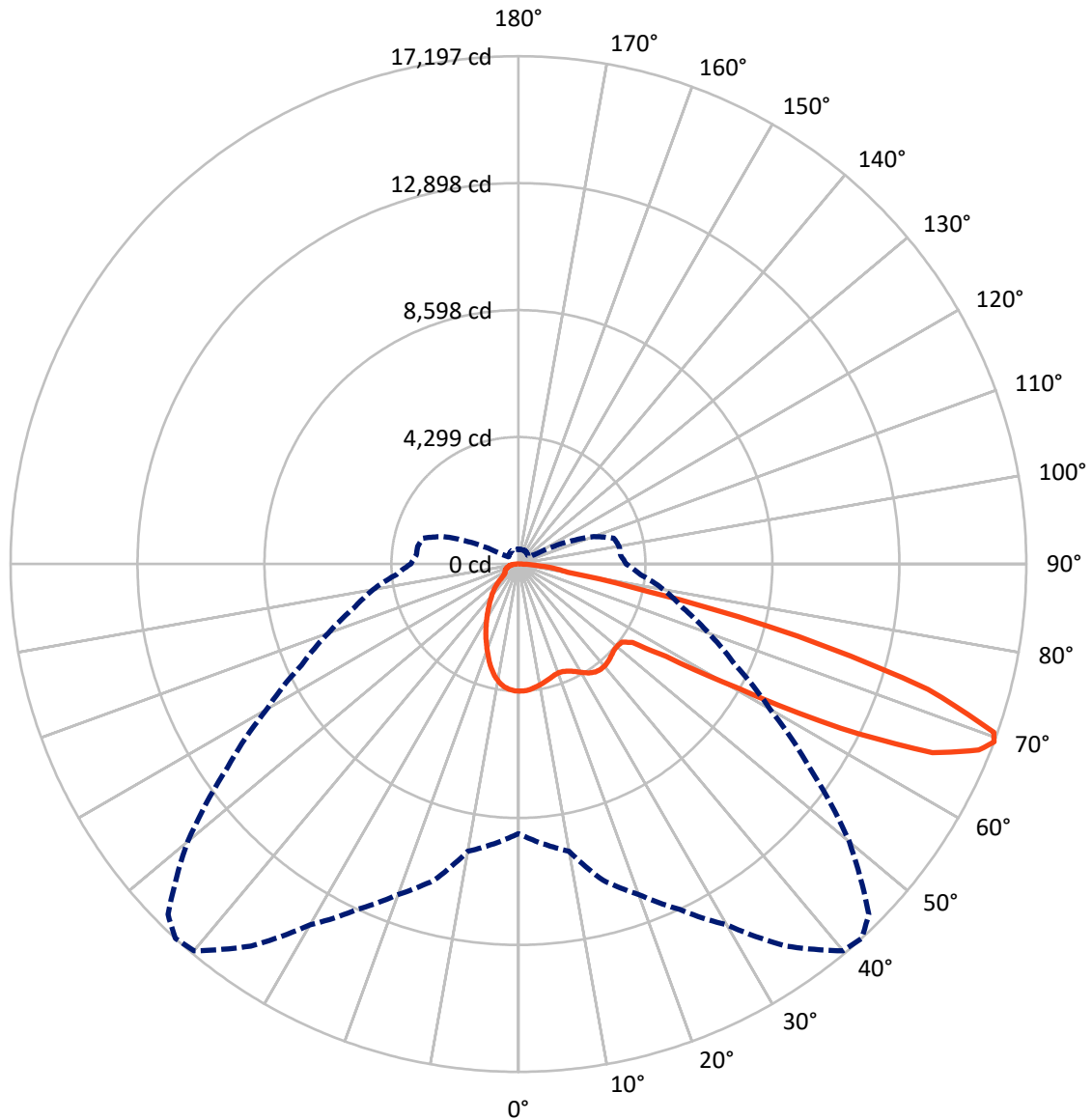
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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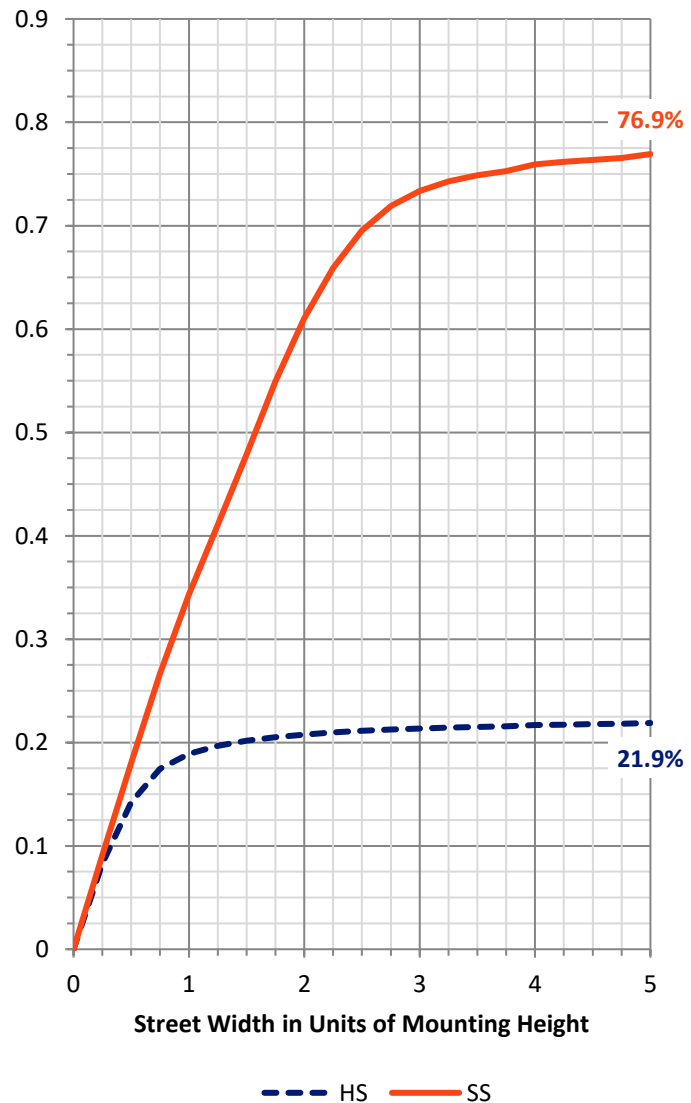
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4493.4	0.0	4493.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	15718.4	0.0	15718.4
	% Fixture	77.8	0.0	77.8
Total	Lumens	20211.8	0.0	20211.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.7	2.0
10°-20°	1079.9	5.3
20°-30°	1574.7	7.8
30°-40°	2007.5	9.9
40°-50°	2335.7	11.6
50°-60°	3553.8	17.6
60°-70°	6277.7	31.1
70°-80°	2590.5	12.8
80°-90°	391.2	1.9
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°	20211.8	100.0
0°-180°	20211.8	100.0

Coefficient of Utilization



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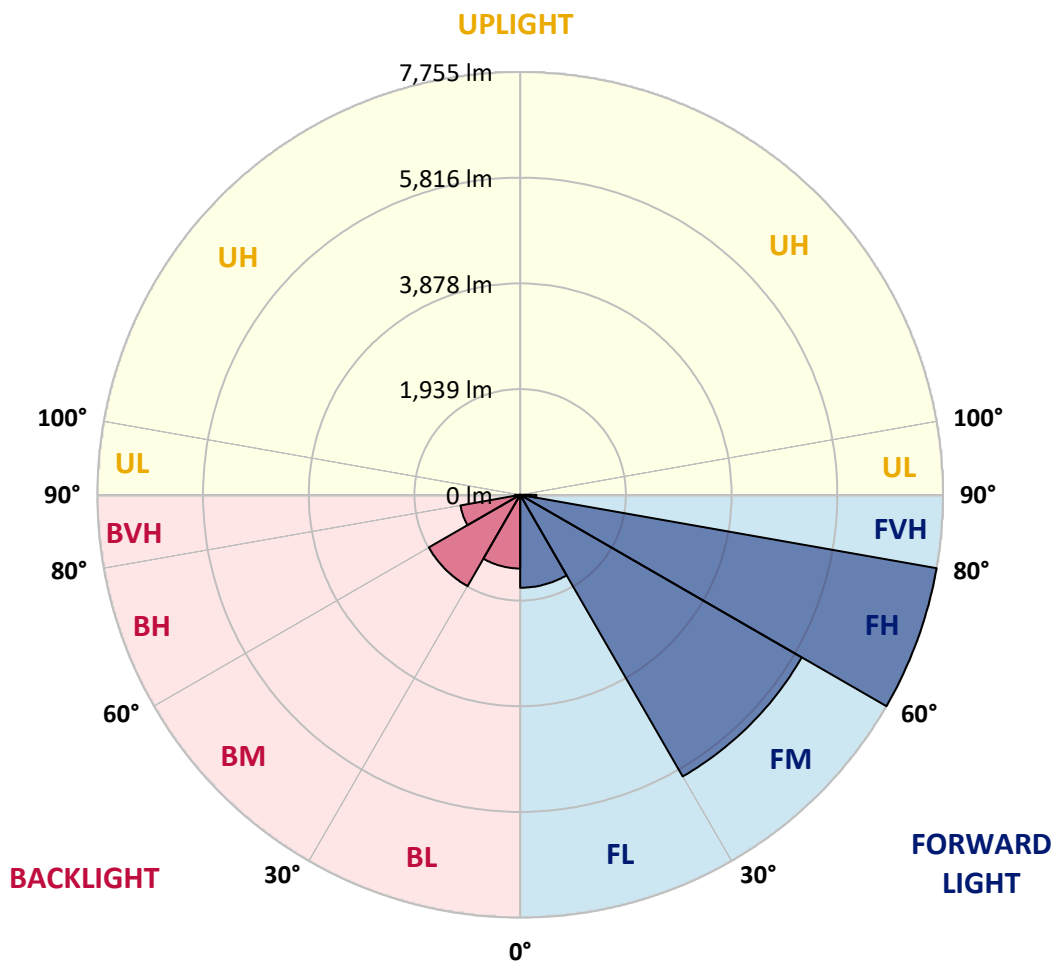
CATALOG NUMBER: VST-F10-LED-E-U-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1704.4	8.4			
FM	(30°-60°)	5963.0	29.5			
FH	(60°-80°)	7755.3	38.4			G4/12000
FVH	(80°-90°)	295.8	1.5			G3/500
BL	(0°-30°)	1351.0	6.7	B3/2500		
BM	(30°-60°)	1934.0	9.6	B2/2500		
BH	(60°-80°)	1113.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	95.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4
2.5°	4290.5	4305.8	4300.3	4300.3	4304.4	4297.5	4297.5	4300.3	4293.3	4297.5	4296.1
5°	4275.2	4283.5	4280.7	4280.7	4280.7	4275.2	4272.4	4271.0	4261.2	4261.2	4257.1
7.5°	4241.7	4244.5	4248.7	4243.1	4241.7	4240.3	4230.6	4225.0	4213.9	4204.1	4206.9
10°	4197.1	4195.7	4202.7	4198.5	4193.0	4188.8	4180.4	4170.7	4158.1	4145.6	4144.2
12.5°	4147.0	4145.6	4151.2	4148.4	4144.2	4135.8	4128.9	4112.1	4092.6	4077.3	4075.9
15°	4114.9	4110.7	4116.3	4110.7	4103.8	4095.4	4082.9	4062.0	4027.1	4011.8	3999.3
17.5°	4145.6	4138.6	4141.4	4134.4	4124.7	4102.4	4073.1	4028.5	3978.4	3951.9	3932.4
20°	4252.9	4240.3	4243.1	4236.2	4213.9	4184.6	4128.9	4050.8	3965.8	3922.6	3892.0
22.5°	4406.2	4396.4	4400.6	4393.6	4371.3	4326.7	4243.1	4131.6	4010.4	3947.7	3898.9
25°	4638.9	4647.2	4650.0	4618.0	4605.4	4523.2	4407.5	4252.9	4091.2	4017.4	3950.5
27.5°	4900.8	4900.8	4913.4	4900.8	4875.8	4779.6	4616.6	4429.8	4222.2	4121.9	4041.1
30°	5155.8	5153.1	5176.7	5174.0	5133.5	5024.9	4839.5	4612.4	4375.5	4262.6	4159.5
32.5°	5426.2	5434.5	5449.9	5444.3	5391.3	5240.8	5017.9	4771.2	4521.8	4397.8	4282.1
35°	5718.8	5723.0	5728.6	5725.8	5618.5	5429.0	5148.9	4873.0	4613.8	4491.2	4371.3
37.5°	6011.4	6007.3	6000.3	5940.4	5817.7	5554.4	5228.3	4931.5	4659.8	4527.4	4403.4
40°	6273.4	6249.7	6227.4	6134.1	5945.9	5625.4	5259.0	4945.4	4655.6	4519.0	4397.8
42.5°	6416.9	6390.5	6344.5	6227.4	5998.9	5632.4	5238.1	4903.6	4612.4	4477.2	4357.4
45°	6443.4	6423.9	6379.3	6248.3	5986.4	5587.8	5174.0	4835.3	4548.3	4413.1	4300.3
47.5°	6380.7	6365.4	6322.2	6192.6	5932.0	5520.9	5100.1	4762.9	4485.6	4358.8	4250.1
50°	6284.6	6270.6	6237.2	6118.7	5870.7	5474.9	5062.5	4725.3	4464.7	4349.0	4248.7
52.5°	6440.6	6451.8	6354.2	6224.6	5936.2	5515.4	5104.3	4764.3	4502.3	4388.0	4283.5
55°	8866.7	8851.3	8264.7	7772.8	6893.5	6096.4	5501.4	5073.6	4793.5	4679.3	4581.7
57.5°	11521.2	11468.3	11227.2	10767.4	9822.6	8561.5	7414.7	6439.2	6054.6	5890.2	5901.4
60°	12388.0	12407.5	12355.9	12192.9	11854.3	11197.9	10325.6	9592.7	8870.8	8518.3	8558.7
62.5°	12868.7	12903.5	12948.1	12911.9	12801.8	12649.9	12539.8	12606.7	12506.4	12252.8	12050.7
65°	12935.6	13006.7	13154.4	13271.4	13328.6	13472.1	13809.3	14617.5	15356.1	15404.8	15049.5
67.5°	11611.8	11808.3	12128.8	12670.8	13134.9	13644.9	14458.7	15687.7	16777.4	16813.6	16482.0
69°	9130.0	9507.7	9882.5	11093.4	11908.6	12907.7	14111.7	15790.8	17096.5	17196.8	16778.8
70°	7315.7	7540.1	7863.4	9079.9	10297.8	11571.4	13316.0	15450.8	16877.7	17079.8	16618.5
72.5°	4392.2	4478.6	4590.1	5026.3	5653.3	6787.6	9100.8	12597.0	14237.1	14507.4	13920.8
75°	2839.9	2834.3	2844.1	2965.3	3001.5	3218.9	3947.7	6481.0	9287.5	9778.0	9075.7
77.5°	2139.0	2158.5	2127.8	2139.0	2129.2	2187.7	2210.0	2320.1	3666.2	4516.2	4038.3
80°	1888.2	1897.9	1899.3	1893.7	1825.4	1819.9	1856.1	1793.4	1666.6	1691.7	1620.6
82.5°	1077.2	1075.8	1088.3	1183.1	1222.1	1350.3	1403.2	1432.5	1322.4	1240.2	1121.7
85°	698.1	703.7	717.6	746.9	717.6	728.8	716.2	741.3	680.0	631.2	564.4
87.5°	285.7	285.7	303.8	330.3	308.0	302.4	259.2	256.4	217.4	196.5	153.3
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4
2.5°	4287.7	4296.1	4291.9	4297.5	4293.3	4293.3	4287.7	4286.3	4290.5	4284.9	4286.3
5°	4250.1	4251.5	4244.5	4247.3	4238.9	4236.2	4232.0	4220.8	4227.8	4220.8	4223.6
7.5°	4195.7	4191.6	4181.8	4167.9	4158.1	4153.9	4145.6	4130.2	4133.0	4120.5	4127.5
10°	4126.1	4112.1	4095.4	4074.5	4060.6	4048.0	4029.9	4011.8	4002.0	3990.9	3989.5
12.5°	4048.0	4031.3	4009.0	3977.0	3946.3	3925.4	3897.5	3865.5	3855.7	3837.6	3827.9
15°	3963.0	3936.6	3910.1	3873.8	3840.4	3808.4	3770.7	3730.3	3703.8	3676.0	3655.1
17.5°	3886.4	3855.7	3820.9	3786.1	3749.8	3710.8	3663.4	3613.3	3574.3	3522.7	3480.9
20°	3826.5	3787.5	3752.6	3716.4	3676.0	3628.6	3571.5	3507.4	3441.9	3384.7	3336.0
22.5°	3802.8	3741.5	3699.7	3663.4	3623.0	3567.3	3497.6	3422.4	3342.9	3263.5	3199.4
25°	3822.3	3731.7	3666.2	3623.0	3588.2	3531.1	3453.0	3361.1	3269.1	3174.3	3087.9
27.5°	3879.4	3763.8	3669.0	3600.7	3560.3	3503.2	3421.0	3323.4	3214.7	3108.8	3002.9
30°	3968.6	3818.1	3698.3	3602.1	3539.4	3473.9	3387.5	3274.7	3164.6	3043.3	2927.7
32.5°	4055.0	3875.2	3731.7	3607.7	3511.5	3426.5	3330.4	3218.9	3100.5	2973.7	2853.8
35°	4116.3	3912.9	3744.3	3595.2	3468.3	3362.4	3259.3	3147.9	3032.2	2902.6	2780.0
37.5°	4145.6	3933.8	3745.7	3561.7	3411.2	3294.2	3184.1	3074.0	2965.3	2842.7	2727.0
40°	4144.2	3932.4	3726.1	3518.5	3342.9	3218.9	3110.2	3002.9	2901.2	2793.9	2689.4
42.5°	4113.5	3910.1	3698.3	3476.7	3294.2	3156.2	3043.3	2940.2	2853.8	2759.1	2671.3
45°	4066.1	3872.5	3669.0	3457.2	3280.2	3142.3	3022.4	2922.1	2845.5	2759.1	2683.8
47.5°	4029.9	3851.6	3673.2	3492.0	3323.4	3179.9	3053.1	2943.0	2877.5	2807.8	2754.9
50°	4035.5	3861.3	3687.1	3512.9	3354.1	3209.2	3086.5	2986.2	2938.8	2920.7	2908.2
52.5°	4064.8	3876.6	3728.9	3624.4	3570.1	3461.4	3388.9	3326.2	3361.1	3292.8	3212.0
55°	4438.2	4376.9	4520.4	4655.6	4827.0	4891.1	4829.8	4818.6	4874.4	4643.0	4112.1
57.5°	5980.8	6139.6	6361.2	6478.2	6620.4	6582.8	6440.6	6322.2	6182.8	5912.5	5250.6
60°	8604.7	8484.8	8384.5	8101.6	7870.3	7600.0	7299.0	7041.2	6794.6	6405.8	5689.5
62.5°	11308.0	10476.1	9780.8	9109.1	8568.5	8119.8	7683.6	7296.2	6922.8	6380.7	5610.1
65°	13646.3	11894.7	10589.0	9603.8	8813.7	8132.3	7572.1	7037.0	6561.9	5926.4	5164.2
67.5°	14696.9	12502.2	10602.9	9191.3	8097.5	7172.2	6447.6	5639.4	5107.1	4700.2	4271.0
69°	14618.9	12038.2	9846.3	8108.6	6851.7	5773.2	4995.6	4152.5	3642.5	3469.7	3460.0
70°	14248.2	11252.3	8962.8	7229.3	5791.3	4719.7	3974.2	3217.5	2742.4	2623.9	2834.3
72.5°	11632.7	7951.1	5617.1	4289.1	3298.3	2607.2	2126.4	1687.5	1347.5	1167.7	1206.7
75°	6570.2	3681.6	2380.0	1799.0	1520.3	1256.9	1078.5	919.7	831.9	675.8	535.1
77.5°	2388.4	1580.2	1256.9	1086.9	770.6	530.9	444.5	388.8	352.5	352.5	335.8
80°	1510.5	1190.0	830.5	568.5	420.8	366.5	320.5	281.5	259.2	253.6	259.2
82.5°	943.4	728.8	465.4	356.7	299.6	268.9	234.1	204.8	186.7	182.5	190.9
85°	465.4	360.9	282.9	252.2	236.9	220.2	193.7	165.8	160.2	171.4	200.7
87.5°	139.3	124.0	101.7	105.9	111.5	108.7	86.4	75.2	71.1	93.4	146.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4	4304.4
2.5°	4289.1	4287.7	4290.5	4286.3	4289.1	4290.5	4287.7	4300.3	4291.9	4293.3	4298.9
5°	4226.4	4223.6	4234.8	4232.0	4237.5	4243.1	4240.3	4258.4	4251.5	4257.1	4268.2
7.5°	4121.9	4127.5	4128.9	4128.9	4140.0	4158.1	4162.3	4173.4	4173.4	4188.8	4199.9
10°	3982.5	3983.9	3992.3	3990.9	4004.8	4024.3	4027.1	4046.6	4053.6	4078.7	4094.0
12.5°	3820.9	3813.9	3812.5	3811.1	3829.3	3850.2	3852.9	3886.4	3900.3	3922.6	3947.7
15°	3639.7	3621.6	3616.1	3627.2	3623.0	3635.6	3648.1	3666.2	3685.7	3730.3	3752.6
17.5°	3462.8	3426.5	3416.8	3404.2	3391.7	3391.7	3397.3	3419.6	3460.0	3483.7	3533.8
20°	3281.6	3238.4	3203.6	3170.1	3140.9	3129.7	3131.1	3159.0	3188.3	3227.3	3274.7
22.5°	3129.7	3064.2	3004.3	2959.7	2899.8	2898.4	2890.1	2898.4	2930.5	2940.2	2966.7
25°	2998.7	2911.0	2830.1	2757.7	2699.2	2668.5	2660.1	2657.3	2642.0	2637.8	2618.3
27.5°	2897.0	2791.1	2686.6	2598.8	2526.4	2484.6	2431.6	2394.0	2339.6	2325.7	2290.9
30°	2813.4	2699.2	2584.9	2470.6	2388.4	2313.2	2224.0	2158.5	2074.9	2020.5	1973.2
32.5°	2732.6	2616.9	2501.3	2388.4	2261.6	2144.6	2027.5	1925.8	1832.4	1748.8	1679.1
35°	2665.7	2555.6	2438.6	2302.0	2140.4	1971.8	1831.0	1715.4	1587.2	1499.4	1411.6
37.5°	2622.5	2522.2	2405.1	2217.0	2009.4	1828.2	1668.0	1527.2	1396.3	1263.9	1164.9
40°	2603.0	2515.2	2368.9	2139.0	1895.1	1694.5	1517.5	1361.4	1194.2	1045.1	939.2
42.5°	2601.6	2512.4	2318.7	2052.6	1800.4	1581.6	1385.1	1198.4	1013.1	859.8	755.3
45°	2626.7	2508.2	2265.8	1980.1	1716.8	1488.2	1254.1	1027.0	819.4	705.1	649.4
47.5°	2693.6	2515.2	2222.6	1913.2	1637.3	1375.4	1103.6	838.9	667.5	614.5	614.5
50°	2813.4	2555.6	2211.4	1865.9	1557.9	1244.4	919.7	677.2	590.8	590.8	607.6
52.5°	2997.4	2640.6	2230.9	1832.4	1459.0	1071.6	724.6	583.9	567.1	582.5	604.8
55°	3421.0	2791.1	2257.4	1775.3	1308.5	850.0	597.8	551.8	558.8	576.9	597.8
57.5°	4198.5	3113.0	2285.3	1649.9	1066.0	654.9	542.1	539.3	551.8	568.5	586.7
60°	4709.9	3522.7	2356.4	1460.4	806.8	540.7	514.2	530.9	546.2	560.2	574.1
62.5°	4709.9	3638.4	2409.3	1248.6	606.2	491.9	496.1	522.6	540.7	547.6	556.0
65°	4408.9	3426.5	2229.6	1017.2	493.3	464.0	479.4	505.8	522.6	528.1	535.1
67.5°	3852.9	3026.6	1878.4	766.4	440.3	440.3	459.8	479.4	493.3	504.4	515.6
69°	3349.9	2715.9	1654.1	649.4	419.4	422.2	441.7	458.5	475.2	489.1	503.0
70°	2987.6	2483.2	1498.0	589.4	406.9	408.3	427.8	445.9	461.2	476.6	493.3
72.5°	1599.7	1715.4	1138.5	483.5	374.8	379.0	397.1	413.9	427.8	443.1	458.5
75°	544.8	737.1	724.6	395.7	338.6	349.8	360.9	376.2	394.4	404.1	412.5
77.5°	319.1	330.3	386.0	321.9	305.2	310.7	323.3	335.8	351.2	360.9	367.9
80°	267.5	266.2	267.5	262.0	266.2	278.7	287.1	303.8	317.7	320.5	319.1
82.5°	217.4	228.5	229.9	227.1	239.7	249.4	256.4	266.2	264.8	267.5	273.1
85°	193.7	192.3	202.1	203.4	203.4	196.5	197.9	197.9	197.9	202.1	203.4
87.5°	193.7	161.6	125.4	112.9	118.4	111.5	105.9	104.5	115.7	126.8	124.0
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):

	160°	165°	170°	175°	180°
0°	4304.4	4304.4	4304.4	4304.4	4304.4
2.5°	4301.6	4305.8	4303.0	4303.0	4305.8
5°	4272.4	4279.3	4276.6	4279.3	4279.3
7.5°	4205.5	4215.3	4222.2	4229.2	4225.0
10°	4109.3	4126.1	4137.2	4145.6	4141.4
12.5°	3965.8	3981.1	4004.8	4018.8	4007.6
15°	3769.3	3812.5	3826.5	3846.0	3834.8
17.5°	3564.5	3591.0	3607.7	3625.8	3637.0
20°	3291.4	3312.3	3334.6	3342.9	3330.4
22.5°	2962.5	2973.7	2969.5	2982.0	2956.9
25°	2601.6	2608.6	2604.4	2615.5	2594.6
27.5°	2260.2	2258.8	2260.2	2246.3	2232.3
30°	1931.4	1918.8	1913.2	1892.3	1888.2
32.5°	1637.3	1594.1	1571.8	1541.2	1534.2
35°	1343.3	1282.0	1241.6	1206.7	1191.4
37.5°	1079.9	1006.1	958.7	928.1	923.9
40°	854.2	785.9	752.5	735.8	733.0
42.5°	696.7	667.5	659.1	659.1	659.1
45°	635.4	634.0	641.0	646.6	648.0
47.5°	622.9	631.2	641.0	649.4	652.1
50°	622.9	631.2	638.2	646.6	649.4
52.5°	620.1	627.1	629.8	635.4	638.2
55°	611.7	615.9	615.9	618.7	621.5
57.5°	597.8	600.6	596.4	599.2	606.2
60°	583.9	586.7	579.7	586.7	590.8
62.5°	568.5	569.9	567.1	572.7	572.7
65°	543.5	540.7	544.8	549.0	550.4
67.5°	518.4	511.4	515.6	517.0	519.8
69°	498.9	494.7	496.1	498.9	501.6
70°	484.9	482.1	484.9	489.1	493.3
72.5°	450.1	451.5	461.2	469.6	478.0
75°	418.0	427.8	440.3	458.5	468.2
77.5°	379.0	386.0	395.7	415.3	433.4
80°	327.5	331.6	333.0	340.0	338.6
82.5°	266.2	262.0	259.2	256.4	255.0
85°	190.9	189.5	178.4	170.0	170.0
87.5°	114.3	108.7	103.1	96.1	92.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)