

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: P158734

Luminaire Tested: **VST-F11-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158734
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-F11-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (77) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24060.1 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7
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

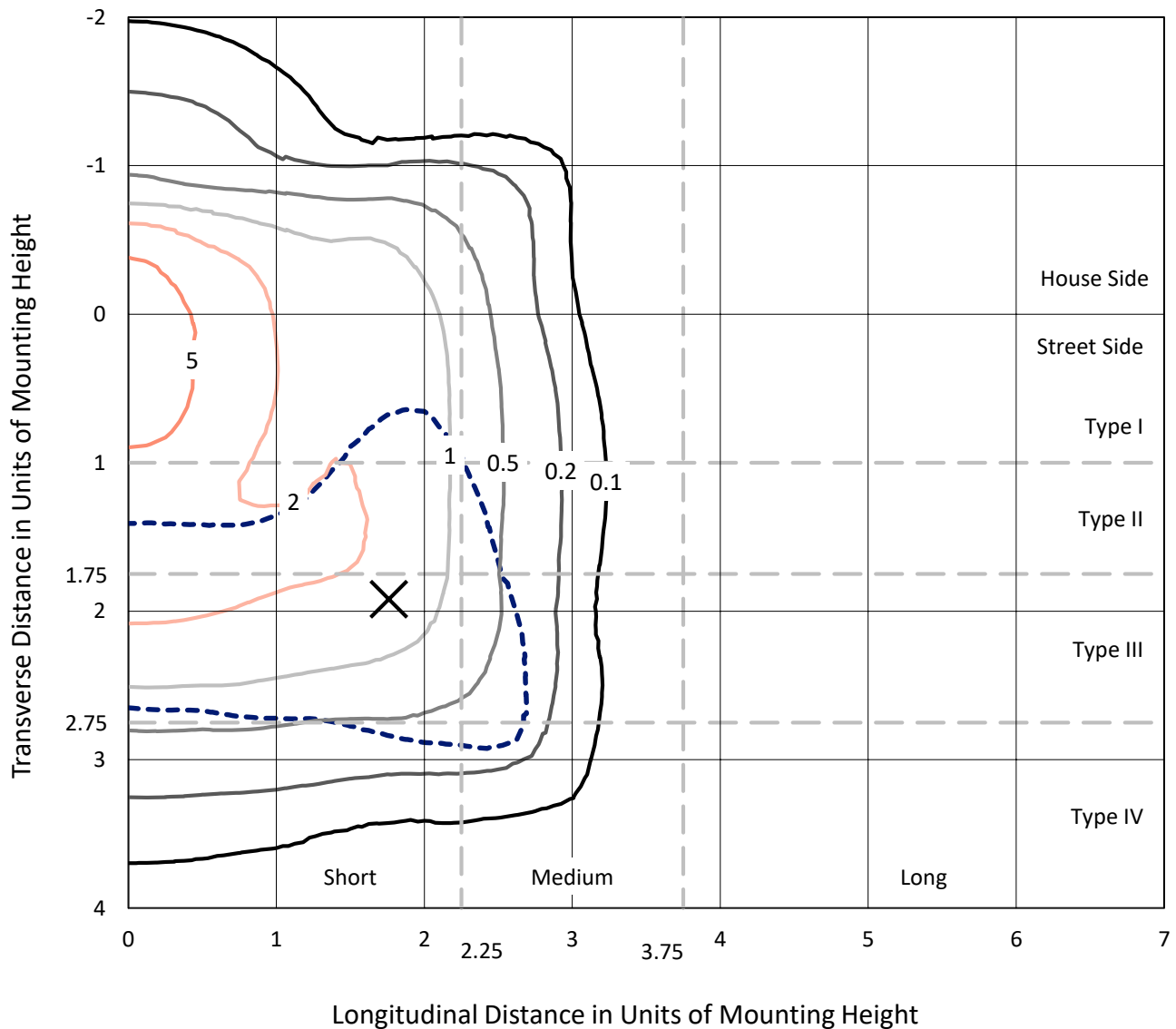


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

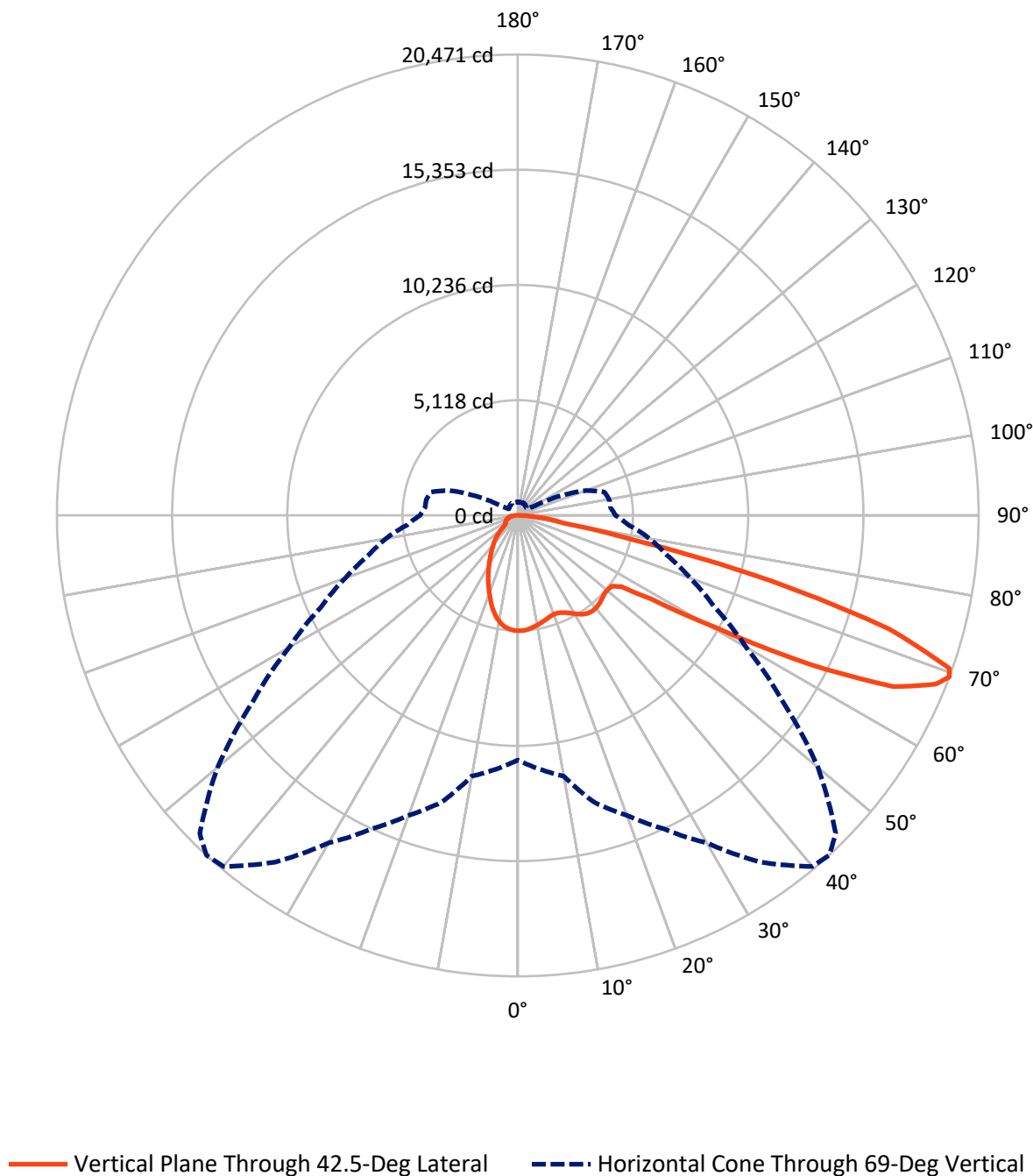


Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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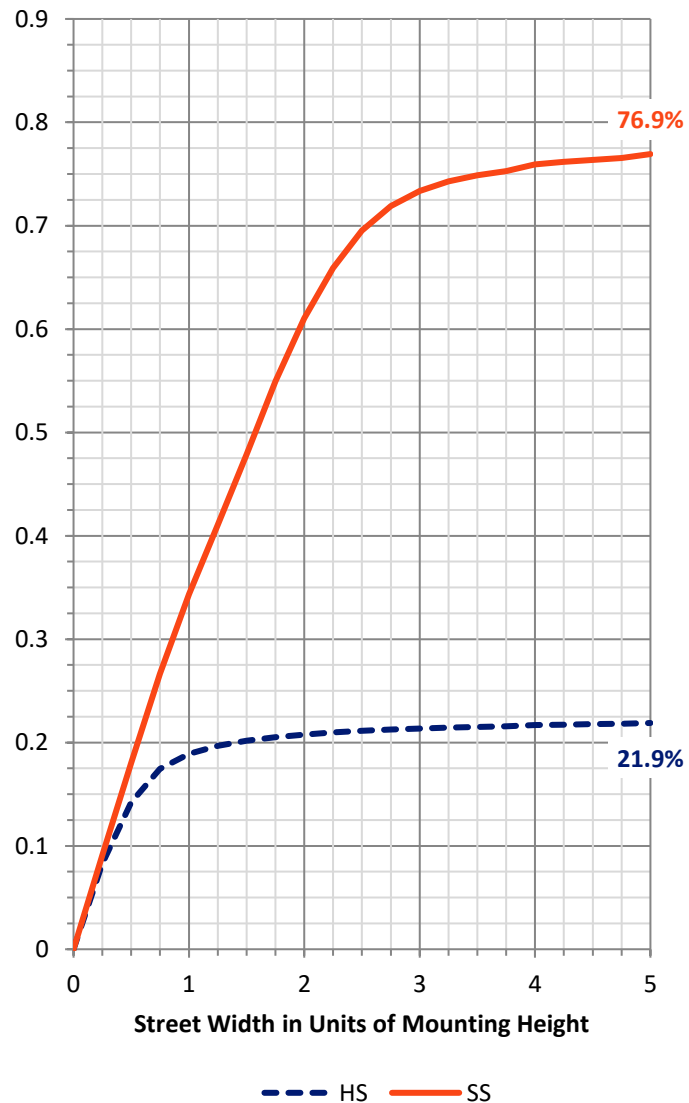
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5348.9	0.0	5348.9
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	18711.2	0.0	18711.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	24060.1	0.0	24060.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.0	2.0
10°-20°	1285.5	5.3
20°-30°	1874.6	7.8
30°-40°	2389.7	9.9
40°-50°	2780.5	11.6
50°-60°	4230.5	17.6
60°-70°	7473.0	31.1
70°-80°	3083.8	12.8
80°-90°	465.6	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°	24060.1	100.0
0°-180°	24060.1	100.0

Coefficient of Utilization



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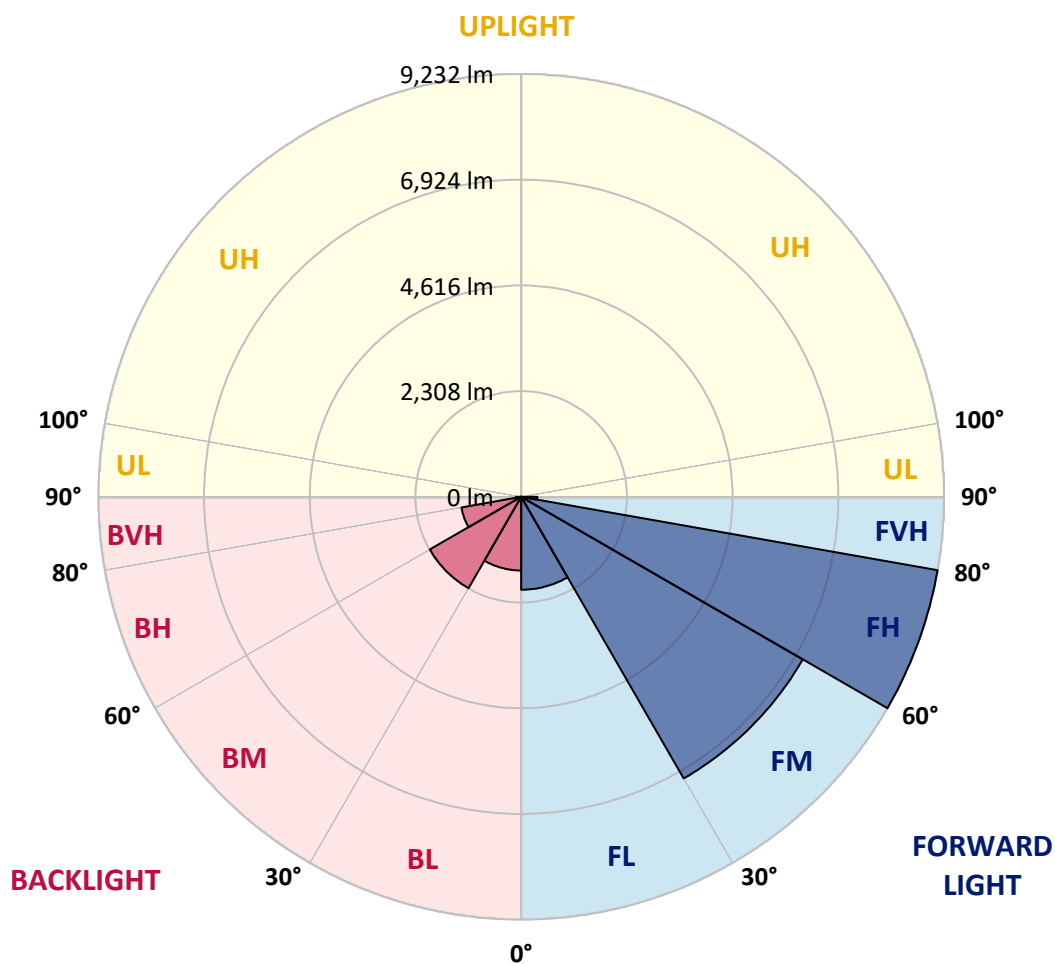
CATALOG NUMBER: VST-F11-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2028.9	8.4			
FM	(30°-60°)	7098.4	29.5			
FH	(60°-80°)	9231.9	38.4			G4/12000
FVH	(80°-90°)	352.1	1.5			G3/500
BL	(0°-30°)	1608.2	6.7	B3/2500		
BM	(30°-60°)	2302.3	9.6	B2/2500		
BH	(60°-80°)	1324.9	5.5	B3/2500		G3/2500
BVH	(80°-90°)	113.5	0.5			G2/225
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°	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0
2.5°	5107.4	5125.6	5119.0	5119.0	5124.0	5115.7	5115.7	5119.0	5110.7	5115.7	5114.0
5°	5089.2	5099.1	5095.8	5095.8	5095.8	5089.2	5085.8	5084.2	5072.6	5072.6	5067.6
7.5°	5049.3	5052.7	5057.6	5051.0	5049.3	5047.7	5036.1	5029.4	5016.2	5004.6	5007.9
10°	4996.3	4994.6	5002.9	4997.9	4991.3	4986.3	4976.4	4964.7	4949.8	4934.9	4933.2
12.5°	4936.5	4934.9	4941.5	4938.2	4933.2	4923.3	4915.0	4895.1	4871.9	4853.6	4851.9
15°	4898.4	4893.4	4900.1	4893.4	4885.1	4875.2	4860.2	4835.4	4793.9	4775.6	4760.7
17.5°	4934.9	4926.6	4929.9	4921.6	4910.0	4883.5	4848.6	4795.5	4735.8	4704.3	4681.1
20°	5062.6	5047.7	5051.0	5042.7	5016.2	4981.3	4915.0	4822.1	4720.9	4669.5	4633.0
22.5°	5245.1	5233.5	5238.4	5230.2	5203.6	5150.5	5051.0	4918.3	4774.0	4699.3	4641.3
25°	5522.1	5532.1	5535.4	5497.2	5482.3	5384.4	5246.7	5062.6	4870.2	4782.3	4702.7
27.5°	5833.9	5833.9	5848.9	5833.9	5804.1	5689.6	5495.6	5273.3	5026.1	4906.7	4810.5
30°	6137.5	6134.2	6162.4	6159.1	6111.0	5981.6	5761.0	5490.6	5208.6	5074.2	4951.5
32.5°	6459.3	6469.3	6487.5	6480.9	6417.8	6238.7	5973.3	5679.7	5382.8	5235.1	5097.4
35°	6807.7	6812.6	6819.3	6816.0	6688.2	6462.6	6129.2	5800.8	5492.2	5346.3	5203.6
37.5°	7156.0	7151.0	7142.7	7071.4	6925.4	6611.9	6223.8	5870.4	5547.0	5389.4	5241.8
40°	7467.9	7439.7	7413.1	7302.0	7078.0	6696.5	6260.3	5887.0	5542.0	5379.4	5235.1
42.5°	7638.7	7607.2	7552.5	7413.1	7141.1	6704.8	6235.4	5837.3	5490.6	5329.7	5187.0
45°	7670.2	7647.0	7593.9	7438.0	7126.1	6651.7	6159.1	5756.0	5414.3	5253.4	5119.0
47.5°	7595.6	7577.3	7525.9	7371.6	7061.5	6572.1	6071.2	5669.7	5339.6	5188.7	5059.3
50°	7481.1	7464.5	7424.7	7283.7	6988.5	6517.4	6026.4	5624.9	5314.7	5177.1	5057.6
52.5°	7666.9	7680.2	7564.1	7409.8	7066.4	6565.5	6076.1	5671.4	5359.5	5223.5	5099.1
55°	10554.9	10536.6	9838.3	9252.7	8206.0	7257.2	6548.9	6039.6	5706.2	5570.2	5454.1
57.5°	13714.8	13651.8	13364.8	12817.4	11692.8	10191.6	8826.4	7665.2	7207.4	7011.7	7025.0
60°	14746.6	14769.8	14708.5	14514.4	14111.3	13330.0	12291.6	11419.1	10559.8	10140.2	10188.3
62.5°	15318.9	15360.4	15413.4	15370.3	15239.3	15058.5	14927.4	15007.0	14887.6	14585.7	14345.2
65°	15398.5	15483.1	15658.9	15798.3	15866.3	16037.1	16438.6	17400.7	18279.8	18337.9	17914.9
67.5°	13822.7	14056.5	14438.1	15083.3	15635.7	16242.8	17211.6	18674.6	19971.8	20014.9	19620.1
69°	10868.4	11317.9	11764.1	13205.6	14176.0	15365.3	16798.5	18797.4	20351.6	20471.1	19973.4
70°	8708.6	8975.7	9360.5	10808.6	12258.4	13774.6	15851.4	18392.6	20091.2	20331.7	19782.7
72.5°	5228.5	5331.3	5464.0	5983.2	6729.7	8079.9	10833.5	14995.4	16947.8	17269.6	16571.3
75°	3380.6	3374.0	3385.6	3529.9	3573.0	3831.8	4699.3	7715.0	11055.8	11639.7	10803.7
77.5°	2546.2	2569.5	2533.0	2546.2	2534.6	2604.3	2630.8	2761.9	4364.3	5376.1	4807.2
80°	2247.7	2259.3	2260.9	2254.3	2173.0	2166.4	2209.5	2134.9	1983.9	2013.8	1929.2
82.5°	1282.2	1280.6	1295.5	1408.3	1454.8	1607.4	1670.4	1705.2	1574.2	1476.3	1335.3
85°	831.1	837.7	854.3	889.1	854.3	867.5	852.6	882.5	809.5	751.4	671.8
87.5°	340.1	340.1	361.6	393.1	366.6	360.0	308.5	305.2	258.8	233.9	182.5
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°	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0
2.5°	5104.1	5114.0	5109.1	5115.7	5110.7	5110.7	5104.1	5102.4	5107.4	5100.8	5102.4
5°	5059.3	5061.0	5052.7	5056.0	5046.0	5042.7	5037.7	5024.5	5032.8	5024.5	5027.8
7.5°	4994.6	4989.6	4978.0	4961.4	4949.8	4944.8	4934.9	4916.6	4920.0	4905.0	4913.3
10°	4911.7	4895.1	4875.2	4850.3	4833.7	4818.8	4797.2	4775.6	4764.0	4750.8	4749.1
12.5°	4818.8	4798.9	4772.3	4734.2	4697.7	4672.8	4639.6	4601.5	4589.9	4568.3	4556.7
15°	4717.6	4686.1	4654.6	4611.4	4571.6	4533.5	4488.7	4440.6	4409.1	4375.9	4351.0
17.5°	4626.4	4589.9	4548.4	4506.9	4463.8	4417.3	4360.9	4301.2	4254.8	4193.4	4143.6
20°	4555.0	4508.6	4467.1	4424.0	4375.9	4319.5	4251.5	4175.2	4097.2	4029.2	3971.1
22.5°	4526.8	4453.8	4404.1	4360.9	4312.8	4246.5	4163.6	4074.0	3979.4	3884.9	3808.6
25°	4550.0	4442.2	4364.3	4312.8	4271.4	4203.4	4110.5	4001.0	3891.5	3778.7	3675.9
27.5°	4618.1	4480.4	4367.6	4286.3	4238.2	4170.2	4072.3	3956.2	3826.8	3700.8	3574.7
30°	4724.2	4545.1	4402.4	4288.0	4213.3	4135.4	4032.5	3898.1	3767.1	3622.8	3485.1
32.5°	4827.1	4613.1	4442.2	4294.6	4180.1	4079.0	3964.5	3831.8	3690.8	3539.8	3397.2
35°	4900.1	4657.9	4457.2	4279.7	4128.7	4002.6	3879.9	3747.2	3609.5	3455.3	3309.3
37.5°	4934.9	4682.8	4458.8	4239.9	4060.7	3921.4	3790.3	3659.3	3529.9	3383.9	3246.2
40°	4933.2	4681.1	4435.6	4188.4	3979.4	3831.8	3702.4	3574.7	3453.6	3325.9	3201.5
42.5°	4896.7	4654.6	4402.4	4138.7	3921.4	3757.1	3622.8	3500.0	3397.2	3284.4	3179.9
45°	4840.3	4609.8	4367.6	4115.4	3904.8	3740.6	3597.9	3478.5	3387.2	3284.4	3194.8
47.5°	4797.2	4584.9	4372.6	4156.9	3956.2	3785.3	3634.4	3503.4	3425.4	3342.5	3279.4
50°	4803.8	4596.5	4389.1	4181.8	3992.7	3820.2	3674.2	3554.8	3498.4	3476.8	3461.9
52.5°	4838.7	4614.7	4438.9	4314.5	4249.8	4120.4	4034.2	3959.5	4001.0	3919.7	3823.5
55°	5283.2	5210.2	5381.1	5542.0	5746.0	5822.3	5749.4	5736.1	5802.4	5527.1	4895.1
57.5°	7119.5	7308.6	7572.4	7711.7	7880.9	7836.1	7666.9	7525.9	7360.0	7038.2	6250.3
60°	10243.0	10100.3	9980.9	9644.2	9368.8	9047.0	8688.7	8381.8	8088.2	7625.4	6772.8
62.5°	13461.0	12470.8	11643.0	10843.5	10199.9	9665.7	9146.5	8685.4	8240.8	7595.6	6678.3
65°	16244.5	14159.4	12605.1	11432.4	10491.8	9680.7	9013.8	8376.9	7811.2	7054.8	6147.5
67.5°	17495.2	14882.6	12621.7	10941.4	9639.2	8537.8	7675.2	6713.1	6079.4	5595.1	5084.2
69°	17402.3	14330.2	11721.0	9652.5	8156.2	6872.3	5946.7	4943.2	4336.1	4130.4	4118.8
70°	16961.1	13394.7	10669.3	8605.8	6893.9	5618.3	4730.9	3830.1	3264.5	3123.5	3374.0
72.5°	13847.5	9465.0	6686.6	5105.7	3926.3	3103.6	2531.3	2008.8	1604.0	1390.1	1436.5
75°	7821.2	4382.5	2833.2	2141.5	1809.7	1496.2	1283.9	1094.8	990.3	804.5	637.0
77.5°	2843.2	1881.1	1496.2	1293.9	917.3	632.0	529.2	462.8	419.7	419.7	399.8
80°	1798.1	1416.6	988.6	676.8	501.0	436.3	381.5	335.1	308.5	301.9	308.5
82.5°	1123.0	867.5	554.0	424.6	356.6	320.1	278.7	243.8	222.3	217.3	227.3
85°	554.0	429.6	336.7	300.2	282.0	262.1	230.6	197.4	190.8	204.0	238.9
87.5°	165.9	147.6	121.1	126.1	132.7	129.4	102.8	89.6	84.6	111.1	174.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0	5124.0
2.5°	5105.7	5104.1	5107.4	5102.4	5105.7	5107.4	5104.1	5119.0	5109.1	5110.7	5117.4
5°	5031.1	5027.8	5041.0	5037.7	5044.4	5051.0	5047.7	5069.2	5061.0	5067.6	5080.9
7.5°	4906.7	4913.3	4915.0	4915.0	4928.3	4949.8	4954.8	4968.1	4968.1	4986.3	4999.6
10°	4740.8	4742.5	4752.4	4750.8	4767.3	4790.6	4793.9	4817.1	4825.4	4855.3	4873.5
12.5°	4548.4	4540.1	4538.4	4536.8	4558.3	4583.2	4586.5	4626.4	4642.9	4669.5	4699.3
15°	4332.7	4311.2	4304.5	4317.8	4312.8	4327.8	4342.7	4364.3	4387.5	4440.6	4467.1
17.5°	4122.1	4079.0	4067.3	4052.4	4037.5	4037.5	4044.1	4070.7	4118.8	4147.0	4206.7
20°	3906.4	3855.0	3813.5	3773.7	3738.9	3725.6	3727.3	3760.5	3795.3	3841.7	3898.1
22.5°	3725.6	3647.7	3576.3	3523.3	3451.9	3450.3	3440.3	3450.3	3488.4	3500.0	3531.6
25°	3569.7	3465.2	3369.0	3282.7	3213.1	3176.6	3166.6	3163.3	3145.1	3140.1	3116.9
27.5°	3448.6	3322.5	3198.1	3093.6	3007.4	2957.6	2894.6	2849.8	2785.1	2768.5	2727.0
30°	3349.1	3213.1	3077.0	2941.0	2843.2	2753.6	2647.4	2569.5	2469.9	2405.2	2348.8
32.5°	3252.9	3115.2	2977.5	2843.2	2692.2	2552.9	2413.5	2292.4	2181.3	2081.8	1998.8
35°	3173.3	3042.2	2902.9	2740.3	2547.9	2347.2	2179.6	2042.0	1889.4	1784.9	1680.3
37.5°	3121.8	3002.4	2863.1	2639.1	2392.0	2176.3	1985.6	1818.0	1662.1	1504.5	1386.7
40°	3098.6	2994.1	2819.9	2546.2	2255.9	2017.1	1806.4	1620.6	1421.6	1244.1	1118.0
42.5°	3097.0	2990.8	2760.2	2443.4	2143.2	1882.7	1648.8	1426.6	1205.9	1023.5	899.1
45°	3126.8	2985.8	2697.2	2357.1	2043.6	1771.6	1492.9	1222.5	975.4	839.3	773.0
47.5°	3206.4	2994.1	2645.8	2277.5	1949.1	1637.2	1313.8	998.6	794.6	731.5	731.5
50°	3349.1	3042.2	2632.5	2221.1	1854.5	1481.3	1094.8	806.2	703.3	703.3	723.2
52.5°	3568.0	3143.4	2655.7	2181.3	1736.7	1275.6	862.6	695.0	675.1	693.4	719.9
55°	4072.3	3322.5	2687.2	2113.3	1557.6	1011.9	711.6	656.9	665.2	686.7	711.6
57.5°	4997.9	3705.7	2720.4	1964.0	1269.0	779.6	645.3	642.0	656.9	676.8	698.3
60°	5606.7	4193.4	2805.0	1738.4	960.4	643.6	612.1	632.0	650.2	666.8	683.4
62.5°	5606.7	4331.1	2868.0	1486.3	721.6	585.6	590.5	622.0	643.6	651.9	661.9
65°	5248.4	4079.0	2654.1	1210.9	587.2	552.4	570.6	602.1	622.0	628.7	637.0
67.5°	4586.5	3602.9	2236.0	912.3	524.2	524.2	547.4	570.6	587.2	600.5	613.8
69°	3987.7	3233.0	1969.0	773.0	499.3	502.6	525.8	545.7	565.6	582.2	598.8
70°	3556.4	2956.0	1783.2	701.7	484.4	486.0	509.2	530.8	549.1	567.3	587.2
72.5°	1904.3	2042.0	1355.2	575.6	446.2	451.2	472.8	492.7	509.2	527.5	545.7
75°	648.6	877.5	862.6	471.1	403.1	416.4	429.6	447.9	469.4	481.0	491.0
77.5°	379.9	393.1	459.5	383.2	363.3	369.9	384.8	399.8	418.0	429.6	437.9
80°	318.5	316.8	318.5	311.9	316.8	331.8	341.7	361.6	378.2	381.5	379.9
82.5°	258.8	272.0	273.7	270.4	285.3	296.9	305.2	316.8	315.2	318.5	325.1
85°	230.6	228.9	240.5	242.2	242.2	233.9	235.5	235.5	235.5	240.5	242.2
87.5°	230.6	192.4	149.3	134.4	141.0	132.7	126.1	124.4	137.7	150.9	147.6
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):

	160°	165°	170°	175°	180°
0°	5124.0	5124.0	5124.0	5124.0	5124.0
2.5°	5120.7	5125.6	5122.3	5122.3	5125.6
5°	5085.8	5094.1	5090.8	5094.1	5094.1
7.5°	5006.2	5017.8	5026.1	5034.4	5029.4
10°	4891.8	4911.7	4924.9	4934.9	4929.9
12.5°	4720.9	4739.2	4767.3	4783.9	4770.7
15°	4487.0	4538.4	4555.0	4578.2	4565.0
17.5°	4243.2	4274.7	4294.6	4316.2	4329.4
20°	3918.1	3942.9	3969.5	3979.4	3964.5
22.5°	3526.6	3539.8	3534.9	3549.8	3519.9
25°	3097.0	3105.2	3100.3	3113.5	3088.7
27.5°	2690.6	2688.9	2690.6	2674.0	2657.4
30°	2299.1	2284.1	2277.5	2252.6	2247.7
32.5°	1949.1	1897.7	1871.1	1834.6	1826.3
35°	1599.1	1526.1	1478.0	1436.5	1418.3
37.5°	1285.6	1197.6	1141.2	1104.8	1099.8
40°	1016.8	935.6	895.7	875.8	872.5
42.5°	829.4	794.6	784.6	784.6	784.6
45°	756.4	754.7	763.0	769.7	771.3
47.5°	741.5	751.4	763.0	773.0	776.3
50°	741.5	751.4	759.7	769.7	773.0
52.5°	738.2	746.5	749.8	756.4	759.7
55°	728.2	733.2	733.2	736.5	739.8
57.5°	711.6	714.9	710.0	713.3	721.6
60°	695.0	698.3	690.1	698.3	703.3
62.5°	676.8	678.4	675.1	681.8	681.8
65°	646.9	643.6	648.6	653.6	655.2
67.5°	617.1	608.8	613.8	615.4	618.7
69°	593.8	588.9	590.5	593.8	597.2
70°	577.3	573.9	577.3	582.2	587.2
72.5°	535.8	537.4	549.1	559.0	569.0
75°	497.6	509.2	524.2	545.7	557.4
77.5°	451.2	459.5	471.1	494.3	515.9
80°	389.8	394.8	396.4	404.7	403.1
82.5°	316.8	311.9	308.5	305.2	303.6
85°	227.3	225.6	212.3	202.4	202.4
87.5°	136.0	129.4	122.8	114.5	109.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)