

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: P158690

Luminaire Tested: **VST-E07-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158690
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-E07-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20306.5 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 172.5
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



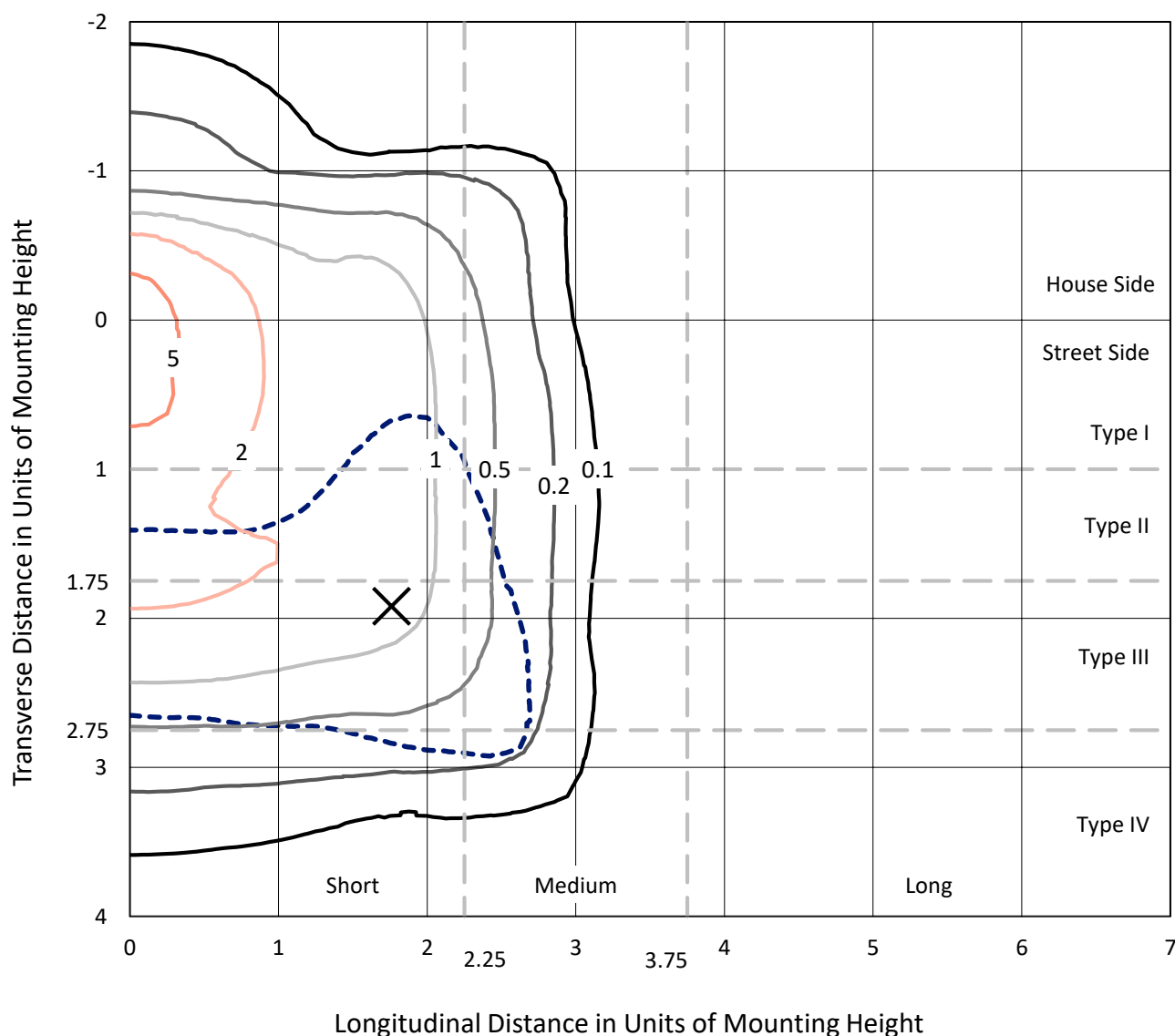
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

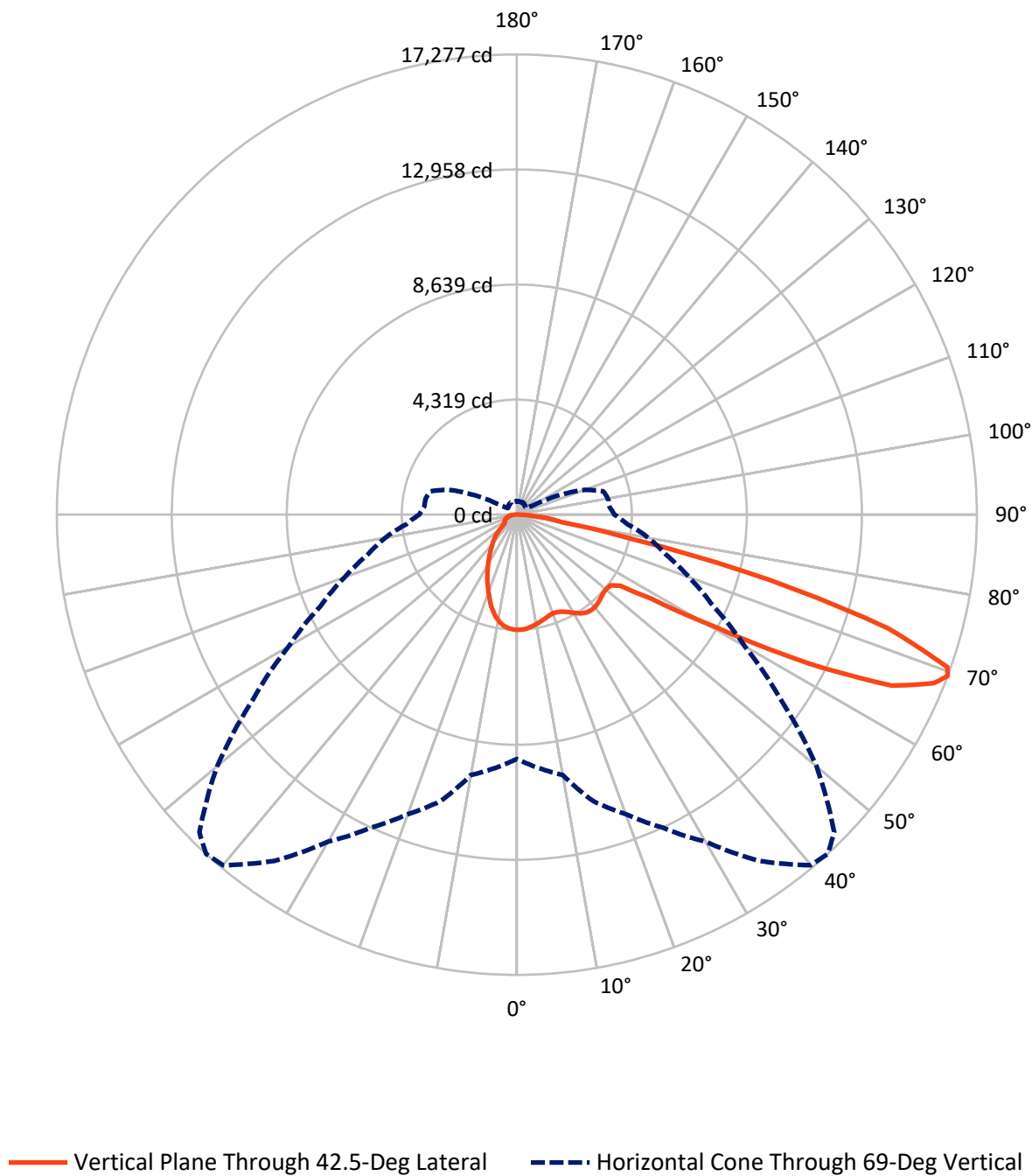


Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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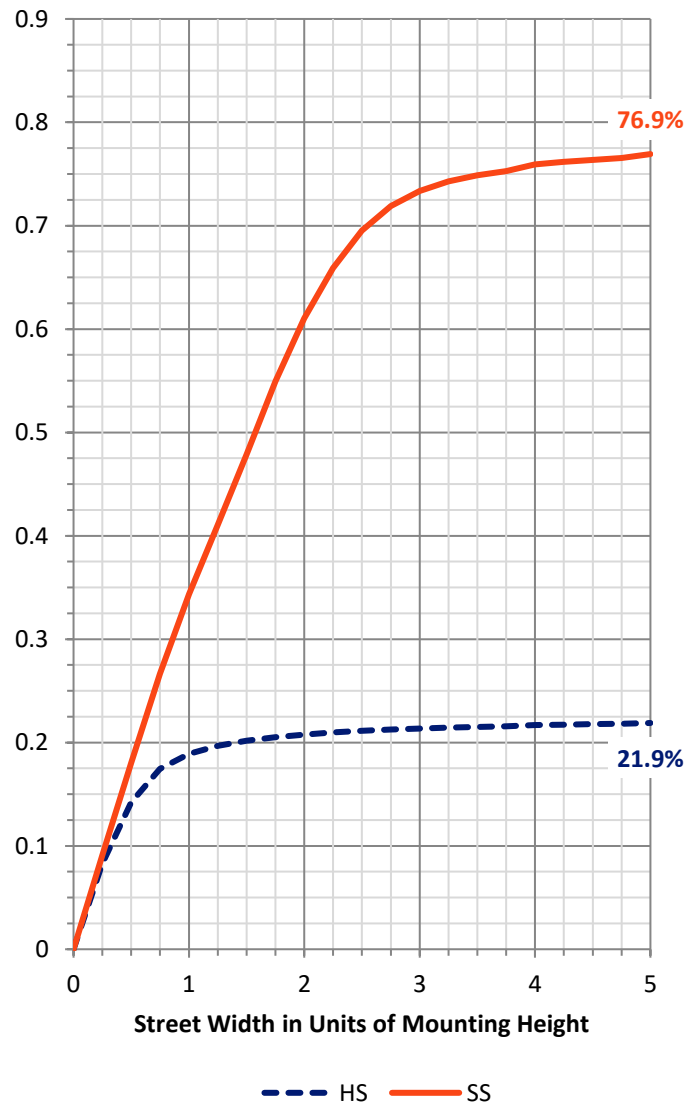
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4514.5	0.0	4514.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	15792.1	0.0	15792.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	20306.5	0.0	20306.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	402.6	2.0
10°-20°	1085.0	5.3
20°-30°	1582.1	7.8
30°-40°	2016.9	9.9
40°-50°	2346.7	11.6
50°-60°	3570.5	17.6
60°-70°	6307.1	31.1
70°-80°	2602.7	12.8
80°-90°	393.0	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°	20306.5	100.0
0°-180°	20306.5	100.0

Coefficient of Utilization



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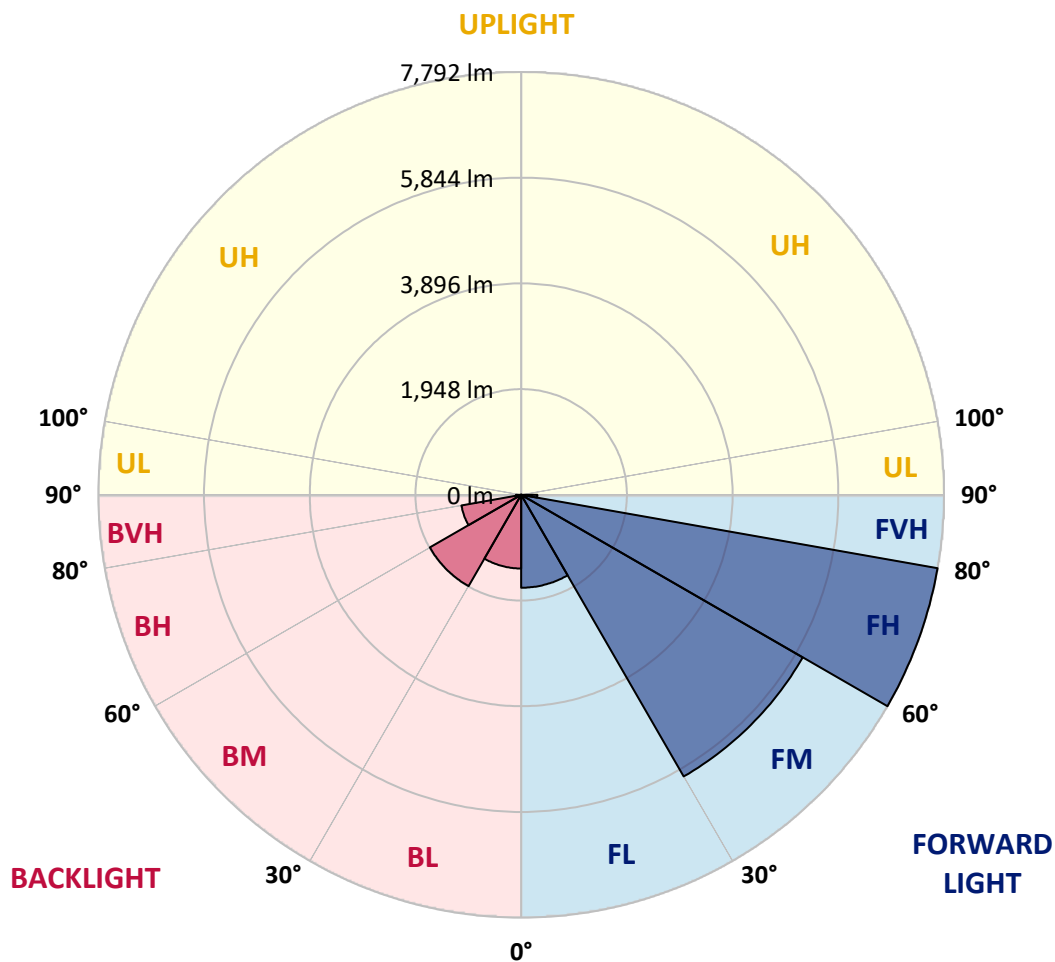
CATALOG NUMBER: VST-E07-LED-E-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1712.3	8.4			
FM	(30°-60°)	5991.0	29.5			
FH	(60°-80°)	7791.6	38.4			G4/12000
FVH	(80°-90°)	297.2	1.5			G3/500
BL	(0°-30°)	1357.3	6.7	B3/2500		
BM	(30°-60°)	1943.1	9.6	B2/2500		
BH	(60°-80°)	1118.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	95.8	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°	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6
2.5°	4310.6	4326.0	4320.4	4320.4	4324.6	4317.6	4317.6	4320.4	4313.4	4317.6	4316.2
5°	4295.2	4303.6	4300.8	4300.8	4300.8	4295.2	4292.4	4291.0	4281.2	4281.2	4277.0
7.5°	4261.6	4264.4	4268.6	4263.0	4261.6	4260.2	4250.4	4244.8	4233.6	4223.8	4226.6
10°	4216.8	4215.4	4222.4	4218.2	4212.6	4208.4	4200.0	4190.2	4177.6	4165.0	4163.6
12.5°	4166.4	4165.0	4170.6	4167.8	4163.6	4155.2	4148.2	4131.4	4111.8	4096.4	4095.0
15°	4134.2	4130.0	4135.6	4130.0	4123.0	4114.6	4102.0	4081.0	4046.0	4030.6	4018.0
17.5°	4165.0	4158.0	4160.8	4153.8	4144.0	4121.6	4092.2	4047.4	3997.0	3970.4	3950.8
20°	4272.8	4260.2	4263.0	4256.0	4233.6	4204.2	4148.2	4069.8	3984.4	3941.0	3910.2
22.5°	4426.8	4417.0	4421.2	4414.2	4391.8	4347.0	4263.0	4151.0	4029.2	3966.2	3917.2
25°	4660.6	4669.0	4671.8	4639.6	4627.0	4544.4	4428.2	4272.8	4110.4	4036.2	3969.0
27.5°	4923.8	4923.8	4936.4	4923.8	4898.6	4802.0	4638.2	4450.6	4242.0	4141.2	4060.0
30°	5180.0	5177.2	5201.0	5198.2	5157.6	5048.4	4862.2	4634.0	4396.0	4282.6	4179.0
32.5°	5451.6	5460.0	5475.4	5469.8	5416.6	5265.4	5041.4	4793.6	4543.0	4418.4	4302.2
35°	5745.6	5749.8	5755.4	5752.6	5644.8	5454.4	5173.0	4895.8	4635.4	4512.2	4391.8
37.5°	6039.6	6035.4	6028.4	5968.2	5845.0	5580.4	5252.8	4954.6	4681.6	4548.6	4424.0
40°	6302.8	6279.0	6256.6	6162.8	5973.8	5651.8	5283.6	4968.6	4677.4	4540.2	4418.4
42.5°	6447.0	6420.4	6374.2	6256.6	6027.0	5658.8	5262.6	4926.6	4634.0	4498.2	4377.8
45°	6473.6	6454.0	6409.2	6277.6	6014.4	5614.0	5198.2	4858.0	4569.6	4433.8	4320.4
47.5°	6410.6	6395.2	6351.8	6221.6	5959.8	5546.8	5124.0	4785.2	4506.6	4379.2	4270.0
50°	6314.0	6300.0	6266.4	6147.4	5898.2	5500.6	5086.2	4747.4	4485.6	4369.4	4268.6
52.5°	6470.8	6482.0	6384.0	6253.8	5964.0	5541.2	5128.2	4786.6	4523.4	4408.6	4303.6
55°	8908.2	8892.8	8303.4	7809.2	6925.8	6125.0	5527.2	5097.4	4816.0	4701.2	4603.2
57.5°	11575.2	11522.0	11279.8	10817.8	9868.6	8601.6	7449.4	6469.4	6083.0	5917.8	5929.0
60°	12446.0	12465.6	12413.8	12250.0	11909.8	11250.4	10374.0	9637.6	8912.4	8558.2	8598.8
62.5°	12929.0	12964.0	13008.8	12972.4	12861.8	12709.2	12598.6	12665.8	12565.0	12310.2	12107.2
65°	12996.2	13067.6	13216.0	13333.6	13391.0	13535.2	13874.0	14686.0	15428.0	15477.0	15120.0
67.5°	11666.2	11863.6	12185.6	12730.2	13196.4	13708.8	14526.4	15761.2	16856.0	16892.4	16559.2
69°	9172.8	9552.2	9928.8	11145.4	11964.4	12968.2	14177.8	15864.8	17176.6	17277.4	16857.4
70°	7350.0	7575.4	7900.2	9122.4	10346.0	11625.6	13378.4	15523.2	16956.8	17159.8	16696.4
72.5°	4412.8	4499.6	4611.6	5049.8	5679.8	6819.4	9143.4	12656.0	14303.8	14575.4	13986.0
75°	2853.2	2847.6	2857.4	2979.2	3015.6	3234.0	3966.2	6511.4	9331.0	9823.8	9118.2
77.5°	2149.0	2168.6	2137.8	2149.0	2139.2	2198.0	2220.4	2331.0	3683.4	4537.4	4057.2
80°	1897.0	1906.8	1908.2	1902.6	1834.0	1828.4	1864.8	1801.8	1674.4	1699.6	1628.2
82.5°	1082.2	1080.8	1093.4	1188.6	1227.8	1356.6	1409.8	1439.2	1328.6	1246.0	1127.0
85°	701.4	707.0	721.0	750.4	721.0	732.2	719.6	744.8	683.2	634.2	567.0
87.5°	287.0	287.0	305.2	331.8	309.4	303.8	260.4	257.6	218.4	197.4	154.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6
2.5°	4307.8	4316.2	4312.0	4317.6	4313.4	4313.4	4307.8	4306.4	4310.6	4305.0	4306.4
5°	4270.0	4271.4	4264.4	4267.2	4258.8	4256.0	4251.8	4240.6	4247.6	4240.6	4243.4
7.5°	4215.4	4211.2	4201.4	4187.4	4177.6	4173.4	4165.0	4149.6	4152.4	4139.8	4146.8
10°	4145.4	4131.4	4114.6	4093.6	4079.6	4067.0	4048.8	4030.6	4020.8	4009.6	4008.2
12.5°	4067.0	4050.2	4027.8	3995.6	3964.8	3943.8	3915.8	3883.6	3873.8	3855.6	3845.8
15°	3981.6	3955.0	3928.4	3892.0	3858.4	3826.2	3788.4	3747.8	3721.2	3693.2	3672.2
17.5°	3904.6	3873.8	3838.8	3803.8	3767.4	3728.2	3680.6	3630.2	3591.0	3539.2	3497.2
20°	3844.4	3805.2	3770.2	3733.8	3693.2	3645.6	3588.2	3523.8	3458.0	3400.6	3351.6
22.5°	3820.6	3759.0	3717.0	3680.6	3640.0	3584.0	3514.0	3438.4	3358.6	3278.8	3214.4
25°	3840.2	3749.2	3683.4	3640.0	3605.0	3547.6	3469.2	3376.8	3284.4	3189.2	3102.4
27.5°	3897.6	3781.4	3686.2	3617.6	3577.0	3519.6	3437.0	3339.0	3229.8	3123.4	3017.0
30°	3987.2	3836.0	3715.6	3619.0	3556.0	3490.2	3403.4	3290.0	3179.4	3057.6	2941.4
32.5°	4074.0	3893.4	3749.2	3624.6	3528.0	3442.6	3346.0	3234.0	3115.0	2987.6	2867.2
35°	4135.6	3931.2	3761.8	3612.0	3484.6	3378.2	3274.6	3162.6	3046.4	2916.2	2793.0
37.5°	4165.0	3952.2	3763.2	3578.4	3427.2	3309.6	3199.0	3088.4	2979.2	2856.0	2739.8
40°	4163.6	3950.8	3743.6	3535.0	3358.6	3234.0	3124.8	3017.0	2914.8	2807.0	2702.0
42.5°	4132.8	3928.4	3715.6	3493.0	3309.6	3171.0	3057.6	2954.0	2867.2	2772.0	2683.8
45°	4085.2	3890.6	3686.2	3473.4	3295.6	3157.0	3036.6	2935.8	2858.8	2772.0	2696.4
47.5°	4048.8	3869.6	3690.4	3508.4	3339.0	3194.8	3067.4	2956.8	2891.0	2821.0	2767.8
50°	4054.4	3879.4	3704.4	3529.4	3369.8	3224.2	3101.0	3000.2	2952.6	2934.4	2921.8
52.5°	4083.8	3894.8	3746.4	3641.4	3586.8	3477.6	3404.8	3341.8	3376.8	3308.2	3227.0
55°	4459.0	4397.4	4541.6	4677.4	4849.6	4914.0	4852.4	4841.2	4897.2	4664.8	4131.4
57.5°	6008.8	6168.4	6391.0	6508.6	6651.4	6613.6	6470.8	6351.8	6211.8	5940.2	5275.2
60°	8645.0	8524.6	8423.8	8139.6	7907.2	7635.6	7333.2	7074.2	6826.4	6435.8	5716.2
62.5°	11361.0	10525.2	9826.6	9151.8	8608.6	8157.8	7719.6	7330.4	6955.2	6410.6	5636.4
65°	13710.2	11950.4	10638.6	9648.8	8855.0	8170.4	7607.6	7070.0	6592.6	5954.2	5188.4
67.5°	14765.8	12560.8	10652.6	9234.4	8135.4	7205.8	6477.8	5665.8	5131.0	4722.2	4291.0
69°	14687.4	12094.6	9892.4	8146.6	6883.8	5800.2	5019.0	4172.0	3659.6	3486.0	3476.2
70°	14315.0	11305.0	9004.8	7263.2	5818.4	4741.8	3992.8	3232.6	2755.2	2636.2	2847.6
72.5°	11687.2	7988.4	5643.4	4309.2	3313.8	2619.4	2136.4	1695.4	1353.8	1173.2	1212.4
75°	6601.0	3698.8	2391.2	1807.4	1527.4	1262.8	1083.6	924.0	835.8	679.0	537.6
77.5°	2399.6	1587.6	1262.8	1092.0	774.2	533.4	446.6	390.6	354.2	354.2	337.4
80°	1517.6	1195.6	834.4	571.2	422.8	368.2	322.0	282.8	260.4	254.8	260.4
82.5°	947.8	732.2	467.6	358.4	301.0	270.2	235.2	205.8	187.6	183.4	191.8
85°	467.6	362.6	284.2	253.4	238.0	221.2	194.6	166.6	161.0	172.2	201.6
87.5°	140.0	124.6	102.2	106.4	112.0	109.2	86.8	75.6	71.4	93.8	147.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6	4324.6
2.5°	4309.2	4307.8	4310.6	4306.4	4309.2	4310.6	4307.8	4320.4	4312.0	4313.4	4319.0
5°	4246.2	4243.4	4254.6	4251.8	4257.4	4263.0	4260.2	4278.4	4271.4	4277.0	4288.2
7.5°	4141.2	4146.8	4148.2	4148.2	4159.4	4177.6	4181.8	4193.0	4193.0	4208.4	4219.6
10°	4001.2	4002.6	4011.0	4009.6	4023.6	4043.2	4046.0	4065.6	4072.6	4097.8	4113.2
12.5°	3838.8	3831.8	3830.4	3829.0	3847.2	3868.2	3871.0	3904.6	3918.6	3941.0	3966.2
15°	3656.8	3638.6	3633.0	3644.2	3640.0	3652.6	3665.2	3683.4	3703.0	3747.8	3770.2
17.5°	3479.0	3442.6	3432.8	3420.2	3407.6	3407.6	3413.2	3435.6	3476.2	3500.0	3550.4
20°	3297.0	3253.6	3218.6	3185.0	3155.6	3144.4	3145.8	3173.8	3203.2	3242.4	3290.0
22.5°	3144.4	3078.6	3018.4	2973.6	2913.4	2912.0	2903.6	2912.0	2944.2	2954.0	2980.6
25°	3012.8	2924.6	2843.4	2770.6	2711.8	2681.0	2672.6	2669.8	2654.4	2650.2	2630.6
27.5°	2910.6	2804.2	2699.2	2611.0	2538.2	2496.2	2443.0	2405.2	2350.6	2336.6	2301.6
30°	2826.6	2711.8	2597.0	2482.2	2399.6	2324.0	2234.4	2168.6	2084.6	2030.0	1982.4
32.5°	2745.4	2629.2	2513.0	2399.6	2272.2	2154.6	2037.0	1934.8	1841.0	1757.0	1687.0
35°	2678.2	2567.6	2450.0	2312.8	2150.4	1981.0	1839.6	1723.4	1594.6	1506.4	1418.2
37.5°	2634.8	2534.0	2416.4	2227.4	2018.8	1836.8	1675.8	1534.4	1402.8	1269.8	1170.4
40°	2615.2	2527.0	2380.0	2149.0	1904.0	1702.4	1524.6	1367.8	1199.8	1050.0	943.6
42.5°	2613.8	2524.2	2329.6	2062.2	1808.8	1589.0	1391.6	1204.0	1017.8	863.8	758.8
45°	2639.0	2520.0	2276.4	1989.4	1724.8	1495.2	1260.0	1031.8	823.2	708.4	652.4
47.5°	2706.2	2527.0	2233.0	1922.2	1645.0	1381.8	1108.8	842.8	670.6	617.4	617.4
50°	2826.6	2567.6	2221.8	1874.6	1565.2	1250.2	924.0	680.4	593.6	593.6	610.4
52.5°	3011.4	2653.0	2241.4	1841.0	1465.8	1076.6	728.0	586.6	569.8	585.2	607.6
55°	3437.0	2804.2	2268.0	1783.6	1314.6	854.0	600.6	554.4	561.4	579.6	600.6
57.5°	4218.2	3127.6	2296.0	1657.6	1071.0	658.0	544.6	541.8	554.4	571.2	589.4
60°	4732.0	3539.2	2367.4	1467.2	810.6	543.2	516.6	533.4	548.8	562.8	576.8
62.5°	4732.0	3655.4	2420.6	1254.4	609.0	494.2	498.4	525.0	543.2	550.2	558.6
65°	4429.6	3442.6	2240.0	1022.0	495.6	466.2	481.6	508.2	525.0	530.6	537.6
67.5°	3871.0	3040.8	1887.2	770.0	442.4	442.4	462.0	481.6	495.6	506.8	518.0
69°	3365.6	2728.6	1661.8	652.4	421.4	424.2	443.8	460.6	477.4	491.4	505.4
70°	3001.6	2494.8	1505.0	592.2	408.8	410.2	429.8	448.0	463.4	478.8	495.6
72.5°	1607.2	1723.4	1143.8	485.8	376.6	380.8	399.0	415.8	429.8	445.2	460.6
75°	547.4	740.6	728.0	397.6	340.2	351.4	362.6	378.0	396.2	406.0	414.4
77.5°	320.6	331.8	387.8	323.4	306.6	312.2	324.8	337.4	352.8	362.6	369.6
80°	268.8	267.4	268.8	263.2	267.4	280.0	288.4	305.2	319.2	322.0	320.6
82.5°	218.4	229.6	231.0	228.2	240.8	250.6	257.6	267.4	266.0	268.8	274.4
85°	194.6	193.2	203.0	204.4	204.4	197.4	198.8	198.8	198.8	203.0	204.4
87.5°	194.6	162.4	126.0	113.4	119.0	112.0	106.4	105.0	116.2	127.4	124.6
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°	4324.6	4324.6	4324.6	4324.6	4324.6
2.5°	4321.8	4326.0	4323.2	4323.2	4326.0
5°	4292.4	4299.4	4296.6	4299.4	4299.4
7.5°	4225.2	4235.0	4242.0	4249.0	4244.8
10°	4128.6	4145.4	4156.6	4165.0	4160.8
12.5°	3984.4	3999.8	4023.6	4037.6	4026.4
15°	3787.0	3830.4	3844.4	3864.0	3852.8
17.5°	3581.2	3607.8	3624.6	3642.8	3654.0
20°	3306.8	3327.8	3350.2	3358.6	3346.0
22.5°	2976.4	2987.6	2983.4	2996.0	2970.8
25°	2613.8	2620.8	2616.6	2627.8	2606.8
27.5°	2270.8	2269.4	2270.8	2256.8	2242.8
30°	1940.4	1927.8	1922.2	1901.2	1897.0
32.5°	1645.0	1601.6	1579.2	1548.4	1541.4
35°	1349.6	1288.0	1247.4	1212.4	1197.0
37.5°	1085.0	1010.8	963.2	932.4	928.2
40°	858.2	789.6	756.0	739.2	736.4
42.5°	700.0	670.6	662.2	662.2	662.2
45°	638.4	637.0	644.0	649.6	651.0
47.5°	625.8	634.2	644.0	652.4	655.2
50°	625.8	634.2	641.2	649.6	652.4
52.5°	623.0	630.0	632.8	638.4	641.2
55°	614.6	618.8	618.8	621.6	624.4
57.5°	600.6	603.4	599.2	602.0	609.0
60°	586.6	589.4	582.4	589.4	593.6
62.5°	571.2	572.6	569.8	575.4	575.4
65°	546.0	543.2	547.4	551.6	553.0
67.5°	520.8	513.8	518.0	519.4	522.2
69°	501.2	497.0	498.4	501.2	504.0
70°	487.2	484.4	487.2	491.4	495.6
72.5°	452.2	453.6	463.4	471.8	480.2
75°	420.0	429.8	442.4	460.6	470.4
77.5°	380.8	387.8	397.6	417.2	435.4
80°	329.0	333.2	334.6	341.6	340.2
82.5°	267.4	263.2	260.4	257.6	256.2
85°	191.8	190.4	179.2	170.8	170.8
87.5°	114.8	109.2	103.6	96.6	92.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)