

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: P159627

Luminaire Tested: **VST-F12-LED-E-U-T3-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159627
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
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-T3-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (84) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31088 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - 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



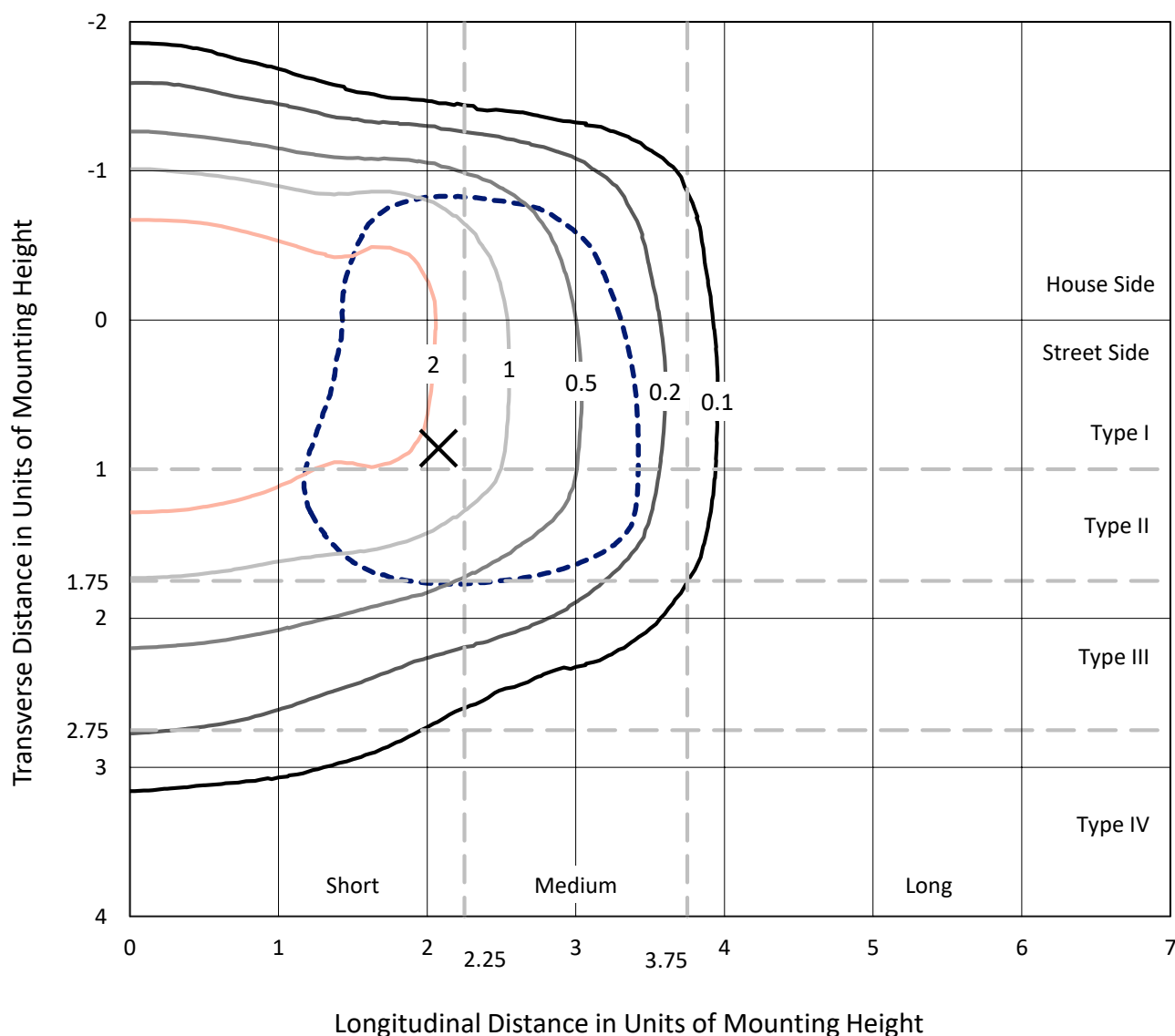
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

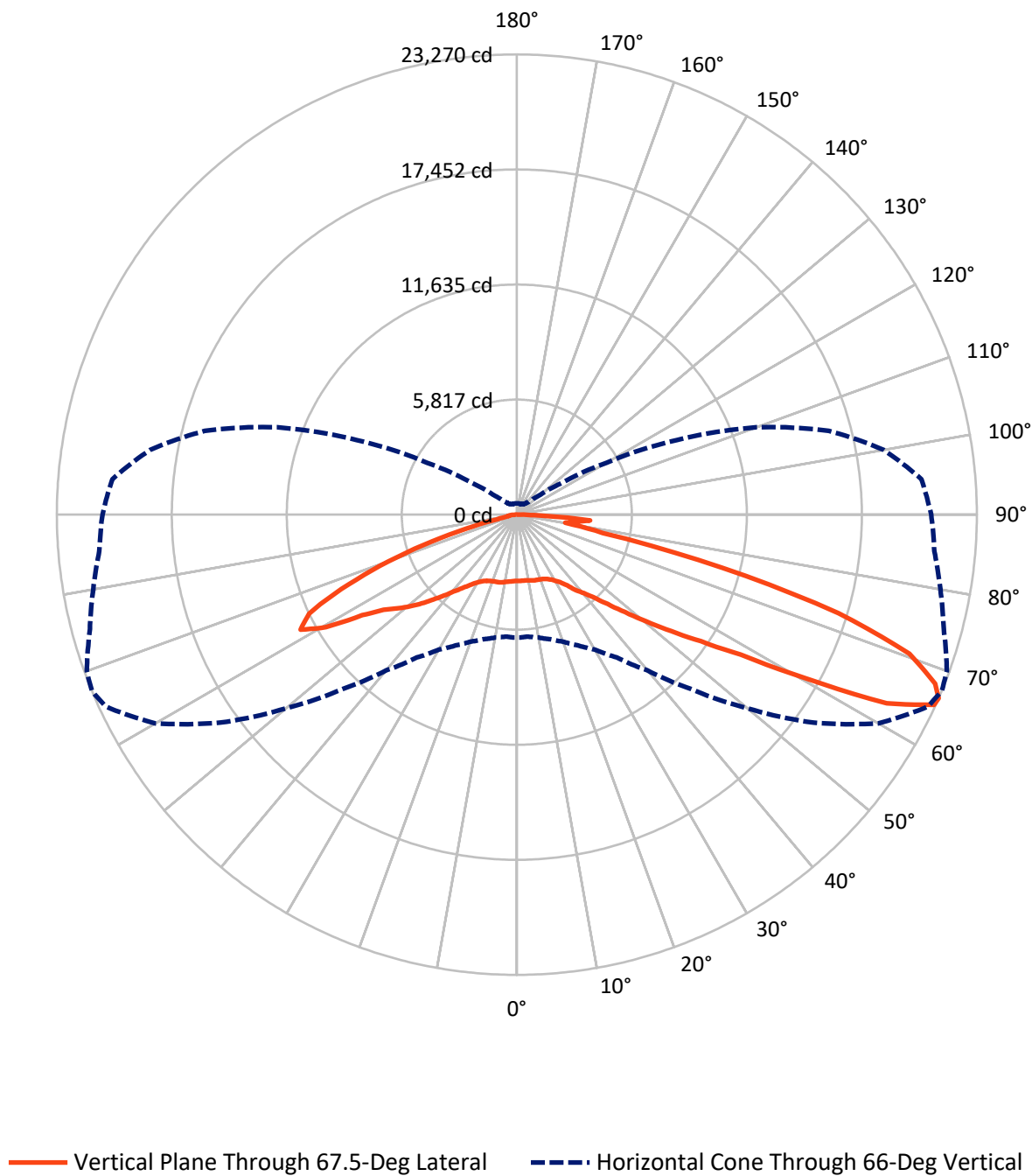


Based on 30 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10757.8	0.0	10757.8
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	20330.2	0.0	20330.2
	% Fixture	65.4	0.0	65.4
Total	Lumens	31088.0	0.0	31088.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.9	1.0
10°-20°	953.2	3.1
20°-30°	1638.5	5.3
30°-40°	2648.1	8.5
40°-50°	4388.5	14.1
50°-60°	6887.4	22.2
60°-70°	9416.4	30.3
70°-80°	4140.9	13.3
80°-90°	693.1	2.2
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°	31088.0	100.0
0°-180°	31088.0	100.0

Coefficient of Utilization



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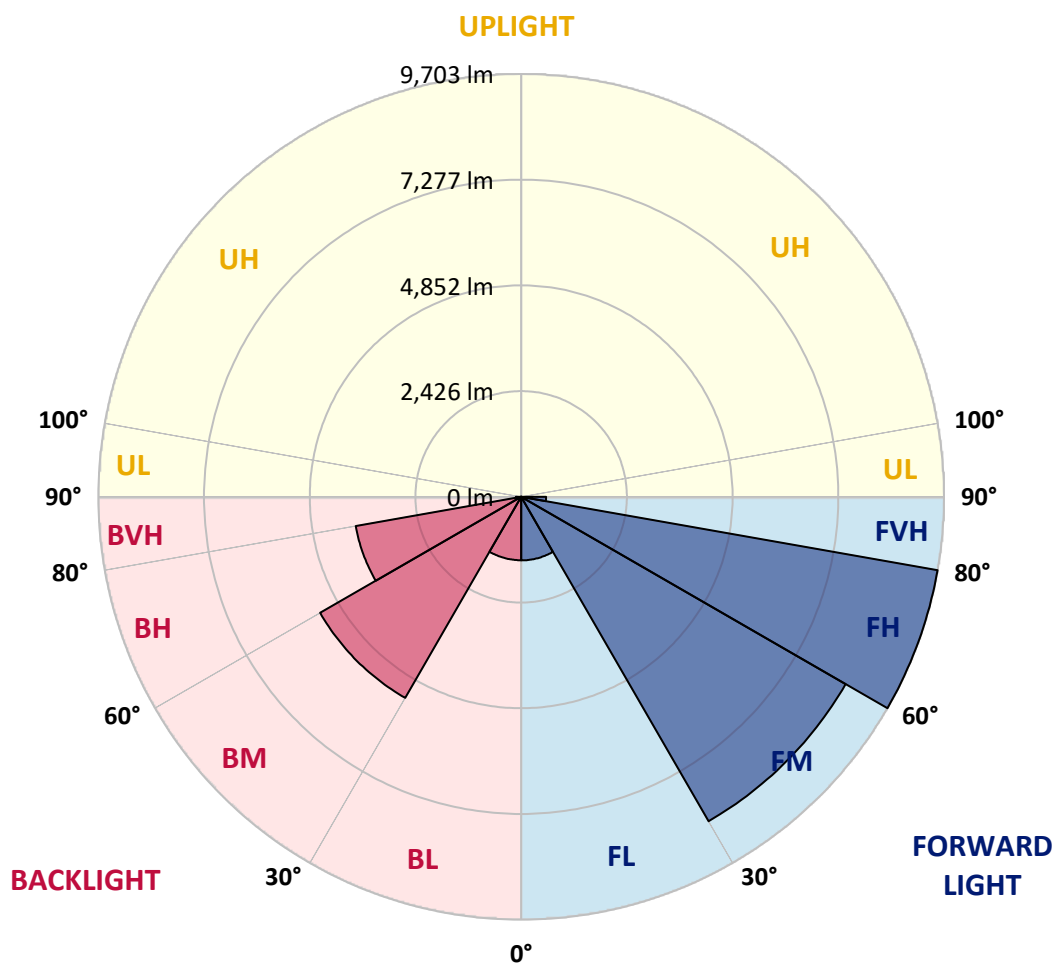
CATALOG NUMBER: VST-F12-LED-E-U-T3-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1458.3	4.7			
FM	(30°-60°)	8596.8	27.7			
FH	(60°-80°)	9703.3	31.2			G4/12000
FVH	(80°-90°)	571.8	1.8			G4/750
BL	(0°-30°)	1455.3	4.7	B3/2500		
BM	(30°-60°)	5327.2	17.1	B4/8500		
BH	(60°-80°)	3854.1	12.4	B4/5000		G4/5000
BVH	(80°-90°)	121.3	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4
2.5°	3348.3	3348.3	3350.4	3348.3	3348.3	3346.3	3354.4	3354.4	3354.4	3352.4	3358.5
5°	3340.2	3340.2	3342.2	3342.2	3344.3	3342.2	3348.3	3350.4	3350.4	3350.4	3356.5
7.5°	3319.9	3326.0	3321.9	3323.9	3326.0	3332.1	3340.2	3344.3	3348.3	3354.4	3356.5
10°	3277.2	3287.3	3285.3	3291.4	3293.4	3311.7	3317.8	3326.0	3340.2	3348.3	3354.4
12.5°	3218.2	3224.3	3226.3	3234.5	3242.6	3265.0	3281.2	3295.5	3315.8	3336.1	3356.5
15°	3171.5	3175.5	3175.5	3183.6	3195.8	3216.2	3236.5	3260.9	3291.4	3326.0	3358.5
17.5°	3185.7	3195.8	3187.7	3185.7	3189.7	3201.9	3220.2	3240.6	3277.2	3315.8	3354.4
20°	3279.2	3281.2	3277.2	3267.0	3258.9	3260.9	3260.9	3265.0	3287.3	3317.8	3348.3
22.5°	3356.5	3364.6	3362.6	3364.6	3362.6	3370.7	3366.6	3358.5	3350.4	3352.4	3366.6
25°	3423.5	3431.7	3431.7	3437.8	3447.9	3464.2	3476.4	3474.4	3462.2	3445.9	3439.8
27.5°	3533.3	3533.3	3533.3	3539.4	3553.7	3574.0	3594.3	3606.5	3616.7	3600.4	3565.8
30°	3706.1	3708.2	3702.1	3704.1	3714.3	3740.7	3765.1	3783.4	3803.7	3801.7	3756.9
32.5°	3895.2	3903.3	3901.3	3909.4	3923.7	3948.1	3974.5	4002.9	4029.4	4045.6	4017.2
35°	4139.2	4147.3	4149.3	4161.5	4177.8	4214.4	4251.0	4287.6	4316.0	4328.2	4322.1
37.5°	4539.6	4541.7	4533.5	4515.3	4521.4	4549.8	4592.5	4651.5	4669.8	4682.0	4710.4
40°	5139.4	5133.3	5100.8	5084.5	5074.3	5086.5	5078.4	5125.1	5167.8	5169.9	5167.8
42.5°	5867.2	5848.9	5818.4	5814.3	5810.3	5806.2	5783.8	5785.9	5824.5	5834.7	5822.5
45°	6590.9	6568.6	6546.2	6566.5	6542.1	6605.2	6623.5	6672.2	6678.3	6698.7	6668.2
47.5°	7184.6	7186.6	7186.6	7215.1	7263.8	7383.8	7491.5	7585.1	7619.6	7668.4	7674.5
50°	7633.8	7646.0	7684.7	7776.2	7879.8	8081.1	8262.0	8430.8	8583.2	8640.2	8790.6
52.5°	7896.1	7928.6	8009.9	8162.4	8347.4	8607.6	8892.3	9178.9	9443.2	9666.8	9845.7
55°	7849.3	7873.7	8016.0	8253.9	8542.6	8892.3	9290.7	9705.5	10118.1	10496.3	10789.0
57.5°	7548.5	7564.7	7707.0	7975.4	8335.2	8804.8	9368.0	9984.0	10563.4	11173.3	11673.4
60°	7154.1	7178.5	7310.6	7522.0	7898.1	8398.2	9050.8	9886.4	10811.4	11771.0	12706.1
62.5°	6902.0	6895.9	7011.8	7200.8	7483.4	7936.8	8565.0	9555.0	10835.8	12458.1	14306.1
65°	6483.2	6464.9	6584.8	6800.3	7107.3	7546.4	8142.1	9093.5	10579.6	12718.3	15338.8
66°	6223.0	6186.4	6306.3	6523.8	6830.8	7298.4	7869.7	8808.9	10268.6	12464.2	15229.1
67.5°	5767.6	5749.3	5806.2	5977.0	6204.7	6643.8	7239.4	8184.8	9532.7	11699.8	14424.0
70°	4688.1	4647.4	4692.1	4769.4	4856.8	4964.5	5330.5	6080.6	7221.2	9321.2	11620.5
72.5°	3193.8	3173.5	3256.8	3374.7	3608.5	3718.3	3862.7	3984.6	4387.2	5875.3	8105.5
75°	2429.4	2441.6	2547.3	2742.5	3043.4	3368.7	3685.8	3801.7	3667.5	3551.6	4600.6
77.5°	1362.1	1433.3	1561.3	1809.4	2128.5	2588.0	3141.0	3750.9	4055.8	3980.6	3722.4
80°	561.1	550.9	614.0	750.2	860.0	1236.1	1890.7	2655.1	3513.0	4055.8	3970.4
82.5°	156.5	160.6	207.4	266.3	343.6	437.1	683.1	1097.8	1789.0	2783.2	3643.1
85°	48.8	48.8	67.1	99.6	117.9	136.2	172.8	284.6	485.9	969.7	1965.9
87.5°	10.2	10.2	14.2	28.5	30.5	30.5	38.6	52.9	46.8	42.7	191.1
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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CATALOG NUMBER: VST-F12-LED-E-U-T3-7060

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4
2.5°	3352.4	3348.3	3350.4	3352.4	3350.4	3350.4	3348.3	3346.3	3348.3	3348.3	3354.4
5°	3350.4	3348.3	3350.4	3350.4	3350.4	3352.4	3352.4	3352.4	3358.5	3358.5	3368.7
7.5°	3354.4	3354.4	3358.5	3358.5	3358.5	3358.5	3360.5	3364.6	3374.7	3372.7	3391.0
10°	3362.6	3366.6	3376.8	3378.8	3378.8	3384.9	3389.0	3397.1	3407.3	3411.3	3427.6
12.5°	3372.7	3393.0	3411.3	3415.4	3421.5	3431.7	3437.8	3441.8	3460.1	3466.2	3486.6
15°	3384.9	3413.4	3435.7	3443.9	3452.0	3464.2	3472.3	3478.4	3494.7	3502.8	3527.2
17.5°	3386.9	3419.5	3445.9	3458.1	3468.3	3482.5	3494.7	3506.9	3525.2	3537.4	3561.8
20°	3384.9	3427.6	3468.3	3484.5	3494.7	3521.1	3539.4	3555.7	3578.0	3590.2	3614.6
22.5°	3407.3	3456.1	3511.0	3531.3	3547.6	3584.1	3608.5	3635.0	3663.4	3671.6	3689.9
25°	3460.1	3511.0	3580.1	3608.5	3637.0	3685.8	3720.4	3759.0	3787.4	3791.5	3797.6
27.5°	3549.6	3596.3	3679.7	3722.4	3769.1	3838.3	3889.1	3927.7	3968.4	3968.4	3964.3
30°	3730.5	3740.7	3828.1	3883.0	3952.1	4053.8	4129.0	4171.7	4202.2	4202.2	4167.6
32.5°	3964.3	3952.1	4031.4	4090.4	4185.9	4328.2	4429.9	4462.4	4494.9	4484.8	4425.8
35°	4301.8	4267.2	4312.0	4401.4	4509.2	4704.3	4810.0	4883.2	4903.6	4875.1	4781.6
37.5°	4726.7	4722.6	4745.0	4844.6	4964.5	5216.6	5324.4	5371.1	5354.9	5304.0	5139.4
40°	5176.0	5163.8	5149.5	5216.6	5350.8	5653.7	5844.8	5869.2	5846.9	5771.6	5564.3
42.5°	5775.7	5775.7	5708.6	5726.9	5838.7	6178.2	6403.9	6481.1	6483.2	6373.4	6096.9
45°	6601.1	6593.0	6475.0	6446.6	6532.0	6865.4	7156.1	7198.8	7198.8	7054.4	6751.5
47.5°	7593.2	7583.0	7467.1	7367.5	7383.8	7743.6	7985.6	8050.6	7993.7	7885.9	7526.1
50°	8711.3	8693.0	8575.1	8481.6	8440.9	8804.8	9010.2	9040.7	8957.3	8829.2	8438.9
52.5°	9845.7	9900.6	9831.5	9780.7	9794.9	10030.7	10242.2	10097.8	10055.1	9916.9	9524.5
55°	11026.9	11195.6	11348.1	11303.4	11356.2	11586.0	11626.6	11435.5	11358.3	11258.7	10821.6
57.5°	12216.2	12708.2	13208.3	13348.6	13478.7	13808.0	13761.3	13448.2	13507.1	13655.5	13163.6
60°	13877.1	15298.2	16566.8	16800.6	17205.1	17485.7	17548.7	17487.7	17762.2	17684.9	17249.8
62.5°	16428.5	18796.9	20561.6	21000.7	21407.3	21393.1	21179.6	20960.0	21230.4	21230.4	20094.0
65°	18250.1	20937.7	22826.3	23190.2	23174.0	22684.0	22179.8	21740.7	21702.1	21401.2	19740.3
66°	18335.5	21102.3	22952.4	23269.5	23147.5	22358.7	21754.9	21197.9	20960.0	20541.2	18839.6
67.5°	17567.0	20636.8	22541.7	22818.2	22497.0	21366.6	20535.1	19789.0	19443.4	18738.0	17136.0
70°	14409.8	17735.7	20506.7	21071.9	20707.9	19276.7	18138.3	17129.9	16469.2	15450.7	14295.9
72.5°	10518.6	13094.4	16095.1	17014.0	16957.1	15639.7	14722.9	13799.9	12931.8	12004.8	11161.1
75°	6836.9	8518.2	10191.3	10728.0	10469.9	9707.5	9050.8	8512.1	7688.7	7044.3	6887.7
77.5°	3903.3	4769.4	4511.2	4444.1	4120.9	3326.0	2211.9	1551.2	1400.7	1748.4	1917.1
80°	3714.3	3366.6	2756.7	2486.3	2285.1	1557.3	817.3	575.3	504.2	516.4	555.0
82.5°	4187.9	4364.8	3569.9	2982.4	2596.1	1894.7	1034.8	481.8	351.7	416.8	467.6
85°	3138.9	4419.7	4381.1	3712.2	3045.4	2183.4	1223.9	368.0	211.4	292.7	382.2
87.5°	636.3	1047.0	1008.4	886.4	754.2	526.5	205.3	115.9	105.7	144.3	219.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4	3354.4
2.5°	3358.5	3358.5	3362.6	3368.7	3370.7	3370.7	3374.7	3370.7	3378.8	3380.8	3382.9
5°	3376.8	3382.9	3386.9	3397.1	3403.2	3407.3	3413.4	3409.3	3417.4	3419.5	3423.5
7.5°	3397.1	3407.3	3415.4	3419.5	3427.6	3427.6	3429.6	3425.6	3423.5	3417.4	3415.4
10°	3433.7	3439.8	3450.0	3445.9	3441.8	3427.6	3415.4	3397.1	3386.9	3368.7	3358.5
12.5°	3492.7	3496.7	3496.7	3478.4	3452.0	3419.5	3389.0	3358.5	3334.1	3313.8	3301.6
15°	3533.3	3541.5	3531.3	3504.9	3466.2	3421.5	3380.8	3340.2	3307.7	3281.2	3265.0
17.5°	3563.8	3561.8	3543.5	3506.9	3470.3	3431.7	3395.1	3352.4	3311.7	3273.1	3248.7
20°	3610.6	3590.2	3557.7	3519.1	3480.5	3447.9	3419.5	3378.8	3336.1	3283.3	3246.7
22.5°	3673.6	3637.0	3590.2	3549.6	3513.0	3482.5	3450.0	3415.4	3370.7	3311.7	3260.9
25°	3763.0	3700.0	3647.2	3606.5	3574.0	3539.4	3502.8	3458.1	3413.4	3352.4	3291.4
27.5°	3899.3	3805.7	3738.7	3702.1	3671.6	3624.8	3578.0	3525.2	3468.3	3405.2	3336.1
30°	4063.9	3952.1	3874.9	3842.3	3805.7	3752.9	3702.1	3628.9	3549.6	3474.4	3389.0
32.5°	4257.1	4143.2	4066.0	4041.6	3982.6	3921.6	3850.5	3752.9	3649.2	3537.4	3435.7
35°	4549.8	4405.5	4334.3	4277.4	4196.1	4122.9	4002.9	3874.9	3726.5	3578.0	3452.0
37.5°	4850.7	4704.3	4631.1	4551.8	4446.1	4312.0	4151.3	3968.4	3771.2	3588.2	3433.7
40°	5253.2	5094.7	5001.1	4879.2	4708.4	4499.0	4261.1	4011.1	3771.2	3543.5	3356.5
42.5°	5722.8	5576.5	5432.1	5230.9	4956.4	4651.5	4318.1	3996.8	3706.1	3443.9	3246.7
45°	6373.4	6123.3	5893.6	5570.4	5169.9	4740.9	4324.2	3929.8	3594.3	3303.6	3084.0
47.5°	7105.3	6782.0	6375.4	5869.2	5322.3	4775.5	4265.2	3803.7	3417.4	3102.3	2862.4
50°	7949.0	7452.9	6828.8	6107.1	5399.6	4728.7	4124.9	3592.3	3173.5	2811.6	2555.5
52.5°	8914.6	8158.4	7239.4	6275.8	5387.4	4586.4	3893.2	3313.8	2846.2	2461.9	2209.9
55°	9986.0	8926.8	7631.8	6383.6	5277.6	4309.9	3529.3	2921.4	2439.6	2061.4	1839.8
57.5°	11874.6	10274.7	8379.9	6527.9	5047.9	3891.1	3067.8	2425.3	1990.3	1669.1	1457.6
60°	15383.6	12630.9	9796.9	6867.4	4702.3	3366.6	2486.3	1902.9	1539.0	1305.2	1148.6
62.5°	17554.8	14289.8	10488.2	6818.6	4141.2	2649.0	1845.9	1410.9	1124.2	969.7	872.1
65°	17040.5	13639.3	9644.5	5857.0	3222.3	1878.5	1221.8	923.0	772.5	693.2	646.5
66°	16341.1	12911.5	8930.9	5245.1	2807.5	1569.5	1008.4	774.6	664.8	605.8	581.4
67.5°	14875.3	11581.9	7703.0	4200.1	2104.1	1169.0	744.1	607.9	540.8	510.3	494.0
70°	12450.0	9331.4	5448.4	2480.2	1140.5	634.3	475.7	422.9	406.6	396.4	390.3
72.5°	9626.2	6755.6	3183.6	1219.8	575.3	410.7	361.9	339.5	333.4	333.4	335.4
75°	6064.4	3883.0	1425.1	587.5	390.3	331.4	309.0	298.8	300.9	302.9	300.9
77.5°	2014.7	1339.7	593.6	416.8	339.5	300.9	282.6	278.5	282.6	284.6	284.6
80°	579.4	506.2	429.0	368.0	311.0	280.6	264.3	262.3	272.4	274.5	270.4
82.5°	445.2	416.8	388.3	355.8	298.8	264.3	258.2	260.2	266.3	262.3	244.0
85°	408.6	404.6	290.7	288.7	260.2	252.1	246.0	248.0	241.9	219.6	199.2
87.5°	229.7	213.5	164.7	166.7	193.1	199.2	164.7	174.8	162.6	142.3	130.1
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):

	160°	165°	170°	175°	180°
0°	3354.4	3354.4	3354.4	3354.4	3354.4
2.5°	3386.9	3384.9	3384.9	3391.0	3382.9
5°	3425.6	3423.5	3423.5	3429.6	3423.5
7.5°	3407.3	3401.2	3397.1	3395.1	3395.1
10°	3346.3	3340.2	3328.0	3323.9	3319.9
12.5°	3283.3	3277.2	3262.9	3262.9	3258.9
15°	3244.6	3236.5	3226.3	3220.2	3216.2
17.5°	3224.3	3212.1	3199.9	3193.8	3189.7
20°	3216.2	3199.9	3185.7	3175.5	3175.5
22.5°	3218.2	3197.9	3181.6	3169.4	3165.4
25°	3238.5	3208.0	3187.7	3175.5	3171.5
27.5°	3267.0	3230.4	3204.0	3187.7	3181.6
30°	3305.6	3254.8	3218.2	3197.9	3189.7
32.5°	3332.1	3260.9	3214.1	3185.7	3175.5
35°	3330.0	3238.5	3181.6	3145.0	3132.8
37.5°	3293.4	3185.7	3110.5	3065.7	3045.4
40°	3212.1	3088.1	3008.8	2966.1	2941.7
42.5°	3094.2	2960.0	2888.9	2842.1	2815.7
45°	2909.2	2777.1	2689.6	2653.0	2618.5
47.5°	2653.0	2518.9	2443.6	2390.8	2368.4
50°	2352.2	2218.0	2138.7	2096.0	2075.7
52.5°	2022.8	1894.7	1837.8	1797.2	1768.7
55°	1681.3	1563.4	1539.0	1494.2	1467.8
57.5°	1360.1	1290.9	1268.6	1223.9	1201.5
60°	1063.2	1040.9	1016.5	988.0	975.8
62.5°	823.4	803.0	796.9	778.6	776.6
65°	628.2	630.2	626.2	622.1	618.0
66°	571.3	569.2	571.3	567.2	565.2
67.5°	485.9	494.0	500.1	498.1	498.1
70°	394.4	400.5	408.6	406.6	406.6
72.5°	337.5	347.6	351.7	349.7	349.7
75°	304.9	315.1	315.1	311.0	309.0
77.5°	284.6	288.7	284.6	280.6	276.5
80°	264.3	260.2	254.1	248.0	244.0
82.5°	229.7	219.6	213.5	203.3	203.3
85°	185.0	176.9	162.6	152.5	142.3
87.5°	119.9	115.9	105.7	79.3	63.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)