

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: P159601

Luminaire Tested: **VST-E10-LED-E-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159601
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-E10-LED-E-U-T3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (210) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31382 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 247.7
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

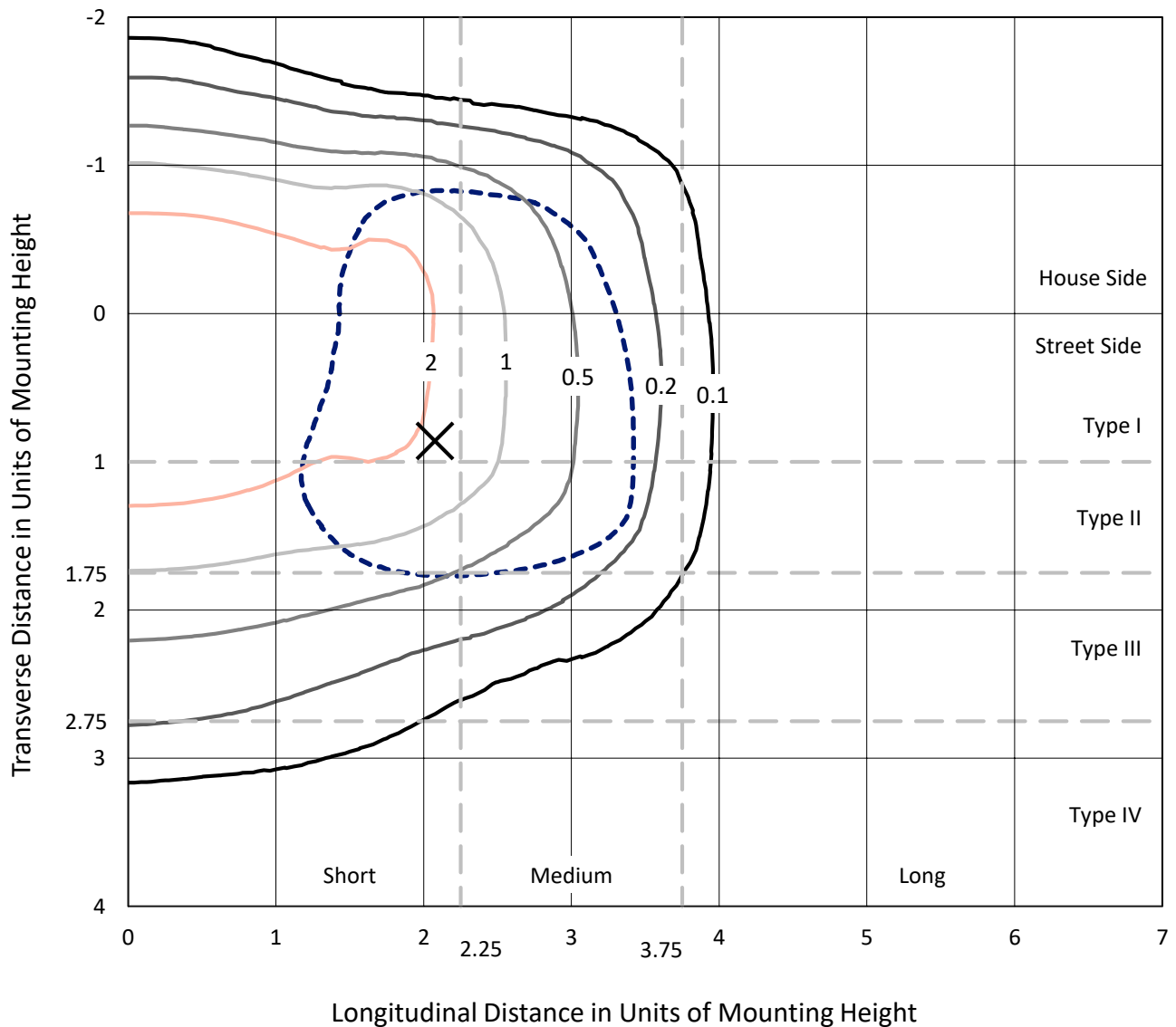


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

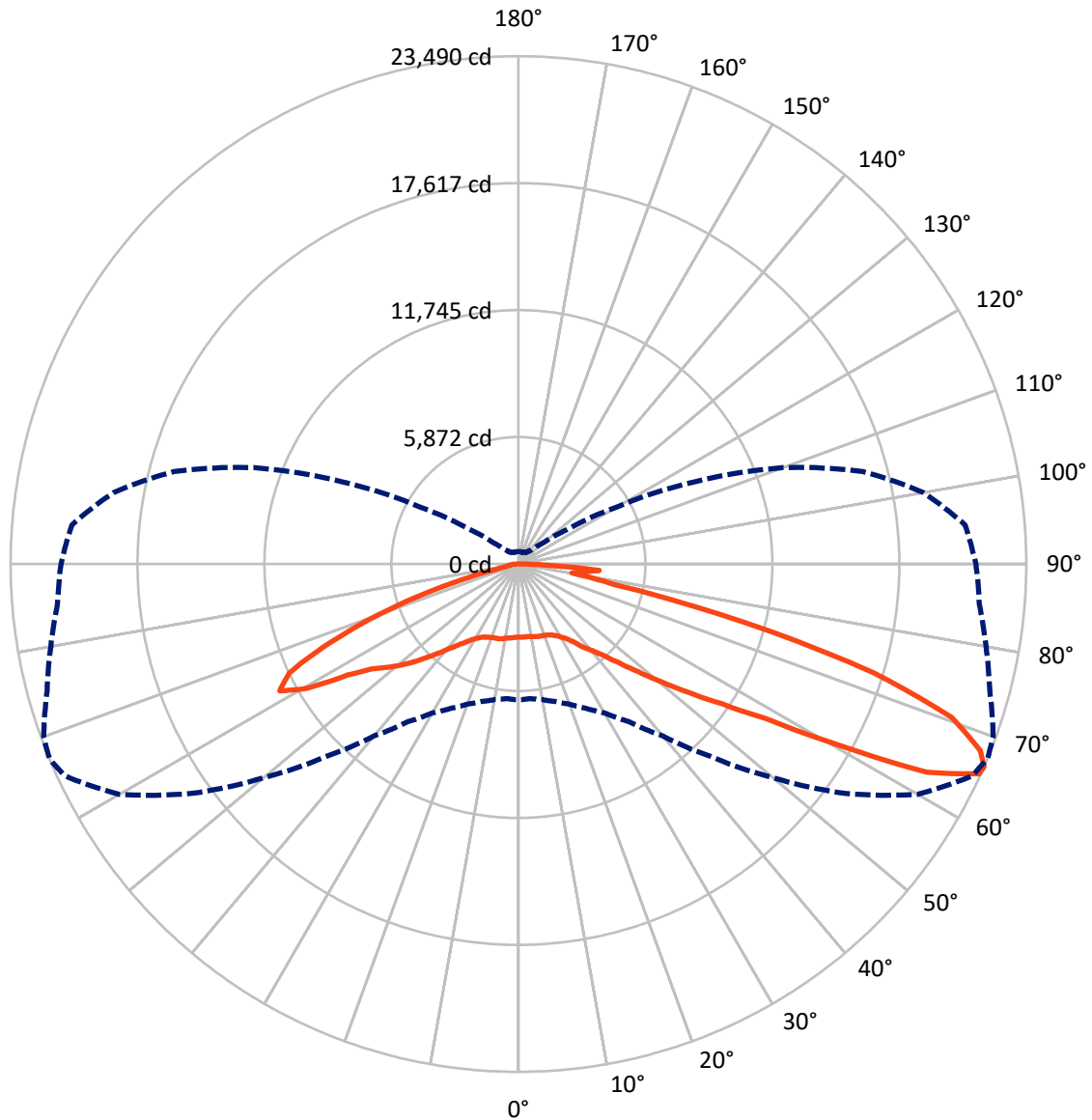


Based on 30 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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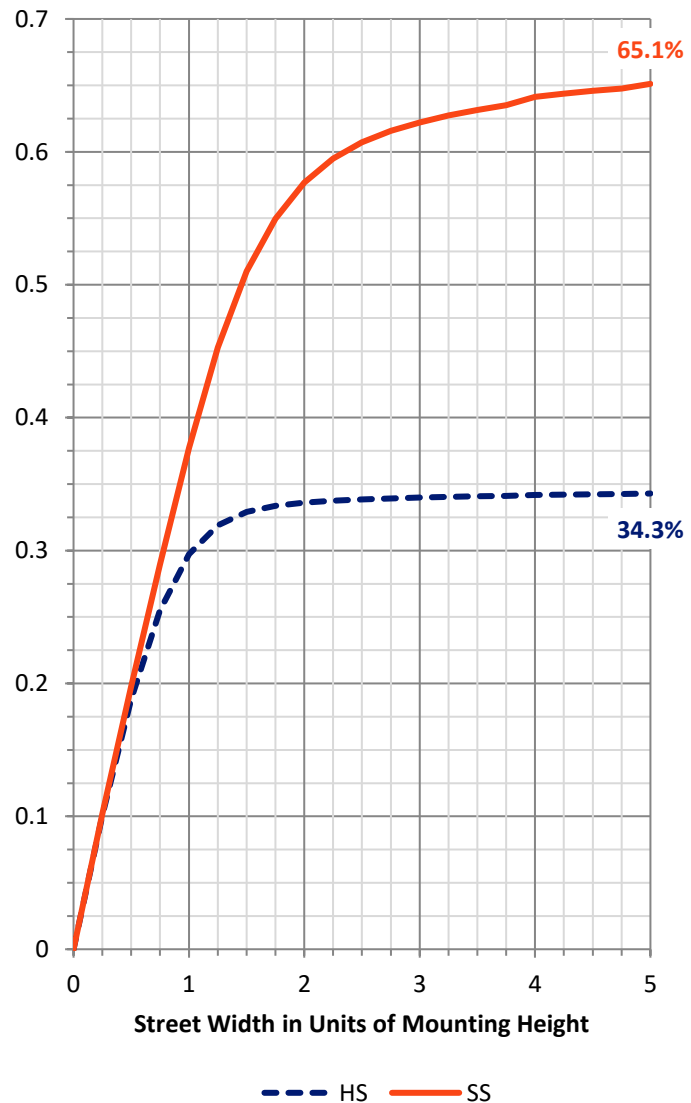
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10859.6	0.0	10859.6
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	20522.5	0.0	20522.5
	% Fixture	65.4	0.0	65.4
Total	Lumens	31382.0	0.0	31382.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.9	1.0
10°-20°	962.2	3.1
20°-30°	1654.0	5.3
30°-40°	2673.1	8.5
40°-50°	4430.0	14.1
50°-60°	6952.5	22.2
60°-70°	9505.5	30.3
70°-80°	4180.1	13.3
80°-90°	699.7	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°	31382.0	100.0
0°-180°	31382.0	100.0

Coefficient of Utilization



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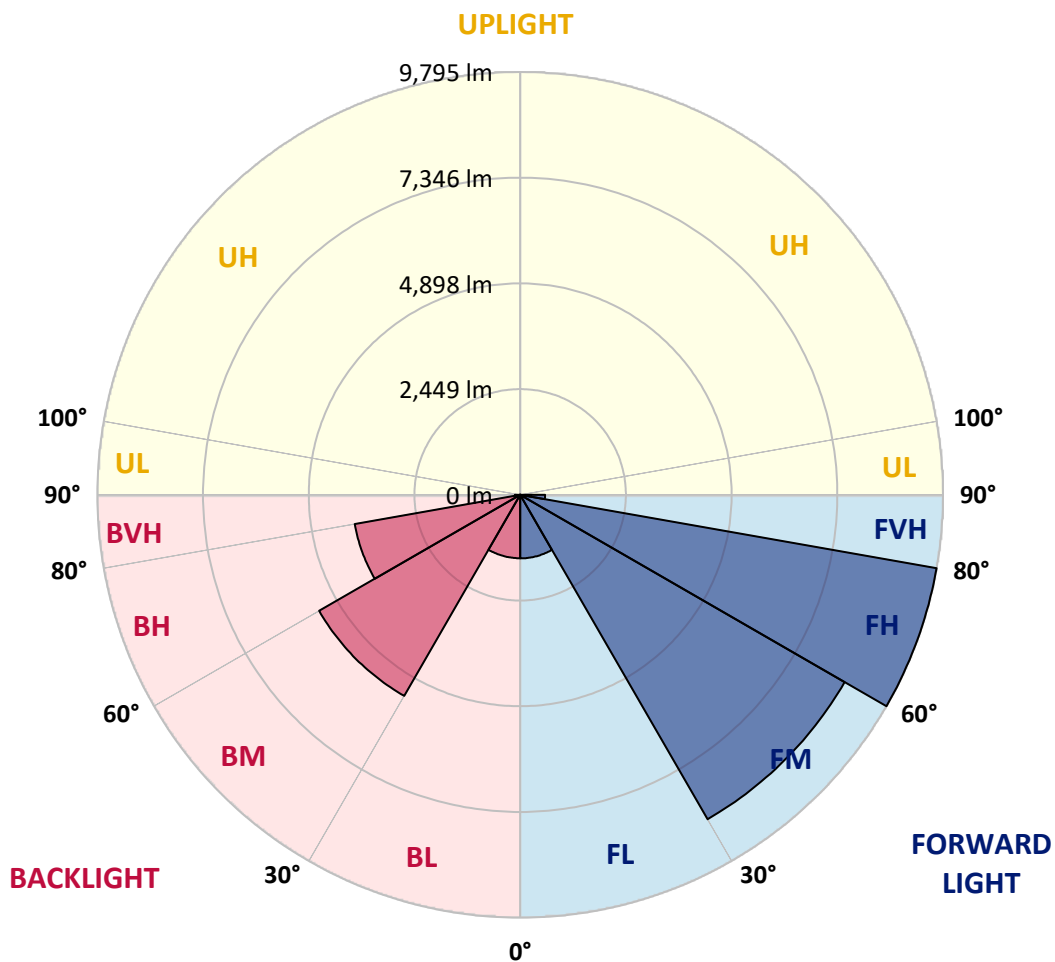
CATALOG NUMBER: VST-E10-LED-E-U-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1472.1	4.7			
FM	(30°-60°)	8678.1	27.7			
FH	(60°-80°)	9795.0	31.2			G4/12000
FVH	(80°-90°)	577.3	1.8			G4/750
BL	(0°-30°)	1469.0	4.7	B3/2500		
BM	(30°-60°)	5377.6	17.1	B4/8500		
BH	(60°-80°)	3890.5	12.4	B4/5000		G4/5000
BVH	(80°-90°)	122.4	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°	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1
2.5°	3380.0	3380.0	3382.0	3380.0	3380.0	3377.9	3386.1	3386.1	3386.1	3384.1	3390.3
5°	3371.8	3371.8	3373.8	3373.8	3375.9	3373.8	3380.0	3382.0	3382.0	3382.0	3388.2
7.5°	3351.3	3357.4	3353.3	3355.4	3357.4	3363.6	3371.8	3375.9	3380.0	3386.1	3388.2
10°	3308.2	3318.4	3316.4	3322.5	3324.6	3343.1	3349.2	3357.4	3371.8	3380.0	3386.1
12.5°	3248.6	3254.8	3256.9	3265.1	3273.3	3295.9	3312.3	3326.6	3347.2	3367.7	3388.2
15°	3201.4	3205.6	3205.6	3213.8	3226.1	3246.6	3267.1	3291.7	3322.5	3357.4	3390.3
17.5°	3215.8	3226.1	3217.9	3215.8	3219.9	3232.2	3250.7	3271.2	3308.2	3347.2	3386.1
20°	3310.2	3312.3	3308.2	3297.9	3289.7	3291.7	3291.7	3295.9	3318.4	3349.2	3380.0
22.5°	3388.2	3396.4	3394.4	3396.4	3394.4	3402.6	3398.5	3390.3	3382.0	3384.1	3398.5
25°	3455.9	3464.1	3464.1	3470.3	3480.5	3497.0	3509.3	3507.2	3494.9	3478.5	3472.3
27.5°	3566.7	3566.7	3566.7	3572.9	3587.3	3607.8	3628.3	3640.6	3650.9	3634.5	3599.6
30°	3741.2	3743.2	3737.1	3739.1	3749.4	3776.1	3800.7	3819.2	3839.7	3837.6	3792.5
32.5°	3932.0	3940.2	3938.2	3946.4	3960.8	3985.4	4012.1	4040.8	4067.5	4083.9	4055.2
35°	4178.3	4186.5	4188.6	4200.9	4217.3	4254.2	4291.2	4328.1	4356.8	4369.2	4363.0
37.5°	4582.6	4584.6	4576.4	4558.0	4564.1	4592.8	4635.9	4695.5	4713.9	4726.2	4755.0
40°	5188.0	5181.8	5149.0	5132.6	5122.3	5134.6	5126.4	5173.6	5216.7	5218.8	5216.7
42.5°	5922.7	5904.2	5873.4	5869.3	5865.2	5861.1	5838.5	5840.6	5879.6	5889.8	5877.5
45°	6653.3	6630.7	6608.1	6628.6	6604.0	6667.6	6686.1	6735.4	6741.5	6762.0	6731.3
47.5°	7252.5	7254.6	7254.6	7283.3	7332.5	7453.6	7562.4	7656.8	7691.7	7740.9	7747.1
50°	7706.1	7718.4	7757.4	7849.7	7954.4	8157.5	8340.2	8510.5	8664.4	8721.9	8873.8
52.5°	7970.8	8003.6	8085.7	8239.6	8426.4	8689.1	8976.4	9265.7	9532.5	9758.3	9938.9
55°	7923.6	7948.2	8091.9	8332.0	8623.4	8976.4	9378.6	9797.3	10213.9	10595.6	10891.1
57.5°	7619.9	7636.3	7779.9	8050.8	8414.1	8888.1	9456.6	10078.4	10663.3	11279.0	11783.8
60°	7221.7	7246.4	7379.8	7593.2	7972.8	8477.7	9136.4	9979.9	10913.7	11882.3	12826.3
62.5°	6967.3	6961.1	7078.1	7268.9	7554.2	8011.8	8646.0	9645.4	10938.3	12575.9	14441.4
65°	6544.5	6526.0	6647.1	6864.6	7174.5	7617.8	8219.1	9179.5	10679.7	12838.6	15483.9
66°	6281.8	6244.9	6366.0	6585.5	6895.4	7367.4	7944.1	8892.2	10365.7	12582.1	15373.1
67.5°	5822.1	5803.7	5861.1	6033.5	6263.3	6706.6	7307.9	8262.2	9622.8	11810.5	14560.4
70°	4732.4	4691.4	4736.5	4814.5	4902.7	5011.5	5380.9	6138.2	7289.5	9409.4	11730.4
72.5°	3224.0	3203.5	3287.6	3406.7	3642.7	3753.5	3899.2	4022.3	4428.7	5930.9	8182.2
75°	2452.4	2464.7	2571.4	2768.4	3072.2	3400.5	3720.7	3837.6	3702.2	3585.2	4644.2
77.5°	1375.0	1446.8	1576.1	1826.5	2148.7	2612.5	3170.7	3786.3	4094.2	4018.2	3757.6
80°	566.4	556.1	619.8	757.3	868.1	1247.7	1908.6	2680.2	3546.2	4094.2	4008.0
82.5°	158.0	162.1	209.3	268.8	346.8	441.2	689.5	1108.2	1805.9	2809.5	3677.6
85°	49.3	49.3	67.7	100.6	119.0	137.5	174.4	287.3	490.5	978.9	1984.5
87.5°	10.3	10.3	14.4	28.7	30.8	30.8	39.0	53.4	47.2	43.1	192.9
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1
2.5°	3384.1	3380.0	3382.0	3384.1	3382.0	3382.0	3380.0	3377.9	3380.0	3380.0	3386.1
5°	3382.0	3380.0	3382.0	3382.0	3382.0	3384.1	3384.1	3384.1	3390.3	3390.3	3400.5
7.5°	3386.1	3386.1	3390.3	3390.3	3390.3	3390.3	3392.3	3396.4	3406.7	3404.6	3423.1
10°	3394.4	3398.5	3408.7	3410.8	3410.8	3416.9	3421.0	3429.2	3439.5	3443.6	3460.0
12.5°	3404.6	3425.1	3443.6	3447.7	3453.9	3464.1	3470.3	3474.4	3492.9	3499.0	3519.5
15°	3416.9	3445.7	3468.2	3476.4	3484.7	3497.0	3505.2	3511.3	3527.8	3536.0	3560.6
17.5°	3419.0	3451.8	3478.5	3490.8	3501.1	3515.4	3527.8	3540.1	3558.5	3570.8	3595.5
20°	3416.9	3460.0	3501.1	3517.5	3527.8	3554.4	3572.9	3589.3	3611.9	3624.2	3648.8
22.5°	3439.5	3488.8	3544.2	3564.7	3581.1	3618.0	3642.7	3669.4	3698.1	3706.3	3724.8
25°	3492.9	3544.2	3613.9	3642.7	3671.4	3720.7	3755.5	3794.5	3823.3	3827.4	3833.5
27.5°	3583.2	3630.4	3714.5	3757.6	3804.8	3874.6	3925.9	3964.9	4005.9	4005.9	4001.8
30°	3765.8	3776.1	3864.3	3919.7	3989.5	4092.1	4168.0	4211.1	4241.9	4241.9	4207.0
32.5°	4001.8	3989.5	4069.5	4129.0	4225.5	4369.2	4471.8	4504.6	4537.4	4527.2	4467.7
35°	4342.5	4307.6	4352.7	4443.0	4551.8	4748.8	4855.5	4929.4	4949.9	4921.2	4826.8
37.5°	4771.4	4767.3	4789.9	4890.4	5011.5	5266.0	5374.7	5421.9	5405.5	5354.2	5188.0
40°	5224.9	5212.6	5198.3	5266.0	5401.4	5707.2	5900.1	5924.7	5902.2	5826.2	5616.9
42.5°	5830.3	5830.3	5762.6	5781.1	5893.9	6236.7	6464.5	6542.4	6544.5	6433.7	6154.6
45°	6663.5	6655.3	6536.3	6507.6	6593.8	6930.3	7223.8	7266.9	7266.9	7121.2	6815.4
47.5°	7665.0	7654.7	7537.8	7437.2	7453.6	7816.9	8061.1	8126.8	8069.3	7960.5	7597.3
50°	8793.7	8775.3	8656.2	8561.8	8520.8	8888.1	9095.4	9126.2	9042.0	8912.8	8518.7
52.5°	9938.9	9994.3	9924.5	9873.2	9887.6	10125.6	10339.0	10193.3	10150.2	10010.7	9614.6
55°	11131.2	11301.5	11455.4	11410.3	11463.6	11695.5	11736.6	11543.7	11465.7	11365.1	10923.9
57.5°	12331.7	12828.4	13333.2	13474.8	13606.2	13938.6	13891.4	13575.4	13634.9	13784.7	13288.1
60°	14008.4	15442.9	16723.5	16959.5	17367.9	17651.1	17714.7	17653.1	17930.2	17852.2	17413.0
62.5°	16583.9	18974.7	20756.1	21199.3	21609.8	21595.4	21379.9	21158.3	21431.2	21431.2	20284.1
65°	18422.7	21135.7	23042.2	23409.6	23393.2	22898.6	22389.6	21946.3	21907.4	21603.6	19927.0
66°	18508.9	21301.9	23169.5	23489.6	23366.5	22570.2	21960.7	21398.4	21158.3	20735.5	19017.8
67.5°	17733.2	20832.0	22754.9	23034.0	22709.8	21568.7	20729.4	19976.2	19627.3	18915.2	17298.1
70°	14546.1	17903.5	20700.7	21271.2	20903.8	19459.1	18309.8	17291.9	16625.0	15596.8	14431.1
72.5°	10618.1	13218.3	16247.4	17175.0	17117.5	15787.7	14862.1	13930.4	13054.1	12118.3	11266.6
75°	6901.6	8598.8	10287.7	10829.5	10568.9	9799.3	9136.4	8592.6	7761.5	7110.9	6952.9
77.5°	3940.2	4814.5	4553.9	4486.1	4159.8	3357.4	2232.8	1565.8	1414.0	1764.9	1935.2
80°	3749.4	3398.5	2782.8	2509.9	2306.7	1572.0	825.0	580.8	508.9	521.3	560.3
82.5°	4227.6	4406.1	3603.7	3010.6	2620.7	1912.7	1044.6	486.4	355.0	420.7	472.0
85°	3168.6	4461.5	4422.5	3747.3	3074.2	2204.1	1235.4	371.5	213.4	295.5	385.8
87.5°	642.3	1056.9	1017.9	894.8	761.4	531.5	207.3	117.0	106.7	145.7	221.6
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°	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1	3386.1
2.5°	3390.3	3390.3	3394.4	3400.5	3402.6	3402.6	3406.7	3402.6	3410.8	3412.8	3414.9
5°	3408.7	3414.9	3419.0	3429.2	3435.4	3439.5	3445.7	3441.6	3449.8	3451.8	3455.9
7.5°	3429.2	3439.5	3447.7	3451.8	3460.0	3460.0	3462.1	3458.0	3455.9	3449.8	3447.7
10°	3466.2	3472.3	3482.6	3478.5	3474.4	3460.0	3447.7	3429.2	3419.0	3400.5	3390.3
12.5°	3525.7	3529.8	3529.8	3511.3	3484.7	3451.8	3421.0	3390.3	3365.6	3345.1	3332.8
15°	3566.7	3575.0	3564.7	3538.0	3499.0	3453.9	3412.8	3371.8	3338.9	3312.3	3295.9
17.5°	3597.5	3595.5	3577.0	3540.1	3503.1	3464.1	3427.2	3384.1	3343.1	3304.1	3279.4
20°	3644.7	3624.2	3591.4	3552.4	3513.4	3480.5	3451.8	3410.8	3367.7	3314.3	3277.4
22.5°	3708.3	3671.4	3624.2	3583.2	3546.2	3515.4	3482.6	3447.7	3402.6	3343.1	3291.7
25°	3798.6	3735.0	3681.7	3640.6	3607.8	3572.9	3536.0	3490.8	3445.7	3384.1	3322.5
27.5°	3936.1	3841.7	3774.0	3737.1	3706.3	3659.1	3611.9	3558.5	3501.1	3437.5	3367.7
30°	4102.4	3989.5	3911.5	3878.7	3841.7	3788.4	3737.1	3663.2	3583.2	3507.2	3421.0
32.5°	4297.3	4182.4	4104.4	4079.8	4020.3	3958.7	3886.9	3788.4	3683.7	3570.8	3468.2
35°	4592.8	4447.1	4375.3	4317.9	4235.8	4161.9	4040.8	3911.5	3761.7	3611.9	3484.7
37.5°	4896.6	4748.8	4674.9	4594.9	4488.2	4352.7	4190.6	4005.9	3806.9	3622.2	3466.2
40°	5302.9	5142.8	5048.4	4925.3	4752.9	4541.5	4301.4	4049.0	3806.9	3577.0	3388.2
42.5°	5777.0	5629.2	5483.5	5280.3	5003.3	4695.5	4358.9	4034.6	3741.2	3476.4	3277.4
45°	6433.7	6181.3	5949.4	5623.1	5218.8	4785.8	4365.1	3966.9	3628.3	3334.8	3113.2
47.5°	7172.5	6846.2	6435.7	5924.7	5372.7	4820.6	4305.5	3839.7	3449.8	3131.7	2889.5
50°	8024.1	7523.4	6893.4	6164.8	5450.7	4773.4	4163.9	3626.3	3203.5	2838.2	2579.6
52.5°	8998.9	8235.5	7307.9	6335.2	5438.4	4629.8	3930.0	3345.1	2873.1	2485.2	2230.8
55°	10080.5	9011.3	7704.0	6443.9	5327.5	4350.7	3562.6	2949.0	2462.7	2080.9	1857.3
57.5°	11987.0	10371.9	8459.2	6589.6	5095.6	3927.9	3096.8	2448.3	2009.1	1684.9	1471.4
60°	15529.1	12750.4	9889.6	6932.4	4746.8	3398.5	2509.9	1920.9	1553.5	1317.5	1159.5
62.5°	17720.8	14425.0	10587.4	6883.1	4180.4	2674.0	1863.4	1424.2	1134.9	978.9	880.4
65°	17201.6	13768.3	9735.7	5912.4	3252.8	1896.2	1233.4	931.7	779.8	699.8	652.6
66°	16495.7	13033.6	9015.4	5294.7	2834.1	1584.3	1017.9	781.9	671.1	611.6	586.9
67.5°	15016.0	11691.4	7775.8	4239.9	2124.0	1180.0	751.1	613.6	545.9	515.1	498.7
70°	12567.7	9419.6	5499.9	2503.7	1151.3	640.3	480.2	426.9	410.4	400.2	394.0
72.5°	9717.2	6819.5	3213.8	1231.3	580.8	414.5	365.3	342.7	336.6	336.6	338.6
75°	6121.7	3919.7	1438.6	593.1	394.0	334.5	311.9	301.7	303.7	305.8	303.7
77.5°	2033.7	1352.4	599.2	420.7	342.7	303.7	285.3	281.2	285.3	287.3	287.3
80°	584.9	511.0	433.0	371.5	314.0	283.2	266.8	264.7	275.0	277.0	272.9
82.5°	449.4	420.7	392.0	359.1	301.7	266.8	260.6	262.7	268.8	264.7	246.3
85°	412.5	408.4	293.5	291.4	262.7	254.5	248.3	250.4	244.2	221.6	201.1
87.5°	231.9	215.5	166.2	168.3	195.0	201.1	166.2	176.5	164.2	143.7	131.3
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):

	160°	165°	170°	175°	180°
0°	3386.1	3386.1	3386.1	3386.1	3386.1
2.5°	3419.0	3416.9	3416.9	3423.1	3414.9
5°	3458.0	3455.9	3455.9	3462.1	3455.9
7.5°	3439.5	3433.3	3429.2	3427.2	3427.2
10°	3377.9	3371.8	3359.5	3355.4	3351.3
12.5°	3314.3	3308.2	3293.8	3293.8	3289.7
15°	3275.3	3267.1	3256.9	3250.7	3246.6
17.5°	3254.8	3242.5	3230.2	3224.0	3219.9
20°	3246.6	3230.2	3215.8	3205.6	3205.6
22.5°	3248.6	3228.1	3211.7	3199.4	3195.3
25°	3269.2	3238.4	3217.9	3205.6	3201.4
27.5°	3297.9	3261.0	3234.3	3217.9	3211.7
30°	3336.9	3285.6	3248.6	3228.1	3219.9
32.5°	3363.6	3291.7	3244.5	3215.8	3205.6
35°	3361.5	3269.2	3211.7	3174.8	3162.5
37.5°	3324.6	3215.8	3139.9	3094.7	3074.2
40°	3242.5	3117.3	3037.3	2994.2	2969.5
42.5°	3123.5	2988.0	2916.2	2869.0	2842.3
45°	2936.7	2803.3	2715.1	2678.1	2643.2
47.5°	2678.1	2542.7	2466.8	2413.4	2390.8
50°	2374.4	2239.0	2158.9	2115.8	2095.3
52.5°	2041.9	1912.7	1855.2	1814.2	1785.4
55°	1697.2	1578.2	1553.5	1508.4	1481.7
57.5°	1372.9	1303.2	1280.6	1235.4	1212.9
60°	1073.3	1050.7	1026.1	997.4	985.1
62.5°	831.1	810.6	804.5	786.0	783.9
65°	634.1	636.2	632.1	628.0	623.9
66°	576.7	574.6	576.7	572.6	570.5
67.5°	490.5	498.7	504.8	502.8	502.8
70°	398.1	404.3	412.5	410.4	410.4
72.5°	340.7	350.9	355.0	353.0	353.0
75°	307.8	318.1	318.1	314.0	311.9
77.5°	287.3	291.4	287.3	283.2	279.1
80°	266.8	262.7	256.5	250.4	246.3
82.5°	231.9	221.6	215.5	205.2	205.2
85°	186.8	178.5	164.2	153.9	143.7
87.5°	121.1	117.0	106.7	80.0	63.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)