

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: P159618

Luminaire Tested: **VST-E12-LED-E-U-T3-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159618  
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-E12-LED-E-U-T3-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA  
Light Source: (252) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30974.8 lumens  
Efficiency: N/A  
Efficacy: 106.2 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

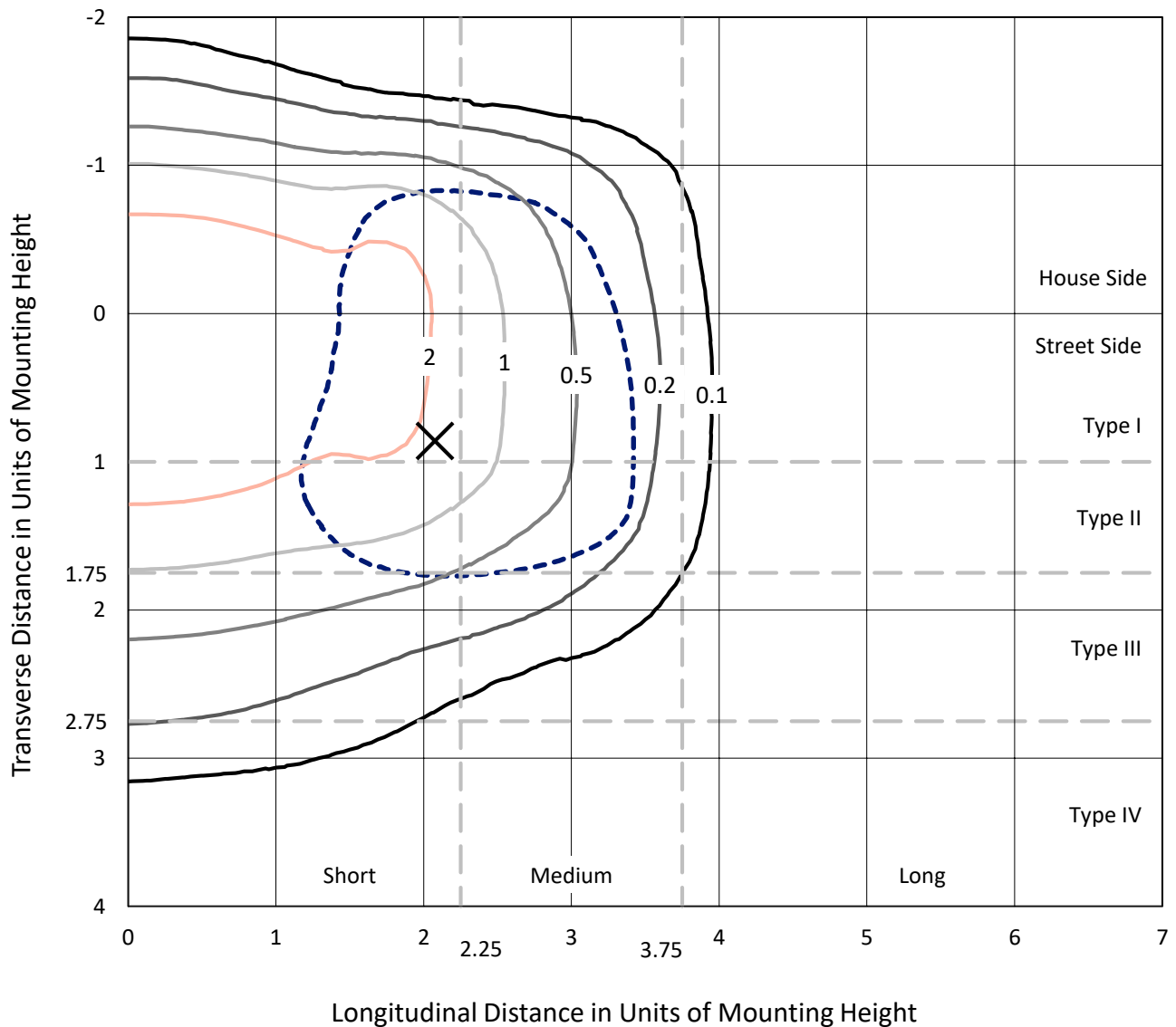
Input Watts (W): 291.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

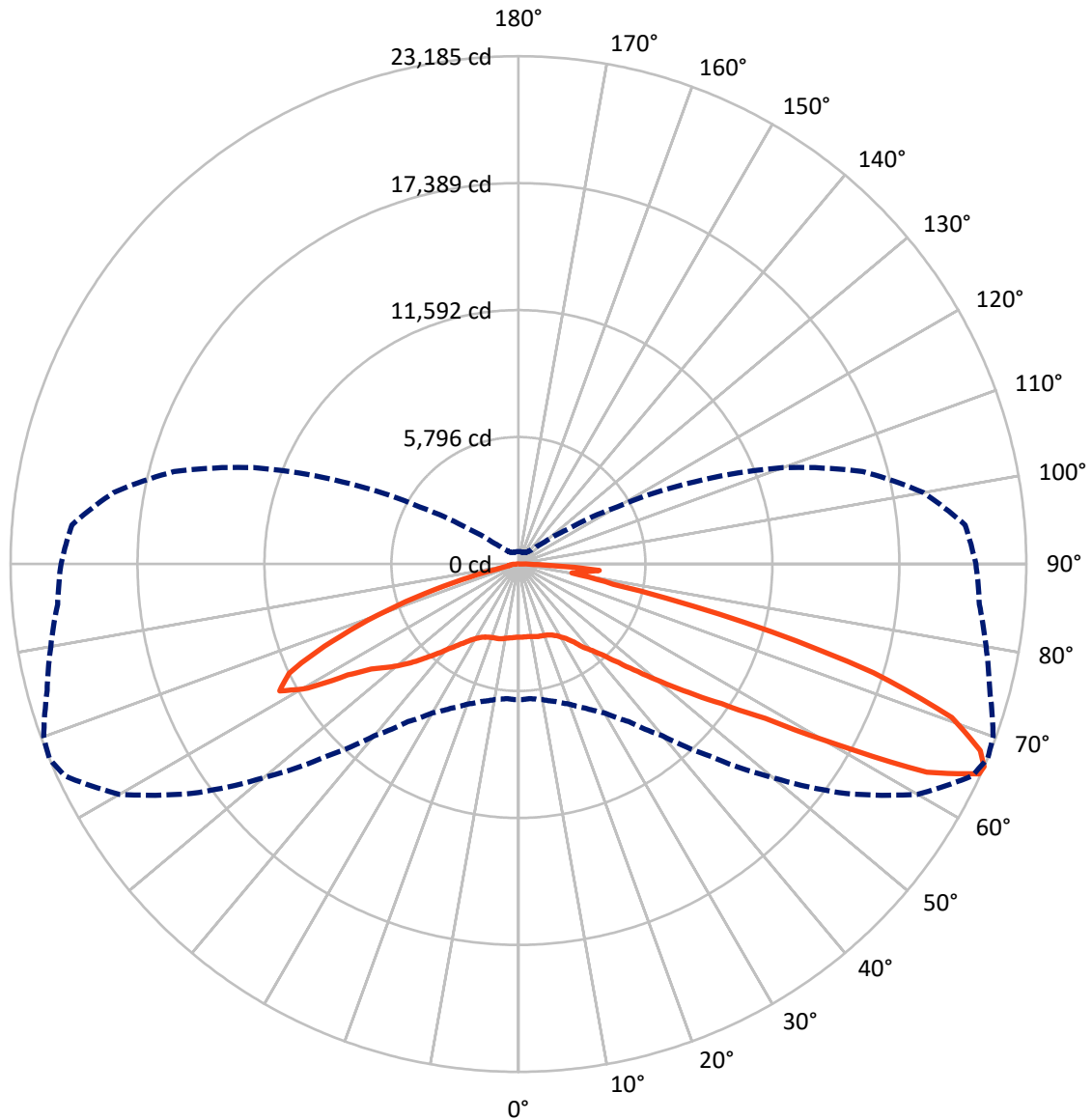


Based on 30 foot mounting height. Maximum calculated value = 3.7 fc  
 Type II - Short - Semi-Cutoff

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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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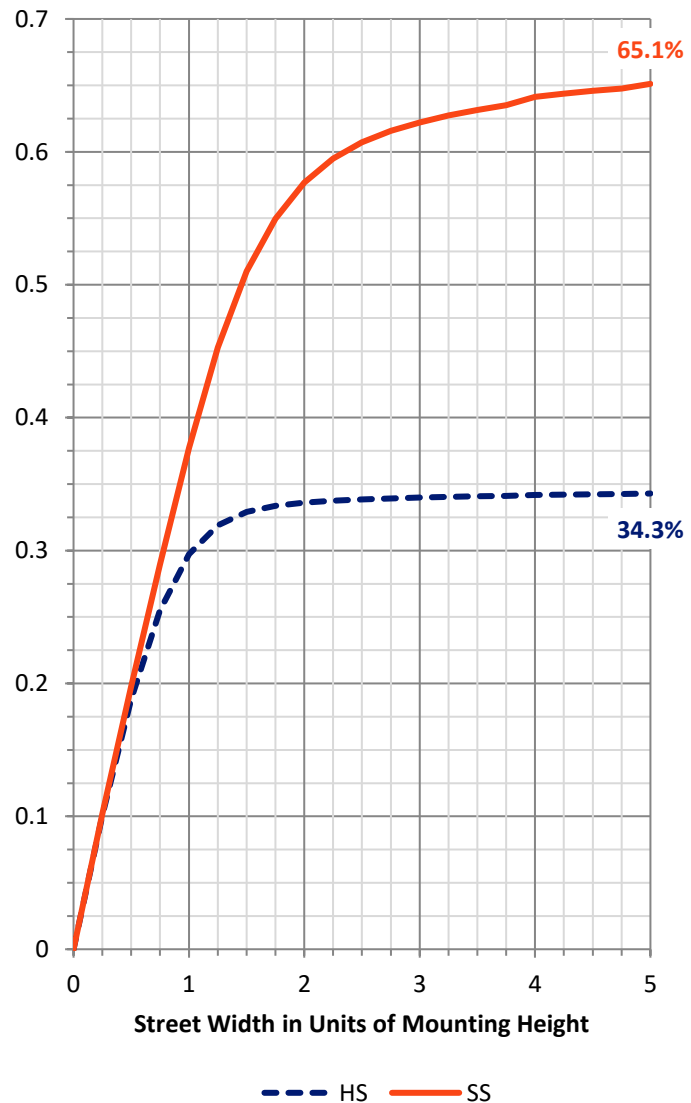
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10718.6	0.0	10718.6
	% Fixture	34.6	0.0	34.6
<b>Street Side</b>	Lumens	20256.1	0.0	20256.1
	% Fixture	65.4	0.0	65.4
<b>Total</b>	Lumens	30974.8	0.0	30974.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	320.7	1.0
10°-20°	949.7	3.1
20°-30°	1632.5	5.3
30°-40°	2638.4	8.5
40°-50°	4372.5	14.1
50°-60°	6862.3	22.2
60°-70°	9382.1	30.3
70°-80°	4125.8	13.3
80°-90°	690.6	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°	30974.8	100.0
0°-180°	30974.8	100.0

**Coefficient of Utilization**



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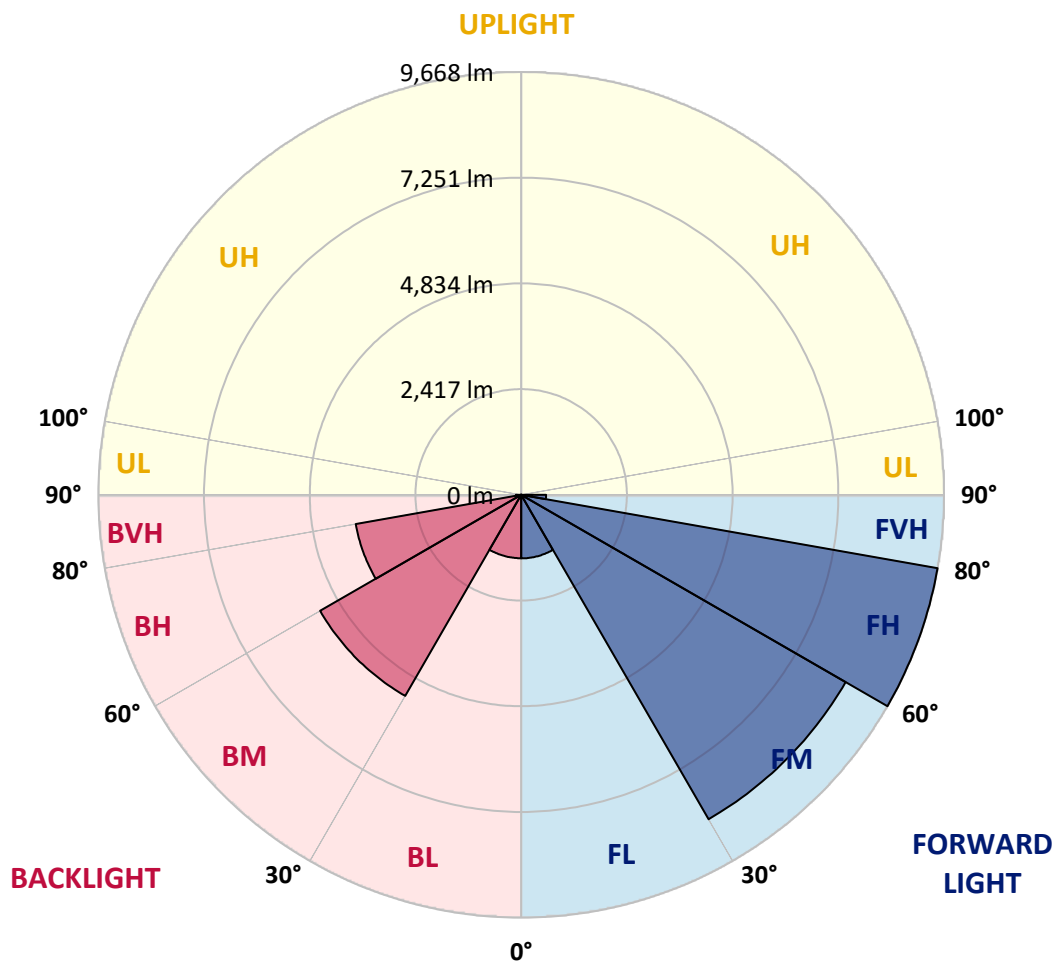
CATALOG NUMBER: VST-E12-LED-E-U-T3-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1453.0	4.7			
FM	(30°-60°)	8565.5	27.7			
FH	(60°-80°)	9667.9	31.2			G4/12000
FVH	(80°-90°)	569.8	1.8			G4/750
BL	(0°-30°)	1450.0	4.7	B3/2500		
BM	(30°-60°)	5307.8	17.1	B4/8500		
BH	(60°-80°)	3840.0	12.4	B4/5000		G4/5000
BVH	(80°-90°)	120.8	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°	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2
2.5°	3336.1	3336.1	3338.2	3336.1	3336.1	3334.1	3342.2	3342.2	3342.2	3340.2	3346.3
5°	3328.0	3328.0	3330.1	3330.1	3332.1	3330.1	3336.1	3338.2	3338.2	3338.2	3344.2
7.5°	3307.8	3313.8	3309.8	3311.8	3313.8	3319.9	3328.0	3332.1	3336.1	3342.2	3344.2
10°	3265.2	3275.4	3273.3	3279.4	3281.4	3299.7	3305.7	3313.8	3328.0	3336.1	3342.2
12.5°	3206.5	3212.6	3214.6	3222.7	3230.8	3253.1	3269.3	3283.5	3303.7	3324.0	3344.2
15°	3159.9	3164.0	3164.0	3172.1	3184.2	3204.5	3224.7	3249.0	3279.4	3313.8	3346.3
17.5°	3174.1	3184.2	3176.1	3174.1	3178.1	3190.3	3208.5	3228.8	3265.2	3303.7	3342.2
20°	3267.3	3269.3	3265.2	3255.1	3247.0	3249.0	3249.0	3253.1	3275.4	3305.7	3336.1
22.5°	3344.2	3352.3	3350.3	3352.3	3350.3	3358.4	3354.4	3346.3	3338.2	3340.2	3354.4
25°	3411.1	3419.2	3419.2	3425.3	3435.4	3451.6	3463.7	3461.7	3449.6	3433.4	3427.3
27.5°	3520.5	3520.5	3520.5	3526.5	3540.7	3561.0	3581.2	3593.4	3603.5	3587.3	3552.9
30°	3692.6	3694.7	3688.6	3690.6	3700.7	3727.1	3751.4	3769.6	3789.9	3787.8	3743.3
32.5°	3881.0	3889.1	3887.1	3895.2	3909.4	3933.7	3960.0	3988.4	4014.7	4030.9	4002.5
35°	4124.1	4132.2	4134.2	4146.4	4162.6	4199.0	4235.5	4271.9	4300.3	4312.5	4306.4
37.5°	4523.1	4525.1	4517.0	4498.8	4504.9	4533.2	4575.8	4634.5	4652.8	4664.9	4693.3
40°	5120.7	5114.6	5082.2	5066.0	5055.8	5068.0	5059.9	5106.5	5149.0	5151.0	5149.0
42.5°	5845.8	5827.6	5797.2	5793.2	5789.1	5785.1	5762.8	5764.8	5803.3	5813.4	5801.3
45°	6566.9	6544.6	6522.4	6542.6	6518.3	6581.1	6599.3	6647.9	6654.0	6674.3	6643.9
47.5°	7158.4	7160.4	7160.4	7188.8	7237.4	7356.9	7464.3	7557.4	7591.9	7640.5	7646.6
50°	7606.0	7618.2	7656.7	7747.8	7851.1	8051.7	8231.9	8400.1	8552.0	8608.7	8758.6
52.5°	7867.3	7899.8	7980.8	8132.7	8317.0	8576.3	8859.9	9145.5	9408.8	9631.6	9809.9
55°	7820.8	7845.1	7986.9	8223.8	8511.5	8859.9	9256.9	9670.1	10081.3	10458.1	10749.7
57.5°	7521.0	7537.2	7679.0	7946.3	8304.9	8772.8	9333.9	9947.6	10524.9	11132.6	11630.9
60°	7128.0	7152.3	7284.0	7494.6	7869.4	8367.7	9017.9	9850.4	10772.0	11728.1	12659.9
62.5°	6876.8	6870.8	6986.2	7174.6	7456.2	7907.9	8533.8	9520.2	10796.3	12412.7	14254.0
65°	6459.6	6441.3	6560.8	6775.6	7081.4	7518.9	8112.4	9060.4	10541.1	12672.0	15283.0
66°	6200.3	6163.8	6283.3	6500.1	6805.9	7271.8	7841.0	8776.8	10231.2	12418.8	15173.6
67.5°	5746.6	5728.3	5785.1	5955.2	6182.1	6619.6	7213.1	8155.0	9497.9	11657.2	14371.5
70°	4671.0	4630.5	4675.0	4752.0	4839.1	4946.5	5311.1	6058.5	7194.9	9287.3	11578.2
72.5°	3182.2	3161.9	3245.0	3362.5	3595.4	3704.8	3848.6	3970.1	4371.2	5853.9	8076.0
75°	2420.6	2432.7	2538.0	2732.5	3032.3	3356.4	3672.4	3787.8	3654.1	3538.7	4583.9
77.5°	1357.1	1428.0	1555.6	1802.8	2120.8	2578.6	3129.5	3737.2	4041.0	3966.1	3708.8
80°	559.1	548.9	611.7	747.4	856.8	1231.6	1883.8	2645.4	3500.2	4041.0	3956.0
82.5°	156.0	160.0	206.6	265.4	342.3	435.5	680.6	1093.8	1782.5	2773.0	3629.8
85°	48.6	48.6	66.8	99.3	117.5	135.7	172.2	283.6	484.1	966.2	1958.7
87.5°	10.1	10.1	14.2	28.4	30.4	30.4	38.5	52.7	46.6	42.5	190.4
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°	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2
2.5°	3340.2	3336.1	3338.2	3340.2	3338.2	3338.2	3336.1	3334.1	3336.1	3336.1	3342.2
5°	3338.2	3336.1	3338.2	3338.2	3340.2	3340.2	3340.2	3340.2	3346.3	3346.3	3356.4
7.5°	3342.2	3342.2	3346.3	3346.3	3346.3	3346.3	3348.3	3352.3	3362.5	3360.4	3378.7
10°	3350.3	3354.4	3364.5	3366.5	3372.6	3376.6	3384.7	3394.9	3398.9	3398.9	3415.1
12.5°	3360.4	3380.7	3398.9	3403.0	3409.0	3419.2	3425.3	3429.3	3447.5	3453.6	3473.9
15°	3372.6	3400.9	3423.2	3431.3	3439.4	3451.6	3459.7	3465.8	3482.0	3490.1	3514.4
17.5°	3374.6	3407.0	3433.4	3445.5	3455.6	3469.8	3482.0	3494.1	3512.4	3524.5	3548.8
20°	3372.6	3415.1	3455.6	3471.8	3482.0	3508.3	3526.5	3542.7	3565.0	3577.2	3601.5
22.5°	3394.9	3443.5	3498.2	3518.4	3534.6	3571.1	3595.4	3621.7	3650.1	3658.2	3676.4
25°	3447.5	3498.2	3567.0	3595.4	3623.8	3672.4	3706.8	3745.3	3773.7	3777.7	3783.8
27.5°	3536.7	3583.2	3666.3	3708.8	3755.4	3824.3	3874.9	3913.4	3953.9	3953.9	3949.9
30°	3716.9	3727.1	3814.2	3868.9	3937.7	4039.0	4113.9	4156.5	4186.9	4186.9	4152.4
32.5°	3949.9	3937.7	4016.7	4075.5	4170.7	4312.5	4413.7	4446.1	4478.6	4468.4	4409.7
35°	4286.1	4251.7	4296.3	4385.4	4492.7	4687.2	4792.5	4865.4	4885.7	4857.3	4764.2
37.5°	4709.5	4705.4	4727.7	4827.0	4946.5	5197.6	5305.0	5351.6	5335.4	5284.7	5120.7
40°	5157.1	5145.0	5130.8	5197.6	5331.3	5633.1	5823.5	5847.8	5825.6	5750.6	5544.0
42.5°	5754.7	5754.7	5687.8	5706.1	5817.5	6155.7	6380.6	6457.5	6459.6	6350.2	6074.7
45°	6577.1	6569.0	6451.5	6423.1	6508.2	6840.4	7130.0	7172.6	7172.6	7028.8	6726.9
47.5°	7565.5	7555.4	7439.9	7340.7	7356.9	7715.4	7956.5	8021.3	7964.6	7857.2	7498.7
50°	8679.6	8661.4	8543.9	8450.7	8410.2	8772.8	8977.4	9007.7	8924.7	8797.1	8408.2
52.5°	9809.9	9864.6	9795.7	9745.1	9759.2	9994.2	10204.9	10061.0	10018.5	9880.8	9489.8
55°	10986.7	11154.9	11306.8	11262.2	11314.9	11543.8	11584.3	11393.9	11316.9	11217.7	10782.2
57.5°	12171.7	12661.9	13160.2	13299.9	13429.6	13757.7	13711.1	13399.2	13457.9	13605.8	13115.6
60°	13826.6	15242.5	16506.4	16739.4	17142.5	17422.0	17484.8	17424.0	17697.5	17620.5	17187.0
62.5°	16368.7	18728.5	20486.7	20924.2	21329.3	21315.2	21102.5	20883.7	21153.1	21153.1	20020.8
65°	18183.6	20861.4	22743.2	23105.8	23089.6	22601.4	22099.1	21661.5	21623.0	21323.3	19668.4
66°	18268.7	21025.5	22868.8	23184.8	23063.2	22277.3	21675.7	21120.7	20883.7	20466.4	18771.0
67.5°	17503.0	20561.6	22459.6	22735.1	22415.0	21288.8	20460.4	19717.0	19372.6	18669.8	17073.6
70°	14357.3	17671.1	20432.0	20995.1	20632.5	19206.5	18072.2	17067.5	16409.2	15394.4	14243.9
72.5°	10480.3	13046.7	16036.5	16952.1	16895.3	15582.8	14669.2	13749.6	12884.7	11961.0	11120.4
75°	6812.0	8487.2	10154.2	10689.0	10431.7	9672.1	9017.9	8481.1	7660.7	7018.6	6862.7
77.5°	3889.1	4752.0	4494.8	4427.9	4105.8	3313.8	2203.8	1545.5	1395.6	1742.0	1910.1
80°	3700.7	3354.4	2746.7	2477.3	2276.7	1551.6	814.3	573.2	502.3	514.5	553.0
82.5°	4172.7	4348.9	3556.9	2971.5	2586.7	1887.8	1031.0	480.1	350.4	415.2	465.9
85°	3127.5	4403.6	4365.1	3698.7	3034.3	2175.5	1219.4	366.6	210.7	291.7	380.8
87.5°	634.0	1043.2	1004.7	883.2	751.5	524.6	204.6	115.5	105.3	143.8	218.8
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°	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2	3342.2
2.5°	3346.3	3346.3	3350.3	3356.4	3358.4	3358.4	3362.5	3358.4	3366.5	3368.5	3370.6
5°	3364.5	3370.6	3374.6	3384.7	3390.8	3394.9	3400.9	3396.9	3405.0	3407.0	3411.1
7.5°	3384.7	3394.9	3403.0	3407.0	3415.1	3415.1	3417.2	3413.1	3411.1	3405.0	3403.0
10°	3421.2	3427.3	3437.4	3433.4	3429.3	3415.1	3403.0	3384.7	3374.6	3356.4	3346.3
12.5°	3479.9	3484.0	3484.0	3465.8	3439.4	3407.0	3376.6	3346.3	3321.9	3301.7	3289.5
15°	3520.5	3528.6	3518.4	3492.1	3453.6	3409.0	3368.5	3328.0	3295.6	3269.3	3253.1
17.5°	3550.8	3548.8	3530.6	3494.1	3457.7	3419.2	3382.7	3340.2	3299.7	3261.2	3236.9
20°	3597.4	3577.2	3544.8	3506.3	3467.8	3435.4	3407.0	3366.5	3324.0	3271.3	3234.8
22.5°	3660.2	3623.8	3577.2	3536.7	3500.2	3469.8	3437.4	3403.0	3358.4	3299.7	3249.0
25°	3749.3	3686.6	3633.9	3593.4	3561.0	3526.5	3490.1	3445.5	3400.9	3340.2	3279.4
27.5°	3885.1	3791.9	3725.0	3688.6	3658.2	3611.6	3565.0	3512.4	3455.6	3392.8	3324.0
30°	4049.1	3937.7	3860.8	3828.3	3791.9	3739.2	3688.6	3615.7	3536.7	3461.7	3376.6
32.5°	4241.6	4128.1	4051.2	4026.8	3968.1	3907.3	3836.4	3739.2	3635.9	3524.5	3423.2
35°	4533.2	4389.4	4318.5	4261.8	4180.8	4107.9	3988.4	3860.8	3712.9	3565.0	3439.4
37.5°	4833.0	4687.2	4614.3	4535.3	4429.9	4296.3	4136.2	3953.9	3757.4	3575.1	3421.2
40°	5234.1	5076.1	4982.9	4861.4	4691.2	4482.6	4245.6	3996.5	3757.4	3530.6	3344.2
42.5°	5702.0	5556.2	5412.3	5211.8	4938.4	4634.5	4302.3	3982.3	3692.6	3431.3	3234.8
45°	6350.2	6101.0	5872.2	5550.1	5151.0	4723.6	4308.4	3915.4	3581.2	3291.6	3072.8
47.5°	7079.4	6757.3	6352.2	5847.8	5303.0	4758.1	4249.7	3789.9	3405.0	3091.0	2852.0
50°	7920.0	7425.8	6803.9	6084.8	5379.9	4711.5	4109.9	3579.2	3161.9	2801.4	2546.2
52.5°	8882.2	8128.6	7213.1	6253.0	5367.8	4569.7	3879.0	3301.7	2835.8	2453.0	2201.8
55°	9949.6	8894.3	7604.0	6360.3	5258.4	4294.2	3516.4	2910.8	2430.7	2053.9	1833.1
57.5°	11831.4	10237.3	8349.4	6504.1	5029.5	3877.0	3056.6	2416.5	1983.0	1663.0	1452.3
60°	15327.6	12584.9	9761.3	6842.4	4685.2	3354.4	2477.3	1895.9	1533.4	1300.4	1144.5
62.5°	17490.9	14237.8	10450.0	6793.8	4126.1	2639.3	1839.2	1405.8	1120.1	966.2	869.0
65°	16978.4	13589.6	9609.3	5835.7	3210.5	1871.6	1217.4	919.6	769.7	690.7	644.1
66°	16281.6	12864.4	8898.4	5226.0	2797.3	1563.7	1004.7	771.7	662.4	603.6	579.3
67.5°	14821.2	11539.7	7674.9	4184.8	2096.5	1164.7	741.4	605.6	538.8	508.4	492.2
70°	12404.6	9297.4	5428.5	2471.2	1136.3	632.0	474.0	421.3	405.1	395.0	388.9
72.5°	9591.1	6731.0	3172.1	1215.3	573.2	409.2	360.6	338.3	332.2	332.2	334.2
75°	6042.3	3868.9	1419.9	585.4	388.9	330.2	307.9	297.8	299.8	301.8	299.8
77.5°	2007.3	1334.9	591.5	415.2	338.3	299.8	281.6	277.5	281.6	283.6	283.6
80°	577.3	504.4	427.4	366.6	309.9	279.5	263.3	261.3	271.4	273.5	269.4
82.5°	443.6	415.2	386.9	354.5	297.8	263.3	257.2	259.3	265.4	261.3	243.1
85°	407.1	403.1	289.7	287.6	259.3	251.2	245.1	247.1	241.0	218.8	198.5
87.5°	228.9	212.7	164.1	166.1	192.4	198.5	164.1	174.2	162.0	141.8	129.6
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°	3342.2	3342.2	3342.2	3342.2	3342.2
2.5°	3374.6	3372.6	3372.6	3378.7	3370.6
5°	3413.1	3411.1	3411.1	3417.2	3411.1
7.5°	3394.9	3388.8	3384.7	3382.7	3382.7
10°	3334.1	3328.0	3315.9	3311.8	3307.8
12.5°	3271.3	3265.2	3251.1	3251.1	3247.0
15°	3232.8	3224.7	3214.6	3208.5	3204.5
17.5°	3212.6	3200.4	3188.3	3182.2	3178.1
20°	3204.5	3188.3	3174.1	3164.0	3164.0
22.5°	3206.5	3186.2	3170.0	3157.9	3153.8
25°	3226.7	3196.4	3176.1	3164.0	3159.9
27.5°	3255.1	3218.6	3192.3	3176.1	3170.0
30°	3293.6	3243.0	3206.5	3186.2	3178.1
32.5°	3319.9	3249.0	3202.4	3174.1	3164.0
35°	3317.9	3226.7	3170.0	3133.6	3121.4
37.5°	3281.4	3174.1	3099.1	3054.6	3034.3
40°	3200.4	3076.9	2997.9	2955.3	2931.0
42.5°	3082.9	2949.2	2878.3	2831.8	2805.4
45°	2898.6	2766.9	2679.8	2643.4	2608.9
47.5°	2643.4	2509.7	2434.7	2382.1	2359.8
50°	2343.6	2209.9	2130.9	2088.4	2068.1
52.5°	2015.5	1887.8	1831.1	1790.6	1762.3
55°	1675.2	1557.7	1533.4	1488.8	1462.5
57.5°	1355.1	1286.2	1264.0	1219.4	1197.1
60°	1059.4	1037.1	1012.8	984.4	972.3
62.5°	820.4	800.1	794.0	775.8	773.8
65°	625.9	627.9	623.9	619.8	615.8
66°	569.2	567.2	569.2	565.1	563.1
67.5°	484.1	492.2	498.3	496.3	496.3
70°	393.0	399.0	407.1	405.1	405.1
72.5°	336.2	346.4	350.4	348.4	348.4
75°	303.8	314.0	314.0	309.9	307.9
77.5°	283.6	287.6	283.6	279.5	275.5
80°	263.3	259.3	253.2	247.1	243.1
82.5°	228.9	218.8	212.7	202.6	202.6
85°	184.3	176.2	162.0	151.9	141.8
87.5°	119.5	115.5	105.3	79.0	62.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)