

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: P159818

Luminaire Tested: **VST-E10-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159818
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (210) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25120.2 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - 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



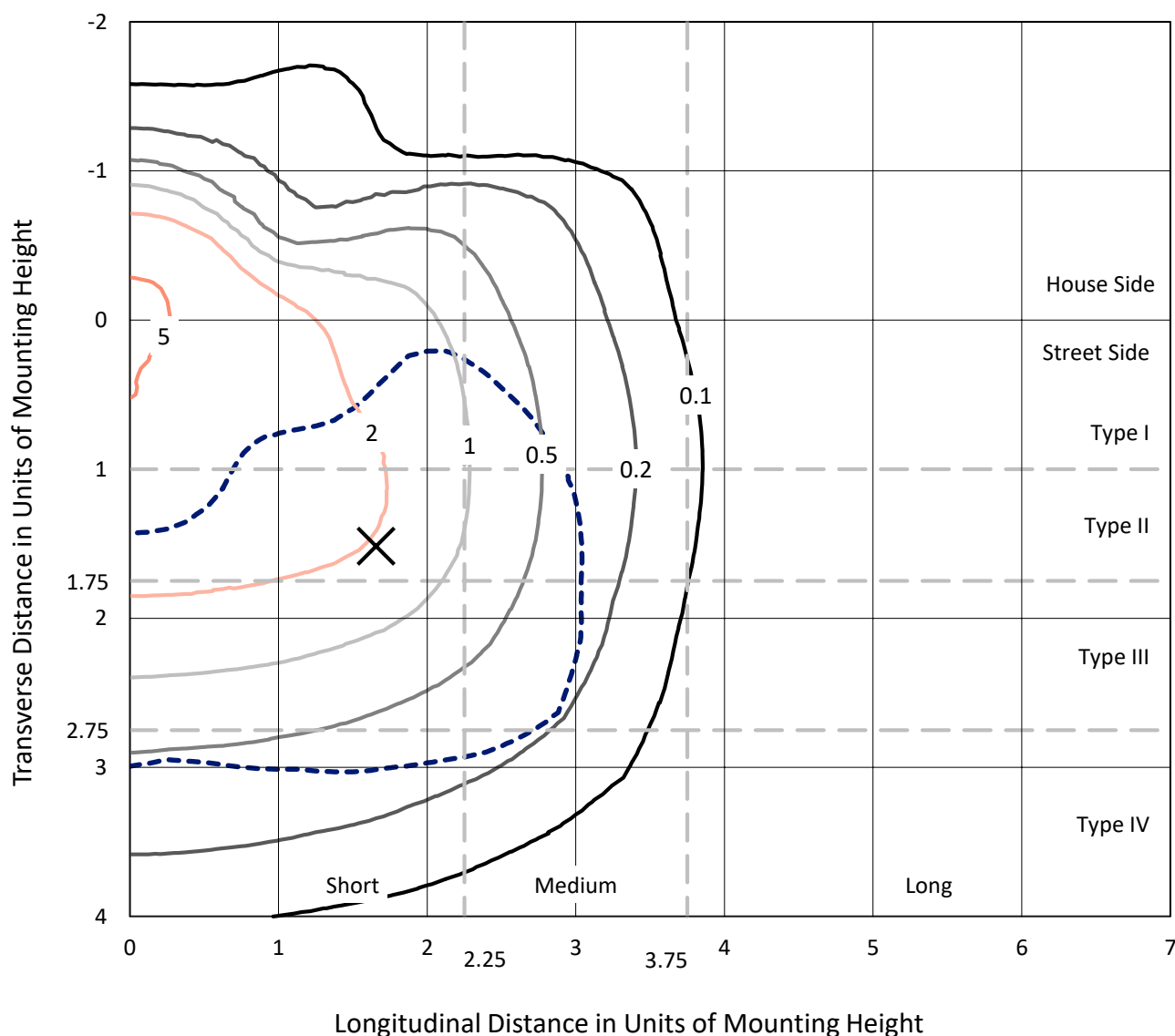
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

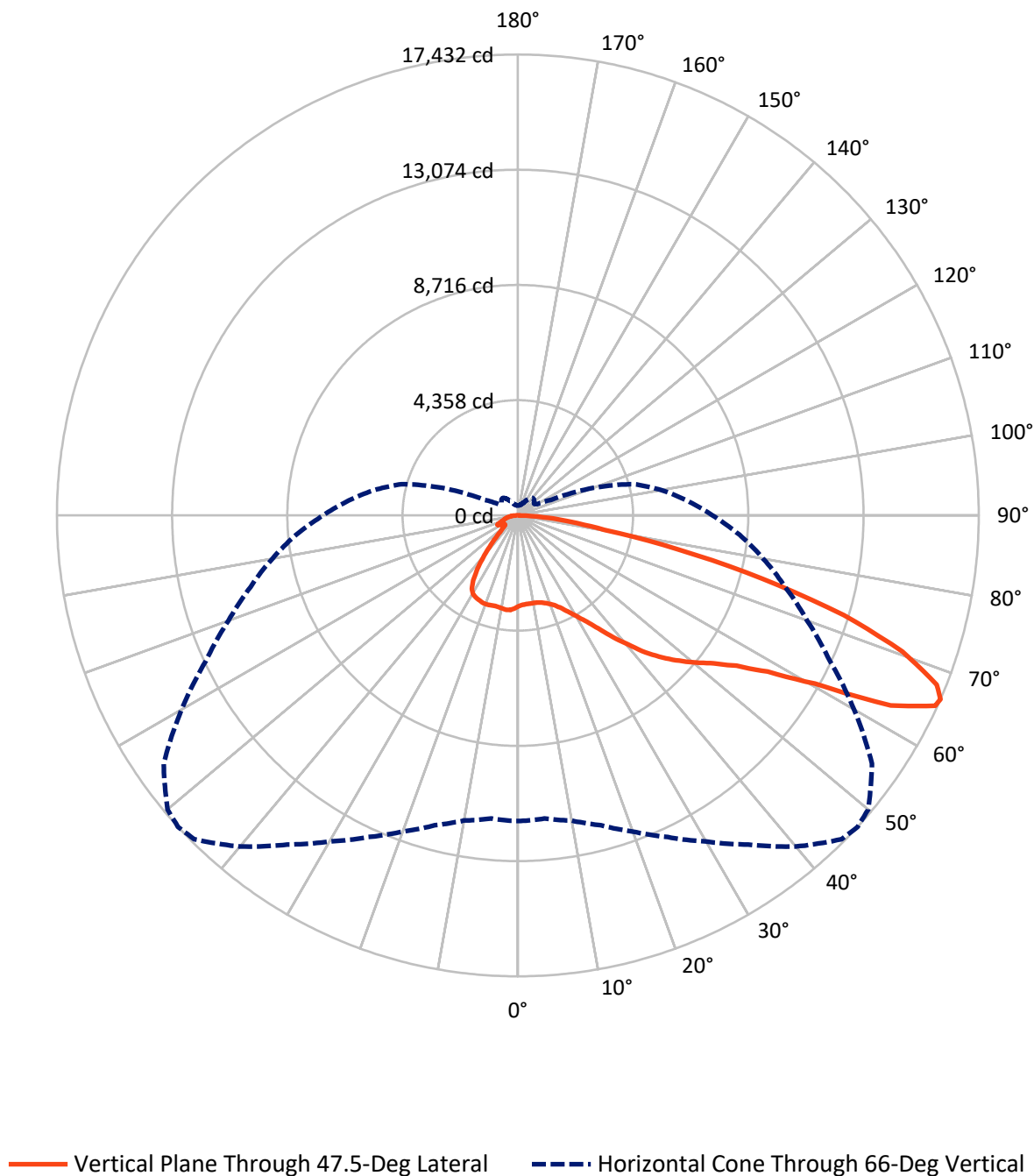


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5201.0	0.0	5201.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19919.2	0.0	19919.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	25120.2	0.0	25120.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.3	1.3
10°-20°	993.3	4.0
20°-30°	1694.8	6.7
30°-40°	2558.1	10.2
40°-50°	3325.0	13.2
50°-60°	4561.5	18.2
60°-70°	7017.1	27.9
70°-80°	4056.3	16.1
80°-90°	582.7	2.3
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°	25120.2	100.0
0°-180°	25120.2	100.0

Coefficient of Utilization



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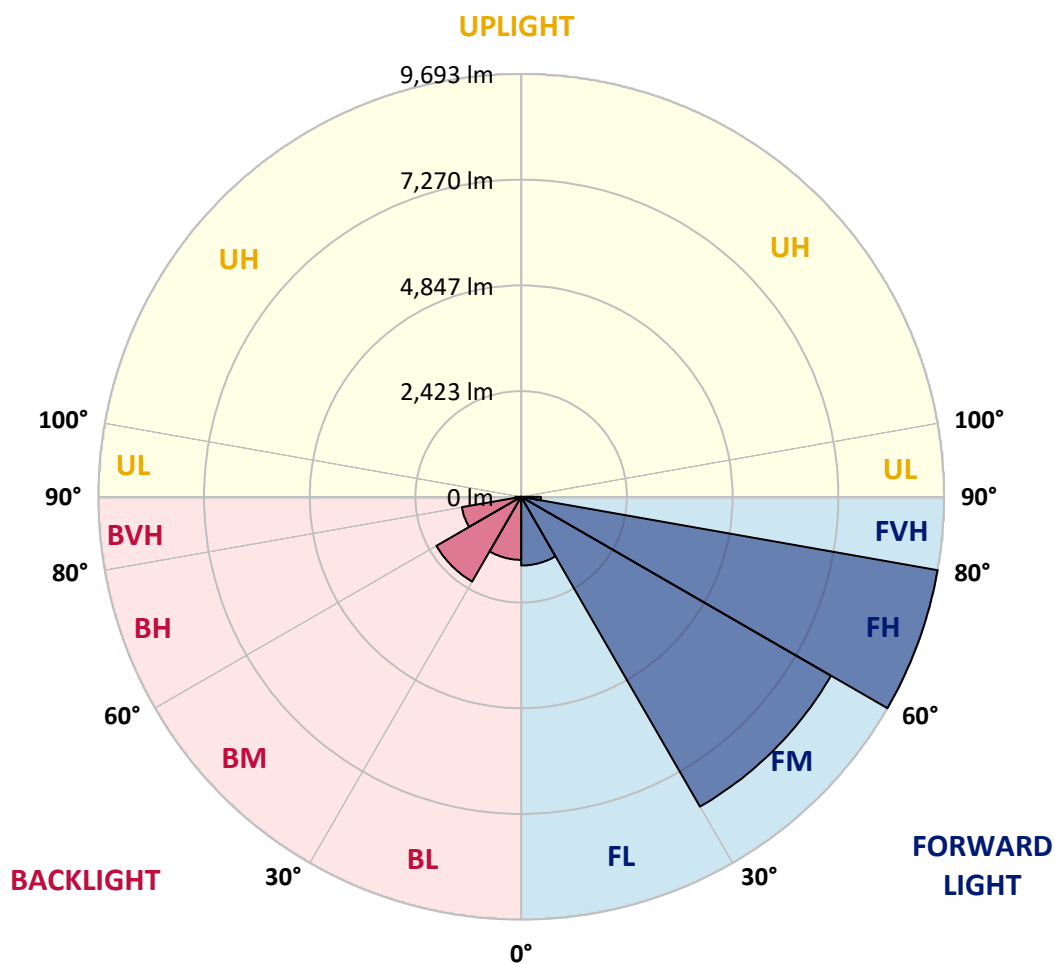
CATALOG NUMBER: VST-E10-LED-E-U-T4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1574.6	6.3			
FM	(30°-60°)	8200.7	32.6			
FH	(60°-80°)	9693.0	38.6			G4/12000
FVH	(80°-90°)	451.0	1.8			G3/500
BL	(0°-30°)	1444.9	5.8	B3/2500		
BM	(30°-60°)	2244.0	8.9	B2/2500		
BH	(60°-80°)	1380.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	131.8	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°	45°	47.5°
0°	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3349.0	3350.6	3352.3	3352.3	3357.4	3357.4	3365.8	3370.9	3372.6	3382.7	3389.5
5°	3286.5	3284.8	3286.5	3289.9	3298.3	3305.1	3321.9	3333.8	3343.9	3360.8	3369.2
7.5°	3259.5	3262.9	3266.2	3267.9	3274.7	3291.6	3306.8	3318.6	3338.8	3359.1	3367.5
10°	3294.9	3300.0	3294.9	3298.3	3298.3	3313.5	3320.3	3328.7	3343.9	3362.5	3367.5
12.5°	3377.7	3387.8	3377.7	3369.2	3362.5	3376.0	3372.6	3365.8	3374.3	3379.3	3379.3
15°	3514.4	3514.4	3507.6	3495.8	3478.9	3480.6	3465.4	3450.2	3443.5	3431.7	3423.2
17.5°	3647.7	3644.4	3629.2	3614.0	3602.2	3597.1	3575.1	3554.9	3531.3	3512.7	3492.4
20°	3777.7	3791.2	3772.6	3750.7	3732.1	3720.3	3703.4	3662.9	3634.2	3603.8	3583.6
22.5°	4002.2	3990.4	3970.1	3938.1	3919.5	3899.2	3863.8	3819.9	3776.0	3738.9	3713.6
25°	4233.5	4221.6	4192.9	4169.3	4142.3	4125.4	4086.6	4032.6	3990.4	3933.0	3899.2
27.5°	4481.6	4471.5	4437.7	4419.1	4400.6	4380.3	4346.6	4290.8	4252.0	4186.2	4150.7
30°	4761.8	4760.1	4714.5	4711.2	4684.1	4662.2	4638.6	4591.3	4552.5	4486.7	4444.5
32.5°	5060.6	5053.8	5021.7	5011.6	5030.2	5015.0	4981.2	4932.3	4881.6	4842.8	4795.6
35°	5485.9	5474.1	5455.6	5464.0	5475.8	5518.0	5465.7	5423.5	5362.7	5312.1	5246.2
37.5°	5796.5	5779.6	5801.6	5848.9	5916.4	5948.4	5994.0	5995.7	5967.0	5899.5	5842.1
40°	6081.8	6075.0	6125.7	6191.5	6316.4	6407.6	6493.7	6535.9	6546.0	6502.1	6416.0
42.5°	6323.2	6343.4	6411.0	6512.2	6687.8	6826.2	6986.6	7086.1	7148.6	7125.0	7086.1
45°	6610.1	6620.3	6703.0	6831.3	6998.4	7227.9	7438.9	7607.7	7717.5	7715.8	7671.9
47.5°	6969.7	6971.4	7042.3	7192.5	7371.4	7604.4	7871.1	8095.6	8240.7	8247.5	8213.7
50°	7396.7	7393.4	7471.0	7612.8	7803.5	8028.0	8311.6	8591.8	8794.4	8794.4	8745.4
52.5°	7947.0	7940.3	7982.5	8107.4	8291.4	8527.7	8809.6	9133.7	9353.1	9400.4	9294.0
55°	8681.3	8691.4	8701.5	8811.3	8968.2	9155.6	9479.7	9778.5	10072.2	10099.2	10036.7
57.5°	9530.3	9496.6	9569.2	9748.1	9927.0	10161.7	10391.2	10744.0	11091.7	11150.8	11142.4
60°	10857.1	10813.2	10887.5	11115.4	11312.9	11682.5	12075.8	12531.6	12943.4	13065.0	12918.1
62.5°	12077.5	12131.5	12232.8	12497.8	12784.8	13277.7	13868.5	14650.0	15431.5	15856.9	15826.5
65°	11967.8	11917.2	12111.3	12472.5	12992.4	13620.3	14354.6	15296.5	16422.4	17276.5	17352.5
66°	11561.0	11508.7	11718.0	12131.5	12725.7	13424.5	14239.8	15198.6	16349.8	17315.3	17431.8
67.5°	10889.2	10836.8	11073.2	11449.6	12062.3	12941.8	13822.9	14871.1	16067.9	16992.9	17087.4
70°	9592.8	9521.9	9705.9	10131.3	10627.5	11478.3	12317.2	13427.9	14656.7	15396.1	15431.5
72.5°	8125.9	7960.5	8156.3	8483.8	8838.3	9542.2	10273.1	11032.6	12011.7	12695.3	12891.1
75°	5896.1	5982.2	6039.6	6255.7	6490.3	7072.6	7501.4	8137.8	8895.7	9390.2	9547.2
77.5°	3127.8	3257.8	3338.8	3554.9	3943.1	4387.1	4851.3	5244.6	5742.5	6019.3	6211.8
80°	1755.5	1846.7	1978.3	2148.8	2337.9	2678.8	2954.0	3156.5	3227.4	3276.4	3320.3
82.5°	965.5	1196.8	1392.6	1510.7	1622.2	1758.9	1922.6	2091.4	2145.4	2064.4	2022.2
85°	150.2	221.1	673.5	822.0	894.6	999.3	1117.4	1242.4	1244.0	1070.2	1168.1
87.5°	42.2	47.3	96.2	145.2	141.8	114.8	141.8	258.3	151.9	76.0	87.8
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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CATALOG NUMBER: VST-E10-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3392.8	3396.2	3404.7	3413.1	3421.5	3430.0	3435.0	3443.5	3450.2	3460.4	3472.2
5°	3379.3	3387.8	3403.0	3421.5	3438.4	3453.6	3465.4	3482.3	3497.5	3511.0	3531.3
7.5°	3379.3	3396.2	3421.5	3441.8	3457.0	3475.6	3494.1	3511.0	3527.9	3541.4	3554.9
10°	3381.0	3397.9	3423.2	3446.9	3463.7	3484.0	3499.2	3514.4	3532.9	3541.4	3558.3
12.5°	3387.8	3394.5	3413.1	3436.7	3457.0	3477.2	3492.4	3507.6	3527.9	3531.3	3543.1
15°	3421.5	3411.4	3416.5	3433.4	3455.3	3472.2	3489.1	3500.9	3514.4	3511.0	3521.1
17.5°	3484.0	3458.7	3448.5	3450.2	3460.4	3472.2	3478.9	3480.6	3482.3	3467.1	3468.8
20°	3568.4	3532.9	3509.3	3497.5	3484.0	3472.2	3453.6	3431.7	3411.4	3381.0	3377.7
22.5°	3695.0	3642.7	3617.3	3585.3	3544.8	3494.1	3448.5	3394.5	3350.6	3305.1	3288.2
25°	3879.0	3825.0	3798.0	3747.3	3674.7	3602.2	3536.3	3463.7	3399.6	3345.6	3320.3
27.5°	4125.4	4071.4	4042.7	3990.4	3900.9	3828.3	3737.2	3659.5	3581.9	3502.6	3470.5
30°	4424.2	4376.9	4344.9	4302.7	4225.0	4145.7	4039.3	3919.5	3796.3	3669.7	3607.2
32.5°	4777.0	4724.7	4701.0	4652.1	4571.1	4488.3	4370.2	4216.6	4010.6	3811.5	3686.6
35°	5217.6	5158.5	5131.5	5067.3	4972.8	4851.3	4724.7	4518.7	4240.2	3963.4	3759.1
37.5°	5806.7	5675.0	5585.5	5438.7	5286.8	5116.3	4935.7	4724.7	4395.5	4052.8	3769.3
40°	6328.2	6194.9	6022.7	5811.7	5575.4	5340.8	5134.8	4895.1	4537.3	4117.0	3737.2
42.5°	6976.4	6740.1	6465.0	6179.7	5865.7	5577.1	5332.3	5050.4	4633.5	4133.9	3647.7
45°	7568.9	7287.0	6919.0	6539.2	6149.3	5786.4	5511.3	5197.3	4716.2	4133.9	3539.7
47.5°	8109.1	7771.5	7330.9	6858.3	6404.2	6007.5	5695.3	5347.5	4832.7	4186.2	3507.6
50°	8608.7	8220.5	7719.1	7170.5	6660.8	6237.1	5901.2	5540.0	5009.9	4321.2	3585.3
52.5°	9135.4	8723.5	8112.4	7530.1	6968.0	6513.9	6156.1	5778.0	5239.5	4533.9	3722.0
55°	9825.7	9343.0	8649.2	8007.8	7390.0	6888.7	6481.9	6063.2	5491.0	4773.6	3889.1
57.5°	10914.5	10214.0	9520.2	8686.4	8104.0	7444.0	6998.4	6517.3	5899.5	5085.9	4140.6
60°	12820.2	11959.4	11125.5	10166.7	9447.6	8757.2	8083.7	7455.8	6711.4	5791.5	4692.6
62.5°	15541.2	14666.9	13357.0	12183.9	11098.5	10183.6	9305.8	8507.4	7552.0	6546.0	5372.8
65°	17166.8	16165.8	14604.4	13027.8	11709.5	10575.2	9570.9	8593.5	7562.2	6581.4	5578.8
66°	17296.8	16349.8	14682.1	13016.0	11647.1	10470.6	9425.7	8414.6	7357.9	6419.4	5511.3
67.5°	17055.4	16240.1	14523.4	12786.5	11387.1	10116.1	9042.5	7982.5	6920.7	6051.4	5286.8
70°	15352.2	14763.1	13291.2	11664.0	10268.0	9147.2	8014.5	6995.0	5989.0	5258.1	4690.9
72.5°	12585.6	11839.5	10809.8	9716.0	8617.1	7622.9	6593.3	5725.6	4881.6	4349.9	3948.2
75°	9245.1	8573.3	7438.9	6757.0	6031.2	5406.6	4712.8	3890.8	3291.6	3024.9	2927.0
77.5°	5860.7	5131.5	4174.4	3421.5	2942.2	2528.6	1993.5	1585.0	1269.4	1321.7	1463.5
80°	2960.7	2550.5	1909.1	1507.4	1303.1	1083.7	857.5	649.9	474.3	541.8	612.7
82.5°	1900.7	1586.7	1264.3	995.9	840.6	741.0	592.5	430.4	320.7	361.2	442.3
85°	1144.5	967.2	771.4	631.3	548.6	457.4	335.9	238.0	236.3	253.2	312.3
87.5°	173.9	248.1	143.5	153.6	162.0	173.9	153.6	130.0	113.1	146.9	185.7
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°	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3484.0	3487.4	3494.1	3502.6	3500.9	3512.7	3519.4	3512.7	3527.9	3527.9	3536.3
5°	3548.1	3553.2	3565.0	3573.5	3576.8	3587.0	3590.3	3588.6	3592.0	3593.7	3597.1
7.5°	3566.7	3580.2	3585.3	3590.3	3592.0	3595.4	3595.4	3592.0	3592.0	3590.3	3593.7
10°	3561.6	3566.7	3570.1	3568.4	3568.4	3565.0	3563.3	3561.6	3561.6	3558.3	3563.3
12.5°	3544.8	3544.8	3544.8	3541.4	3541.4	3539.7	3539.7	3539.7	3543.1	3544.8	3553.2
15°	3511.0	3511.0	3514.4	3512.7	3517.8	3526.2	3536.3	3543.1	3551.5	3553.2	3558.3
17.5°	3458.7	3460.4	3470.5	3492.4	3514.4	3539.7	3558.3	3563.3	3556.6	3539.7	3527.9
20°	3367.5	3389.5	3430.0	3482.3	3531.3	3563.3	3571.8	3551.5	3519.4	3475.6	3451.9
22.5°	3286.5	3330.4	3403.0	3489.1	3549.8	3571.8	3546.4	3499.2	3441.8	3391.2	3355.7
25°	3318.6	3369.2	3445.2	3519.4	3558.3	3546.4	3495.8	3428.3	3367.5	3308.4	3251.1
27.5°	3453.6	3504.3	3558.3	3580.2	3566.7	3522.8	3451.9	3379.3	3298.3	3213.9	3143.0
30°	3581.9	3610.6	3614.0	3592.0	3543.1	3472.2	3389.5	3305.1	3202.1	3100.8	3011.4
32.5°	3622.4	3588.6	3527.9	3465.4	3397.9	3325.3	3229.1	3117.7	3008.0	2893.2	2793.6
35°	3610.6	3473.9	3323.6	3190.3	3109.3	3026.6	2938.8	2790.2	2667.0	2569.1	2505.0
37.5°	3504.3	3254.4	3023.2	2829.1	2702.5	2604.6	2474.6	2351.4	2245.0	2201.1	2148.8
40°	3355.7	2974.2	2653.5	2381.7	2250.1	2125.2	1980.0	1885.5	1855.1	1814.6	1816.3
42.5°	3143.0	2646.8	2233.2	1920.9	1777.4	1640.7	1537.8	1482.0	1483.7	1450.0	1456.7
45°	2918.5	2317.6	1797.7	1487.1	1345.3	1228.9	1171.5	1154.6	1156.3	1158.0	1147.8
47.5°	2781.8	2061.0	1441.5	1127.6	1002.7	936.8	906.4	898.0	899.7	901.4	889.6
50°	2761.5	1927.7	1203.5	862.6	781.5	744.4	729.2	720.8	720.8	714.0	703.9
52.5°	2818.9	1893.9	1087.1	747.8	670.1	636.4	624.6	617.8	607.7	594.2	575.6
55°	2910.1	1924.3	1051.6	709.0	633.0	599.2	584.0	580.7	563.8	538.5	508.1
57.5°	3078.9	2034.0	1075.2	719.1	639.7	609.4	599.2	595.9	572.2	533.4	494.6
60°	3563.3	2353.0	1193.4	776.5	688.7	663.4	663.4	658.3	626.2	570.5	514.8
62.5°	4231.8	2820.6	1353.8	855.8	756.2	752.8	781.5	783.2	725.8	636.4	548.6
65°	4554.2	3040.1	1409.5	872.7	774.8	813.6	871.0	871.0	790.0	666.8	553.7
66°	4555.9	3035.0	1392.6	852.4	754.5	805.2	864.2	864.2	779.8	658.3	545.2
67.5°	4439.4	2940.5	1336.9	815.3	709.0	756.2	808.5	806.9	730.9	624.6	521.6
70°	3981.9	2601.2	1178.2	754.5	654.9	656.6	675.2	663.4	612.7	540.2	474.3
72.5°	3433.4	2175.8	1021.2	715.7	612.7	580.7	565.5	555.3	523.3	479.4	438.9
75°	2633.3	1689.7	889.6	680.3	575.6	519.9	499.6	491.2	469.3	443.9	411.9
77.5°	1613.7	1158.0	754.5	622.9	533.4	482.8	460.8	443.9	422.0	398.4	376.4
80°	695.4	698.8	604.3	528.3	464.2	405.1	376.4	356.2	344.3	335.9	324.1
82.5°	486.1	501.3	460.8	410.2	354.5	312.3	287.0	281.9	283.6	283.6	280.2
85°	364.6	357.9	322.4	293.7	268.4	241.4	221.1	219.4	226.2	226.2	221.1
87.5°	211.0	212.7	182.3	170.5	177.2	151.9	138.4	140.1	157.0	155.3	151.9
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):

	160°	165°	170°	175°	180°
0°	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3536.3	3541.4	3539.7	3544.8	3539.7
5°	3602.2	3600.5	3598.8	3605.5	3597.1
7.5°	3592.0	3593.7	3593.7	3593.7	3592.0
10°	3566.7	3573.5	3576.8	3583.6	3581.9
12.5°	3558.3	3568.4	3578.5	3588.6	3590.3
15°	3560.0	3566.7	3571.8	3576.8	3578.5
17.5°	3516.1	3514.4	3509.3	3505.9	3502.6
20°	3426.6	3418.2	3409.7	3396.2	3403.0
22.5°	3315.2	3291.6	3264.6	3242.6	3240.9
25°	3185.2	3141.3	3097.4	3068.8	3058.6
27.5°	3070.4	3018.1	2972.5	2947.2	2940.5
30°	2933.7	2886.4	2845.9	2824.0	2810.5
32.5°	2731.2	2694.0	2643.4	2626.5	2624.8
35°	2449.3	2420.6	2385.1	2378.4	2369.9
37.5°	2130.2	2120.1	2103.2	2083.0	2079.6
40°	1789.3	1796.0	1790.9	1779.1	1760.6
42.5°	1460.1	1471.9	1473.6	1482.0	1490.5
45°	1163.0	1173.1	1173.1	1181.6	1191.7
47.5°	892.9	886.2	891.3	899.7	904.8
50°	675.2	670.1	661.7	654.9	648.2
52.5°	543.5	533.4	509.8	503.0	496.3
55°	479.4	460.8	443.9	437.2	437.2
57.5°	460.8	437.2	418.6	410.2	406.8
60°	464.2	430.4	406.8	393.3	388.2
62.5°	479.4	432.1	400.1	384.9	379.8
65°	477.7	428.7	398.4	381.5	376.4
66°	469.3	423.7	395.0	379.8	376.4
67.5°	455.8	416.9	391.6	378.1	373.0
70°	428.7	403.4	384.9	373.0	368.0
72.5°	406.8	389.9	373.0	359.5	356.2
75°	386.5	369.7	354.5	347.7	342.7
77.5°	356.2	341.0	332.5	325.8	322.4
80°	315.7	305.5	295.4	288.6	283.6
82.5°	275.1	261.6	251.5	246.4	243.1
85°	224.5	216.1	200.9	190.7	189.1
87.5°	150.2	141.8	136.7	128.3	119.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)