

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: P159825

Luminaire Tested: **VST-F10-LED-E-U-T4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159825
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-F10-LED-E-U-T4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (70) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24570.6 lumens
Efficiency: N/A
Efficacy: 95.0 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): 258.7
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

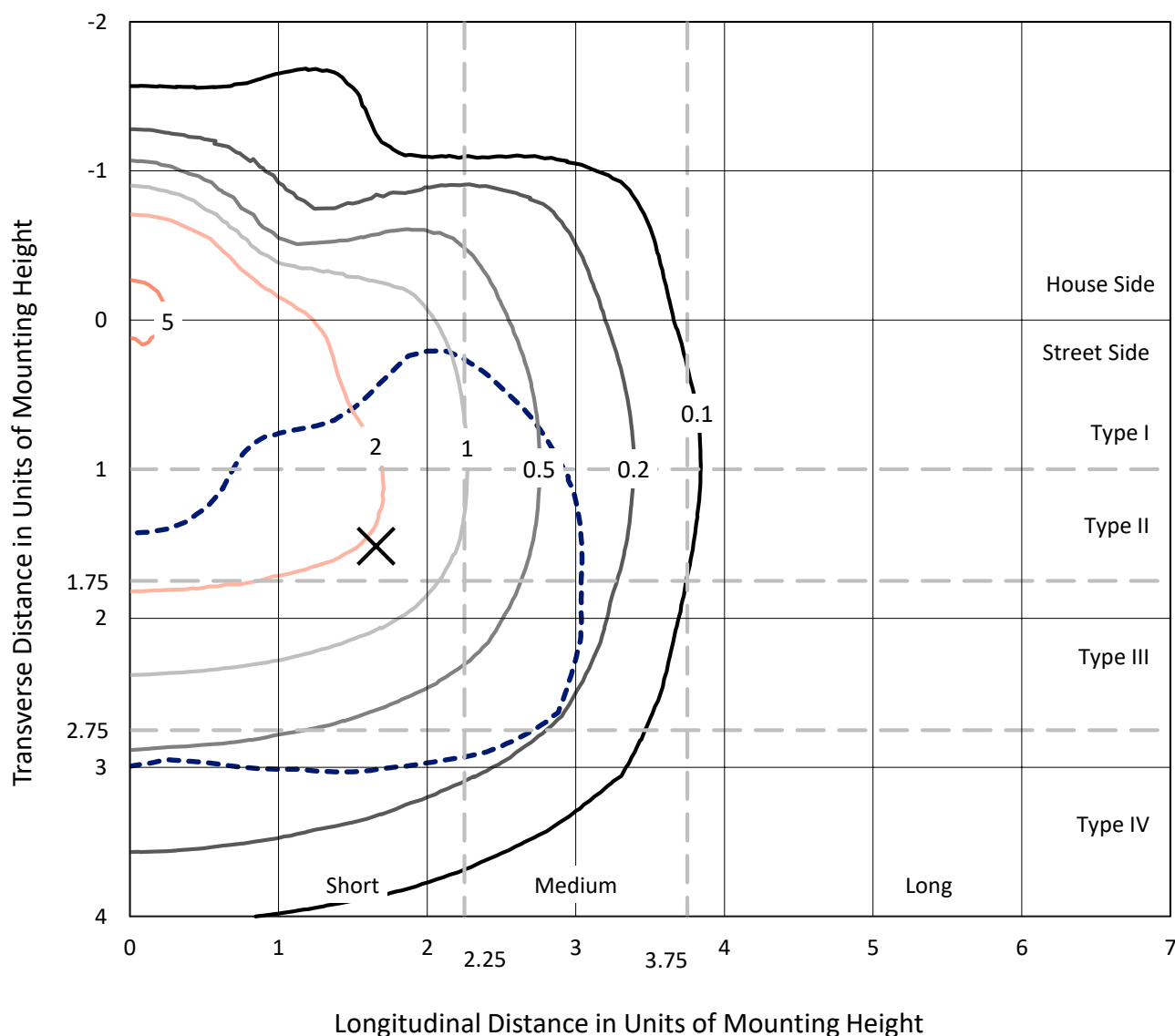


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

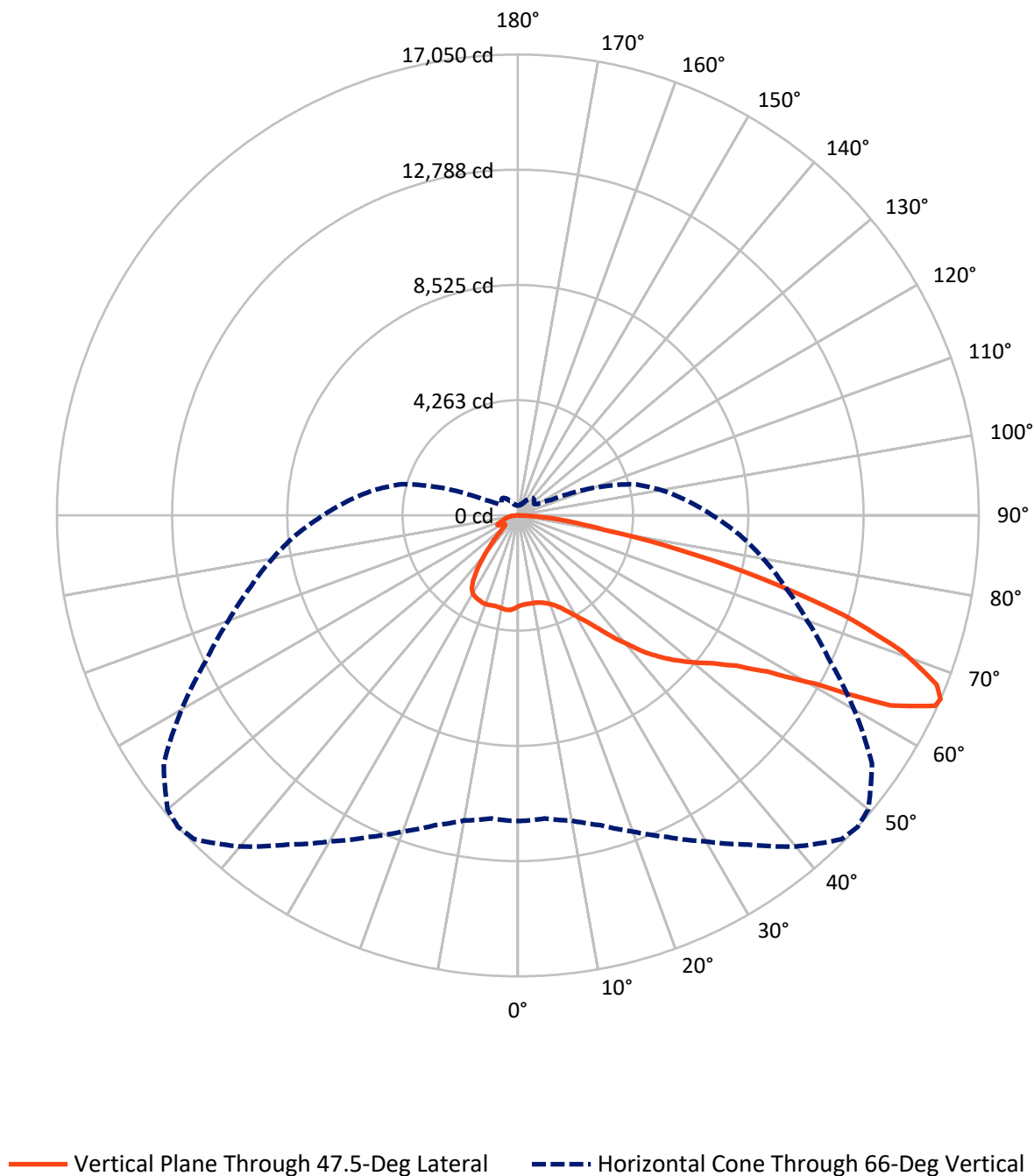


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5087.2	0.0	5087.2
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19483.4	0.0	19483.4
	% Fixture	79.3	0.0	79.3
Total	Lumens	24570.6	0.0	24570.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.0	1.3
10°-20°	971.6	4.0
20°-30°	1657.8	6.7
30°-40°	2502.1	10.2
40°-50°	3252.2	13.2
50°-60°	4461.7	18.2
60°-70°	6863.6	27.9
70°-80°	3967.6	16.1
80°-90°	570.0	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°	24570.6	100.0
0°-180°	24570.6	100.0

Coefficient of Utilization



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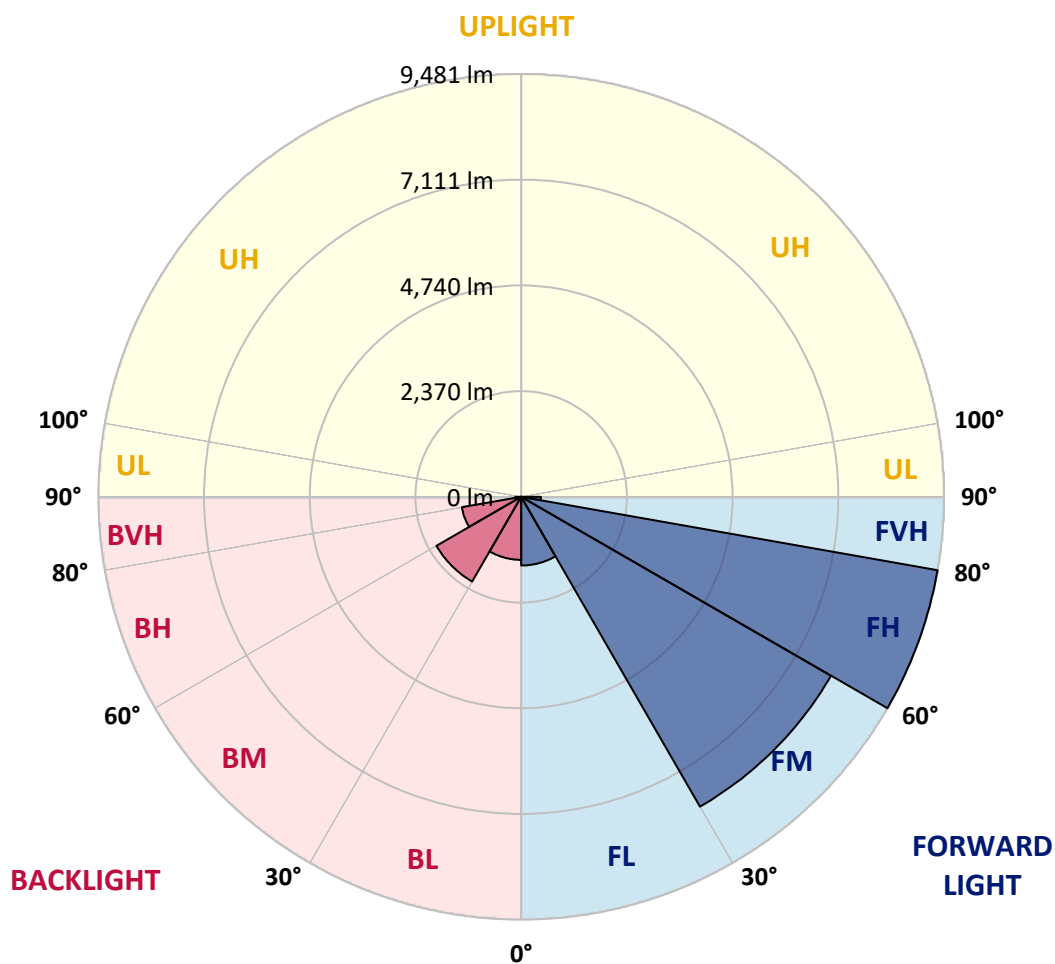
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1540.1	6.3			
FM	(30°-60°)	8021.2	32.6			
FH	(60°-80°)	9481.0	38.6			G4/12000
FVH	(80°-90°)	441.1	1.8			G3/500
BL	(0°-30°)	1413.3	5.8	B3/2500		
BM	(30°-60°)	2194.9	8.9	B2/2500		
BH	(60°-80°)	1350.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	128.9	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°	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5
2.5°	3275.7	3277.3	3279.0	3279.0	3283.9	3283.9	3292.2	3297.1	3298.8	3308.7	3315.3
5°	3214.6	3212.9	3214.6	3217.9	3226.2	3232.8	3249.3	3260.8	3270.7	3287.2	3295.5
7.5°	3188.2	3191.5	3194.8	3196.4	3203.0	3219.5	3234.4	3246.0	3265.8	3285.6	3293.8
10°	3222.8	3227.8	3222.8	3226.2	3226.2	3241.0	3247.6	3255.9	3270.7	3288.9	3293.8
12.5°	3303.8	3313.7	3303.8	3295.5	3288.9	3302.1	3298.8	3292.2	3300.4	3305.4	3305.4
15°	3437.5	3437.5	3430.9	3419.3	3402.8	3404.5	3389.6	3374.7	3368.1	3356.6	3348.3
17.5°	3567.9	3564.6	3549.8	3534.9	3523.3	3518.4	3496.9	3477.1	3454.0	3435.8	3416.0
20°	3695.0	3708.3	3690.1	3668.6	3650.5	3638.9	3622.4	3582.8	3554.7	3525.0	3505.2
22.5°	3914.6	3903.1	3883.3	3851.9	3833.7	3813.9	3779.3	3736.3	3693.4	3657.1	3632.3
25°	4140.8	4129.3	4101.2	4078.1	4051.7	4035.2	3997.2	3944.4	3903.1	3846.9	3813.9
27.5°	4383.5	4373.6	4340.6	4322.4	4304.3	4284.5	4251.5	4197.0	4159.0	4094.6	4059.9
30°	4657.6	4656.0	4611.4	4608.1	4581.7	4560.2	4537.1	4490.9	4452.9	4388.5	4347.2
32.5°	4949.8	4943.2	4911.9	4902.0	4920.1	4905.3	4872.2	4824.4	4774.8	4736.9	4690.6
35°	5365.9	5354.4	5336.2	5344.4	5356.0	5397.3	5346.1	5304.8	5245.4	5195.9	5131.5
37.5°	5669.7	5653.2	5674.7	5720.9	5786.9	5818.3	5862.9	5864.5	5836.5	5770.4	5714.3
40°	5948.7	5942.1	5991.7	6056.1	6178.2	6267.4	6351.6	6392.9	6402.8	6359.8	6275.6
42.5°	6184.8	6204.6	6270.7	6369.8	6541.5	6676.8	6833.7	6931.1	6992.2	6969.1	6931.1
45°	6465.5	6475.4	6556.3	6681.8	6845.3	7069.8	7276.2	7441.3	7548.6	7546.9	7504.0
47.5°	6817.2	6818.8	6888.2	7035.1	7210.1	7438.0	7698.8	7918.4	8060.4	8067.0	8034.0
50°	7234.9	7231.6	7307.5	7446.2	7632.8	7852.4	8129.8	8403.8	8602.0	8602.0	8554.1
52.5°	7773.1	7766.5	7807.8	7930.0	8110.0	8341.1	8616.8	8933.8	9148.5	9194.7	9090.7
55°	8491.3	8501.3	8511.2	8618.5	8772.0	8955.3	9272.3	9564.5	9851.8	9878.2	9817.1
57.5°	9321.8	9288.8	9359.8	9534.8	9709.8	9939.3	10163.9	10508.9	10849.0	10906.8	10898.6
60°	10619.6	10576.6	10649.3	10872.2	11065.3	11426.9	11811.6	12257.4	12660.3	12779.1	12635.5
62.5°	11813.3	11866.1	11965.2	12224.4	12505.1	12987.2	13565.0	14329.5	15093.9	15510.0	15480.2
65°	11705.9	11656.4	11846.3	12199.6	12708.1	13322.3	14040.5	14961.8	16063.1	16898.5	16972.8
66°	11308.0	11256.9	11461.6	11866.1	12447.3	13130.8	13928.3	14866.1	15992.1	16936.5	17050.4
67.5°	10650.9	10599.7	10830.9	11199.1	11798.4	12658.6	13520.4	14545.7	15716.3	16621.1	16713.6
70°	9382.9	9313.6	9493.5	9909.6	10395.0	11227.1	12047.7	13134.1	14336.1	15059.2	15093.9
72.5°	7948.2	7786.4	7977.9	8298.2	8644.9	9333.4	10048.3	10791.3	11748.9	12417.5	12609.1
75°	5767.1	5851.3	5907.5	6118.8	6348.3	6917.9	7337.3	7959.7	8701.0	9184.8	9338.3
77.5°	3059.4	3186.5	3265.8	3477.1	3856.9	4291.1	4745.1	5129.8	5616.9	5887.6	6075.9
80°	1717.1	1806.2	1935.0	2101.8	2286.7	2620.2	2889.3	3087.5	3156.8	3204.7	3247.6
82.5°	944.4	1170.6	1362.1	1477.7	1586.7	1720.4	1880.5	2045.7	2098.5	2019.2	1978.0
85°	146.9	216.3	658.8	804.1	875.1	977.4	1093.0	1215.2	1216.8	1046.8	1142.5
87.5°	41.3	46.2	94.1	142.0	138.7	112.3	138.7	252.6	148.6	74.3	85.9
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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CATALOG NUMBER: VST-F10-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5
2.5°	3318.6	3321.9	3330.2	3338.4	3346.7	3354.9	3359.9	3368.1	3374.7	3384.7	3396.2
5°	3305.4	3313.7	3328.5	3346.7	3363.2	3378.0	3389.6	3406.1	3421.0	3434.2	3454.0
7.5°	3305.4	3321.9	3346.7	3366.5	3381.4	3399.5	3417.7	3434.2	3450.7	3463.9	3477.1
10°	3307.1	3323.6	3348.3	3371.4	3388.0	3407.8	3422.6	3437.5	3455.6	3463.9	3480.4
12.5°	3313.7	3320.3	3338.4	3361.5	3381.4	3401.2	3416.0	3430.9	3450.7	3454.0	3465.6
15°	3346.7	3336.8	3341.7	3358.2	3379.7	3396.2	3412.7	3424.3	3437.5	3434.2	3444.1
17.5°	3407.8	3383.0	3373.1	3374.7	3384.7	3396.2	3402.8	3404.5	3406.1	3391.3	3392.9
20°	3490.3	3455.6	3432.5	3421.0	3407.8	3396.2	3378.0	3356.6	3336.8	3307.1	3303.8
22.5°	3614.1	3563.0	3538.2	3506.8	3467.2	3417.7	3373.1	3320.3	3277.3	3232.8	3216.2
25°	3794.1	3741.3	3714.9	3665.3	3594.3	3523.3	3458.9	3388.0	3325.2	3272.4	3247.6
27.5°	4035.2	3982.3	3954.3	3903.1	3815.6	3744.6	3655.4	3579.5	3503.5	3425.9	3394.6
30°	4327.4	4281.2	4249.8	4208.5	4132.6	4055.0	3951.0	3833.7	3713.2	3589.4	3528.3
32.5°	4672.5	4621.3	4598.2	4550.3	4471.0	4390.1	4274.6	4124.3	3922.9	3728.1	3605.9
35°	5103.4	5045.6	5019.2	4956.5	4864.0	4745.1	4621.3	4419.9	4147.4	3876.7	3676.9
37.5°	5679.6	5550.8	5463.3	5319.7	5171.1	5004.3	4827.7	4621.3	4299.3	3964.2	3686.8
40°	6189.8	6059.4	5890.9	5684.6	5453.4	5223.9	5022.5	4788.0	4438.0	4026.9	3655.4
42.5°	6823.8	6592.6	6323.5	6044.5	5737.4	5455.1	5215.7	4939.9	4532.1	4043.4	3567.9
45°	7403.3	7127.6	6767.7	6396.2	6014.8	5659.8	5390.7	5083.6	4613.0	4043.4	3462.3
47.5°	7931.6	7601.4	7170.5	6708.2	6264.1	5876.1	5570.6	5230.5	4727.0	4094.6	3430.9
50°	8420.4	8040.6	7550.3	7013.7	6515.0	6100.6	5772.1	5418.7	4900.3	4226.7	3506.8
52.5°	8935.5	8532.6	7934.9	7365.3	6815.5	6371.4	6021.4	5651.5	5124.9	4434.7	3640.6
55°	9610.8	9138.6	8460.0	7832.6	7228.3	6737.9	6340.0	5930.6	5370.9	4669.2	3804.0
57.5°	10675.7	9990.5	9311.9	8496.3	7926.7	7281.1	6845.3	6374.7	5770.4	4974.6	4050.0
60°	12539.7	11697.7	10882.1	9944.3	9240.9	8565.6	7906.9	7292.7	6564.6	5664.8	4589.9
62.5°	15201.2	14346.0	13064.8	11917.3	10855.7	9960.8	9102.2	8321.3	7386.8	6402.8	5255.3
65°	16791.2	15812.1	14284.9	12742.8	11453.3	10343.8	9361.5	8405.5	7396.7	6437.4	5456.7
66°	16918.3	15992.1	14360.8	12731.2	11392.2	10241.5	9219.5	8230.5	7196.9	6278.9	5390.7
67.5°	16682.2	15884.8	14205.6	12506.7	11138.0	9894.7	8844.7	7807.8	6769.3	5919.0	5171.1
70°	15016.3	14440.1	13000.4	11408.8	10043.3	8947.0	7839.2	6842.0	5857.9	5143.0	4588.3
72.5°	12310.2	11580.5	10573.3	9503.4	8428.6	7456.1	6449.0	5600.4	4774.8	4254.8	3861.8
75°	9042.8	8385.7	7276.2	6609.2	5899.2	5288.3	4609.7	3805.7	3219.5	2958.7	2862.9
77.5°	5732.4	5019.2	4083.0	3346.7	2877.8	2473.3	1949.9	1550.3	1241.6	1292.8	1431.5
80°	2895.9	2494.7	1867.3	1474.4	1274.6	1060.0	838.7	635.7	463.9	530.0	599.3
82.5°	1859.1	1552.0	1236.6	974.1	822.2	724.8	579.5	421.0	313.7	353.3	432.6
85°	1119.4	946.1	754.5	617.5	536.6	447.4	328.6	232.8	231.1	247.7	305.4
87.5°	170.1	242.7	140.3	150.2	158.5	170.1	150.2	127.1	110.6	143.6	181.6
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°	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5	3361.5
2.5°	3407.8	3411.1	3417.7	3425.9	3424.3	3435.8	3442.4	3435.8	3450.7	3450.7	3458.9
5°	3470.5	3475.5	3487.0	3495.3	3498.6	3508.5	3511.8	3510.1	3513.4	3515.1	3518.4
7.5°	3488.7	3501.9	3506.8	3511.8	3513.4	3516.7	3516.7	3513.4	3513.4	3511.8	3515.1
10°	3483.7	3488.7	3492.0	3490.3	3490.3	3487.0	3485.4	3483.7	3483.7	3480.4	3485.4
12.5°	3467.2	3467.2	3467.2	3463.9	3463.9	3462.3	3462.3	3462.3	3465.6	3467.2	3475.5
15°	3434.2	3434.2	3437.5	3435.8	3440.8	3449.0	3458.9	3465.6	3473.8	3475.5	3480.4
17.5°	3383.0	3384.7	3394.6	3416.0	3437.5	3462.3	3480.4	3485.4	3478.8	3462.3	3450.7
20°	3293.8	3315.3	3354.9	3406.1	3454.0	3485.4	3493.6	3473.8	3442.4	3399.5	3376.4
22.5°	3214.6	3257.5	3328.5	3412.7	3472.2	3493.6	3468.9	3422.6	3366.5	3317.0	3282.3
25°	3246.0	3295.5	3369.8	3442.4	3480.4	3468.9	3419.3	3353.3	3293.8	3236.1	3179.9
27.5°	3378.0	3427.6	3480.4	3501.9	3488.7	3445.7	3376.4	3305.4	3226.2	3143.6	3074.3
30°	3503.5	3531.6	3534.9	3513.4	3465.6	3396.2	3315.3	3232.8	3132.0	3033.0	2945.5
32.5°	3543.2	3510.1	3450.7	3389.6	3323.6	3252.6	3158.5	3049.5	2942.2	2829.9	2732.5
35°	3531.6	3397.9	3250.9	3120.5	3041.2	2960.3	2874.5	2729.2	2608.7	2512.9	2450.2
37.5°	3427.6	3183.2	2957.0	2767.2	2643.3	2547.6	2420.4	2299.9	2195.9	2153.0	2101.8
40°	3282.3	2909.1	2595.5	2329.6	2200.8	2078.7	1936.7	1844.2	1814.5	1774.9	1776.5
42.5°	3074.3	2588.8	2184.3	1878.9	1738.6	1604.8	1504.1	1449.6	1451.3	1418.3	1424.9
45°	2854.7	2266.9	1758.4	1454.6	1315.9	1202.0	1145.8	1129.3	1131.0	1132.6	1122.7
47.5°	2720.9	2015.9	1410.0	1102.9	980.7	916.3	886.6	878.4	880.0	881.7	870.1
50°	2701.1	1885.5	1177.2	843.7	764.4	728.1	713.3	705.0	705.0	698.4	688.5
52.5°	2757.3	1852.5	1063.3	731.4	655.5	622.4	610.9	604.3	594.4	581.2	563.0
55°	2846.4	1882.2	1028.6	693.4	619.1	586.1	571.3	568.0	551.5	526.7	497.0
57.5°	3011.5	1989.5	1051.7	703.3	625.7	596.0	586.1	582.8	559.7	521.7	483.8
60°	3485.4	2301.6	1167.3	759.5	673.6	648.9	648.9	643.9	612.5	558.1	503.6
62.5°	4139.2	2758.9	1324.1	837.1	739.7	736.4	764.4	766.1	710.0	622.4	536.6
65°	4454.5	2973.5	1378.6	853.6	757.8	795.8	851.9	851.9	772.7	652.2	541.5
66°	4456.2	2968.6	1362.1	833.8	738.0	787.6	845.3	845.3	762.8	643.9	533.3
67.5°	4342.3	2876.1	1307.6	797.5	693.4	739.7	790.9	789.2	714.9	610.9	510.2
70°	3894.8	2544.3	1152.4	738.0	640.6	642.3	660.4	648.9	599.3	528.3	463.9
72.5°	3358.2	2128.2	998.9	700.0	599.3	568.0	553.1	543.2	511.8	468.9	429.3
75°	2575.6	1652.7	870.1	665.4	563.0	508.5	488.7	480.5	459.0	434.2	402.9
77.5°	1578.4	1132.6	738.0	609.2	521.7	472.2	450.7	434.2	412.8	389.6	368.2
80°	680.2	683.5	591.1	516.8	454.0	396.3	368.2	348.4	336.8	328.6	317.0
82.5°	475.5	490.4	450.7	401.2	346.7	305.4	280.7	275.7	277.4	277.4	274.1
85°	356.6	350.0	315.4	287.3	262.5	236.1	216.3	214.6	221.2	221.2	216.3
87.5°	206.4	208.0	178.3	166.8	173.4	148.6	135.4	137.0	153.5	151.9	148.6
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°	3361.5	3361.5	3361.5	3361.5	3361.5
2.5°	3458.9	3463.9	3462.3	3467.2	3462.3
5°	3523.3	3521.7	3520.0	3526.6	3518.4
7.5°	3513.4	3515.1	3515.1	3515.1	3513.4
10°	3488.7	3495.3	3498.6	3505.2	3503.5
12.5°	3480.4	3490.3	3500.2	3510.1	3511.8
15°	3482.1	3488.7	3493.6	3498.6	3500.2
17.5°	3439.1	3437.5	3432.5	3429.2	3425.9
20°	3351.6	3343.4	3335.1	3321.9	3328.5
22.5°	3242.7	3219.5	3193.1	3171.7	3170.0
25°	3115.5	3072.6	3029.7	3001.6	2991.7
27.5°	3003.3	2952.1	2907.5	2882.7	2876.1
30°	2869.5	2823.3	2783.7	2762.2	2749.0
32.5°	2671.4	2635.1	2585.5	2569.0	2567.4
35°	2395.7	2367.6	2332.9	2326.3	2318.1
37.5°	2083.6	2073.7	2057.2	2037.4	2034.1
40°	1750.1	1756.7	1751.8	1740.2	1722.0
42.5°	1428.2	1439.7	1441.4	1449.6	1457.9
45°	1137.6	1147.5	1147.5	1155.7	1165.6
47.5°	873.4	866.8	871.8	880.0	885.0
50°	660.4	655.5	647.2	640.6	634.0
52.5°	531.6	521.7	498.6	492.0	485.4
55°	468.9	450.7	434.2	427.6	427.6
57.5°	450.7	427.6	409.5	401.2	397.9
60°	454.0	421.0	397.9	384.7	379.7
62.5°	468.9	422.7	391.3	376.4	371.5
65°	467.2	419.4	389.6	373.1	368.2
66°	459.0	414.4	386.3	371.5	368.2
67.5°	445.8	407.8	383.0	369.8	364.9
70°	419.4	394.6	376.4	364.9	359.9
72.5°	397.9	381.4	364.9	351.7	348.4
75°	378.1	361.6	346.7	340.1	335.2
77.5°	348.4	333.5	325.3	318.7	315.4
80°	308.7	298.8	288.9	282.3	277.4
82.5°	269.1	255.9	246.0	241.1	237.8
85°	219.6	211.3	196.5	186.6	184.9
87.5°	146.9	138.7	133.7	125.5	117.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)