

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: P159834

Luminaire Tested: **VST-F11-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159834
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-F11-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (77) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24685.7 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7
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



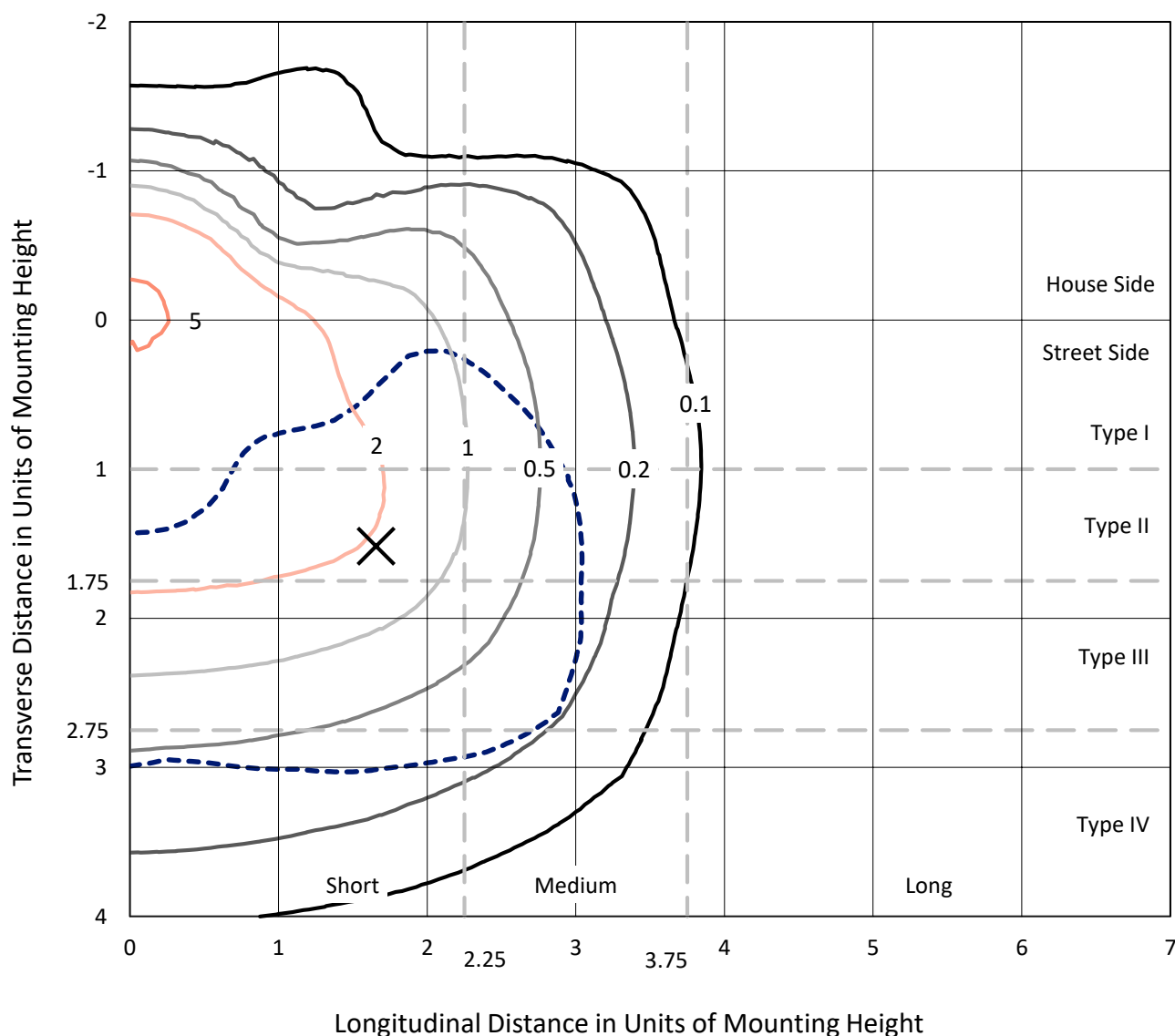
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

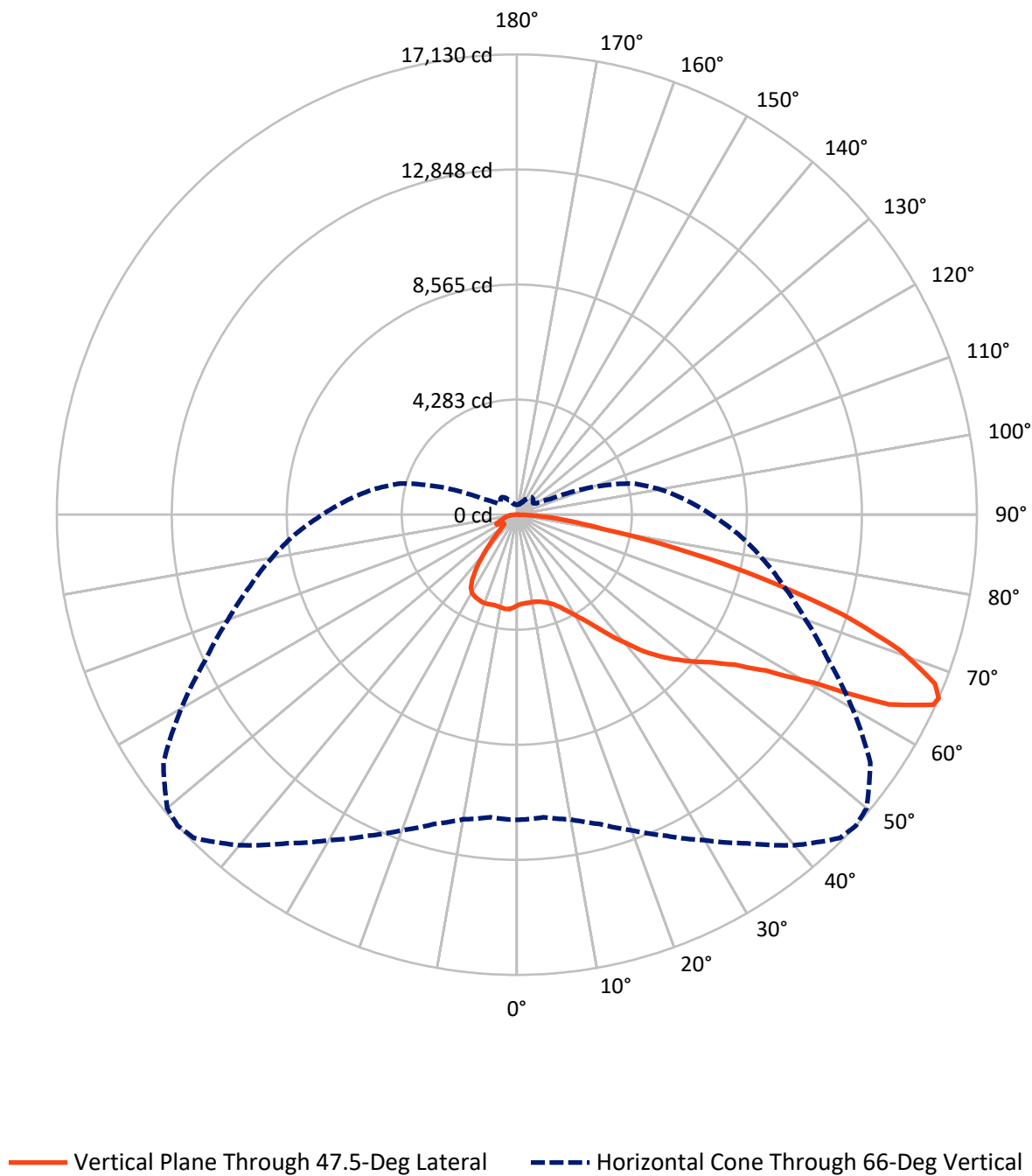


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5111.0	0.0	5111.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19574.7	0.0	19574.7
	% Fixture	79.3	0.0	79.3
Total	Lumens	24685.7	0.0	24685.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.5	1.3
10°-20°	976.1	4.0
20°-30°	1665.5	6.7
30°-40°	2513.9	10.2
40°-50°	3267.5	13.2
50°-60°	4482.6	18.2
60°-70°	6895.7	27.9
70°-80°	3986.2	16.1
80°-90°	572.6	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°	24685.7	100.0
0°-180°	24685.7	100.0

Coefficient of Utilization



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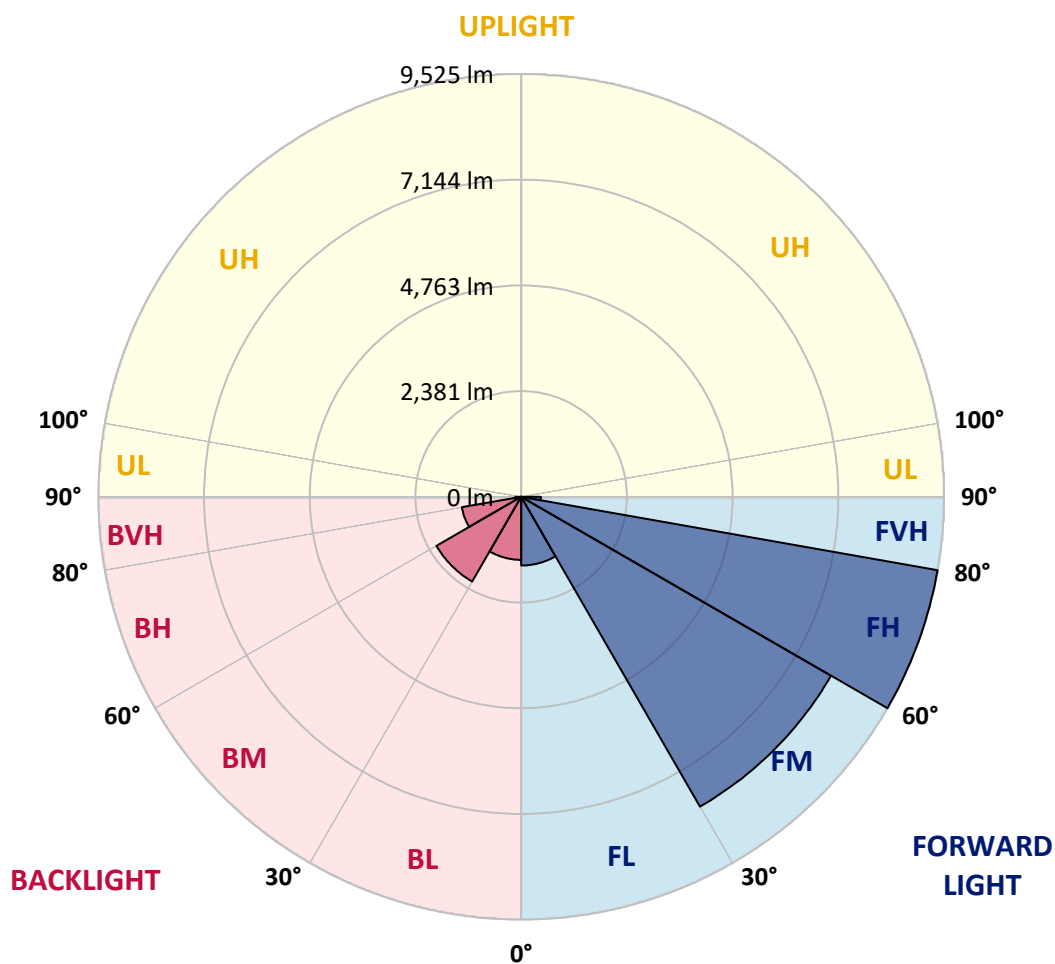
CATALOG NUMBER: VST-F11-LED-E-U-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1547.3	6.3			
FM	(30°-60°)	8058.8	32.6			
FH	(60°-80°)	9525.4	38.6			G4/12000
FVH	(80°-90°)	443.2	1.8			G3/500
BL	(0°-30°)	1419.9	5.8	B3/2500		
BM	(30°-60°)	2205.1	8.9	B2/2500		
BH	(60°-80°)	1356.5	5.5	B3/2500		G3/2500
BVH	(80°-90°)	129.5	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°	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3
2.5°	3291.0	3292.7	3294.3	3294.3	3299.3	3299.3	3307.6	3312.6	3314.3	3324.2	3330.8
5°	3229.7	3228.0	3229.7	3233.0	3241.3	3247.9	3264.5	3276.1	3286.1	3302.6	3310.9
7.5°	3203.1	3206.4	3209.8	3211.4	3218.0	3234.6	3249.6	3261.2	3281.1	3301.0	3309.3
10°	3237.9	3242.9	3237.9	3241.3	3241.3	3256.2	3262.8	3271.1	3286.1	3304.3	3309.3
12.5°	3319.2	3329.2	3319.2	3310.9	3304.3	3317.6	3314.3	3307.6	3315.9	3320.9	3320.9
15°	3453.6	3453.6	3447.0	3435.3	3418.8	3420.4	3405.5	3390.6	3383.9	3372.3	3364.0
17.5°	3584.6	3581.3	3566.4	3551.5	3539.8	3534.9	3513.3	3493.4	3470.2	3451.9	3432.0
20°	3712.4	3725.6	3707.4	3685.8	3667.6	3656.0	3639.4	3599.6	3571.4	3541.5	3521.6
22.5°	3933.0	3921.4	3901.5	3869.9	3851.7	3831.8	3797.0	3753.8	3710.7	3674.2	3649.3
25°	4160.2	4148.6	4120.4	4097.2	4070.7	4054.1	4015.9	3962.8	3921.4	3865.0	3831.8
27.5°	4404.1	4394.1	4360.9	4342.7	4324.5	4304.5	4271.4	4216.6	4178.5	4113.8	4079.0
30°	4679.4	4677.8	4633.0	4629.7	4603.1	4581.6	4558.3	4511.9	4473.7	4409.1	4367.6
32.5°	4973.0	4966.4	4934.9	4924.9	4943.2	4928.3	4895.1	4847.0	4797.2	4759.1	4712.6
35°	5391.1	5379.4	5361.2	5369.5	5381.1	5422.6	5371.1	5329.7	5270.0	5220.2	5155.5
37.5°	5696.3	5679.7	5701.2	5747.7	5814.0	5845.6	5890.3	5892.0	5863.8	5797.5	5741.1
40°	5976.6	5970.0	6019.7	6084.4	6207.2	6296.8	6381.3	6422.8	6432.8	6389.6	6305.0
42.5°	6213.8	6233.7	6300.1	6399.6	6572.1	6708.1	6865.7	6963.6	7025.0	7001.7	6963.6
45°	6495.8	6505.8	6587.0	6713.1	6877.3	7102.9	7310.3	7476.1	7584.0	7582.3	7539.2
47.5°	6849.1	6850.8	6920.5	7068.1	7243.9	7472.8	7734.9	7955.5	8098.2	8104.8	8071.7
50°	7268.8	7265.5	7341.8	7481.1	7668.6	7889.2	8167.9	8443.2	8642.3	8642.3	8594.2
52.5°	7809.6	7802.9	7844.4	7967.1	8148.0	8380.2	8657.2	8975.7	9191.3	9237.8	9133.3
55°	8531.1	8541.1	8551.0	8658.9	8813.1	8997.3	9315.7	9609.3	9898.0	9924.5	9863.1
57.5°	9365.5	9332.3	9403.7	9579.5	9755.3	9985.9	10211.5	10558.2	10899.9	10957.9	10949.6
60°	10669.3	10626.2	10699.2	10923.1	11117.2	11480.5	11867.0	12314.8	12719.6	12839.0	12694.7
62.5°	11868.6	11921.7	12021.2	12281.6	12563.6	13048.0	13628.6	14396.6	15164.6	15582.6	15552.8
65°	11760.8	11711.0	11901.8	12256.8	12767.7	13384.7	14106.3	15031.9	16138.3	16977.7	17052.3
66°	11361.0	11309.6	11515.3	11921.7	12505.6	13192.3	13993.5	14935.7	16067.0	17015.8	17130.3
67.5°	10700.8	10649.4	10881.6	11251.5	11853.7	12717.9	13583.8	14613.9	15790.0	16699.0	16791.9
70°	9426.9	9357.2	9538.0	9956.0	10443.7	11279.7	12104.2	13195.6	14403.2	15129.8	15164.6
72.5°	7985.4	7822.8	8015.3	8337.1	8685.4	9377.1	10095.4	10841.8	11803.9	12475.7	12668.1
75°	5794.1	5878.7	5935.1	6147.5	6378.0	6950.3	7371.6	7997.0	8741.8	9227.8	9382.1
77.5°	3073.7	3201.5	3281.1	3493.4	3874.9	4311.2	4767.3	5153.8	5643.2	5915.2	6104.3
80°	1725.1	1814.7	1944.1	2111.6	2297.4	2632.5	2902.9	3101.9	3171.6	3219.7	3262.8
82.5°	948.8	1176.1	1368.5	1484.6	1594.1	1728.5	1889.4	2055.2	2108.3	2028.7	1987.2
85°	147.6	217.3	661.9	807.8	879.2	982.0	1098.1	1220.9	1222.5	1051.7	1147.9
87.5°	41.5	46.4	94.6	142.7	139.3	112.8	139.3	253.8	149.3	74.6	86.3
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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CATALOG NUMBER: VST-F11-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3
2.5°	3334.2	3337.5	3345.8	3354.1	3362.4	3370.7	3375.6	3383.9	3390.6	3400.5	3412.1
5°	3320.9	3329.2	3344.1	3362.4	3378.9	3393.9	3405.5	3422.1	3437.0	3450.3	3470.2
7.5°	3320.9	3337.5	3362.4	3382.3	3397.2	3415.4	3433.7	3450.3	3466.9	3480.1	3493.4
10°	3322.5	3339.1	3364.0	3387.2	3403.8	3423.7	3438.7	3453.6	3471.8	3480.1	3496.7
12.5°	3329.2	3335.8	3354.1	3377.3	3397.2	3417.1	3432.0	3447.0	3466.9	3470.2	3481.8
15°	3362.4	3352.4	3357.4	3374.0	3395.5	3412.1	3428.7	3440.3	3453.6	3450.3	3460.2
17.5°	3423.7	3398.9	3388.9	3390.6	3400.5	3412.1	3418.8	3420.4	3422.1	3407.1	3408.8
20°	3506.7	3471.8	3448.6	3437.0	3423.7	3412.1	3393.9	3372.3	3352.4	3322.5	3319.2
22.5°	3631.1	3579.7	3554.8	3523.3	3483.4	3433.7	3388.9	3335.8	3292.7	3247.9	3231.3
25°	3811.9	3758.8	3732.3	3682.5	3611.2	3539.8	3475.2	3403.8	3340.8	3287.7	3262.8
27.5°	4054.1	4001.0	3972.8	3921.4	3833.5	3762.1	3672.6	3596.2	3519.9	3442.0	3410.5
30°	4347.7	4301.2	4269.7	4228.2	4151.9	4074.0	3969.5	3851.7	3730.6	3606.2	3544.8
32.5°	4694.4	4642.9	4619.7	4571.6	4492.0	4410.7	4294.6	4143.6	3941.3	3745.5	3622.8
35°	5127.3	5069.2	5042.7	4979.7	4886.8	4767.3	4642.9	4440.6	4166.9	3894.8	3694.1
37.5°	5706.2	5576.8	5488.9	5344.6	5195.3	5027.8	4850.3	4642.9	4319.5	3982.7	3704.1
40°	6218.8	6087.7	5918.5	5711.2	5479.0	5248.4	5046.0	4810.5	4458.8	4045.8	3672.6
42.5°	6855.8	6623.5	6353.1	6072.8	5764.3	5480.6	5240.1	4963.1	4553.4	4062.4	3584.6
45°	7438.0	7161.0	6799.4	6426.1	6043.0	5686.3	5415.9	5107.4	4634.6	4062.4	3478.5
47.5°	7968.8	7637.0	7204.1	6739.6	6293.4	5903.6	5596.7	5255.0	4749.1	4113.8	3447.0
50°	8459.8	8078.3	7585.6	7046.5	6545.6	6129.2	5799.1	5444.1	4923.3	4246.5	3523.3
52.5°	8977.3	8572.6	7972.1	7399.8	6847.5	6401.3	6049.6	5678.0	5148.9	4455.5	3657.6
55°	9655.8	9181.4	8499.6	7869.3	7262.2	6769.5	6369.7	5958.4	5396.0	4691.0	3821.8
57.5°	10725.7	10037.3	9355.6	8536.1	7963.8	7315.2	6877.3	6404.6	5797.5	4997.9	4069.0
60°	12598.5	11752.5	10933.1	9990.9	9284.2	8605.8	7943.9	7326.9	6595.3	5691.3	4611.4
62.5°	15272.4	14413.2	13126.0	11973.1	10906.5	10007.5	9144.9	8360.3	7421.4	6432.8	5279.9
65°	16869.8	15886.2	14351.8	12802.5	11507.0	10392.3	9405.3	8444.9	7431.4	6467.6	5482.3
66°	16997.6	16067.0	14428.1	12790.9	11445.6	10289.4	9262.7	8269.0	7230.6	6308.4	5415.9
67.5°	16760.4	15959.2	14272.2	12565.3	11190.2	9941.1	8886.1	7844.4	6801.0	5946.7	5195.3
70°	15086.7	14507.7	13061.3	11462.2	10090.4	8989.0	7875.9	6874.0	5885.4	5167.1	4609.8
72.5°	12367.9	11634.7	10622.9	9548.0	8468.1	7491.1	6479.2	5626.6	4797.2	4274.7	3879.9
75°	9085.2	8425.0	7310.3	6640.1	5926.8	5313.1	4631.3	3823.5	3234.6	2972.5	2876.3
77.5°	5759.3	5042.7	4102.2	3362.4	2891.3	2484.9	1959.0	1557.6	1247.4	1298.8	1438.2
80°	2909.5	2506.4	1876.1	1481.3	1280.6	1064.9	842.7	638.6	466.1	532.5	602.1
82.5°	1867.8	1559.3	1242.4	978.7	826.1	728.2	582.2	423.0	315.2	355.0	434.6
85°	1124.7	950.5	758.1	620.4	539.1	449.5	330.1	233.9	232.2	248.8	306.9
87.5°	170.9	243.8	141.0	150.9	159.2	170.9	150.9	127.7	111.1	144.3	182.5
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°	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3	3377.3
2.5°	3423.7	3427.1	3433.7	3442.0	3440.3	3451.9	3458.6	3451.9	3466.9	3466.9	3475.2
5°	3486.8	3491.7	3503.4	3511.6	3515.0	3524.9	3528.2	3526.6	3529.9	3531.6	3534.9
7.5°	3505.0	3518.3	3523.3	3528.2	3529.9	3533.2	3533.2	3529.9	3529.9	3528.2	3531.6
10°	3500.0	3505.0	3508.3	3506.7	3506.7	3503.4	3501.7	3500.0	3500.0	3496.7	3501.7
12.5°	3483.4	3483.4	3483.4	3480.1	3480.1	3478.5	3478.5	3478.5	3481.8	3483.4	3491.7
15°	3450.3	3450.3	3453.6	3451.9	3456.9	3465.2	3475.2	3481.8	3490.1	3491.7	3496.7
17.5°	3398.9	3400.5	3410.5	3432.0	3453.6	3478.5	3496.7	3501.7	3495.1	3478.5	3466.9
20°	3309.3	3330.8	3370.7	3422.1	3470.2	3501.7	3510.0	3490.1	3458.6	3415.4	3392.2
22.5°	3229.7	3272.8	3344.1	3428.7	3488.4	3510.0	3485.1	3438.7	3382.3	3332.5	3297.7
25°	3261.2	3310.9	3385.6	3458.6	3496.7	3485.1	3435.3	3369.0	3309.3	3251.2	3194.8
27.5°	3393.9	3443.6	3496.7	3518.3	3505.0	3461.9	3392.2	3320.9	3241.3	3158.3	3088.7
30°	3519.9	3548.1	3551.5	3529.9	3481.8	3412.1	3330.8	3247.9	3146.7	3047.2	2959.3
32.5°	3559.8	3526.6	3466.9	3405.5	3339.1	3267.8	3173.3	3063.8	2956.0	2843.2	2745.3
35°	3548.1	3413.8	3266.1	3135.1	3055.5	2974.2	2887.9	2742.0	2620.9	2524.7	2461.6
37.5°	3443.6	3198.1	2970.9	2780.1	2655.7	2559.5	2431.8	2310.7	2206.2	2163.1	2111.6
40°	3297.7	2922.8	2607.6	2340.5	2211.2	2088.4	1945.8	1852.9	1823.0	1783.2	1784.9
42.5°	3088.7	2601.0	2194.6	1887.7	1746.7	1612.3	1511.2	1456.4	1458.1	1424.9	1431.5
45°	2868.0	2277.5	1766.6	1461.4	1322.1	1207.6	1151.2	1134.6	1136.3	1137.9	1128.0
47.5°	2733.7	2025.4	1416.6	1108.1	985.3	920.6	890.8	882.5	884.1	885.8	874.2
50°	2713.8	1894.3	1182.7	847.6	768.0	731.5	716.6	708.3	708.3	701.7	691.7
52.5°	2770.2	1861.2	1068.3	734.8	658.5	625.4	613.8	607.1	597.2	583.9	565.6
55°	2859.7	1891.0	1033.4	696.7	622.0	588.9	573.9	570.6	554.0	529.2	499.3
57.5°	3025.6	1998.8	1056.6	706.6	628.7	598.8	588.9	585.6	562.3	524.2	486.0
60°	3501.7	2312.3	1172.8	763.0	676.8	651.9	651.9	646.9	615.4	560.7	505.9
62.5°	4158.6	2771.8	1330.3	841.0	743.1	739.8	768.0	769.7	713.3	625.4	539.1
65°	4475.4	2987.5	1385.1	857.6	761.4	799.5	855.9	855.9	776.3	655.2	544.1
66°	4477.1	2982.5	1368.5	837.7	741.5	791.2	849.3	849.3	766.4	646.9	535.8
67.5°	4362.6	2889.6	1313.8	801.2	696.7	743.1	794.6	792.9	718.3	613.8	512.6
70°	3913.1	2556.2	1157.8	741.5	643.6	645.3	663.5	651.9	602.1	530.8	466.1
72.5°	3374.0	2138.2	1003.6	703.3	602.1	570.6	555.7	545.7	514.2	471.1	431.3
75°	2587.7	1660.4	874.2	668.5	565.6	510.9	491.0	482.7	461.1	436.3	404.7
77.5°	1585.8	1137.9	741.5	612.1	524.2	474.4	452.8	436.3	414.7	391.5	369.9
80°	683.4	686.7	593.8	519.2	456.2	398.1	369.9	350.0	338.4	330.1	318.5
82.5°	477.7	492.7	452.8	403.1	348.3	306.9	282.0	277.0	278.7	278.7	275.4
85°	358.3	351.7	316.8	288.6	263.7	237.2	217.3	215.6	222.3	222.3	217.3
87.5°	207.3	209.0	179.1	167.5	174.2	149.3	136.0	137.7	154.3	152.6	149.3
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°	3377.3	3377.3	3377.3	3377.3	3377.3
2.5°	3475.2	3480.1	3478.5	3483.4	3478.5
5°	3539.8	3538.2	3536.5	3543.2	3534.9
7.5°	3529.9	3531.6	3531.6	3531.6	3529.9
10°	3505.0	3511.6	3515.0	3521.6	3519.9
12.5°	3496.7	3506.7	3516.6	3526.6	3528.2
15°	3498.4	3505.0	3510.0	3515.0	3516.6
17.5°	3455.3	3453.6	3448.6	3445.3	3442.0
20°	3367.3	3359.0	3350.7	3337.5	3344.1
22.5°	3257.9	3234.6	3208.1	3186.5	3184.9
25°	3130.1	3087.0	3043.9	3015.7	3005.7
27.5°	3017.3	2965.9	2921.1	2896.2	2889.6
30°	2883.0	2836.5	2796.7	2775.1	2761.9
32.5°	2683.9	2647.4	2597.7	2581.1	2579.4
35°	2406.9	2378.7	2343.9	2337.2	2328.9
37.5°	2093.4	2083.4	2066.8	2046.9	2043.6
40°	1758.3	1764.9	1760.0	1748.4	1730.1
42.5°	1434.8	1446.5	1448.1	1456.4	1464.7
45°	1142.9	1152.9	1152.9	1161.1	1171.1
47.5°	877.5	870.9	875.8	884.1	889.1
50°	663.5	658.5	650.2	643.6	637.0
52.5°	534.1	524.2	501.0	494.3	487.7
55°	471.1	452.8	436.3	429.6	429.6
57.5°	452.8	429.6	411.4	403.1	399.8
60°	456.2	423.0	399.8	386.5	381.5
62.5°	471.1	424.6	393.1	378.2	373.2
65°	469.4	421.3	391.5	374.9	369.9
66°	461.1	416.4	388.2	373.2	369.9
67.5°	447.9	409.7	384.8	371.6	366.6
70°	421.3	396.4	378.2	366.6	361.6
72.5°	399.8	383.2	366.6	353.3	350.0
75°	379.9	363.3	348.3	341.7	336.7
77.5°	350.0	335.1	326.8	320.1	316.8
80°	310.2	300.2	290.3	283.7	278.7
82.5°	270.4	257.1	247.2	242.2	238.9
85°	220.6	212.3	197.4	187.4	185.8
87.5°	147.6	139.3	134.4	126.1	117.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)