

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: P158689

Luminaire Tested: **VST-E07-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158689
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E07-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (147) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18547 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 172.5
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

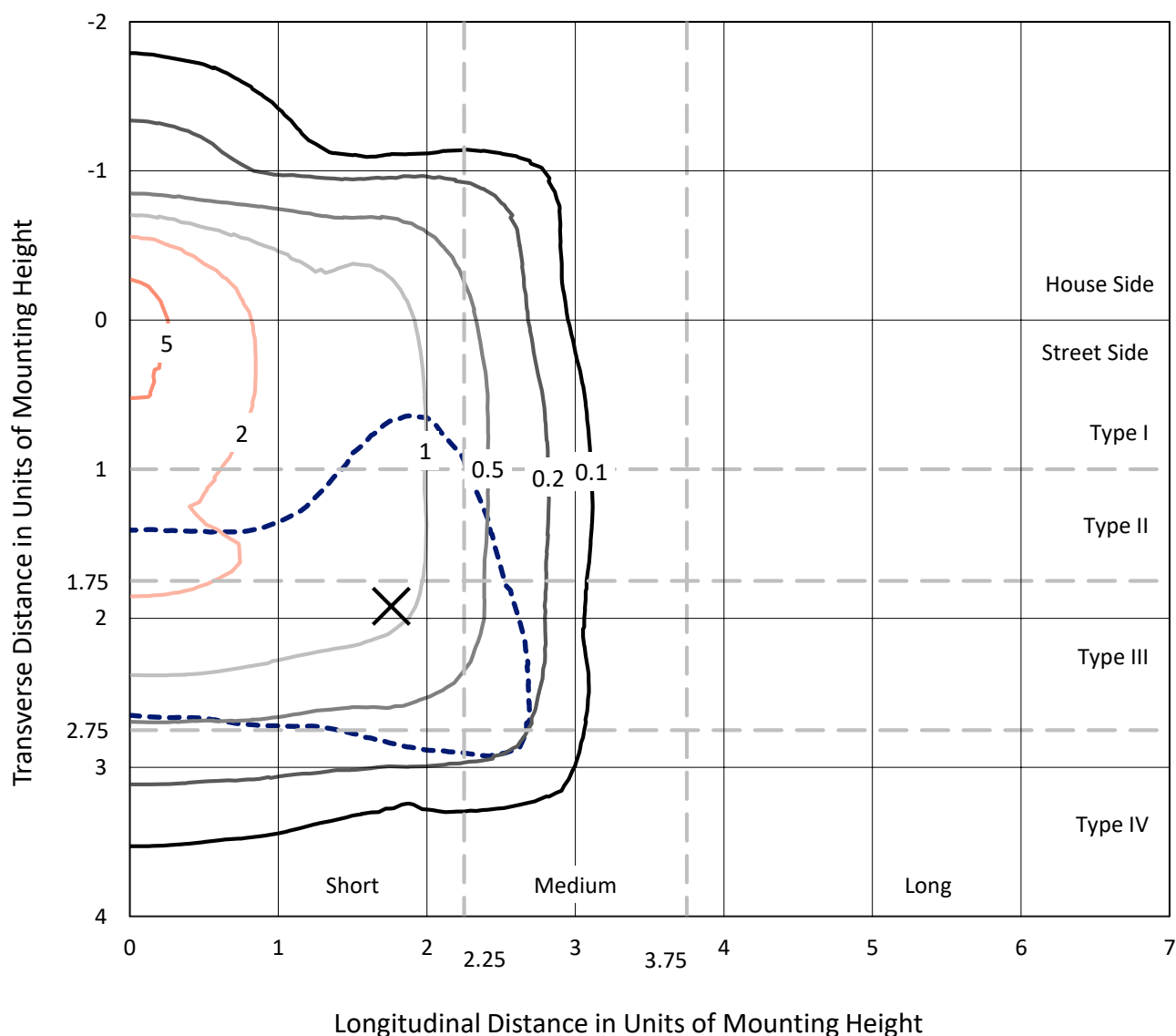


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

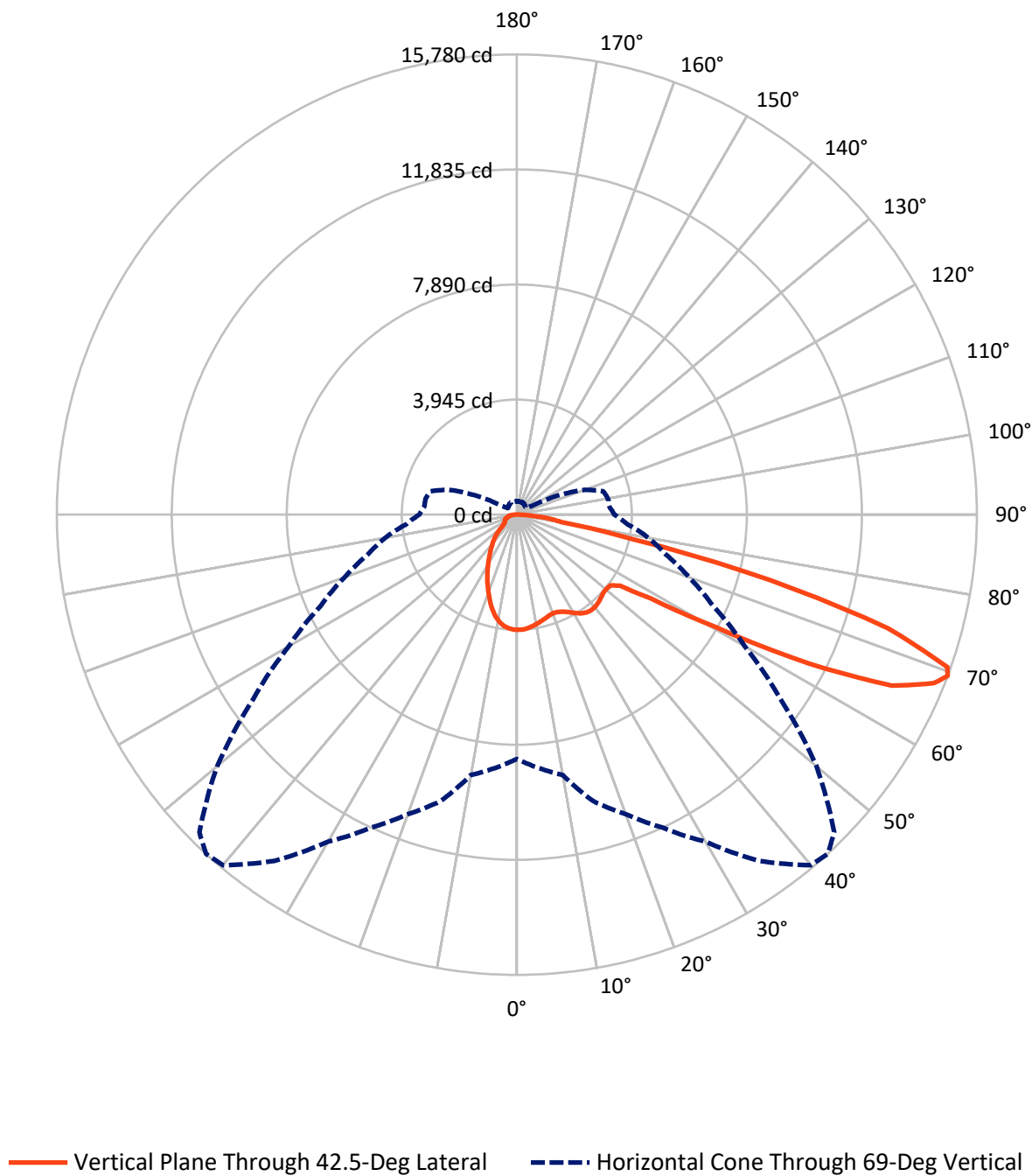


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4123.3	0.0	4123.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	14423.7	0.0	14423.7
	% Fixture	77.8	0.0	77.8
Total	Lumens	18547.0	0.0	18547.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	367.7	2.0
10°-20°	991.0	5.3
20°-30°	1445.0	7.8
30°-40°	1842.1	9.9
40°-50°	2143.4	11.6
50°-60°	3261.1	17.6
60°-70°	5760.6	31.1
70°-80°	2377.2	12.8
80°-90°	358.9	1.9
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°	18547.0	100.0
0°-180°	18547.0	100.0

Coefficient of Utilization



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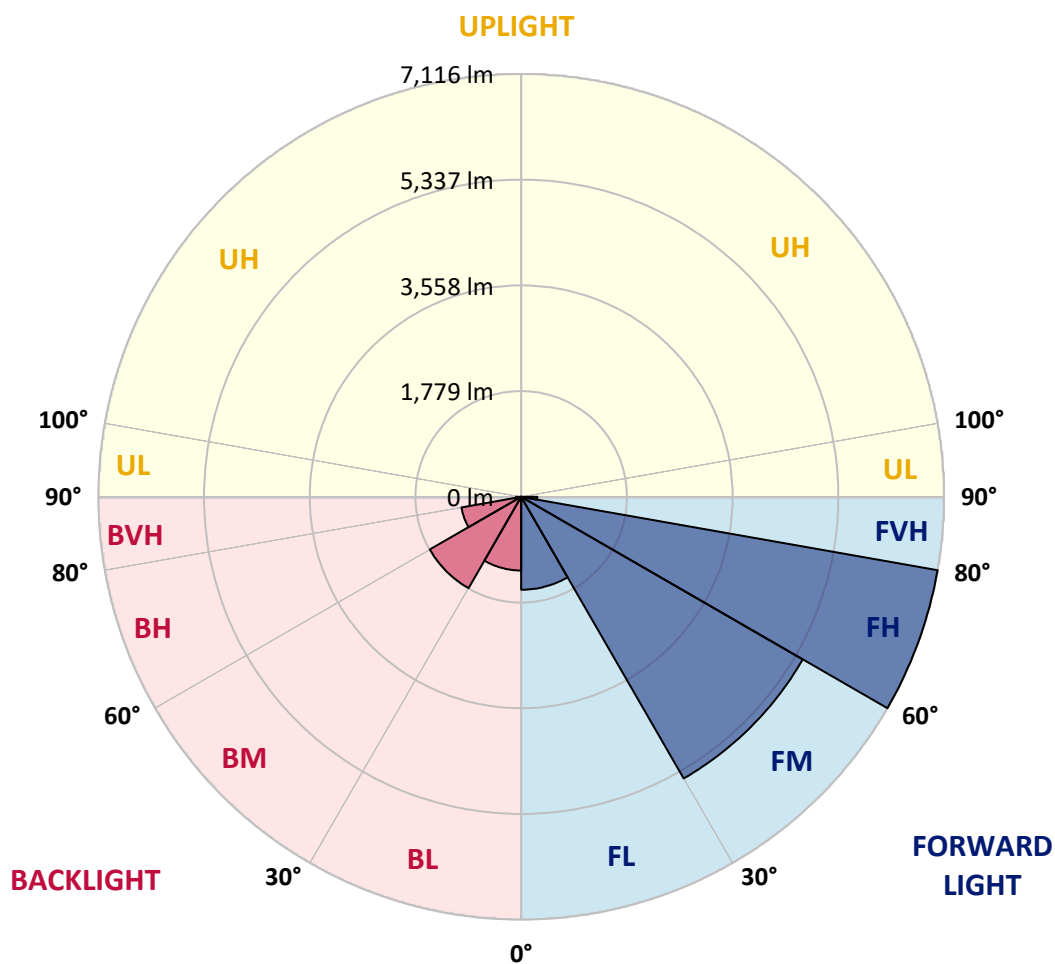
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1564.0	8.4			
FM	(30°-60°)	5471.8	29.5			
FH	(60°-80°)	7116.5	38.4			G3/7500
FVH	(80°-90°)	271.4	1.5			G3/500
BL	(0°-30°)	1239.7	6.7	B3/2500		
BM	(30°-60°)	1774.7	9.6	B2/2500		
BH	(60°-80°)	1021.3	5.5	B3/2500		G3/2500
BVH	(80°-90°)	87.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9
2.5°	3937.1	3951.2	3946.0	3946.0	3949.9	3943.5	3943.5	3946.0	3939.6	3943.5	3942.2
5°	3923.0	3930.7	3928.1	3928.1	3928.1	3923.0	3920.5	3919.2	3910.2	3910.2	3906.4
7.5°	3892.3	3894.9	3898.7	3893.6	3892.3	3891.1	3882.1	3877.0	3866.8	3857.8	3860.4
10°	3851.4	3850.1	3856.5	3852.7	3847.6	3843.7	3836.1	3827.1	3815.6	3804.1	3802.8
12.5°	3805.4	3804.1	3809.2	3806.7	3802.8	3795.2	3788.8	3773.4	3755.5	3741.4	3740.2
15°	3776.0	3772.1	3777.3	3772.1	3765.7	3758.1	3746.6	3727.4	3695.4	3681.3	3669.8
17.5°	3804.1	3797.7	3800.3	3793.9	3784.9	3764.5	3737.6	3696.7	3650.7	3626.4	3608.5
20°	3902.6	3891.1	3893.6	3887.2	3866.8	3839.9	3788.8	3717.2	3639.2	3599.5	3571.4
22.5°	4043.2	4034.3	4038.1	4031.7	4011.3	3970.3	3893.6	3791.3	3680.1	3622.5	3577.8
25°	4256.8	4264.4	4267.0	4237.6	4226.1	4150.6	4044.5	3902.6	3754.2	3686.5	3625.1
27.5°	4497.2	4497.2	4508.7	4497.2	4474.1	4385.9	4236.3	4065.0	3874.4	3782.4	3708.2
30°	4731.2	4728.6	4750.3	4747.8	4710.7	4611.0	4440.9	4232.5	4015.1	3911.5	3816.9
32.5°	4979.2	4986.9	5001.0	4995.8	4947.3	4809.2	4604.6	4378.2	4149.4	4035.5	3929.4
35°	5247.7	5251.6	5256.7	5254.1	5155.7	4981.8	4724.8	4471.6	4233.7	4121.2	4011.3
37.5°	5516.3	5512.4	5506.0	5451.1	5338.5	5096.9	4797.6	4525.3	4275.9	4154.5	4040.7
40°	5756.7	5734.9	5714.5	5628.8	5456.2	5162.1	4825.8	4538.1	4272.1	4146.8	4035.5
42.5°	5888.4	5864.1	5821.9	5714.5	5504.8	5168.5	4806.6	4499.7	4232.5	4108.4	3998.5
45°	5912.7	5894.8	5853.8	5733.6	5493.3	5127.5	4747.8	4437.1	4173.6	4049.6	3946.0
47.5°	5855.1	5841.1	5801.4	5682.5	5443.4	5066.2	4680.0	4370.6	4116.1	3999.7	3900.0
50°	5766.9	5754.1	5723.4	5614.7	5387.1	5024.0	4645.5	4336.0	4096.9	3990.8	3898.7
52.5°	5910.1	5920.3	5830.8	5711.9	5447.2	5061.1	4683.8	4371.8	4131.4	4026.6	3930.7
55°	8136.3	8122.2	7583.9	7132.5	6325.7	5594.3	5048.3	4655.7	4398.7	4293.8	4204.3
57.5°	10572.2	10523.6	10302.4	9880.4	9013.5	7856.3	6803.9	5908.8	5555.9	5405.0	5415.3
60°	11367.6	11385.5	11338.1	11188.5	10877.8	10275.6	9475.1	8802.5	8140.1	7816.6	7853.7
62.5°	11808.7	11840.7	11881.6	11848.3	11747.3	11608.0	11506.9	11568.3	11476.2	11243.5	11058.1
65°	11870.1	11935.3	12070.8	12178.2	12230.7	12362.4	12671.8	13413.5	14091.2	14135.9	13809.9
67.5°	10655.3	10835.6	11129.7	11627.1	12052.9	12520.9	13267.7	14395.5	15395.4	15428.7	15124.4
69°	8378.0	8724.5	9068.5	10179.7	10927.7	11844.5	12949.3	14490.1	15688.3	15780.3	15396.7
70°	6713.1	6919.0	7215.7	8331.9	9449.5	10618.2	12219.2	14178.1	15487.5	15672.9	15249.7
72.5°	4030.4	4109.7	4212.0	4612.2	5187.6	6228.5	8351.1	11559.4	13064.4	13312.4	12774.1
75°	2606.0	2600.9	2609.8	2721.1	2754.3	2953.8	3622.5	5947.2	8522.5	8972.6	8328.1
77.5°	1962.8	1980.7	1952.6	1962.8	1953.8	2007.5	2028.0	2129.0	3364.2	4144.2	3705.6
80°	1732.6	1741.6	1742.9	1737.7	1675.1	1670.0	1703.2	1645.7	1529.3	1552.3	1487.1
82.5°	988.4	987.1	998.7	1085.6	1121.4	1239.1	1287.6	1314.5	1213.5	1138.0	1029.3
85°	640.6	645.7	658.5	685.4	658.5	668.8	657.2	680.3	624.0	579.2	517.9
87.5°	262.1	262.1	278.8	303.0	282.6	277.5	237.8	235.3	199.5	180.3	140.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9
2.5°	3934.5	3942.2	3938.4	3943.5	3939.6	3939.6	3934.5	3933.3	3937.1	3932.0	3933.3
5°	3900.0	3901.3	3894.9	3897.4	3889.8	3887.2	3883.4	3873.2	3879.5	3873.2	3875.7
7.5°	3850.1	3846.3	3837.4	3824.6	3815.6	3811.8	3804.1	3790.0	3792.6	3781.1	3787.5
10°	3786.2	3773.4	3758.1	3738.9	3726.1	3714.6	3698.0	3681.3	3672.4	3662.2	3660.9
12.5°	3714.6	3699.3	3678.8	3649.4	3621.3	3602.1	3576.5	3547.1	3538.1	3521.5	3512.6
15°	3636.6	3612.3	3588.0	3554.8	3524.1	3494.7	3460.1	3423.1	3398.8	3373.2	3354.0
17.5°	3566.3	3538.1	3506.2	3474.2	3441.0	3405.2	3361.7	3315.6	3279.8	3232.5	3194.2
20°	3511.3	3475.5	3443.5	3410.3	3373.2	3329.7	3277.3	3218.5	3158.4	3105.9	3061.2
22.5°	3489.5	3433.3	3394.9	3361.7	3324.6	3273.4	3209.5	3140.5	3067.6	2994.7	2935.9
25°	3507.4	3424.3	3364.2	3324.6	3292.6	3240.2	3168.6	3084.2	2999.8	2912.9	2833.6
27.5°	3559.9	3453.7	3366.8	3304.1	3267.1	3214.6	3139.2	3049.7	2949.9	2852.8	2755.6
30°	3641.7	3503.6	3393.6	3305.4	3247.9	3187.8	3108.5	3004.9	2903.9	2792.7	2686.5
32.5°	3721.0	3556.0	3424.3	3310.5	3222.3	3144.3	3056.1	2953.8	2845.1	2728.7	2618.8
35°	3777.3	3590.6	3435.8	3299.0	3182.7	3085.5	2990.9	2888.6	2782.4	2663.5	2551.0
37.5°	3804.1	3609.7	3437.1	3268.3	3130.2	3022.8	2921.8	2820.8	2721.1	2608.5	2502.4
40°	3802.8	3608.5	3419.2	3228.7	3067.6	2953.8	2854.0	2755.6	2662.2	2563.8	2467.9
42.5°	3774.7	3588.0	3393.6	3190.3	3022.8	2896.2	2792.7	2698.0	2618.8	2531.8	2451.2
45°	3731.2	3553.5	3366.8	3172.4	3010.0	2883.4	2773.5	2681.4	2611.1	2531.8	2462.8
47.5°	3698.0	3534.3	3370.6	3204.4	3049.7	2918.0	2801.6	2700.6	2640.5	2576.6	2528.0
50°	3703.1	3543.3	3383.4	3223.6	3077.8	2944.8	2832.3	2740.2	2696.8	2680.1	2668.6
52.5°	3729.9	3557.3	3421.8	3325.9	3276.0	3176.3	3109.8	3052.2	3084.2	3021.5	2947.4
55°	4072.6	4016.4	4148.1	4272.1	4429.4	4488.2	4431.9	4421.7	4472.9	4260.6	3773.4
57.5°	5488.1	5633.9	5837.2	5944.6	6075.1	6040.5	5910.1	5801.4	5673.5	5425.5	4818.1
60°	7895.9	7785.9	7693.9	7434.3	7222.0	6974.0	6697.8	6461.2	6234.9	5878.1	5220.9
62.5°	10376.6	9613.2	8975.1	8358.8	7862.7	7450.9	7050.7	6695.2	6352.5	5855.1	5148.0
65°	12522.2	10914.9	9716.8	8812.7	8087.7	7462.4	6948.4	6457.4	6021.4	5438.3	4738.8
67.5°	13486.3	11472.4	9729.6	8434.2	7430.5	6581.4	5916.5	5174.9	4686.4	4313.0	3919.2
69°	13414.7	11046.6	9035.2	7440.7	6287.3	5297.6	4584.1	3810.5	3342.5	3183.9	3175.0
70°	13074.6	10325.4	8224.5	6633.8	5314.2	4330.9	3646.8	2952.5	2516.5	2407.8	2600.9
72.5°	10674.5	7296.2	5154.4	3935.8	3026.7	2392.4	1951.3	1548.5	1236.5	1071.5	1107.3
75°	6029.0	3378.3	2184.0	1650.8	1395.1	1153.4	989.7	843.9	763.4	620.2	491.0
77.5°	2191.7	1450.0	1153.4	997.4	707.1	487.2	407.9	356.8	323.5	323.5	308.2
80°	1386.1	1092.0	762.1	521.7	386.2	336.3	294.1	258.3	237.8	232.7	237.8
82.5°	865.7	668.8	427.1	327.3	274.9	246.8	214.8	188.0	171.3	167.5	175.2
85°	427.1	331.2	259.6	231.4	217.4	202.0	177.7	152.2	147.0	157.3	184.1
87.5°	127.9	113.8	93.3	97.2	102.3	99.7	79.3	69.0	65.2	85.7	134.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9	3949.9
2.5°	3935.8	3934.5	3937.1	3933.3	3935.8	3937.1	3934.5	3946.0	3938.4	3939.6	3944.8
5°	3878.3	3875.7	3885.9	3883.4	3888.5	3893.6	3891.1	3907.7	3901.3	3906.4	3916.6
7.5°	3782.4	3787.5	3788.8	3788.8	3799.0	3815.6	3819.4	3829.7	3829.7	3843.7	3854.0
10°	3654.5	3655.8	3663.4	3662.2	3675.0	3692.9	3695.4	3713.3	3719.7	3742.7	3756.8
12.5°	3506.2	3499.8	3498.5	3497.2	3513.8	3533.0	3535.6	3566.3	3579.1	3599.5	3622.5
15°	3339.9	3323.3	3318.2	3328.4	3324.6	3336.1	3347.6	3364.2	3382.1	3423.1	3443.5
17.5°	3177.5	3144.3	3135.3	3123.8	3112.3	3112.3	3117.4	3137.9	3175.0	3196.7	3242.8
20°	3011.3	2971.7	2939.7	2909.0	2882.2	2871.9	2873.2	2898.8	2925.6	2961.4	3004.9
22.5°	2871.9	2811.8	2756.9	2715.9	2661.0	2659.7	2652.0	2659.7	2689.1	2698.0	2722.3
25°	2751.7	2671.2	2597.0	2530.5	2476.8	2448.7	2441.0	2438.5	2424.4	2420.6	2402.7
27.5°	2658.4	2561.2	2465.3	2384.8	2318.3	2279.9	2231.3	2196.8	2146.9	2134.1	2102.2
30°	2581.7	2476.8	2372.0	2267.1	2191.7	2122.6	2040.8	1980.7	1904.0	1854.1	1810.6
32.5°	2507.5	2401.4	2295.2	2191.7	2075.3	1967.9	1860.5	1767.2	1681.5	1604.8	1540.8
35°	2446.1	2345.1	2237.7	2112.4	1964.1	1809.3	1680.2	1574.1	1456.4	1375.9	1295.3
37.5°	2406.5	2314.4	2207.0	2034.4	1843.9	1677.6	1530.6	1401.4	1281.2	1159.8	1069.0
40°	2388.6	2308.0	2173.8	1962.8	1739.0	1554.9	1392.5	1249.3	1095.8	959.0	861.8
42.5°	2387.3	2305.5	2127.7	1883.5	1652.1	1451.3	1271.0	1099.7	929.6	789.0	693.1
45°	2410.3	2301.6	2079.2	1817.0	1575.3	1365.6	1150.8	942.4	751.9	647.0	595.9
47.5°	2471.7	2308.0	2039.5	1755.6	1502.5	1262.1	1012.7	769.8	612.5	563.9	563.9
50°	2581.7	2345.1	2029.3	1712.2	1429.6	1141.9	843.9	621.4	542.2	542.2	557.5
52.5°	2750.5	2423.1	2047.2	1681.5	1338.8	983.3	664.9	535.8	520.4	534.5	555.0
55°	3139.2	2561.2	2071.5	1629.1	1200.7	780.0	548.6	506.4	512.8	529.4	548.6
57.5°	3852.7	2856.6	2097.1	1514.0	978.2	601.0	497.4	494.9	506.4	521.7	538.3
60°	4322.0	3232.5	2162.3	1340.1	740.4	496.1	471.8	487.2	501.2	514.0	526.8
62.5°	4322.0	3338.7	2210.9	1145.7	556.2	451.4	455.2	479.5	496.1	502.5	510.2
65°	4045.8	3144.3	2045.9	933.4	452.7	425.8	439.9	464.2	479.5	484.6	491.0
67.5°	3535.6	2777.3	1723.7	703.3	404.1	404.1	422.0	439.9	452.7	462.9	473.1
69°	3074.0	2492.2	1517.8	595.9	384.9	387.4	405.3	420.7	436.0	448.8	461.6
70°	2741.5	2278.6	1374.6	540.9	373.4	374.7	392.6	409.2	423.2	437.3	452.7
72.5°	1467.9	1574.1	1044.7	443.7	344.0	347.8	364.4	379.8	392.6	406.6	420.7
75°	500.0	676.4	664.9	363.1	310.7	321.0	331.2	345.2	361.9	370.8	378.5
77.5°	292.8	303.0	354.2	295.4	280.0	285.1	296.7	308.2	322.2	331.2	337.6
80°	245.5	244.2	245.5	240.4	244.2	255.7	263.4	278.8	291.5	294.1	292.8
82.5°	199.5	209.7	211.0	208.4	219.9	228.9	235.3	244.2	243.0	245.5	250.6
85°	177.7	176.5	185.4	186.7	186.7	180.3	181.6	181.6	181.6	185.4	186.7
87.5°	177.7	148.3	115.1	103.6	108.7	102.3	97.2	95.9	106.1	116.4	113.8
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):

	160°	165°	170°	175°	180°
0°	3949.9	3949.9	3949.9	3949.9	3949.9
2.5°	3947.3	3951.2	3948.6	3948.6	3951.2
5°	3920.5	3926.9	3924.3	3926.9	3926.9
7.5°	3859.1	3868.0	3874.4	3880.8	3877.0
10°	3770.9	3786.2	3796.4	3804.1	3800.3
12.5°	3639.2	3653.2	3675.0	3687.7	3677.5
15°	3458.9	3498.5	3511.3	3529.2	3519.0
17.5°	3270.9	3295.2	3310.5	3327.2	3337.4
20°	3020.3	3039.4	3059.9	3067.6	3056.1
22.5°	2718.5	2728.7	2724.9	2736.4	2713.4
25°	2387.3	2393.7	2389.9	2400.1	2380.9
27.5°	2074.0	2072.8	2074.0	2061.2	2048.5
30°	1772.3	1760.8	1755.6	1736.5	1732.6
32.5°	1502.5	1462.8	1442.4	1414.2	1407.8
35°	1232.7	1176.4	1139.3	1107.3	1093.3
37.5°	991.0	923.2	879.7	851.6	847.8
40°	783.8	721.2	690.5	675.1	672.6
42.5°	639.3	612.5	604.8	604.8	604.8
45°	583.1	581.8	588.2	593.3	594.6
47.5°	571.6	579.2	588.2	595.9	598.4
50°	571.6	579.2	585.6	593.3	595.9
52.5°	569.0	575.4	578.0	583.1	585.6
55°	561.3	565.2	565.2	567.7	570.3
57.5°	548.6	551.1	547.3	549.8	556.2
60°	535.8	538.3	531.9	538.3	542.2
62.5°	521.7	523.0	520.4	525.5	525.5
65°	498.7	496.1	500.0	503.8	505.1
67.5°	475.7	469.3	473.1	474.4	477.0
69°	457.8	453.9	455.2	457.8	460.3
70°	445.0	442.4	445.0	448.8	452.7
72.5°	413.0	414.3	423.2	430.9	438.6
75°	383.6	392.6	404.1	420.7	429.6
77.5°	347.8	354.2	363.1	381.0	397.7
80°	300.5	304.3	305.6	312.0	310.7
82.5°	244.2	240.4	237.8	235.3	234.0
85°	175.2	173.9	163.7	156.0	156.0
87.5°	104.9	99.7	94.6	88.2	84.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)