

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: P158688

Luminaire Tested: **VST-E07-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158688
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-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (147) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17138.5 lumens
Efficiency: N/A
Efficacy: 99.4 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



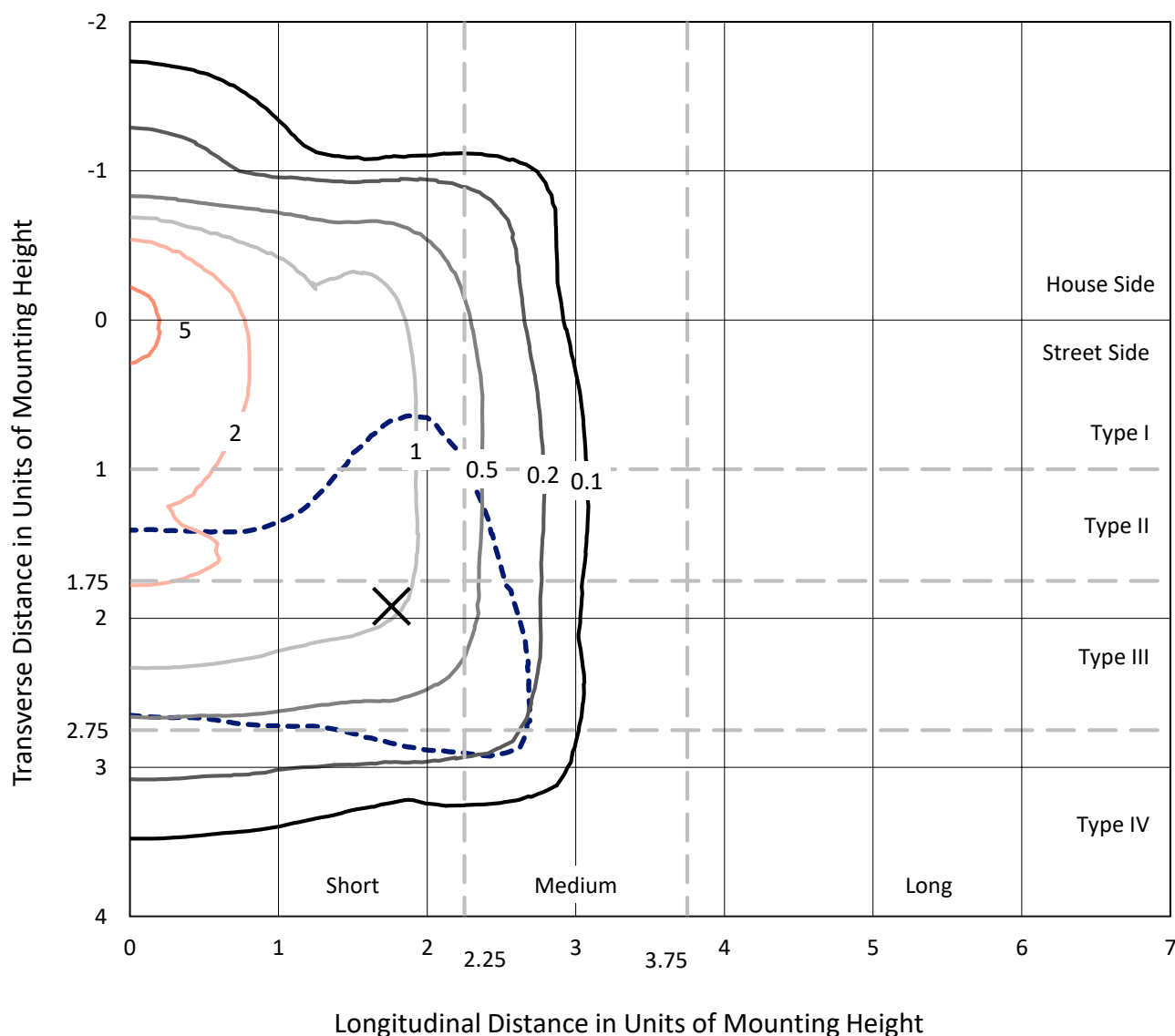
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

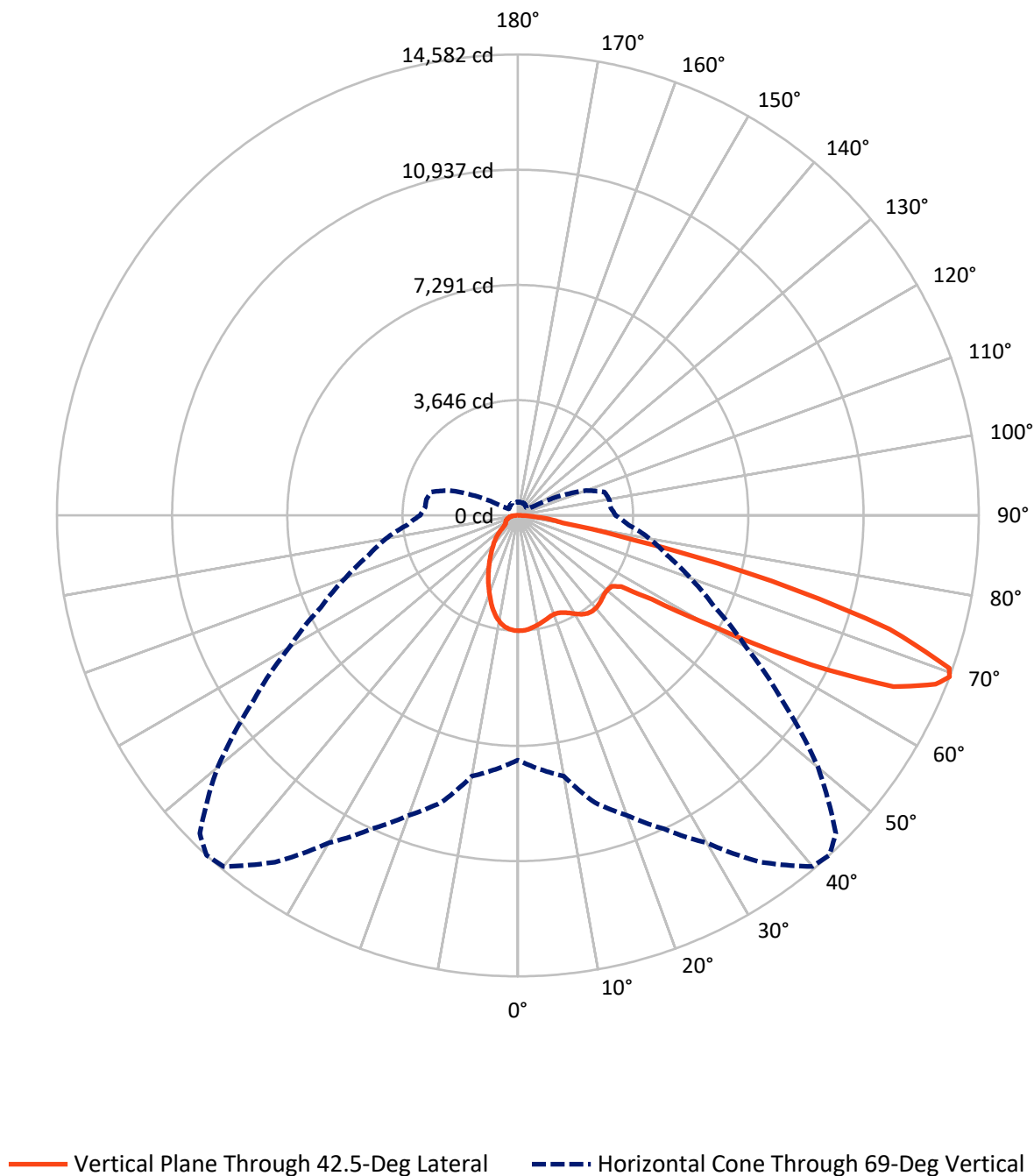


Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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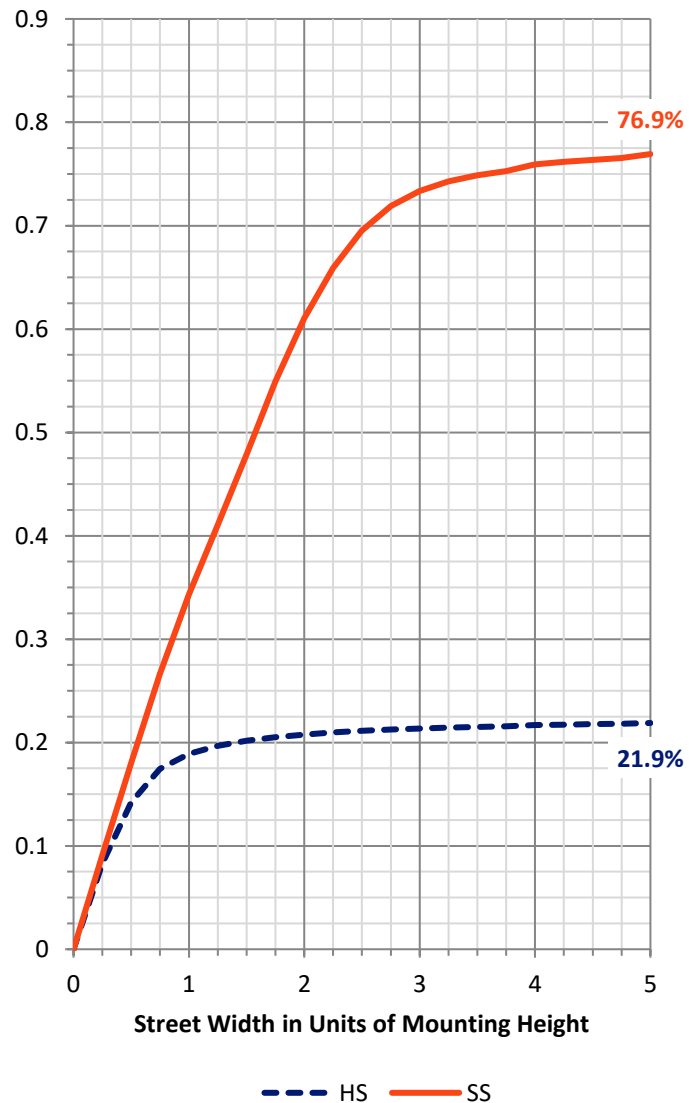
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3810.2	0.0	3810.2
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	13328.4	0.0	13328.4
	% Fixture	77.8	0.0	77.8
Total	Lumens	17138.5	0.0	17138.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.8	2.0
10°-20°	915.7	5.3
20°-30°	1335.3	7.8
30°-40°	1702.2	9.9
40°-50°	1980.6	11.6
50°-60°	3013.5	17.6
60°-70°	5323.2	31.1
70°-80°	2196.6	12.8
80°-90°	331.7	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°	17138.5	100.0
0°-180°	17138.5	100.0

Coefficient of Utilization



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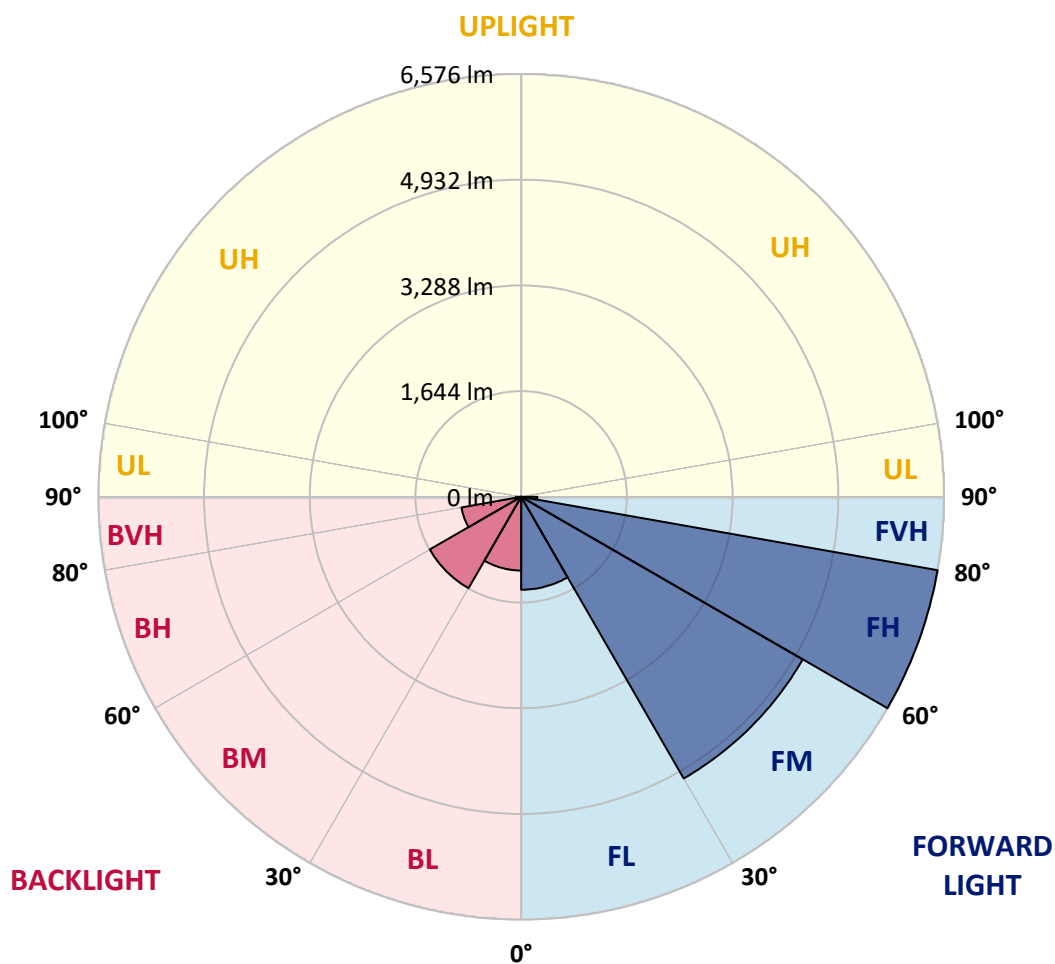
CATALOG NUMBER: VST-E07-LED-E-U-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1445.2	8.4			
FM	(30°-60°)	5056.3	29.5			
FH	(60°-80°)	6576.0	38.4			G3/7500
FVH	(80°-90°)	250.8	1.5			G3/500
BL	(0°-30°)	1145.6	6.7	B3/2500		
BM	(30°-60°)	1640.0	9.6	B2/2500		
BH	(60°-80°)	943.8	5.5	B2/1000		G2/1000
BVH	(80°-90°)	80.9	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°	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9
2.5°	3638.1	3651.1	3646.4	3646.4	3649.9	3644.0	3644.0	3646.4	3640.5	3644.0	3642.8
5°	3625.1	3632.2	3629.8	3629.8	3629.8	3625.1	3622.7	3621.6	3613.3	3613.3	3609.7
7.5°	3596.8	3599.1	3602.7	3597.9	3596.8	3595.6	3587.3	3582.6	3573.1	3564.8	3567.2
10°	3558.9	3557.8	3563.7	3560.1	3555.4	3551.9	3544.8	3536.5	3525.9	3515.2	3514.0
12.5°	3516.4	3515.2	3519.9	3517.6	3514.0	3507.0	3501.0	3486.9	3470.3	3457.3	3456.1
15°	3489.2	3485.7	3490.4	3485.7	3479.8	3472.7	3462.1	3444.3	3414.8	3401.8	3391.2
17.5°	3515.2	3509.3	3511.7	3505.8	3497.5	3478.6	3453.8	3416.0	3373.4	3351.0	3334.4
20°	3606.2	3595.6	3597.9	3592.0	3573.1	3548.3	3501.0	3434.9	3362.8	3326.2	3300.2
22.5°	3736.2	3727.9	3731.5	3725.5	3706.6	3668.8	3597.9	3503.4	3400.6	3347.4	3306.1
25°	3933.5	3940.6	3943.0	3915.8	3905.1	3835.4	3737.4	3606.2	3469.1	3406.5	3349.8
27.5°	4155.6	4155.6	4166.3	4155.6	4134.4	4052.8	3914.6	3756.3	3580.2	3495.1	3426.6
30°	4371.9	4369.5	4389.6	4387.2	4353.0	4260.8	4103.7	3911.1	3710.2	3614.5	3527.0
32.5°	4601.1	4608.2	4621.2	4616.5	4571.6	4443.9	4254.9	4045.8	3834.3	3729.1	3631.0
35°	4849.2	4852.8	4857.5	4855.1	4764.2	4603.5	4366.0	4132.0	3912.2	3808.3	3706.6
37.5°	5097.4	5093.8	5087.9	5037.1	4933.1	4709.8	4433.3	4181.6	3951.2	3839.0	3733.8
40°	5319.5	5299.4	5280.5	5201.3	5041.8	4770.1	4459.3	4193.5	3947.7	3831.9	3729.1
42.5°	5441.2	5418.8	5379.8	5280.5	5086.7	4776.0	4441.6	4158.0	3911.1	3796.4	3694.8
45°	5463.7	5447.1	5409.3	5298.2	5076.1	4738.2	4387.2	4100.1	3856.7	3742.1	3646.4
47.5°	5410.5	5397.5	5360.9	5251.0	5030.0	4681.4	4324.6	4038.7	3803.5	3696.0	3603.8
50°	5329.0	5317.1	5288.8	5188.3	4978.0	4642.5	4292.7	4006.8	3785.8	3687.7	3602.7
52.5°	5461.3	5470.7	5388.0	5278.2	5033.6	4676.7	4328.2	4039.8	3817.7	3720.8	3632.2
55°	7518.4	7505.4	7008.0	6590.9	5845.3	5169.4	4664.9	4302.2	4064.7	3967.8	3885.1
57.5°	9769.4	9724.5	9520.0	9130.1	8329.0	7259.7	6287.2	5460.1	5134.0	4994.6	5004.0
60°	10504.3	10520.9	10477.1	10338.9	10051.8	9495.2	8755.6	8134.0	7522.0	7223.0	7257.3
62.5°	10912.0	10941.5	10979.3	10948.6	10855.2	10726.4	10633.1	10689.8	10604.7	10389.7	10218.4
65°	10968.7	11028.9	11154.2	11253.4	11301.9	11423.6	11709.5	12394.9	13021.1	13062.4	12761.1
67.5°	9846.2	10012.8	10284.5	10744.2	11137.6	11570.1	12260.1	13302.3	14226.3	14257.0	13975.8
69°	7741.8	8062.0	8379.8	9406.6	10097.8	10945.0	11965.9	13389.7	14496.9	14582.0	14227.5
70°	6203.3	6393.6	6667.7	7699.2	8731.9	9811.9	11291.2	13101.4	14311.4	14482.7	14091.6
72.5°	3724.4	3797.6	3892.1	4262.0	4793.7	5755.5	7716.9	10681.5	12072.3	12301.5	11804.1
75°	2408.1	2403.3	2411.6	2514.4	2545.1	2729.5	3347.4	5495.6	7875.3	8291.2	7695.7
77.5°	1813.7	1830.3	1804.3	1813.7	1805.5	1855.1	1874.0	1967.3	3108.8	3829.5	3424.2
80°	1601.1	1609.3	1610.5	1605.8	1547.9	1543.2	1573.9	1520.7	1413.2	1434.4	1374.2
82.5°	913.4	912.2	922.8	1003.2	1036.3	1145.0	1189.9	1214.7	1121.3	1051.6	951.2
85°	592.0	596.7	608.5	633.3	608.5	618.0	607.3	628.6	576.6	535.3	478.5
87.5°	242.2	242.2	257.6	280.0	261.1	256.4	219.8	217.4	184.3	166.6	130.0
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°	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9
2.5°	3635.7	3642.8	3639.3	3644.0	3640.5	3640.5	3635.7	3634.6	3638.1	3633.4	3634.6
5°	3603.8	3605.0	3599.1	3601.5	3594.4	3592.0	3588.5	3579.0	3584.9	3579.0	3581.4
7.5°	3557.8	3554.2	3545.9	3534.1	3525.9	3522.3	3515.2	3502.2	3504.6	3494.0	3499.9
10°	3498.7	3486.9	3472.7	3455.0	3443.1	3432.5	3417.2	3401.8	3393.5	3384.1	3382.9
12.5°	3432.5	3418.3	3399.4	3372.3	3346.3	3328.5	3304.9	3277.7	3269.5	3254.1	3245.8
15°	3360.4	3338.0	3315.5	3284.8	3256.5	3229.3	3197.4	3163.1	3140.7	3117.0	3099.3
17.5°	3295.4	3269.5	3239.9	3210.4	3179.7	3146.6	3106.4	3063.9	3030.8	2987.1	2951.6
20°	3244.6	3211.6	3182.0	3151.3	3117.0	3076.9	3028.4	2974.1	2918.5	2870.1	2828.7
22.5°	3224.6	3172.6	3137.1	3106.4	3072.1	3024.9	2965.8	2902.0	2834.6	2767.3	2712.9
25°	3241.1	3164.3	3108.8	3072.1	3042.6	2994.1	2928.0	2850.0	2772.0	2691.7	2618.4
27.5°	3289.5	3191.5	3111.1	3053.2	3019.0	2970.5	2900.8	2818.1	2725.9	2636.1	2546.3
30°	3365.2	3237.5	3135.9	3054.4	3001.2	2945.7	2872.4	2776.7	2683.4	2580.6	2482.5
32.5°	3438.4	3286.0	3164.3	3059.1	2977.6	2905.5	2824.0	2729.5	2629.0	2521.5	2419.9
35°	3490.4	3317.9	3174.9	3048.5	2941.0	2851.2	2763.7	2669.2	2571.1	2461.2	2357.3
37.5°	3515.2	3335.6	3176.1	3020.1	2892.5	2793.3	2699.9	2606.6	2514.4	2410.4	2312.4
40°	3514.0	3334.4	3159.6	2983.5	2834.6	2729.5	2637.3	2546.3	2460.1	2369.1	2280.5
42.5°	3488.0	3315.5	3135.9	2948.1	2793.3	2676.3	2580.6	2493.1	2419.9	2339.5	2265.1
45°	3447.9	3283.6	3111.1	2931.5	2781.5	2664.5	2562.9	2477.8	2412.8	2339.5	2275.7
47.5°	3417.2	3265.9	3114.7	2961.1	2818.1	2696.4	2588.9	2495.5	2440.0	2380.9	2336.0
50°	3421.9	3274.2	3126.5	2978.8	2844.1	2721.2	2617.2	2532.1	2492.0	2476.6	2466.0
52.5°	3446.7	3287.2	3161.9	3073.3	3027.2	2935.1	2873.6	2820.4	2850.0	2792.1	2723.6
55°	3763.4	3711.4	3833.1	3947.7	4093.0	4147.4	4095.4	4085.9	4133.2	3937.0	3486.9
57.5°	5071.4	5206.1	5393.9	5493.2	5613.7	5581.8	5461.3	5360.9	5242.7	5013.5	4452.2
60°	7296.3	7194.7	7109.6	6869.7	6673.6	6444.4	6189.2	5970.6	5761.4	5431.8	4824.4
62.5°	9588.6	8883.2	8293.6	7724.0	7265.6	6885.1	6515.3	6186.8	5870.1	5410.5	4757.1
65°	11571.3	10086.0	8978.9	8143.5	7473.5	6895.7	6420.7	5967.0	5564.1	5025.3	4379.0
67.5°	12462.2	10601.2	8990.7	7793.7	6866.2	6081.6	5467.2	4781.9	4330.5	3985.5	3621.6
69°	12396.0	10207.7	8349.1	6875.7	5809.9	4895.3	4236.0	3521.1	3088.7	2942.2	2933.9
70°	12081.7	9541.3	7600.0	6130.1	4910.7	4002.0	3369.9	2728.3	2325.4	2224.9	2403.3
72.5°	9863.9	6742.1	4763.0	3636.9	2796.8	2210.7	1803.1	1430.9	1142.6	990.2	1023.3
75°	5571.2	3121.8	2018.2	1525.4	1289.1	1065.8	914.5	779.8	705.4	573.1	453.7
77.5°	2025.2	1339.9	1065.8	921.6	653.4	450.2	376.9	329.7	298.9	298.9	284.8
80°	1280.8	1009.1	704.2	482.1	356.8	310.8	271.8	238.7	219.8	215.0	219.8
82.5°	799.9	618.0	394.7	302.5	254.0	228.0	198.5	173.7	158.3	154.8	161.9
85°	394.7	306.0	239.9	213.9	200.9	186.7	164.2	140.6	135.9	145.3	170.1
87.5°	118.2	105.2	86.3	89.8	94.5	92.2	73.3	63.8	60.3	79.2	124.1
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°	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9	3649.9
2.5°	3636.9	3635.7	3638.1	3634.6	3636.9	3638.1	3635.7	3646.4	3639.3	3640.5	3645.2
5°	3583.8	3581.4	3590.8	3588.5	3593.2	3597.9	3595.6	3610.9	3605.0	3609.7	3619.2
7.5°	3495.1	3499.9	3501.0	3501.0	3510.5	3525.9	3529.4	3538.9	3538.9	3551.9	3561.3
10°	3377.0	3378.2	3385.2	3384.1	3395.9	3412.4	3414.8	3431.3	3437.2	3458.5	3471.5
12.5°	3239.9	3234.0	3232.8	3231.6	3247.0	3264.7	3267.1	3295.4	3307.3	3326.2	3347.4
15°	3086.3	3070.9	3066.2	3075.7	3072.1	3082.8	3093.4	3108.8	3125.3	3163.1	3182.0
17.5°	2936.2	2905.5	2897.3	2886.6	2876.0	2876.0	2880.7	2899.6	2933.9	2954.0	2996.5
20°	2782.6	2746.0	2716.5	2688.1	2663.3	2653.8	2655.0	2678.7	2703.5	2736.6	2776.7
22.5°	2653.8	2598.3	2547.5	2509.7	2458.9	2457.7	2450.6	2457.7	2484.9	2493.1	2515.6
25°	2542.8	2468.3	2399.8	2338.4	2288.7	2262.7	2255.7	2253.3	2240.3	2236.7	2220.2
27.5°	2456.5	2366.7	2278.1	2203.7	2142.2	2106.8	2061.9	2030.0	1983.9	1972.1	1942.5
30°	2385.6	2288.7	2191.8	2095.0	2025.2	1961.4	1885.8	1830.3	1759.4	1713.3	1673.1
32.5°	2317.1	2219.0	2120.9	2025.2	1917.7	1818.5	1719.2	1633.0	1553.8	1482.9	1423.8
35°	2260.4	2167.0	2067.8	1952.0	1814.9	1671.9	1552.6	1454.5	1345.8	1271.4	1196.9
37.5°	2223.7	2138.7	2039.4	1879.9	1703.8	1550.2	1414.4	1295.0	1184.0	1071.7	987.8
40°	2207.2	2132.8	2008.7	1813.7	1607.0	1436.8	1286.7	1154.4	1012.6	886.2	796.4
42.5°	2206.0	2130.4	1966.2	1740.5	1526.6	1341.1	1174.5	1016.2	859.0	729.0	640.4
45°	2227.3	2126.9	1921.3	1679.0	1455.7	1261.9	1063.4	870.8	694.8	597.9	550.6
47.5°	2284.0	2132.8	1884.6	1622.3	1388.4	1166.2	935.8	711.3	566.0	521.1	521.1
50°	2385.6	2167.0	1875.2	1582.1	1321.0	1055.2	779.8	574.3	501.0	501.0	515.2
52.5°	2541.6	2239.1	1891.7	1553.8	1237.1	908.6	614.4	495.1	480.9	493.9	512.8
55°	2900.8	2366.7	1914.2	1505.3	1109.5	720.8	506.9	467.9	473.8	489.2	506.9
57.5°	3560.1	2639.7	1937.8	1399.0	903.9	555.3	459.6	457.3	467.9	482.1	497.4
60°	3993.8	2987.1	1998.1	1238.3	684.1	458.5	436.0	450.2	463.2	475.0	486.8
62.5°	3993.8	3085.1	2043.0	1058.7	514.0	417.1	420.6	443.1	458.5	464.4	471.5
65°	3738.5	2905.5	1890.5	862.6	418.3	393.5	406.5	428.9	443.1	447.8	453.7
67.5°	3267.1	2566.4	1592.8	649.9	373.4	373.4	389.9	406.5	418.3	427.7	437.2
69°	2840.5	2302.9	1402.5	550.6	355.7	358.0	374.6	388.7	402.9	414.7	426.6
70°	2533.3	2105.6	1270.2	499.8	345.0	346.2	362.7	378.1	391.1	404.1	418.3
72.5°	1356.5	1454.5	965.4	410.0	317.8	321.4	336.8	350.9	362.7	375.7	388.7
75°	462.0	625.1	614.4	335.6	287.1	296.6	306.0	319.0	334.4	342.7	349.7
77.5°	270.6	280.0	327.3	272.9	258.8	263.5	274.1	284.8	297.8	306.0	311.9
80°	226.9	225.7	226.9	222.1	225.7	236.3	243.4	257.6	269.4	271.8	270.6
82.5°	184.3	193.8	195.0	192.6	203.2	211.5	217.4	225.7	224.5	226.9	231.6
85°	164.2	163.1	171.3	172.5	172.5	166.6	167.8	167.8	167.8	171.3	172.5
87.5°	164.2	137.1	106.3	95.7	100.4	94.5	89.8	88.6	98.1	107.5	105.2
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°	3649.9	3649.9	3649.9	3649.9	3649.9
2.5°	3647.6	3651.1	3648.7	3648.7	3651.1
5°	3622.7	3628.7	3626.3	3628.7	3628.7
7.5°	3566.0	3574.3	3580.2	3586.1	3582.6
10°	3484.5	3498.7	3508.1	3515.2	3511.7
12.5°	3362.8	3375.8	3395.9	3407.7	3398.2
15°	3196.2	3232.8	3244.6	3261.2	3251.7
17.5°	3022.5	3045.0	3059.1	3074.5	3083.9
20°	2790.9	2808.6	2827.5	2834.6	2824.0
22.5°	2512.1	2521.5	2518.0	2528.6	2507.3
25°	2206.0	2211.9	2208.4	2217.8	2200.1
27.5°	1916.5	1915.4	1916.5	1904.7	1892.9
30°	1637.7	1627.0	1622.3	1604.6	1601.1
32.5°	1388.4	1351.7	1332.8	1306.8	1300.9
35°	1139.1	1087.1	1052.8	1023.3	1010.3
37.5°	915.7	853.1	812.9	786.9	783.4
40°	724.3	666.4	638.1	623.9	621.5
42.5°	590.8	566.0	558.9	558.9	558.9
45°	538.8	537.6	543.5	548.3	549.4
47.5°	528.2	535.3	543.5	550.6	553.0
50°	528.2	535.3	541.2	548.3	550.6
52.5°	525.8	531.7	534.1	538.8	541.2
55°	518.7	522.3	522.3	524.6	527.0
57.5°	506.9	509.3	505.7	508.1	514.0
60°	495.1	497.4	491.5	497.4	501.0
62.5°	482.1	483.3	480.9	485.6	485.6
65°	460.8	458.5	462.0	465.5	466.7
67.5°	439.6	433.6	437.2	438.4	440.7
69°	423.0	419.5	420.6	423.0	425.4
70°	411.2	408.8	411.2	414.7	418.3
72.5°	381.7	382.8	391.1	398.2	405.3
75°	354.5	362.7	373.4	388.7	397.0
77.5°	321.4	327.3	335.6	352.1	367.5
80°	277.7	281.2	282.4	288.3	287.1
82.5°	225.7	222.1	219.8	217.4	216.2
85°	161.9	160.7	151.2	144.2	144.2
87.5°	96.9	92.2	87.4	81.5	78.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)