

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: P159824

Luminaire Tested: **VST-F10-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159824
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-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (70) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22441.5 lumens
Efficiency: N/A
Efficacy: 86.7 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



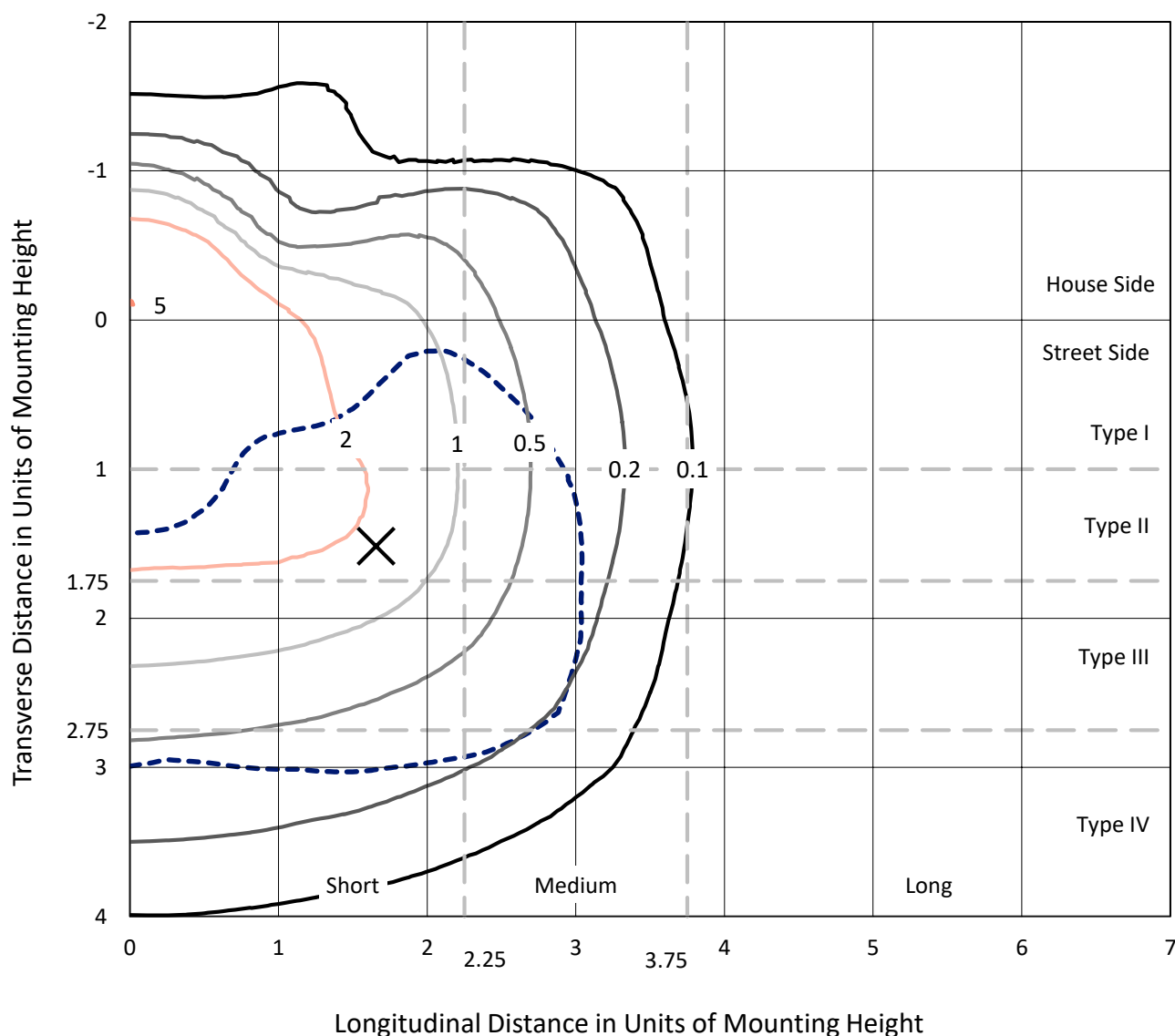
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

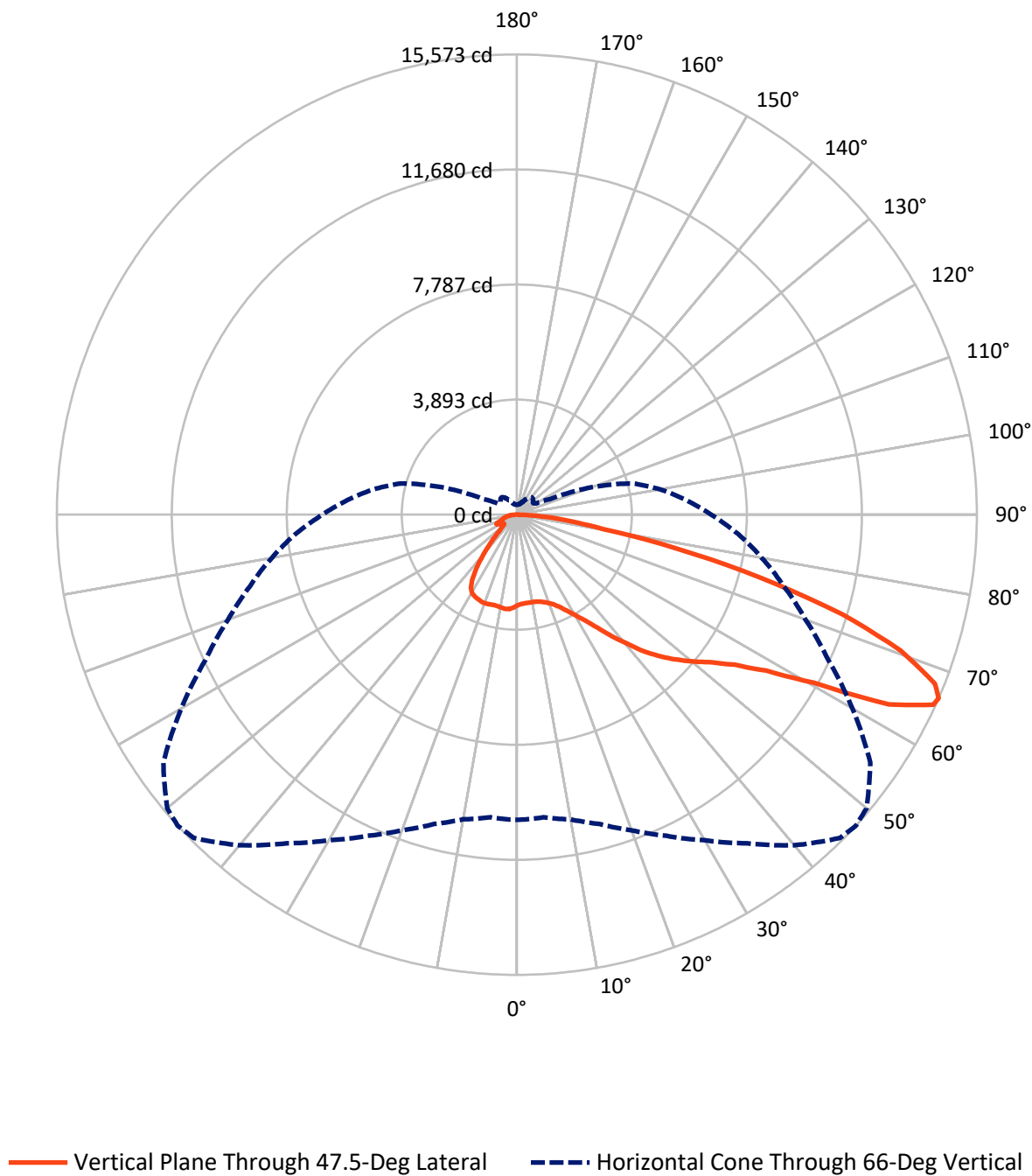


Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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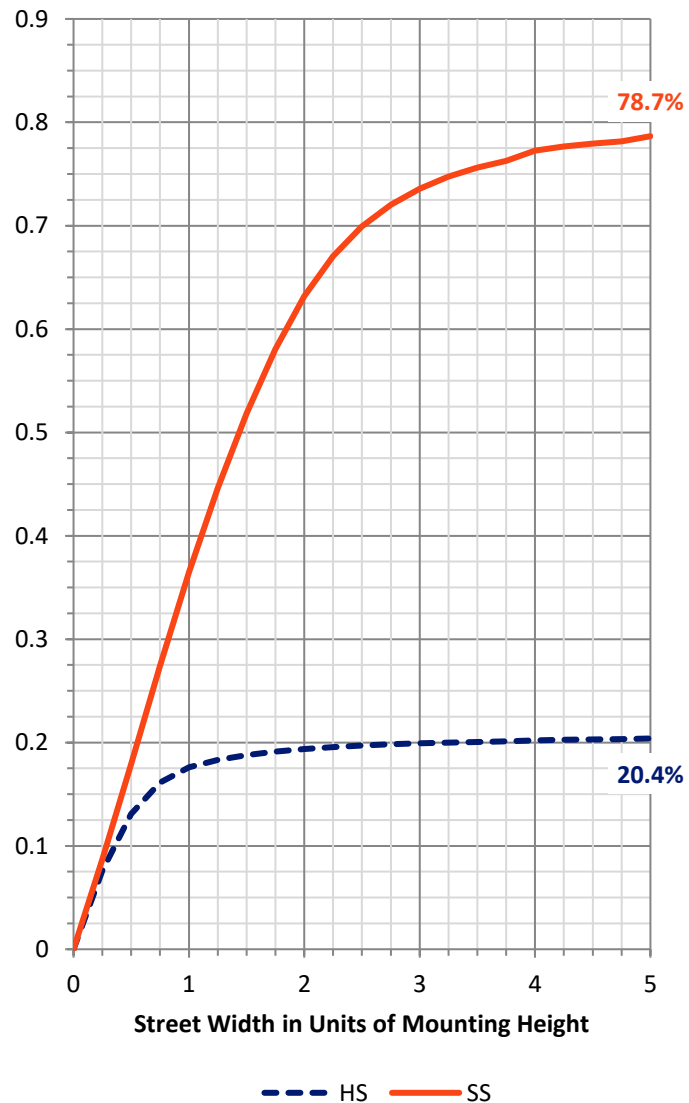
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4646.4	0.0	4646.4
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	17795.2	0.0	17795.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	22441.5	0.0	22441.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.9	1.3
10°-20°	887.4	4.0
20°-30°	1514.1	6.7
30°-40°	2285.3	10.2
40°-50°	2970.4	13.2
50°-60°	4075.1	18.2
60°-70°	6268.8	27.9
70°-80°	3623.8	16.1
80°-90°	520.6	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°	22441.5	100.0
0°-180°	22441.5	100.0

Coefficient of Utilization



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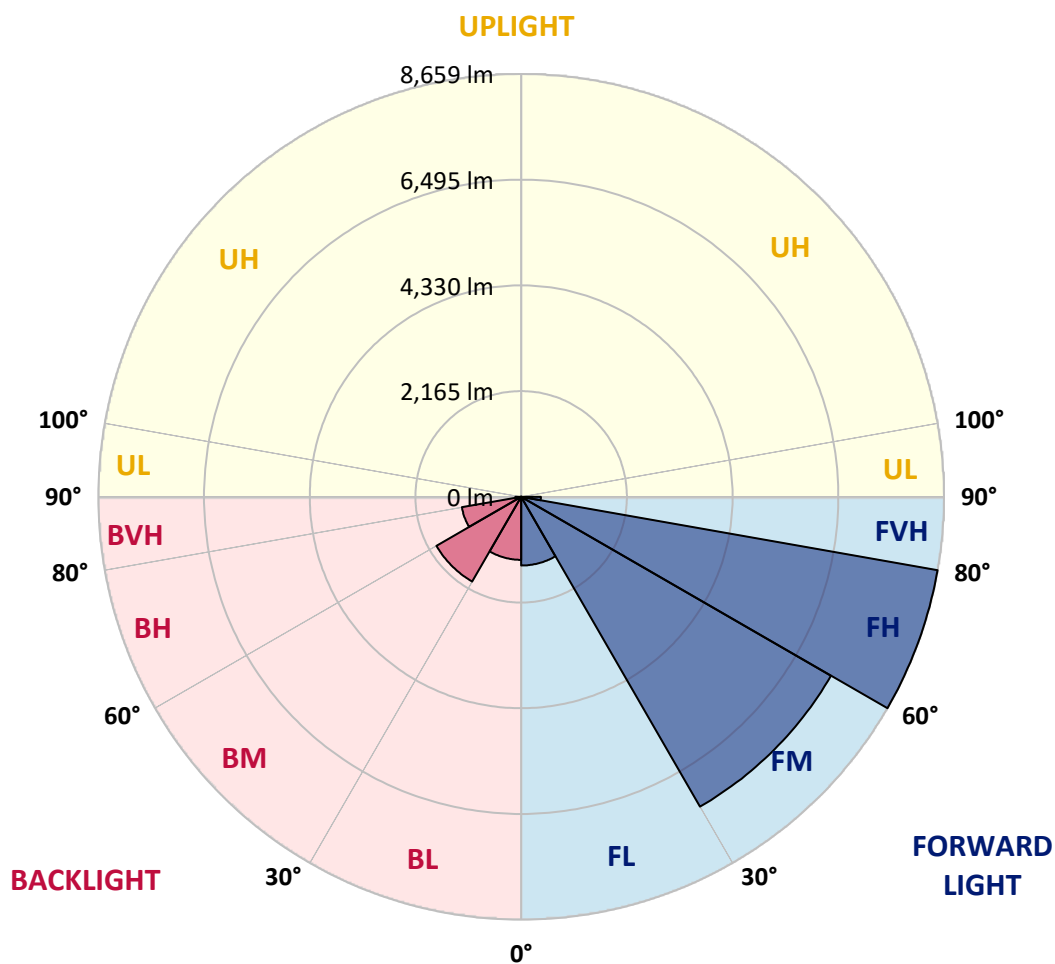
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1406.7	6.3			
FM	(30°-60°)	7326.2	32.6			
FH	(60°-80°)	8659.4	38.6			G4/12000
FVH	(80°-90°)	402.9	1.8			G3/500
BL	(0°-30°)	1290.8	5.8	B3/2500		
BM	(30°-60°)	2004.7	8.9	B2/2500		
BH	(60°-80°)	1233.2	5.5	B3/2500		G3/2500
BVH	(80°-90°)	117.7	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°	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3
2.5°	2991.8	2993.4	2994.9	2994.9	2999.4	2999.4	3006.9	3011.4	3013.0	3022.0	3028.0
5°	2936.1	2934.5	2936.1	2939.1	2946.6	2952.6	2967.7	2978.3	2987.3	3002.4	3009.9
7.5°	2911.9	2914.9	2918.0	2919.5	2925.5	2940.6	2954.1	2964.7	2982.8	3000.9	3008.4
10°	2943.6	2948.1	2943.6	2946.6	2946.6	2960.2	2966.2	2973.8	2987.3	3003.9	3008.4
12.5°	3017.5	3026.5	3017.5	3009.9	3003.9	3016.0	3013.0	3006.9	3014.5	3019.0	3019.0
15°	3139.6	3139.6	3133.6	3123.0	3108.0	3109.5	3095.9	3082.3	3076.3	3065.7	3058.2
17.5°	3258.8	3255.7	3242.2	3228.6	3218.0	3213.5	3193.9	3175.8	3154.7	3138.1	3120.0
20°	3374.9	3386.9	3370.4	3350.7	3334.2	3323.6	3308.5	3272.3	3246.7	3219.6	3201.5
22.5°	3575.4	3564.9	3546.8	3518.1	3501.5	3483.4	3451.8	3412.6	3373.4	3340.2	3317.6
25°	3782.0	3771.5	3745.8	3724.7	3700.6	3685.5	3650.8	3602.6	3564.9	3513.6	3483.4
27.5°	4003.7	3994.7	3964.5	3947.9	3931.3	3913.2	3883.1	3833.3	3798.6	3739.8	3708.1
30°	4254.0	4252.5	4211.8	4208.8	4184.7	4165.1	4143.9	4101.7	4067.0	4008.2	3970.5
32.5°	4520.9	4514.9	4486.3	4477.2	4493.8	4480.2	4450.1	4406.3	4361.1	4326.4	4284.2
35°	4901.0	4890.4	4873.8	4881.4	4891.9	4929.6	4882.9	4845.2	4790.9	4745.6	4686.8
37.5°	5178.4	5163.3	5183.0	5225.2	5285.5	5314.1	5354.9	5356.4	5330.7	5270.4	5219.1
40°	5433.3	5427.2	5472.5	5531.3	5642.9	5724.3	5801.2	5838.9	5848.0	5808.8	5731.9
42.5°	5648.9	5667.0	5727.3	5817.8	5974.6	6098.3	6241.6	6330.5	6386.3	6365.2	6330.5
45°	5905.3	5914.3	5988.2	6102.8	6252.1	6457.2	6645.7	6796.5	6894.5	6893.0	6853.8
47.5°	6226.5	6228.0	6291.3	6425.5	6585.4	6793.5	7031.7	7232.3	7362.0	7368.0	7337.9
50°	6608.0	6605.0	6674.4	6801.0	6971.4	7172.0	7425.3	7675.7	7856.6	7856.6	7812.9
52.5°	7099.6	7093.6	7131.3	7242.9	7407.2	7618.4	7870.2	8159.7	8355.8	8398.0	8303.0
55°	7755.6	7764.6	7773.7	7871.7	8011.9	8179.3	8468.9	8735.8	8998.2	9022.3	8966.5
57.5°	8514.1	8483.9	8548.8	8708.6	8868.5	9078.1	9283.2	9598.3	9909.0	9961.8	9954.2
60°	9699.4	9660.2	9726.5	9930.1	10106.5	10436.8	10788.1	11195.3	11563.2	11671.8	11540.6
62.5°	10789.6	10837.9	10928.4	11165.1	11421.5	11861.8	12389.6	13087.8	13786.0	14166.0	14138.9
65°	10691.6	10646.4	10819.8	11142.5	11607.0	12167.9	12823.9	13665.4	14671.2	15434.2	15502.1
66°	10328.2	10281.5	10468.4	10837.9	11368.7	11993.0	12721.4	13577.9	14606.4	15468.9	15573.0
67.5°	9728.0	9681.3	9892.4	10228.7	10776.1	11561.7	12348.9	13285.4	14354.5	15180.9	15265.4
70°	8569.9	8506.6	8670.9	9050.9	9494.3	10254.3	11003.8	11996.0	13093.9	13754.3	13786.0
72.5°	7259.4	7111.7	7286.6	7579.1	7895.8	8524.7	9177.6	9856.2	10730.8	11341.6	11516.5
75°	5267.4	5344.3	5395.6	5588.6	5798.2	6318.5	6701.5	7270.0	7947.1	8388.9	8529.2
77.5°	2794.3	2910.4	2982.8	3175.8	3522.7	3919.3	4334.0	4685.3	5130.2	5377.5	5549.4
80°	1568.3	1649.7	1767.4	1919.7	2088.6	2393.2	2639.0	2819.9	2883.3	2927.0	2966.2
82.5°	862.6	1069.2	1244.1	1349.6	1449.2	1571.3	1717.6	1868.4	1916.7	1844.3	1806.6
85°	134.2	197.5	601.7	734.4	799.2	892.7	998.3	1109.9	1111.4	956.1	1043.5
87.5°	37.7	42.2	86.0	129.7	126.7	102.5	126.7	230.7	135.7	67.9	78.4
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°	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3
2.5°	3031.1	3034.1	3041.6	3049.1	3056.7	3064.2	3068.8	3076.3	3082.3	3091.4	3101.9
5°	3019.0	3026.5	3040.1	3056.7	3071.8	3085.3	3095.9	3111.0	3124.5	3136.6	3154.7
7.5°	3019.0	3034.1	3056.7	3074.8	3088.4	3104.9	3121.5	3136.6	3151.7	3163.8	3175.8
10°	3020.5	3035.6	3058.2	3079.3	3094.4	3112.5	3126.1	3139.6	3156.2	3163.8	3178.8
12.5°	3026.5	3032.6	3049.1	3070.3	3088.4	3106.5	3120.0	3133.6	3151.7	3154.7	3165.3
15°	3056.7	3047.6	3052.2	3067.2	3086.8	3101.9	3117.0	3127.6	3139.6	3136.6	3145.7
17.5°	3112.5	3089.9	3080.8	3082.3	3091.4	3101.9	3108.0	3109.5	3111.0	3097.4	3098.9
20°	3187.9	3156.2	3135.1	3124.5	3112.5	3101.9	3085.3	3065.7	3047.6	3020.5	3017.5
22.5°	3301.0	3254.2	3231.6	3203.0	3166.8	3121.5	3080.8	3032.6	2993.4	2952.6	2937.6
25°	3465.4	3417.1	3393.0	3347.7	3282.9	3218.0	3159.2	3094.4	3037.1	2988.8	2966.2
27.5°	3685.5	3637.3	3611.6	3564.9	3485.0	3420.1	3338.7	3269.3	3199.9	3129.1	3100.4
30°	3952.4	3910.2	3881.6	3843.9	3774.5	3703.6	3608.6	3501.5	3391.5	3278.4	3222.6
32.5°	4267.6	4220.9	4199.7	4156.0	4083.6	4009.7	3904.2	3767.0	3583.0	3405.0	3293.4
35°	4661.2	4608.4	4584.3	4527.0	4442.5	4334.0	4220.9	4036.9	3788.1	3540.8	3358.3
37.5°	5187.5	5069.9	4989.9	4858.7	4723.0	4570.7	4409.4	4220.9	3926.8	3620.7	3367.3
40°	5653.4	5534.3	5380.5	5192.0	4980.9	4771.3	4587.3	4373.2	4053.5	3678.0	3338.7
42.5°	6232.5	6021.4	5775.6	5520.7	5240.3	4982.4	4763.7	4511.9	4139.4	3693.1	3258.8
45°	6761.8	6510.0	6181.2	5841.9	5493.6	5169.4	4923.6	4643.1	4213.3	3693.1	3162.2
47.5°	7244.4	6942.8	6549.2	6127.0	5721.3	5366.9	5087.9	4777.3	4317.4	3739.8	3133.6
50°	7690.7	7343.9	6896.0	6405.9	5950.5	5572.0	5271.9	4949.2	4475.7	3860.4	3203.0
52.5°	8161.2	7793.3	7247.4	6727.1	6225.0	5819.3	5499.6	5161.8	4680.8	4050.5	3325.1
55°	8778.0	8346.7	7726.9	7153.9	6602.0	6154.1	5790.7	5416.7	4905.5	4264.6	3474.4
57.5°	9750.6	9124.8	8505.0	7760.1	7239.8	6650.2	6252.1	5822.3	5270.4	4543.6	3699.1
60°	11453.2	10684.1	9939.1	9082.6	8440.2	7823.4	7221.7	6660.8	5995.8	5173.9	4192.2
62.5°	13884.0	13102.9	11932.7	10884.6	9915.0	9097.7	8313.5	7600.3	6746.7	5848.0	4799.9
65°	15336.2	14442.0	13047.1	11638.6	10460.9	9447.5	8550.3	7677.2	6755.8	5879.6	4983.9
66°	15452.3	14606.4	13116.5	11628.1	10405.1	9354.0	8420.6	7517.3	6573.3	5734.9	4923.6
67.5°	15236.7	14508.3	12974.7	11423.0	10172.9	9037.4	8078.3	7131.3	6182.7	5406.1	4723.0
70°	13715.1	13188.9	11873.9	10420.2	9173.1	8171.8	7159.9	6249.1	5350.3	4697.4	4190.7
72.5°	11243.6	10577.0	9657.1	8680.0	7698.3	6810.1	5890.2	5115.1	4361.1	3886.1	3527.2
75°	8259.2	7659.1	6645.7	6036.5	5388.0	4830.1	4210.3	3475.9	2940.6	2702.3	2614.8
77.5°	5235.7	4584.3	3729.3	3056.7	2628.4	2259.0	1780.9	1416.0	1134.0	1180.8	1307.4
80°	2645.0	2278.6	1705.5	1346.6	1164.2	968.1	766.1	580.6	423.7	484.1	547.4
82.5°	1698.0	1417.5	1129.5	889.7	751.0	662.0	529.3	384.5	286.5	322.7	395.1
85°	1022.4	864.1	689.2	564.0	490.1	408.7	300.1	212.6	211.1	226.2	279.0
87.5°	155.3	221.7	128.2	137.2	144.8	155.3	137.2	116.1	101.0	131.2	165.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3	3070.3
2.5°	3112.5	3115.5	3121.5	3129.1	3127.6	3138.1	3144.2	3138.1	3151.7	3151.7	3159.2
5°	3169.8	3174.3	3184.9	3192.4	3195.4	3204.5	3207.5	3206.0	3209.0	3210.5	3213.5
7.5°	3186.4	3198.4	3203.0	3207.5	3209.0	3212.0	3212.0	3209.0	3209.0	3207.5	3210.5
10°	3181.9	3186.4	3189.4	3187.9	3187.9	3184.9	3183.4	3181.9	3181.9	3178.8	3183.4
12.5°	3166.8	3166.8	3166.8	3163.8	3163.8	3162.2	3162.2	3162.2	3165.3	3166.8	3174.3
15°	3136.6	3136.6	3139.6	3138.1	3142.6	3150.2	3159.2	3165.3	3172.8	3174.3	3178.8
17.5°	3089.9	3091.4	3100.4	3120.0	3139.6	3162.2	3178.8	3183.4	3177.3	3162.2	3151.7
20°	3008.4	3028.0	3064.2	3111.0	3154.7	3183.4	3190.9	3172.8	3144.2	3104.9	3083.8
22.5°	2936.1	2975.3	3040.1	3117.0	3171.3	3190.9	3168.3	3126.1	3074.8	3029.5	2997.9
25°	2964.7	3009.9	3077.8	3144.2	3178.8	3168.3	3123.0	3062.7	3008.4	2955.7	2904.4
27.5°	3085.3	3130.6	3178.8	3198.4	3186.4	3147.2	3083.8	3019.0	2946.6	2871.2	2807.9
30°	3199.9	3225.6	3228.6	3209.0	3165.3	3101.9	3028.0	2952.6	2860.7	2770.2	2690.2
32.5°	3236.1	3206.0	3151.7	3095.9	3035.6	2970.7	2884.8	2785.3	2687.2	2584.7	2495.7
35°	3225.6	3103.4	2969.2	2850.1	2777.7	2703.8	2625.4	2492.7	2382.6	2295.2	2237.9
37.5°	3130.6	2907.4	2700.8	2527.4	2414.3	2326.8	2210.7	2100.6	2005.6	1966.4	1919.7
40°	2997.9	2657.1	2370.6	2127.8	2010.1	1898.6	1768.9	1684.4	1657.3	1621.1	1622.6
42.5°	2807.9	2364.5	1995.1	1716.1	1587.9	1465.8	1373.8	1324.0	1325.5	1295.4	1301.4
45°	2607.3	2070.5	1606.0	1328.5	1201.9	1097.8	1046.5	1031.5	1033.0	1034.5	1025.4
47.5°	2485.2	1841.3	1287.8	1007.3	895.7	836.9	809.8	802.2	803.8	805.3	794.7
50°	2467.1	1722.1	1075.2	770.6	698.2	665.0	651.5	643.9	643.9	637.9	628.8
52.5°	2518.3	1692.0	971.1	668.0	598.7	568.5	558.0	551.9	542.9	530.8	514.2
55°	2599.8	1719.1	939.5	633.4	565.5	535.3	521.8	518.7	503.7	481.0	453.9
57.5°	2750.6	1817.1	960.6	642.4	571.5	544.4	535.3	532.3	511.2	476.5	441.8
60°	3183.4	2102.1	1066.1	693.7	615.3	592.6	592.6	588.1	559.5	509.7	459.9
62.5°	3780.5	2519.8	1209.4	764.5	675.6	672.6	698.2	699.7	648.4	568.5	490.1
65°	4068.5	2715.9	1259.2	779.6	692.2	726.8	778.1	778.1	705.7	595.7	494.6
66°	4070.1	2711.4	1244.1	761.5	674.1	719.3	772.1	772.1	696.7	588.1	487.1
67.5°	3966.0	2626.9	1194.3	728.4	633.4	675.6	722.3	720.8	653.0	558.0	466.0
70°	3557.3	2323.8	1052.6	674.1	585.1	586.6	603.2	592.6	547.4	482.6	423.7
72.5°	3067.2	1943.8	912.3	639.4	547.4	518.7	505.2	496.1	467.5	428.3	392.1
75°	2352.5	1509.5	794.7	607.7	514.2	464.5	446.4	438.8	419.2	396.6	367.9
77.5°	1441.6	1034.5	674.1	556.4	476.5	431.3	411.7	396.6	377.0	355.9	336.3
80°	621.3	624.3	539.9	472.0	414.7	361.9	336.3	318.2	307.6	300.1	289.5
82.5°	434.3	447.9	411.7	366.4	316.7	279.0	256.4	251.8	253.3	253.3	250.3
85°	325.7	319.7	288.0	262.4	239.8	215.6	197.5	196.0	202.1	202.1	197.5
87.5°	188.5	190.0	162.9	152.3	158.3	135.7	123.7	125.2	140.2	138.7	135.7
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):

	160°	165°	170°	175°	180°
0°	3070.3	3070.3	3070.3	3070.3	3070.3
2.5°	3159.2	3163.8	3162.2	3166.8	3162.2
5°	3218.0	3216.5	3215.0	3221.1	3213.5
7.5°	3209.0	3210.5	3210.5	3210.5	3209.0
10°	3186.4	3192.4	3195.4	3201.5	3199.9
12.5°	3178.8	3187.9	3196.9	3206.0	3207.5
15°	3180.3	3186.4	3190.9	3195.4	3196.9
17.5°	3141.1	3139.6	3135.1	3132.1	3129.1
20°	3061.2	3053.7	3046.1	3034.1	3040.1
22.5°	2961.7	2940.6	2916.4	2896.8	2895.3
25°	2845.6	2806.4	2767.2	2741.5	2732.5
27.5°	2743.0	2696.3	2655.6	2632.9	2626.9
30°	2620.9	2578.7	2542.5	2522.9	2510.8
32.5°	2439.9	2406.7	2361.5	2346.4	2344.9
35°	2188.1	2162.5	2130.8	2124.8	2117.2
37.5°	1903.1	1894.0	1879.0	1860.9	1857.8
40°	1598.5	1604.5	1600.0	1589.4	1572.8
42.5°	1304.4	1315.0	1316.5	1324.0	1331.6
45°	1039.0	1048.1	1048.1	1055.6	1064.6
47.5°	797.7	791.7	796.2	803.8	808.3
50°	603.2	598.7	591.1	585.1	579.1
52.5°	485.6	476.5	455.4	449.4	443.3
55°	428.3	411.7	396.6	390.6	390.6
57.5°	411.7	390.6	374.0	366.4	363.4
60°	414.7	384.5	363.4	351.4	346.8
62.5°	428.3	386.0	357.4	343.8	339.3
65°	426.8	383.0	355.9	340.8	336.3
66°	419.2	378.5	352.9	339.3	336.3
67.5°	407.2	372.5	349.9	337.8	333.3
70°	383.0	360.4	343.8	333.3	328.7
72.5°	363.4	348.3	333.3	321.2	318.2
75°	345.3	330.2	316.7	310.6	306.1
77.5°	318.2	304.6	297.1	291.0	288.0
80°	282.0	272.9	263.9	257.9	253.3
82.5°	245.8	233.7	224.7	220.2	217.2
85°	200.6	193.0	179.5	170.4	168.9
87.5°	134.2	126.7	122.1	114.6	107.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)