

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: P158724

Luminaire Tested: **VST-F10-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158724
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-F10-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (70) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21872.8 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full 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

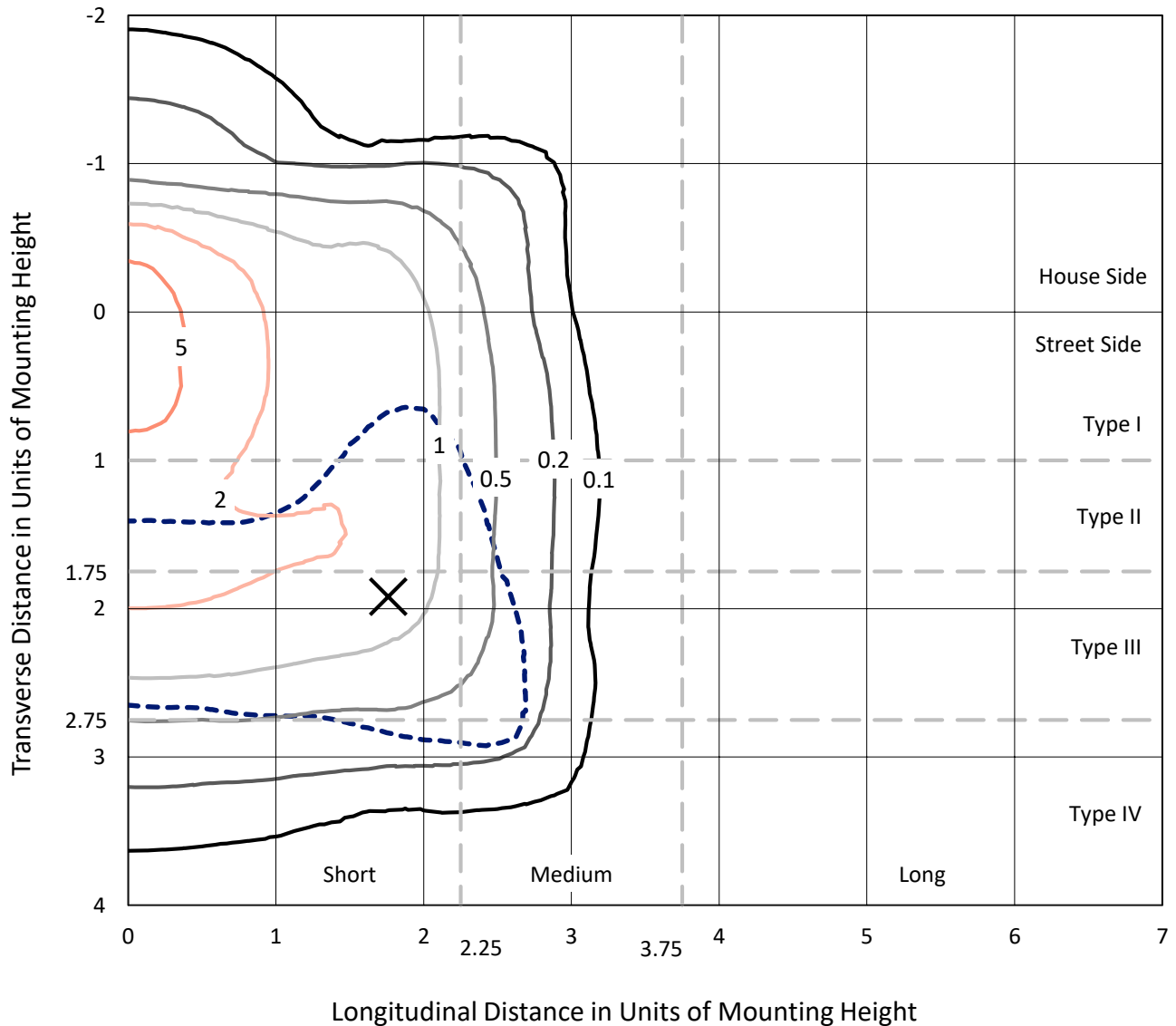


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

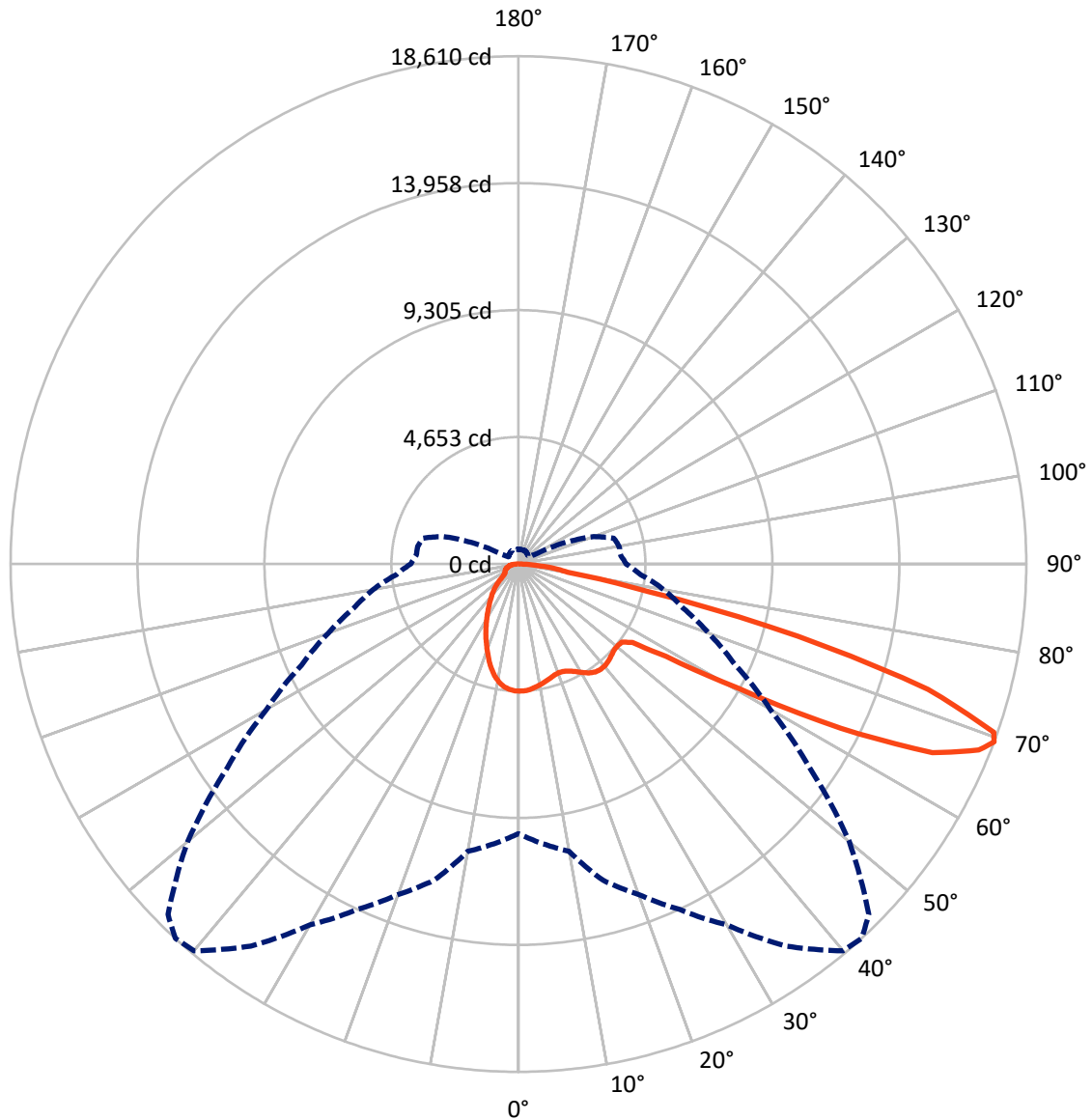


Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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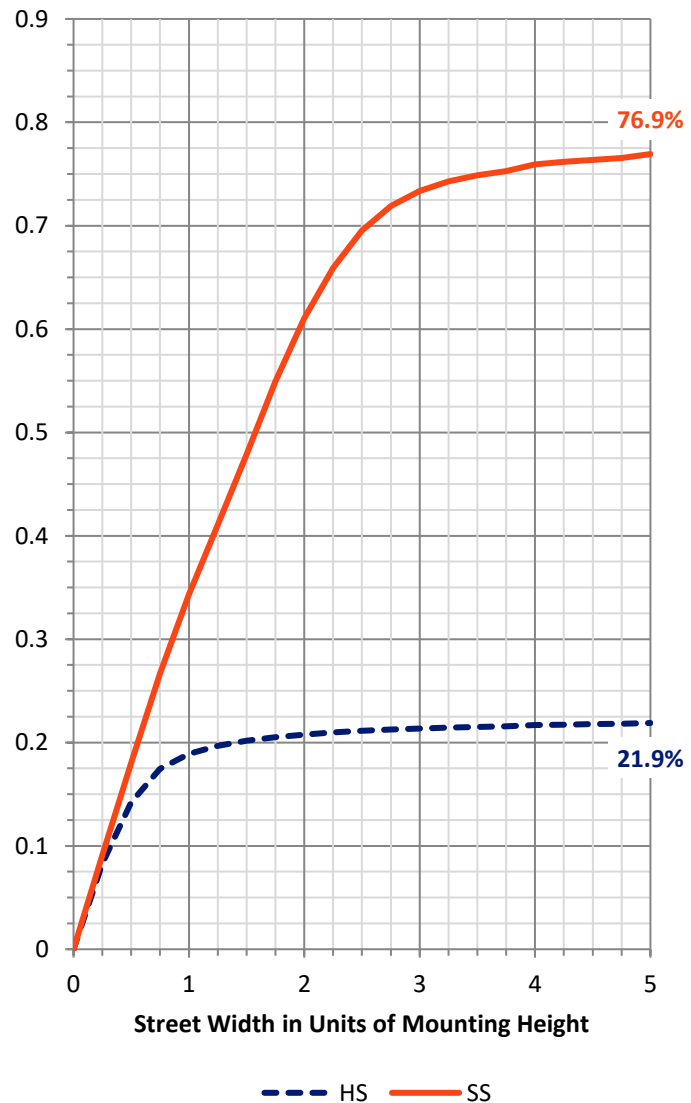
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4862.7	0.0	4862.7
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	17010.2	0.0	17010.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	21872.8	0.0	21872.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.6	2.0
10°-20°	1168.7	5.3
20°-30°	1704.1	7.8
30°-40°	2172.4	9.9
40°-50°	2527.7	11.6
50°-60°	3845.9	17.6
60°-70°	6793.6	31.1
70°-80°	2803.4	12.8
80°-90°	423.3	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°	21872.8	100.0
0°-180°	21872.8	100.0

Coefficient of Utilization



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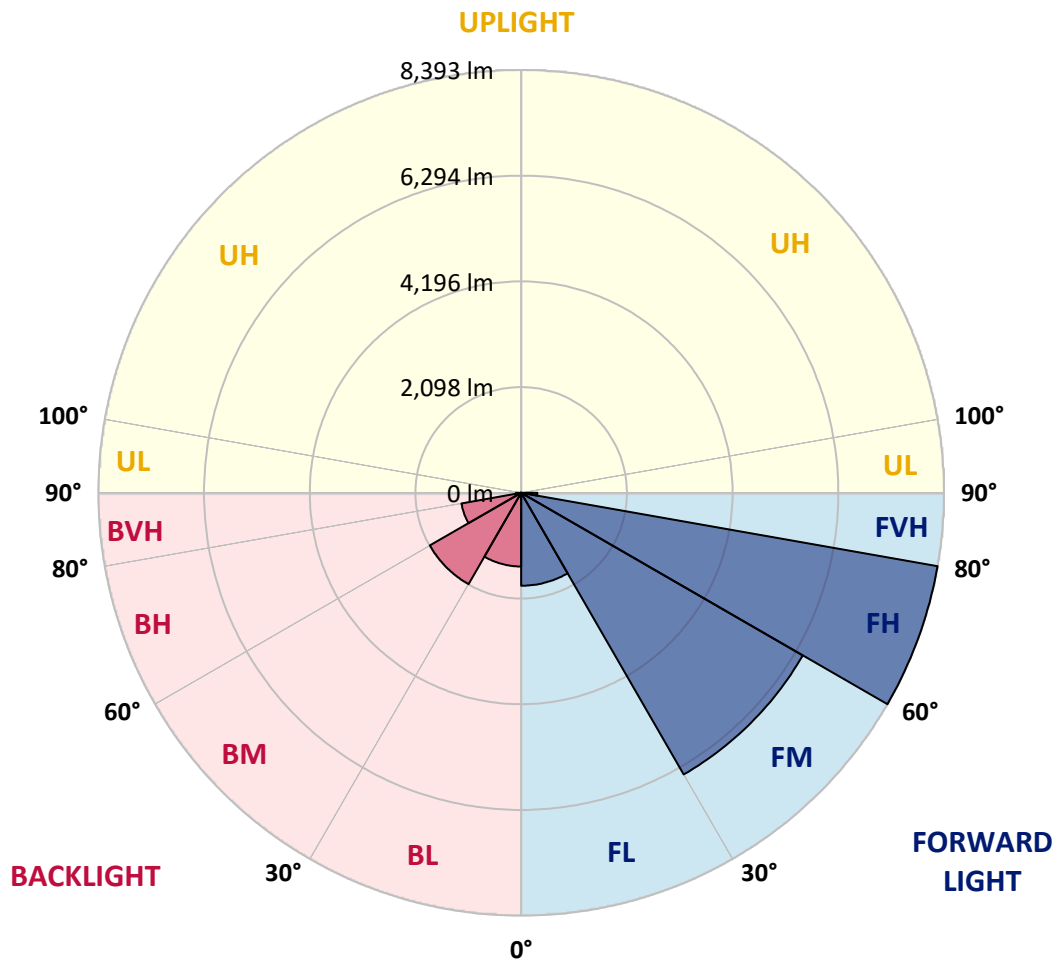
CATALOG NUMBER: VST-F10-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1844.4	8.4			
FM	(30°-60°)	6453.1	29.5			
FH	(60°-80°)	8392.6	38.4			G4/12000
FVH	(80°-90°)	320.1	1.5			G3/500
BL	(0°-30°)	1462.0	6.7	B3/2500		
BM	(30°-60°)	2093.0	9.6	B2/2500		
BH	(60°-80°)	1204.5	5.5	B3/2500		G3/2500
BVH	(80°-90°)	103.2	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°	42.5°	45°
0°	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2
2.5°	4643.1	4659.7	4653.6	4653.6	4658.2	4650.6	4650.6	4653.6	4646.1	4650.6	4649.1
5°	4626.5	4635.6	4632.5	4632.5	4632.5	4626.5	4623.5	4622.0	4611.4	4611.4	4606.9
7.5°	4590.3	4593.3	4597.9	4591.8	4590.3	4588.8	4578.2	4572.2	4560.2	4549.6	4552.6
10°	4542.1	4540.5	4548.1	4543.6	4537.5	4533.0	4524.0	4513.4	4499.8	4486.3	4484.8
12.5°	4487.8	4486.3	4492.3	4489.3	4484.8	4475.7	4468.2	4450.1	4429.0	4412.4	4410.9
15°	4453.1	4448.6	4454.6	4448.6	4441.0	4432.0	4418.4	4395.8	4358.1	4341.5	4327.9
17.5°	4486.3	4478.7	4481.7	4474.2	4463.6	4439.5	4407.8	4359.6	4305.3	4276.7	4255.5
20°	4602.4	4588.8	4591.8	4584.3	4560.2	4528.5	4468.2	4383.7	4291.7	4245.0	4211.8
22.5°	4768.3	4757.7	4762.2	4754.7	4730.6	4682.3	4591.8	4471.2	4340.0	4272.1	4219.3
25°	5020.1	5029.1	5032.2	4997.5	4983.9	4894.9	4769.8	4602.4	4427.4	4347.5	4275.1
27.5°	5303.6	5303.6	5317.2	5303.6	5276.4	5172.4	4996.0	4793.9	4569.2	4460.6	4373.2
30°	5579.6	5576.5	5602.2	5599.2	5555.4	5437.8	5237.2	4991.4	4735.1	4612.9	4501.3
32.5°	5872.1	5881.1	5897.7	5891.7	5834.4	5671.5	5430.3	5163.3	4893.4	4759.2	4634.0
35°	6188.8	6193.3	6199.3	6196.3	6080.2	5875.1	5572.0	5273.4	4992.9	4860.2	4730.6
37.5°	6505.5	6500.9	6493.4	6428.5	6295.8	6010.8	5658.0	5336.8	5042.7	4899.4	4765.2
40°	6789.0	6763.3	6739.2	6638.2	6434.6	6087.7	5691.1	5351.8	5038.2	4890.4	4759.2
42.5°	6944.3	6915.6	6865.9	6739.2	6491.9	6095.3	5668.5	5306.6	4991.4	4845.2	4715.5
45°	6972.9	6951.8	6903.6	6761.8	6478.3	6047.0	5599.2	5232.7	4922.1	4775.8	4653.6
47.5°	6905.1	6888.5	6841.7	6701.5	6419.5	5974.6	5519.2	5154.3	4854.2	4717.0	4599.4
50°	6801.0	6785.9	6749.7	6621.6	6353.1	5924.9	5478.5	5113.6	4831.6	4706.4	4597.9
52.5°	6969.9	6982.0	6876.4	6736.2	6424.0	5968.6	5523.8	5155.8	4872.3	4748.7	4635.6
55°	9595.3	9578.7	8943.9	8411.6	7460.0	6597.4	5953.5	5490.6	5187.5	5063.8	4958.3
57.5°	12468.0	12410.7	12149.9	11652.2	10629.8	9265.1	8024.0	6968.4	6552.2	6374.3	6386.3
60°	13406.0	13427.1	13371.3	13194.9	12828.4	12118.2	11174.2	10381.0	9599.8	9218.3	9262.1
62.5°	13926.3	13964.0	14012.2	13973.0	13853.9	13689.5	13570.4	13642.8	13534.2	13259.7	13041.1
65°	13998.6	14075.6	14235.4	14362.1	14423.9	14579.2	14944.2	15818.8	16618.0	16670.8	16286.3
67.5°	12566.1	12778.7	13125.5	13712.1	14214.3	14766.2	15646.9	16976.9	18156.2	18195.4	17836.5
69°	9880.3	10289.0	10694.6	12005.1	12887.3	13968.5	15271.4	17088.5	18501.5	18610.1	18157.7
70°	7916.9	8159.7	8509.6	9826.0	11144.0	12522.3	14410.3	16720.6	18264.7	18483.4	17984.3
72.5°	4753.2	4846.7	4967.3	5439.3	6117.9	7345.4	9848.7	13632.2	15407.1	15699.7	15064.8
75°	3073.3	3067.2	3077.8	3209.0	3248.2	3483.4	4272.1	7013.6	10050.7	10581.5	9821.5
77.5°	2314.8	2335.9	2302.7	2314.8	2304.2	2367.5	2391.7	2510.8	3967.5	4887.4	4370.1
80°	2043.3	2053.9	2055.4	2049.4	1975.5	1969.4	2008.6	1940.8	1803.6	1830.7	1753.8
82.5°	1165.7	1164.2	1177.7	1280.3	1322.5	1461.2	1518.5	1550.2	1431.1	1342.1	1213.9
85°	755.5	761.5	776.6	808.3	776.6	788.7	775.1	802.2	735.9	683.1	610.7
87.5°	309.1	309.1	328.7	357.4	333.3	327.2	280.5	277.5	235.2	212.6	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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2
2.5°	4640.1	4649.1	4644.6	4650.6	4646.1	4646.1	4640.1	4638.6	4643.1	4637.1	4638.6
5°	4599.4	4600.9	4593.3	4596.3	4587.3	4584.3	4579.8	4567.7	4575.2	4567.7	4570.7
7.5°	4540.5	4536.0	4525.5	4510.4	4499.8	4495.3	4486.3	4469.7	4472.7	4459.1	4466.7
10°	4465.1	4450.1	4432.0	4409.4	4394.3	4380.7	4361.1	4341.5	4330.9	4318.9	4317.4
12.5°	4380.7	4362.6	4338.5	4303.8	4270.6	4248.0	4217.8	4183.2	4172.6	4153.0	4142.4
15°	4288.7	4260.1	4231.4	4192.2	4156.0	4121.3	4080.6	4036.9	4008.2	3978.1	3955.4
17.5°	4205.8	4172.6	4134.9	4097.2	4058.0	4015.8	3964.5	3910.2	3868.0	3812.2	3767.0
20°	4140.9	4098.7	4061.0	4021.8	3978.1	3926.8	3865.0	3795.6	3724.7	3662.9	3610.1
22.5°	4115.3	4048.9	4003.7	3964.5	3920.8	3860.4	3785.0	3703.6	3617.7	3531.7	3462.3
25°	4136.4	4038.4	3967.5	3920.8	3883.1	3821.2	3736.8	3637.3	3537.7	3435.2	3341.7
27.5°	4198.2	4073.1	3970.5	3896.6	3852.9	3791.1	3702.1	3596.5	3478.9	3364.3	3249.7
30°	4294.7	4131.9	4002.2	3898.1	3830.3	3759.4	3665.9	3543.8	3424.6	3293.4	3168.3
32.5°	4388.2	4193.7	4038.4	3904.2	3800.1	3708.1	3604.1	3483.4	3355.3	3218.0	3088.4
35°	4454.6	4234.4	4052.0	3890.6	3753.4	3638.8	3527.2	3406.5	3281.4	3141.1	3008.4
37.5°	4486.3	4257.0	4053.5	3854.4	3691.6	3564.9	3445.8	3326.6	3209.0	3076.3	2951.1
40°	4484.8	4255.5	4032.4	3807.7	3617.7	3483.4	3365.8	3249.7	3139.6	3023.5	2910.4
42.5°	4451.6	4231.4	4002.2	3762.4	3564.9	3415.6	3293.4	3181.9	3088.4	2985.8	2890.8
45°	4400.3	4190.7	3970.5	3741.3	3549.8	3400.5	3270.8	3162.2	3079.3	2985.8	2904.4
47.5°	4361.1	4168.1	3975.1	3779.0	3596.5	3441.2	3304.0	3184.9	3114.0	3038.6	2981.3
50°	4367.1	4178.6	3990.1	3801.6	3629.7	3472.9	3340.2	3231.6	3180.3	3160.7	3147.2
52.5°	4398.8	4195.2	4035.4	3922.3	3863.5	3745.8	3667.4	3599.6	3637.3	3563.4	3475.9
55°	4802.9	4736.6	4891.9	5038.2	5223.7	5293.0	5226.7	5214.6	5274.9	5024.6	4450.1
57.5°	6472.3	6644.2	6884.0	7010.6	7164.4	7123.7	6969.9	6841.7	6690.9	6398.4	5682.1
60°	9311.8	9182.1	9073.6	8767.4	8517.1	8224.6	7898.8	7619.9	7352.9	6932.2	6157.1
62.5°	12237.3	11337.0	10584.6	9857.7	9272.6	8787.0	8315.0	7895.8	7491.7	6905.1	6071.2
65°	14767.7	12872.2	11459.2	10393.0	9538.0	8800.6	8194.4	7615.3	7101.1	6413.5	5588.6
67.5°	15904.7	13529.7	11474.3	9946.7	8762.9	7761.6	6977.5	6102.8	5526.8	5086.4	4622.0
69°	15820.3	13027.5	10655.4	8775.0	7414.8	6247.6	5406.1	4493.8	3941.9	3754.9	3744.3
70°	15419.2	12177.0	9699.4	7823.4	6267.2	5107.6	4300.8	3481.9	2967.7	2839.5	3067.2
72.5°	12588.7	8604.6	6078.7	4641.6	3569.4	2821.4	2301.2	1826.2	1458.2	1263.7	1305.9
75°	7110.2	3984.1	2575.6	1946.8	1645.2	1360.2	1167.2	995.3	900.3	731.4	579.1
77.5°	2584.7	1710.1	1360.2	1176.2	833.9	574.5	481.0	420.7	381.5	381.5	363.4
80°	1634.7	1287.8	898.8	615.3	455.4	396.6	346.8	304.6	280.5	274.5	280.5
82.5°	1020.9	788.7	503.7	386.0	324.2	291.0	253.3	221.7	202.1	197.5	206.6
85°	503.7	390.6	306.1	272.9	256.4	238.3	209.6	179.5	173.4	185.5	217.2
87.5°	150.8	134.2	110.1	114.6	120.6	117.6	93.5	81.4	76.9	101.0	158.3
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°	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2	4658.2
2.5°	4641.6	4640.1	4643.1	4638.6	4641.6	4643.1	4640.1	4653.6	4644.6	4646.1	4652.1
5°	4573.7	4570.7	4582.8	4579.8	4585.8	4591.8	4588.8	4608.4	4600.9	4606.9	4619.0
7.5°	4460.6	4466.7	4468.2	4468.2	4480.2	4499.8	4504.4	4516.4	4516.4	4533.0	4545.1
10°	4309.8	4311.3	4320.4	4318.9	4334.0	4355.1	4358.1	4379.2	4386.7	4413.9	4430.5
12.5°	4134.9	4127.4	4125.9	4124.3	4143.9	4166.6	4169.6	4205.8	4220.9	4245.0	4272.1
15°	3938.9	3919.3	3913.2	3925.3	3920.8	3934.3	3947.9	3967.5	3988.6	4036.9	4061.0
17.5°	3747.3	3708.1	3697.6	3684.0	3670.4	3670.4	3676.5	3700.6	3744.3	3770.0	3824.3
20°	3551.3	3504.6	3466.9	3430.7	3399.0	3386.9	3388.4	3418.6	3450.3	3492.5	3543.8
22.5°	3386.9	3316.1	3251.2	3203.0	3138.1	3136.6	3127.6	3136.6	3171.3	3181.9	3210.5
25°	3245.2	3150.2	3062.7	2984.3	2921.0	2887.8	2878.7	2875.7	2859.1	2854.6	2833.5
27.5°	3135.1	3020.5	2907.4	2812.4	2734.0	2688.7	2631.4	2590.7	2531.9	2516.8	2479.1
30°	3044.6	2921.0	2797.3	2673.7	2584.7	2503.3	2406.7	2335.9	2245.4	2186.6	2135.3
32.5°	2957.2	2832.0	2706.8	2584.7	2447.5	2320.8	2194.1	2084.0	1983.0	1892.5	1817.1
35°	2884.8	2765.6	2639.0	2491.2	2316.3	2133.8	1981.5	1856.3	1717.6	1622.6	1527.6
37.5°	2838.0	2729.5	2602.8	2399.2	2174.5	1978.5	1805.1	1652.8	1511.0	1367.7	1260.7
40°	2816.9	2721.9	2563.6	2314.8	2050.9	1833.7	1642.2	1473.3	1292.3	1131.0	1016.4
42.5°	2815.4	2718.9	2509.3	2221.3	1948.3	1711.6	1498.9	1296.9	1096.3	930.4	817.3
45°	2842.6	2714.4	2452.0	2142.8	1857.8	1610.5	1357.2	1111.4	886.7	763.0	702.7
47.5°	2914.9	2721.9	2405.2	2070.5	1771.9	1488.4	1194.3	907.8	722.3	665.0	665.0
50°	3044.6	2765.6	2393.2	2019.2	1685.9	1346.6	995.3	732.9	639.4	639.4	657.5
52.5°	3243.7	2857.6	2414.3	1983.0	1578.9	1159.6	784.2	631.8	613.8	630.3	654.5
55°	3702.1	3020.5	2442.9	1921.2	1416.0	919.9	646.9	597.2	604.7	624.3	646.9
57.5°	4543.6	3368.8	2473.1	1785.5	1153.6	708.8	586.6	583.6	597.2	615.3	634.9
60°	5097.0	3812.2	2550.0	1580.4	873.1	585.1	556.4	574.5	591.1	606.2	621.3
62.5°	5097.0	3937.4	2607.3	1351.2	656.0	532.3	536.8	565.5	585.1	592.6	601.7
65°	4771.3	3708.1	2412.8	1100.8	533.8	502.2	518.7	547.4	565.5	571.5	579.1
67.5°	4169.6	3275.3	2032.8	829.4	476.5	476.5	497.6	518.7	533.8	545.9	558.0
69°	3625.2	2939.1	1790.0	702.7	453.9	456.9	478.0	496.1	514.2	529.3	544.4
70°	3233.1	2687.2	1621.1	637.9	440.3	441.8	463.0	482.6	499.1	515.7	533.8
72.5°	1731.2	1856.3	1232.0	523.3	405.6	410.2	429.8	447.9	463.0	479.5	496.1
75°	589.6	797.7	784.2	428.3	366.4	378.5	390.6	407.2	426.8	437.3	446.4
77.5°	345.3	357.4	417.7	348.3	330.2	336.3	349.9	363.4	380.0	390.6	398.1
80°	289.5	288.0	289.5	283.5	288.0	301.6	310.6	328.7	343.8	346.8	345.3
82.5°	235.2	247.3	248.8	245.8	259.4	269.9	277.5	288.0	286.5	289.5	295.6
85°	209.6	208.1	218.7	220.2	220.2	212.6	214.1	214.1	214.1	218.7	220.2
87.5°	209.6	174.9	135.7	122.1	128.2	120.6	114.6	113.1	125.2	137.2	134.2
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°	4658.2	4658.2	4658.2	4658.2	4658.2
2.5°	4655.2	4659.7	4656.7	4656.7	4659.7
5°	4623.5	4631.0	4628.0	4631.0	4631.0
7.5°	4551.1	4561.7	4569.2	4576.7	4572.2
10°	4447.1	4465.1	4477.2	4486.3	4481.7
12.5°	4291.7	4308.3	4334.0	4349.0	4337.0
15°	4079.1	4125.9	4140.9	4162.0	4150.0
17.5°	3857.4	3886.1	3904.2	3923.8	3935.8
20°	3561.9	3584.5	3608.6	3617.7	3604.1
22.5°	3206.0	3218.0	3213.5	3227.1	3199.9
25°	2815.4	2823.0	2818.4	2830.5	2807.9
27.5°	2446.0	2444.4	2446.0	2430.9	2415.8
30°	2090.1	2076.5	2070.5	2047.8	2043.3
32.5°	1771.9	1725.1	1701.0	1667.8	1660.3
35°	1453.7	1387.3	1343.6	1305.9	1289.3
37.5°	1168.7	1088.8	1037.5	1004.3	999.8
40°	924.4	850.5	814.3	796.2	793.2
42.5°	754.0	722.3	713.3	713.3	713.3
45°	687.6	686.1	693.7	699.7	701.2
47.5°	674.1	683.1	693.7	702.7	705.7
50°	674.1	683.1	690.7	699.7	702.7
52.5°	671.1	678.6	681.6	687.6	690.7
55°	662.0	666.5	666.5	669.5	672.6
57.5°	646.9	649.9	645.4	648.4	656.0
60°	631.8	634.9	627.3	634.9	639.4
62.5°	615.3	616.8	613.8	619.8	619.8
65°	588.1	585.1	589.6	594.1	595.7
67.5°	561.0	553.4	558.0	559.5	562.5
69°	539.9	535.3	536.8	539.9	542.9
70°	524.8	521.8	524.8	529.3	533.8
72.5°	487.1	488.6	499.1	508.2	517.2
75°	452.4	463.0	476.5	496.1	506.7
77.5°	410.2	417.7	428.3	449.4	469.0
80°	354.4	358.9	360.4	367.9	366.4
82.5°	288.0	283.5	280.5	277.5	276.0
85°	206.6	205.1	193.0	184.0	184.0
87.5°	123.7	117.6	111.6	104.1	99.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)