

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: P158701

Luminaire Tested: **VST-E08-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158701
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-E08-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (168) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23813.3 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 194.5
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



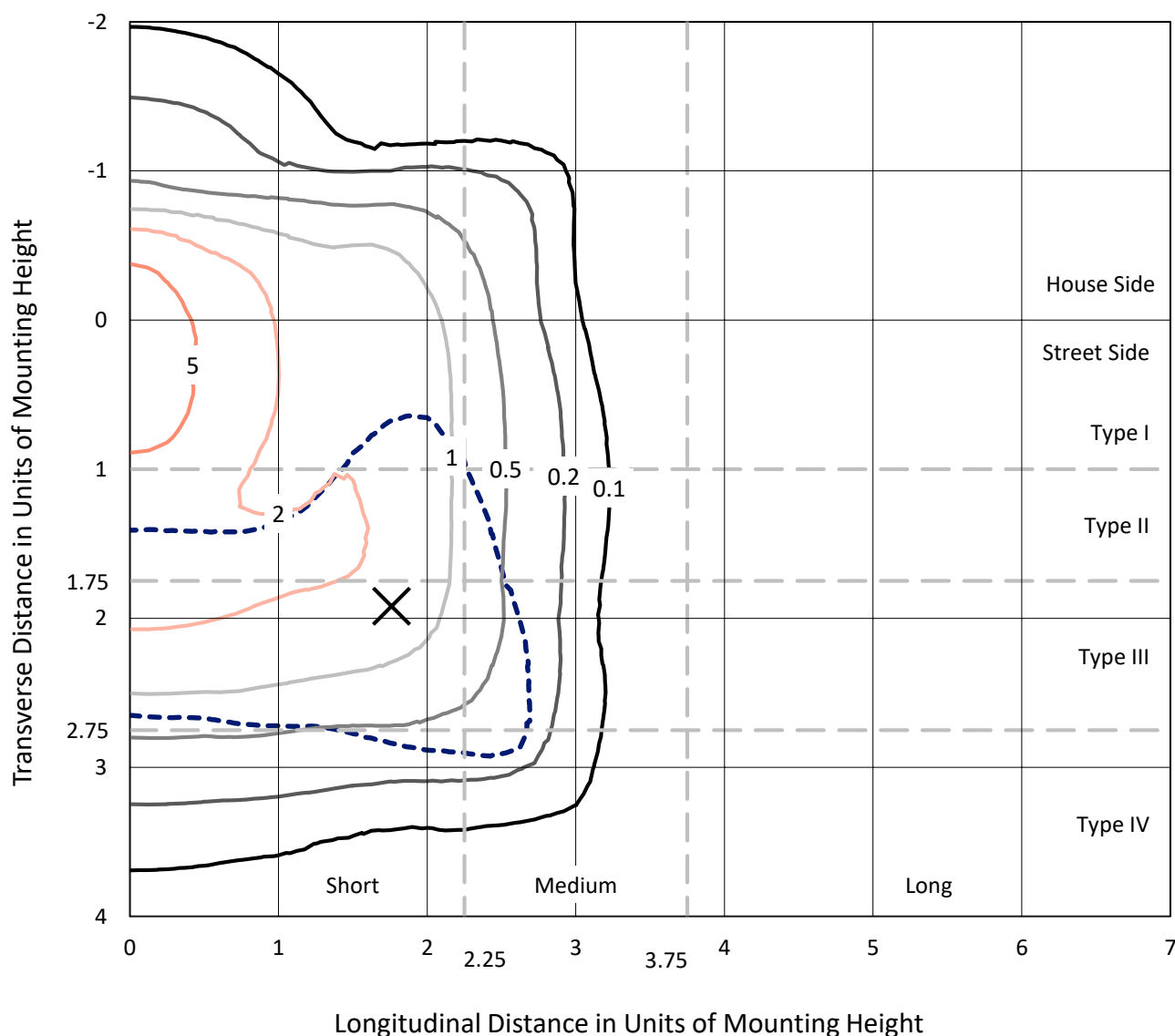
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

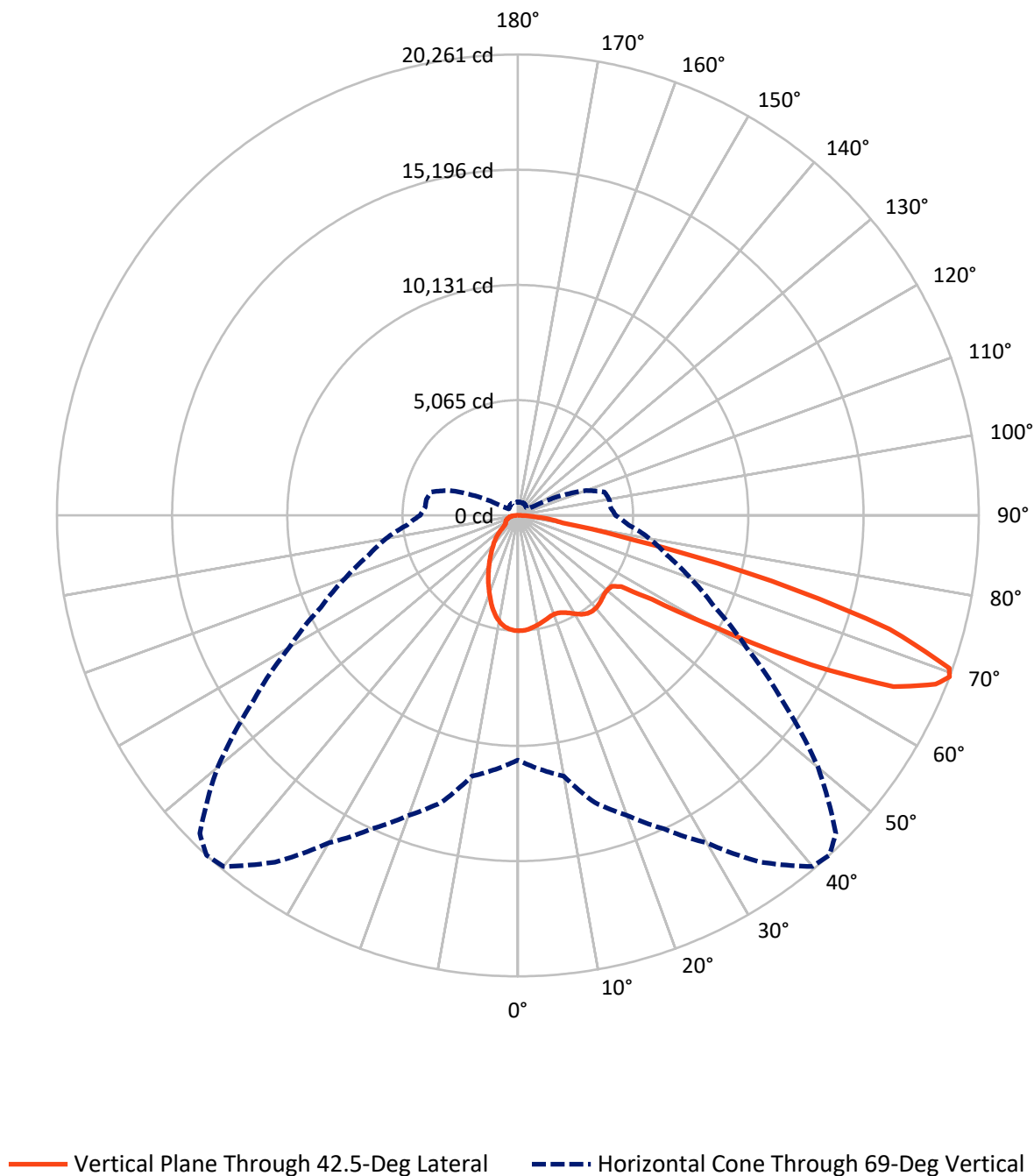


Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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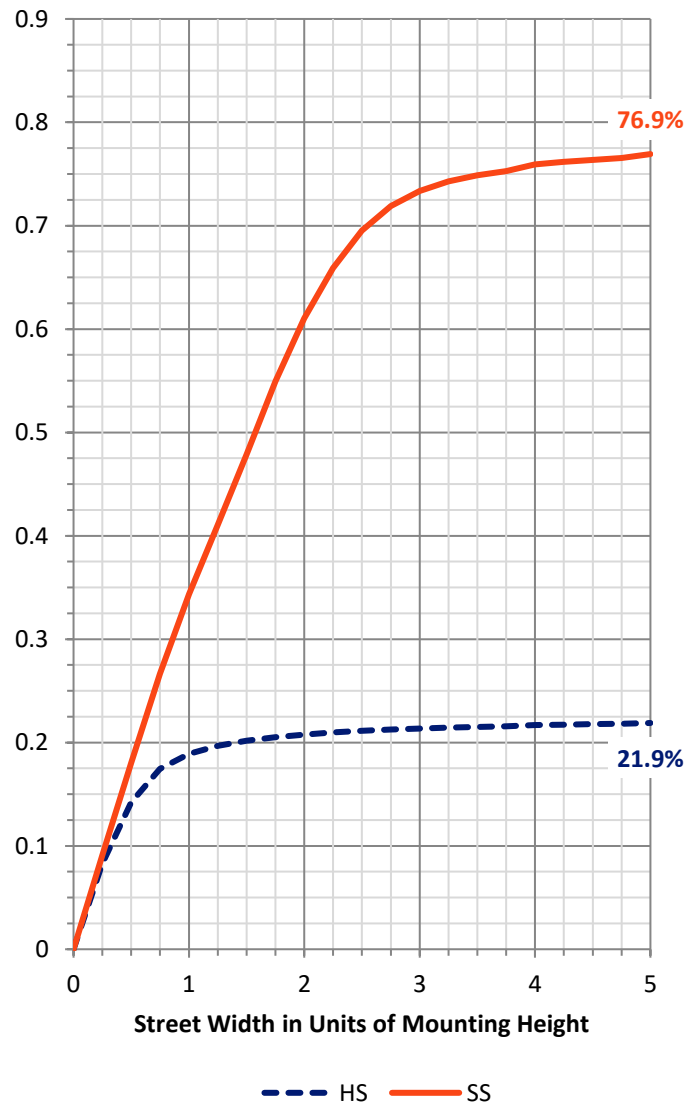
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5294.1	0.0	5294.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	18519.2	0.0	18519.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	23813.3	0.0	23813.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	472.1	2.0
10°-20°	1272.3	5.3
20°-30°	1855.3	7.8
30°-40°	2365.2	9.9
40°-50°	2751.9	11.6
50°-60°	4187.1	17.6
60°-70°	7396.3	31.1
70°-80°	3052.2	12.8
80°-90°	460.9	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°	23813.3	100.0
0°-180°	23813.3	100.0

Coefficient of Utilization



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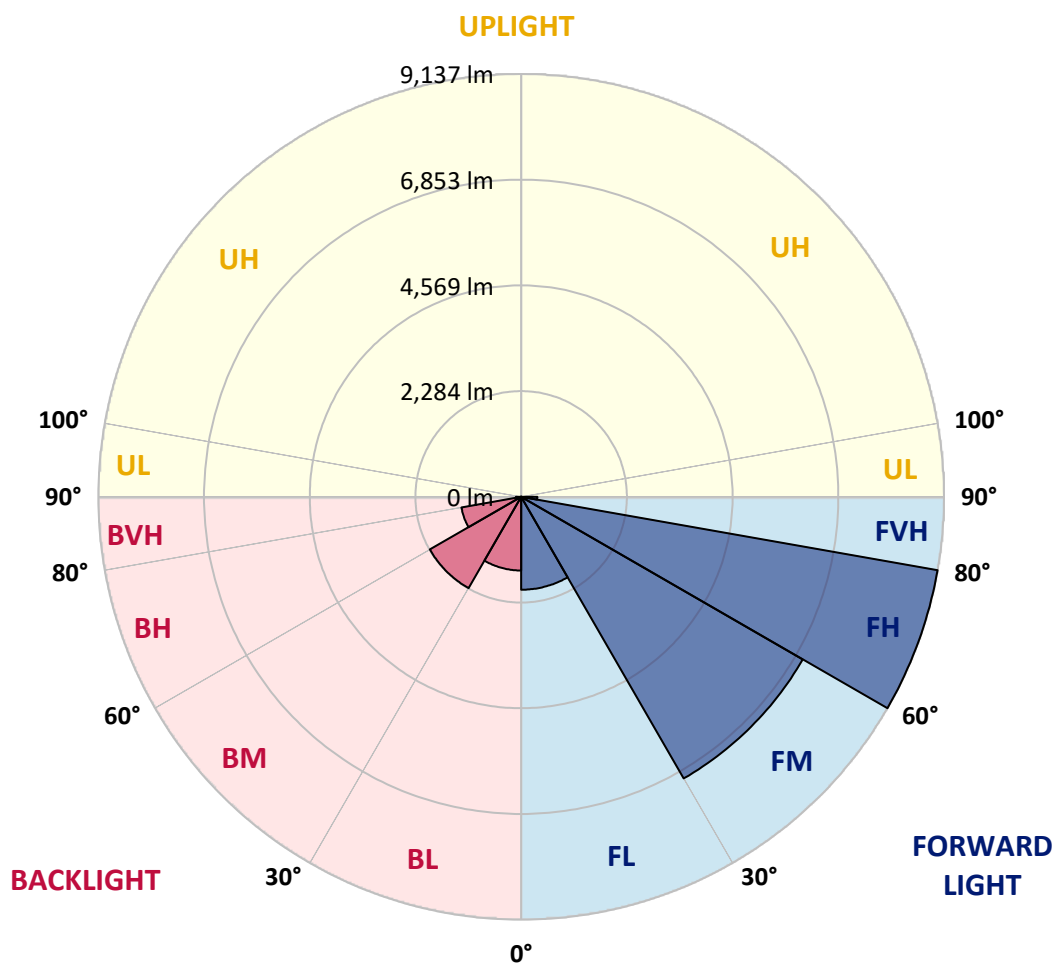
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2008.0	8.4			
FM	(30°-60°)	7025.5	29.5			
FH	(60°-80°)	9137.1	38.4			G4/12000
FVH	(80°-90°)	348.5	1.5			G3/500
BL	(0°-30°)	1591.7	6.7	B3/2500		
BM	(30°-60°)	2278.7	9.6	B2/2500		
BH	(60°-80°)	1311.3	5.5	B3/2500		G3/2500
BVH	(80°-90°)	112.4	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°	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4
2.5°	5055.0	5073.1	5066.5	5066.5	5071.4	5063.2	5063.2	5066.5	5058.3	5063.2	5061.6
5°	5036.9	5046.8	5043.5	5043.5	5043.5	5036.9	5033.7	5032.0	5020.5	5020.5	5015.6
7.5°	4997.5	5000.8	5005.8	4999.2	4997.5	4995.9	4984.4	4977.8	4964.7	4953.2	4956.5
10°	4945.0	4943.4	4951.6	4946.6	4940.1	4935.2	4925.3	4913.8	4899.0	4884.3	4882.6
12.5°	4885.9	4884.3	4890.8	4887.5	4882.6	4872.8	4864.6	4844.9	4821.9	4803.8	4802.2
15°	4848.1	4843.2	4849.8	4843.2	4835.0	4825.2	4810.4	4785.8	4744.7	4726.7	4711.9
17.5°	4884.3	4876.1	4879.3	4871.1	4859.6	4833.4	4798.9	4746.4	4687.2	4656.1	4633.1
20°	5010.7	4995.9	4999.2	4991.0	4964.7	4930.2	4864.6	4772.6	4672.5	4621.6	4585.5
22.5°	5191.3	5179.8	5184.7	5176.5	5150.2	5097.7	4999.2	4867.8	4725.0	4651.1	4593.7
25°	5465.4	5475.3	5478.6	5440.8	5426.0	5329.2	5192.9	5010.7	4820.2	4733.2	4654.4
27.5°	5774.1	5774.1	5788.9	5774.1	5744.5	5631.3	5439.2	5219.2	4974.6	4856.4	4761.1
30°	6074.5	6071.3	6099.2	6095.9	6048.3	5920.2	5701.9	5434.3	5155.2	5022.2	4900.7
32.5°	6393.0	6402.9	6421.0	6414.4	6352.0	6174.7	5912.0	5621.4	5327.5	5181.4	5045.2
35°	6737.8	6742.7	6749.3	6746.0	6619.6	6396.3	6066.3	5741.3	5435.9	5291.4	5150.2
37.5°	7082.6	7077.7	7069.5	6998.9	6854.4	6544.1	6159.9	5810.2	5490.1	5334.1	5188.0
40°	7391.2	7363.3	7337.1	7227.1	7005.4	6627.8	6196.0	5826.6	5485.1	5324.3	5181.4
42.5°	7560.3	7529.2	7475.0	7337.1	7067.8	6636.0	6171.4	5777.4	5434.3	5275.0	5133.8
45°	7591.5	7568.6	7516.0	7361.7	7053.0	6583.5	6095.9	5696.9	5358.7	5199.5	5066.5
47.5°	7517.7	7499.6	7448.7	7296.0	6989.0	6504.7	6008.9	5611.6	5284.9	5135.5	5007.4
50°	7404.4	7388.0	7348.6	7209.0	6916.8	6450.5	5964.5	5567.2	5260.2	5124.0	5005.8
52.5°	7588.3	7601.4	7486.5	7333.8	6993.9	6498.1	6013.8	5613.2	5304.6	5169.9	5046.8
55°	10446.6	10428.5	9737.3	9157.8	8121.8	7182.7	6481.7	5977.7	5647.7	5513.1	5398.1
57.5°	13574.1	13511.8	13227.7	12685.9	11572.8	10087.0	8735.9	7586.6	7133.5	6939.8	6952.9
60°	14595.3	14618.3	14557.6	14365.5	13966.5	13193.3	12165.5	11301.9	10451.5	10036.1	10083.7
62.5°	15161.7	15202.8	15255.3	15212.6	15082.9	14904.0	14774.3	14853.1	14734.9	14436.1	14198.0
65°	15240.5	15324.3	15498.3	15636.2	15703.5	15872.6	16269.9	17222.2	18092.3	18149.8	17731.1
67.5°	13680.9	13912.3	14290.0	14928.6	15475.3	16076.2	17035.0	18483.0	19766.9	19809.6	19418.8
69°	10756.9	11201.8	11643.4	13070.1	14030.6	15207.7	16626.2	18604.5	20142.9	20261.1	19768.5
70°	8619.3	8883.6	9264.5	10697.8	12132.7	13633.2	15688.7	18203.9	19885.1	20123.2	19579.7
72.5°	5174.9	5276.6	5408.0	5921.9	6660.7	7997.1	10722.4	14841.6	16774.0	17092.5	16401.3
75°	3345.9	3339.4	3350.8	3493.7	3536.4	3792.5	4651.1	7635.9	10942.4	11520.3	10692.8
77.5°	2520.1	2543.1	2507.0	2520.1	2508.6	2577.6	2603.8	2733.5	4319.5	5321.0	4757.8
80°	2224.6	2236.1	2237.7	2231.2	2150.7	2144.1	2186.8	2113.0	1963.6	1993.1	1909.4
82.5°	1269.1	1267.4	1282.2	1393.9	1439.8	1590.9	1653.3	1687.7	1558.0	1461.2	1321.6
85°	822.5	829.1	845.5	880.0	845.5	858.6	843.9	873.4	801.2	743.7	664.9
87.5°	336.6	336.6	357.9	389.1	362.8	356.3	305.4	302.1	256.1	231.5	180.6
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°	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4
2.5°	5051.7	5061.6	5056.6	5063.2	5058.3	5058.3	5051.7	5050.1	5055.0	5048.4	5050.1
5°	5007.4	5009.0	5000.8	5004.1	4994.3	4991.0	4986.1	4972.9	4981.1	4972.9	4976.2
7.5°	4943.4	4938.4	4926.9	4910.5	4899.0	4894.1	4884.3	4866.2	4869.5	4854.7	4862.9
10°	4861.3	4844.9	4825.2	4800.5	4784.1	4769.3	4748.0	4726.7	4715.2	4702.0	4700.4
12.5°	4769.3	4749.6	4723.4	4685.6	4649.5	4624.9	4592.0	4554.3	4542.8	4521.4	4509.9
15°	4669.2	4638.0	4606.8	4564.1	4524.7	4487.0	4442.6	4395.0	4363.8	4331.0	4306.4
17.5°	4578.9	4542.8	4501.7	4460.7	4418.0	4372.0	4316.2	4257.1	4211.1	4150.4	4101.1
20°	4508.3	4462.3	4421.3	4378.6	4331.0	4275.2	4207.9	4132.3	4055.2	3987.9	3930.4
22.5°	4480.4	4408.1	4358.9	4316.2	4268.6	4202.9	4120.8	4032.2	3938.6	3845.0	3769.5
25°	4503.4	4396.7	4319.5	4268.6	4227.6	4160.2	4068.3	3959.9	3851.6	3739.9	3638.2
27.5°	4570.7	4434.4	4322.8	4242.3	4194.7	4127.4	4030.5	3915.6	3787.6	3662.8	3538.0
30°	4675.8	4498.4	4357.3	4244.0	4170.1	4092.9	3991.1	3858.2	3728.5	3585.6	3449.4
32.5°	4777.5	4565.8	4396.7	4250.5	4137.3	4037.1	3923.8	3792.5	3652.9	3503.5	3362.3
35°	4849.8	4610.1	4411.4	4235.8	4086.4	3961.6	3840.1	3708.8	3572.5	3419.8	3275.3
37.5°	4884.3	4634.7	4413.1	4196.4	4019.0	3881.1	3751.4	3621.7	3493.7	3349.2	3212.9
40°	4882.6	4633.1	4390.1	4145.5	3938.6	3792.5	3664.4	3538.0	3418.2	3291.7	3168.6
42.5°	4846.5	4606.8	4357.3	4096.2	3881.1	3718.6	3585.6	3464.1	3362.3	3250.7	3147.3
45°	4790.7	4562.5	4322.8	4073.2	3864.7	3702.2	3561.0	3442.8	3352.5	3250.7	3162.0
47.5°	4748.0	4537.8	4327.7	4114.3	3915.6	3746.5	3597.1	3467.4	3390.3	3308.2	3245.8
50°	4754.6	4549.3	4344.1	4138.9	3951.7	3781.0	3636.5	3518.3	3462.5	3441.1	3426.4
52.5°	4789.0	4567.4	4393.4	4270.2	4206.2	4078.2	3992.8	3918.9	3959.9	3879.5	3784.3
55°	5229.0	5156.8	5325.9	5485.1	5687.1	5762.6	5690.4	5677.2	5742.9	5470.4	4844.9
57.5°	7046.5	7233.6	7494.7	7632.6	7800.0	7755.7	7588.3	7448.7	7284.5	6966.0	6186.2
60°	10137.9	9996.7	9878.5	9545.2	9272.7	8954.2	8599.6	8295.9	8005.3	7547.2	6703.3
62.5°	13323.0	12342.8	11523.6	10732.2	10095.2	9566.6	9052.7	8596.3	8156.3	7517.7	6609.8
65°	16077.8	14014.1	12475.8	11315.1	10384.2	9581.4	8921.4	8290.9	7731.1	6982.4	6084.4
67.5°	17315.7	14729.9	12492.2	10829.1	9540.3	8450.2	7596.5	6644.2	6017.1	5537.7	5032.0
69°	17223.8	14183.2	11600.7	9553.5	8072.6	6801.8	5885.7	4892.5	4291.6	4088.0	4076.5
70°	16787.1	13257.3	10559.9	8517.5	6823.2	5560.7	4682.3	3790.8	3231.0	3091.5	3339.4
72.5°	13705.5	9367.9	6618.0	5053.4	3886.1	3071.7	2505.3	1988.2	1587.6	1375.8	1421.8
75°	7740.9	4337.6	2804.1	2119.5	1791.2	1480.9	1270.7	1083.6	980.1	796.3	630.4
77.5°	2814.0	1861.8	1480.9	1280.6	907.9	625.5	523.7	458.1	415.4	415.4	395.7
80°	1779.7	1402.1	978.5	669.8	495.8	431.8	377.6	331.6	305.4	298.8	305.4
82.5°	1111.5	858.6	548.4	420.3	353.0	316.9	275.8	241.3	220.0	215.1	224.9
85°	548.4	425.2	333.3	297.2	279.1	259.4	228.2	195.4	188.8	201.9	236.4
87.5°	164.2	146.1	119.8	124.8	131.3	128.1	101.8	88.7	83.7	110.0	172.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4	5071.4
2.5°	5053.4	5051.7	5055.0	5050.1	5053.4	5055.0	5051.7	5066.5	5056.6	5058.3	5064.9
5°	4979.5	4976.2	4989.3	4986.1	4992.6	4999.2	4995.9	5017.2	5009.0	5015.6	5028.7
7.5°	4856.4	4862.9	4864.6	4864.6	4877.7	4899.0	4904.0	4917.1	4917.1	4935.2	4948.3
10°	4692.2	4693.8	4703.7	4702.0	4718.4	4741.4	4744.7	4767.7	4775.9	4805.5	4823.5
12.5°	4501.7	4493.5	4491.9	4490.2	4511.6	4536.2	4539.5	4578.9	4595.3	4621.6	4651.1
15°	4288.3	4267.0	4260.4	4273.5	4268.6	4283.4	4298.2	4319.5	4342.5	4395.0	4421.3
17.5°	4079.8	4037.1	4025.6	4010.8	3996.1	3996.1	4002.6	4028.9	4076.5	4104.4	4163.5
20°	3866.4	3815.5	3774.4	3735.0	3700.5	3687.4	3689.1	3721.9	3756.4	3802.3	3858.2
22.5°	3687.4	3610.2	3539.7	3487.1	3416.5	3414.9	3405.0	3414.9	3452.6	3464.1	3495.3
25°	3533.1	3429.7	3334.4	3249.1	3180.1	3144.0	3134.1	3130.9	3112.8	3107.9	3084.9
27.5°	3413.2	3288.5	3165.3	3061.9	2976.5	2927.3	2864.9	2820.6	2756.5	2740.1	2699.1
30°	3314.7	3180.1	3045.5	2910.9	2814.0	2725.3	2620.3	2543.1	2444.6	2380.6	2324.7
32.5°	3219.5	3083.2	2947.0	2814.0	2664.6	2526.7	2388.8	2268.9	2158.9	2060.4	1978.3
35°	3140.7	3011.0	2873.1	2712.2	2521.8	2323.1	2157.3	2021.0	1870.0	1766.5	1663.1
37.5°	3089.8	2971.6	2833.7	2612.1	2367.4	2154.0	1965.2	1799.4	1645.1	1489.1	1372.5
40°	3066.8	2963.4	2791.0	2520.1	2232.8	1996.4	1787.9	1604.0	1407.0	1231.3	1106.6
42.5°	3065.2	2960.1	2731.9	2418.3	2121.2	1863.4	1631.9	1411.9	1193.6	1013.0	889.8
45°	3094.7	2955.2	2669.5	2333.0	2022.7	1753.4	1477.6	1210.0	965.4	830.7	765.1
47.5°	3173.5	2963.4	2618.6	2254.1	1929.1	1620.4	1300.3	988.3	786.4	724.0	724.0
50°	3314.7	3011.0	2605.5	2198.3	1835.5	1466.1	1083.6	797.9	696.1	696.1	715.8
52.5°	3531.4	3111.2	2628.5	2158.9	1718.9	1262.5	853.7	687.9	668.2	686.3	712.5
55°	4030.5	3288.5	2659.7	2091.6	1541.6	1001.5	704.3	650.1	658.3	679.7	704.3
57.5°	4946.6	3667.7	2692.5	1943.9	1256.0	771.6	638.6	635.4	650.1	669.8	691.2
60°	5549.2	4150.4	2776.2	1720.6	950.6	637.0	605.8	625.5	643.6	660.0	676.4
62.5°	5549.2	4286.7	2838.6	1471.0	714.2	579.5	584.5	615.7	637.0	645.2	655.1
65°	5194.6	4037.1	2626.8	1198.5	581.2	546.7	564.8	596.0	615.7	622.2	630.4
67.5°	4539.5	3565.9	2213.1	903.0	518.8	518.8	541.8	564.8	581.2	594.3	607.5
69°	3946.8	3199.8	1948.8	765.1	494.2	497.5	520.4	540.1	559.8	576.3	592.7
70°	3520.0	2925.6	1764.9	694.5	479.4	481.0	504.0	525.4	543.4	561.5	581.2
72.5°	1884.8	2021.0	1341.3	569.7	441.6	446.6	467.9	487.6	504.0	522.1	540.1
75°	641.9	868.5	853.7	466.3	398.9	412.1	425.2	443.3	464.6	476.1	486.0
77.5°	376.0	389.1	454.8	379.2	359.5	366.1	380.9	395.7	413.7	425.2	433.4
80°	315.2	313.6	315.2	308.7	313.6	328.4	338.2	357.9	374.3	377.6	376.0
82.5°	256.1	269.3	270.9	267.6	282.4	293.9	302.1	313.6	311.9	315.2	321.8
85°	228.2	226.6	238.1	239.7	239.7	231.5	233.1	233.1	233.1	238.1	239.7
87.5°	228.2	190.4	147.8	133.0	139.6	131.3	124.8	123.1	136.3	149.4	146.1
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):

	160°	165°	170°	175°	180°
0°	5071.4	5071.4	5071.4	5071.4	5071.4
2.5°	5068.1	5073.1	5069.8	5069.8	5073.1
5°	5033.7	5041.9	5038.6	5041.9	5041.9
7.5°	4954.9	4966.4	4974.6	4982.8	4977.8
10°	4841.6	4861.3	4874.4	4884.3	4879.3
12.5°	4672.5	4690.5	4718.4	4734.9	4721.7
15°	4441.0	4491.9	4508.3	4531.3	4518.1
17.5°	4199.6	4230.8	4250.5	4271.9	4285.0
20°	3877.9	3902.5	3928.8	3938.6	3923.8
22.5°	3490.4	3503.5	3498.6	3513.4	3483.8
25°	3065.2	3073.4	3068.5	3081.6	3057.0
27.5°	2662.9	2661.3	2662.9	2646.5	2630.1
30°	2275.5	2260.7	2254.1	2229.5	2224.6
32.5°	1929.1	1878.2	1851.9	1815.8	1807.6
35°	1582.7	1510.4	1462.8	1421.8	1403.7
37.5°	1272.4	1185.4	1129.5	1093.4	1088.5
40°	1006.4	926.0	886.6	866.9	863.6
42.5°	820.9	786.4	776.6	776.6	776.6
45°	748.6	747.0	755.2	761.8	763.4
47.5°	733.9	743.7	755.2	765.1	768.3
50°	733.9	743.7	751.9	761.8	765.1
52.5°	730.6	738.8	742.1	748.6	751.9
55°	720.7	725.7	725.7	728.9	732.2
57.5°	704.3	707.6	702.7	706.0	714.2
60°	687.9	691.2	683.0	691.2	696.1
62.5°	669.8	671.5	668.2	674.8	674.8
65°	640.3	637.0	641.9	646.9	648.5
67.5°	610.7	602.5	607.5	609.1	612.4
69°	587.8	582.8	584.5	587.8	591.0
70°	571.3	568.1	571.3	576.3	581.2
72.5°	530.3	531.9	543.4	553.3	563.1
75°	492.5	504.0	518.8	540.1	551.6
77.5°	446.6	454.8	466.3	489.2	510.6
80°	385.8	390.7	392.4	400.6	398.9
82.5°	313.6	308.7	305.4	302.1	300.4
85°	224.9	223.3	210.1	200.3	200.3
87.5°	134.6	128.1	121.5	113.3	108.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)