

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: P158728

Luminaire Tested: **VST-E11-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158728
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-E11-LED-E-U-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (231) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26932 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 269.7
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

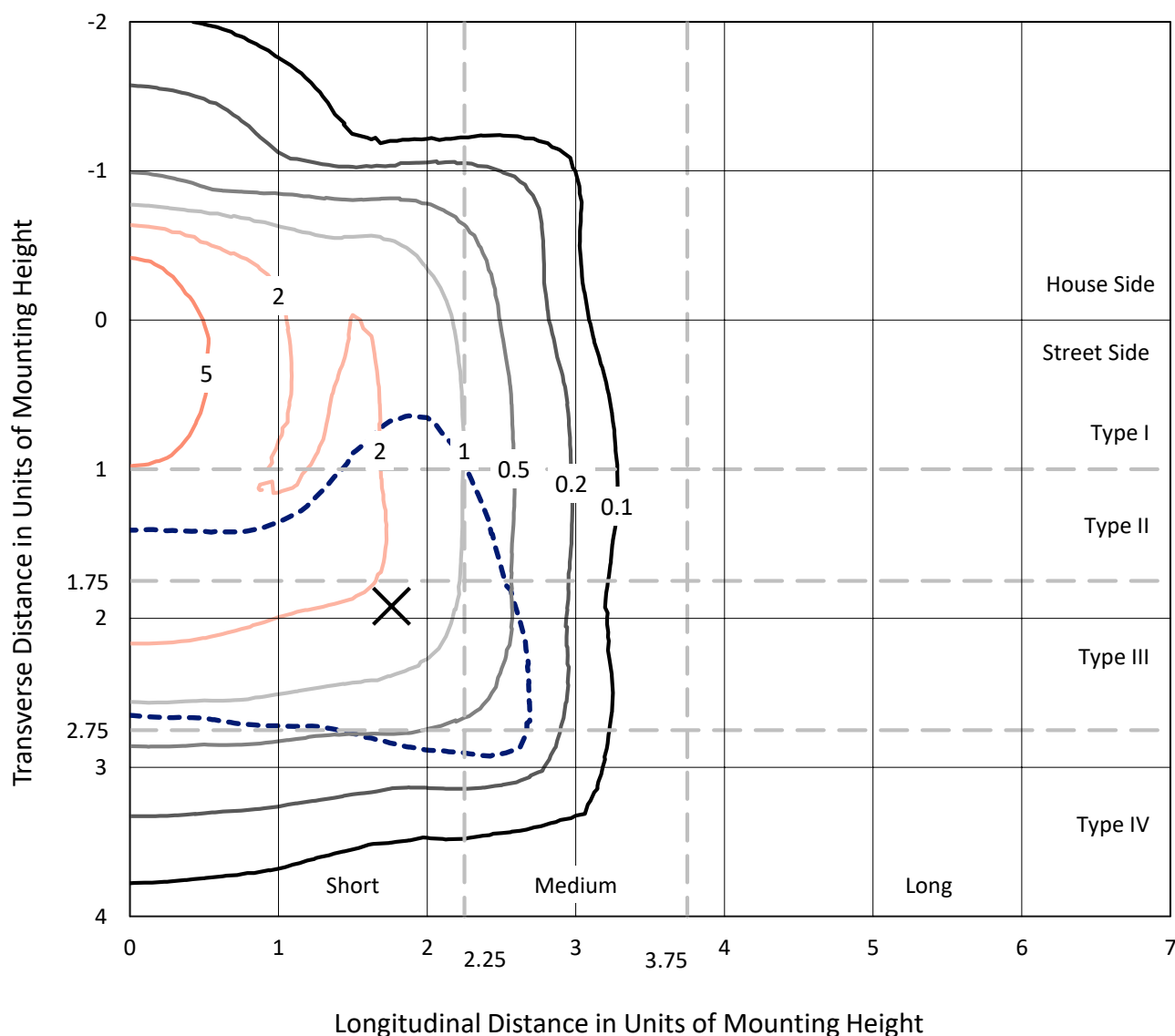


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

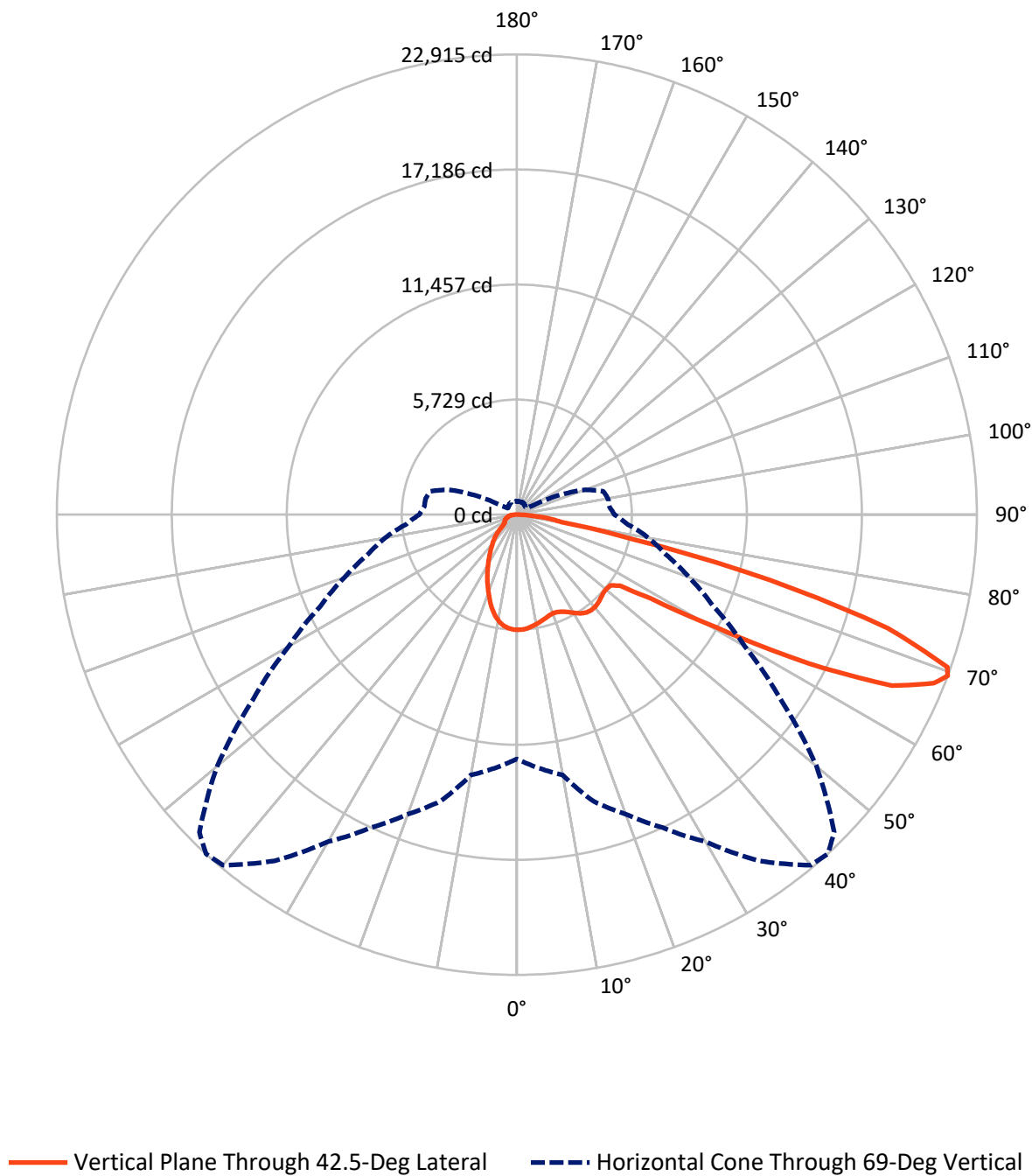


Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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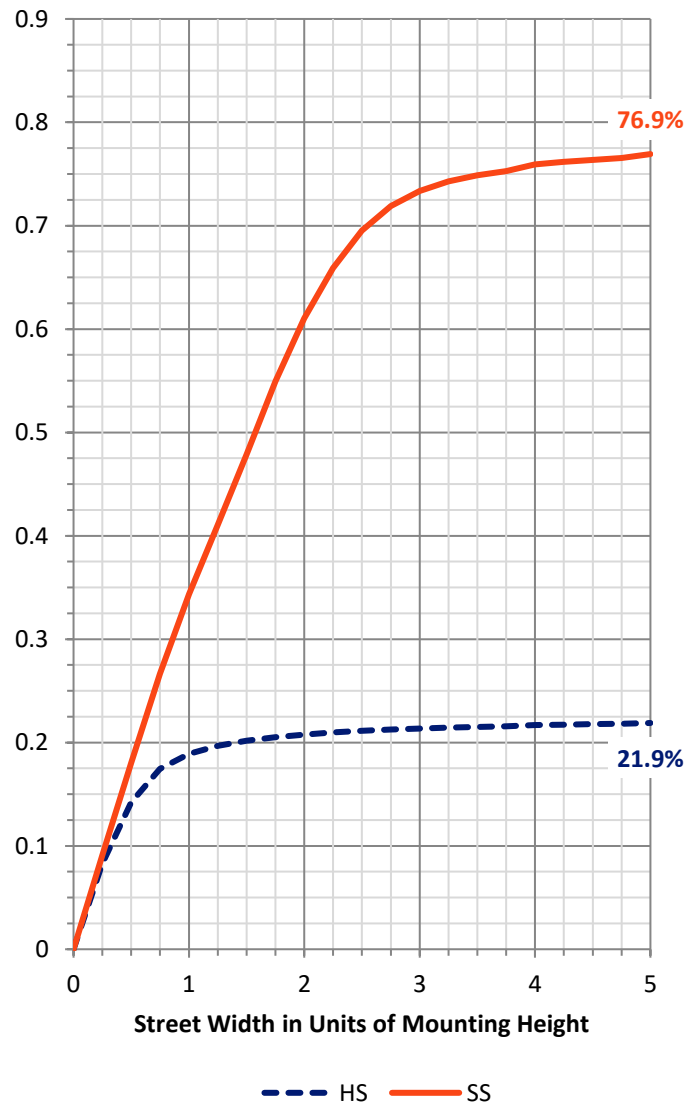
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5987.4	0.0	5987.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	20944.6	0.0	20944.6
	% Fixture	77.8	0.0	77.8
Total	Lumens	26932.0	0.0	26932.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	533.9	2.0
10°-20°	1439.0	5.3
20°-30°	2098.3	7.8
30°-40°	2674.9	9.9
40°-50°	3112.4	11.6
50°-60°	4735.4	17.6
60°-70°	8365.0	31.1
70°-80°	3451.9	12.8
80°-90°	521.2	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°	26932.0	100.0
0°-180°	26932.0	100.0

Coefficient of Utilization



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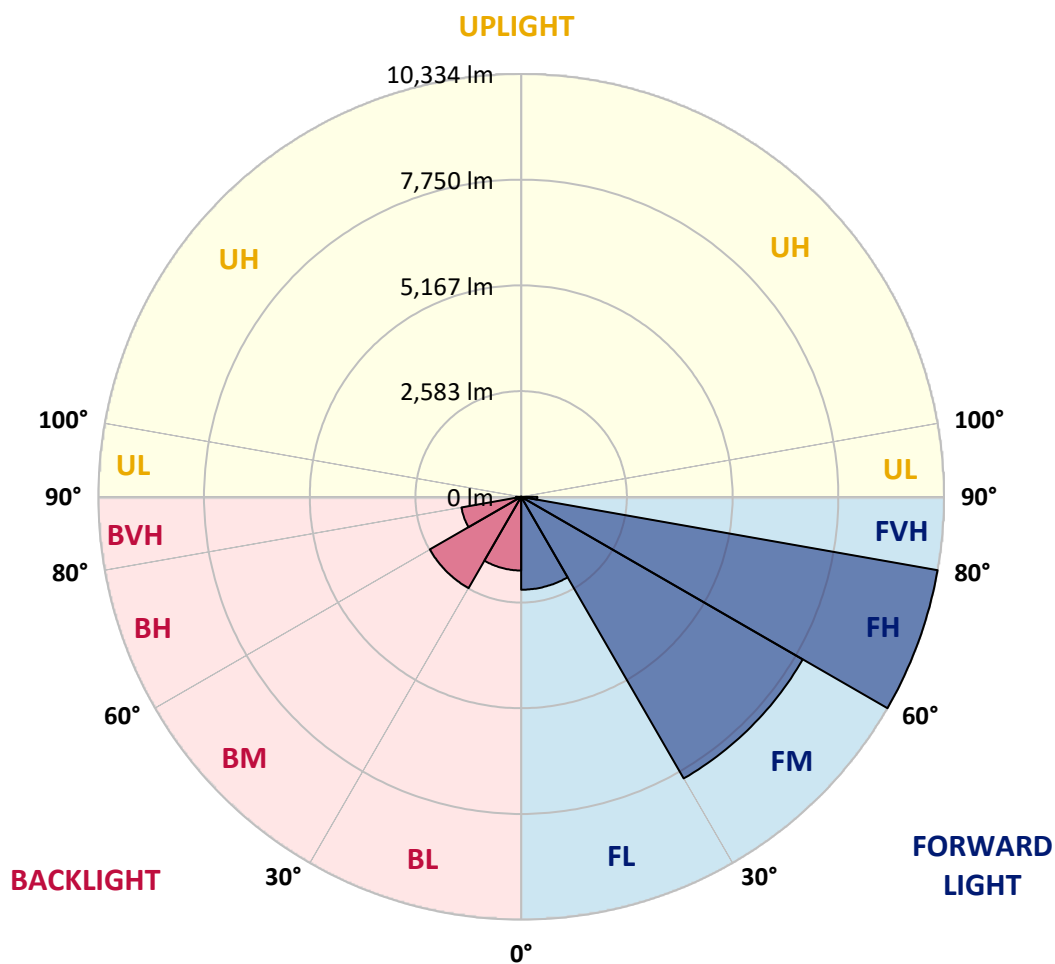
CATALOG NUMBER: VST-E11-LED-E-U-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2271.0	8.4			
FM	(30°-60°)	7945.6	29.5			
FH	(60°-80°)	10333.8	38.4			G4/12000
FVH	(80°-90°)	394.1	1.5			G3/500
BL	(0°-30°)	1800.2	6.7	B3/2500		
BM	(30°-60°)	2577.1	9.6	B3/5000		
BH	(60°-80°)	1483.1	5.5	B3/2500		G3/2500
BVH	(80°-90°)	127.1	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°	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6
2.5°	5717.0	5737.5	5730.0	5730.0	5735.6	5726.3	5726.3	5730.0	5720.7	5726.3	5724.5
5°	5696.6	5707.7	5704.0	5704.0	5704.0	5696.6	5692.9	5691.0	5678.0	5678.0	5672.5
7.5°	5652.0	5655.8	5661.3	5653.9	5652.0	5650.2	5637.2	5629.8	5614.9	5601.9	5605.6
10°	5592.6	5590.8	5600.0	5594.5	5587.1	5581.5	5570.3	5557.3	5540.6	5523.9	5522.1
12.5°	5525.8	5523.9	5531.3	5527.6	5522.1	5510.9	5501.6	5479.4	5453.4	5432.9	5431.1
15°	5483.1	5477.5	5484.9	5477.5	5468.2	5457.1	5440.4	5412.5	5366.1	5345.7	5329.0
17.5°	5523.9	5514.6	5518.4	5509.1	5496.1	5466.4	5427.4	5368.0	5301.1	5265.8	5239.8
20°	5666.9	5650.2	5653.9	5644.6	5614.9	5575.9	5501.6	5397.7	5284.4	5226.8	5186.0
22.5°	5871.1	5858.1	5863.7	5854.4	5824.7	5765.3	5653.9	5505.4	5343.8	5260.3	5195.3
25°	6181.2	6192.4	6196.1	6153.4	6136.7	6027.1	5873.0	5666.9	5451.5	5353.1	5264.0
27.5°	6530.3	6530.3	6547.0	6530.3	6496.9	6368.8	6151.5	5902.7	5626.0	5492.4	5384.7
30°	6870.1	6866.4	6897.9	6894.2	6840.4	6695.5	6448.6	6145.9	5830.3	5679.9	5542.5
32.5°	7230.3	7241.4	7261.9	7254.4	7183.9	6983.3	6686.3	6357.6	6025.3	5860.0	5705.9
35°	7620.2	7625.8	7633.2	7629.5	7486.5	7234.0	6860.8	6493.2	6147.8	5984.4	5824.7
37.5°	8010.1	8004.6	7995.3	7915.5	7752.1	7401.1	6966.6	6571.1	6209.1	6032.7	5867.4
40°	8359.2	8327.7	8298.0	8173.5	7922.9	7495.8	7007.5	6589.7	6203.5	6021.5	5860.0
42.5°	8550.5	8515.2	8453.9	8298.0	7993.4	7505.1	6979.6	6534.0	6145.9	5965.8	5806.2
45°	8585.8	8559.8	8500.3	8325.8	7976.7	7445.7	6894.2	6443.0	6060.5	5880.4	5730.0
47.5°	8502.2	8481.8	8424.2	8251.5	7904.3	7356.6	6795.8	6346.5	5977.0	5808.0	5663.2
50°	8374.1	8355.5	8310.9	8153.1	7822.6	7295.3	6745.7	6296.3	5949.1	5795.0	5661.3
52.5°	8582.0	8596.9	8466.9	8294.2	7909.9	7349.1	6801.4	6348.3	5999.3	5847.0	5707.7
55°	11814.7	11794.3	11012.6	10357.1	9185.5	8123.4	7330.6	6760.5	6387.3	6235.1	6105.1
57.5°	15351.9	15281.3	14960.1	14347.3	13088.4	11408.1	9879.9	8580.2	8067.7	7848.6	7863.5
60°	16506.8	16532.8	16464.1	16246.8	15795.6	14921.1	13758.7	12782.1	11820.3	11350.5	11404.3
62.5°	17147.4	17193.8	17253.2	17204.9	17058.2	16855.8	16709.2	16798.3	16664.6	16326.7	16057.4
65°	17236.5	17331.2	17528.0	17684.0	17760.1	17951.3	18400.7	19477.6	20461.7	20526.7	20053.2
67.5°	15472.5	15734.4	16161.4	16883.7	17502.0	18181.6	19265.9	20903.6	22355.6	22403.9	21962.0
69°	12165.6	12668.8	13168.3	14781.8	15868.0	17199.4	18803.6	21041.0	22780.8	22914.5	22357.5
70°	9748.1	10047.0	10477.8	12098.8	13721.6	15418.7	17743.4	20588.0	22489.3	22758.6	22144.0
72.5°	5852.6	5967.7	6116.2	6697.4	7533.0	9044.4	12126.6	16785.3	18970.7	19330.9	18549.2
75°	3784.1	3776.7	3789.7	3951.2	3999.5	4289.2	5260.3	8635.9	12375.4	13029.0	12093.2
77.5°	2850.2	2876.2	2835.3	2850.2	2837.2	2915.1	2944.9	3091.5	4885.2	6017.8	5380.9
80°	2515.9	2528.9	2530.8	2523.4	2432.4	2425.0	2473.2	2389.7	2220.7	2254.1	2159.4
82.5°	1435.3	1433.4	1450.1	1576.4	1628.4	1799.2	1869.8	1908.8	1762.1	1652.5	1494.7
85°	930.2	937.7	956.2	995.2	956.2	971.1	954.4	987.8	906.1	841.1	752.0
87.5°	380.6	380.6	404.8	440.1	410.3	402.9	345.4	341.6	289.7	261.8	204.2
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6
2.5°	5713.3	5724.5	5718.9	5726.3	5720.7	5720.7	5713.3	5711.5	5717.0	5709.6	5711.5
5°	5663.2	5665.0	5655.8	5659.5	5648.3	5644.6	5639.0	5624.2	5633.5	5624.2	5627.9
7.5°	5590.8	5585.2	5572.2	5553.6	5540.6	5535.1	5523.9	5503.5	5507.2	5490.5	5499.8
10°	5497.9	5479.4	5457.1	5429.2	5410.7	5393.9	5369.8	5345.7	5332.7	5317.8	5316.0
12.5°	5393.9	5371.7	5342.0	5299.3	5258.4	5230.5	5193.4	5150.7	5137.7	5113.6	5100.6
15°	5280.7	5245.4	5210.1	5161.8	5117.3	5074.6	5024.4	4970.6	4935.3	4898.2	4870.3
17.5°	5178.6	5137.7	5091.3	5044.9	4996.6	4944.6	4881.5	4814.6	4762.6	4693.9	4638.2
20°	5098.7	5046.7	5000.3	4952.0	4898.2	4835.1	4758.9	4673.5	4586.2	4510.1	4445.1
22.5°	5067.2	4985.5	4929.8	4881.5	4827.6	4753.4	4660.5	4560.3	4454.4	4348.6	4263.2
25°	5093.1	4972.5	4885.2	4827.6	4781.2	4705.1	4601.1	4478.6	4356.0	4229.7	4114.6
27.5°	5169.3	5015.2	4888.9	4797.9	4744.1	4667.9	4558.4	4428.4	4283.6	4142.5	4001.4
30°	5288.1	5087.6	4927.9	4799.8	4716.2	4629.0	4513.8	4363.4	4216.7	4055.2	3901.1
32.5°	5403.2	5163.7	4972.5	4807.2	4679.1	4565.8	4437.7	4289.2	4131.3	3962.4	3802.7
35°	5484.9	5213.8	4989.2	4790.5	4621.5	4480.4	4343.0	4194.5	4040.4	3867.7	3704.3
37.5°	5523.9	5241.7	4991.0	4745.9	4545.4	4389.4	4242.7	4096.1	3951.2	3787.8	3633.7
40°	5522.1	5239.8	4965.0	4688.4	4454.4	4289.2	4144.3	4001.4	3865.8	3722.8	3583.6
42.5°	5481.2	5210.1	4927.9	4632.7	4389.4	4205.6	4055.2	3917.8	3802.7	3676.4	3559.4
45°	5418.1	5160.0	4888.9	4606.7	4370.9	4187.0	4027.4	3893.7	3791.5	3676.4	3576.2
47.5°	5369.8	5132.1	4894.5	4653.1	4428.4	4237.2	4068.2	3921.5	3834.3	3741.4	3670.9
50°	5377.2	5145.1	4913.0	4680.9	4469.3	4276.2	4112.8	3979.1	3915.9	3891.8	3875.1
52.5°	5416.2	5165.6	4968.7	4829.5	4757.1	4612.2	4515.7	4432.1	4478.6	4387.6	4279.9
55°	5913.8	5832.1	6023.4	6203.5	6431.9	6517.3	6435.6	6420.7	6495.0	6186.8	5479.4
57.5°	7969.3	8181.0	8476.2	8632.2	8821.6	8771.4	8582.0	8424.2	8238.5	7878.3	6996.3
60°	11465.6	11305.9	11172.2	10795.3	10487.1	10126.9	9725.8	9382.3	9053.7	8535.6	7581.2
62.5°	15067.8	13959.3	13032.7	12137.8	11417.3	10819.5	10238.3	9722.1	9224.5	8502.2	7475.4
65°	18183.4	15849.5	14109.7	12796.9	11744.1	10836.2	10089.7	9376.7	8743.6	7896.9	6881.2
67.5°	19583.5	16659.0	14128.2	12247.3	10789.7	9556.8	8591.3	7514.4	6805.1	6262.9	5691.0
69°	19479.5	16040.7	13120.0	10804.6	9129.8	7692.6	6656.6	5533.2	4853.6	4623.4	4610.4
70°	18985.6	14993.5	11942.8	9633.0	7716.8	6288.9	5295.5	4287.3	3654.1	3496.3	3776.7
72.5°	15500.4	10594.8	7484.7	5715.2	4395.0	3474.0	2833.4	2248.6	1795.5	1556.0	1608.0
75°	8754.7	4905.6	3171.4	2397.1	2025.7	1674.8	1437.1	1225.5	1108.5	900.5	713.0
77.5°	3182.5	2105.6	1674.8	1448.3	1026.8	707.4	592.3	518.0	469.8	469.8	447.5
80°	2012.7	1585.7	1106.6	757.6	560.7	488.3	427.1	375.1	345.4	337.9	345.4
82.5°	1257.0	971.1	620.2	475.3	399.2	358.4	311.9	272.9	248.8	243.2	254.4
85°	620.2	480.9	376.9	336.1	315.7	293.4	258.1	221.0	213.5	228.4	267.4
87.5°	185.7	165.3	135.5	141.1	148.5	144.8	115.1	100.3	94.7	124.4	195.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6	5735.6
2.5°	5715.2	5713.3	5717.0	5711.5	5715.2	5717.0	5713.3	5730.0	5718.9	5720.7	5728.2
5°	5631.6	5627.9	5642.8	5639.0	5646.5	5653.9	5650.2	5674.3	5665.0	5672.5	5687.3
7.5°	5492.4	5499.8	5501.6	5501.6	5516.5	5540.6	5546.2	5561.1	5561.1	5581.5	5596.3
10°	5306.7	5308.5	5319.7	5317.8	5336.4	5362.4	5366.1	5392.1	5401.4	5434.8	5455.2
12.5°	5091.3	5082.0	5080.2	5078.3	5102.4	5130.3	5134.0	5178.6	5197.1	5226.8	5260.3
15°	4849.9	4825.8	4818.3	4833.2	4827.6	4844.3	4861.1	4885.2	4911.2	4970.6	5000.3
17.5°	4614.1	4565.8	4552.8	4536.1	4519.4	4519.4	4526.8	4556.5	4610.4	4642.0	4708.8
20°	4372.7	4315.2	4268.7	4224.2	4185.2	4170.3	4172.2	4209.3	4248.3	4300.3	4363.4
22.5°	4170.3	4083.1	4003.2	3943.8	3864.0	3862.1	3851.0	3862.1	3904.8	3917.8	3953.1
25°	3995.8	3878.8	3771.1	3674.6	3596.6	3555.7	3544.6	3540.9	3520.5	3514.9	3488.9
27.5°	3860.2	3719.1	3579.9	3462.9	3366.3	3310.6	3240.1	3189.9	3117.5	3099.0	3052.5
30°	3748.8	3596.6	3444.3	3292.1	3182.5	3082.3	2963.4	2876.2	2764.7	2692.3	2629.2
32.5°	3641.1	3487.0	3332.9	3182.5	3013.6	2857.6	2701.6	2566.1	2441.7	2330.3	2237.4
35°	3552.0	3405.3	3249.4	3067.4	2852.0	2627.3	2439.8	2285.7	2114.9	1997.9	1880.9
37.5°	3494.5	3360.8	3204.8	2954.1	2677.5	2436.1	2222.6	2035.0	1860.5	1684.1	1552.3
40°	3468.5	3351.5	3156.5	2850.2	2525.2	2257.8	2022.0	1814.1	1591.3	1392.6	1251.5
42.5°	3466.6	3347.8	3089.7	2735.0	2399.0	2107.4	1845.6	1596.8	1349.9	1145.6	1006.4
45°	3500.0	3342.2	3019.1	2638.5	2287.6	1983.0	1671.1	1368.4	1091.8	939.5	865.3
47.5°	3589.2	3351.5	2961.6	2549.4	2181.7	1832.6	1470.6	1117.8	889.4	818.8	818.8
50°	3748.8	3405.3	2946.7	2486.2	2075.9	1658.1	1225.5	902.4	787.3	787.3	809.6
52.5°	3993.9	3518.6	2972.7	2441.7	1944.0	1427.9	965.5	778.0	755.7	776.1	805.8
55°	4558.4	3719.1	3008.0	2365.5	1743.5	1132.6	796.6	735.3	744.6	768.7	796.6
57.5°	5594.5	4148.0	3045.1	2198.4	1420.4	872.7	722.3	718.6	735.3	757.6	781.7
60°	6275.9	4693.9	3139.8	1945.9	1075.1	720.4	685.2	707.4	727.9	746.4	765.0
62.5°	6275.9	4848.1	3210.4	1663.7	807.7	655.4	661.0	696.3	720.4	729.7	740.9
65°	5874.9	4565.8	2970.8	1355.4	657.3	618.3	638.7	674.0	696.3	703.7	713.0
67.5°	5134.0	4032.9	2502.9	1021.2	586.7	586.7	612.7	638.7	657.3	672.2	687.0
69°	4463.7	3618.9	2204.0	865.3	558.9	562.6	588.6	610.9	633.2	651.7	670.3
70°	3980.9	3308.8	1996.0	785.4	542.2	544.0	570.0	594.2	614.6	635.0	657.3
72.5°	2131.6	2285.7	1517.0	644.3	499.5	505.0	529.2	551.5	570.0	590.5	610.9
75°	726.0	982.2	965.5	527.3	451.2	466.1	480.9	501.3	525.5	538.5	549.6
77.5°	425.2	440.1	514.3	428.9	406.6	414.1	430.8	447.5	467.9	480.9	490.2
80°	356.5	354.6	356.5	349.1	354.6	371.4	382.5	404.8	423.3	427.1	425.2
82.5°	289.7	304.5	306.4	302.7	319.4	332.4	341.6	354.6	352.8	356.5	363.9
85°	258.1	256.2	269.2	271.1	271.1	261.8	263.7	263.7	263.7	269.2	271.1
87.5°	258.1	215.4	167.1	150.4	157.8	148.5	141.1	139.3	154.1	169.0	165.3
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):

	160°	165°	170°	175°	180°
0°	5735.6	5735.6	5735.6	5735.6	5735.6
2.5°	5731.9	5737.5	5733.7	5733.7	5737.5
5°	5692.9	5702.2	5698.5	5702.2	5702.2
7.5°	5603.8	5616.8	5626.0	5635.3	5629.8
10°	5475.6	5497.9	5512.8	5523.9	5518.4
12.5°	5284.4	5304.8	5336.4	5355.0	5340.1
15°	5022.6	5080.2	5098.7	5124.7	5109.9
17.5°	4749.6	4784.9	4807.2	4831.3	4846.2
20°	4385.7	4413.6	4443.3	4454.4	4437.7
22.5°	3947.5	3962.4	3956.8	3973.5	3940.1
25°	3466.6	3475.9	3470.3	3485.2	3457.3
27.5°	3011.7	3009.8	3011.7	2993.1	2974.6
30°	2573.5	2556.8	2549.4	2521.5	2515.9
32.5°	2181.7	2124.2	2094.4	2053.6	2044.3
35°	1789.9	1708.2	1654.4	1608.0	1587.5
37.5°	1439.0	1340.6	1277.5	1236.6	1231.0
40°	1138.2	1047.2	1002.7	980.4	976.7
42.5°	928.4	889.4	878.3	878.3	878.3
45°	846.7	844.8	854.1	861.5	863.4
47.5°	830.0	841.1	854.1	865.3	869.0
50°	830.0	841.1	850.4	861.5	865.3
52.5°	826.3	835.6	839.3	846.7	850.4
55°	815.1	820.7	820.7	824.4	828.1
57.5°	796.6	800.3	794.7	798.4	807.7
60°	778.0	781.7	772.4	781.7	787.3
62.5°	757.6	759.4	755.7	763.1	763.1
65°	724.1	720.4	726.0	731.6	733.4
67.5°	690.7	681.4	687.0	688.9	692.6
69°	664.7	659.2	661.0	664.7	668.4
70°	646.2	642.4	646.2	651.7	657.3
72.5°	599.7	601.6	614.6	625.7	636.9
75°	557.0	570.0	586.7	610.9	623.9
77.5°	505.0	514.3	527.3	553.3	577.5
80°	436.3	441.9	443.8	453.1	451.2
82.5°	354.6	349.1	345.4	341.6	339.8
85°	254.4	252.5	237.7	226.5	226.5
87.5°	152.3	144.8	137.4	128.1	122.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)