

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: P158739

Luminaire Tested: **VST-E12-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158739
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-E12-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31794.8 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 291.7
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

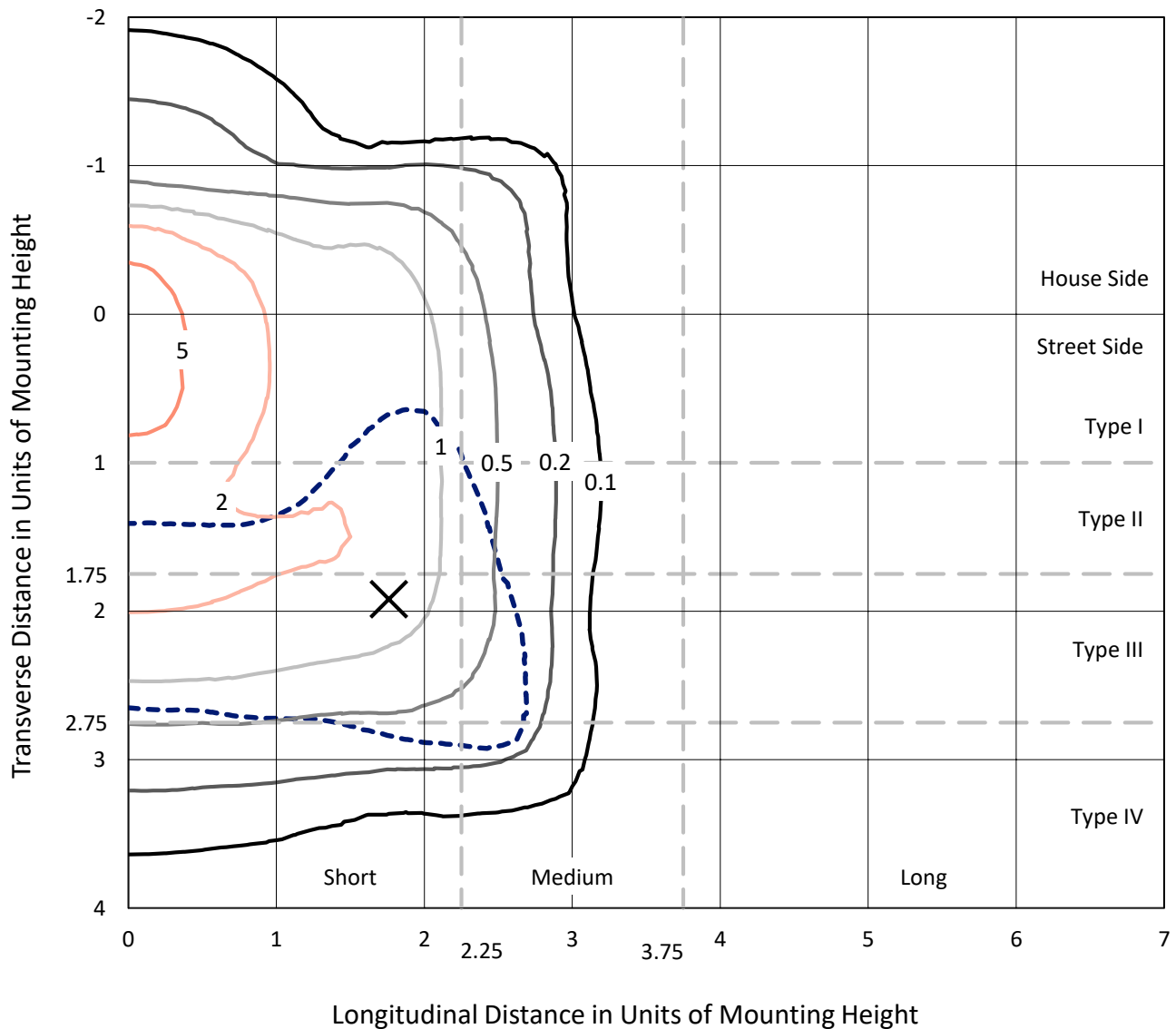


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

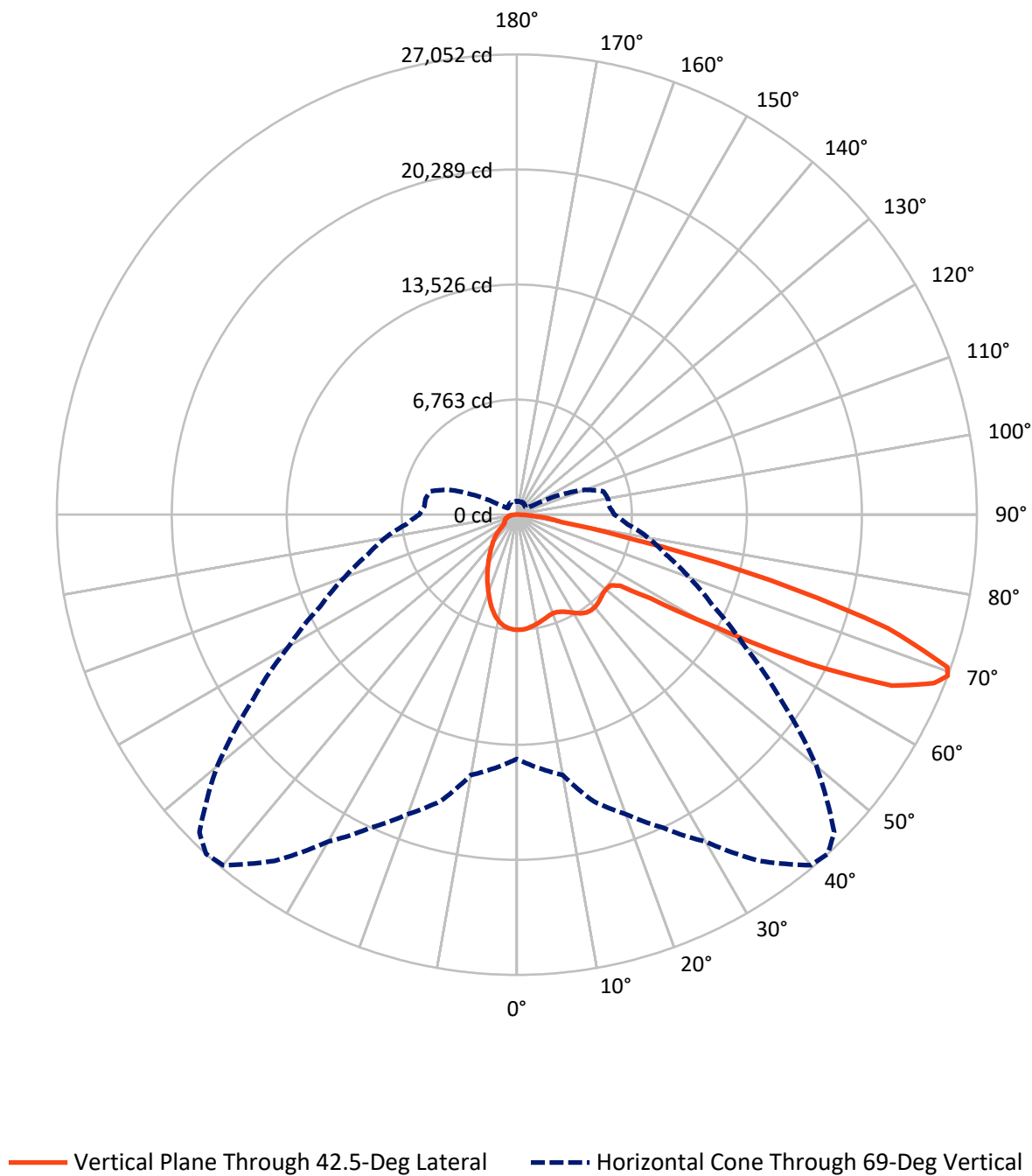


Based on 30 foot mounting height. Maximum calculated value = 7.5 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7068.5	0.0	7068.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	24726.3	0.0	24726.3
	% Fixture	77.8	0.0	77.8
Total	Lumens	31794.8	0.0	31794.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	630.3	2.0
10°-20°	1698.8	5.3
20°-30°	2477.2	7.8
30°-40°	3157.9	9.9
40°-50°	3674.3	11.6
50°-60°	5590.5	17.6
60°-70°	9875.4	31.1
70°-80°	4075.1	12.8
80°-90°	615.3	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°	31794.8	100.0
0°-180°	31794.8	100.0

Coefficient of Utilization



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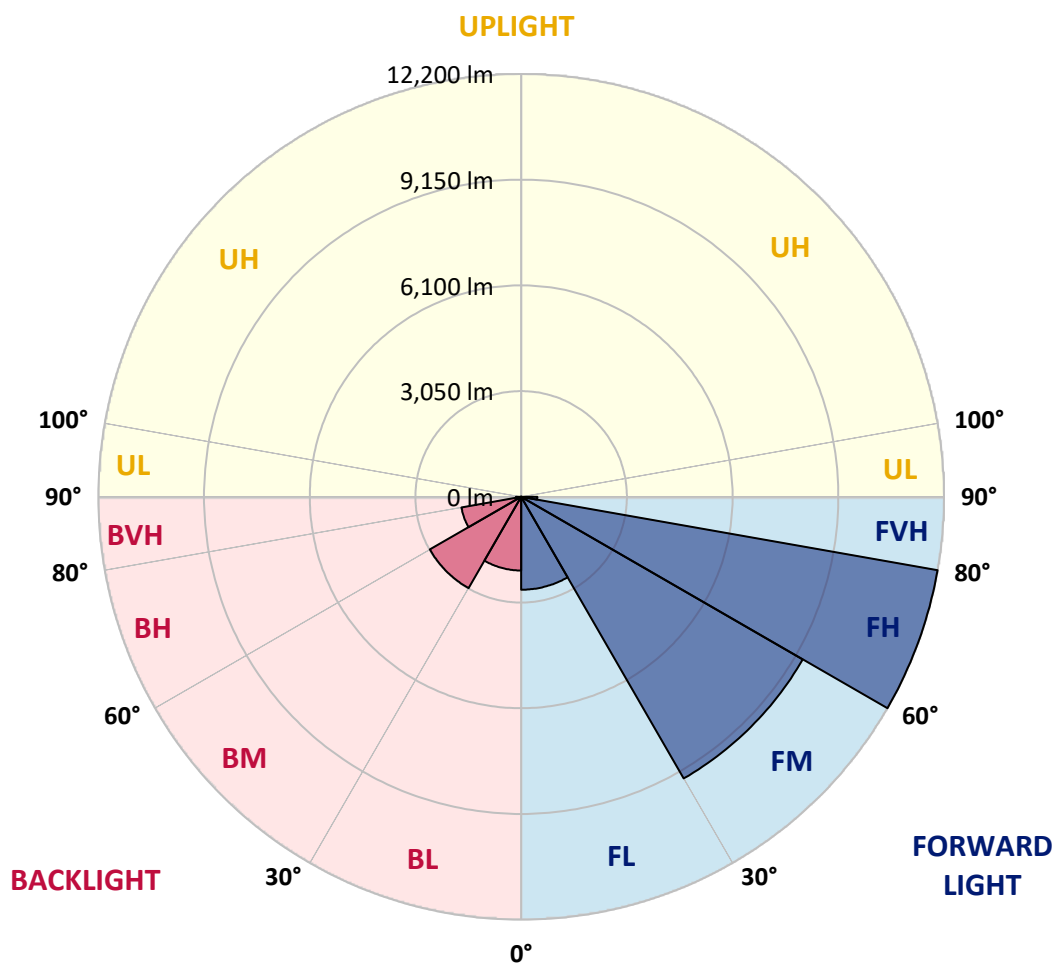
CATALOG NUMBER: VST-E12-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2681.1	8.4			
FM	(30°-60°)	9380.3	29.5			
FH	(60°-80°)	12199.7	38.4			G5
FVH	(80°-90°)	465.3	1.5			G3/500
BL	(0°-30°)	2125.2	6.7	B3/2500		
BM	(30°-60°)	3042.4	9.6	B3/5000		
BH	(60°-80°)	1750.9	5.5	B3/2500		G3/2500
BVH	(80°-90°)	150.0	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2
2.5°	6749.3	6773.4	6764.6	6764.6	6771.2	6760.3	6760.3	6764.6	6753.7	6760.3	6758.1
5°	6725.2	6738.3	6733.9	6733.9	6733.9	6725.2	6720.8	6718.6	6703.3	6703.3	6696.7
7.5°	6672.6	6677.0	6683.5	6674.8	6672.6	6670.4	6655.0	6646.3	6628.7	6613.4	6617.8
10°	6602.4	6600.2	6611.2	6604.6	6595.9	6589.3	6576.1	6560.8	6541.0	6521.3	6519.1
12.5°	6523.5	6521.3	6530.1	6525.7	6519.1	6506.0	6495.0	6468.7	6438.0	6413.9	6411.7
15°	6473.1	6466.5	6475.3	6466.5	6455.6	6442.4	6422.7	6389.8	6335.0	6310.9	6291.2
17.5°	6521.3	6510.4	6514.7	6503.8	6488.4	6453.4	6407.3	6337.2	6258.3	6216.6	6185.9
20°	6690.1	6670.4	6674.8	6663.8	6628.7	6582.7	6495.0	6372.3	6238.5	6170.6	6122.4
22.5°	6931.2	6915.9	6922.5	6911.5	6876.4	6806.3	6674.8	6499.4	6308.7	6210.1	6133.3
25°	7297.3	7310.5	7314.8	7264.4	7244.7	7115.4	6933.4	6690.1	6435.8	6319.7	6214.4
27.5°	7709.4	7709.4	7729.1	7709.4	7670.0	7518.7	7262.2	6968.5	6641.9	6484.1	6356.9
30°	8110.6	8106.2	8143.4	8139.0	8075.5	7904.5	7613.0	7255.7	6883.0	6705.5	6543.2
32.5°	8535.8	8549.0	8573.1	8564.3	8481.0	8244.3	7893.5	7505.5	7113.2	6918.1	6736.1
35°	8996.1	9002.7	9011.5	9007.1	8838.3	8540.2	8099.6	7665.6	7257.8	7064.9	6876.4
37.5°	9456.5	9449.9	9438.9	9344.7	9151.8	8737.5	8224.5	7757.6	7330.2	7121.9	6926.8
40°	9868.6	9831.3	9796.2	9649.4	9353.4	8849.3	8272.8	7779.6	7323.6	7108.8	6918.1
42.5°	10094.3	10052.7	9980.4	9796.2	9436.7	8860.2	8239.9	7713.8	7255.7	7043.0	6854.5
45°	10136.0	10105.3	10035.2	9829.1	9417.0	8790.1	8139.0	7606.4	7154.8	6942.2	6764.6
47.5°	10037.4	10013.2	9945.3	9741.4	9331.5	8684.9	8022.9	7492.4	7056.2	6856.7	6685.7
50°	9886.1	9864.2	9811.6	9625.3	9235.1	8612.5	7963.7	7433.2	7023.3	6841.4	6683.5
52.5°	10131.6	10149.1	9995.7	9791.8	9338.1	8676.1	8029.4	7494.6	7082.5	6902.7	6738.3
55°	13948.0	13923.8	13001.0	12227.2	10844.0	9590.2	8654.2	7981.2	7540.6	7360.9	7207.4
57.5°	18123.8	18040.5	17661.3	16937.9	15451.7	13467.9	11663.8	10129.4	9524.4	9265.8	9283.3
60°	19487.2	19517.9	19436.8	19180.4	18647.7	17615.2	16243.0	15090.0	13954.5	13399.9	13463.5
62.5°	20243.5	20298.3	20368.4	20311.5	20138.3	19899.3	19726.2	19831.4	19673.6	19274.6	18956.8
65°	20348.7	20460.5	20692.9	20877.0	20966.9	21192.7	21723.1	22994.5	24156.3	24233.0	23674.0
67.5°	18266.3	18575.4	19079.5	19932.2	20662.2	21464.5	22744.6	24678.0	26392.2	26449.2	25927.5
69°	14362.3	14956.3	15546.0	17450.8	18733.2	20304.9	22198.8	24840.2	26894.1	27052.0	26394.4
70°	11508.2	11861.1	12369.7	14283.3	16199.2	18202.7	20947.1	24305.3	26550.0	26867.8	26142.3
72.5°	6909.3	7045.2	7220.6	7906.7	8893.1	10677.4	14316.2	19816.0	22396.1	22821.3	21898.5
75°	4467.4	4458.6	4474.0	4664.7	4721.7	5063.6	6210.1	10195.2	14610.0	15381.6	14276.8
77.5°	3364.8	3395.5	3347.2	3364.8	3349.4	3441.5	3476.6	3649.7	5767.3	7104.4	6352.5
80°	2970.2	2985.6	2987.8	2979.0	2871.6	2862.8	2919.8	2821.2	2621.7	2661.1	2549.3
82.5°	1694.4	1692.3	1712.0	1861.0	1922.4	2124.1	2207.4	2253.4	2080.2	1950.9	1764.6
85°	1098.2	1107.0	1128.9	1174.9	1128.9	1146.4	1126.7	1166.2	1069.7	993.0	887.8
87.5°	449.4	449.4	477.9	519.5	484.4	475.7	407.7	403.3	342.0	309.1	241.1
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2
2.5°	6744.9	6758.1	6751.5	6760.3	6753.7	6753.7	6744.9	6742.7	6749.3	6740.5	6742.7
5°	6685.7	6687.9	6677.0	6681.3	6668.2	6663.8	6657.2	6639.7	6650.7	6639.7	6644.1
7.5°	6600.2	6593.7	6578.3	6556.4	6541.0	6534.5	6521.3	6497.2	6501.6	6481.9	6492.8
10°	6490.6	6468.7	6442.4	6409.5	6387.6	6367.9	6339.4	6310.9	6295.5	6278.0	6275.8
12.5°	6367.9	6341.6	6306.5	6256.1	6207.9	6175.0	6131.1	6080.7	6065.4	6036.9	6021.5
15°	6234.2	6192.5	6150.9	6093.9	6041.3	5990.8	5931.7	5868.1	5826.4	5782.6	5749.7
17.5°	6113.6	6065.4	6010.6	5955.8	5898.8	5837.4	5762.9	5684.0	5622.6	5541.5	5475.7
20°	6019.3	5958.0	5903.2	5846.2	5782.6	5708.1	5618.2	5517.4	5414.3	5324.5	5247.7
22.5°	5982.1	5885.6	5819.9	5762.9	5699.3	5611.6	5502.0	5383.7	5258.7	5133.8	5032.9
25°	6012.8	5870.3	5767.3	5699.3	5644.5	5554.6	5431.9	5287.2	5142.5	4993.5	4857.6
27.5°	6102.6	5920.7	5771.6	5664.2	5600.7	5510.8	5381.5	5228.0	5057.0	4890.4	4723.8
30°	6242.9	6006.2	5817.7	5666.4	5567.8	5464.8	5328.9	5151.3	4978.1	4787.4	4605.5
32.5°	6378.8	6096.1	5870.3	5675.2	5523.9	5390.2	5239.0	5063.6	4877.3	4677.8	4489.3
35°	6475.3	6155.3	5890.0	5655.5	5456.0	5289.4	5127.2	4951.8	4769.9	4566.0	4373.1
37.5°	6521.3	6188.1	5892.2	5602.9	5366.1	5182.0	5008.8	4835.6	4664.7	4471.8	4289.8
40°	6519.1	6185.9	5861.5	5534.9	5258.7	5063.6	4892.6	4723.8	4563.8	4395.0	4230.6
42.5°	6470.9	6150.9	5817.7	5469.1	5182.0	4965.0	4787.4	4625.2	4489.3	4340.2	4202.1
45°	6396.4	6091.7	5771.6	5438.5	5160.1	4943.1	4754.5	4596.7	4476.1	4340.2	4221.9
47.5°	6339.4	6058.8	5778.2	5493.3	5228.0	5002.2	4802.8	4629.6	4526.6	4417.0	4333.7
50°	6348.2	6074.1	5800.1	5526.1	5276.2	5048.3	4855.4	4697.5	4623.0	4594.5	4574.8
52.5°	6394.2	6098.3	5865.9	5701.5	5616.0	5445.0	5331.0	5232.4	5287.2	5179.8	5052.7
55°	6981.6	6885.2	7111.0	7323.6	7593.2	7694.1	7597.6	7580.1	7667.8	7303.9	6468.7
57.5°	9408.2	9658.1	10006.7	10190.8	10414.4	10355.2	10131.6	9945.3	9726.1	9300.8	8259.6
60°	13535.9	13347.3	13189.5	12744.5	12380.6	11955.4	11481.9	11076.4	10688.4	10076.8	8950.1
62.5°	17788.4	16479.8	15385.9	14329.4	13478.9	12773.0	12086.9	11477.5	10890.1	10037.4	8825.2
65°	21466.7	18711.3	16657.3	15107.5	13864.7	12792.8	11911.5	11069.8	10322.3	9322.7	8123.7
67.5°	23119.5	19667.0	16679.2	14458.7	12737.9	11282.4	10142.6	8871.2	8033.8	7393.8	6718.6
69°	22996.7	18937.0	15489.0	12755.5	10778.3	9081.6	7858.5	6532.3	5730.0	5458.2	5442.8
70°	22413.6	17700.7	14099.2	11372.3	9110.1	7424.4	6251.7	5061.4	4313.9	4127.6	4458.6
72.5°	18299.2	12507.8	8836.1	6747.1	5188.6	4101.3	3345.1	2654.6	2119.7	1836.9	1898.3
75°	10335.5	5791.4	3744.0	2829.9	2391.5	1977.2	1696.6	1446.7	1308.6	1063.1	841.7
77.5°	3757.2	2485.8	1977.2	1709.8	1212.2	835.2	699.3	611.6	554.6	554.6	528.3
80°	2376.2	1872.0	1306.5	894.4	662.0	576.5	504.2	442.8	407.7	399.0	407.7
82.5°	1484.0	1146.4	732.1	561.2	471.3	423.1	368.3	322.2	293.7	287.2	300.3
85°	732.1	567.7	445.0	396.8	372.6	346.3	304.7	260.9	252.1	269.6	315.7
87.5°	219.2	195.1	160.0	166.6	175.4	171.0	135.9	118.4	111.8	146.9	230.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2	6771.2
2.5°	6747.1	6744.9	6749.3	6742.7	6747.1	6749.3	6744.9	6764.6	6751.5	6753.7	6762.4
5°	6648.5	6644.1	6661.6	6657.2	6666.0	6674.8	6670.4	6698.9	6687.9	6696.7	6714.2
7.5°	6484.1	6492.8	6495.0	6495.0	6512.6	6541.0	6547.6	6565.2	6565.2	6589.3	6606.8
10°	6264.9	6267.0	6280.2	6278.0	6299.9	6330.6	6335.0	6365.7	6376.6	6416.1	6440.2
12.5°	6010.6	5999.6	5997.4	5995.2	6023.7	6056.6	6061.0	6113.6	6135.5	6170.6	6210.1
15°	5725.6	5697.1	5688.3	5705.9	5699.3	5719.0	5738.8	5767.3	5797.9	5868.1	5903.2
17.5°	5447.2	5390.2	5374.9	5355.2	5335.4	5335.4	5344.2	5379.3	5442.8	5480.1	5559.0
20°	5162.3	5094.3	5039.5	4986.9	4940.9	4923.3	4925.5	4969.4	5015.4	5076.8	5151.3
22.5°	4923.3	4820.3	4726.0	4655.9	4561.6	4559.4	4546.3	4559.4	4609.9	4625.2	4666.9
25°	4717.3	4579.2	4452.0	4338.0	4246.0	4197.8	4184.6	4180.2	4156.1	4149.5	4118.8
27.5°	4557.3	4390.7	4226.3	4088.2	3974.2	3908.4	3825.1	3765.9	3680.4	3658.5	3603.7
30°	4425.7	4246.0	4066.2	3886.5	3757.2	3638.8	3498.5	3395.5	3263.9	3178.5	3103.9
32.5°	4298.6	4116.7	3934.7	3757.2	3557.7	3373.6	3189.4	3029.4	2882.5	2751.0	2641.4
35°	4193.4	4020.2	3836.1	3621.3	3367.0	3101.7	2880.3	2698.4	2496.7	2358.6	2220.5
37.5°	4125.4	3967.6	3783.5	3487.5	3160.9	2876.0	2623.9	2402.5	2196.4	1988.2	1832.5
40°	4094.7	3956.6	3726.5	3364.8	2981.2	2665.5	2387.1	2141.6	1878.6	1644.0	1477.4
42.5°	4092.5	3952.2	3647.6	3228.9	2832.1	2488.0	2178.9	1885.2	1593.6	1352.5	1188.1
45°	4132.0	3945.7	3564.3	3114.9	2700.6	2341.1	1972.8	1615.5	1288.9	1109.2	1021.5
47.5°	4237.2	3956.6	3496.3	3009.7	2575.6	2163.5	1736.1	1319.6	1050.0	966.7	966.7
50°	4425.7	4020.2	3478.8	2935.1	2450.7	1957.5	1446.7	1065.3	929.4	929.4	955.7
52.5°	4715.1	4153.9	3509.5	2882.5	2295.1	1685.7	1139.9	918.5	892.2	916.3	951.3
55°	5381.5	4390.7	3551.1	2792.7	2058.3	1337.1	940.4	868.0	879.0	907.5	940.4
57.5°	6604.6	4897.0	3594.9	2595.4	1676.9	1030.3	852.7	848.3	868.0	894.4	922.8
60°	7409.1	5541.5	3706.7	2297.3	1269.2	850.5	808.9	835.2	859.3	881.2	903.1
62.5°	7409.1	5723.4	3790.0	1964.1	953.5	773.8	780.4	822.0	850.5	861.5	874.6
65°	6935.6	5390.2	3507.3	1600.2	776.0	729.9	754.1	795.7	822.0	830.8	841.7
67.5°	6061.0	4761.1	2954.9	1205.6	692.7	692.7	723.4	754.1	776.0	793.5	811.1
69°	5269.7	4272.3	2602.0	1021.5	659.8	664.2	694.9	721.2	747.5	769.4	791.3
70°	4699.7	3906.2	2356.4	927.2	640.1	642.3	673.0	701.5	725.6	749.7	776.0
72.5°	2516.5	2698.4	1790.9	760.6	589.7	596.2	624.7	651.0	673.0	697.1	721.2
75°	857.1	1159.6	1139.9	622.5	532.7	550.2	567.7	591.9	620.3	635.7	648.8
77.5°	502.0	519.5	607.2	506.4	480.1	488.8	508.6	528.3	552.4	567.7	578.7
80°	420.9	418.7	420.9	412.1	418.7	438.4	451.6	477.9	499.8	504.2	502.0
82.5°	342.0	359.5	361.7	357.3	377.0	392.4	403.3	418.7	416.5	420.9	429.6
85°	304.7	302.5	317.8	320.0	320.0	309.1	311.3	311.3	311.3	317.8	320.0
87.5°	304.7	254.3	197.3	177.6	186.3	175.4	166.6	164.4	181.9	199.5	195.1
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°	6771.2	6771.2	6771.2	6771.2	6771.2
2.5°	6766.8	6773.4	6769.0	6769.0	6773.4
5°	6720.8	6731.8	6727.4	6731.8	6731.8
7.5°	6615.6	6630.9	6641.9	6652.8	6646.3
10°	6464.3	6490.6	6508.2	6521.3	6514.7
12.5°	6238.5	6262.7	6299.9	6321.8	6304.3
15°	5929.5	5997.4	6019.3	6050.0	6032.5
17.5°	5607.2	5648.9	5675.2	5703.7	5721.2
20°	5177.6	5210.5	5245.6	5258.7	5239.0
22.5°	4660.3	4677.8	4671.2	4691.0	4651.5
25°	4092.5	4103.5	4096.9	4114.5	4081.6
27.5°	3555.5	3553.3	3555.5	3533.6	3511.6
30°	3038.2	3018.4	3009.7	2976.8	2970.2
32.5°	2575.6	2507.7	2472.6	2424.4	2413.4
35°	2113.1	2016.7	1953.1	1898.3	1874.2
37.5°	1698.8	1582.7	1508.1	1459.9	1453.3
40°	1343.7	1236.3	1183.7	1157.4	1153.0
42.5°	1096.0	1050.0	1036.8	1036.8	1036.8
45°	999.6	997.4	1008.3	1017.1	1019.3
47.5°	979.8	993.0	1008.3	1021.5	1025.9
50°	979.8	993.0	1004.0	1017.1	1021.5
52.5°	975.5	986.4	990.8	999.6	1004.0
55°	962.3	968.9	968.9	973.3	977.7
57.5°	940.4	944.8	938.2	942.6	953.5
60°	918.5	922.8	911.9	922.8	929.4
62.5°	894.4	896.5	892.2	900.9	900.9
65°	854.9	850.5	857.1	863.7	865.9
67.5°	815.4	804.5	811.1	813.2	817.6
69°	784.8	778.2	780.4	784.8	789.1
70°	762.8	758.4	762.8	769.4	776.0
72.5°	708.0	710.2	725.6	738.7	751.9
75°	657.6	673.0	692.7	721.2	736.5
77.5°	596.2	607.2	622.5	653.2	681.7
80°	515.1	521.7	523.9	534.9	532.7
82.5°	418.7	412.1	407.7	403.3	401.1
85°	300.3	298.1	280.6	267.4	267.4
87.5°	179.7	171.0	162.2	151.3	144.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)