

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: P165556

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165556
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
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-HSS-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22035.4 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

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

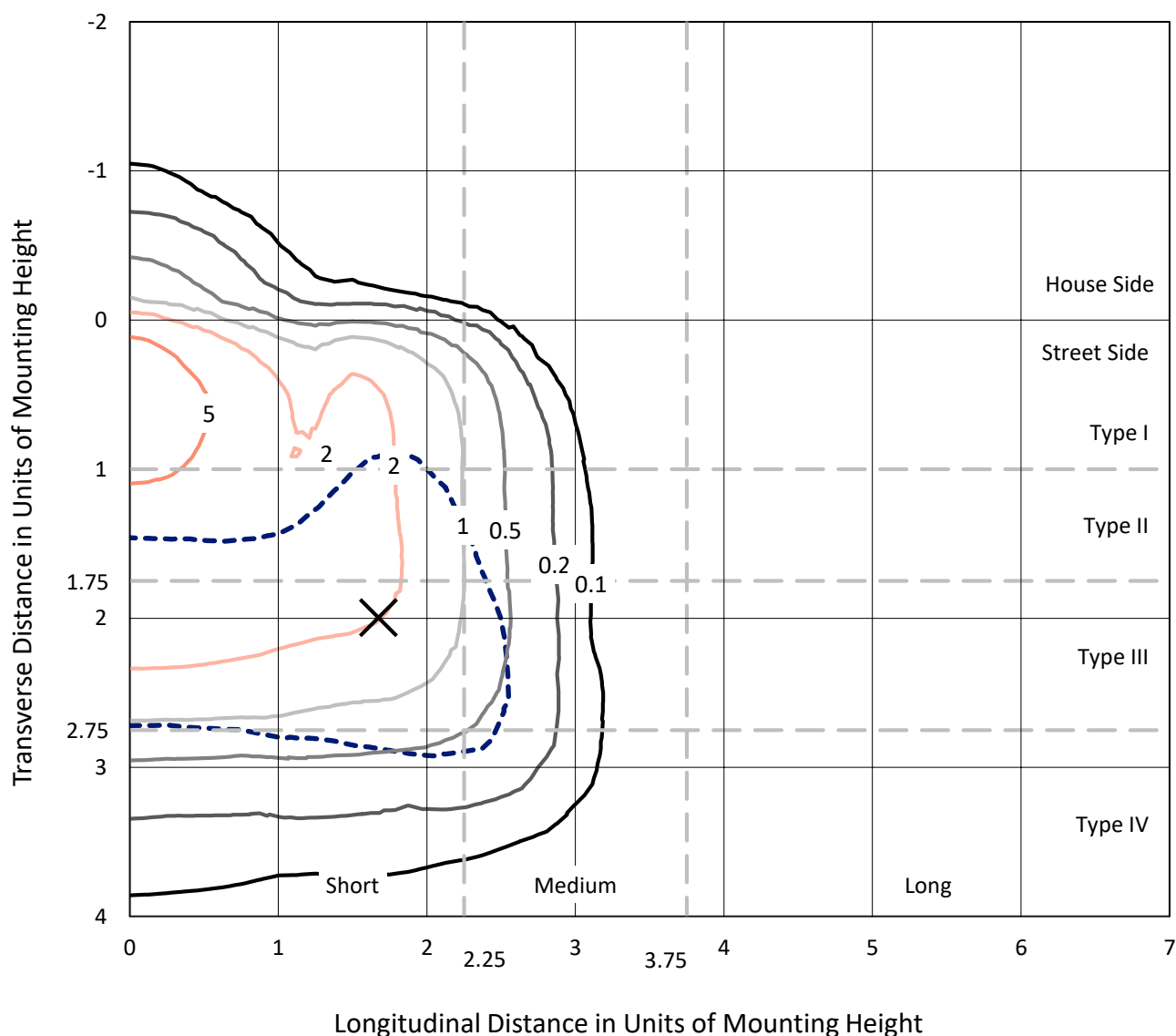


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

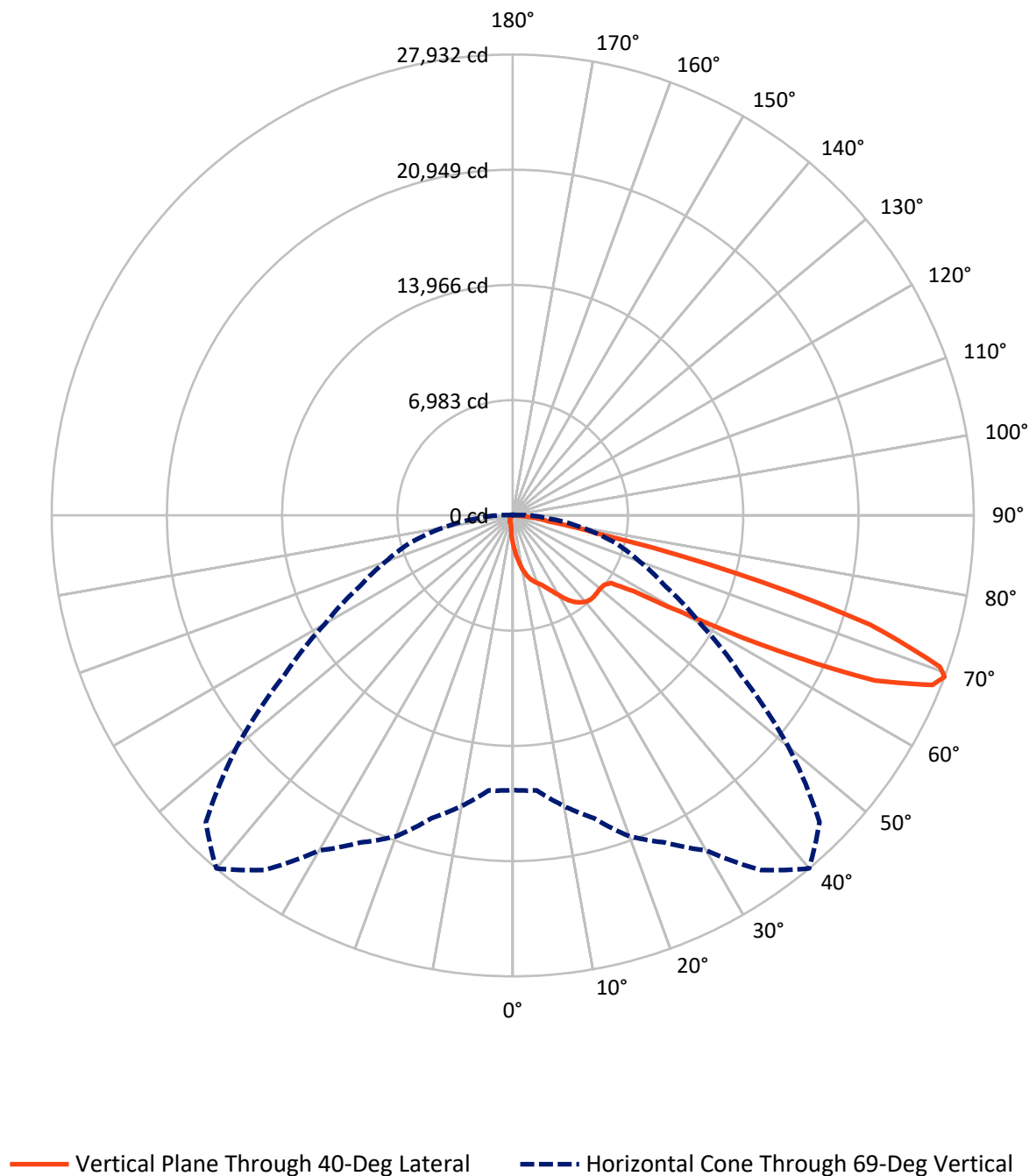


Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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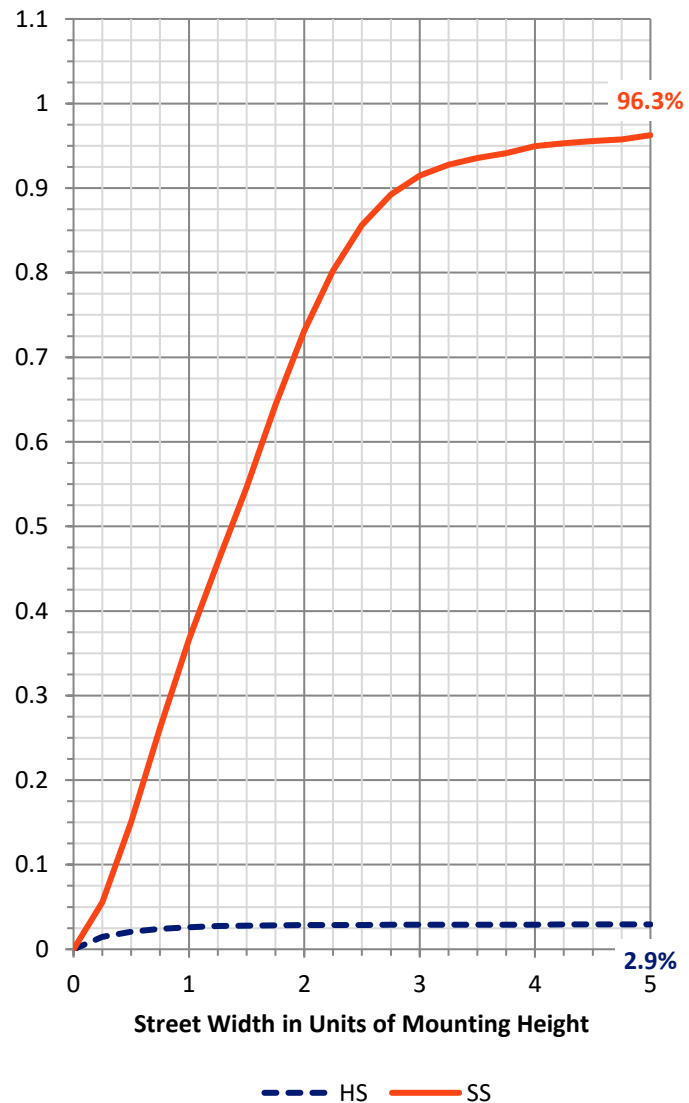
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	656.2	0.0	656.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	21379.2	0.0	21379.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	22035.4	0.0	22035.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	0.8
10°-20°	589.7	2.7
20°-30°	1128.7	5.1
30°-40°	1877.0	8.5
40°-50°	2539.9	11.5
50°-60°	3972.2	18.0
60°-70°	8166.7	37.1
70°-80°	3286.1	14.9
80°-90°	304.0	1.4
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°	22035.4	100.0
0°-180°	22035.4	100.0

Coefficient of Utilization



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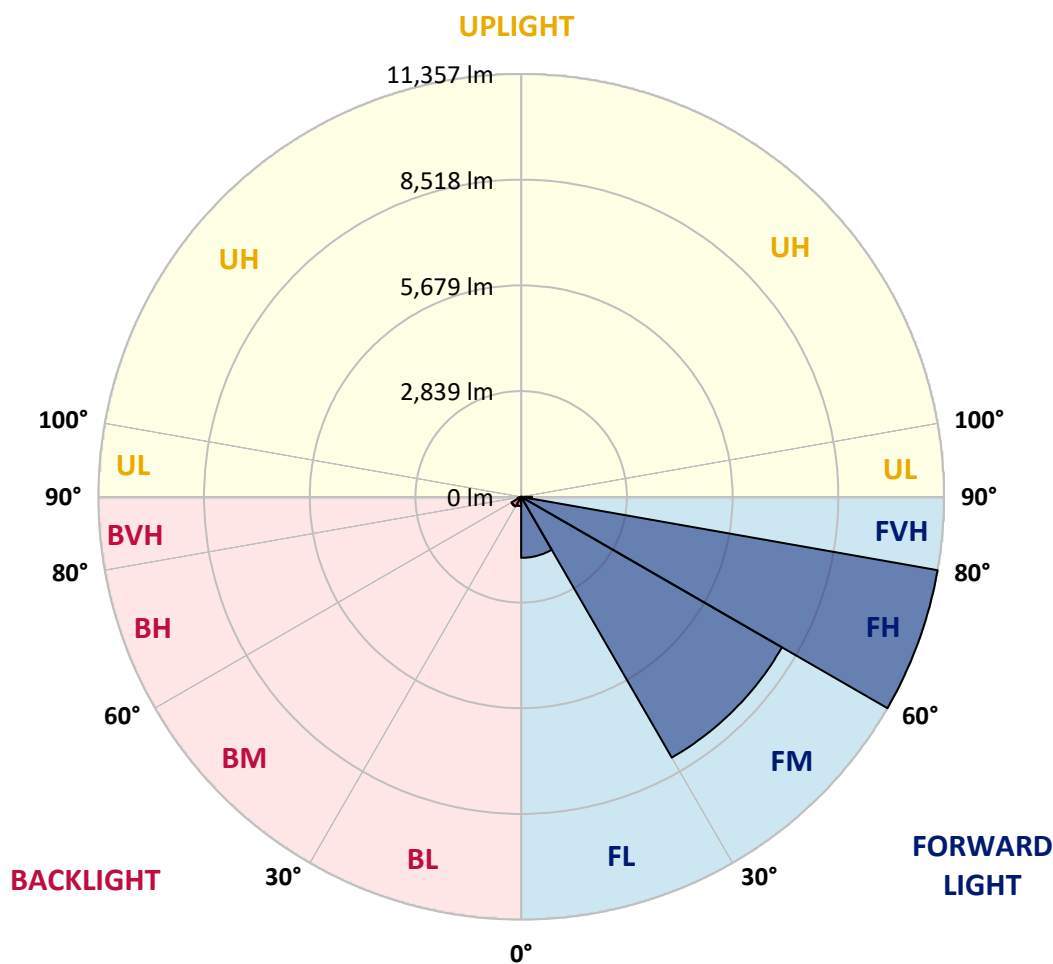
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1639.9	7.4			
FM	(30°-60°)	8089.5	36.7			
FH	(60°-80°)	11357.1	51.5			G4/12000
FVH	(80°-90°)	292.7	1.3			G3/500
BL	(0°-30°)	249.6	1.1	B1/500		
BM	(30°-60°)	299.6	1.4	B1/1000		
BH	(60°-80°)	95.7	0.4	B0/110		G0/110
BVH	(80°-90°)	11.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2
2.5°	2220.1	2194.7	2165.7	2165.7	2129.8	2129.8	2108.1	2050.4	2043.2	2010.5	1978.1
5°	2833.7	2811.9	2776.0	2743.3	2714.6	2664.0	2627.8	2559.2	2483.6	2411.2	2346.4
7.5°	3433.0	3422.0	3357.1	3346.2	3299.2	3216.4	3144.0	3043.0	2913.0	2811.9	2692.9
10°	3988.9	3963.4	3949.0	3887.6	3819.2	3728.9	3616.9	3494.3	3342.6	3183.7	3014.1
12.5°	4429.2	4414.8	4349.7	4324.5	4252.3	4162.0	4021.3	3862.4	3710.9	3505.1	3306.5
15°	4757.6	4732.4	4689.0	4649.3	4562.7	4483.4	4353.4	4180.0	3996.1	3772.3	3534.0
17.5°	5032.0	4985.1	4974.2	4912.8	4822.7	4728.7	4584.4	4425.5	4208.9	3985.1	3725.2
20°	5400.1	5335.2	5313.5	5223.2	5118.6	4988.6	4822.7	4624.1	4396.6	4151.3	3884.1
22.5°	5833.2	5786.3	5739.4	5660.1	5526.6	5342.4	5100.7	4884.1	4595.2	4324.5	4035.8
25°	6447.0	6407.3	6331.5	6223.2	6057.0	5837.0	5544.5	5226.9	4887.6	4541.0	4201.7
27.5°	7042.6	7006.4	6952.3	6869.4	6681.6	6439.8	6078.7	5674.5	5244.9	4826.2	4450.7
30°	7602.2	7569.6	7515.4	7432.6	7266.4	7028.1	6620.2	6187.0	5652.8	5165.5	4714.4
32.5°	8205.0	8194.1	8132.7	8013.7	7869.2	7548.1	7104.0	6638.4	6096.9	5533.8	5006.6
35°	8887.2	8804.1	8746.5	8627.2	8381.9	8038.9	7519.1	7010.1	6439.8	5862.2	5273.8
37.5°	9464.8	9385.4	9313.1	9161.6	8862.0	8425.1	7836.8	7277.1	6688.8	6100.4	5501.1
40°	9887.0	9847.3	9760.7	9562.1	9226.5	8706.8	8071.3	7461.3	6869.4	6277.3	5685.3
42.5°	10201.1	10139.7	10042.4	9836.6	9439.6	8847.5	8165.1	7537.1	6952.3	6385.6	5804.5
45°	10316.6	10266.2	10175.9	9952.1	9522.4	8887.2	8161.6	7515.4	6956.0	6418.1	5883.9
47.5°	10248.0	10197.6	10118.0	9908.7	9486.5	8840.3	8096.7	7454.0	6919.8	6429.0	5956.0
50°	10020.7	9991.8	9930.4	9753.5	9374.5	8750.0	8038.9	7421.6	6912.6	6483.2	6057.0
52.5°	9999.0	9981.0	9905.2	9728.3	9342.0	8721.0	8031.6	7439.8	6974.0	6551.8	6129.4
55°	12218.9	11962.6	11388.7	10901.5	10100.0	9147.2	8396.2	7732.0	7234.0	6822.5	6526.4
57.5°	17366.4	16983.9	16229.4	15301.8	13460.7	11652.2	10204.8	9157.9	8641.7	8454.0	8565.8
60°	19777.7	19709.3	19590.0	19149.7	18207.5	16651.8	14919.0	13045.7	12294.7	12229.8	12457.1
62.5°	20922.2	20878.8	20914.9	20860.8	20568.4	20113.5	19615.3	18806.8	18063.1	17583.0	16565.0
65°	21449.1	21478.1	21683.7	21846.1	21882.3	22001.3	22366.1	23373.1	24109.4	22871.3	20044.9
67.5°	20109.8	20279.4	20752.5	21344.3	22037.5	22708.9	23791.8	25914.3	27426.8	25972.2	21958.1
69°	16648.1	16731.2	17886.2	19001.7	20694.6	21878.8	23448.9	26231.9	27932.3	26289.8	21806.4
70°	13106.9	13182.7	14421.0	15937.0	18799.6	20322.8	22376.8	25694.2	27459.3	25867.4	21026.7
72.5°	5912.8	5804.5	6241.2	7053.3	10164.9	12583.6	16175.3	20817.4	22654.7	20723.6	15731.2
75°	4129.6	4082.7	4129.6	4133.1	4616.9	5956.0	7515.4	11284.0	13955.2	12042.2	7515.4
77.5°	3198.2	3165.7	3133.3	3097.1	3155.0	3534.0	3685.5	4003.1	5198.0	4916.5	2866.1
80°	2530.5	2501.6	2580.9	2555.7	2555.7	2599.1	2570.2	2450.9	2227.1	2064.7	1848.1
82.5°	1176.7	1183.9	1183.9	1285.0	1548.7	1808.4	1891.5	1772.5	1573.9	1339.1	1079.4
85°	111.8	126.3	213.1	328.6	653.4	736.3	740.0	613.6	613.6	483.8	389.7
87.5°	0.0	3.5	3.5	3.5	32.4	90.3	75.8	21.7	10.7	10.7	18.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2
2.5°	1920.4	1909.5	1866.3	1822.9	1783.2	1739.8	1700.1	1660.5	1617.1	1584.6	1545.0
5°	2245.3	2165.7	2075.6	1989.1	1902.3	1812.2	1718.3	1635.3	1548.7	1469.1	1393.3
7.5°	2573.7	2418.5	2295.7	2140.5	1999.8	1859.1	1729.1	1595.6	1472.8	1357.3	1249.0
10°	2851.6	2664.0	2472.6	2274.2	2071.9	1884.3	1703.9	1545.0	1382.5	1241.8	1108.3
12.5°	3079.2	2840.9	2606.3	2357.1	2129.8	1891.5	1667.7	1476.3	1285.0	1126.3	989.0
15°	3284.8	3010.5	2728.9	2440.2	2151.5	1880.8	1631.5	1393.3	1198.4	1018.0	862.8
17.5°	3450.9	3136.8	2819.2	2494.3	2183.9	1866.3	1584.6	1335.6	1108.3	920.4	769.0
20°	3595.4	3266.8	2924.0	2559.2	2205.6	1862.6	1545.0	1263.5	1028.7	830.3	682.2
22.5°	3728.9	3400.3	3032.3	2642.3	2238.1	1859.1	1508.8	1209.3	960.1	761.7	613.6
25°	3880.6	3534.0	3147.8	2728.9	2295.7	1873.5	1487.3	1165.9	898.7	696.6	559.4
27.5°	4050.2	3685.5	3284.8	2837.2	2371.6	1902.3	1480.1	1119.0	844.6	635.3	516.2
30°	4288.3	3866.1	3422.0	2945.4	2440.2	1934.9	1472.8	1090.1	790.4	588.3	472.8
32.5°	4497.8	4043.0	3573.7	3057.5	2516.0	1967.4	1469.1	1050.4	740.0	541.4	440.4
35°	4717.9	4205.4	3703.7	3165.7	2580.9	2003.3	1465.6	1021.5	693.1	494.5	407.9
37.5°	4909.3	4342.4	3804.7	3259.6	2653.2	2036.0	1469.1	996.3	649.7	454.8	379.0
40°	5071.7	4483.4	3916.5	3346.2	2728.9	2086.4	1472.8	971.1	606.5	418.7	353.8
42.5°	5216.2	4616.9	4035.8	3443.7	2815.7	2144.3	1494.5	949.4	570.4	386.2	328.6
45°	5328.0	4739.6	4165.5	3580.9	2956.4	2238.1	1534.2	934.9	534.2	357.3	306.9
47.5°	5443.5	4920.0	4385.8	3797.5	3162.2	2386.0	1602.8	931.4	505.3	335.6	288.7
50°	5602.4	5100.7	4580.7	4017.6	3349.9	2537.7	1685.7	934.9	469.3	314.1	270.7
52.5°	5717.9	5284.6	4833.4	4400.3	3797.5	2999.6	2007.0	999.8	451.1	295.9	249.0
55°	6400.1	6324.3	6335.0	6407.3	5941.7	5104.2	3357.1	1443.9	530.7	335.6	245.5
57.5°	9024.4	9291.4	9446.6	9443.1	8674.1	7194.3	4508.6	1855.3	592.1	389.7	292.4
60°	12475.3	12273.2	11988.1	11284.0	10262.5	8212.3	5042.8	1996.3	512.5	310.4	267.2
62.5°	15525.6	14341.4	13291.0	12150.5	10811.1	8565.8	5151.1	1985.3	447.6	234.5	187.6
65°	17427.8	15298.0	13601.6	12172.0	10594.6	8269.9	4873.1	1822.9	379.0	191.4	155.2
67.5°	17882.7	14781.8	12381.5	10558.4	8851.0	6436.3	3577.2	1371.8	295.9	158.9	137.2
69°	16889.9	13139.5	10259.0	8190.6	6439.8	4270.3	2212.9	866.3	227.3	144.5	126.3
70°	15536.3	11428.4	8356.5	6573.3	4768.6	2999.6	1548.7	610.0	184.1	133.5	115.5
72.5°	9995.5	6002.9	4107.9	2858.9	1967.4	1194.9	606.5	274.4	140.7	111.8	93.8
75°	3876.8	2220.1	1610.1	1223.6	956.6	664.2	368.3	176.9	119.0	93.8	72.1
77.5°	1909.5	1461.9	1194.9	819.4	476.5	295.9	198.6	137.2	97.5	68.6	46.9
80°	1508.8	1003.5	599.3	371.8	281.5	213.1	151.7	111.8	72.1	43.4	32.4
82.5°	772.5	422.4	310.4	252.7	209.3	166.2	122.8	79.4	46.9	28.9	25.2
85°	241.8	176.9	158.9	155.2	144.5	119.0	86.6	50.6	28.9	18.0	18.0
87.5°	18.0	25.2	32.4	25.2	28.9	25.2	32.4	21.7	14.5	14.5	10.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2	1664.2
2.5°	1516.0	1472.8	1433.2	1407.7	1360.8	1342.8	1324.9	1317.6	1285.0	1292.2	1263.5
5°	1324.9	1249.0	1191.2	1133.5	1079.4	1039.7	1007.0	967.3	934.9	920.4	891.5
7.5°	1151.5	1054.2	978.3	916.9	851.8	801.4	758.0	729.1	700.4	671.4	657.0
10°	999.8	895.2	808.6	747.3	685.9	642.5	610.0	588.3	570.4	559.4	555.9
12.5°	859.1	758.0	678.7	624.5	577.6	555.9	541.4	530.7	527.0	523.5	523.5
15°	750.8	649.7	588.3	548.7	527.0	516.2	512.5	505.3	498.3	494.5	494.5
17.5°	649.7	573.9	530.7	509.0	498.3	491.0	483.8	476.5	469.3	465.6	465.6
20°	581.1	519.7	498.3	483.8	472.8	465.6	454.8	447.6	444.1	440.4	436.9
22.5°	527.0	487.3	472.8	462.1	447.6	436.9	429.6	422.4	415.2	411.4	407.9
25°	487.3	462.1	451.1	436.9	422.4	411.4	400.7	389.7	382.7	379.0	371.8
27.5°	458.4	440.4	425.9	407.9	393.5	382.7	371.8	361.0	353.8	346.6	342.8
30°	433.1	415.2	397.0	382.7	364.5	353.8	339.3	328.6	324.9	317.6	310.4
32.5°	407.9	389.7	371.8	353.8	335.6	321.4	314.1	299.7	292.4	288.7	281.5
35°	379.0	361.0	339.3	324.9	306.9	292.4	281.5	270.7	263.5	256.2	252.7
37.5°	353.8	332.1	310.4	292.4	278.0	263.5	252.7	241.8	234.5	227.3	223.8
40°	324.9	303.2	281.5	263.5	249.0	238.3	227.3	216.6	209.3	205.8	205.8
42.5°	299.7	274.4	252.7	238.3	227.3	213.1	202.1	191.4	187.6	184.1	187.6
45°	274.4	249.0	231.0	216.6	205.8	191.4	180.4	173.2	169.7	173.2	176.9
47.5°	252.7	227.3	209.3	198.6	187.6	176.9	166.2	158.9	158.9	166.2	173.2
50°	231.0	205.8	191.4	184.1	173.2	162.4	148.0	144.5	148.0	155.2	162.4
52.5°	209.3	180.4	169.7	166.2	155.2	144.5	133.5	130.0	133.5	140.7	137.2
55°	187.6	158.9	155.2	151.7	140.7	126.3	115.5	115.5	115.5	111.8	104.8
57.5°	180.4	140.7	137.2	133.5	122.8	108.3	101.1	93.8	90.3	79.4	75.8
60°	187.6	126.3	126.3	119.0	108.3	93.8	83.1	72.1	64.9	57.7	57.7
62.5°	151.7	115.5	111.8	104.8	90.3	75.8	64.9	54.1	50.6	46.9	46.9
65°	122.8	104.8	97.5	86.6	75.8	61.4	50.6	43.4	39.7	39.7	43.4
67.5°	111.8	93.8	83.1	72.1	61.4	46.9	39.7	36.2	36.2	39.7	39.7
69°	104.8	86.6	75.8	64.9	54.1	43.4	36.2	36.2	36.2	36.2	39.7
70°	97.5	83.1	72.1	61.4	46.9	36.2	32.4	32.4	36.2	36.2	39.7
72.5°	75.8	64.9	61.4	50.6	36.2	32.4	28.9	32.4	32.4	36.2	36.2
75°	57.7	46.9	46.9	39.7	28.9	25.2	25.2	28.9	28.9	32.4	32.4
77.5°	39.7	32.4	32.4	28.9	25.2	21.7	21.7	25.2	28.9	28.9	32.4
80°	28.9	25.2	21.7	25.2	21.7	18.0	21.7	25.2	25.2	28.9	28.9
82.5°	21.7	21.7	21.7	21.7	18.0	18.0	21.7	21.7	25.2	28.9	28.9
85°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	21.7	21.7	25.2	25.2
87.5°	10.7	10.7	10.7	14.5	14.5	18.0	18.0	18.0	18.0	21.7	21.7
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):

	165°	170°	175°	180°
0°	1664.2	1664.2	1664.2	1664.2
2.5°	1256.3	1252.5	1238.1	1241.8
5°	880.8	859.1	873.5	870.0
7.5°	646.2	642.5	639.0	646.2
10°	552.4	552.4	548.7	552.4
12.5°	519.7	519.7	519.7	519.7
15°	494.5	494.5	491.0	491.0
17.5°	465.6	465.6	465.6	462.1
20°	436.9	433.1	433.1	433.1
22.5°	404.2	400.7	400.7	400.7
25°	371.8	368.3	368.3	368.3
27.5°	339.3	335.6	332.1	332.1
30°	306.9	303.2	299.7	299.7
32.5°	274.4	270.7	267.2	267.2
35°	245.5	245.5	241.8	238.3
37.5°	220.3	220.3	220.3	220.3
40°	202.1	205.8	205.8	205.8
42.5°	191.4	194.9	198.6	202.1
45°	184.1	191.4	194.9	194.9
47.5°	180.4	184.1	187.6	187.6
50°	166.2	162.4	162.4	162.4
52.5°	133.5	126.3	122.8	119.0
55°	97.5	93.8	86.6	86.6
57.5°	68.6	68.6	64.9	64.9
60°	54.1	54.1	50.6	54.1
62.5°	46.9	46.9	46.9	46.9
65°	43.4	43.4	43.4	43.4
67.5°	43.4	43.4	43.4	43.4
69°	39.7	39.7	39.7	39.7
70°	39.7	39.7	39.7	39.7
72.5°	36.2	36.2	36.2	36.2
75°	32.4	36.2	36.2	36.2
77.5°	32.4	32.4	32.4	32.4
80°	28.9	28.9	32.4	32.4
82.5°	28.9	28.9	28.9	28.9
85°	25.2	25.2	28.9	28.9
87.5°	21.7	21.7	25.2	25.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)