

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: P165542

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165542
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-F10-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (70) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16597.1 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - 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



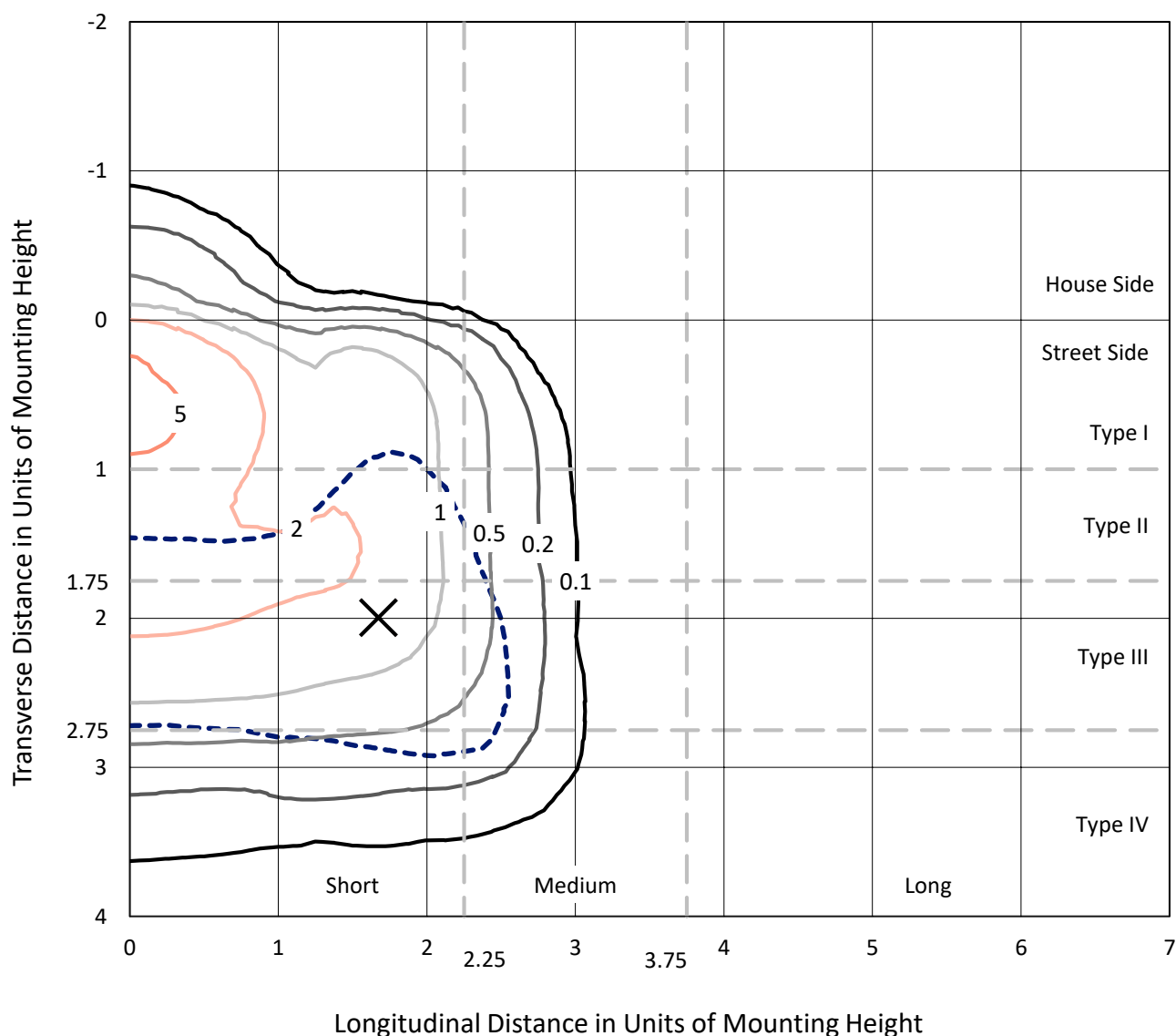
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

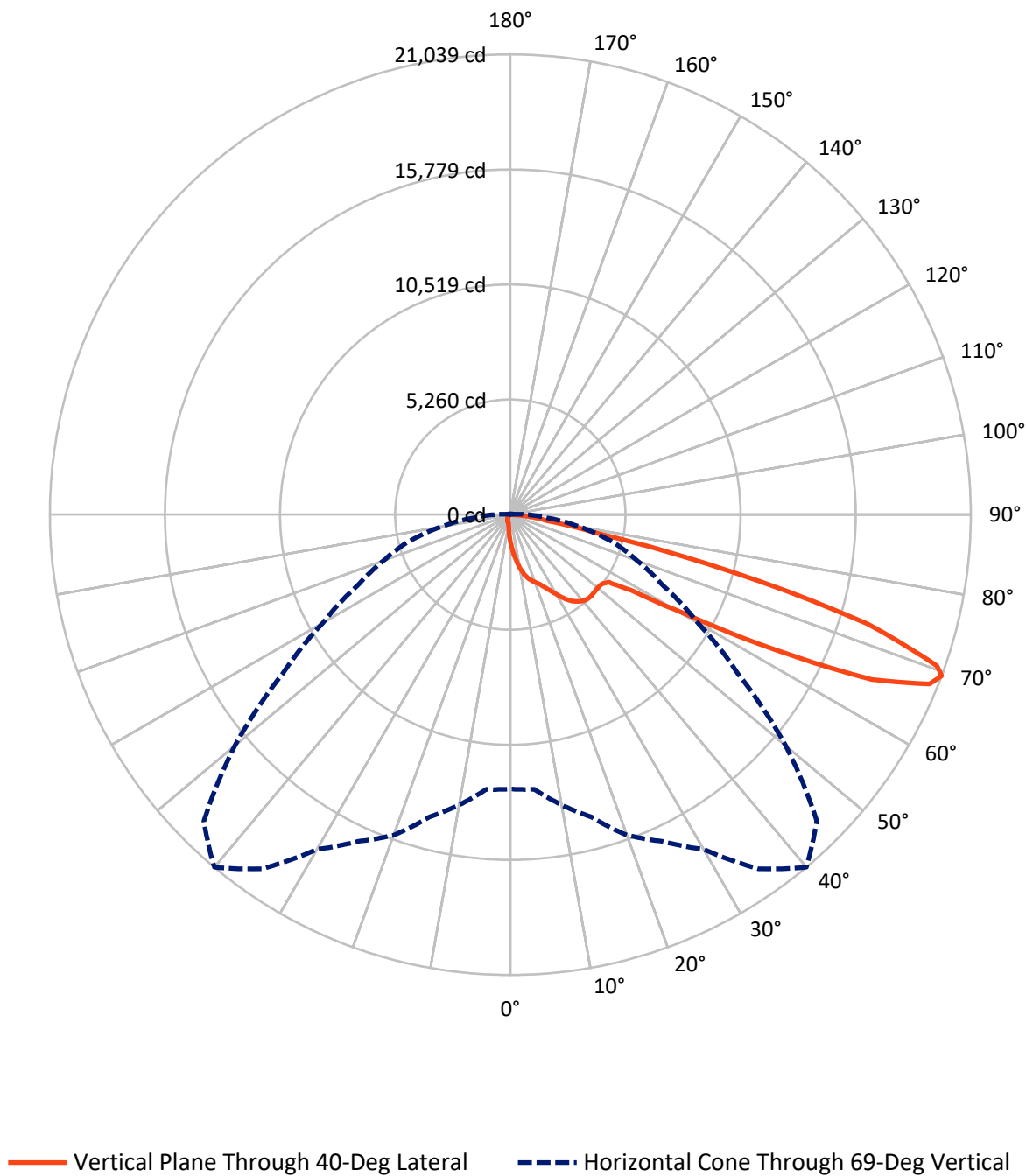


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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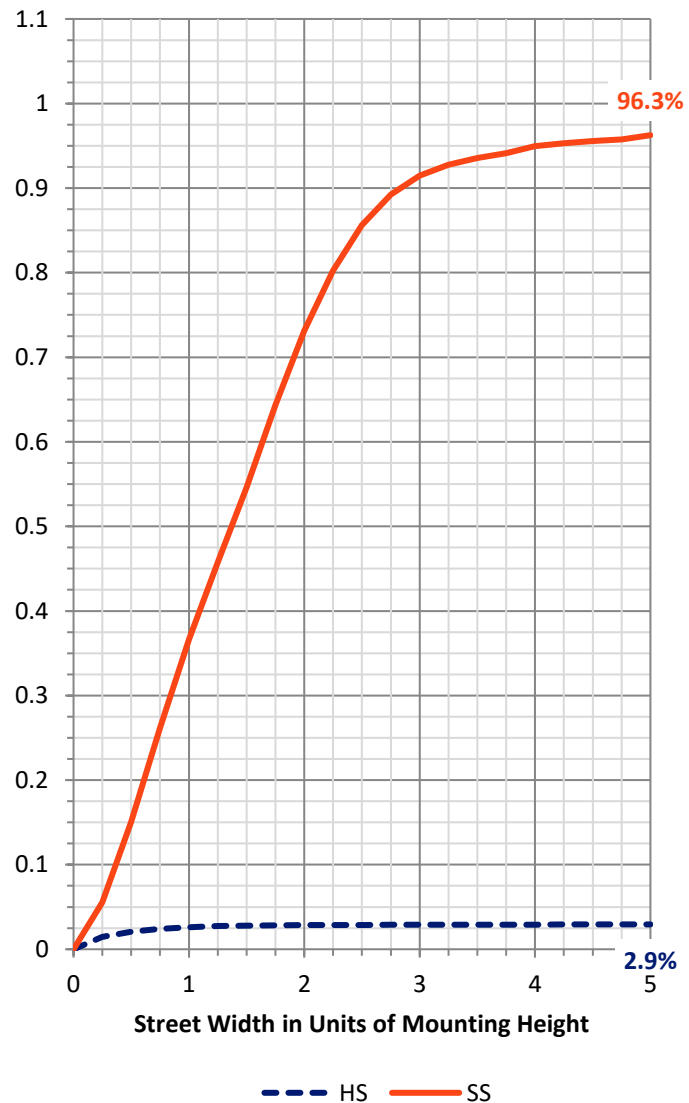
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	494.2	0.0	494.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	16102.8	0.0	16102.8
	% Fixture	97.0	0.0	97.0
Total	Lumens	16597.1	0.0	16597.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	0.8
10°-20°	444.2	2.7
20°-30°	850.1	5.1
30°-40°	1413.8	8.5
40°-50°	1913.1	11.5
50°-60°	2991.8	18.0
60°-70°	6151.2	37.1
70°-80°	2475.1	14.9
80°-90°	228.9	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°	16597.1	100.0
0°-180°	16597.1	100.0

Coefficient of Utilization



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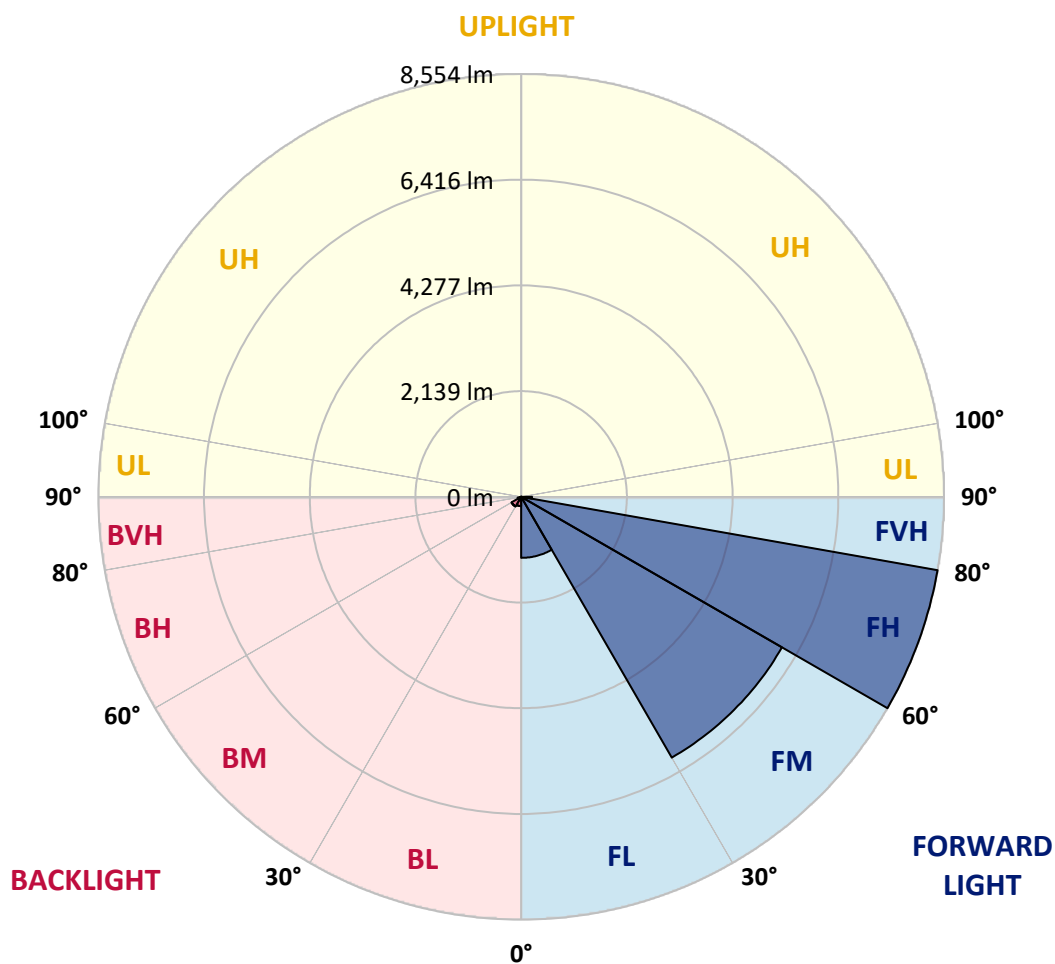
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1235.1	7.4			
FM	(30°-60°)	6093.1	36.7			
FH	(60°-80°)	8554.2	51.5			G4/12000
FVH	(80°-90°)	220.4	1.3			G2/225
BL	(0°-30°)	188.0	1.1	B1/500		
BM	(30°-60°)	225.7	1.4	B1/1000		
BH	(60°-80°)	72.1	0.4	B0/110		G0/110
BVH	(80°-90°)	8.5	0.1			G0/10
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°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1672.2	1653.0	1631.2	1631.2	1604.2	1604.2	1587.8	1544.4	1538.9	1514.3	1489.9
5°	2134.3	2118.0	2090.9	2066.3	2044.7	2006.5	1979.3	1927.6	1870.6	1816.2	1767.3
7.5°	2585.7	2577.5	2528.6	2520.3	2485.0	2422.6	2368.1	2292.0	2194.1	2118.0	2028.3
10°	3004.4	2985.3	2974.4	2928.1	2876.6	2808.6	2724.2	2631.9	2517.7	2398.0	2270.2
12.5°	3336.1	3325.2	3276.2	3257.2	3202.9	3134.8	3028.9	2909.1	2795.1	2640.0	2490.4
15°	3583.4	3564.5	3531.8	3501.9	3436.7	3376.9	3279.0	3148.4	3009.9	2841.3	2661.8
17.5°	3790.2	3754.8	3746.6	3700.3	3632.5	3561.6	3453.0	3333.3	3170.2	3001.6	2805.8
20°	4067.4	4018.5	4002.1	3934.1	3855.4	3757.5	3632.5	3482.9	3311.5	3126.8	2925.5
22.5°	4393.6	4358.3	4322.9	4263.2	4162.6	4023.9	3841.8	3678.7	3461.1	3257.2	3039.7
25°	4855.9	4826.0	4768.9	4687.3	4562.2	4396.4	4176.2	3936.9	3681.3	3420.3	3164.7
27.5°	5304.5	5277.3	5236.5	5174.1	5032.6	4850.5	4578.5	4274.1	3950.5	3635.1	3352.3
30°	5726.0	5701.4	5660.6	5598.2	5473.1	5293.6	4986.3	4660.1	4257.7	3890.7	3550.9
32.5°	6180.0	6171.8	6125.6	6035.9	5927.1	5685.2	5350.7	5000.0	4592.2	4168.1	3771.0
35°	6693.9	6631.3	6587.9	6498.0	6313.3	6054.9	5663.4	5280.1	4850.5	4415.4	3972.3
37.5°	7128.9	7069.1	7014.7	6900.6	6674.9	6345.8	5902.7	5481.2	5038.0	4594.9	4143.5
40°	7446.9	7417.0	7351.8	7202.2	6949.4	6558.0	6079.3	5619.8	5174.1	4728.1	4282.2
42.5°	7683.5	7637.3	7564.0	7408.9	7109.9	6664.0	6150.0	5677.0	5236.5	4809.7	4372.0
45°	7770.5	7732.5	7664.5	7495.9	7172.3	6693.9	6147.4	5660.6	5239.3	4834.1	4431.7
47.5°	7718.8	7680.8	7620.9	7463.2	7145.2	6658.5	6098.5	5614.4	5212.0	4842.4	4486.1
50°	7547.6	7525.8	7479.6	7346.3	7060.9	6590.5	6054.9	5590.0	5206.6	4883.1	4562.2
52.5°	7531.3	7517.7	7460.6	7327.4	7036.4	6568.7	6049.4	5603.7	5252.8	4934.8	4616.7
55°	9203.3	9010.3	8578.0	8211.0	7607.4	6889.7	6324.0	5823.7	5448.6	5138.7	4915.7
57.5°	13080.4	12792.3	12224.0	11525.3	10138.6	8776.5	7686.3	6897.8	6508.9	6367.6	6451.8
60°	14896.6	14845.1	14755.3	14423.6	13714.0	12542.2	11237.0	9826.1	9260.4	9211.5	9382.8
62.5°	15758.6	15725.9	15753.2	15712.4	15492.1	15149.5	14774.3	14165.3	13605.1	13243.6	12476.8
65°	16155.5	16177.3	16332.2	16454.5	16481.8	16571.4	16846.2	17604.6	18159.2	17226.7	15097.9
67.5°	15146.7	15274.5	15630.8	16076.6	16598.7	17104.4	17920.0	19518.7	20657.9	19562.3	16538.9
69°	12539.4	12602.0	13471.9	14312.1	15587.2	16479.1	17661.8	19757.9	21038.7	19801.5	16424.6
70°	9872.1	9929.2	10861.9	12003.8	14159.9	15307.2	16854.2	19352.9	20682.4	19483.4	15837.4
72.5°	4453.5	4372.0	4700.9	5312.6	7656.2	9478.0	12183.3	15679.7	17063.6	15609.0	11848.8
75°	3110.4	3075.1	3110.4	3113.1	3477.4	4486.1	5660.6	8499.1	10511.1	9070.2	5660.6
77.5°	2408.9	2384.4	2360.0	2332.8	2376.4	2661.8	2775.9	3015.1	3915.1	3703.1	2158.7
80°	1906.0	1884.2	1943.9	1925.0	1925.0	1957.6	1935.9	1846.0	1677.5	1555.1	1392.0
82.5°	886.3	891.7	891.7	967.8	1166.5	1362.1	1424.7	1335.0	1185.5	1008.6	813.0
85°	84.2	95.1	160.5	247.5	492.2	554.6	557.4	462.1	462.1	364.4	293.6
87.5°	0.0	2.6	2.6	2.6	24.4	68.0	57.1	16.3	8.1	8.1	13.5
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°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1446.5	1438.2	1405.7	1373.0	1343.1	1310.4	1280.6	1250.7	1218.0	1193.5	1163.7
5°	1691.2	1631.2	1563.4	1498.2	1432.8	1364.9	1294.3	1231.7	1166.5	1106.5	1049.4
7.5°	1938.5	1821.6	1729.1	1612.3	1506.3	1400.3	1302.3	1201.8	1109.3	1022.3	940.8
10°	2147.9	2006.5	1862.4	1713.0	1560.6	1419.2	1283.4	1163.7	1041.3	935.3	834.8
12.5°	2319.2	2139.8	1963.1	1775.4	1604.2	1424.7	1256.1	1112.0	967.8	848.3	745.0
15°	2474.1	2267.6	2055.4	1837.9	1620.5	1416.6	1228.9	1049.4	902.6	766.7	649.9
17.5°	2599.2	2362.7	2123.4	1878.7	1644.9	1405.7	1193.5	1006.0	834.8	693.3	579.2
20°	2708.1	2460.6	2202.3	1927.6	1661.3	1402.9	1163.7	951.7	774.8	625.4	513.8
22.5°	2808.6	2561.1	2283.9	1990.2	1685.7	1400.3	1136.4	910.9	723.2	573.7	462.1
25°	2922.9	2661.8	2370.9	2055.4	1729.1	1411.2	1120.2	878.2	676.9	524.7	421.3
27.5°	3050.6	2775.9	2474.1	2137.0	1786.3	1432.8	1114.8	842.9	636.1	478.5	388.8
30°	3229.9	2912.0	2577.5	2218.5	1837.9	1457.4	1109.3	821.1	595.4	443.1	356.1
32.5°	3387.8	3045.2	2691.7	2302.9	1895.1	1481.8	1106.5	791.2	557.4	407.8	331.7
35°	3553.6	3167.5	2789.6	2384.4	1943.9	1508.9	1103.9	769.4	522.1	372.5	307.3
37.5°	3697.7	3270.7	2865.7	2455.1	1998.4	1533.5	1106.5	750.4	489.4	342.6	285.5
40°	3820.0	3376.9	2949.9	2520.3	2055.4	1571.5	1109.3	731.4	456.8	315.4	266.5
42.5°	3928.8	3477.4	3039.7	2593.8	2120.8	1615.1	1125.7	715.1	429.6	290.9	247.5
45°	4013.0	3569.9	3137.5	2697.2	2226.8	1685.7	1155.6	704.2	402.4	269.1	231.1
47.5°	4100.1	3705.8	3303.4	2860.3	2381.8	1797.2	1207.2	701.5	380.6	252.8	217.4
50°	4219.8	3841.8	3450.2	3026.0	2523.1	1911.4	1269.7	704.2	353.5	236.6	203.9
52.5°	4306.8	3980.4	3640.6	3314.3	2860.3	2259.3	1511.7	753.0	339.8	222.9	187.6
55°	4820.6	4763.4	4771.5	4826.0	4475.3	3844.5	2528.6	1087.5	399.7	252.8	184.9
57.5°	6797.2	6998.3	7115.2	7112.6	6533.4	5418.7	3395.9	1397.4	445.9	293.6	220.3
60°	9396.5	9244.2	9029.4	8499.1	7729.7	6185.5	3798.2	1503.6	386.0	233.8	201.3
62.5°	11693.9	10802.0	10010.8	9151.8	8143.0	6451.8	3879.8	1495.4	337.1	176.7	141.3
65°	13126.7	11522.5	10244.8	9167.9	7979.9	6228.9	3670.4	1373.0	285.5	144.1	116.9
67.5°	13469.3	11133.7	9325.8	7952.6	6666.6	4847.8	2694.3	1033.2	222.9	119.7	103.4
69°	12721.5	9896.7	7727.1	6169.1	4850.5	3216.4	1666.7	652.5	171.2	108.8	95.1
70°	11702.0	8607.9	6294.1	4951.0	3591.7	2259.3	1166.5	459.5	138.7	100.5	87.0
72.5°	7528.6	4521.4	3094.1	2153.3	1481.8	900.0	456.8	206.7	106.0	84.2	70.7
75°	2920.0	1672.2	1212.7	921.6	720.5	500.3	277.4	133.2	89.7	70.7	54.3
77.5°	1438.2	1101.1	900.0	617.2	358.9	222.9	149.6	103.4	73.5	51.7	35.3
80°	1136.4	755.9	451.4	280.0	212.0	160.5	114.3	84.2	54.3	32.7	24.4
82.5°	581.8	318.2	233.8	190.4	157.7	125.1	92.5	59.8	35.3	21.8	19.0
85°	182.1	133.2	119.7	116.9	108.8	89.7	65.2	38.1	21.8	13.5	13.5
87.5°	13.5	19.0	24.4	19.0	21.8	19.0	24.4	16.3	10.9	10.9	8.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1141.9	1109.3	1079.5	1060.3	1025.0	1011.4	997.9	992.4	967.8	973.3	951.7
5°	997.9	940.8	897.2	853.8	813.0	783.1	758.5	728.6	704.2	693.3	671.5
7.5°	867.3	794.0	736.9	690.6	641.6	603.6	570.9	549.1	527.5	505.7	494.8
10°	753.0	674.3	609.1	562.8	516.6	483.9	459.5	443.1	429.6	421.3	418.7
12.5°	647.0	570.9	511.2	470.4	435.1	418.7	407.8	399.7	396.9	394.3	394.3
15°	565.5	489.4	443.1	413.3	396.9	388.8	386.0	380.6	375.3	372.5	372.5
17.5°	489.4	432.2	399.7	383.4	375.3	369.8	364.4	358.9	353.5	350.7	350.7
20°	437.7	391.5	375.3	364.4	356.1	350.7	342.6	337.1	334.5	331.7	329.1
22.5°	396.9	367.0	356.1	348.0	337.1	329.1	323.6	318.2	312.7	309.9	307.3
25°	367.0	348.0	339.8	329.1	318.2	309.9	301.8	293.6	288.3	285.5	280.0
27.5°	345.2	331.7	320.8	307.3	296.4	288.3	280.0	271.9	266.5	261.0	258.2
30°	326.2	312.7	299.0	288.3	274.6	266.5	255.6	247.5	244.7	239.2	233.8
32.5°	307.3	293.6	280.0	266.5	252.8	242.0	236.6	225.7	220.3	217.4	212.0
35°	285.5	271.9	255.6	244.7	231.1	220.3	212.0	203.9	198.5	193.0	190.4
37.5°	266.5	250.1	233.8	220.3	209.4	198.5	190.4	182.1	176.7	171.2	168.6
40°	244.7	228.3	212.0	198.5	187.6	179.5	171.2	163.1	157.7	155.0	155.0
42.5°	225.7	206.7	190.4	179.5	171.2	160.5	152.2	144.1	141.3	138.7	141.3
45°	206.7	187.6	174.0	163.1	155.0	144.1	135.9	130.4	127.8	130.4	133.2
47.5°	190.4	171.2	157.7	149.6	141.3	133.2	125.1	119.7	119.7	125.1	130.4
50°	174.0	155.0	144.1	138.7	130.4	122.3	111.4	108.8	111.4	116.9	122.3
52.5°	157.7	135.9	127.8	125.1	116.9	108.8	100.5	97.9	100.5	106.0	103.4
55°	141.3	119.7	116.9	114.3	106.0	95.1	87.0	87.0	87.0	84.2	78.9
57.5°	135.9	106.0	103.4	100.5	92.5	81.6	76.1	70.7	68.0	59.8	57.1
60°	141.3	95.1	95.1	89.7	81.6	70.7	62.6	54.3	48.9	43.4	43.4
62.5°	114.3	87.0	84.2	78.9	68.0	57.1	48.9	40.8	38.1	35.3	35.3
65°	92.5	78.9	73.5	65.2	57.1	46.2	38.1	32.7	29.9	29.9	32.7
67.5°	84.2	70.7	62.6	54.3	46.2	35.3	29.9	27.2	27.2	29.9	29.9
69°	78.9	65.2	57.1	48.9	40.8	32.7	27.2	27.2	27.2	27.2	29.9
70°	73.5	62.6	54.3	46.2	35.3	27.2	24.4	24.4	27.2	27.2	29.9
72.5°	57.1	48.9	46.2	38.1	27.2	24.4	21.8	24.4	24.4	27.2	27.2
75°	43.4	35.3	35.3	29.9	21.8	19.0	19.0	21.8	21.8	24.4	24.4
77.5°	29.9	24.4	24.4	21.8	19.0	16.3	16.3	19.0	21.8	21.8	24.4
80°	21.8	19.0	16.3	19.0	16.3	13.5	16.3	19.0	19.0	21.8	21.8
82.5°	16.3	16.3	16.3	16.3	13.5	13.5	16.3	16.3	19.0	21.8	21.8
85°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	16.3	16.3	19.0	19.0
87.5°	8.1	8.1	8.1	10.9	10.9	13.5	13.5	13.5	13.5	16.3	16.3
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):

	165°	170°	175°	180°
0°	1253.5	1253.5	1253.5	1253.5
2.5°	946.2	943.4	932.5	935.3
5°	663.4	647.0	657.9	655.3
7.5°	486.7	483.9	481.3	486.7
10°	416.1	416.1	413.3	416.1
12.5°	391.5	391.5	391.5	391.5
15°	372.5	372.5	369.8	369.8
17.5°	350.7	350.7	350.7	348.0
20°	329.1	326.2	326.2	326.2
22.5°	304.5	301.8	301.8	301.8
25°	280.0	277.4	277.4	277.4
27.5°	255.6	252.8	250.1	250.1
30°	231.1	228.3	225.7	225.7
32.5°	206.7	203.9	201.3	201.3
35°	184.9	184.9	182.1	179.5
37.5°	165.9	165.9	165.9	165.9
40°	152.2	155.0	155.0	155.0
42.5°	144.1	146.8	149.6	152.2
45°	138.7	144.1	146.8	146.8
47.5°	135.9	138.7	141.3	141.3
50°	125.1	122.3	122.3	122.3
52.5°	100.5	95.1	92.5	89.7
55°	73.5	70.7	65.2	65.2
57.5°	51.7	51.7	48.9	48.9
60°	40.8	40.8	38.1	40.8
62.5°	35.3	35.3	35.3	35.3
65°	32.7	32.7	32.7	32.7
67.5°	32.7	32.7	32.7	32.7
69°	29.9	29.9	29.9	29.9
70°	29.9	29.9	29.9	29.9
72.5°	27.2	27.2	27.2	27.2
75°	24.4	27.2	27.2	27.2
77.5°	24.4	24.4	24.4	24.4
80°	21.8	21.8	24.4	24.4
82.5°	21.8	21.8	21.8	21.8
85°	19.0	19.0	21.8	21.8
87.5°	16.3	16.3	19.0	19.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)