

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: P165552

Luminaire Tested: **VST-F11-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165552
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-F11-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (77) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18256.8 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.83' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 282.7
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



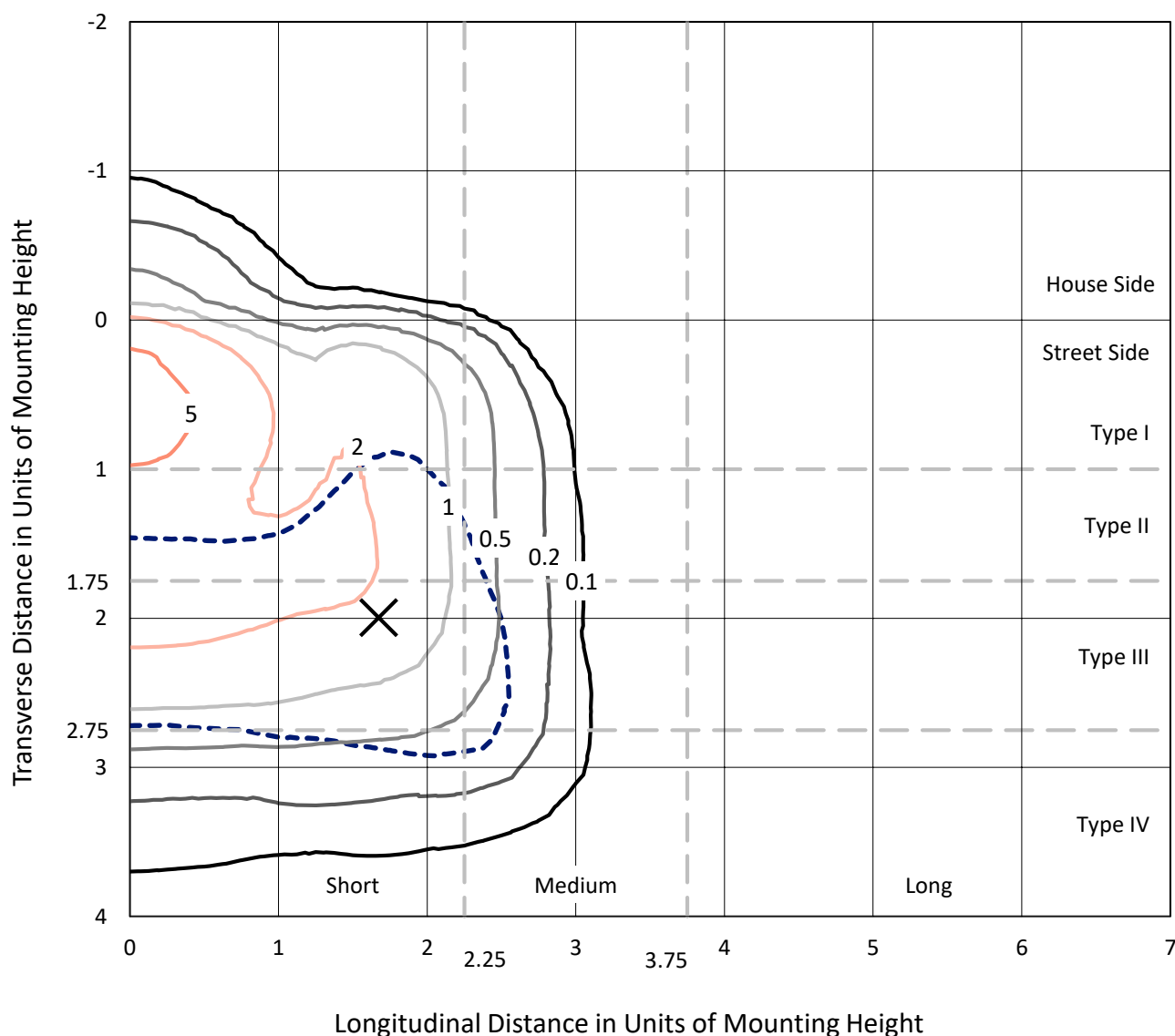
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

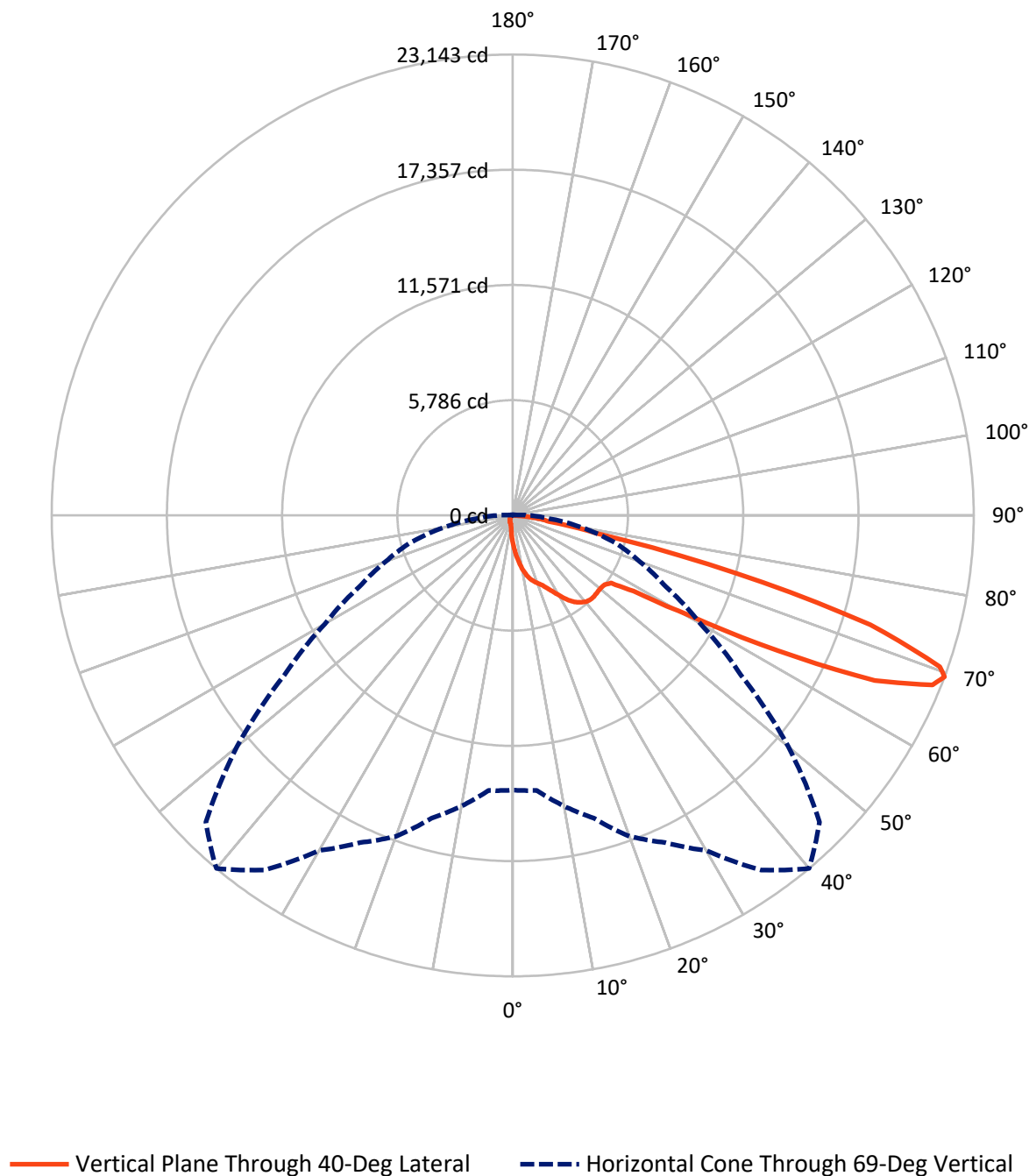


Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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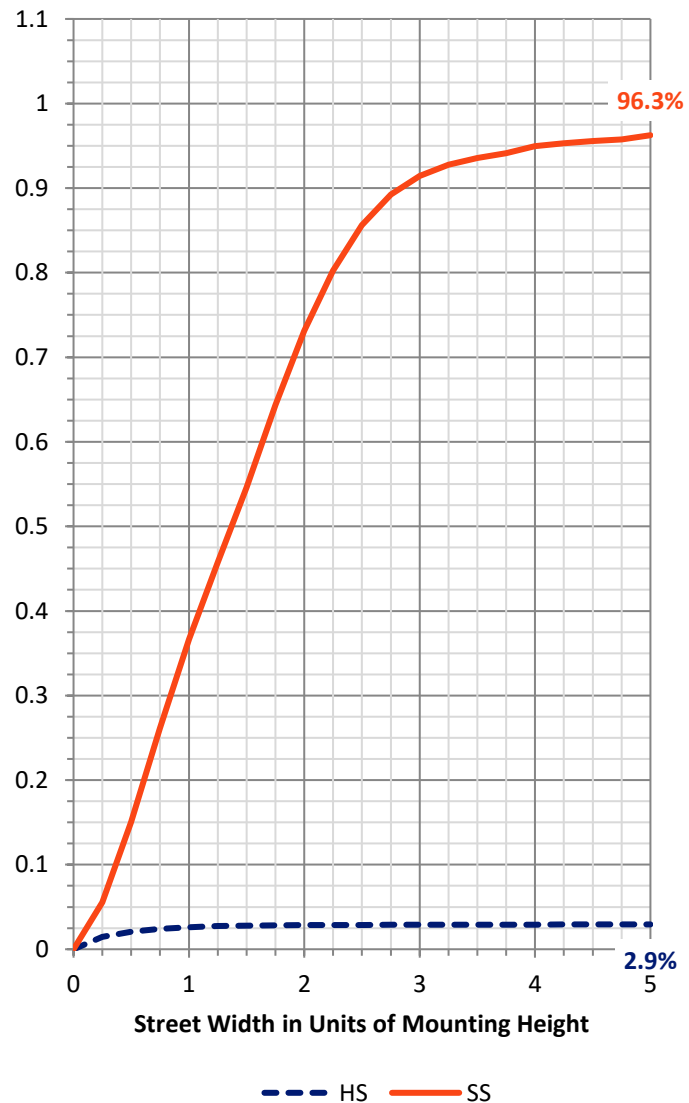
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	543.7	0.0	543.7
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	17713.1	0.0	17713.1
	% Fixture	97.0	0.0	97.0
Total	Lumens	18256.8	0.0	18256.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	0.8
10°-20°	488.6	2.7
20°-30°	935.1	5.1
30°-40°	1555.2	8.5
40°-50°	2104.4	11.5
50°-60°	3291.0	18.0
60°-70°	6766.3	37.1
70°-80°	2722.6	14.9
80°-90°	251.8	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°	18256.8	100.0
0°-180°	18256.8	100.0

Coefficient of Utilization



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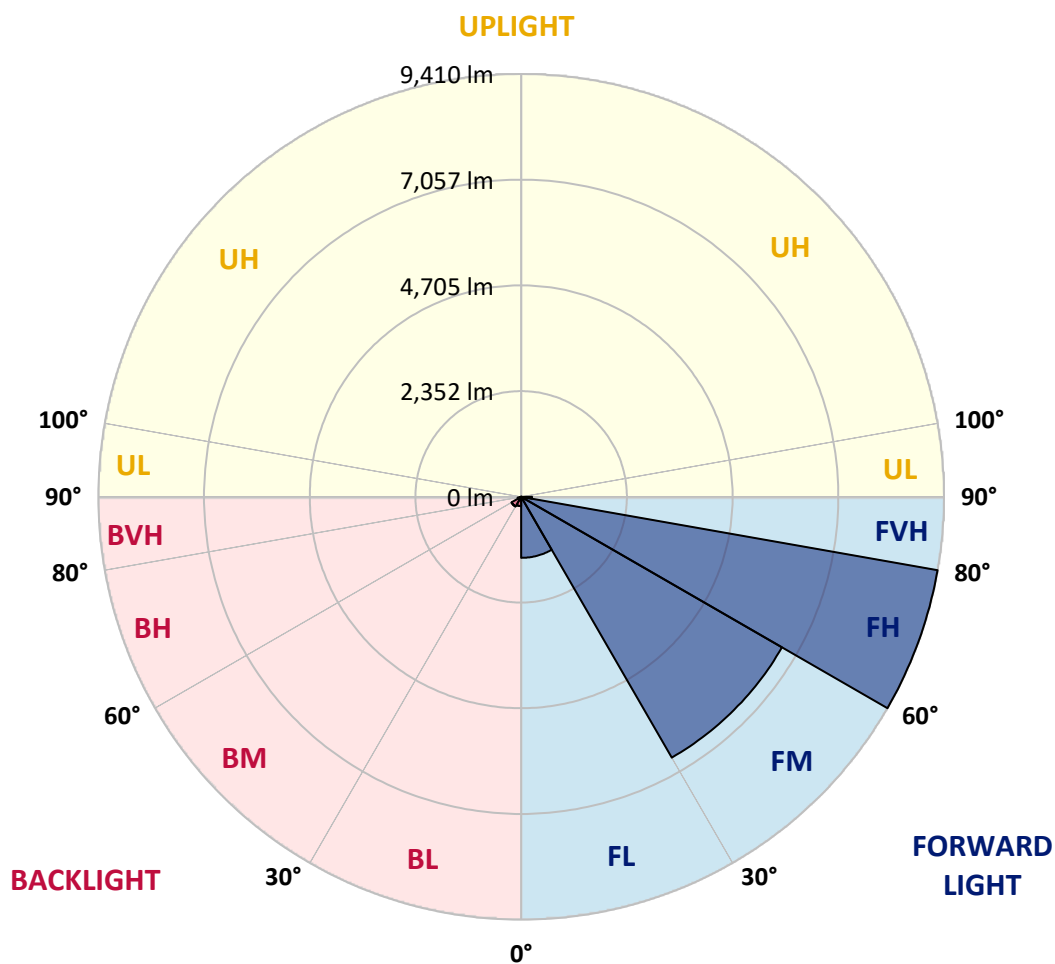
CATALOG NUMBER: VST-F11-LED-E-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1358.7	7.4			
FM	(30°-60°)	6702.4	36.7			
FH	(60°-80°)	9409.6	51.5			G4/12000
FVH	(80°-90°)	242.5	1.3			G3/500
BL	(0°-30°)	206.8	1.1	B1/500		
BM	(30°-60°)	248.2	1.4	B1/1000		
BH	(60°-80°)	79.3	0.4	B0/110		G0/110
BVH	(80°-90°)	9.4	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°	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8
2.5°	1839.4	1818.3	1794.4	1794.4	1764.6	1764.6	1746.6	1698.8	1692.8	1665.8	1638.9
5°	2347.7	2329.8	2300.0	2272.9	2249.1	2207.2	2177.2	2120.4	2057.7	1997.8	1944.0
7.5°	2844.3	2835.2	2781.4	2772.4	2733.5	2664.8	2604.9	2521.2	2413.5	2329.8	2231.1
10°	3304.9	3283.8	3271.8	3221.0	3164.3	3089.5	2996.7	2895.1	2769.5	2637.8	2497.2
12.5°	3669.7	3657.7	3603.8	3582.9	3523.2	3448.3	3331.7	3200.1	3074.6	2904.0	2739.5
15°	3941.8	3920.9	3884.9	3852.1	3780.3	3714.6	3606.9	3463.2	3310.9	3125.4	2928.0
17.5°	4169.2	4130.3	4121.2	4070.4	3995.7	3917.8	3798.3	3666.6	3487.2	3301.8	3086.4
20°	4474.1	4420.3	4402.4	4327.5	4240.9	4133.2	3995.7	3831.2	3642.7	3439.4	3218.0
22.5°	4833.0	4794.1	4755.2	4689.5	4578.9	4426.3	4226.0	4046.6	3807.2	3582.9	3343.7
25°	5341.5	5308.6	5245.8	5156.1	5018.4	4836.1	4593.8	4330.6	4049.5	3762.3	3481.2
27.5°	5834.9	5805.0	5760.1	5691.5	5535.8	5335.5	5036.4	4701.5	4345.5	3998.6	3687.5
30°	6298.6	6271.5	6226.7	6158.0	6020.4	5823.0	5485.0	5126.1	4683.5	4279.8	3906.0
32.5°	6798.0	6789.0	6738.1	6639.5	6519.8	6253.7	5885.8	5500.0	5051.5	4584.9	4148.1
35°	7363.2	7294.4	7246.6	7147.8	6944.6	6660.4	6229.8	5808.1	5335.5	4856.9	4369.5
37.5°	7841.8	7776.0	7716.1	7590.6	7342.4	6980.4	6492.9	6029.3	5541.8	5054.4	4557.8
40°	8191.6	8158.7	8087.0	7922.4	7644.4	7213.8	6687.3	6181.8	5691.5	5200.9	4710.4
42.5°	8451.8	8401.0	8320.4	8149.8	7820.9	7330.4	6765.0	6244.7	5760.1	5290.6	4809.2
45°	8547.6	8505.8	8431.0	8245.5	7889.6	7363.2	6762.1	6226.7	5763.2	5317.5	4874.9
47.5°	8490.7	8448.9	8383.0	8209.6	7859.8	7324.4	6708.3	6175.8	5733.2	5326.6	4934.7
50°	8302.4	8278.4	8227.5	8081.0	7767.0	7249.5	6660.4	6149.0	5727.2	5371.5	5018.4
52.5°	8284.4	8269.5	8206.7	8060.1	7740.1	7225.6	6654.4	6164.0	5778.1	5428.3	5078.3
55°	10123.6	9911.3	9435.8	9032.1	8368.1	7578.6	6956.4	6406.1	5993.5	5652.6	5407.2
57.5°	14388.5	14071.6	13446.4	12677.9	11152.5	9654.1	8454.9	7587.5	7159.8	7004.4	7097.0
60°	16386.3	16329.6	16230.8	15865.9	15085.3	13796.4	12360.7	10808.7	10186.4	10132.7	10321.0
62.5°	17334.5	17298.5	17328.5	17283.6	17041.3	16664.5	16251.7	15581.9	14965.7	14567.9	13724.5
65°	17771.1	17795.0	17965.4	18100.0	18129.9	18228.6	18530.8	19365.1	19975.2	18949.4	16607.6
67.5°	16661.4	16802.0	17193.9	17684.3	18258.5	18814.8	19712.0	21470.6	22723.7	21518.5	18192.8
69°	13793.3	13862.2	14819.1	15743.3	17146.0	18127.0	19428.0	21733.7	23142.5	21781.7	18067.1
70°	10859.3	10922.2	11948.1	13204.2	15575.9	16837.9	18539.7	21288.2	22750.6	21431.7	17421.1
72.5°	4898.9	4809.2	5171.0	5843.8	8421.9	10425.8	13401.6	17247.7	18770.0	17169.9	13033.6
75°	3421.5	3382.6	3421.5	3424.4	3825.2	4934.7	6226.7	9349.0	11562.2	9977.2	6226.7
77.5°	2649.8	2622.9	2596.0	2566.0	2614.0	2928.0	3053.5	3316.7	4306.6	4073.5	2374.6
80°	2096.6	2072.6	2138.3	2117.5	2117.5	2153.4	2129.4	2030.6	1845.2	1710.6	1531.2
82.5°	974.9	980.9	980.9	1064.6	1283.1	1498.3	1567.2	1468.5	1304.0	1109.5	894.3
85°	92.6	104.6	176.5	272.2	541.4	610.0	613.1	508.3	508.3	400.8	322.9
87.5°	0.0	2.9	2.9	2.9	26.9	74.8	62.8	18.0	8.9	8.9	14.9
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°	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8
2.5°	1591.1	1582.1	1546.3	1510.3	1477.4	1441.5	1408.6	1375.7	1339.8	1312.9	1280.0
5°	1860.3	1794.4	1719.7	1648.0	1576.1	1501.4	1423.7	1354.9	1283.1	1217.2	1154.3
7.5°	2132.3	2003.8	1902.1	1773.5	1656.9	1540.3	1432.6	1322.0	1220.3	1124.6	1034.8
10°	2362.6	2207.2	2048.6	1884.3	1716.6	1561.2	1411.7	1280.0	1145.4	1028.9	918.2
12.5°	2551.2	2353.7	2159.4	1952.9	1764.6	1567.2	1381.7	1223.2	1064.6	933.1	819.4
15°	2721.5	2494.3	2260.9	2021.7	1782.6	1558.3	1351.8	1154.3	992.9	843.4	714.8
17.5°	2859.2	2598.9	2335.8	2066.6	1809.4	1546.3	1312.9	1106.6	918.2	762.6	637.1
20°	2978.9	2706.6	2422.6	2120.4	1827.4	1543.2	1280.0	1046.8	852.3	688.0	565.2
22.5°	3089.5	2817.2	2512.3	2189.2	1854.3	1540.3	1250.1	1002.0	795.5	631.1	508.3
25°	3215.1	2928.0	2608.0	2260.9	1902.1	1552.3	1232.3	966.0	744.6	577.2	463.5
27.5°	3355.7	3053.5	2721.5	2350.6	1964.9	1576.1	1226.3	927.1	699.8	526.3	427.7
30°	3552.9	3203.2	2835.2	2440.4	2021.7	1603.1	1220.3	903.2	654.9	487.5	391.7
32.5°	3726.6	3349.7	2960.9	2533.2	2084.6	1630.0	1217.2	870.3	613.1	448.6	364.9
35°	3908.9	3484.3	3068.6	2622.9	2138.3	1659.8	1214.3	846.3	574.3	409.7	338.0
37.5°	4067.5	3597.8	3152.3	2700.6	2198.3	1686.8	1217.2	825.4	538.3	376.9	314.0
40°	4202.0	3714.6	3244.9	2772.4	2260.9	1728.6	1220.3	804.6	502.5	346.9	293.1
42.5°	4321.7	3825.2	3343.7	2853.2	2332.9	1776.6	1238.3	786.6	472.6	320.0	272.2
45°	4414.3	3926.9	3451.2	2966.9	2449.4	1854.3	1271.1	774.6	442.6	296.0	254.3
47.5°	4510.1	4076.4	3633.8	3146.3	2620.0	1976.9	1328.0	771.7	418.6	278.1	239.2
50°	4641.7	4226.0	3795.2	3328.6	2775.4	2102.6	1396.6	774.6	388.8	260.3	224.3
52.5°	4737.4	4378.4	4004.6	3645.7	3146.3	2485.2	1662.9	828.3	373.8	245.2	206.3
55°	5302.6	5239.8	5248.7	5308.6	4922.9	4228.9	2781.4	1196.3	439.7	278.1	203.4
57.5°	7476.9	7698.1	7826.7	7823.8	7186.7	5960.6	3735.5	1537.2	490.5	322.9	242.3
60°	10336.1	10168.7	9932.4	9349.0	8502.7	6804.0	4178.1	1654.0	424.6	257.2	221.4
62.5°	12863.3	11882.2	11011.9	10066.9	8957.3	7097.0	4267.8	1644.9	370.9	194.3	155.5
65°	14439.3	12674.8	11269.2	10084.7	8777.8	6851.8	4037.5	1510.3	314.0	158.6	128.6
67.5°	14816.2	12247.1	10258.4	8747.9	7333.3	5332.6	2963.8	1136.5	245.2	131.7	113.7
69°	13993.7	10886.4	8499.8	6786.1	5335.5	3538.1	1833.4	717.7	188.3	119.7	104.6
70°	12872.2	9468.7	6923.5	5446.1	3950.9	2485.2	1283.1	505.4	152.6	110.6	95.7
72.5°	8281.5	4973.5	3403.5	2368.6	1630.0	990.0	502.5	227.4	116.6	92.6	77.7
75°	3212.1	1839.4	1334.0	1013.8	792.6	550.3	305.1	146.6	98.6	77.7	59.8
77.5°	1582.1	1211.2	990.0	678.9	394.8	245.2	164.5	113.7	80.8	56.8	38.9
80°	1250.1	831.4	496.5	308.0	233.2	176.5	125.7	92.6	59.8	36.0	26.9
82.5°	640.0	350.0	257.2	209.4	173.4	137.7	101.7	65.7	38.9	24.0	20.9
85°	200.3	146.6	131.7	128.6	119.7	98.6	71.7	42.0	24.0	14.9	14.9
87.5°	14.9	20.9	26.9	20.9	24.0	20.9	26.9	18.0	12.0	12.0	8.9
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°	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8	1378.8
2.5°	1256.1	1220.3	1187.4	1166.3	1127.5	1112.6	1097.7	1091.7	1064.6	1070.6	1046.8
5°	1097.7	1034.8	986.9	939.1	894.3	861.4	834.3	801.5	774.6	762.6	738.6
7.5°	954.0	873.4	810.5	759.7	705.8	664.0	628.0	604.1	580.3	556.3	544.3
10°	828.3	741.7	670.0	619.1	568.3	532.3	505.4	487.5	472.6	463.5	460.6
12.5°	711.8	628.0	562.3	517.4	478.6	460.6	448.6	439.7	436.6	433.7	433.7
15°	622.0	538.3	487.5	454.6	436.6	427.7	424.6	418.6	412.8	409.7	409.7
17.5°	538.3	475.5	439.7	421.7	412.8	406.8	400.8	394.8	388.8	385.8	385.8
20°	481.5	430.6	412.8	400.8	391.7	385.8	376.9	370.9	368.0	364.9	362.0
22.5°	436.6	403.7	391.7	382.8	370.9	362.0	356.0	350.0	344.0	340.9	338.0
25°	403.7	382.8	373.8	362.0	350.0	340.9	332.0	322.9	317.1	314.0	308.0
27.5°	379.8	364.9	352.9	338.0	326.0	317.1	308.0	299.1	293.1	287.1	284.0
30°	358.9	344.0	328.9	317.1	302.0	293.1	281.1	272.2	269.2	263.2	257.2
32.5°	338.0	322.9	308.0	293.1	278.1	266.2	260.3	248.3	242.3	239.2	233.2
35°	314.0	299.1	281.1	269.2	254.3	242.3	233.2	224.3	218.3	212.3	209.4
37.5°	293.1	275.1	257.2	242.3	230.3	218.3	209.4	200.3	194.3	188.3	185.4
40°	269.2	251.2	233.2	218.3	206.3	197.4	188.3	179.4	173.4	170.5	170.5
42.5°	248.3	227.4	209.4	197.4	188.3	176.5	167.4	158.6	155.5	152.6	155.5
45°	227.4	206.3	191.4	179.4	170.5	158.6	149.5	143.5	140.6	143.5	146.6
47.5°	209.4	188.3	173.4	164.5	155.5	146.6	137.7	131.7	131.7	137.7	143.5
50°	191.4	170.5	158.6	152.6	143.5	134.6	122.6	119.7	122.6	128.6	134.6
52.5°	173.4	149.5	140.6	137.7	128.6	119.7	110.6	107.7	110.6	116.6	113.7
55°	155.5	131.7	128.6	125.7	116.6	104.6	95.7	95.7	95.7	92.6	86.8
57.5°	149.5	116.6	113.7	110.6	101.7	89.7	83.7	77.7	74.8	65.7	62.8
60°	155.5	104.6	104.6	98.6	89.7	77.7	68.8	59.8	53.8	47.8	47.8
62.5°	125.7	95.7	92.6	86.8	74.8	62.8	53.8	44.9	42.0	38.9	38.9
65°	101.7	86.8	80.8	71.7	62.8	50.9	42.0	36.0	32.9	32.9	36.0
67.5°	92.6	77.7	68.8	59.8	50.9	38.9	32.9	30.0	30.0	32.9	32.9
69°	86.8	71.7	62.8	53.8	44.9	36.0	30.0	30.0	30.0	30.0	32.9
70°	80.8	68.8	59.8	50.9	38.9	30.0	26.9	26.9	30.0	30.0	32.9
72.5°	62.8	53.8	50.9	42.0	30.0	26.9	24.0	26.9	26.9	30.0	30.0
75°	47.8	38.9	38.9	32.9	24.0	20.9	20.9	24.0	24.0	26.9	26.9
77.5°	32.9	26.9	26.9	24.0	20.9	18.0	18.0	20.9	24.0	24.0	26.9
80°	24.0	20.9	18.0	20.9	18.0	14.9	18.0	20.9	20.9	24.0	24.0
82.5°	18.0	18.0	18.0	18.0	14.9	14.9	18.0	18.0	20.9	24.0	24.0
85°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	18.0	18.0	20.9	20.9
87.5°	8.9	8.9	8.9	12.0	12.0	14.9	14.9	14.9	14.9	18.0	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):

	165°	170°	175°	180°
0°	1378.8	1378.8	1378.8	1378.8
2.5°	1040.8	1037.8	1025.8	1028.9
5°	729.7	711.8	723.7	720.8
7.5°	535.4	532.3	529.4	535.4
10°	457.7	457.7	454.6	457.7
12.5°	430.6	430.6	430.6	430.6
15°	409.7	409.7	406.8	406.8
17.5°	385.8	385.8	385.8	382.8
20°	362.0	358.9	358.9	358.9
22.5°	334.9	332.0	332.0	332.0
25°	308.0	305.1	305.1	305.1
27.5°	281.1	278.1	275.1	275.1
30°	254.3	251.2	248.3	248.3
32.5°	227.4	224.3	221.4	221.4
35°	203.4	203.4	200.3	197.4
37.5°	182.5	182.5	182.5	182.5
40°	167.4	170.5	170.5	170.5
42.5°	158.6	161.5	164.5	167.4
45°	152.6	158.6	161.5	161.5
47.5°	149.5	152.6	155.5	155.5
50°	137.7	134.6	134.6	134.6
52.5°	110.6	104.6	101.7	98.6
55°	80.8	77.7	71.7	71.7
57.5°	56.8	56.8	53.8	53.8
60°	44.9	44.9	42.0	44.9
62.5°	38.9	38.9	38.9	38.9
65°	36.0	36.0	36.0	36.0
67.5°	36.0	36.0	36.0	36.0
69°	32.9	32.9	32.9	32.9
70°	32.9	32.9	32.9	32.9
72.5°	30.0	30.0	30.0	30.0
75°	26.9	30.0	30.0	30.0
77.5°	26.9	26.9	26.9	26.9
80°	24.0	24.0	26.9	26.9
82.5°	24.0	24.0	24.0	24.0
85°	20.9	20.9	24.0	24.0
87.5°	18.0	18.0	20.9	20.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)