

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: P165545

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165545
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-E11-LED-E-U-SL4-HSS-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (231) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18665.2 lumens
Efficiency: N/A
Efficacy: 69.2 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): 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



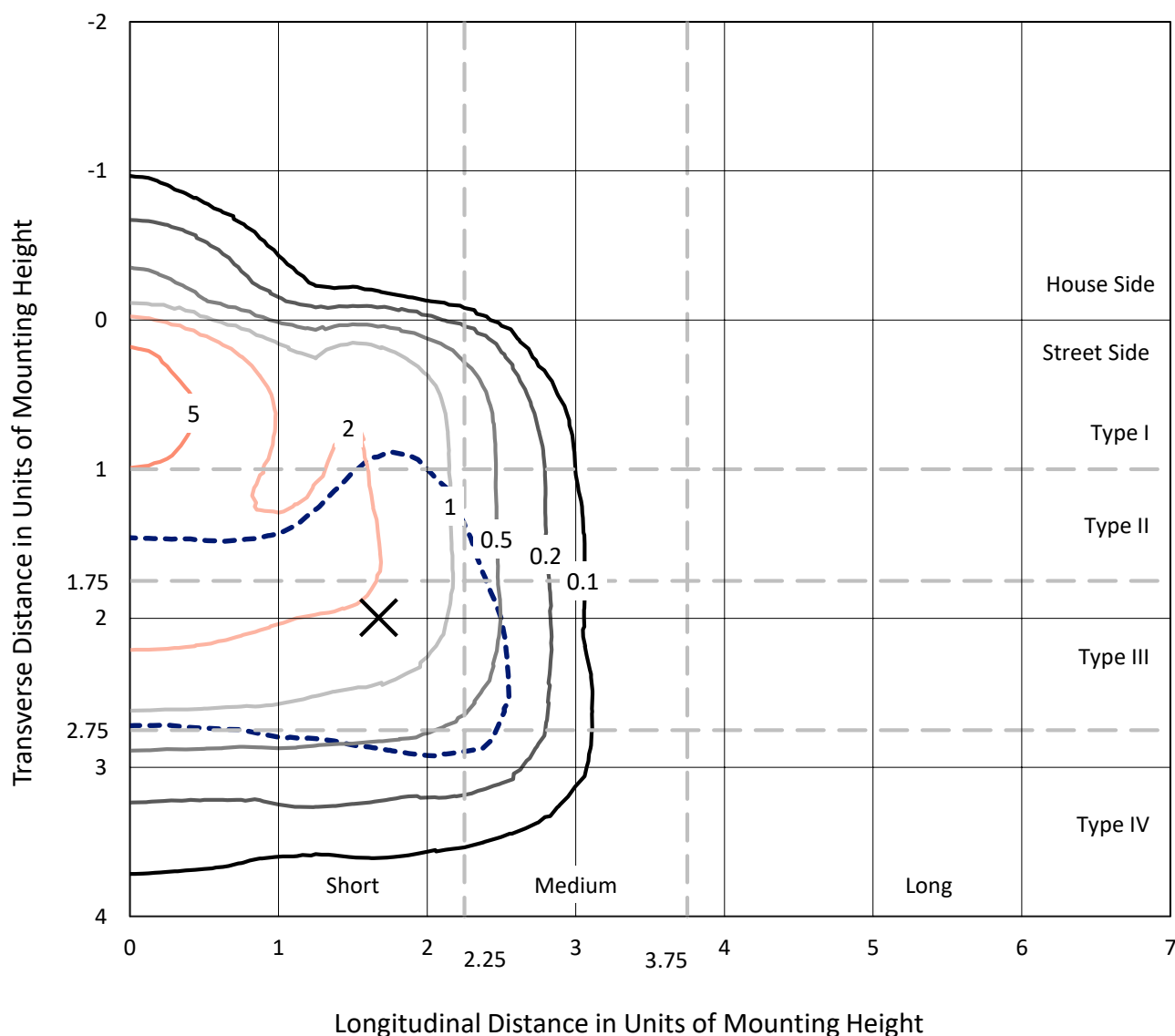
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

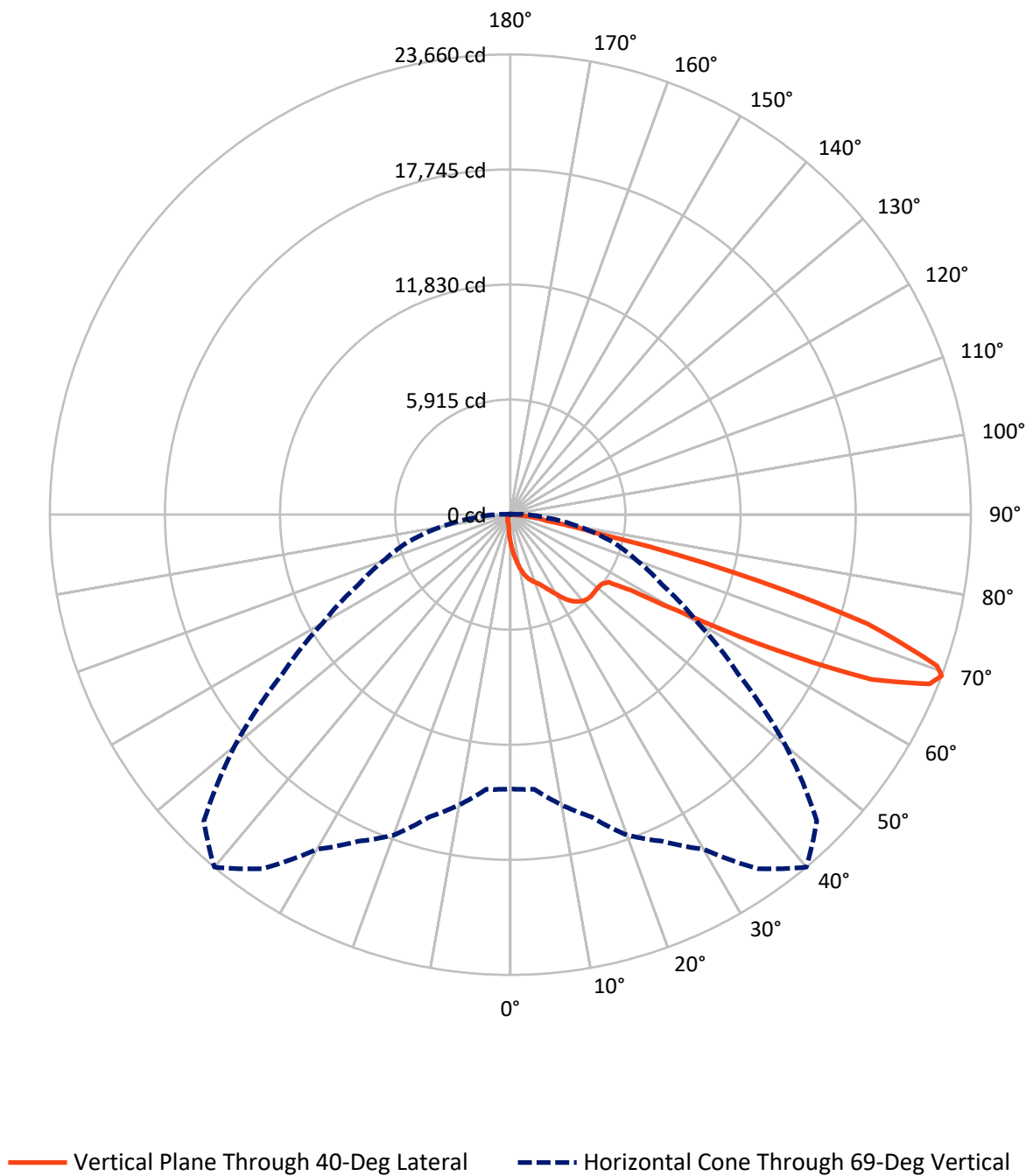


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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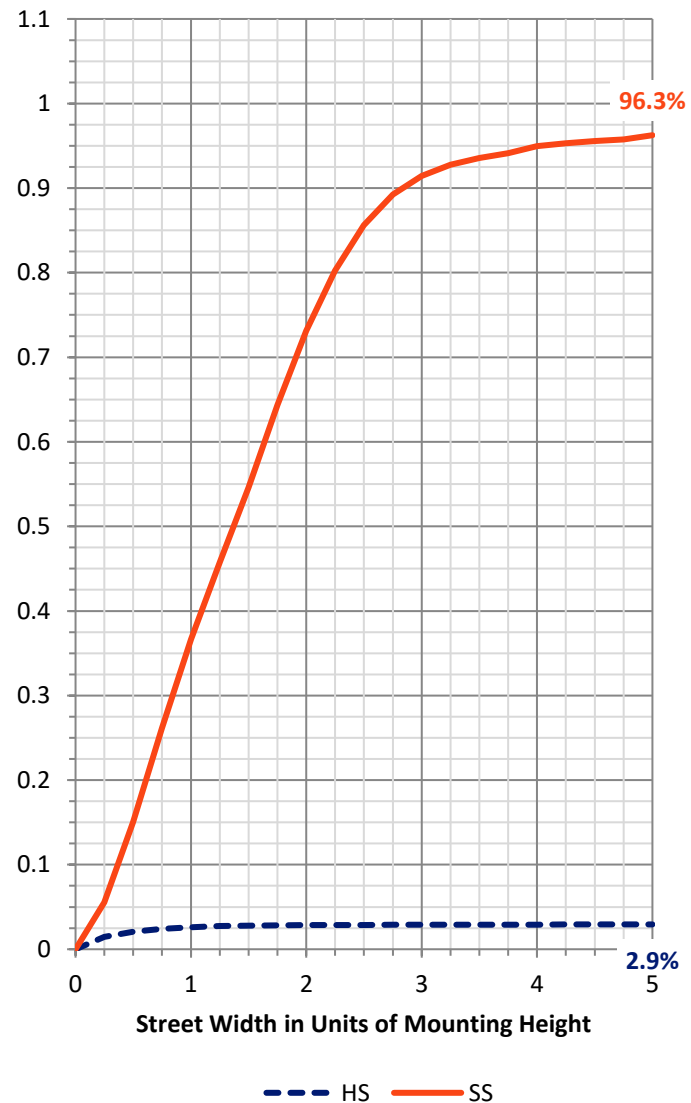
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	555.8	0.0	555.8
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	18109.4	0.0	18109.4
	% Fixture	97.0	0.0	97.0
Total	Lumens	18665.2	0.0	18665.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.9	0.8
10°-20°	499.5	2.7
20°-30°	956.1	5.1
30°-40°	1590.0	8.5
40°-50°	2151.5	11.5
50°-60°	3364.7	18.0
60°-70°	6917.6	37.1
70°-80°	2783.5	14.9
80°-90°	257.5	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°	18665.2	100.0
0°-180°	18665.2	100.0

Coefficient of Utilization



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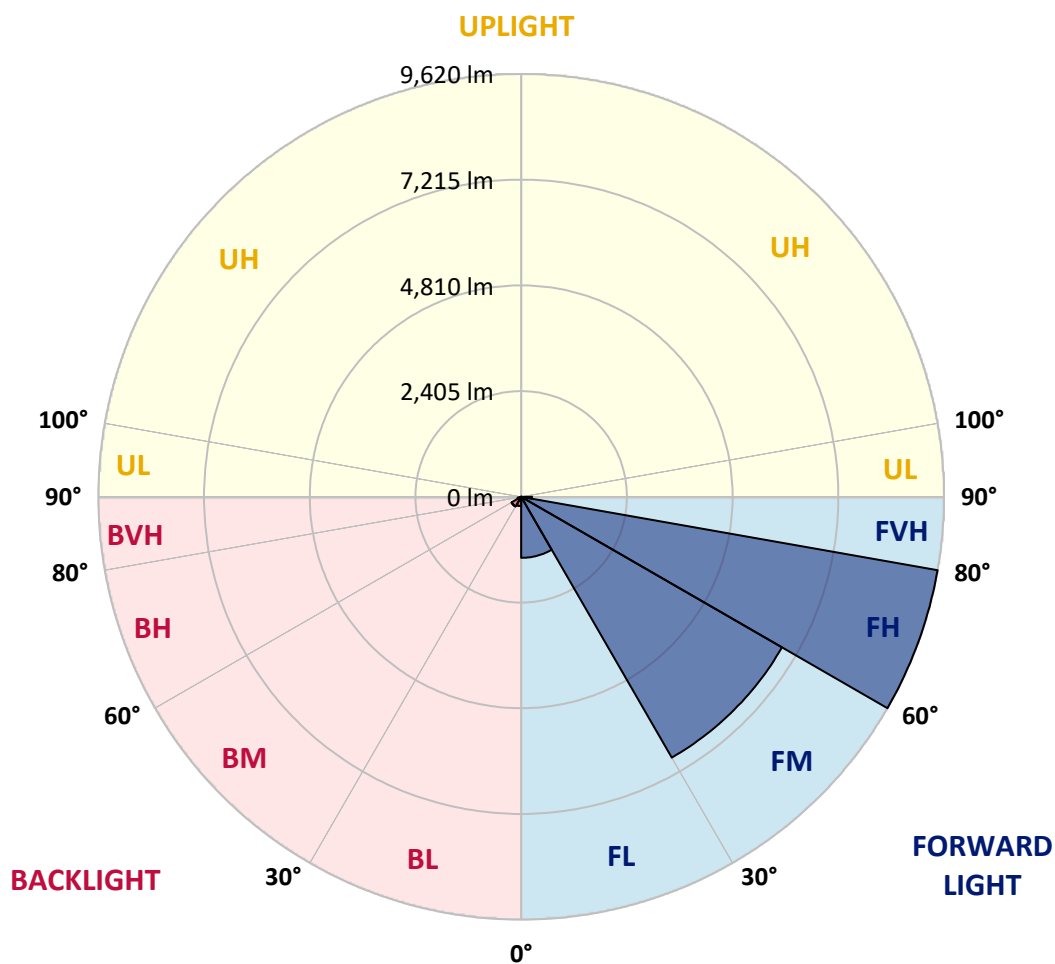
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1389.1	7.4			
FM	(30°-60°)	6852.3	36.7			
FH	(60°-80°)	9620.1	51.5			G4/12000
FVH	(80°-90°)	247.9	1.3			G3/500
BL	(0°-30°)	211.4	1.1	B1/500		
BM	(30°-60°)	253.8	1.4	B1/1000		
BH	(60°-80°)	81.1	0.4	B0/110		G0/110
BVH	(80°-90°)	9.6	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°	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7
2.5°	1880.5	1859.0	1834.5	1834.5	1804.0	1804.0	1785.7	1736.8	1730.7	1703.0	1675.6
5°	2400.3	2381.9	2351.4	2323.8	2299.4	2256.5	2225.9	2167.8	2103.7	2042.5	1987.5
7.5°	2907.9	2898.6	2843.7	2834.4	2794.6	2724.5	2663.2	2577.6	2467.5	2381.9	2281.1
10°	3378.8	3357.2	3345.0	3293.0	3235.1	3158.6	3063.7	2959.9	2831.4	2696.8	2553.1
12.5°	3751.8	3739.6	3684.4	3663.1	3602.0	3525.5	3406.3	3271.6	3143.3	2969.0	2800.8
15°	4030.0	4008.6	3971.8	3938.2	3864.9	3797.7	3687.6	3540.7	3384.9	3195.3	2993.5
17.5°	4262.4	4222.7	4213.4	4161.4	4085.1	4005.4	3883.3	3748.7	3565.2	3375.6	3155.4
20°	4574.2	4519.2	4500.8	4424.3	4335.8	4225.7	4085.1	3916.9	3724.1	3516.4	3290.0
22.5°	4941.1	4901.3	4861.6	4794.4	4681.3	4525.3	4320.5	4137.1	3892.4	3663.1	3418.5
25°	5461.0	5427.4	5363.1	5271.4	5130.7	4944.2	4696.5	4427.5	4140.1	3846.5	3559.1
27.5°	5965.5	5934.8	5889.0	5818.8	5659.7	5454.8	5149.0	4806.6	4442.7	4088.1	3770.0
30°	6439.5	6411.8	6366.0	6295.8	6155.0	5953.2	5607.7	5240.8	4788.3	4375.5	3993.4
32.5°	6950.1	6940.8	6888.8	6788.0	6665.7	6393.6	6017.5	5623.1	5164.4	4687.4	4240.9
35°	7527.9	7457.6	7408.7	7307.7	7100.0	6809.4	6369.1	5938.0	5454.8	4965.6	4467.2
37.5°	8017.2	7950.0	7888.7	7760.4	7506.6	7136.5	6638.2	6164.1	5665.8	5167.4	4659.8
40°	8374.8	8341.2	8267.9	8099.6	7815.4	7375.1	6836.8	6320.1	5818.8	5317.3	4815.7
42.5°	8640.9	8588.9	8506.5	8332.1	7995.9	7494.3	6916.3	6384.4	5889.0	5409.0	4916.8
45°	8738.7	8696.0	8619.5	8430.0	8066.0	7527.9	6913.3	6366.0	5892.1	5436.5	4984.0
47.5°	8680.6	8637.9	8570.5	8393.2	8035.6	7488.2	6858.4	6314.0	5861.5	5445.8	5045.1
50°	8488.1	8463.6	8411.6	8261.7	7940.7	7411.7	6809.4	6286.5	5855.4	5491.6	5130.7
52.5°	8469.7	8454.5	8390.2	8240.4	7913.2	7387.2	6803.2	6301.9	5907.3	5549.7	5191.9
55°	10350.1	10133.0	9646.9	9234.1	8555.3	7748.2	7112.0	6549.4	6127.6	5779.0	5528.2
57.5°	14710.3	14386.3	13747.2	12961.4	11401.9	9870.1	8644.1	7757.3	7320.0	7161.0	7255.7
60°	16752.8	16694.9	16593.9	16220.8	15422.8	14105.0	12637.2	11050.4	10414.3	10359.3	10551.9
62.5°	17722.2	17685.5	17716.1	17670.2	17422.5	17037.3	16615.2	15930.4	15300.4	14893.8	14031.5
65°	18168.6	18193.1	18367.3	18504.9	18535.5	18636.3	18945.3	19798.3	20422.0	19373.3	16979.1
67.5°	17034.1	17177.8	17578.5	18079.8	18667.0	19235.7	20152.9	21950.9	23232.0	21999.9	18599.7
69°	14101.9	14172.2	15150.6	16095.5	17529.5	18532.5	19862.5	22219.9	23660.2	22268.9	18471.2
70°	11102.2	11166.5	12215.4	13499.5	15924.3	17214.6	18954.4	21764.4	23259.5	21911.1	17810.8
72.5°	5008.5	4916.8	5286.6	5974.6	8610.3	10659.0	13701.4	17633.5	19189.8	17554.0	13325.2
75°	3498.0	3458.3	3498.0	3501.0	3910.8	5045.1	6366.0	9558.1	11820.8	10200.4	6366.0
77.5°	2709.0	2681.6	2654.1	2623.4	2672.5	2993.5	3121.8	3390.9	4403.0	4164.6	2427.7
80°	2143.5	2119.0	2186.2	2164.8	2164.8	2201.6	2177.1	2076.1	1886.5	1748.9	1565.5
82.5°	996.7	1002.8	1002.8	1088.4	1311.8	1531.8	1602.2	1501.4	1333.2	1134.3	914.3
85°	94.7	107.0	180.5	278.3	553.5	623.7	626.8	519.7	519.7	409.8	330.1
87.5°	0.0	3.0	3.0	3.0	27.5	76.5	64.2	18.4	9.1	9.1	15.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7
2.5°	1626.7	1617.4	1580.9	1544.1	1510.5	1473.7	1440.1	1406.5	1369.7	1342.3	1308.7
5°	1901.9	1834.5	1758.2	1684.8	1611.3	1535.0	1455.5	1385.2	1311.8	1244.4	1180.2
7.5°	2180.0	2048.6	1944.6	1813.1	1693.9	1574.7	1464.6	1351.6	1247.6	1149.7	1058.0
10°	2415.5	2256.5	2094.4	1926.4	1755.0	1596.1	1443.3	1308.7	1171.1	1051.9	938.8
12.5°	2608.2	2406.4	2207.7	1996.6	1804.0	1602.2	1412.6	1250.5	1088.4	954.0	837.8
15°	2782.4	2550.1	2311.5	2067.0	1822.4	1593.1	1382.0	1180.2	1015.1	862.3	730.8
17.5°	2923.1	2657.1	2388.0	2112.8	1849.9	1580.9	1342.3	1131.3	938.8	779.7	651.4
20°	3045.5	2767.2	2476.8	2167.8	1868.3	1577.7	1308.7	1070.2	871.4	703.3	577.8
22.5°	3158.6	2880.2	2568.5	2238.2	1895.8	1574.7	1278.0	1024.4	813.3	645.2	519.7
25°	3287.1	2993.5	2666.3	2311.5	1944.6	1587.0	1259.8	987.6	761.3	590.1	473.9
27.5°	3430.8	3121.8	2782.4	2403.2	2008.9	1611.3	1253.7	947.9	715.4	538.1	437.3
30°	3632.4	3274.8	2898.6	2495.0	2067.0	1639.0	1247.6	923.4	669.6	498.4	400.5
32.5°	3809.9	3424.6	3027.1	2589.8	2131.2	1666.5	1244.4	889.8	626.8	458.6	373.0
35°	3996.3	3562.2	3137.2	2681.6	2186.2	1696.9	1241.4	865.3	587.1	418.9	345.5
37.5°	4158.4	3678.3	3222.8	2761.0	2247.4	1724.6	1244.4	843.9	550.3	385.3	321.0
40°	4296.0	3797.7	3317.5	2834.4	2311.5	1767.3	1247.6	822.6	513.8	354.6	299.7
42.5°	4418.4	3910.8	3418.5	2917.0	2385.0	1816.3	1266.0	804.2	483.1	327.2	278.3
45°	4513.1	4014.7	3528.4	3033.2	2504.2	1895.8	1299.6	791.9	452.5	302.7	259.9
47.5°	4610.9	4167.5	3715.0	3216.7	2678.6	2021.1	1357.7	788.9	428.0	284.3	244.5
50°	4745.6	4320.5	3880.1	3403.1	2837.5	2149.6	1427.9	791.9	397.5	266.1	229.3
52.5°	4843.4	4476.3	4094.2	3727.3	3216.7	2540.8	1700.1	846.9	382.1	250.7	210.9
55°	5421.2	5357.0	5366.1	5427.4	5033.0	4323.5	2843.7	1223.1	449.5	284.3	208.0
57.5°	7644.2	7870.3	8001.8	7998.8	7347.5	6094.0	3819.0	1571.6	501.5	330.1	247.7
60°	10567.3	10396.1	10154.5	9558.1	8692.9	6956.2	4271.5	1691.0	434.1	262.9	226.3
62.5°	13151.0	12148.0	11258.2	10292.1	9157.6	7255.7	4363.2	1681.7	379.2	198.7	158.9
65°	14762.3	12958.3	11521.3	10310.3	8974.2	7005.1	4127.8	1544.1	321.0	162.1	131.5
67.5°	15147.6	12521.0	10487.8	8943.6	7497.3	5451.9	3030.1	1162.0	250.7	134.6	116.2
69°	14306.7	11129.9	8689.9	6937.9	5454.8	3617.2	1874.4	733.8	192.5	122.4	107.0
70°	13160.1	9680.5	7078.4	5567.9	4039.2	2540.8	1311.8	516.7	156.0	113.1	97.9
72.5°	8466.7	5084.8	3479.6	2421.6	1666.5	1012.1	513.8	232.5	119.2	94.7	79.5
75°	3283.9	1880.5	1363.8	1036.5	810.3	562.6	311.9	149.8	100.8	79.5	61.1
77.5°	1617.4	1238.3	1012.1	694.1	403.7	250.7	168.2	116.2	82.6	58.1	39.7
80°	1278.0	850.0	507.6	314.9	238.4	180.5	128.5	94.7	61.1	36.8	27.5
82.5°	654.3	357.8	262.9	214.1	177.3	140.7	104.0	67.2	39.7	24.5	21.4
85°	204.8	149.8	134.6	131.5	122.4	100.8	73.3	42.9	24.5	15.2	15.2
87.5°	15.2	21.4	27.5	21.4	24.5	21.4	27.5	18.4	12.3	12.3	9.1
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°	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7	1409.7
2.5°	1284.1	1247.6	1214.0	1192.4	1152.7	1137.5	1122.2	1116.1	1088.4	1094.6	1070.2
5°	1122.2	1058.0	1009.0	960.1	914.3	880.7	853.0	819.4	791.9	779.7	755.2
7.5°	975.4	892.9	828.7	776.7	721.5	678.8	642.1	617.6	593.2	568.7	556.5
10°	846.9	758.3	685.0	633.0	581.0	544.2	516.7	498.4	483.1	473.9	470.9
12.5°	727.7	642.1	574.9	529.0	489.3	470.9	458.6	449.5	446.4	443.4	443.4
15°	635.9	550.3	498.4	464.8	446.4	437.3	434.1	428.0	422.0	418.9	418.9
17.5°	550.3	486.1	449.5	431.1	422.0	415.9	409.8	403.7	397.5	394.4	394.4
20°	492.2	440.2	422.0	409.8	400.5	394.4	385.3	379.2	376.2	373.0	370.1
22.5°	446.4	412.8	400.5	391.4	379.2	370.1	363.9	357.8	351.7	348.5	345.5
25°	412.8	391.4	382.1	370.1	357.8	348.5	339.4	330.1	324.2	321.0	314.9
27.5°	388.3	373.0	360.8	345.5	333.3	324.2	314.9	305.8	299.7	293.6	290.4
30°	366.9	351.7	336.3	324.2	308.8	299.7	287.4	278.3	275.2	269.0	262.9
32.5°	345.5	330.1	314.9	299.7	284.3	272.2	266.1	253.8	247.7	244.5	238.4
35°	321.0	305.8	287.4	275.2	259.9	247.7	238.4	229.3	223.2	217.1	214.1
37.5°	299.7	281.3	262.9	247.7	235.4	223.2	214.1	204.8	198.7	192.5	189.6
40°	275.2	256.8	238.4	223.2	210.9	201.8	192.5	183.4	177.3	174.4	174.4
42.5°	253.8	232.5	214.1	201.8	192.5	180.5	171.2	162.1	158.9	156.0	158.9
45°	232.5	210.9	195.7	183.4	174.4	162.1	152.8	146.7	143.7	146.7	149.8
47.5°	214.1	192.5	177.3	168.2	158.9	149.8	140.7	134.6	134.6	140.7	146.7
50°	195.7	174.4	162.1	156.0	146.7	137.6	125.3	122.4	125.3	131.5	137.6
52.5°	177.3	152.8	143.7	140.7	131.5	122.4	113.1	110.1	113.1	119.2	116.2
55°	158.9	134.6	131.5	128.5	119.2	107.0	97.9	97.9	97.9	94.7	88.8
57.5°	152.8	119.2	116.2	113.1	104.0	91.7	85.6	79.5	76.5	67.2	64.2
60°	158.9	107.0	107.0	100.8	91.7	79.5	70.4	61.1	55.0	48.8	48.8
62.5°	128.5	97.9	94.7	88.8	76.5	64.2	55.0	45.9	42.9	39.7	39.7
65°	104.0	88.8	82.6	73.3	64.2	52.0	42.9	36.8	33.6	33.6	36.8
67.5°	94.7	79.5	70.4	61.1	52.0	39.7	33.6	30.6	30.6	33.6	33.6
69°	88.8	73.3	64.2	55.0	45.9	36.8	30.6	30.6	30.6	30.6	33.6
70°	82.6	70.4	61.1	52.0	39.7	30.6	27.5	27.5	30.6	30.6	33.6
72.5°	64.2	55.0	52.0	42.9	30.6	27.5	24.5	27.5	27.5	30.6	30.6
75°	48.8	39.7	39.7	33.6	24.5	21.4	21.4	24.5	24.5	27.5	27.5
77.5°	33.6	27.5	27.5	24.5	21.4	18.4	18.4	21.4	24.5	24.5	27.5
80°	24.5	21.4	18.4	21.4	18.4	15.2	18.4	21.4	21.4	24.5	24.5
82.5°	18.4	18.4	18.4	18.4	15.2	15.2	18.4	18.4	21.4	24.5	24.5
85°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	18.4	18.4	21.4	21.4
87.5°	9.1	9.1	9.1	12.3	12.3	15.2	15.2	15.2	15.2	18.4	18.4
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°	1409.7	1409.7	1409.7	1409.7
2.5°	1064.1	1061.0	1048.7	1051.9
5°	746.1	727.7	739.9	737.0
7.5°	547.4	544.2	541.3	547.4
10°	467.9	467.9	464.8	467.9
12.5°	440.2	440.2	440.2	440.2
15°	418.9	418.9	415.9	415.9
17.5°	394.4	394.4	394.4	391.4
20°	370.1	366.9	366.9	366.9
22.5°	342.4	339.4	339.4	339.4
25°	314.9	311.9	311.9	311.9
27.5°	287.4	284.3	281.3	281.3
30°	259.9	256.8	253.8	253.8
32.5°	232.5	229.3	226.3	226.3
35°	208.0	208.0	204.8	201.8
37.5°	186.6	186.6	186.6	186.6
40°	171.2	174.4	174.4	174.4
42.5°	162.1	165.1	168.2	171.2
45°	156.0	162.1	165.1	165.1
47.5°	152.8	156.0	158.9	158.9
50°	140.7	137.6	137.6	137.6
52.5°	113.1	107.0	104.0	100.8
55°	82.6	79.5	73.3	73.3
57.5°	58.1	58.1	55.0	55.0
60°	45.9	45.9	42.9	45.9
62.5°	39.7	39.7	39.7	39.7
65°	36.8	36.8	36.8	36.8
67.5°	36.8	36.8	36.8	36.8
69°	33.6	33.6	33.6	33.6
70°	33.6	33.6	33.6	33.6
72.5°	30.6	30.6	30.6	30.6
75°	27.5	30.6	30.6	30.6
77.5°	27.5	27.5	27.5	27.5
80°	24.5	24.5	27.5	27.5
82.5°	24.5	24.5	24.5	24.5
85°	21.4	21.4	24.5	24.5
87.5°	18.4	18.4	21.4	21.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)