

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: P165287

Luminaire Tested: **VST-E07-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165287
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E07-LED-E-U-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11991.7 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.17' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

Input Watts (W): 172.5
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

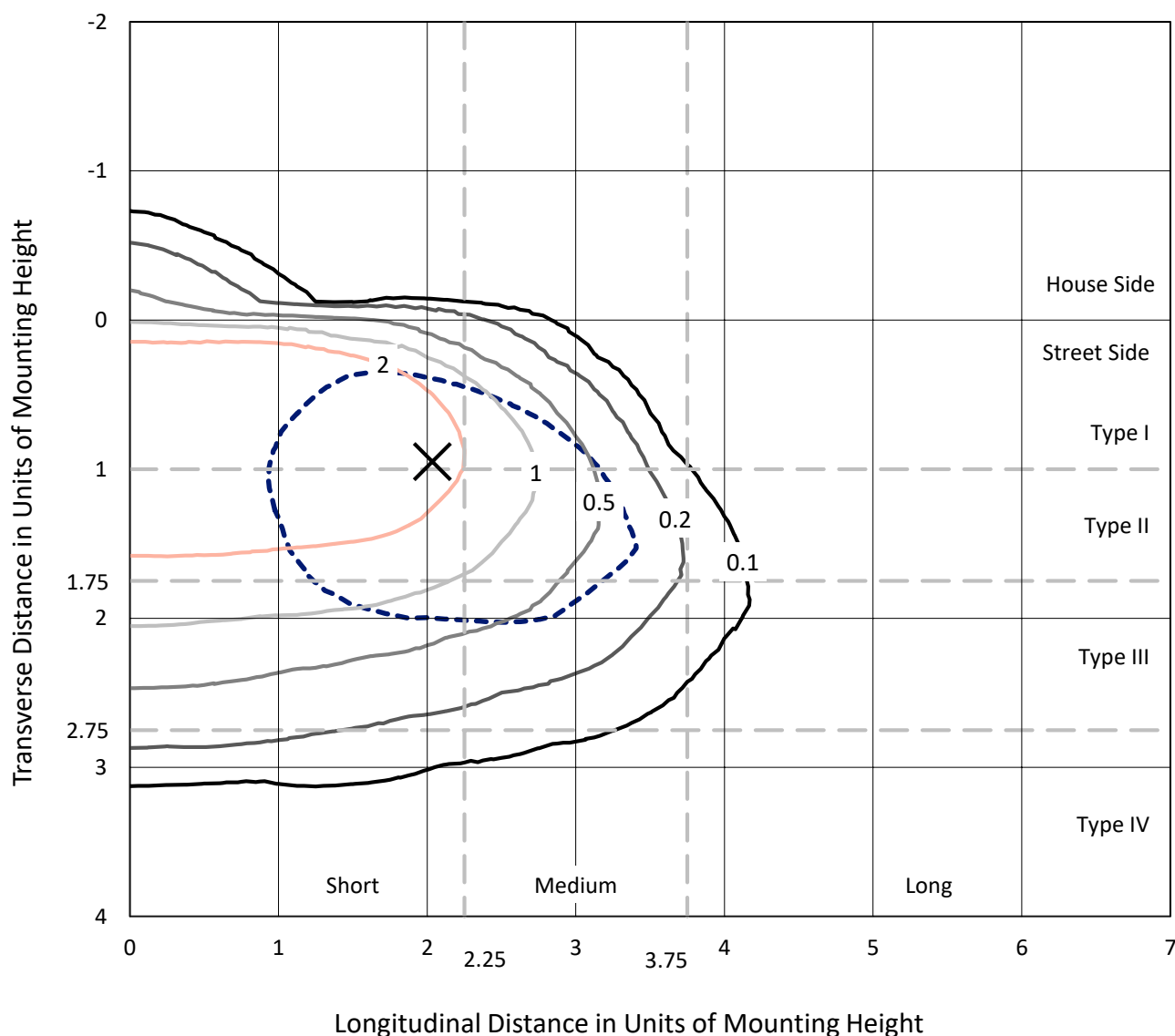


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

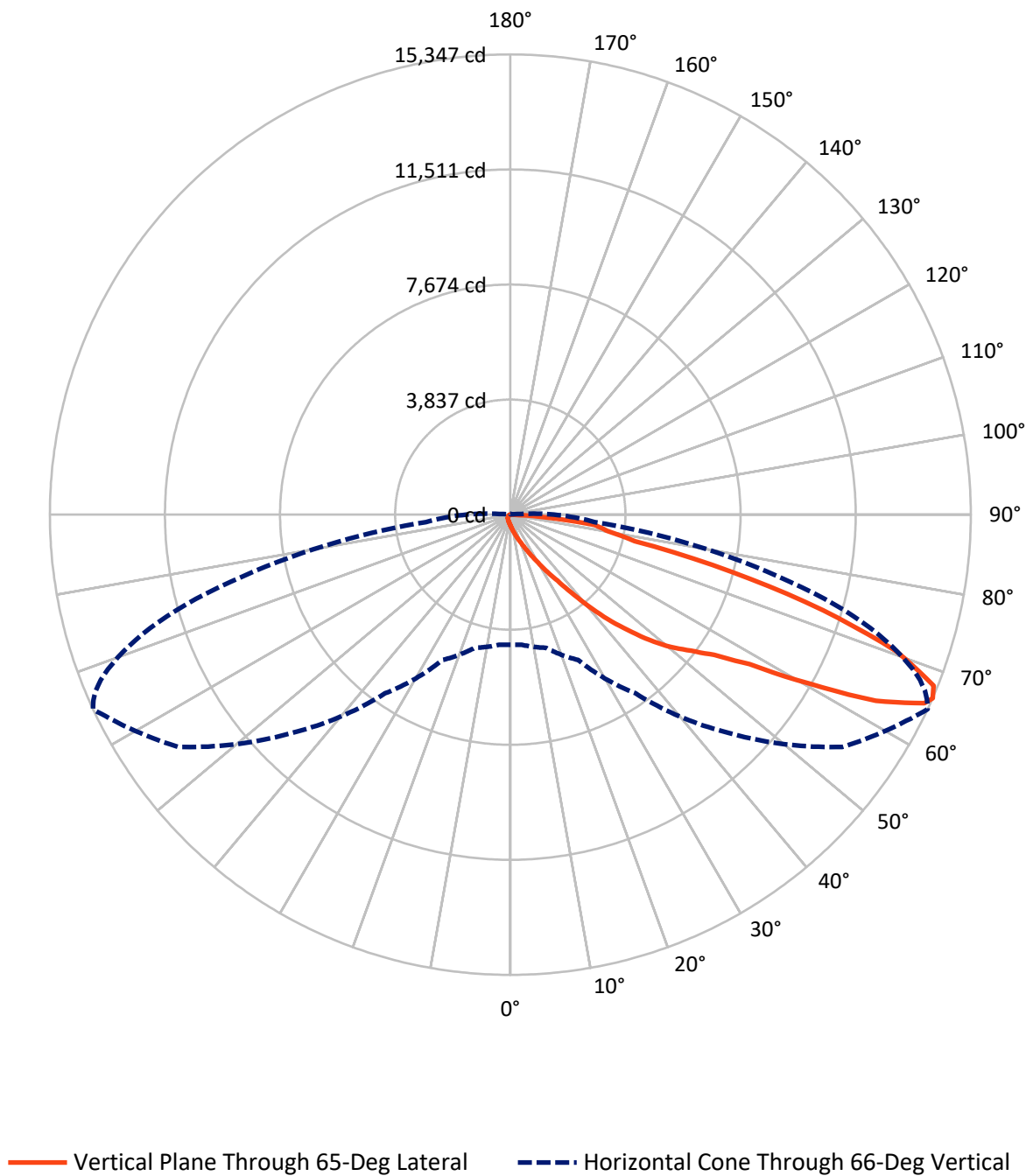


Based on 20 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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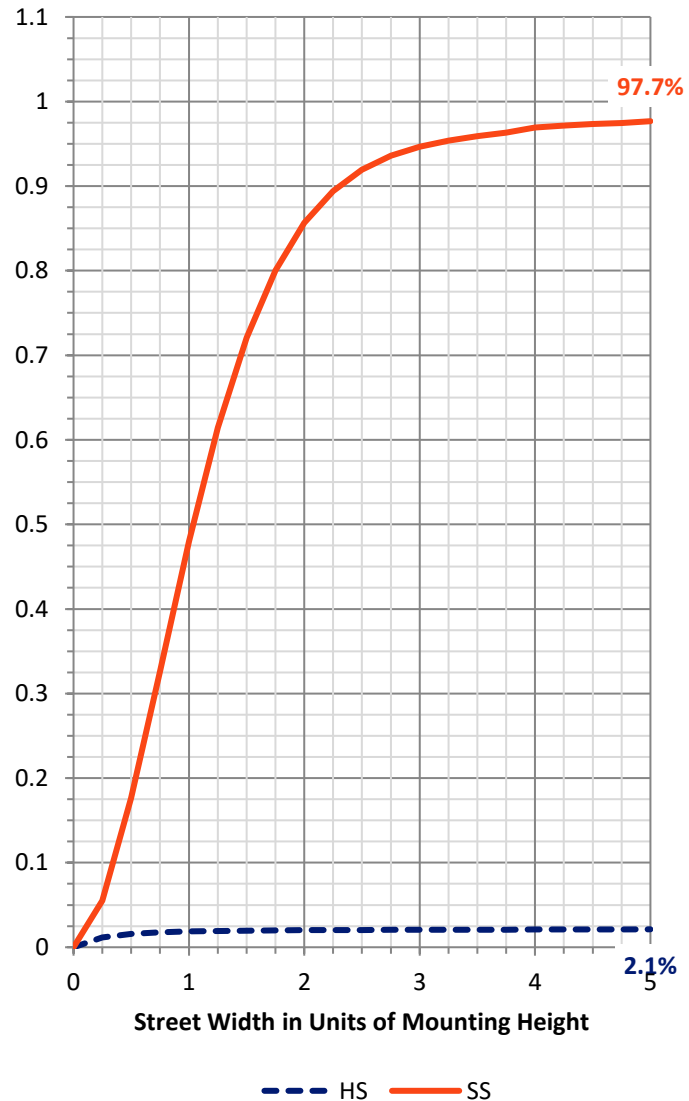
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	259.9	0.0	259.9
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	11731.8	0.0	11731.8
	% Fixture	97.8	0.0	97.8
Total	Lumens	11991.7	0.0	11991.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	0.3
10°-20°	171.8	1.4
20°-30°	370.6	3.1
30°-40°	791.3	6.6
40°-50°	1750.1	14.6
50°-60°	2965.8	24.7
60°-70°	3957.6	33.0
70°-80°	1743.3	14.5
80°-90°	200.8	1.7
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°	11991.7	100.0
0°-180°	11991.7	100.0

Coefficient of Utilization



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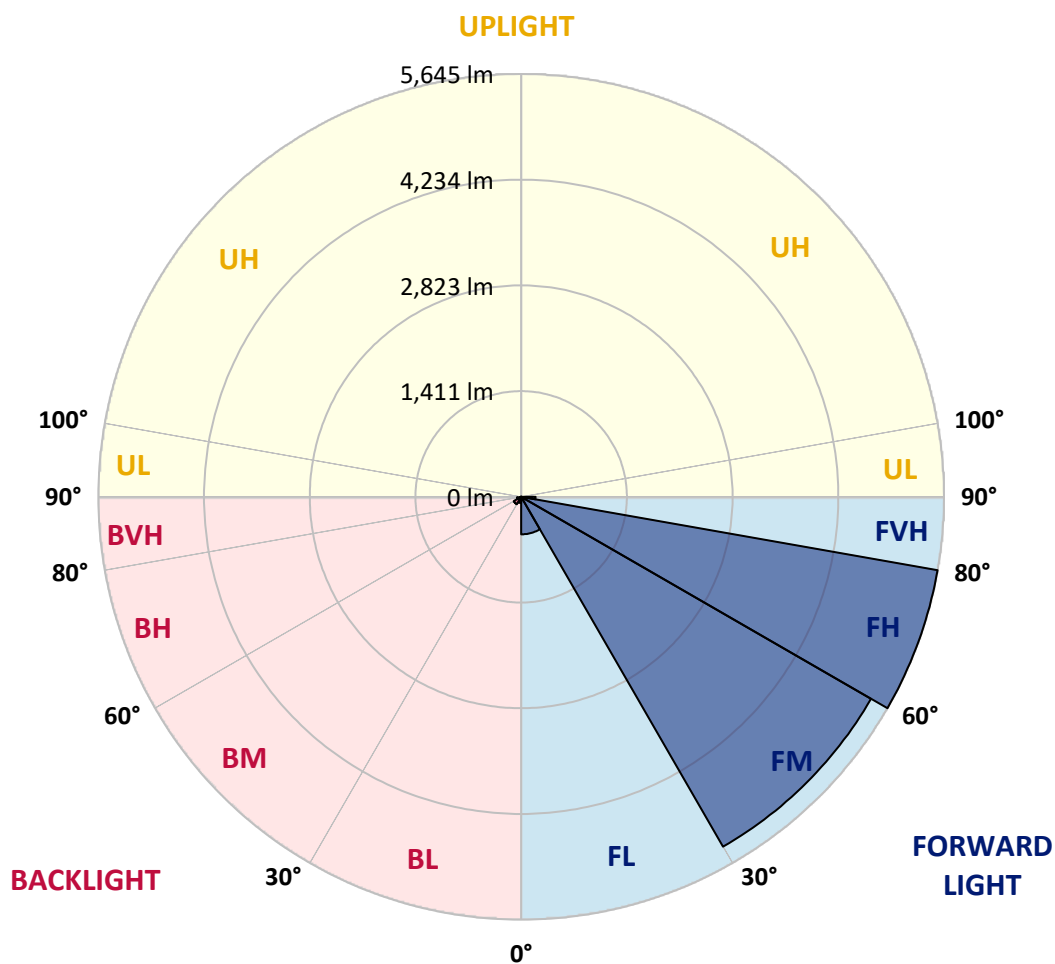
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	500.9	4.2			
FM	(30°-60°)	5393.1	45.0			
FH	(60°-80°)	5645.1	47.1			G3/7500
FVH	(80°-90°)	192.8	1.6			G2/225
BL	(0°-30°)	82.0	0.7	B0/110		
BM	(30°-60°)	114.1	1.0	B0/220		
BH	(60°-80°)	55.7	0.5	B0/110		G0/110
BVH	(80°-90°)	8.0	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9
2.5°	456.5	454.2	444.9	444.9	431.1	422.0	410.3	398.9	398.9	396.5	394.2
5°	604.0	590.2	587.9	562.5	541.8	511.8	484.1	447.3	442.7	438.1	435.7
7.5°	767.8	765.4	744.7	714.7	673.3	617.8	562.5	502.6	493.4	488.7	479.5
10°	979.9	968.2	940.7	889.8	827.7	753.9	664.0	569.4	557.9	548.7	544.0
12.5°	1182.7	1162.0	1145.8	1081.2	1002.8	894.5	786.1	650.2	640.9	629.4	611.0
15°	1371.7	1353.2	1325.7	1270.4	1182.7	1046.6	919.9	753.9	730.8	714.7	700.8
17.5°	1519.3	1507.8	1475.5	1413.3	1318.7	1198.8	1046.6	859.9	841.5	820.7	795.3
20°	1660.0	1643.7	1593.1	1507.8	1406.3	1314.0	1196.6	998.2	972.9	947.5	919.9
22.5°	1793.7	1777.4	1694.6	1553.9	1445.5	1406.3	1364.9	1155.0	1115.8	1095.1	1067.4
25°	1980.4	1945.9	1816.6	1593.1	1447.9	1477.8	1549.2	1357.9	1321.0	1291.1	1247.3
27.5°	2231.7	2185.5	1982.7	1650.7	1457.0	1556.2	1761.3	1604.5	1565.3	1530.8	1482.5
30°	2515.2	2485.3	2243.2	1789.1	1523.9	1671.5	1998.8	1918.1	1872.1	1830.5	1773.0
32.5°	2801.1	2759.7	2519.9	2051.8	1703.7	1895.0	2296.3	2282.4	2222.5	2183.3	2121.0
35°	3052.4	3031.7	2854.2	2482.9	2114.1	2287.0	2692.8	2708.9	2655.9	2614.4	2545.2
37.5°	3223.1	3223.1	3188.5	2946.3	2766.5	2895.6	3276.0	3278.4	3225.3	3130.8	3096.2
40°	3310.6	3335.9	3460.5	3506.6	3497.3	3663.4	4041.5	3999.9	3956.1	3907.7	3792.5
42.5°	3490.5	3513.4	3778.6	4096.8	4304.3	4523.3	4783.8	4769.9	4717.0	4629.4	4523.3
45°	3794.8	3824.8	4140.6	4645.5	5071.9	5383.3	5549.2	5484.6	5431.6	5348.7	5293.3
47.5°	4182.1	4239.8	4597.0	5221.9	5735.9	6250.0	6422.9	6252.4	6206.3	6141.7	6051.8
50°	4594.8	4650.1	5030.5	5745.2	6326.2	6939.4	7227.6	6939.4	6872.6	6851.7	6750.4
52.5°	4952.1	4998.3	5364.8	6148.7	6778.0	7497.3	7916.9	7536.5	7488.0	7418.9	7345.1
55°	5164.2	5201.1	5544.6	6342.3	7084.7	7999.9	8583.3	8248.9	8177.4	8149.8	8043.7
57.5°	5235.7	5272.5	5581.5	6367.6	7250.6	8458.7	9392.5	9403.9	9318.7	9219.6	9187.2
60°	5235.7	5277.2	5537.7	6305.5	7412.0	8947.4	10471.3	11432.7	11248.3	11229.8	11112.2
62.5°	5019.0	5058.2	5321.0	6114.1	7628.7	9606.8	11974.5	13671.3	13618.4	13498.4	13304.8
65°	4548.6	4571.7	4829.9	5625.3	7545.7	10213.1	13277.0	15160.6	15075.3	14840.1	14591.2
66°	4336.5	4355.0	4597.0	5346.3	7273.7	10296.2	13507.6	15347.4	15206.8	15008.4	14727.2
67.5°	4029.9	4062.2	4232.8	4827.6	6621.3	10007.9	13362.4	15216.0	15093.8	14854.0	14572.7
70°	2690.5	2667.4	3269.1	3704.8	5044.3	8154.4	11988.3	13662.0	13664.4	13551.4	13438.5
72.5°	1277.2	1291.1	1466.2	2280.0	3301.3	5447.8	9542.3	10904.7	11061.5	10858.7	10718.0
75°	917.6	938.3	1044.4	1394.8	1968.8	3269.1	6185.5	7626.4	7631.0	7271.3	6951.0
77.5°	267.4	279.0	391.9	859.9	1475.5	2206.3	3552.6	4239.8	4140.6	3882.3	3640.3
80°	110.6	110.6	115.2	274.4	592.5	1498.6	2485.3	3264.5	3253.0	3153.9	3011.0
82.5°	41.4	43.8	55.3	113.0	140.7	368.9	1657.6	2833.5	2826.5	2685.9	2584.4
85°	4.6	4.6	13.9	48.4	53.1	69.2	331.9	1249.5	1242.6	1249.5	1095.1
87.5°	0.0	0.0	2.2	4.6	6.9	9.2	13.9	48.4	53.1	50.7	46.1
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9
2.5°	394.2	389.6	389.6	387.4	387.4	387.4	385.0	382.8	382.8	380.4	378.1
5°	431.1	426.4	424.2	419.6	417.3	415.0	410.3	408.1	403.5	401.1	398.9
7.5°	474.9	465.6	463.4	456.5	449.5	444.9	440.3	433.4	428.8	419.6	417.3
10°	530.3	518.7	509.5	500.2	493.4	481.9	474.9	465.6	456.5	449.5	442.7
12.5°	601.7	585.6	571.8	562.5	546.4	532.6	518.7	511.8	493.4	484.1	472.6
15°	680.1	661.6	645.5	627.1	615.6	592.5	574.0	553.3	544.0	527.9	509.5
17.5°	781.5	751.5	726.2	707.8	684.7	661.6	640.9	620.2	592.5	574.0	551.0
20°	889.8	864.5	829.9	797.7	770.0	742.4	712.3	684.7	659.4	629.4	601.7
22.5°	1028.3	991.3	949.9	917.6	880.7	850.8	809.2	772.4	730.8	691.6	659.4
25°	1203.4	1155.0	1115.8	1069.7	1025.9	979.9	929.0	883.0	829.9	793.1	737.8
27.5°	1420.2	1374.1	1321.0	1261.1	1217.3	1148.1	1081.2	1023.7	961.4	903.7	841.5
30°	1696.8	1630.0	1574.6	1517.0	1429.4	1362.5	1284.1	1205.8	1120.4	1062.9	968.2
32.5°	2028.7	1957.3	1874.3	1791.3	1710.7	1616.2	1519.3	1422.4	1327.9	1221.9	1125.0
35°	2434.6	2349.2	2254.7	2164.8	2040.4	1938.9	1816.6	1682.9	1577.0	1454.7	1332.5
37.5°	2971.8	2831.1	2748.1	2653.6	2485.3	2347.0	2210.9	2077.2	1890.4	1761.3	1588.4
40°	3644.9	3561.9	3425.9	3273.8	3121.6	2939.4	2755.1	2577.5	2360.8	2180.9	1980.4
42.5°	4435.6	4313.5	4175.2	3956.1	3801.7	3587.2	3377.5	3142.3	2877.1	2646.7	2411.5
45°	5178.0	5032.9	4926.7	4707.8	4546.4	4292.7	4039.1	3790.2	3483.5	3186.1	2914.1
47.5°	5980.4	5860.4	5685.3	5507.7	5344.1	5058.2	4783.8	4481.8	4159.0	3806.3	3453.5
50°	6685.8	6591.3	6471.4	6257.0	6074.9	5835.1	5512.4	5182.7	4774.6	4424.1	4023.0
52.5°	7285.2	7211.4	7043.1	6890.9	6727.3	6501.3	6213.2	5897.4	5457.1	5071.9	4615.5
55°	7993.0	7940.0	7792.4	7697.9	7552.7	7336.0	7066.2	6773.5	6307.7	5888.1	5371.7
57.5°	9152.6	9111.2	8982.0	8942.8	8799.8	8610.8	8278.9	7965.3	7421.3	6900.2	6310.1
60°	11073.0	10990.1	10801.0	10704.3	10402.1	10148.6	9717.5	9286.3	8629.3	7965.3	7255.2
62.5°	13129.5	12896.7	12537.0	12228.2	11799.3	11358.9	10782.5	10123.3	9353.3	8564.8	7748.6
65°	14238.4	13841.9	13387.8	12896.7	12341.1	11693.2	10967.0	10176.3	9348.6	8516.3	7654.1
66°	14365.3	13918.0	13436.2	12889.8	12272.0	11582.6	10844.8	10014.9	9154.9	8343.4	7481.2
67.5°	14206.2	13738.2	13228.7	12622.4	11953.8	11239.1	10464.4	9602.2	8774.5	7951.4	7112.3
70°	13092.7	12626.9	12172.7	11534.2	10821.7	10102.5	9369.4	8405.7	7621.9	6865.6	6118.7
72.5°	10455.2	10139.4	9689.8	9143.4	8449.4	7605.6	6994.7	6132.6	5452.4	4719.3	4140.6
75°	6533.7	6088.7	5533.1	4836.9	4306.5	3621.8	3264.5	2609.7	2222.5	1883.6	1556.2
77.5°	3340.5	3006.4	2616.7	2224.7	1849.0	1475.5	1141.1	807.0	544.0	378.1	281.3
80°	2759.7	2464.6	2141.7	1784.4	1452.5	1127.4	811.6	553.3	352.8	230.6	179.8
82.5°	2280.0	2031.1	1742.9	1410.9	1122.8	885.4	615.6	401.1	248.9	161.4	126.8
85°	970.6	880.7	680.1	539.4	405.7	299.7	209.9	140.7	99.1	80.6	73.8
87.5°	41.4	46.1	43.8	34.6	25.3	25.3	23.1	18.5	18.5	18.5	18.5
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9	361.9
2.5°	378.1	375.8	373.5	373.5	371.1	368.9	355.0	343.6	329.7	320.5	311.2
5°	394.2	391.9	387.4	385.0	380.4	378.1	348.2	322.7	302.0	285.9	274.4
7.5°	410.3	408.1	401.1	394.2	391.9	387.4	338.9	306.6	279.0	260.5	248.9
10°	431.1	424.2	417.3	408.1	401.1	394.2	329.7	288.1	258.2	242.1	230.6
12.5°	461.0	449.5	438.1	426.4	417.3	405.7	325.1	272.0	242.1	223.6	212.1
15°	495.7	479.5	465.6	451.9	435.7	424.2	315.8	258.2	228.2	209.9	196.0
17.5°	527.9	509.5	488.7	468.0	451.9	435.7	306.6	244.4	214.3	196.0	182.1
20°	574.0	546.4	521.1	495.7	472.6	451.9	292.7	230.6	202.9	182.1	168.3
22.5°	624.8	592.5	560.3	525.7	495.7	468.0	281.3	219.0	191.4	170.7	154.4
25°	689.4	650.2	606.3	562.5	527.9	491.1	269.8	207.5	179.8	159.0	142.9
27.5°	779.2	723.9	675.5	620.2	567.1	525.7	260.5	198.2	168.3	147.6	131.5
30°	901.5	820.7	744.7	684.7	622.4	562.5	251.3	186.8	159.0	136.1	117.6
32.5°	1037.4	942.9	855.3	765.4	687.0	617.8	242.1	177.5	147.6	124.5	108.4
35°	1205.8	1085.8	968.2	864.5	770.0	677.7	232.8	168.3	138.3	113.0	96.9
37.5°	1447.9	1297.9	1143.5	1009.8	887.6	765.4	226.0	159.0	126.8	101.5	85.3
40°	1779.8	1586.2	1397.1	1214.9	1055.9	903.7	216.7	149.8	117.6	92.3	76.0
42.5°	2139.5	1904.3	1655.4	1450.1	1231.2	1039.8	207.5	140.7	108.4	83.0	66.9
45°	2586.8	2293.9	1991.9	1712.9	1445.5	1198.8	198.2	131.5	96.9	73.8	57.7
47.5°	3075.5	2702.0	2360.8	2010.4	1692.2	1397.1	186.8	124.5	87.6	64.5	50.7
50°	3578.1	3183.9	2752.7	2353.8	1975.8	1595.4	175.3	113.0	78.4	57.7	41.4
52.5°	4119.8	3654.1	3213.8	2718.1	2277.8	1855.8	163.7	103.7	71.4	50.7	34.6
55°	4809.1	4288.2	3771.7	3216.1	2685.9	2158.0	152.2	92.3	62.3	43.8	27.7
57.5°	5676.0	5058.2	4424.1	3797.1	3153.9	2554.4	142.9	80.6	53.1	36.8	23.1
60°	6494.5	5772.9	5005.1	4283.6	3557.3	2858.8	129.1	71.4	46.1	30.0	23.1
62.5°	6918.7	6095.6	5267.9	4472.6	3698.0	2967.2	115.2	59.9	39.2	25.3	20.7
65°	6814.9	5975.8	5173.4	4371.1	3612.7	2898.0	101.5	53.1	34.6	23.1	20.7
66°	6665.1	5835.1	5028.2	4265.1	3541.2	2824.2	94.5	50.7	32.3	23.1	18.5
67.5°	6337.7	5535.3	4765.3	4055.2	3345.2	2683.5	85.3	46.1	30.0	20.7	18.5
70°	5413.2	4684.7	4069.1	3437.4	2858.8	2261.7	69.2	39.2	25.3	18.5	18.5
72.5°	3582.6	3087.0	2676.7	2303.1	1925.0	1493.9	57.7	32.3	20.7	18.5	16.1
75°	1351.0	1221.9	1049.0	942.9	823.1	721.6	46.1	20.7	16.1	16.1	16.1
77.5°	239.8	221.3	196.0	179.8	166.0	152.2	36.8	13.9	13.9	16.1	16.1
80°	161.4	149.8	136.1	124.5	115.2	103.7	25.3	11.5	13.9	13.9	16.1
82.5°	115.2	108.4	101.5	92.3	85.3	76.0	16.1	11.5	13.9	13.9	13.9
85°	69.2	64.5	59.9	55.3	48.4	46.1	11.5	11.5	11.5	13.9	13.9
87.5°	18.5	16.1	18.5	18.5	13.9	16.1	9.2	9.2	9.2	11.5	11.5
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):

	145°	155°	165°	175°	180°
0°	361.9	361.9	361.9	361.9	361.9
2.5°	306.6	306.6	302.0	309.0	309.0
5°	265.2	265.2	262.8	265.2	265.2
7.5°	242.1	239.8	239.8	239.8	242.1
10°	221.3	219.0	219.0	219.0	219.0
12.5°	202.9	200.6	198.2	200.6	200.6
15°	186.8	182.1	182.1	182.1	182.1
17.5°	172.9	168.3	166.0	166.0	166.0
20°	159.0	152.2	152.2	152.2	152.2
22.5°	145.2	138.3	138.3	138.3	138.3
25°	131.5	124.5	124.5	124.5	124.5
27.5°	119.8	113.0	113.0	113.0	113.0
30°	106.1	101.5	101.5	103.7	101.5
32.5°	96.9	89.9	89.9	92.3	92.3
35°	85.3	80.6	80.6	80.6	80.6
37.5°	73.8	69.2	69.2	69.2	69.2
40°	64.5	59.9	57.7	59.9	59.9
42.5°	55.3	50.7	48.4	48.4	48.4
45°	48.4	41.4	39.2	41.4	41.4
47.5°	39.2	34.6	34.6	36.8	36.8
50°	30.0	30.0	32.3	36.8	36.8
52.5°	27.7	27.7	32.3	36.8	36.8
55°	25.3	27.7	32.3	34.6	36.8
57.5°	23.1	27.7	32.3	34.6	34.6
60°	23.1	25.3	30.0	34.6	34.6
62.5°	20.7	23.1	27.7	32.3	32.3
65°	20.7	23.1	27.7	32.3	32.3
66°	20.7	23.1	27.7	32.3	32.3
67.5°	20.7	23.1	27.7	32.3	32.3
70°	20.7	23.1	27.7	30.0	30.0
72.5°	18.5	20.7	25.3	30.0	30.0
75°	18.5	20.7	25.3	30.0	30.0
77.5°	18.5	20.7	25.3	30.0	30.0
80°	18.5	20.7	25.3	27.7	30.0
82.5°	16.1	20.7	23.1	27.7	27.7
85°	16.1	18.5	23.1	25.3	27.7
87.5°	13.9	16.1	18.5	23.1	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)