

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: P159746

Luminaire Tested: **VST-F02-LED-E-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159746
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-T4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5042.4 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 55
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

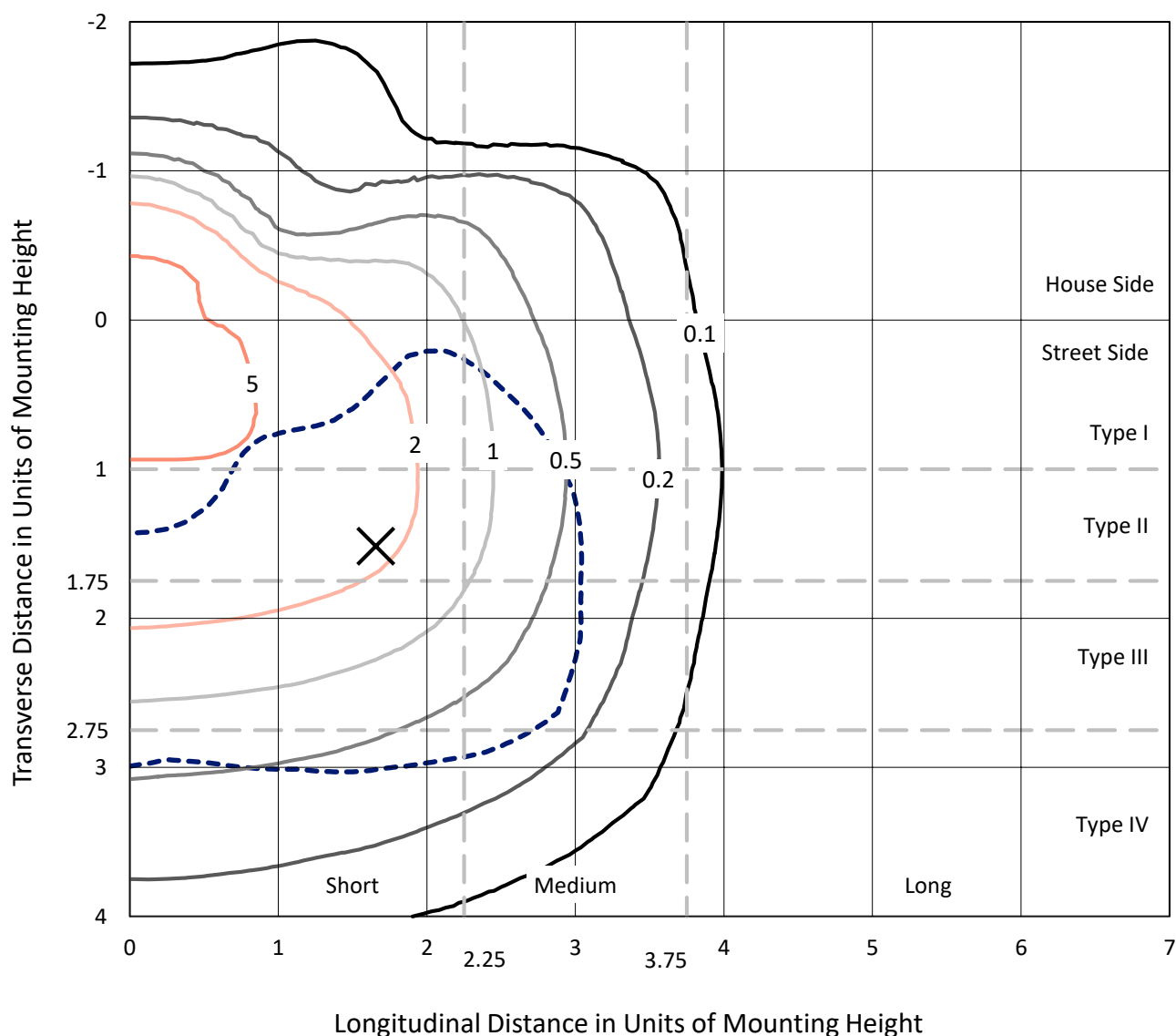


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

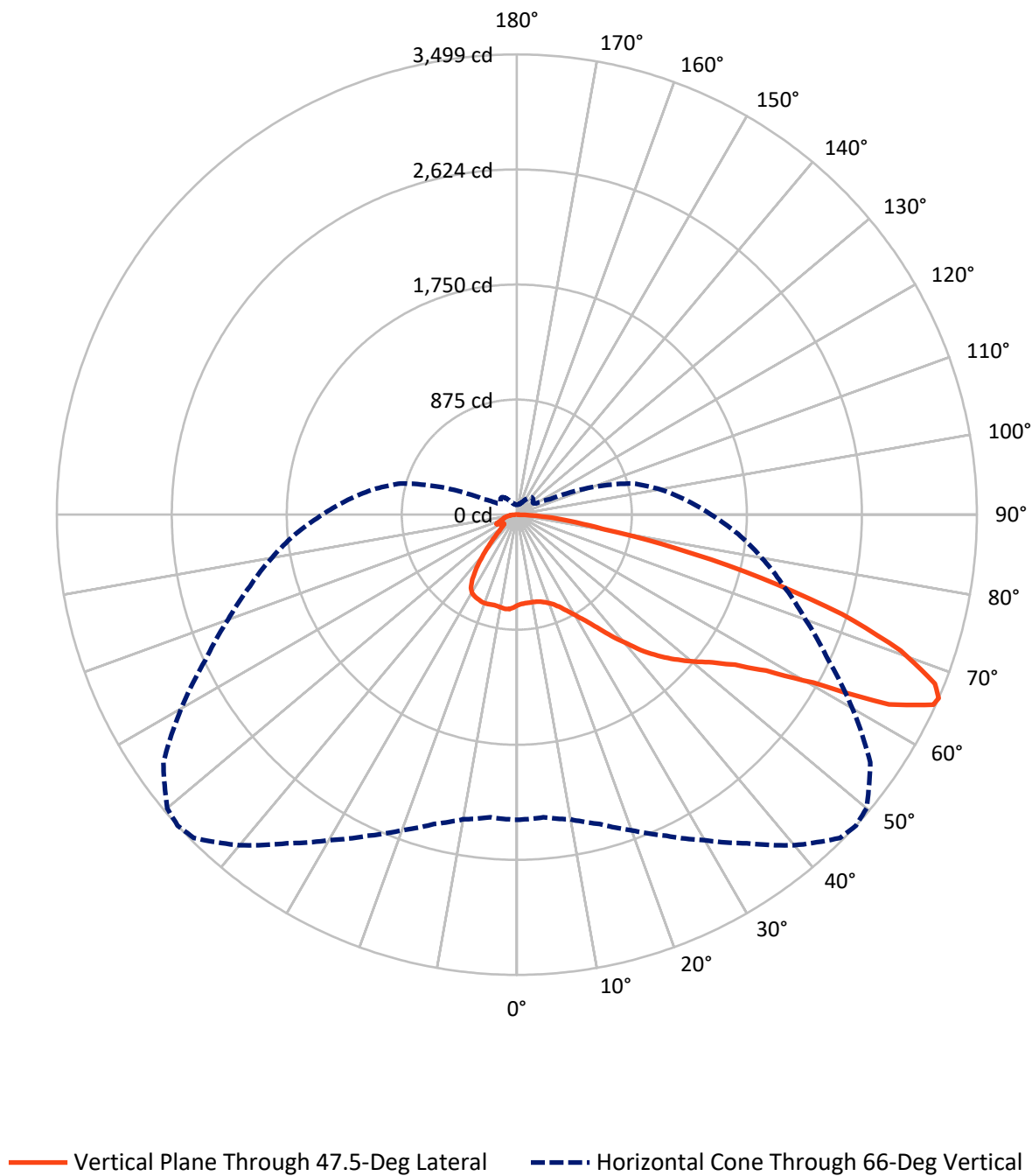


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1044.0	0.0	1044.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	3998.4	0.0	3998.4
	% Fixture	79.3	0.0	79.3
Total	Lumens	5042.4	0.0	5042.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	1.3
10°-20°	199.4	4.0
20°-30°	340.2	6.7
30°-40°	513.5	10.2
40°-50°	667.4	13.2
50°-60°	915.6	18.2
60°-70°	1408.5	27.9
70°-80°	814.2	16.1
80°-90°	117.0	2.3
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°	5042.4	100.0
0°-180°	5042.4	100.0

Coefficient of Utilization



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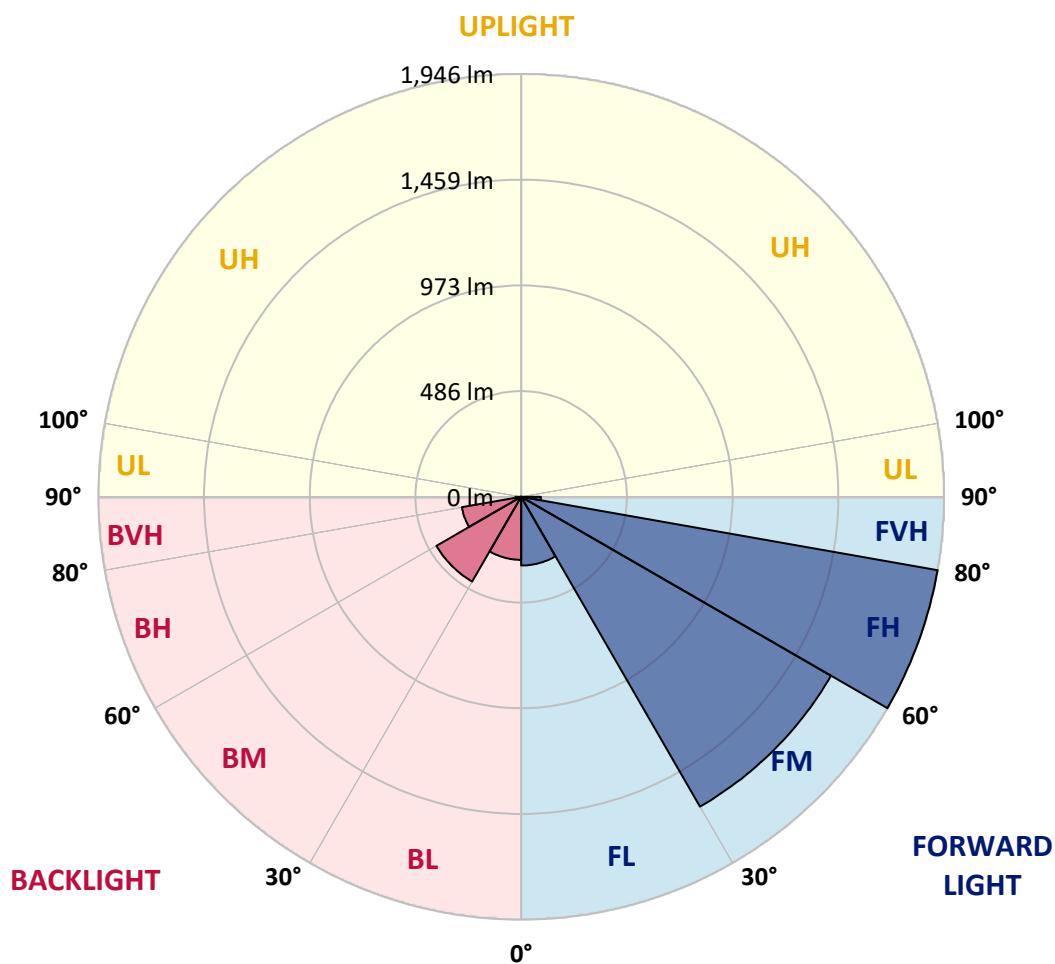
CATALOG NUMBER: VST-F02-LED-E-U-T4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	316.1	6.3			
FM	(30°-60°)	1646.1	32.6			
FH	(60°-80°)	1945.7	38.6			G2/5000
FVH	(80°-90°)	90.5	1.8			G1/100
BL	(0°-30°)	290.0	5.8	B1/500		
BM	(30°-60°)	450.4	8.9	B1/1000		
BH	(60°-80°)	277.1	5.5	B1/500		G1/500
BVH	(80°-90°)	26.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9
2.5°	672.2	672.6	672.9	672.9	673.9	673.9	675.6	676.6	677.0	679.0	680.4
5°	659.7	659.3	659.7	660.4	662.1	663.4	666.8	669.2	671.2	674.6	676.3
7.5°	654.3	655.0	655.6	656.0	657.4	660.7	663.8	666.1	670.2	674.3	676.0
10°	661.4	662.4	661.4	662.1	662.1	665.1	666.5	668.2	671.2	674.9	676.0
12.5°	678.0	680.0	678.0	676.3	674.9	677.6	677.0	675.6	677.3	678.4	678.4
15°	705.4	705.4	704.1	701.7	698.3	698.6	695.6	692.6	691.2	688.9	687.1
17.5°	732.2	731.5	728.5	725.5	723.1	722.0	717.7	713.6	708.8	705.1	701.0
20°	758.3	761.0	757.3	752.9	749.2	746.8	743.4	735.2	729.5	723.4	719.3
22.5°	803.3	801.0	796.9	790.5	786.8	782.7	775.6	766.8	758.0	750.5	745.4
25°	849.8	847.4	841.7	836.9	831.5	828.1	820.3	809.5	801.0	789.5	782.7
27.5°	899.6	897.5	890.8	887.0	883.3	879.2	872.5	861.3	853.5	840.3	833.2
30°	955.9	955.5	946.4	945.7	940.3	935.8	931.1	921.6	913.8	900.6	892.1
32.5°	1015.8	1014.5	1008.0	1006.0	1009.7	1006.7	999.9	990.1	979.9	972.1	962.6
35°	1101.2	1098.8	1095.1	1096.8	1099.1	1107.7	1097.2	1088.6	1076.5	1066.3	1053.1
37.5°	1163.5	1160.2	1164.5	1174.0	1187.6	1194.1	1203.2	1203.5	1197.8	1184.2	1172.7
40°	1220.8	1219.4	1229.6	1242.8	1267.9	1286.2	1303.5	1312.0	1314.0	1305.2	1287.9
42.5°	1269.2	1273.3	1286.9	1307.2	1342.4	1370.2	1402.4	1422.4	1435.0	1430.2	1422.4
45°	1326.8	1328.9	1345.5	1371.2	1404.8	1450.9	1493.2	1527.1	1549.1	1548.8	1540.0
47.5°	1399.0	1399.4	1413.6	1443.8	1479.7	1526.5	1580.0	1625.0	1654.1	1655.5	1648.7
50°	1484.8	1484.1	1499.6	1528.1	1566.4	1611.5	1668.4	1724.6	1765.3	1765.3	1755.5
52.5°	1595.2	1593.8	1602.3	1627.4	1664.3	1711.8	1768.4	1833.4	1877.5	1886.9	1865.6
55°	1742.6	1744.6	1746.7	1768.7	1800.2	1837.8	1902.9	1962.8	2021.8	2027.2	2014.7
57.5°	1913.0	1906.3	1920.8	1956.7	1992.7	2039.8	2085.8	2156.6	2226.5	2238.3	2236.6
60°	2179.4	2170.6	2185.4	2231.2	2270.8	2345.0	2424.0	2515.5	2598.2	2622.5	2593.1
62.5°	2424.4	2435.2	2455.5	2508.7	2566.3	2665.3	2783.8	2940.7	3097.6	3183.0	3176.9
65°	2402.3	2392.1	2431.1	2503.6	2608.0	2734.0	2881.4	3070.5	3296.5	3467.9	3483.2
66°	2320.6	2310.1	2352.2	2435.2	2554.4	2694.7	2858.4	3050.8	3281.9	3475.7	3499.1
67.5°	2185.8	2175.3	2222.7	2298.3	2421.3	2597.8	2774.7	2985.1	3225.3	3411.0	3430.0
70°	1925.6	1911.4	1948.3	2033.6	2133.3	2304.1	2472.4	2695.4	2942.0	3090.5	3097.6
72.5°	1631.1	1597.9	1637.2	1703.0	1774.1	1915.4	2062.1	2214.6	2411.1	2548.3	2587.6
75°	1183.6	1200.8	1212.4	1255.7	1302.8	1419.7	1505.8	1633.5	1785.7	1884.9	1916.4
77.5°	627.8	653.9	670.2	713.6	791.5	880.6	973.8	1052.8	1152.7	1208.3	1246.9
80°	352.4	370.7	397.1	431.3	469.3	537.7	593.0	633.6	647.8	657.7	666.5
82.5°	193.8	240.2	279.5	303.2	325.6	353.0	385.9	419.8	430.7	414.4	405.9
85°	30.2	44.4	135.2	165.0	179.6	200.6	224.3	249.4	249.7	214.8	234.5
87.5°	8.5	9.5	19.3	29.2	28.4	23.0	28.4	51.8	30.5	15.2	17.6
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9
2.5°	681.1	681.7	683.4	685.1	686.8	688.5	689.5	691.2	692.6	694.6	697.0
5°	678.4	680.0	683.1	686.8	690.2	693.2	695.6	699.0	702.1	704.8	708.8
7.5°	678.4	681.7	686.8	690.9	693.9	697.7	701.4	704.8	708.2	710.9	713.6
10°	678.7	682.1	687.1	691.9	695.3	699.4	702.4	705.4	709.2	710.9	714.2
12.5°	680.0	681.4	685.1	689.9	693.9	698.0	701.0	704.1	708.2	708.8	711.2
15°	686.8	684.8	685.8	689.2	693.6	697.0	700.4	702.7	705.4	704.8	706.8
17.5°	699.4	694.3	692.2	692.6	694.6	697.0	698.3	698.6	699.0	695.9	696.3
20°	716.3	709.2	704.4	702.1	699.4	697.0	693.2	688.9	684.8	678.7	678.0
22.5°	741.7	731.2	726.1	719.7	711.5	701.4	692.2	681.4	672.6	663.4	660.1
25°	778.6	767.8	762.4	752.2	737.6	723.1	709.9	695.3	682.4	671.6	666.5
27.5°	828.1	817.3	811.5	801.0	783.1	768.5	750.2	734.6	719.0	703.1	696.7
30°	888.1	878.6	872.2	863.7	848.1	832.1	810.8	786.8	762.0	736.6	724.1
32.5°	958.9	948.4	943.6	933.8	917.6	901.0	877.3	846.4	805.1	765.1	740.0
35°	1047.3	1035.5	1030.0	1017.2	998.2	973.8	948.4	907.0	851.2	795.6	754.6
37.5°	1165.6	1139.2	1121.2	1091.7	1061.2	1027.0	990.7	948.4	882.3	813.5	756.6
40°	1270.3	1243.5	1208.9	1166.6	1119.2	1072.1	1030.7	982.6	910.8	826.4	750.2
42.5°	1400.4	1352.9	1297.7	1240.4	1177.4	1119.5	1070.3	1013.8	930.1	829.8	732.2
45°	1519.3	1462.7	1388.9	1312.6	1234.4	1161.5	1106.3	1043.3	946.7	829.8	710.5
47.5°	1627.7	1560.0	1471.6	1376.6	1285.5	1205.9	1143.2	1073.4	970.1	840.3	704.1
50°	1728.1	1650.1	1549.5	1439.3	1337.0	1252.0	1184.6	1112.0	1005.7	867.4	719.7
52.5°	1833.7	1751.1	1628.4	1511.5	1398.7	1307.5	1235.7	1159.8	1051.7	910.1	747.1
55°	1972.3	1875.4	1736.2	1607.4	1483.4	1382.8	1301.1	1217.1	1102.2	958.2	780.7
57.5°	2190.9	2050.3	1911.0	1743.6	1626.7	1494.2	1404.8	1308.2	1184.2	1020.9	831.2
60°	2573.4	2400.6	2233.3	2040.8	1896.4	1757.9	1622.6	1496.6	1347.2	1162.5	941.9
62.5°	3119.6	2944.1	2681.2	2445.7	2227.8	2044.1	1868.0	1707.7	1515.9	1314.0	1078.5
65°	3445.9	3245.0	2931.5	2615.1	2350.4	2122.8	1921.1	1725.0	1517.9	1321.1	1119.8
66°	3472.0	3281.9	2947.1	2612.7	2337.9	2101.7	1892.0	1689.1	1477.0	1288.6	1106.3
67.5°	3423.5	3259.9	2915.3	2566.6	2285.8	2030.6	1815.1	1602.3	1389.2	1214.7	1061.2
70°	3081.7	2963.4	2668.0	2341.3	2061.1	1836.1	1608.8	1404.1	1202.2	1055.5	941.6
72.5°	2526.3	2376.5	2169.8	1950.3	1729.7	1530.2	1323.5	1149.3	979.9	873.2	792.5
75°	1855.8	1720.9	1493.2	1356.4	1210.6	1085.3	946.0	781.0	660.7	607.2	587.5
77.5°	1176.4	1030.0	837.9	686.8	590.6	507.5	400.1	318.2	254.8	265.3	293.8
80°	594.3	512.0	383.2	302.6	261.6	217.5	172.1	130.4	95.2	108.8	123.0
82.5°	381.5	318.5	253.8	199.9	168.7	148.7	118.9	86.4	64.4	72.5	88.8
85°	229.7	194.2	154.9	126.7	110.1	91.8	67.4	47.8	47.5	50.8	62.7
87.5°	34.9	49.8	28.8	30.8	32.5	34.9	30.8	26.1	22.7	29.5	37.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9	689.9
2.5°	699.4	700.0	701.4	703.1	702.7	705.1	706.4	705.1	708.2	708.2	709.9
5°	712.2	713.2	715.6	717.3	718.0	720.0	720.7	720.4	721.0	721.4	722.0
7.5°	715.9	718.7	719.7	720.7	721.0	721.7	721.7	721.0	721.0	720.7	721.4
10°	715.0	715.9	716.6	716.3	716.3	715.6	715.3	715.0	715.0	714.2	715.3
12.5°	711.5	711.5	711.5	710.9	710.9	710.5	710.5	710.5	711.2	711.5	713.2
15°	704.8	704.8	705.4	705.1	706.1	707.8	709.9	711.2	712.9	713.2	714.2
17.5°	694.3	694.6	696.7	701.0	705.4	710.5	714.2	715.3	713.9	710.5	708.2
20°	676.0	680.4	688.5	699.0	708.8	715.3	716.9	712.9	706.4	697.7	692.9
22.5°	659.7	668.5	683.1	700.4	712.6	716.9	711.9	702.4	690.9	680.7	673.6
25°	666.1	676.3	691.6	706.4	714.2	711.9	701.7	688.1	676.0	664.1	652.6
27.5°	693.2	703.4	714.2	718.7	715.9	707.2	692.9	678.4	662.1	645.1	630.9
30°	719.0	724.7	725.5	721.0	711.2	697.0	680.4	663.4	642.8	622.4	604.5
32.5°	727.1	720.4	708.2	695.6	682.1	667.5	648.2	625.8	603.8	580.7	560.8
35°	724.7	697.3	667.1	640.4	624.1	607.5	589.9	560.1	535.4	515.7	502.8
37.5°	703.4	653.3	606.8	567.9	542.5	522.8	496.7	472.0	450.7	441.8	431.3
40°	673.6	597.0	532.6	478.1	451.7	426.6	397.4	378.5	372.4	364.3	364.6
42.5°	630.9	531.3	448.3	385.6	356.8	329.3	308.7	297.5	297.8	291.1	292.4
45°	585.8	465.2	360.8	298.5	270.1	246.7	235.1	231.8	232.1	232.4	230.4
47.5°	558.4	413.7	289.4	226.3	201.2	188.0	182.0	180.2	180.6	181.0	178.6
50°	554.3	386.9	241.6	173.2	156.9	149.4	146.4	144.7	144.7	143.3	141.3
52.5°	565.9	380.2	218.2	150.1	134.5	127.7	125.3	124.0	122.0	119.3	115.6
55°	584.2	386.3	211.1	142.3	127.1	120.3	117.2	116.6	113.2	108.1	102.0
57.5°	618.0	408.3	215.8	144.4	128.4	122.3	120.3	119.6	114.8	107.1	99.3
60°	715.3	472.3	239.6	155.9	138.2	133.1	133.1	132.1	125.7	114.5	103.3
62.5°	849.4	566.2	271.7	171.8	151.8	151.1	156.9	157.2	145.7	127.7	110.1
65°	914.2	610.3	282.9	175.2	155.5	163.3	174.8	174.8	158.6	133.9	111.1
66°	914.5	609.2	279.5	171.1	151.4	161.6	173.5	173.5	156.5	132.1	109.4
67.5°	891.1	590.2	268.4	163.7	142.3	151.8	162.3	161.9	146.7	125.3	104.7
70°	799.3	522.1	236.5	151.4	131.5	131.8	135.5	133.1	123.0	108.4	95.2
72.5°	689.2	436.7	205.0	143.6	123.0	116.6	113.5	111.5	105.1	96.2	88.1
75°	528.6	339.2	178.6	136.6	115.6	104.3	100.3	98.6	94.2	89.1	82.7
77.5°	323.9	232.4	151.4	125.0	107.1	96.9	92.5	89.1	84.7	80.0	75.5
80°	139.6	140.3	121.3	106.1	93.2	81.3	75.5	71.5	69.1	67.4	65.0
82.5°	97.6	100.6	92.5	82.3	71.2	62.7	57.6	56.6	56.9	56.9	56.2
85°	73.2	71.8	64.7	59.0	53.9	48.5	44.4	44.0	45.4	45.4	44.4
87.5°	42.4	42.7	36.6	34.2	35.6	30.5	27.8	28.1	31.5	31.2	30.5
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):

	160°	165°	170°	175°	180°
0°	689.9	689.9	689.9	689.9	689.9
2.5°	709.9	710.9	710.5	711.5	710.5
5°	723.1	722.7	722.4	723.7	722.0
7.5°	721.0	721.4	721.4	721.4	721.0
10°	715.9	717.3	718.0	719.3	719.0
12.5°	714.2	716.3	718.3	720.4	720.7
15°	714.6	715.9	716.9	718.0	718.3
17.5°	705.8	705.4	704.4	703.7	703.1
20°	687.8	686.2	684.4	681.7	683.1
22.5°	665.5	660.7	655.3	650.9	650.6
25°	639.4	630.5	621.8	616.0	614.0
27.5°	616.3	605.8	596.7	591.6	590.2
30°	588.9	579.4	571.3	566.9	564.2
32.5°	548.2	540.8	530.6	527.2	526.9
35°	491.6	485.9	478.7	477.4	475.7
37.5°	427.6	425.6	422.2	418.1	417.4
40°	359.2	360.5	359.5	357.1	353.4
42.5°	293.1	295.4	295.8	297.5	299.2
45°	233.5	235.5	235.5	237.2	239.2
47.5°	179.2	177.9	178.9	180.6	181.6
50°	135.5	134.5	132.8	131.5	130.1
52.5°	109.1	107.1	102.3	101.0	99.6
55°	96.2	92.5	89.1	87.8	87.8
57.5°	92.5	87.8	84.0	82.3	81.7
60°	93.2	86.4	81.7	79.0	77.9
62.5°	96.2	86.8	80.3	77.3	76.3
65°	95.9	86.0	80.0	76.6	75.5
66°	94.2	85.0	79.3	76.3	75.5
67.5°	91.5	83.7	78.6	75.9	74.9
70°	86.0	81.0	77.3	74.9	73.9
72.5°	81.7	78.2	74.9	72.2	71.5
75°	77.6	74.2	71.2	69.8	68.8
77.5°	71.5	68.5	66.7	65.4	64.7
80°	63.4	61.3	59.3	58.0	56.9
82.5°	55.2	52.5	50.5	49.4	48.8
85°	45.1	43.4	40.3	38.3	37.9
87.5°	30.2	28.4	27.4	25.7	24.1
90°	0.0	0.0	0.0	0.0	0.0

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