

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: P158420

Luminaire Tested: **VST-E02-LED-E-U-SL3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158420
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E02-LED-E-U-SL3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6033.7 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 52.1
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



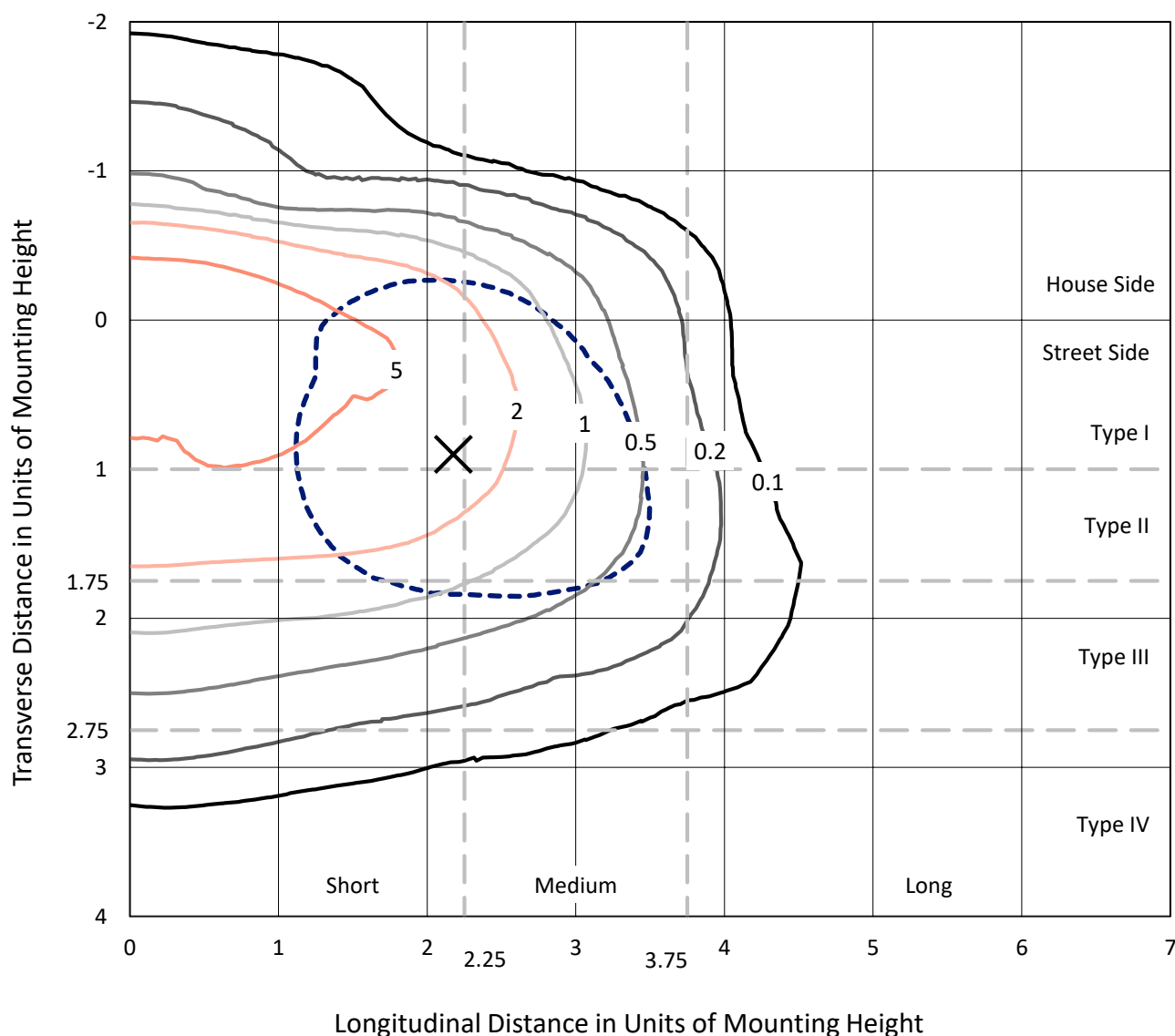
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

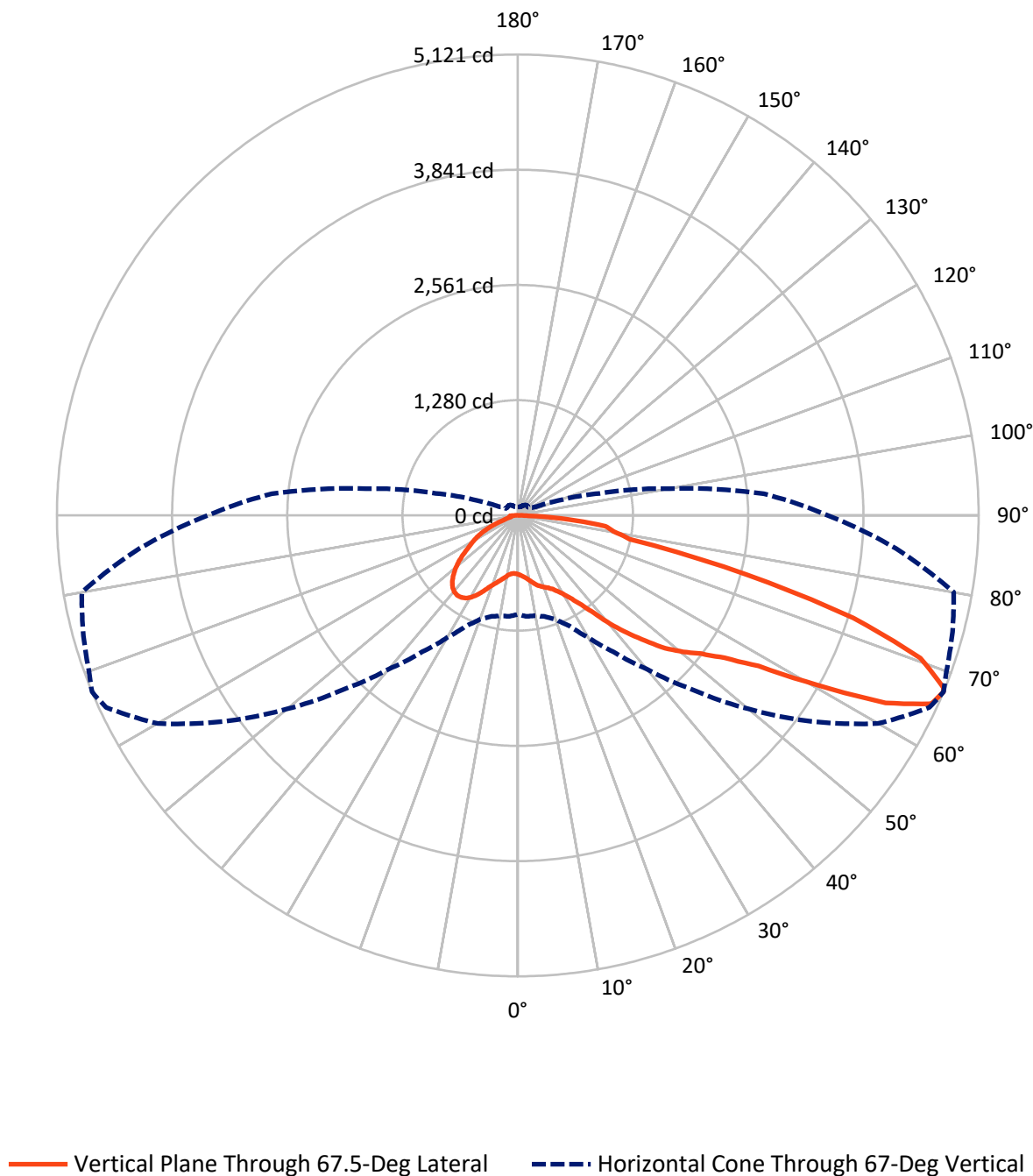


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1447.5	0.0	1447.5
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	4586.2	0.0	4586.2
	% Fixture	76.0	0.0	76.0
Total	Lumens	6033.7	0.0	6033.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	1.1
10°-20°	221.5	3.7
20°-30°	395.4	6.6
30°-40°	579.4	9.6
40°-50°	895.3	14.8
50°-60°	1303.7	21.6
60°-70°	1698.3	28.1
70°-80°	760.2	12.6
80°-90°	114.9	1.9
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°	6033.7	100.0
0°-180°	6033.7	100.0

Coefficient of Utilization



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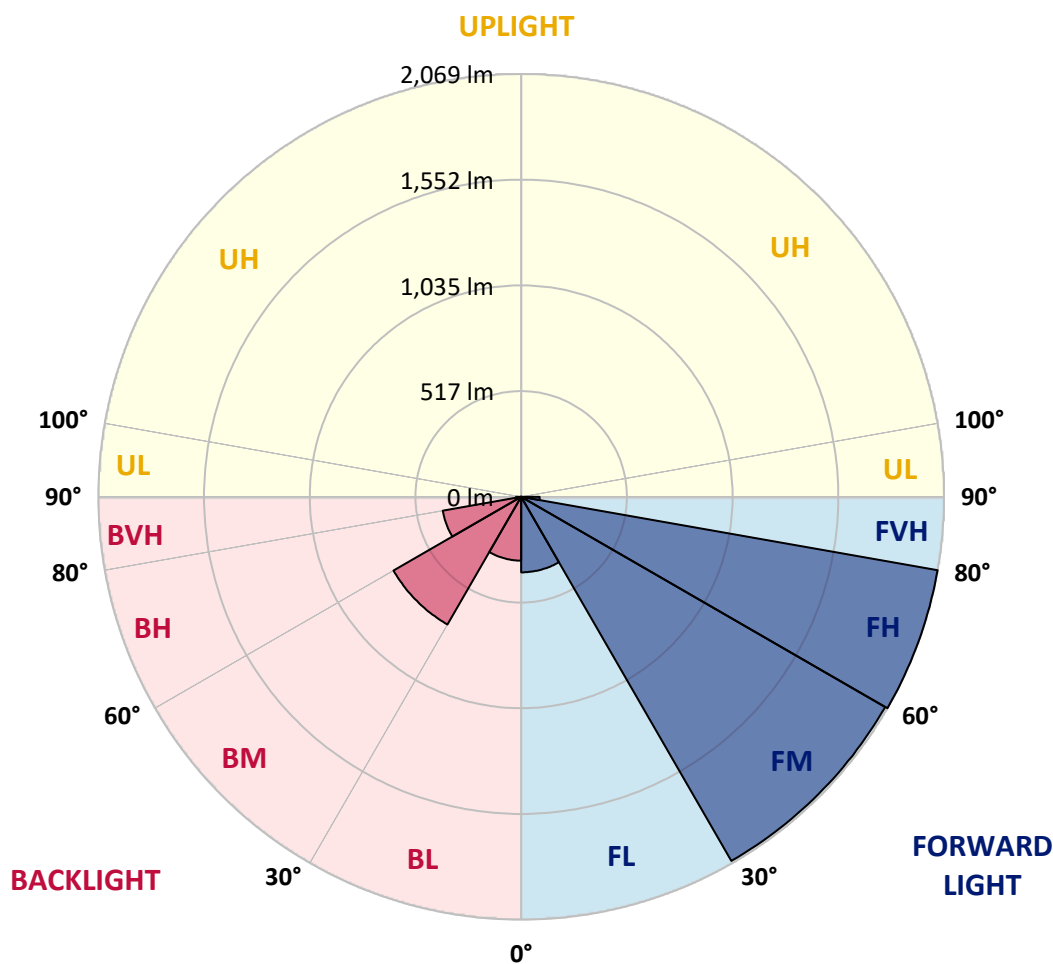
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	369.7	6.1			
FM	(30°-60°)	2057.2	34.1			
FH	(60°-80°)	2069.1	34.3			G2/5000
FVH	(80°-90°)	90.3	1.5			G1/100
BL	(0°-30°)	312.1	5.2	B1/500		
BM	(30°-60°)	721.3	12.0	B1/1000		
BH	(60°-80°)	389.4	6.5	B1/500		G1/500
BVH	(80°-90°)	24.7	0.4			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
2.5°	679.6	681.2	681.6	681.2	681.6	680.0	679.6	677.2	678.4	675.2	674.4
5°	716.4	717.6	718.4	715.2	716.0	714.4	712.4	710.0	706.8	702.4	699.6
7.5°	752.4	754.4	754.0	752.8	750.0	748.4	744.4	740.8	735.2	730.0	726.4
10°	800.8	800.4	800.4	793.6	789.6	786.0	778.8	773.2	767.6	760.0	756.0
12.5°	856.8	854.0	852.8	848.0	839.6	833.2	822.8	812.0	802.0	794.0	787.6
15°	910.8	910.8	907.6	900.0	892.0	883.6	868.8	853.2	836.8	824.0	817.6
17.5°	960.0	955.6	952.8	942.8	934.4	920.8	904.4	887.6	867.2	849.2	836.8
20°	996.0	992.4	986.4	974.0	959.6	943.6	924.4	904.8	882.8	863.2	849.2
22.5°	1016.8	1012.4	1003.2	986.8	967.2	944.8	922.4	904.0	884.0	869.2	857.6
25°	1027.6	1023.2	1010.8	989.2	962.8	933.2	907.6	889.6	878.0	874.4	872.8
27.5°	1027.2	1023.6	1010.4	985.6	951.6	917.6	890.0	874.8	873.6	887.6	898.0
30°	1016.8	1014.4	1002.4	977.6	942.0	906.4	880.8	872.8	885.2	914.8	940.4
32.5°	1006.4	1005.2	996.8	974.4	944.0	914.0	896.4	897.2	922.8	968.4	1009.6
35°	1007.6	1009.2	1008.0	996.0	976.8	961.2	952.8	970.4	1010.4	1065.6	1120.8
37.5°	1018.0	1024.0	1031.6	1032.8	1033.2	1030.8	1048.4	1085.6	1144.0	1216.0	1302.4
40°	1040.8	1047.6	1069.6	1088.8	1113.6	1143.2	1178.8	1230.4	1302.8	1391.6	1497.6
42.5°	1111.6	1121.2	1148.4	1184.0	1229.6	1276.0	1329.2	1399.6	1488.4	1582.0	1693.2
45°	1204.0	1224.0	1254.0	1293.6	1362.0	1427.2	1496.0	1574.8	1669.2	1786.4	1898.4
47.5°	1319.2	1339.2	1382.8	1425.2	1506.0	1587.2	1662.4	1744.8	1847.2	1967.2	2091.2
50°	1420.0	1442.8	1481.6	1538.8	1632.4	1732.0	1815.2	1904.4	1990.4	2116.8	2242.0
52.5°	1499.2	1515.6	1552.8	1605.2	1709.6	1818.8	1924.0	2023.2	2125.2	2251.6	2367.6
55°	1509.2	1524.4	1560.8	1620.8	1726.8	1848.0	1969.2	2086.8	2231.2	2369.2	2522.8
57.5°	1466.0	1478.4	1515.2	1568.8	1672.0	1810.0	1963.2	2114.0	2298.8	2485.2	2672.8
60°	1404.8	1417.2	1446.0	1488.8	1582.0	1730.8	1909.6	2116.0	2361.6	2630.8	2906.8
62.5°	1337.6	1348.4	1371.6	1402.0	1484.0	1621.2	1826.0	2102.8	2412.8	2775.6	3201.2
65°	1224.4	1250.4	1260.4	1291.6	1373.6	1503.2	1711.6	2013.6	2392.0	2840.0	3386.0
67°	1099.2	1125.6	1130.8	1162.4	1228.0	1352.4	1564.4	1848.4	2227.2	2728.8	3345.2
67.5°	1059.2	1081.6	1089.6	1121.2	1183.2	1300.4	1501.6	1788.8	2176.8	2668.0	3296.0
70°	778.8	803.6	812.4	825.6	870.0	967.6	1100.8	1350.0	1735.6	2177.2	2780.4
72.5°	416.8	436.8	445.2	464.8	487.6	540.8	642.8	821.6	1065.2	1456.8	1978.0
75°	282.0	290.0	296.0	309.6	333.2	375.6	420.4	483.2	630.4	822.0	1125.6
77.5°	160.8	164.4	165.2	167.6	186.4	226.8	300.4	406.8	521.6	595.6	720.0
80°	69.6	76.8	82.4	78.8	77.6	86.0	107.6	160.4	314.4	499.2	592.4
82.5°	37.6	40.8	45.6	46.0	48.4	51.2	55.6	66.0	92.8	187.2	408.4
85°	19.6	20.4	27.2	31.2	33.2	34.8	35.6	39.6	45.6	58.0	101.6
87.5°	2.8	4.0	4.8	6.4	7.2	7.6	8.8	11.2	13.2	16.0	27.2
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
2.5°	670.8	670.0	667.6	666.0	664.4	662.8	660.8	659.2	656.4	654.4	652.0
5°	695.6	690.8	687.6	683.2	682.4	677.2	672.0	669.6	664.8	660.8	656.0
7.5°	720.8	715.2	710.0	706.4	704.4	697.2	692.0	686.0	680.4	675.2	669.6
10°	750.4	744.8	739.2	736.8	733.2	726.4	722.0	714.4	708.8	702.4	694.8
12.5°	781.2	777.2	773.2	770.0	768.4	765.2	758.8	752.4	744.8	738.4	729.6
15°	808.4	805.6	804.0	803.2	803.2	801.2	795.2	789.2	781.2	774.0	764.4
17.5°	827.6	826.4	827.6	828.8	830.4	828.8	827.6	820.8	815.6	806.8	797.2
20°	838.8	841.2	847.2	851.2	854.8	857.6	858.8	853.2	846.4	840.0	833.6
22.5°	850.8	857.6	868.0	874.0	880.0	890.0	892.4	888.4	883.2	879.2	872.4
25°	870.8	880.8	898.8	908.4	916.8	931.6	933.6	934.4	933.2	930.0	921.6
27.5°	902.0	921.6	945.6	958.0	967.2	986.4	994.0	994.0	990.8	994.4	994.4
30°	956.4	982.4	1013.6	1020.8	1035.2	1052.0	1064.4	1066.0	1066.4	1074.0	1085.2
32.5°	1040.0	1064.8	1099.6	1107.6	1120.0	1136.0	1150.0	1148.4	1152.0	1168.4	1183.2
35°	1161.6	1186.8	1209.6	1220.4	1226.0	1240.4	1245.6	1254.4	1265.2	1285.6	1283.6
37.5°	1341.6	1364.0	1367.2	1374.0	1367.2	1370.0	1374.0	1384.4	1413.2	1431.6	1402.0
40°	1558.4	1595.6	1592.0	1584.0	1568.8	1548.4	1555.6	1571.6	1602.8	1586.8	1507.2
42.5°	1762.8	1801.2	1794.0	1784.8	1751.2	1743.6	1742.8	1756.0	1772.8	1727.2	1589.6
45°	1964.0	2003.2	1990.8	1985.6	1963.2	1946.8	1960.4	1961.2	1956.8	1859.2	1661.6
47.5°	2171.6	2207.6	2199.6	2204.0	2180.8	2170.0	2171.2	2165.6	2124.4	1971.2	1717.6
50°	2339.2	2387.6	2392.4	2382.4	2370.0	2353.6	2395.6	2380.4	2288.8	2080.0	1771.6
52.5°	2469.6	2534.8	2559.6	2553.2	2543.2	2545.2	2624.0	2641.2	2489.6	2217.2	1831.2
55°	2624.0	2726.8	2767.2	2791.2	2780.8	2820.8	3001.2	3010.0	2768.8	2396.4	1908.8
57.5°	2846.8	2994.0	3121.6	3155.6	3188.4	3318.4	3611.2	3522.0	3131.2	2667.6	2007.2
60°	3185.6	3508.0	3715.2	3824.0	3900.8	4082.4	4360.8	4134.8	3582.8	2990.4	2130.8
62.5°	3660.0	4131.2	4477.6	4586.8	4618.4	4722.8	4924.4	4492.0	3828.8	3135.2	2141.6
65°	4013.2	4578.4	4993.2	5049.2	5011.6	5013.6	5066.4	4473.2	3737.2	3008.8	1956.0
67°	3990.0	4622.8	5047.6	5121.2	5069.2	5000.8	4918.4	4218.4	3442.8	2744.0	1712.8
67.5°	3954.4	4580.0	5024.0	5101.6	5054.0	4976.0	4855.6	4119.6	3351.2	2661.6	1663.2
70°	3418.4	4039.6	4637.6	4746.8	4766.8	4695.6	4357.6	3473.6	2720.8	2165.2	1291.6
72.5°	2660.8	3214.0	3805.6	3900.4	3977.2	3772.0	3171.6	2399.2	1983.2	1560.4	935.2
75°	1756.8	2319.6	2618.0	2632.0	2534.0	2154.0	1549.6	1201.6	1106.0	917.2	578.8
77.5°	940.0	1364.0	1372.4	1270.8	1224.4	912.8	370.4	204.4	227.6	258.4	230.4
80°	701.2	868.8	1006.8	1082.4	1104.8	782.8	191.6	108.4	94.8	86.4	85.2
82.5°	632.4	839.2	940.8	982.0	971.6	644.0	107.6	72.8	60.4	65.6	74.8
85°	248.0	448.0	589.2	570.4	479.2	240.0	58.8	39.2	39.2	56.8	73.6
87.5°	50.8	92.0	124.8	119.2	107.2	46.4	28.8	23.6	24.0	46.0	69.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
2.5°	649.6	647.2	645.6	644.0	642.4	641.6	640.4	640.4	638.0	637.2	636.4
5°	652.4	648.4	645.6	642.0	639.2	636.8	633.6	632.8	630.0	628.0	627.2
7.5°	664.4	658.4	652.4	648.0	644.0	638.8	635.2	632.0	629.2	627.2	624.8
10°	687.2	680.8	672.4	664.4	659.2	651.2	645.6	640.0	636.8	634.4	631.2
12.5°	720.8	711.6	701.6	692.0	683.2	672.8	667.2	660.4	656.4	654.4	652.0
15°	755.2	745.2	732.8	723.6	713.6	705.6	700.4	694.4	691.2	688.8	687.2
17.5°	790.4	778.8	770.0	760.8	756.0	750.0	743.2	735.6	726.4	720.8	713.2
20°	826.4	817.6	812.4	807.2	801.6	793.2	779.6	764.0	746.8	730.4	714.8
22.5°	868.4	863.2	862.4	857.6	846.0	826.0	800.8	771.6	742.4	715.2	694.0
25°	927.6	927.6	923.6	904.0	876.8	840.8	798.4	756.4	717.6	680.4	652.4
27.5°	1002.0	999.2	979.6	939.2	890.4	834.4	777.6	724.4	674.8	634.0	598.0
30°	1084.0	1064.4	1022.4	958.8	885.6	813.6	744.0	682.4	624.0	574.0	531.6
32.5°	1169.2	1121.6	1046.0	958.8	868.8	782.4	702.0	626.4	559.6	503.6	453.2
35°	1246.4	1159.6	1051.6	943.2	836.0	736.4	643.2	557.6	477.6	417.2	362.0
37.5°	1316.4	1184.8	1045.6	912.8	788.4	671.6	562.4	468.0	377.6	319.2	272.0
40°	1362.0	1190.0	1020.8	865.2	720.4	584.0	463.2	357.6	286.0	232.8	201.2
42.5°	1390.4	1180.0	980.8	800.0	628.8	474.0	347.6	256.4	203.2	173.6	161.6
45°	1406.4	1154.0	921.6	710.8	518.0	360.4	246.8	185.2	156.4	146.0	142.0
47.5°	1405.6	1112.0	847.6	607.6	395.6	251.2	174.8	144.4	136.4	133.2	132.4
50°	1397.2	1060.4	760.8	495.6	285.6	175.2	138.4	129.6	127.6	125.6	124.8
52.5°	1385.6	996.4	664.8	386.4	202.8	140.0	125.6	123.2	121.6	119.6	118.8
55°	1364.0	917.6	560.8	290.8	158.8	126.4	121.2	120.4	118.4	115.6	114.0
57.5°	1337.6	837.6	461.2	227.2	140.4	123.2	120.4	119.2	116.4	113.2	110.0
60°	1328.0	771.6	383.2	191.6	136.0	124.4	122.4	120.8	116.8	112.0	108.4
62.5°	1268.0	697.2	327.2	177.6	138.4	129.6	128.8	126.4	120.4	114.8	109.2
65°	1112.8	589.6	277.2	168.0	143.2	138.4	139.2	135.6	129.6	122.0	112.0
67°	941.2	480.8	230.8	158.8	146.8	147.6	150.4	147.6	140.0	129.2	115.6
67.5°	895.6	453.2	219.2	156.0	147.6	150.0	153.2	151.2	143.6	131.2	117.2
70°	665.6	319.2	163.6	141.2	147.6	157.2	164.4	166.4	158.0	140.8	120.4
72.5°	468.8	206.0	125.6	122.4	134.0	146.8	160.4	167.2	157.6	138.8	116.0
75°	281.6	128.8	102.0	104.0	112.8	126.0	136.8	139.6	127.6	115.6	100.4
77.5°	130.4	85.6	80.0	82.8	91.2	97.2	97.2	91.6	82.4	75.2	72.0
80°	76.8	70.0	69.6	74.8	80.4	76.0	69.2	61.6	56.8	54.4	53.2
82.5°	72.0	74.8	79.6	80.8	76.4	65.6	57.2	49.6	47.2	46.0	44.8
85°	84.8	90.8	82.8	76.4	67.6	55.2	44.8	38.4	37.2	36.0	34.4
87.5°	78.4	74.8	65.2	56.0	46.4	33.6	24.4	22.0	23.6	23.2	22.4
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):

	160°	165°	170°	175°	180°
0°	654.0	654.0	654.0	654.0	654.0
2.5°	636.8	636.8	635.2	634.4	636.4
5°	625.6	626.0	624.8	624.4	624.8
7.5°	623.2	622.8	622.0	621.2	622.0
10°	630.4	630.0	628.8	629.6	628.4
12.5°	652.0	654.4	654.0	654.8	656.4
15°	687.2	686.8	685.6	686.4	687.6
17.5°	707.2	704.0	701.2	700.0	700.0
20°	702.4	693.2	688.4	685.6	684.8
22.5°	674.0	660.8	650.8	648.4	646.4
25°	627.6	611.2	598.4	595.6	590.4
27.5°	573.6	551.6	536.4	533.2	530.4
30°	502.8	477.6	460.0	448.8	452.4
32.5°	416.4	392.4	372.0	354.0	351.2
35°	321.6	295.2	277.2	269.2	264.0
37.5°	240.0	218.0	206.0	198.4	198.8
40°	183.6	172.0	165.6	160.4	160.8
42.5°	153.2	148.0	146.4	144.0	142.8
45°	138.8	137.2	137.6	135.2	134.4
47.5°	130.8	129.6	130.0	128.4	128.0
50°	124.4	123.6	124.0	122.8	122.4
52.5°	118.0	118.4	118.0	117.2	117.2
55°	112.4	112.0	112.8	111.6	111.6
57.5°	108.0	107.6	107.6	107.2	107.2
60°	105.6	104.0	103.6	103.6	104.0
62.5°	104.4	101.6	101.2	101.2	101.6
65°	104.8	100.4	98.8	98.4	98.0
67°	105.2	98.8	95.6	94.0	93.6
67.5°	105.6	98.0	94.4	92.8	92.0
70°	103.2	92.4	87.2	84.4	83.6
72.5°	97.2	85.6	79.2	75.6	74.8
75°	86.4	77.6	72.0	68.0	66.4
77.5°	66.8	62.8	60.8	58.4	57.6
80°	52.0	50.0	49.2	47.6	47.2
82.5°	43.2	41.2	40.0	38.0	36.8
85°	33.6	31.2	30.4	28.8	28.0
87.5°	22.0	20.8	20.4	18.4	17.6
90°	0.0	0.0	0.0	0.0	0.0

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