

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: P165455

Luminaire Tested: **VST-E02-LED-E-U-SL4-HSS-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P165455  
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-E02-LED-E-U-SL4-HSS-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

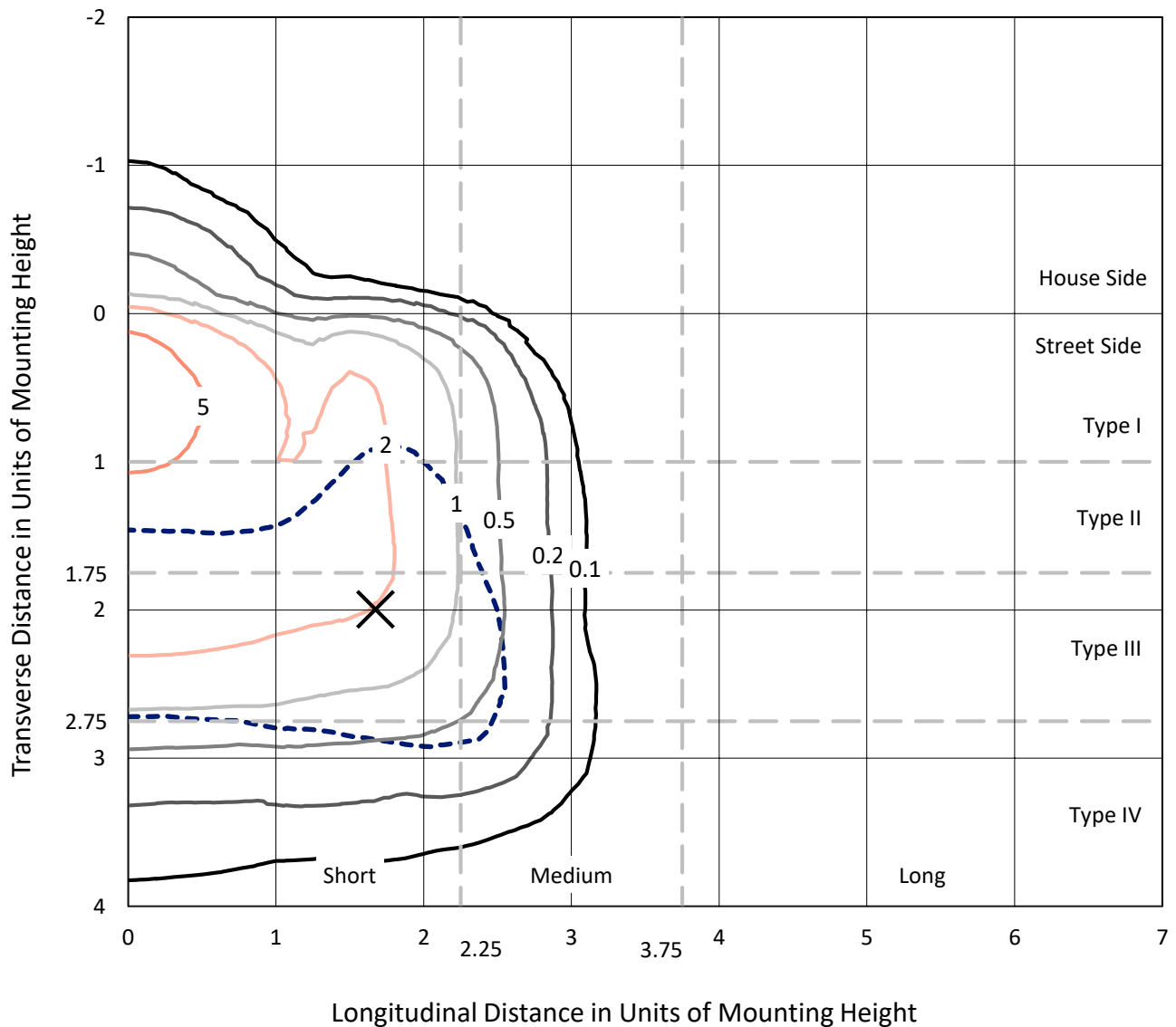
Lumens per Lamp: N/A  
Luminaire Lumens: 3393.7 lumens  
Efficiency: N/A  
Efficacy: 65.1 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 52.1  
Input Voltage (V): NR  
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

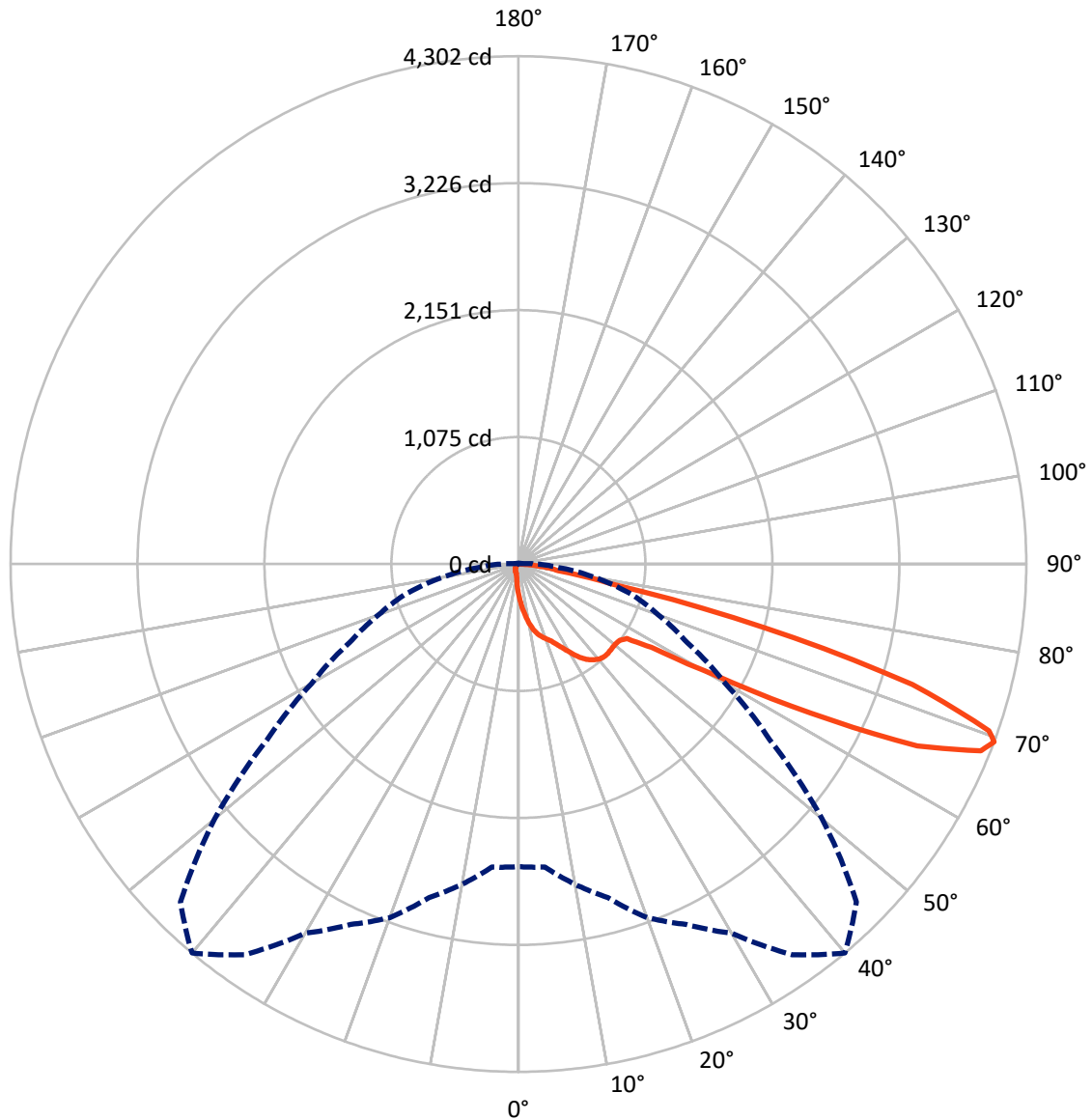
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical



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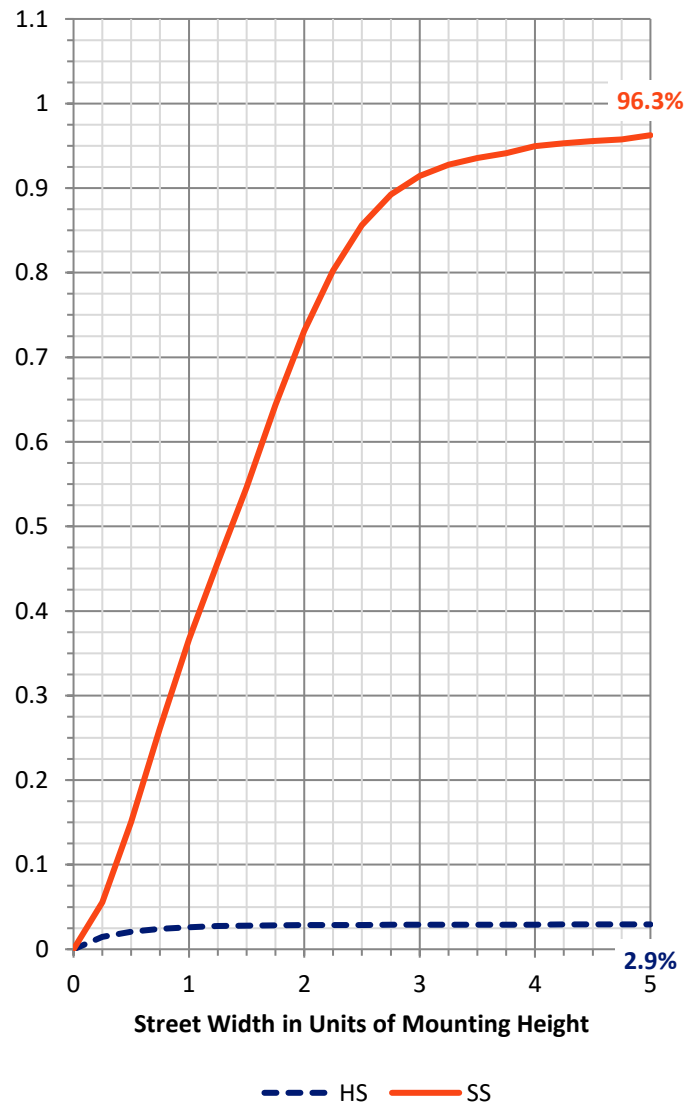
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	101.1	0.0	101.1
	% Fixture	3.0	0.0	3.0
<b>Street Side</b>	Lumens	3292.6	0.0	3292.6
	% Fixture	97.0	0.0	97.0
<b>Total</b>	Lumens	3393.7	0.0	3393.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.3	0.8
10°-20°	90.8	2.7
20°-30°	173.8	5.1
30°-40°	289.1	8.5
40°-50°	391.2	11.5
50°-60°	611.8	18.0
60°-70°	1257.8	37.1
70°-80°	506.1	14.9
80°-90°	46.8	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°	3393.7	100.0
0°-180°	3393.7	100.0



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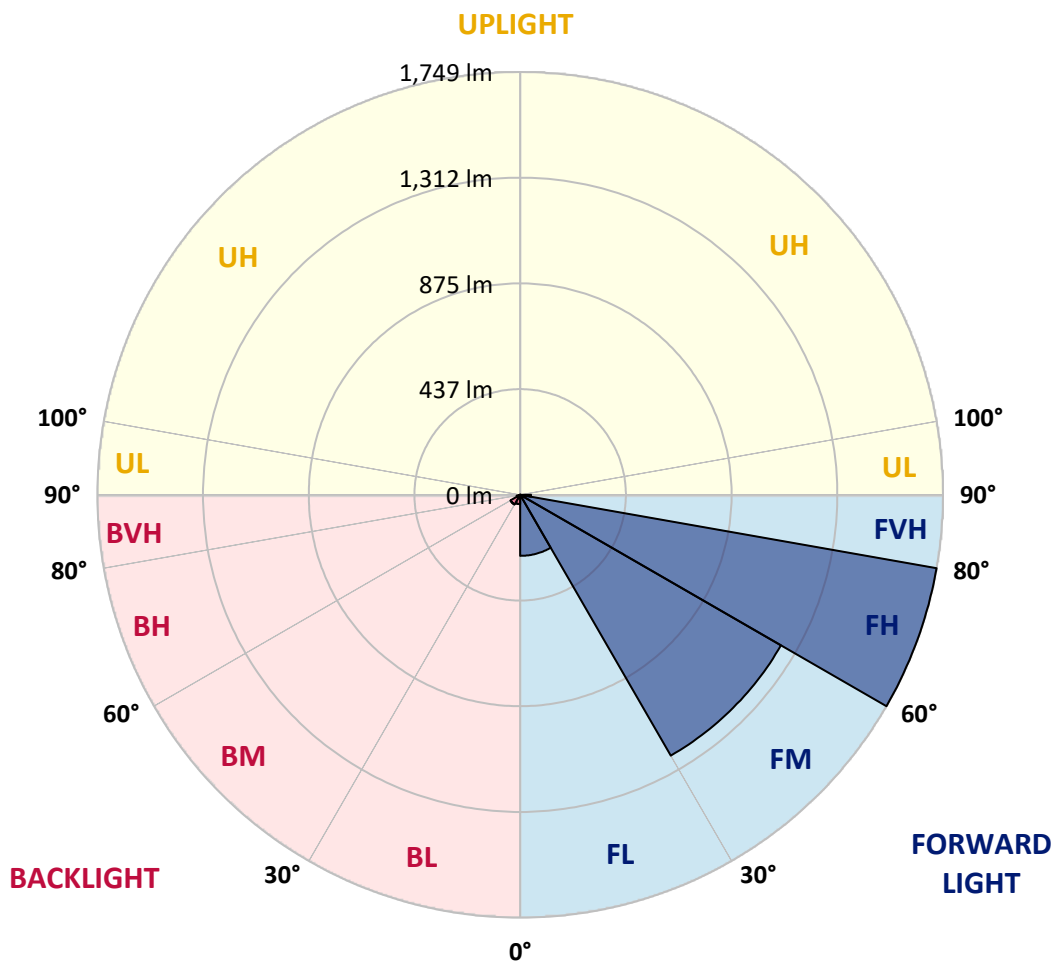
CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	252.6	7.4			
FM	(30°-60°)	1245.9	36.7			
FH	(60°-80°)	1749.1	51.5			G1/1800
FVH	(80°-90°)	45.1	1.3			G1/100
BL	(0°-30°)	38.4	1.1	B0/110		
BM	(30°-60°)	46.1	1.4	B0/220		
BH	(60°-80°)	14.7	0.4	B0/110		G0/110
BVH	(80°-90°)	1.7	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-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3
2.5°	341.9	338.0	333.5	333.5	328.0	328.0	324.7	315.8	314.7	309.7	304.6
5°	436.4	433.1	427.6	422.5	418.1	410.3	404.7	394.1	382.5	371.3	361.4
7.5°	528.7	527.0	517.0	515.3	508.1	495.4	484.2	468.7	448.6	433.1	414.7
10°	614.3	610.4	608.2	598.7	588.2	574.3	557.0	538.1	514.8	490.3	464.2
12.5°	682.1	679.9	669.9	666.0	654.9	641.0	619.3	594.8	571.5	539.8	509.2
15°	732.7	728.8	722.2	716.0	702.7	690.5	670.4	643.7	615.4	581.0	544.3
17.5°	775.0	767.8	766.1	756.6	742.7	728.3	706.0	681.6	648.2	613.7	573.7
20°	831.7	821.7	818.3	804.4	788.3	768.3	742.7	712.1	677.1	639.4	598.2
22.5°	898.4	891.2	883.9	871.7	851.2	822.8	785.6	752.2	707.7	666.0	621.5
25°	992.9	986.8	975.1	958.4	932.8	899.0	853.9	805.0	752.8	699.4	647.1
27.5°	1084.6	1079.0	1070.7	1058.0	1029.0	991.8	936.2	874.0	807.8	743.3	685.4
30°	1170.8	1165.8	1157.5	1144.7	1119.1	1082.4	1019.6	952.9	870.6	795.5	726.1
32.5°	1263.7	1262.0	1252.5	1234.2	1211.9	1162.5	1094.1	1022.4	939.0	852.2	771.1
35°	1368.7	1355.9	1347.1	1328.7	1290.9	1238.0	1158.0	1079.6	991.8	902.8	812.2
37.5°	1457.7	1445.5	1434.3	1411.0	1364.8	1297.6	1207.0	1120.7	1030.1	939.5	847.3
40°	1522.7	1516.6	1503.2	1472.6	1421.0	1340.9	1243.1	1149.1	1058.0	966.8	875.6
42.5°	1571.1	1561.6	1546.6	1514.9	1453.8	1362.6	1257.5	1160.8	1070.7	983.5	893.9
45°	1588.9	1581.1	1567.2	1532.7	1466.6	1368.7	1257.0	1157.5	1071.3	988.4	906.2
47.5°	1578.3	1570.6	1558.3	1526.0	1461.0	1361.5	1247.0	1148.0	1065.7	990.1	917.3
50°	1543.3	1538.8	1529.4	1502.2	1443.8	1347.6	1238.0	1143.0	1064.6	998.5	932.8
52.5°	1540.0	1537.2	1525.5	1498.3	1438.7	1343.1	1237.0	1145.8	1074.1	1009.0	944.0
55°	1881.8	1842.4	1754.0	1678.9	1555.5	1408.7	1293.1	1190.8	1114.1	1050.7	1005.1
57.5°	2674.6	2615.7	2499.5	2356.6	2073.1	1794.5	1571.6	1410.4	1330.9	1302.0	1319.2
60°	3046.0	3035.5	3017.0	2949.2	2804.2	2564.6	2297.7	2009.2	1893.5	1883.5	1918.5
62.5°	3222.2	3215.5	3221.1	3212.8	3167.8	3097.7	3020.9	2896.4	2781.9	2708.0	2551.2
65°	3303.4	3307.9	3339.5	3364.5	3370.1	3388.4	3444.6	3599.7	3713.1	3522.4	3087.1
67.5°	3097.1	3123.2	3196.1	3287.2	3394.0	3497.4	3664.1	3991.1	4224.0	4000.0	3381.8
69°	2564.0	2576.8	2754.7	2926.4	3187.2	3369.5	3611.3	4040.0	4301.9	4048.9	3358.4
70°	2018.6	2030.3	2221.0	2454.5	2895.3	3129.9	3446.3	3957.2	4229.0	3983.8	3238.3
72.5°	910.6	893.9	961.2	1086.3	1565.5	1938.0	2491.1	3206.1	3489.1	3191.6	2422.7
75°	636.0	628.8	636.0	636.5	711.1	917.3	1157.5	1737.8	2149.3	1854.6	1157.5
77.5°	492.5	487.6	482.6	477.0	485.9	544.3	567.6	616.5	800.5	757.2	441.4
80°	389.7	385.3	397.5	393.6	393.6	400.3	395.8	377.5	343.0	318.0	284.6
82.5°	181.2	182.3	182.3	197.9	238.5	278.5	291.3	273.0	242.4	206.2	166.3
85°	17.2	19.4	32.8	50.6	100.6	113.4	114.0	94.5	94.5	74.5	60.0
87.5°	0.0	0.5	0.5	0.5	5.0	13.9	11.7	3.4	1.7	1.7	2.8
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°	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3
2.5°	295.7	294.1	287.4	280.7	274.6	268.0	261.8	255.7	249.1	244.0	238.0
5°	345.8	333.5	319.7	306.4	293.0	279.1	264.7	251.8	238.5	226.3	214.6
7.5°	396.4	372.5	353.6	329.6	308.0	286.3	266.3	245.8	226.9	209.0	192.4
10°	439.2	410.3	380.8	350.3	319.1	290.2	262.4	238.0	212.9	191.2	170.7
12.5°	474.2	437.5	401.4	363.0	328.0	291.3	256.9	227.4	197.9	173.5	152.3
15°	505.9	463.7	420.3	375.8	331.4	289.7	251.3	214.6	184.6	156.8	132.9
17.5°	531.5	483.1	434.2	384.2	336.4	287.4	244.0	205.7	170.7	141.8	118.4
20°	553.7	503.1	450.3	394.1	339.7	286.9	238.0	194.6	158.5	127.9	105.1
22.5°	574.3	523.7	467.0	406.9	344.7	286.3	232.4	186.2	147.8	117.3	94.5
25°	597.7	544.3	484.8	420.3	353.6	288.5	229.1	179.6	138.4	107.3	86.2
27.5°	623.8	567.6	505.9	437.0	365.2	293.0	227.9	172.3	130.1	97.9	79.5
30°	660.4	595.4	527.0	453.6	375.8	298.0	226.9	167.9	121.7	90.6	72.8
32.5°	692.7	622.7	550.4	470.9	387.5	303.0	226.3	161.8	114.0	83.4	67.8
35°	726.6	647.7	570.4	487.6	397.5	308.5	225.7	157.3	106.7	76.1	62.8
37.5°	756.1	668.8	586.0	502.0	408.6	313.6	226.3	153.4	100.1	70.1	58.4
40°	781.1	690.5	603.2	515.3	420.3	321.3	226.9	149.6	93.4	64.5	54.5
42.5°	803.3	711.1	621.5	530.3	433.6	330.2	230.2	146.2	87.8	59.5	50.6
45°	820.6	730.0	641.5	551.5	455.3	344.7	236.3	144.0	82.3	55.0	47.3
47.5°	838.4	757.7	675.5	584.9	487.0	367.5	246.8	143.5	77.8	51.7	44.5
50°	862.8	785.6	705.5	618.7	515.9	390.8	259.6	144.0	72.3	48.4	41.7
52.5°	880.6	813.9	744.4	677.7	584.9	461.9	309.1	154.0	69.5	45.6	38.3
55°	985.7	974.0	975.7	986.8	915.1	786.1	517.0	222.4	81.7	51.7	37.8
57.5°	1389.8	1430.9	1454.9	1454.3	1335.9	1108.0	694.4	285.7	91.2	60.0	45.1
60°	1921.3	1890.2	1846.3	1737.8	1580.5	1264.8	776.6	307.4	79.0	47.8	41.2
62.5°	2391.1	2208.7	2047.0	1871.3	1665.0	1319.2	793.3	305.8	68.9	36.1	28.9
65°	2684.0	2356.1	2094.8	1874.6	1631.7	1273.6	750.5	280.7	58.4	29.5	23.9
67.5°	2754.1	2276.5	1906.9	1626.1	1363.1	991.3	550.9	211.3	45.6	24.5	21.1
69°	2601.2	2023.6	1580.0	1261.4	991.8	657.7	340.8	133.4	35.0	22.3	19.4
70°	2392.7	1760.1	1287.0	1012.4	734.4	461.9	238.5	94.0	28.4	20.6	17.8
72.5°	1539.4	924.5	632.6	440.3	303.0	184.0	93.4	42.2	21.7	17.2	14.5
75°	597.1	341.9	248.0	188.5	147.3	102.3	56.7	27.2	18.4	14.5	11.1
77.5°	294.1	225.1	184.0	126.2	73.4	45.6	30.6	21.1	15.0	10.6	7.2
80°	232.4	154.6	92.3	57.2	43.3	32.8	23.3	17.2	11.1	6.7	5.0
82.5°	119.0	65.0	47.8	38.9	32.2	25.6	18.9	12.2	7.2	4.4	3.9
85°	37.3	27.2	24.5	23.9	22.3	18.4	13.3	7.8	4.4	2.8	2.8
87.5°	2.8	3.9	5.0	3.9	4.4	3.9	5.0	3.4	2.2	2.2	1.7
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°	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3	256.3
2.5°	233.5	226.9	220.7	216.8	209.6	206.8	204.1	202.9	197.9	199.0	194.6
5°	204.1	192.4	183.4	174.6	166.3	160.1	155.1	149.0	144.0	141.8	137.3
7.5°	177.4	162.4	150.7	141.2	131.2	123.4	116.8	112.3	107.9	103.4	101.2
10°	154.0	137.9	124.6	115.1	105.7	98.9	94.0	90.6	87.8	86.2	85.6
12.5°	132.3	116.8	104.5	96.2	89.0	85.6	83.4	81.7	81.2	80.6	80.6
15°	115.6	100.1	90.6	84.5	81.2	79.5	79.0	77.8	76.7	76.1	76.1
17.5°	100.1	88.4	81.7	78.4	76.7	75.6	74.5	73.4	72.3	71.7	71.7
20°	89.5	80.0	76.7	74.5	72.8	71.7	70.1	68.9	68.4	67.8	67.3
22.5°	81.2	75.1	72.8	71.2	68.9	67.3	66.2	65.0	64.0	63.4	62.8
25°	75.1	71.2	69.5	67.3	65.0	63.4	61.7	60.0	58.9	58.4	57.2
27.5°	70.6	67.8	65.6	62.8	60.6	58.9	57.2	55.6	54.5	53.4	52.8
30°	66.7	64.0	61.1	58.9	56.2	54.5	52.3	50.6	50.0	48.9	47.8
32.5°	62.8	60.0	57.2	54.5	51.7	49.5	48.4	46.1	45.1	44.5	43.3
35°	58.4	55.6	52.3	50.0	47.3	45.1	43.3	41.7	40.6	39.5	38.9
37.5°	54.5	51.1	47.8	45.1	42.8	40.6	38.9	37.3	36.1	35.0	34.4
40°	50.0	46.7	43.3	40.6	38.3	36.7	35.0	33.4	32.2	31.7	31.7
42.5°	46.1	42.2	38.9	36.7	35.0	32.8	31.1	29.5	28.9	28.4	28.9
45°	42.2	38.3	35.6	33.4	31.7	29.5	27.8	26.7	26.1	26.7	27.2
47.5°	38.9	35.0	32.2	30.6	28.9	27.2	25.6	24.5	24.5	25.6	26.7
50°	35.6	31.7	29.5	28.4	26.7	25.0	22.8	22.3	22.8	23.9	25.0
52.5°	32.2	27.8	26.1	25.6	23.9	22.3	20.6	20.0	20.6	21.7	21.1
55°	28.9	24.5	23.9	23.3	21.7	19.4	17.8	17.8	17.8	17.2	16.1
57.5°	27.8	21.7	21.1	20.6	18.9	16.7	15.5	14.5	13.9	12.2	11.7
60°	28.9	19.4	19.4	18.4	16.7	14.5	12.8	11.1	10.0	8.9	8.9
62.5°	23.3	17.8	17.2	16.1	13.9	11.7	10.0	8.3	7.8	7.2	7.2
65°	18.9	16.1	15.0	13.3	11.7	9.5	7.8	6.7	6.1	6.1	6.7
67.5°	17.2	14.5	12.8	11.1	9.5	7.2	6.1	5.6	5.6	6.1	6.1
69°	16.1	13.3	11.7	10.0	8.3	6.7	5.6	5.6	5.6	5.6	6.1
70°	15.0	12.8	11.1	9.5	7.2	5.6	5.0	5.0	5.6	5.6	6.1
72.5°	11.7	10.0	9.5	7.8	5.6	5.0	4.4	5.0	5.0	5.6	5.6
75°	8.9	7.2	7.2	6.1	4.4	3.9	3.9	4.4	4.4	5.0	5.0
77.5°	6.1	5.0	5.0	4.4	3.9	3.4	3.4	3.9	4.4	4.4	5.0
80°	4.4	3.9	3.4	3.9	3.4	2.8	3.4	3.9	3.9	4.4	4.4
82.5°	3.4	3.4	3.4	3.4	2.8	2.8	3.4	3.4	3.9	4.4	4.4
85°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.4	3.4	3.9	3.9
87.5°	1.7	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8	3.4	3.4
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°	256.3	256.3	256.3	256.3
2.5°	193.5	192.9	190.7	191.2
5°	135.7	132.3	134.5	134.0
7.5°	99.5	98.9	98.4	99.5
10°	85.1	85.1	84.5	85.1
12.5°	80.0	80.0	80.0	80.0
15°	76.1	76.1	75.6	75.6
17.5°	71.7	71.7	71.7	71.2
20°	67.3	66.7	66.7	66.7
22.5°	62.3	61.7	61.7	61.7
25°	57.2	56.7	56.7	56.7
27.5°	52.3	51.7	51.1	51.1
30°	47.3	46.7	46.1	46.1
32.5°	42.2	41.7	41.2	41.2
35°	37.8	37.8	37.3	36.7
37.5°	33.9	33.9	33.9	33.9
40°	31.1	31.7	31.7	31.7
42.5°	29.5	30.0	30.6	31.1
45°	28.4	29.5	30.0	30.0
47.5°	27.8	28.4	28.9	28.9
50°	25.6	25.0	25.0	25.0
52.5°	20.6	19.4	18.9	18.4
55°	15.0	14.5	13.3	13.3
57.5°	10.6	10.6	10.0	10.0
60°	8.3	8.3	7.8	8.3
62.5°	7.2	7.2	7.2	7.2
65°	6.7	6.7	6.7	6.7
67.5°	6.7	6.7	6.7	6.7
69°	6.1	6.1	6.1	6.1
70°	6.1	6.1	6.1	6.1
72.5°	5.6	5.6	5.6	5.6
75°	5.0	5.6	5.6	5.6
77.5°	5.0	5.0	5.0	5.0
80°	4.4	4.4	5.0	5.0
82.5°	4.4	4.4	4.4	4.4
85°	3.9	3.9	4.4	4.4
87.5°	3.4	3.4	3.9	3.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)