

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: P165458

Luminaire Tested: **VST-E02-LED-E-U-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165458
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-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4126 lumens
Efficiency: N/A
Efficacy: 79.2 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 - 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

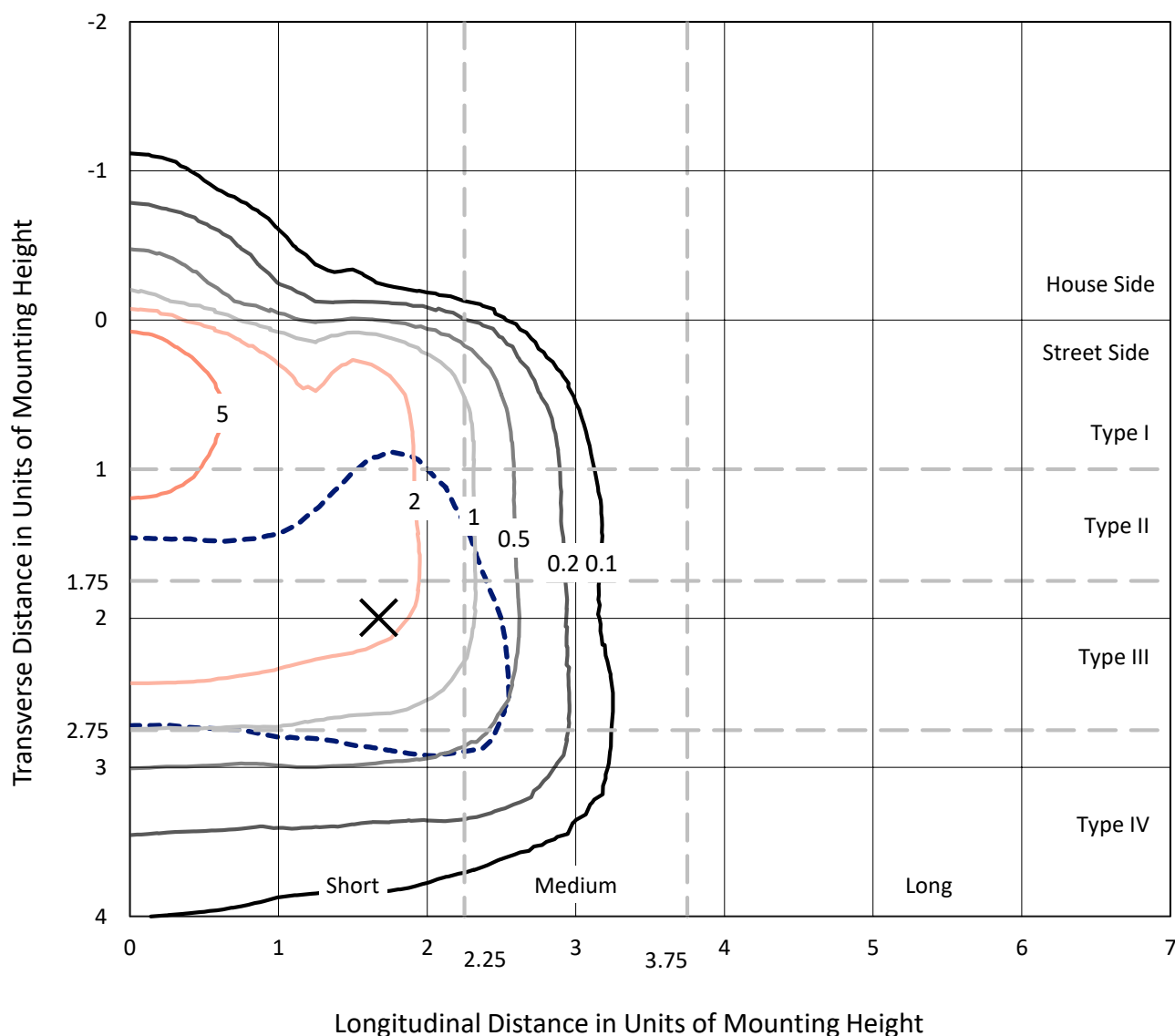


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

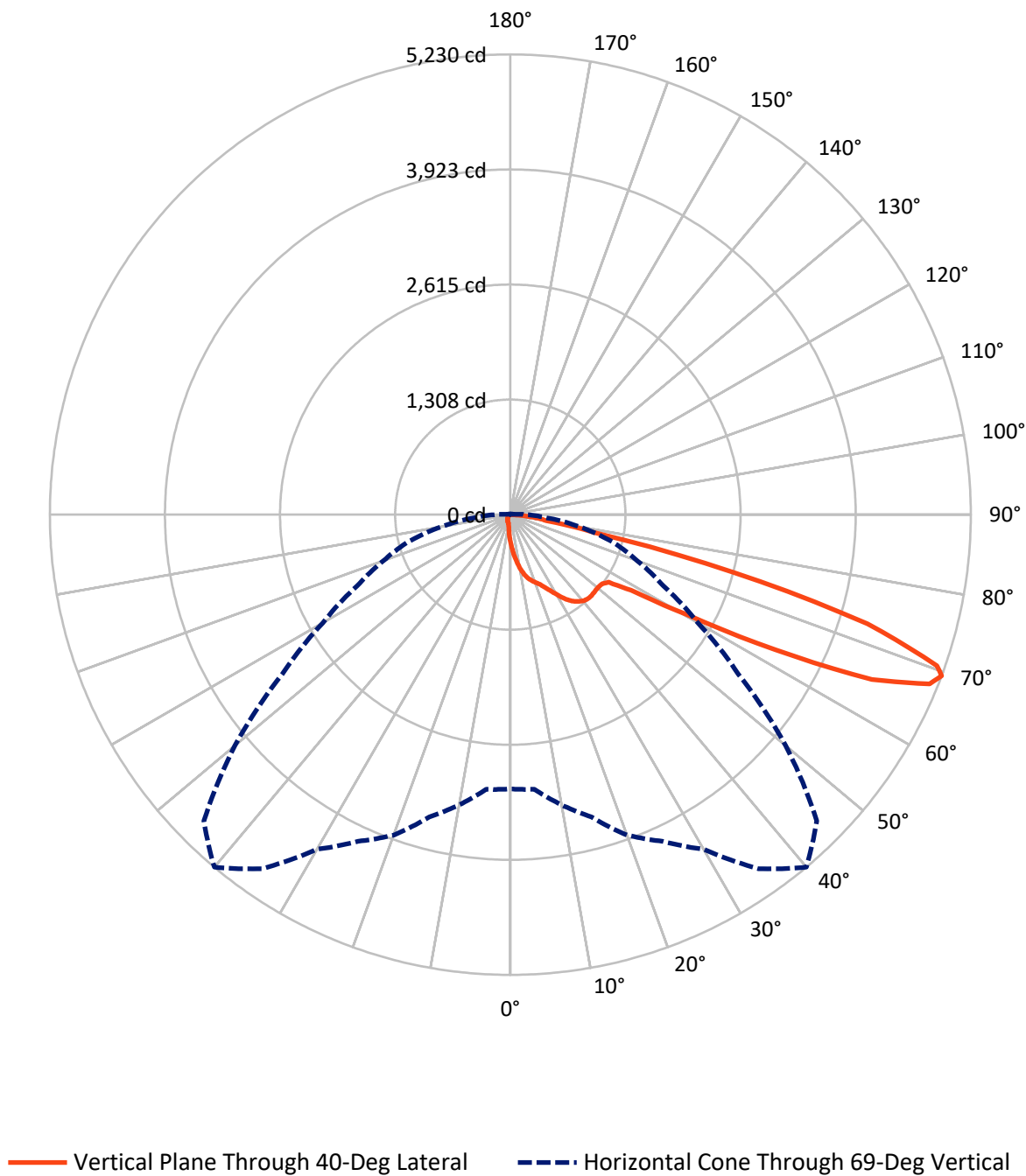


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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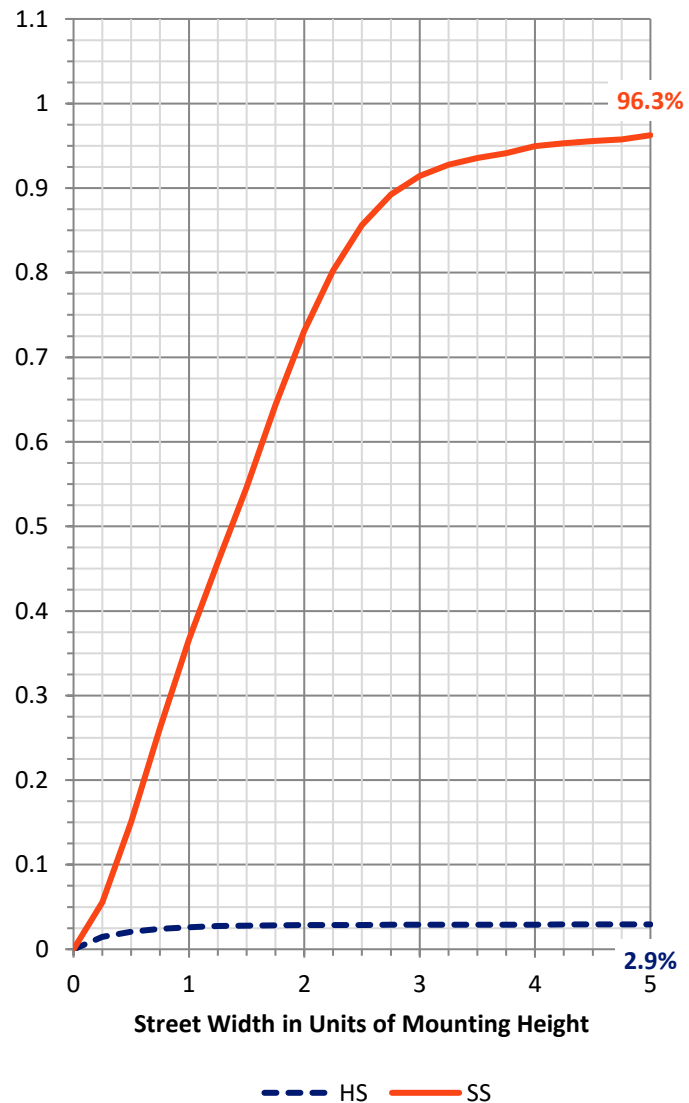
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	122.9	0.0	122.9
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	4003.1	0.0	4003.1
	% Fixture	97.0	0.0	97.0
Total	Lumens	4126.0	0.0	4126.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.0	0.8
10°-20°	110.4	2.7
20°-30°	211.3	5.1
30°-40°	351.5	8.5
40°-50°	475.6	11.5
50°-60°	743.8	18.0
60°-70°	1529.1	37.1
70°-80°	615.3	14.9
80°-90°	56.9	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°	4126.0	100.0
0°-180°	4126.0	100.0

Coefficient of Utilization



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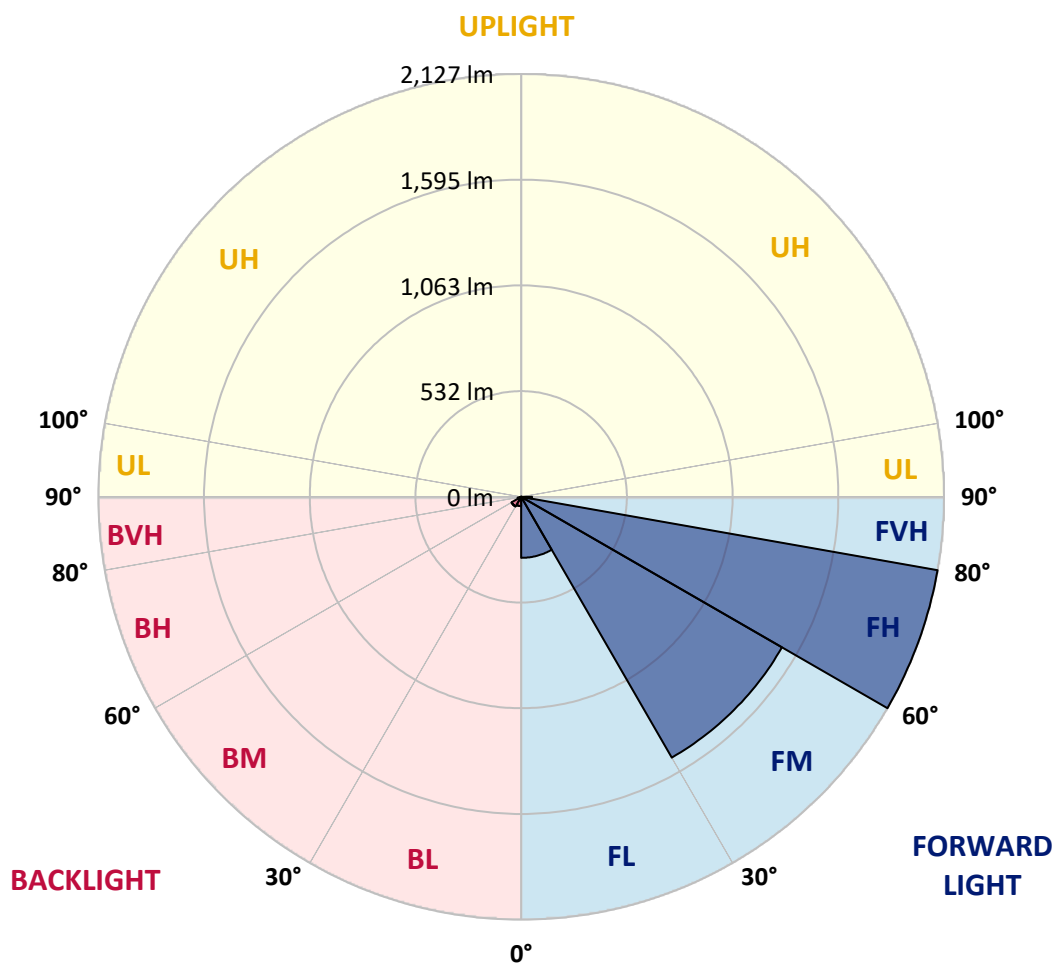
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	307.1	7.4			
FM	(30°-60°)	1514.7	36.7			
FH	(60°-80°)	2126.5	51.5			G2/5000
FVH	(80°-90°)	54.8	1.3			G1/100
BL	(0°-30°)	46.7	1.1	B0/110		
BM	(30°-60°)	56.1	1.4	B0/220		
BH	(60°-80°)	17.9	0.4	B0/110		G0/110
BVH	(80°-90°)	2.1	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6
2.5°	415.7	410.9	405.5	405.5	398.8	398.8	394.7	383.9	382.6	376.4	370.4
5°	530.6	526.5	519.8	513.7	508.3	498.8	492.1	479.2	465.1	451.5	439.3
7.5°	642.8	640.7	628.6	626.5	617.8	602.2	588.7	569.8	545.5	526.5	504.2
10°	746.9	742.1	739.4	727.9	715.1	698.2	677.2	654.3	625.9	596.1	564.4
12.5°	829.3	826.6	814.4	809.7	796.2	779.3	752.9	723.2	694.9	656.3	619.1
15°	890.8	886.1	878.0	870.5	854.3	839.5	815.2	782.7	748.3	706.3	661.7
17.5°	942.2	933.4	931.4	919.9	903.0	885.4	858.4	828.7	788.1	746.2	697.5
20°	1011.1	999.0	994.9	978.0	958.4	934.1	903.0	865.8	823.2	777.3	727.3
22.5°	1092.2	1083.4	1074.7	1059.8	1034.8	1000.3	955.1	914.5	860.4	809.7	755.6
25°	1207.1	1199.7	1185.5	1165.3	1134.1	1092.9	1038.2	978.7	915.2	850.3	786.7
27.5°	1318.7	1311.9	1301.8	1286.2	1251.1	1205.8	1138.2	1062.5	982.1	903.7	833.3
30°	1423.4	1417.3	1407.2	1391.7	1360.6	1316.0	1239.6	1158.5	1058.5	967.2	882.7
32.5°	1536.3	1534.3	1522.8	1500.5	1473.4	1413.3	1330.1	1243.0	1141.6	1036.1	937.4
35°	1664.0	1648.5	1637.7	1615.4	1569.4	1505.2	1407.9	1312.6	1205.8	1097.6	987.5
37.5°	1772.2	1757.3	1743.8	1715.5	1659.4	1577.5	1467.4	1362.6	1252.4	1142.3	1030.0
40°	1851.2	1843.8	1827.6	1790.5	1727.6	1630.3	1511.3	1397.0	1286.2	1175.4	1064.5
42.5°	1910.1	1898.6	1880.3	1841.8	1767.5	1656.6	1528.9	1411.3	1301.8	1195.7	1086.8
45°	1931.7	1922.3	1905.4	1863.4	1783.0	1664.0	1528.2	1407.2	1302.5	1201.7	1101.7
47.5°	1918.9	1909.4	1894.5	1855.3	1776.3	1655.3	1516.1	1395.7	1295.7	1203.8	1115.2
50°	1876.3	1870.9	1859.4	1826.3	1755.3	1638.4	1505.2	1389.7	1294.3	1213.9	1134.1
52.5°	1872.2	1868.9	1854.7	1821.5	1749.2	1633.0	1503.8	1393.0	1305.8	1226.8	1147.7
55°	2287.9	2239.9	2132.5	2041.2	1891.1	1712.8	1572.1	1447.7	1354.5	1277.5	1222.0
57.5°	3251.7	3180.1	3038.8	2865.1	2520.4	2181.8	1910.8	1714.7	1618.1	1583.0	1603.9
60°	3703.2	3690.4	3668.1	3585.6	3409.2	3117.9	2793.5	2442.7	2302.1	2290.0	2332.5
62.5°	3917.5	3909.4	3916.1	3906.0	3851.3	3766.1	3672.8	3521.4	3382.1	3292.3	3101.7
65°	4016.2	4021.6	4060.1	4090.5	4097.3	4119.5	4187.9	4376.4	4514.3	4282.5	3753.2
67.5°	3765.4	3797.2	3885.7	3996.5	4126.3	4252.1	4454.8	4852.3	5135.5	4863.1	4111.5
69°	3117.2	3132.8	3349.0	3557.9	3874.9	4096.6	4390.6	4911.7	5230.1	4922.6	4083.1
70°	2454.2	2468.3	2700.2	2984.1	3520.1	3805.3	4189.9	4811.0	5141.5	4843.4	3937.1
72.5°	1107.1	1086.8	1168.6	1320.7	1903.3	2356.2	3028.7	3897.9	4241.9	3880.3	2945.5
75°	773.2	764.5	773.2	773.9	864.5	1115.2	1407.2	2112.8	2613.0	2254.8	1407.2
77.5°	598.9	592.7	586.7	579.9	590.8	661.7	690.1	749.5	973.3	920.6	536.6
80°	473.8	468.4	483.2	478.6	478.6	486.7	481.3	458.9	417.0	386.6	346.0
82.5°	220.3	221.7	221.7	240.6	290.0	338.6	354.2	331.9	294.7	250.7	202.1
85°	20.9	23.6	39.9	61.5	122.3	137.9	138.5	114.9	114.9	90.6	73.0
87.5°	0.0	0.7	0.7	0.7	6.1	16.9	14.2	4.1	2.0	2.0	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6
2.5°	359.6	357.5	349.4	341.3	333.9	325.7	318.4	310.9	302.8	296.7	289.3
5°	420.4	405.5	388.6	372.4	356.2	339.3	321.7	306.2	290.0	275.1	260.9
7.5°	481.9	452.8	429.8	400.8	374.5	348.1	323.8	298.7	275.8	254.2	233.9
10°	533.9	498.8	463.0	425.8	388.0	352.8	319.0	289.3	258.8	232.5	207.5
12.5°	576.5	532.0	488.0	441.4	398.8	354.2	312.2	276.4	240.6	210.9	185.2
15°	615.1	563.7	511.0	456.9	402.8	352.1	305.5	260.9	224.4	190.6	161.6
17.5°	646.1	587.3	527.9	467.0	408.9	349.4	296.7	250.1	207.5	172.3	144.0
20°	673.2	611.7	547.5	479.2	413.0	348.8	289.3	236.6	192.6	155.5	127.7
22.5°	698.2	636.7	567.8	494.8	419.0	348.1	282.5	226.4	179.8	142.6	114.9
25°	726.6	661.7	589.4	511.0	429.8	350.8	278.5	218.3	168.3	130.4	104.8
27.5°	758.4	690.1	615.1	531.2	444.1	356.2	277.1	209.5	158.2	118.9	96.7
30°	802.9	723.9	640.7	551.5	456.9	362.3	275.8	204.1	148.0	110.2	88.6
32.5°	842.2	757.0	669.1	572.5	471.1	368.4	275.1	196.7	138.5	101.4	82.4
35°	883.4	787.4	693.5	592.7	483.2	375.1	274.4	191.3	129.8	92.6	76.4
37.5°	919.2	813.1	712.4	610.3	496.8	381.2	275.1	186.5	121.7	85.1	71.0
40°	949.6	839.5	733.3	626.5	511.0	390.7	275.8	181.8	113.6	78.4	66.2
42.5°	976.7	864.5	755.6	644.8	527.2	401.5	279.8	177.8	106.8	72.3	61.5
45°	997.6	887.5	779.9	670.5	553.6	419.0	287.3	175.1	100.0	66.9	57.5
47.5°	1019.3	921.2	821.2	711.1	592.1	446.8	300.1	174.4	94.6	62.8	54.1
50°	1049.0	955.1	857.7	752.3	627.2	475.1	315.7	175.1	87.9	58.8	50.7
52.5°	1070.6	989.5	905.0	823.9	711.1	561.7	375.8	187.2	84.5	55.4	46.6
55°	1198.4	1184.2	1186.2	1199.7	1112.5	955.7	628.6	270.4	99.4	62.8	46.0
57.5°	1689.7	1739.8	1768.8	1768.1	1624.1	1347.1	844.2	347.4	110.9	73.0	54.8
60°	2335.9	2298.1	2244.7	2112.8	1921.6	1537.7	944.2	373.8	95.9	58.1	50.0
62.5°	2907.1	2685.3	2488.6	2275.1	2024.3	1603.9	964.5	371.8	83.8	43.9	35.2
65°	3263.2	2864.5	2546.8	2279.1	1983.7	1548.5	912.5	341.3	71.0	35.8	29.0
67.5°	3348.4	2767.8	2318.3	1977.0	1657.3	1205.2	669.8	256.9	55.4	29.8	25.7
69°	3162.5	2460.3	1920.9	1533.6	1205.8	799.6	414.4	162.2	42.5	27.1	23.6
70°	2909.0	2139.9	1564.7	1230.8	892.9	561.7	290.0	114.2	34.5	25.0	21.7
72.5°	1871.6	1124.0	769.1	535.3	368.4	223.7	113.6	51.4	26.3	20.9	17.6
75°	725.9	415.7	301.4	229.1	179.1	124.4	68.9	33.1	22.3	17.6	13.5
77.5°	357.5	273.7	223.7	153.4	89.2	55.4	37.2	25.7	18.2	12.8	8.8
80°	282.5	187.9	112.2	69.6	52.7	39.9	28.4	20.9	13.5	8.1	6.1
82.5°	144.7	79.1	58.1	47.3	39.2	31.1	23.0	14.9	8.8	5.4	4.7
85°	45.3	33.1	29.8	29.0	27.1	22.3	16.2	9.5	5.4	3.4	3.4
87.5°	3.4	4.7	6.1	4.7	5.4	4.7	6.1	4.1	2.7	2.7	2.0
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°	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6
2.5°	283.9	275.8	268.3	263.6	254.8	251.5	248.1	246.7	240.6	242.0	236.6
5°	248.1	233.9	223.0	212.2	202.1	194.7	188.6	181.1	175.1	172.3	166.9
7.5°	215.6	197.4	183.2	171.7	159.5	150.1	142.0	136.5	131.2	125.7	123.0
10°	187.2	167.6	151.4	139.9	128.4	120.3	114.2	110.2	106.8	104.8	104.1
12.5°	160.9	142.0	127.1	116.9	108.2	104.1	101.4	99.4	98.7	98.0	98.0
15°	140.6	121.7	110.2	102.7	98.7	96.7	95.9	94.6	93.3	92.6	92.6
17.5°	121.7	107.5	99.4	95.3	93.3	91.9	90.6	89.2	87.9	87.2	87.2
20°	108.8	97.3	93.3	90.6	88.6	87.2	85.1	83.8	83.2	82.4	81.8
22.5°	98.7	91.3	88.6	86.5	83.8	81.8	80.5	79.1	77.8	77.0	76.4
25°	91.3	86.5	84.5	81.8	79.1	77.0	75.0	73.0	71.6	71.0	69.6
27.5°	85.8	82.4	79.7	76.4	73.7	71.6	69.6	67.6	66.2	64.9	64.2
30°	81.1	77.8	74.3	71.6	68.3	66.2	63.5	61.5	60.8	59.5	58.1
32.5°	76.4	73.0	69.6	66.2	62.8	60.2	58.8	56.1	54.8	54.1	52.7
35°	71.0	67.6	63.5	60.8	57.5	54.8	52.7	50.7	49.3	48.0	47.3
37.5°	66.2	62.2	58.1	54.8	52.0	49.3	47.3	45.3	43.9	42.5	41.9
40°	60.8	56.8	52.7	49.3	46.6	44.6	42.5	40.6	39.2	38.5	38.5
42.5°	56.1	51.4	47.3	44.6	42.5	39.9	37.9	35.8	35.2	34.5	35.2
45°	51.4	46.6	43.3	40.6	38.5	35.8	33.8	32.4	31.7	32.4	33.1
47.5°	47.3	42.5	39.2	37.2	35.2	33.1	31.1	29.8	29.8	31.1	32.4
50°	43.3	38.5	35.8	34.5	32.4	30.4	27.7	27.1	27.7	29.0	30.4
52.5°	39.2	33.8	31.7	31.1	29.0	27.1	25.0	24.4	25.0	26.3	25.7
55°	35.2	29.8	29.0	28.4	26.3	23.6	21.7	21.7	21.7	20.9	19.6
57.5°	33.8	26.3	25.7	25.0	23.0	20.3	18.9	17.6	16.9	14.9	14.2
60°	35.2	23.6	23.6	22.3	20.3	17.6	15.5	13.5	12.1	10.8	10.8
62.5°	28.4	21.7	20.9	19.6	16.9	14.2	12.1	10.1	9.5	8.8	8.8
65°	23.0	19.6	18.2	16.2	14.2	11.5	9.5	8.1	7.4	7.4	8.1
67.5°	20.9	17.6	15.5	13.5	11.5	8.8	7.4	6.8	6.8	7.4	7.4
69°	19.6	16.2	14.2	12.1	10.1	8.1	6.8	6.8	6.8	6.8	7.4
70°	18.2	15.5	13.5	11.5	8.8	6.8	6.1	6.1	6.8	6.8	7.4
72.5°	14.2	12.1	11.5	9.5	6.8	6.1	5.4	6.1	6.1	6.8	6.8
75°	10.8	8.8	8.8	7.4	5.4	4.7	4.7	5.4	5.4	6.1	6.1
77.5°	7.4	6.1	6.1	5.4	4.7	4.1	4.1	4.7	5.4	5.4	6.1
80°	5.4	4.7	4.1	4.7	4.1	3.4	4.1	4.7	4.7	5.4	5.4
82.5°	4.1	4.1	4.1	4.1	3.4	3.4	4.1	4.1	4.7	5.4	5.4
85°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.1	4.1	4.7	4.7
87.5°	2.0	2.0	2.0	2.7	2.7	3.4	3.4	3.4	3.4	4.1	4.1
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):

	165°	170°	175°	180°
0°	311.6	311.6	311.6	311.6
2.5°	235.2	234.5	231.8	232.5
5°	164.9	160.9	163.6	162.9
7.5°	121.0	120.3	119.6	121.0
10°	103.4	103.4	102.7	103.4
12.5°	97.3	97.3	97.3	97.3
15°	92.6	92.6	91.9	91.9
17.5°	87.2	87.2	87.2	86.5
20°	81.8	81.1	81.1	81.1
22.5°	75.7	75.0	75.0	75.0
25°	69.6	68.9	68.9	68.9
27.5°	63.5	62.8	62.2	62.2
30°	57.5	56.8	56.1	56.1
32.5°	51.4	50.7	50.0	50.0
35°	46.0	46.0	45.3	44.6
37.5°	41.2	41.2	41.2	41.2
40°	37.9	38.5	38.5	38.5
42.5°	35.8	36.5	37.2	37.9
45°	34.5	35.8	36.5	36.5
47.5°	33.8	34.5	35.2	35.2
50°	31.1	30.4	30.4	30.4
52.5°	25.0	23.6	23.0	22.3
55°	18.2	17.6	16.2	16.2
57.5°	12.8	12.8	12.1	12.1
60°	10.1	10.1	9.5	10.1
62.5°	8.8	8.8	8.8	8.8
65°	8.1	8.1	8.1	8.1
67.5°	8.1	8.1	8.1	8.1
69°	7.4	7.4	7.4	7.4
70°	7.4	7.4	7.4	7.4
72.5°	6.8	6.8	6.8	6.8
75°	6.1	6.8	6.8	6.8
77.5°	6.1	6.1	6.1	6.1
80°	5.4	5.4	6.1	6.1
82.5°	5.4	5.4	5.4	5.4
85°	4.7	4.7	5.4	5.4
87.5°	4.1	4.1	4.7	4.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)