

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: P165456

Luminaire Tested: **VST-E02-LED-E-U-SL4-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165456
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-7030
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, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3672.6 lumens
Efficiency: N/A
Efficacy: 70.5 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



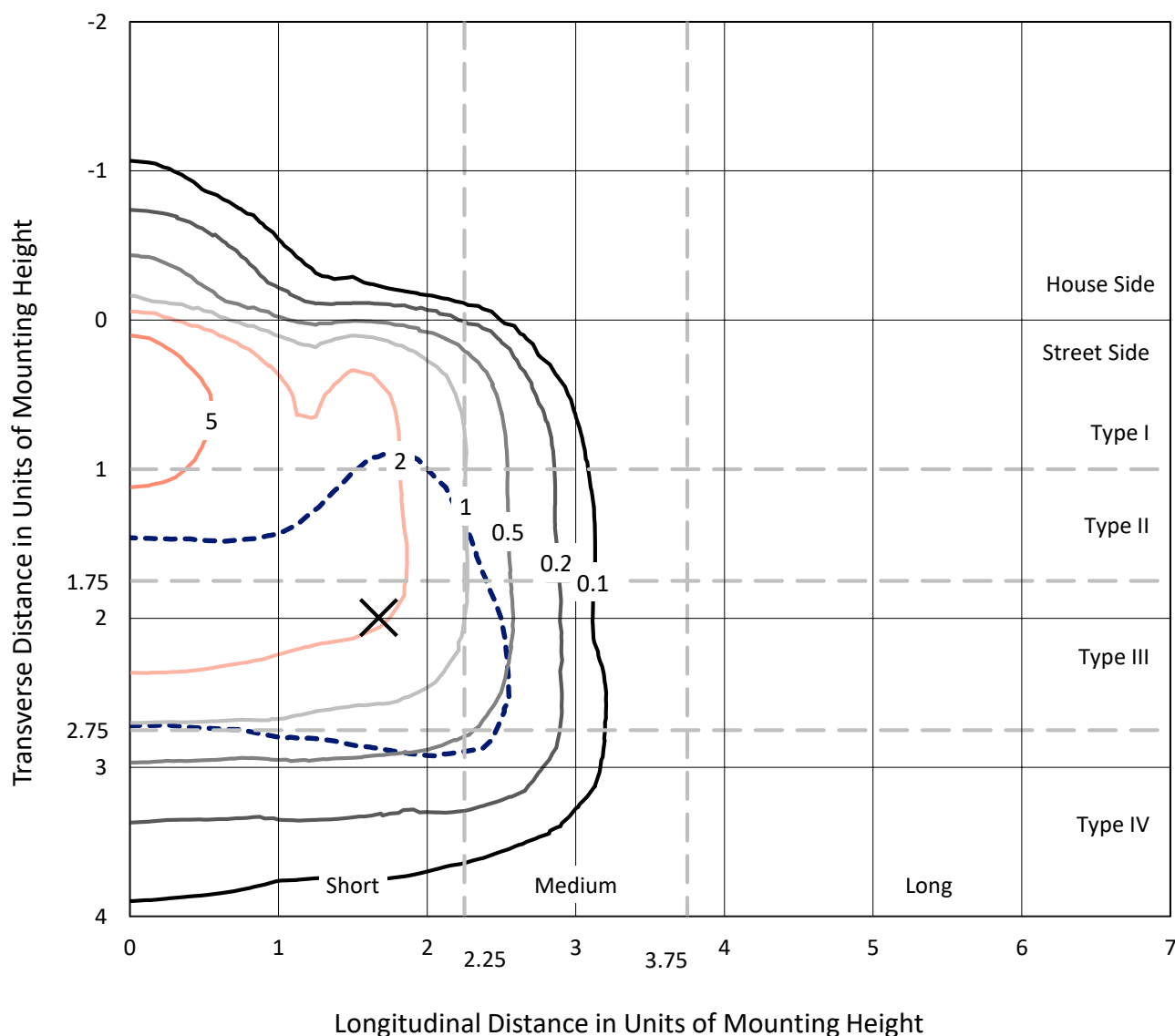
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

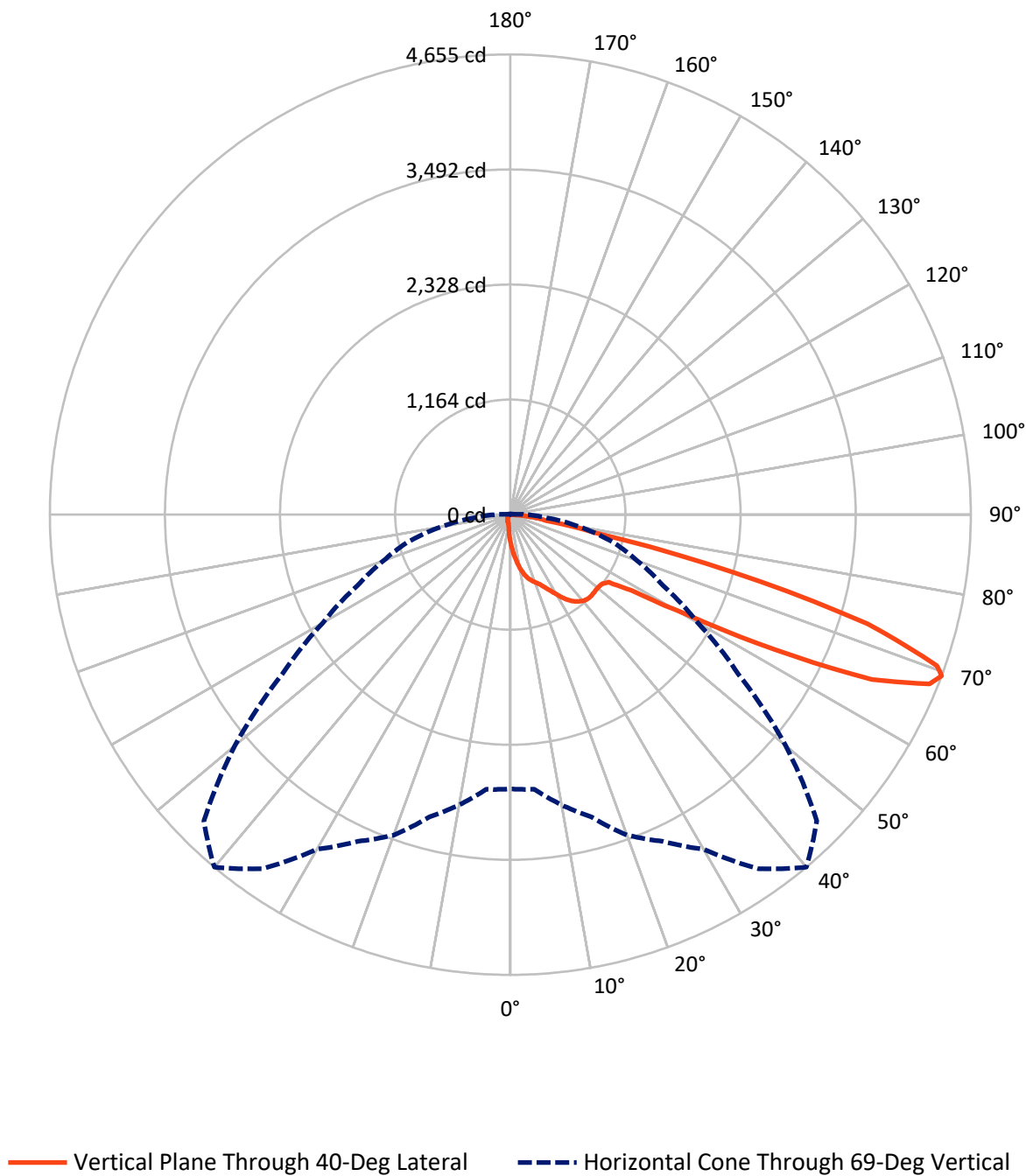


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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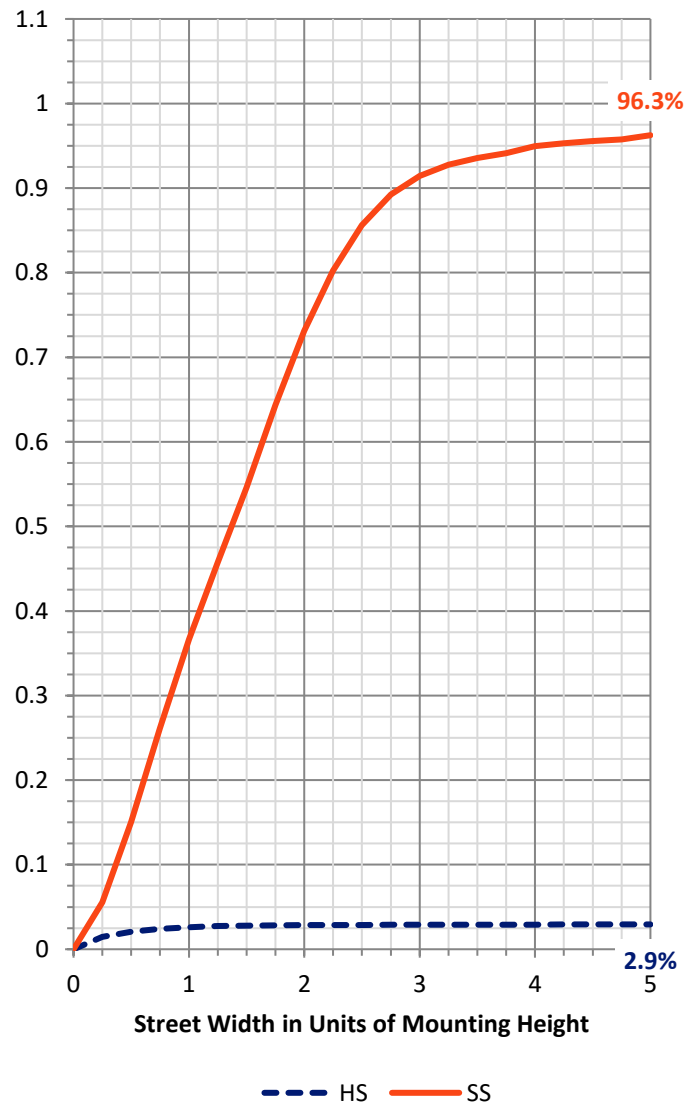
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	109.4	0.0	109.4
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3563.2	0.0	3563.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	3672.6	0.0	3672.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.5	0.8
10°-20°	98.3	2.7
20°-30°	188.1	5.1
30°-40°	312.8	8.5
40°-50°	423.3	11.5
50°-60°	662.0	18.0
60°-70°	1361.1	37.1
70°-80°	547.7	14.9
80°-90°	50.7	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°	3672.6	100.0
0°-180°	3672.6	100.0

Coefficient of Utilization



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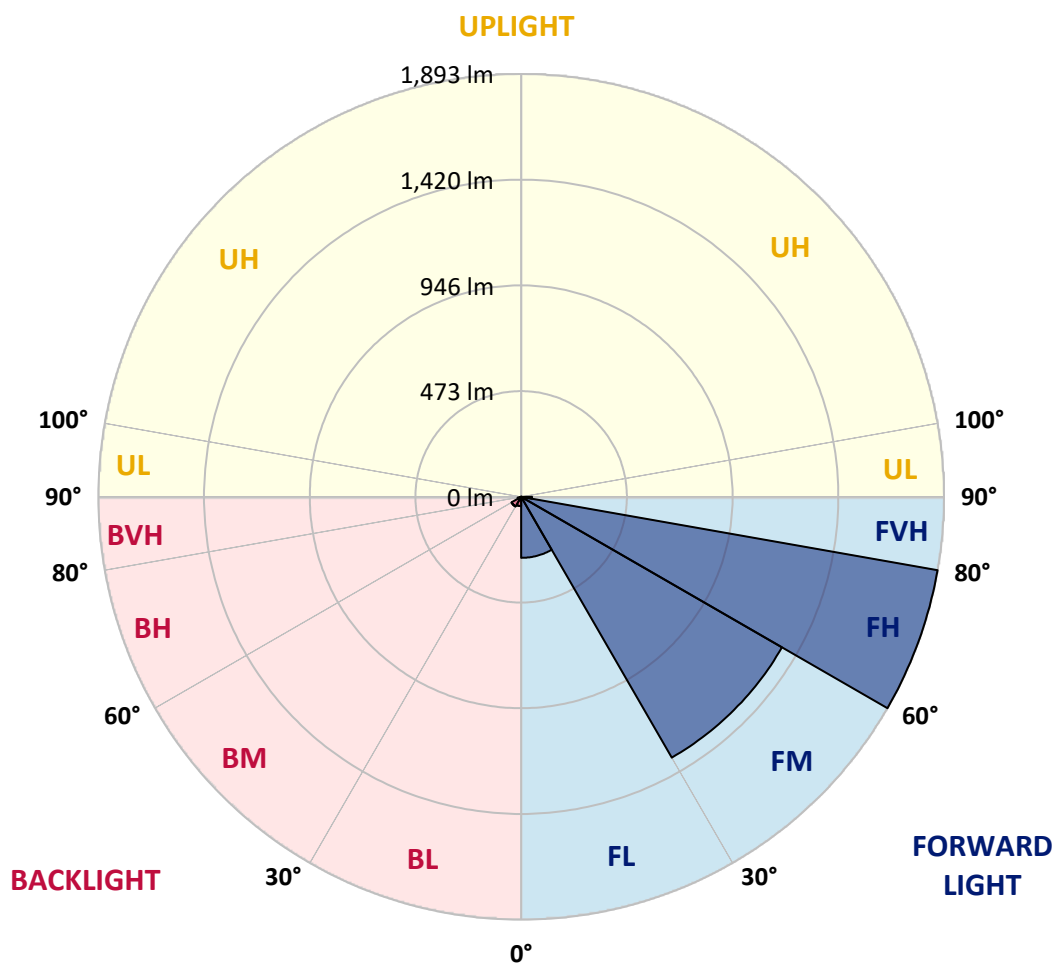
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	273.3	7.4			
FM	(30°-60°)	1348.3	36.7			
FH	(60°-80°)	1892.9	51.5			G2/5000
FVH	(80°-90°)	48.8	1.3			G1/100
BL	(0°-30°)	41.6	1.1	B0/110		
BM	(30°-60°)	49.9	1.4	B0/220		
BH	(60°-80°)	16.0	0.4	B0/110		G0/110
BVH	(80°-90°)	1.9	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°	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4
2.5°	370.0	365.8	361.0	361.0	355.0	355.0	351.4	341.8	340.6	335.1	329.7
5°	472.3	468.7	462.7	457.2	452.5	444.0	437.9	426.5	413.9	401.9	391.1
7.5°	572.2	570.4	559.5	557.7	549.9	536.0	524.0	507.2	485.5	468.7	448.8
10°	664.8	660.6	658.1	647.9	636.5	621.5	602.8	582.4	557.1	530.6	502.3
12.5°	738.2	735.8	724.9	720.7	708.7	693.7	670.2	643.7	618.5	584.2	551.1
15°	793.0	788.8	781.5	774.9	760.4	747.2	725.6	696.7	666.0	628.7	589.0
17.5°	838.7	830.9	829.0	818.8	803.8	788.1	764.1	737.6	701.5	664.2	620.9
20°	900.0	889.2	885.6	870.5	853.1	831.4	803.8	770.7	732.8	691.9	647.3
22.5°	972.2	964.4	956.6	943.3	921.1	890.4	850.1	814.0	765.8	720.7	672.6
25°	1074.5	1067.9	1055.2	1037.2	1009.5	972.8	924.1	871.1	814.6	756.8	700.3
27.5°	1173.8	1167.7	1158.7	1144.9	1113.6	1073.3	1013.1	945.8	874.1	804.4	741.8
30°	1267.0	1261.6	1252.6	1238.8	1211.0	1171.4	1103.3	1031.2	942.1	860.9	785.8
32.5°	1367.5	1365.7	1355.5	1335.6	1311.5	1258.0	1184.0	1106.4	1016.2	922.3	834.4
35°	1481.2	1467.4	1457.8	1437.8	1397.0	1339.8	1253.2	1168.4	1073.3	977.0	879.0
37.5°	1577.5	1564.3	1552.2	1526.9	1477.0	1404.2	1306.1	1212.8	1114.8	1016.8	916.9
40°	1647.8	1641.2	1626.8	1593.7	1537.7	1451.2	1345.2	1243.6	1144.9	1046.2	947.5
42.5°	1700.2	1690.0	1673.8	1639.4	1573.3	1474.6	1360.9	1256.2	1158.7	1064.3	967.4
45°	1719.4	1711.0	1696.0	1658.7	1587.1	1481.2	1360.3	1252.6	1159.3	1069.7	980.6
47.5°	1708.0	1699.6	1686.4	1651.4	1581.1	1473.4	1349.5	1242.4	1153.3	1071.5	992.6
50°	1670.1	1665.3	1655.0	1625.6	1562.4	1458.3	1339.8	1237.0	1152.1	1080.5	1009.5
52.5°	1666.5	1663.5	1650.8	1621.4	1557.0	1453.5	1338.6	1240.0	1162.3	1091.9	1021.6
55°	2036.5	1993.8	1898.1	1816.9	1683.4	1524.5	1399.4	1288.7	1205.6	1137.1	1087.7
57.5°	2894.4	2830.7	2704.9	2550.3	2243.5	1942.0	1700.8	1526.3	1440.3	1409.0	1427.6
60°	3296.3	3284.9	3265.0	3191.6	3034.6	2775.3	2486.5	2174.3	2049.1	2038.3	2076.2
62.5°	3487.0	3479.8	3485.8	3476.8	3428.0	3352.3	3269.2	3134.5	3010.5	2930.5	2760.8
65°	3574.9	3579.7	3613.9	3641.0	3647.0	3666.9	3727.7	3895.5	4018.3	3811.9	3340.8
67.5°	3351.7	3379.9	3458.8	3557.4	3672.9	3784.8	3965.3	4319.0	4571.2	4328.7	3659.7
69°	2774.7	2788.6	2981.0	3167.0	3449.1	3646.4	3908.2	4372.0	4655.4	4381.6	3634.4
70°	2184.5	2197.1	2403.5	2656.1	3133.3	3387.1	3729.5	4282.4	4576.6	4311.2	3504.5
72.5°	985.4	967.4	1040.2	1175.6	1694.2	2097.3	2695.9	3469.6	3775.8	3453.9	2621.9
75°	688.3	680.5	688.3	688.9	769.5	992.6	1252.6	1880.6	2325.8	2007.1	1252.6
77.5°	533.0	527.6	522.2	516.2	525.8	589.0	614.2	667.2	866.3	819.4	477.7
80°	421.7	416.9	430.1	425.9	425.9	433.2	428.3	408.5	371.2	344.1	308.0
82.5°	196.1	197.3	197.3	214.1	258.1	301.4	315.2	295.4	262.3	223.2	179.9
85°	18.7	21.1	35.5	54.8	108.9	122.7	123.4	102.2	102.2	80.6	65.0
87.5°	0.0	0.6	0.6	0.6	5.4	15.1	12.7	3.6	1.8	1.8	3.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4
2.5°	320.1	318.2	311.0	303.8	297.2	290.0	283.4	276.7	269.5	264.1	257.5
5°	374.2	361.0	346.0	331.5	317.0	302.0	286.4	272.5	258.1	244.9	232.2
7.5°	428.9	403.1	382.6	356.8	333.3	309.8	288.2	265.9	245.5	226.2	208.2
10°	475.3	444.0	412.1	379.0	345.3	314.0	284.0	257.5	230.4	206.9	184.7
12.5°	513.2	473.5	434.4	392.9	355.0	315.2	278.0	246.1	214.1	187.7	164.8
15°	547.4	501.8	454.8	406.7	358.6	313.4	271.9	232.2	199.7	169.7	143.8
17.5°	575.2	522.8	469.9	415.7	364.0	311.0	264.1	222.6	184.7	153.4	128.2
20°	599.2	544.4	487.3	426.5	367.6	310.4	257.5	210.6	171.5	138.4	113.7
22.5°	621.5	566.7	505.4	440.4	373.0	309.8	251.5	201.5	160.0	127.0	102.2
25°	646.7	589.0	524.6	454.8	382.6	312.2	247.9	194.3	149.8	116.1	93.2
27.5°	675.1	614.2	547.4	472.9	395.3	317.0	246.7	186.5	140.8	105.9	86.0
30°	714.7	644.3	570.4	490.9	406.7	322.5	245.5	181.7	131.8	98.0	78.8
32.5°	749.6	673.9	595.6	509.6	419.3	327.9	244.9	175.1	123.4	90.2	73.4
35°	786.3	700.9	617.3	527.6	430.1	333.9	244.3	170.2	115.5	82.4	68.0
37.5°	818.2	723.7	634.1	543.2	442.2	339.3	244.9	166.0	108.3	75.8	63.2
40°	845.3	747.2	652.7	557.7	454.8	347.8	245.5	161.8	101.1	69.8	59.0
42.5°	869.3	769.5	672.6	574.0	469.3	357.4	249.1	158.2	95.0	64.4	54.8
45°	888.0	790.0	694.3	596.8	492.7	373.0	255.7	155.8	89.0	59.6	51.1
47.5°	907.3	820.0	731.0	632.9	527.0	397.7	267.1	155.2	84.2	55.9	48.1
50°	933.7	850.1	763.4	669.6	558.3	422.9	280.9	155.8	78.2	52.4	45.1
52.5°	953.0	880.7	805.6	733.4	632.9	499.9	334.5	166.6	75.2	49.3	41.5
55°	1066.7	1054.0	1055.8	1067.9	990.3	850.7	559.5	240.7	88.4	55.9	40.9
57.5°	1504.1	1548.5	1574.5	1573.9	1445.7	1199.0	751.4	309.2	98.7	65.0	48.7
60°	2079.2	2045.5	1998.0	1880.6	1710.4	1368.7	840.5	332.7	85.4	51.7	44.5
62.5°	2587.6	2390.2	2215.1	2025.1	1801.9	1427.6	858.5	330.9	74.6	39.1	31.3
65°	2904.7	2549.7	2266.9	2028.7	1765.7	1378.3	812.2	303.8	63.2	31.9	25.9
67.5°	2980.4	2463.7	2063.6	1759.7	1475.2	1072.7	596.2	228.6	49.3	26.5	22.9
69°	2815.0	2189.9	1709.8	1365.1	1073.3	711.7	368.8	144.4	37.9	24.1	21.1
70°	2589.4	1904.8	1392.7	1095.5	794.8	499.9	258.1	101.7	30.7	22.3	19.3
72.5°	1665.9	1000.5	684.7	476.5	327.9	199.1	101.1	45.7	23.5	18.7	15.7
75°	646.1	370.0	268.3	203.9	159.4	110.7	61.4	29.5	19.9	15.7	12.0
77.5°	318.2	243.7	199.1	136.6	79.4	49.3	33.1	22.9	16.3	11.5	7.8
80°	251.5	167.3	99.9	62.0	46.9	35.5	25.3	18.7	12.0	7.3	5.4
82.5°	128.8	70.4	51.7	42.1	34.9	27.7	20.5	13.2	7.8	4.8	4.2
85°	40.3	29.5	26.5	25.9	24.1	19.9	14.5	8.5	4.8	3.0	3.0
87.5°	3.0	4.2	5.4	4.2	4.8	4.2	5.4	3.6	2.4	2.4	1.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4	277.4
2.5°	252.7	245.5	238.9	234.6	226.8	223.8	220.8	219.6	214.1	215.3	210.6
5°	220.8	208.2	198.5	188.9	179.9	173.3	167.8	161.2	155.8	153.4	148.6
7.5°	191.9	175.7	163.1	152.8	142.0	133.6	126.4	121.5	116.7	111.9	109.5
10°	166.6	149.2	134.8	124.6	114.3	107.1	101.7	98.0	95.0	93.2	92.6
12.5°	143.2	126.4	113.1	104.1	96.2	92.6	90.2	88.4	87.8	87.2	87.2
15°	125.1	108.3	98.0	91.4	87.8	86.0	85.4	84.2	83.0	82.4	82.4
17.5°	108.3	95.6	88.4	84.8	83.0	81.8	80.6	79.4	78.2	77.6	77.6
20°	96.8	86.6	83.0	80.6	78.8	77.6	75.8	74.6	74.0	73.4	72.8
22.5°	87.8	81.2	78.8	77.0	74.6	72.8	71.6	70.4	69.2	68.6	68.0
25°	81.2	77.0	75.2	72.8	70.4	68.6	66.8	65.0	63.8	63.2	62.0
27.5°	76.4	73.4	71.0	68.0	65.6	63.8	62.0	60.2	59.0	57.8	57.1
30°	72.2	69.2	66.2	63.8	60.8	59.0	56.6	54.8	54.1	52.9	51.7
32.5°	68.0	65.0	62.0	59.0	55.9	53.6	52.4	49.9	48.7	48.1	46.9
35°	63.2	60.2	56.6	54.1	51.1	48.7	46.9	45.1	43.9	42.7	42.1
37.5°	59.0	55.3	51.7	48.7	46.3	43.9	42.1	40.3	39.1	37.9	37.3
40°	54.1	50.5	46.9	43.9	41.5	39.7	37.9	36.1	34.9	34.3	34.3
42.5°	49.9	45.7	42.1	39.7	37.9	35.5	33.7	31.9	31.3	30.7	31.3
45°	45.7	41.5	38.5	36.1	34.3	31.9	30.1	28.9	28.3	28.9	29.5
47.5°	42.1	37.9	34.9	33.1	31.3	29.5	27.7	26.5	26.5	27.7	28.9
50°	38.5	34.3	31.9	30.7	28.9	27.1	24.7	24.1	24.7	25.9	27.1
52.5°	34.9	30.1	28.3	27.7	25.9	24.1	22.3	21.7	22.3	23.5	22.9
55°	31.3	26.5	25.9	25.3	23.5	21.1	19.3	19.3	19.3	18.7	17.5
57.5°	30.1	23.5	22.9	22.3	20.5	18.1	16.9	15.7	15.1	13.2	12.7
60°	31.3	21.1	21.1	19.9	18.1	15.7	13.9	12.0	10.8	9.6	9.6
62.5°	25.3	19.3	18.7	17.5	15.1	12.7	10.8	9.0	8.5	7.8	7.8
65°	20.5	17.5	16.3	14.5	12.7	10.2	8.5	7.3	6.6	6.6	7.3
67.5°	18.7	15.7	13.9	12.0	10.2	7.8	6.6	6.0	6.0	6.6	6.6
69°	17.5	14.5	12.7	10.8	9.0	7.3	6.0	6.0	6.0	6.0	6.6
70°	16.3	13.9	12.0	10.2	7.8	6.0	5.4	5.4	6.0	6.0	6.6
72.5°	12.7	10.8	10.2	8.5	6.0	5.4	4.8	5.4	5.4	6.0	6.0
75°	9.6	7.8	7.8	6.6	4.8	4.2	4.2	4.8	4.8	5.4	5.4
77.5°	6.6	5.4	5.4	4.8	4.2	3.6	3.6	4.2	4.8	4.8	5.4
80°	4.8	4.2	3.6	4.2	3.6	3.0	3.6	4.2	4.2	4.8	4.8
82.5°	3.6	3.6	3.6	3.6	3.0	3.0	3.6	3.6	4.2	4.8	4.8
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.6	3.6	4.2	4.2
87.5°	1.8	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0	3.6	3.6
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):

	165°	170°	175°	180°
0°	277.4	277.4	277.4	277.4
2.5°	209.4	208.7	206.3	206.9
5°	146.8	143.2	145.6	145.0
7.5°	107.7	107.1	106.5	107.7
10°	92.0	92.0	91.4	92.0
12.5°	86.6	86.6	86.6	86.6
15°	82.4	82.4	81.8	81.8
17.5°	77.6	77.6	77.6	77.0
20°	72.8	72.2	72.2	72.2
22.5°	67.4	66.8	66.8	66.8
25°	62.0	61.4	61.4	61.4
27.5°	56.6	55.9	55.3	55.3
30°	51.1	50.5	49.9	49.9
32.5°	45.7	45.1	44.5	44.5
35°	40.9	40.9	40.3	39.7
37.5°	36.7	36.7	36.7	36.7
40°	33.7	34.3	34.3	34.3
42.5°	31.9	32.5	33.1	33.7
45°	30.7	31.9	32.5	32.5
47.5°	30.1	30.7	31.3	31.3
50°	27.7	27.1	27.1	27.1
52.5°	22.3	21.1	20.5	19.9
55°	16.3	15.7	14.5	14.5
57.5°	11.5	11.5	10.8	10.8
60°	9.0	9.0	8.5	9.0
62.5°	7.8	7.8	7.8	7.8
65°	7.3	7.3	7.3	7.3
67.5°	7.3	7.3	7.3	7.3
69°	6.6	6.6	6.6	6.6
70°	6.6	6.6	6.6	6.6
72.5°	6.0	6.0	6.0	6.0
75°	5.4	6.0	6.0	6.0
77.5°	5.4	5.4	5.4	5.4
80°	4.8	4.8	5.4	5.4
82.5°	4.8	4.8	4.8	4.8
85°	4.2	4.2	4.8	4.8
87.5°	3.6	3.6	4.2	4.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)