

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: P165237

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165237
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3426.2 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-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



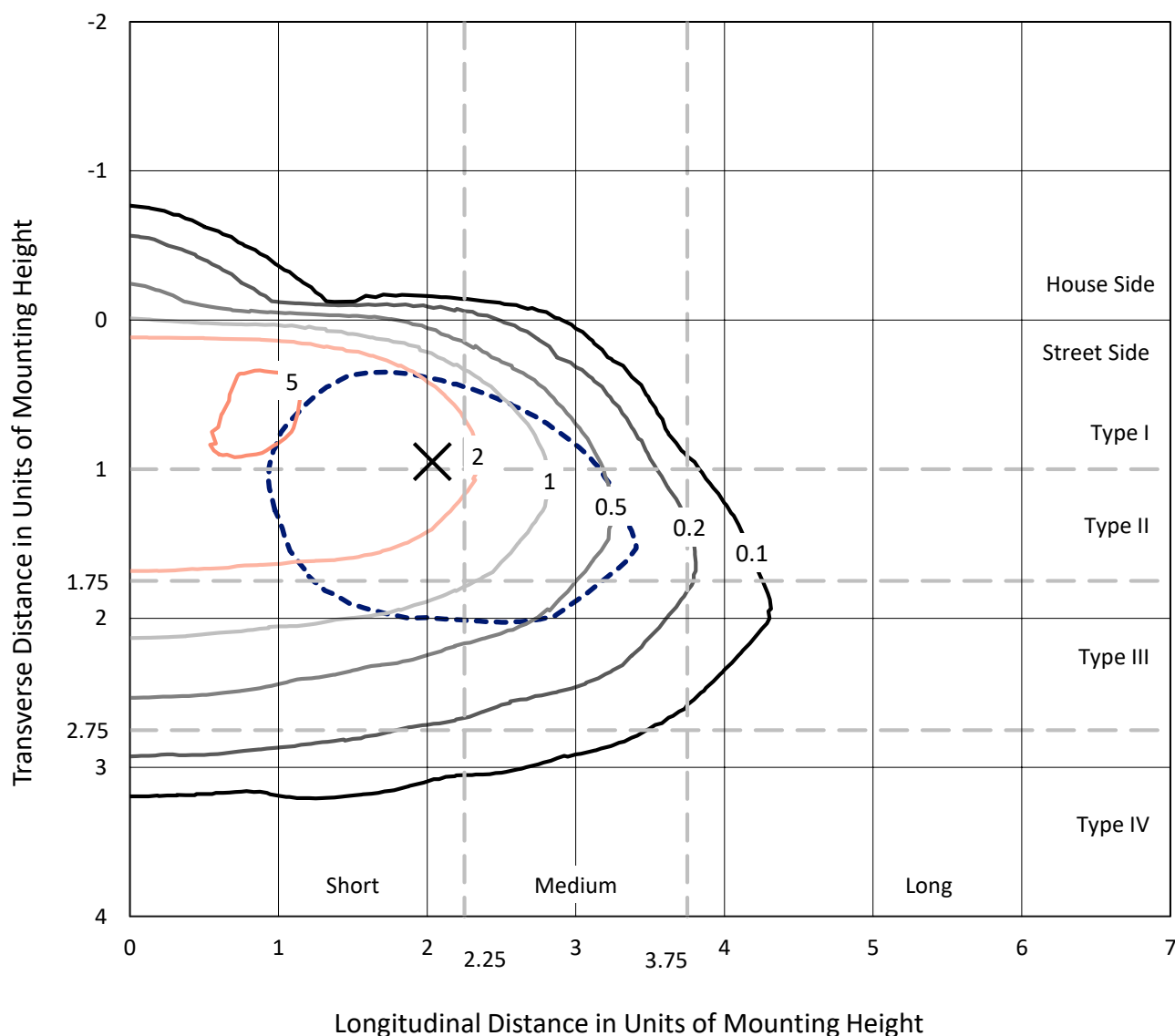
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

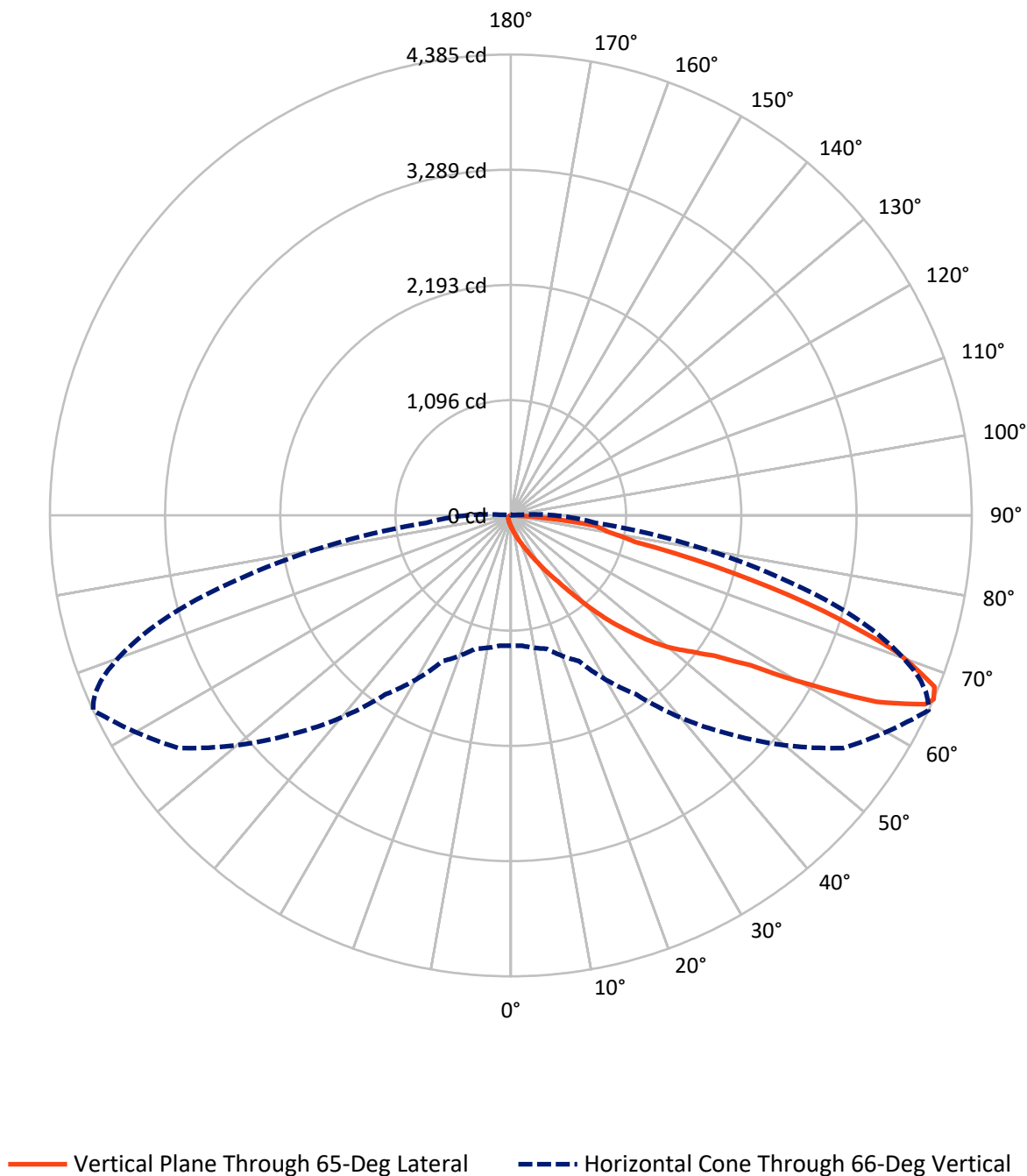


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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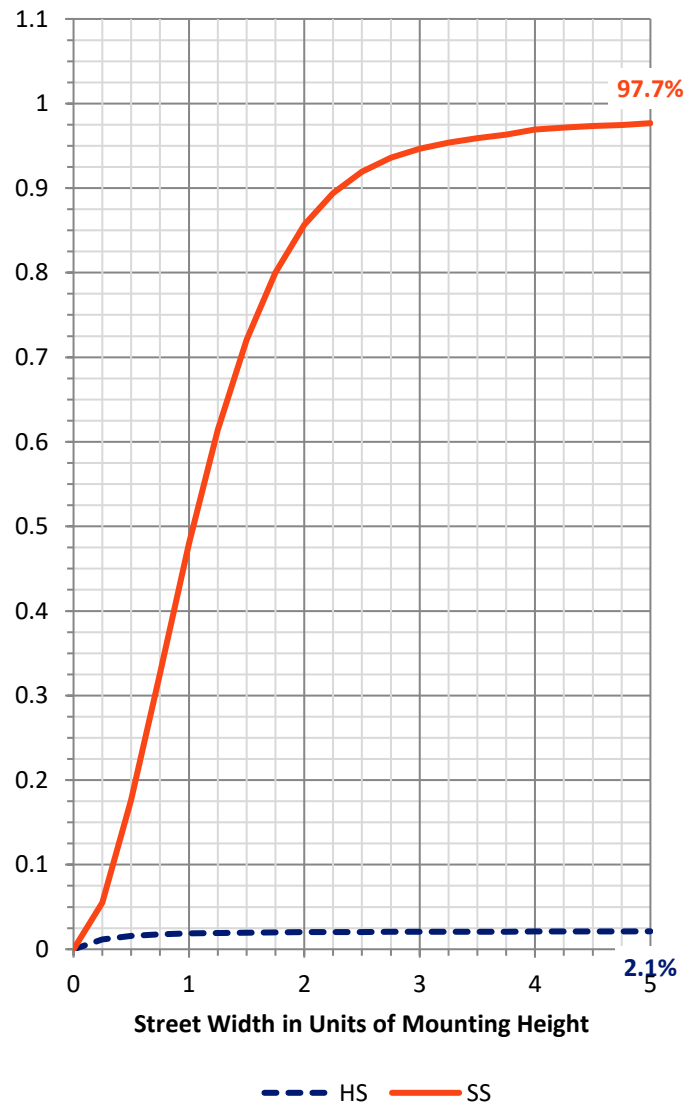
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	74.3	0.0	74.3
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	3352.0	0.0	3352.0
	% Fixture	97.8	0.0	97.8
Total	Lumens	3426.2	0.0	3426.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.6	0.3
10°-20°	49.1	1.4
20°-30°	105.9	3.1
30°-40°	226.1	6.6
40°-50°	500.0	14.6
50°-60°	847.4	24.7
60°-70°	1130.7	33.0
70°-80°	498.1	14.5
80°-90°	57.4	1.7
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°	3426.2	100.0
0°-180°	3426.2	100.0

Coefficient of Utilization



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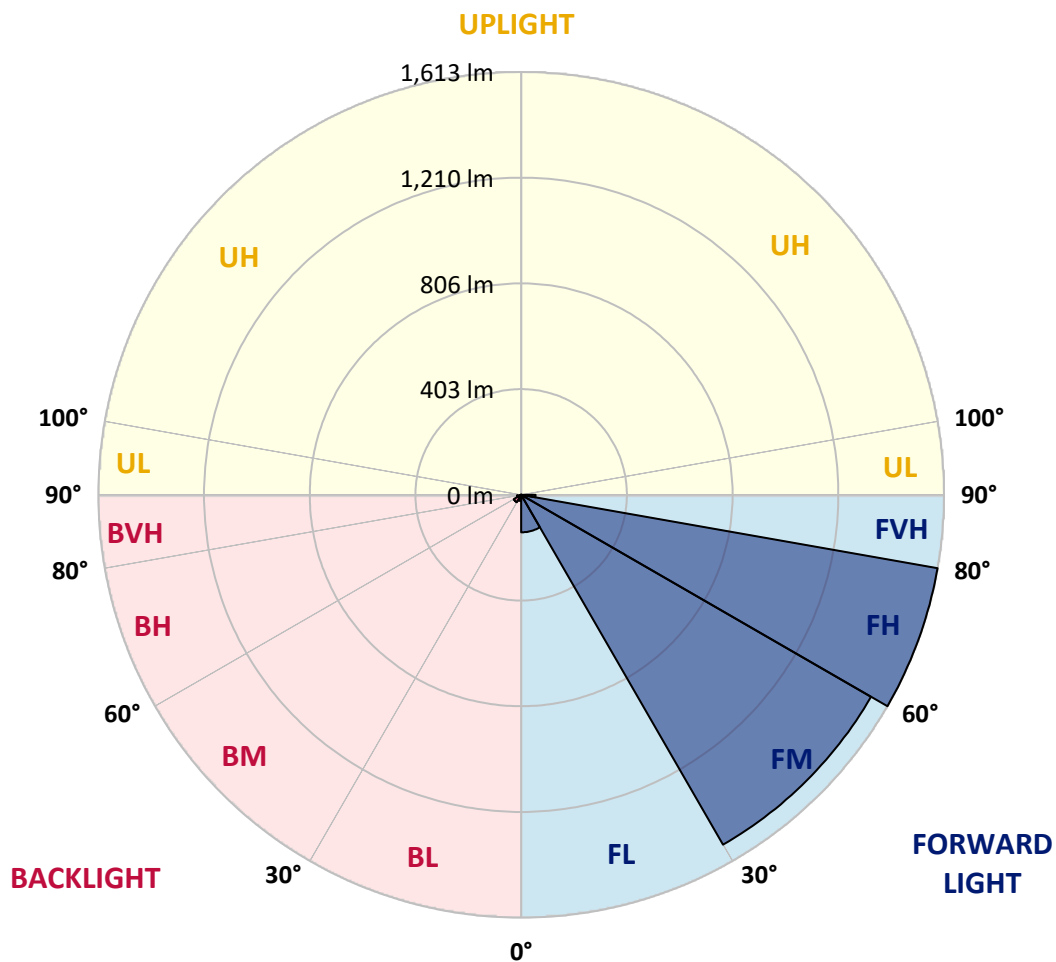
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	143.1	4.2			
FM	(30°-60°)	1540.9	45.0			
FH	(60°-80°)	1612.9	47.1			G1/1800
FVH	(80°-90°)	55.1	1.6			G1/100
BL	(0°-30°)	23.4	0.7	B0/110		
BM	(30°-60°)	32.6	1.0	B0/220		
BH	(60°-80°)	15.9	0.5	B0/110		G0/110
BVH	(80°-90°)	2.3	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
2.5°	130.4	129.8	127.1	127.1	123.2	120.5	117.2	113.9	113.9	113.3	112.6
5°	172.6	168.7	167.9	160.7	154.8	146.2	138.3	127.8	126.5	125.2	124.5
7.5°	219.4	218.7	212.8	204.2	192.4	176.5	160.7	143.6	140.9	139.6	137.0
10°	280.0	276.7	268.7	254.2	236.5	215.4	189.7	162.7	159.4	156.8	155.5
12.5°	337.9	332.0	327.4	308.9	286.5	255.5	224.6	185.8	183.1	179.8	174.5
15°	391.9	386.6	378.8	362.9	337.9	299.0	262.9	215.4	208.8	204.2	200.2
17.5°	434.1	430.8	421.6	403.8	376.7	342.5	299.0	245.7	240.4	234.5	227.2
20°	474.3	469.6	455.2	430.8	401.8	375.4	341.9	285.2	278.0	270.7	262.9
22.5°	512.5	507.8	484.1	443.9	413.0	401.8	389.9	330.0	318.8	312.9	305.0
25°	565.9	556.0	519.1	455.2	413.7	422.2	442.6	388.0	377.5	368.9	356.3
27.5°	637.6	624.4	566.5	471.7	416.3	444.7	503.2	458.5	447.2	437.3	423.5
30°	718.6	710.1	640.9	511.1	435.4	477.5	571.1	548.0	534.9	523.0	506.6
32.5°	800.3	788.5	719.9	586.3	486.8	541.4	656.1	652.1	635.0	623.8	606.0
35°	872.1	866.2	815.5	709.4	604.0	653.5	769.4	773.9	758.8	746.9	727.2
37.5°	920.9	920.9	911.0	841.8	790.4	827.3	936.0	936.7	921.5	894.5	884.6
40°	945.9	953.1	988.7	1001.9	999.2	1046.7	1154.7	1142.8	1130.3	1116.5	1083.5
42.5°	997.3	1003.9	1079.6	1170.5	1229.8	1292.3	1366.8	1362.8	1347.7	1322.7	1292.3
45°	1084.3	1092.8	1183.0	1327.3	1449.1	1538.1	1585.5	1567.0	1551.9	1528.2	1512.4
47.5°	1194.9	1211.3	1313.5	1492.0	1638.8	1785.7	1835.1	1786.4	1773.2	1754.8	1729.1
50°	1312.8	1328.6	1437.3	1641.5	1807.5	1982.7	2065.0	1982.7	1963.6	1957.6	1928.7
52.5°	1414.9	1428.1	1532.8	1756.7	1936.6	2142.1	2261.9	2153.3	2139.4	2119.7	2098.6
55°	1475.5	1486.0	1584.2	1812.1	2024.2	2285.7	2452.4	2356.9	2336.4	2328.5	2298.2
57.5°	1495.9	1506.4	1594.7	1819.3	2071.6	2416.7	2683.6	2686.9	2662.5	2634.2	2624.9
60°	1495.9	1507.7	1582.2	1801.6	2117.7	2556.4	2991.8	3266.5	3213.8	3208.5	3174.9
62.5°	1434.0	1445.2	1520.3	1746.9	2179.6	2744.8	3421.3	3906.1	3890.9	3856.7	3801.4
65°	1299.6	1306.2	1379.9	1607.2	2155.9	2918.0	3793.4	4331.6	4307.2	4240.0	4168.9
66°	1239.0	1244.3	1313.5	1527.5	2078.2	2941.7	3859.3	4385.0	4344.8	4288.1	4207.7
67.5°	1151.4	1160.6	1209.4	1379.3	1891.8	2859.4	3817.9	4347.4	4312.5	4244.0	4163.6
70°	768.7	762.1	934.0	1058.5	1441.3	2329.9	3425.2	3903.4	3904.1	3871.9	3839.6
72.5°	364.9	368.9	418.9	651.4	943.3	1556.5	2726.3	3115.6	3160.4	3102.5	3062.3
75°	262.1	268.1	298.4	398.5	562.5	934.0	1767.3	2179.0	2180.3	2077.5	1986.0
77.5°	76.4	79.7	112.0	245.7	421.6	630.4	1015.0	1211.3	1183.0	1109.2	1040.1
80°	31.6	31.6	32.9	78.4	169.3	428.2	710.1	932.7	929.5	901.1	860.3
82.5°	11.8	12.5	15.8	32.3	40.2	105.4	473.6	809.6	807.5	767.4	738.4
85°	1.3	1.3	4.0	13.9	15.2	19.7	94.9	357.0	355.0	357.0	312.9
87.5°	0.0	0.0	0.7	1.3	2.0	2.6	4.0	13.9	15.2	14.5	13.1
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
2.5°	112.6	111.3	111.3	110.7	110.7	110.7	110.0	109.4	109.4	108.7	108.1
5°	123.2	121.9	121.2	119.9	119.2	118.6	117.2	116.6	115.3	114.6	113.9
7.5°	135.7	133.0	132.4	130.4	128.5	127.1	125.8	123.8	122.5	119.9	119.2
10°	151.5	148.2	145.6	142.9	140.9	137.7	135.7	133.0	130.4	128.5	126.5
12.5°	171.9	167.3	163.4	160.7	156.1	152.2	148.2	146.2	140.9	138.3	135.1
15°	194.3	189.1	184.4	179.2	175.9	169.3	164.0	158.1	155.5	150.8	145.6
17.5°	223.3	214.7	207.5	202.3	195.7	189.1	183.1	177.2	169.3	164.0	157.4
20°	254.2	247.0	237.1	227.9	220.0	212.1	203.5	195.7	188.4	179.8	171.9
22.5°	293.8	283.3	271.4	262.1	251.6	243.1	231.2	220.7	208.8	197.6	188.4
25°	343.9	330.0	318.8	305.6	293.1	280.0	265.4	252.3	237.1	226.6	210.8
27.5°	405.8	392.6	377.5	360.3	347.8	328.0	308.9	292.5	274.7	258.2	240.4
30°	484.8	465.7	449.9	433.4	408.4	389.3	366.9	344.5	320.1	303.7	276.7
32.5°	579.7	559.3	535.5	511.8	488.8	461.8	434.1	406.4	379.4	349.1	321.4
35°	695.6	671.2	644.2	618.5	583.0	554.0	519.1	480.8	450.5	415.6	380.7
37.5°	849.1	808.9	785.2	758.2	710.1	670.6	631.7	593.5	540.1	503.2	453.8
40°	1041.4	1017.7	978.8	935.3	891.9	839.8	787.1	736.4	674.5	623.1	565.9
42.5°	1267.3	1232.5	1192.9	1130.3	1086.2	1024.9	965.0	897.8	822.1	756.2	689.0
45°	1479.4	1438.0	1407.7	1345.1	1298.9	1226.5	1154.0	1082.9	995.3	910.3	832.6
47.5°	1708.7	1674.4	1624.4	1573.6	1526.9	1445.2	1366.8	1280.5	1188.3	1087.5	986.7
50°	1910.2	1883.2	1849.0	1787.7	1735.7	1667.2	1574.9	1480.7	1364.2	1264.0	1149.4
52.5°	2081.5	2060.4	2012.3	1968.8	1922.1	1857.5	1775.2	1685.0	1559.2	1449.1	1318.7
55°	2283.7	2268.5	2226.4	2199.4	2157.9	2096.0	2018.9	1935.3	1802.2	1682.3	1534.7
57.5°	2615.0	2603.2	2566.3	2555.1	2514.2	2460.2	2365.4	2275.8	2120.3	1971.5	1802.9
60°	3163.7	3140.0	3086.0	3058.4	2972.0	2899.6	2776.4	2653.3	2465.5	2275.8	2072.9
62.5°	3751.3	3684.8	3582.0	3493.7	3371.2	3245.4	3080.7	2892.4	2672.3	2447.1	2213.9
65°	4068.1	3954.8	3825.1	3684.8	3526.0	3340.9	3133.4	2907.5	2671.0	2433.2	2186.9
66°	4104.4	3976.6	3838.9	3682.8	3506.3	3309.3	3098.5	2861.4	2615.7	2383.9	2137.5
67.5°	4058.9	3925.2	3779.6	3606.4	3415.4	3211.1	2989.9	2743.5	2507.0	2271.8	2032.1
70°	3740.8	3607.7	3477.9	3295.5	3091.9	2886.4	2677.0	2401.6	2177.7	1961.6	1748.2
72.5°	2987.2	2897.0	2768.5	2612.4	2414.1	2173.0	1998.5	1752.2	1557.8	1348.4	1183.0
75°	1866.8	1739.6	1580.9	1382.0	1230.4	1034.8	932.7	745.6	635.0	538.1	444.7
77.5°	954.4	859.0	747.7	635.6	528.3	421.6	326.0	230.6	155.5	108.1	80.3
80°	788.5	704.2	611.9	509.8	415.0	322.1	231.9	158.1	100.8	65.9	51.4
82.5°	651.4	580.3	497.9	403.1	320.8	253.0	175.9	114.6	71.1	46.1	36.2
85°	277.3	251.6	194.3	154.1	115.9	85.6	59.9	40.2	28.3	23.0	21.1
87.5°	11.8	13.1	12.5	9.9	7.3	7.3	6.6	5.3	5.3	5.3	5.3
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
2.5°	108.1	107.3	106.7	106.7	106.0	105.4	101.5	98.2	94.2	91.6	88.9
5°	112.6	112.0	110.7	110.0	108.7	108.1	99.5	92.2	86.3	81.7	78.4
7.5°	117.2	116.6	114.6	112.6	112.0	110.7	96.8	87.6	79.7	74.5	71.1
10°	123.2	121.2	119.2	116.6	114.6	112.6	94.2	82.3	73.7	69.2	65.9
12.5°	131.7	128.5	125.2	121.9	119.2	115.9	92.9	77.7	69.2	63.9	60.6
15°	141.7	137.0	133.0	129.1	124.5	121.2	90.2	73.7	65.2	59.9	56.0
17.5°	150.8	145.6	139.6	133.7	129.1	124.5	87.6	69.8	61.3	56.0	52.0
20°	164.0	156.1	148.9	141.7	135.1	129.1	83.6	65.9	58.0	52.0	48.1
22.5°	178.5	169.3	160.1	150.2	141.7	133.7	80.3	62.6	54.7	48.8	44.1
25°	197.0	185.8	173.2	160.7	150.8	140.3	77.1	59.3	51.4	45.4	40.9
27.5°	222.7	206.8	193.0	177.2	162.1	150.2	74.5	56.6	48.1	42.2	37.6
30°	257.6	234.5	212.8	195.7	177.8	160.7	71.8	53.3	45.4	38.9	33.6
32.5°	296.4	269.4	244.4	218.7	196.3	176.5	69.2	50.7	42.2	35.6	31.0
35°	344.5	310.3	276.7	247.0	220.0	193.6	66.5	48.1	39.5	32.3	27.7
37.5°	413.7	370.9	326.7	288.5	253.6	218.7	64.6	45.4	36.2	29.0	24.4
40°	508.5	453.2	399.2	347.1	301.7	258.2	61.9	42.8	33.6	26.3	21.7
42.5°	611.3	544.1	473.0	414.3	351.8	297.1	59.3	40.2	31.0	23.7	19.1
45°	739.1	655.4	569.1	489.4	413.0	342.5	56.6	37.6	27.7	21.1	16.5
47.5°	878.7	772.0	674.5	574.4	483.5	399.2	53.3	35.6	25.0	18.4	14.5
50°	1022.3	909.7	786.5	672.5	564.5	455.8	50.1	32.3	22.4	16.5	11.8
52.5°	1177.1	1044.1	918.2	776.6	650.8	530.2	46.7	29.6	20.4	14.5	9.9
55°	1374.1	1225.2	1077.7	918.9	767.4	616.6	43.5	26.3	17.8	12.5	7.9
57.5°	1621.7	1445.2	1264.0	1084.9	901.1	729.8	40.9	23.0	15.2	10.5	6.6
60°	1855.6	1649.4	1430.0	1223.9	1016.3	816.8	36.9	20.4	13.1	8.6	6.6
62.5°	1976.8	1741.6	1505.1	1277.9	1056.5	847.7	32.9	17.1	11.2	7.3	5.9
65°	1947.1	1707.4	1478.1	1248.9	1032.2	828.0	29.0	15.2	9.9	6.6	5.9
66°	1904.3	1667.2	1436.6	1218.6	1011.8	806.9	27.0	14.5	9.2	6.6	5.3
67.5°	1810.7	1581.5	1361.5	1158.7	955.7	766.7	24.4	13.1	8.6	5.9	5.3
70°	1546.6	1338.5	1162.6	982.1	816.8	646.2	19.7	11.2	7.3	5.3	5.3
72.5°	1023.6	882.0	764.8	658.0	550.0	426.8	16.5	9.2	5.9	5.3	4.6
75°	386.0	349.1	299.7	269.4	235.1	206.2	13.1	5.9	4.6	4.6	4.6
77.5°	68.5	63.2	56.0	51.4	47.5	43.5	10.5	4.0	4.0	4.6	4.6
80°	46.1	42.8	38.9	35.6	32.9	29.6	7.3	3.3	4.0	4.0	4.6
82.5°	32.9	31.0	29.0	26.3	24.4	21.7	4.6	3.3	4.0	4.0	4.0
85°	19.7	18.4	17.1	15.8	13.9	13.1	3.3	3.3	3.3	4.0	4.0
87.5°	5.3	4.6	5.3	5.3	4.0	4.6	2.6	2.6	2.6	3.3	3.3
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):

	145°	155°	165°	175°	180°
0°	103.4	103.4	103.4	103.4	103.4
2.5°	87.6	87.6	86.3	88.3	88.3
5°	75.8	75.8	75.1	75.8	75.8
7.5°	69.2	68.5	68.5	68.5	69.2
10°	63.2	62.6	62.6	62.6	62.6
12.5°	58.0	57.3	56.6	57.3	57.3
15°	53.3	52.0	52.0	52.0	52.0
17.5°	49.4	48.1	47.5	47.5	47.5
20°	45.4	43.5	43.5	43.5	43.5
22.5°	41.5	39.5	39.5	39.5	39.5
25°	37.6	35.6	35.6	35.6	35.6
27.5°	34.3	32.3	32.3	32.3	32.3
30°	30.3	29.0	29.0	29.6	29.0
32.5°	27.7	25.7	25.7	26.3	26.3
35°	24.4	23.0	23.0	23.0	23.0
37.5°	21.1	19.7	19.7	19.7	19.7
40°	18.4	17.1	16.5	17.1	17.1
42.5°	15.8	14.5	13.9	13.9	13.9
45°	13.9	11.8	11.2	11.8	11.8
47.5°	11.2	9.9	9.9	10.5	10.5
50°	8.6	8.6	9.2	10.5	10.5
52.5°	7.9	7.9	9.2	10.5	10.5
55°	7.3	7.9	9.2	9.9	10.5
57.5°	6.6	7.9	9.2	9.9	9.9
60°	6.6	7.3	8.6	9.9	9.9
62.5°	5.9	6.6	7.9	9.2	9.2
65°	5.9	6.6	7.9	9.2	9.2
66°	5.9	6.6	7.9	9.2	9.2
67.5°	5.9	6.6	7.9	9.2	9.2
70°	5.9	6.6	7.9	8.6	8.6
72.5°	5.3	5.9	7.3	8.6	8.6
75°	5.3	5.9	7.3	8.6	8.6
77.5°	5.3	5.9	7.3	8.6	8.6
80°	5.3	5.9	7.3	7.9	8.6
82.5°	4.6	5.9	6.6	7.9	7.9
85°	4.6	5.3	6.6	7.3	7.9
87.5°	4.0	4.6	5.3	6.6	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)