

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: P165023

Luminaire Tested: **VST-F02-LED-E-U-SL2-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165023
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-SL2-HSS-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3069.2 lumens
Efficiency: N/A
Efficacy: 55.8 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

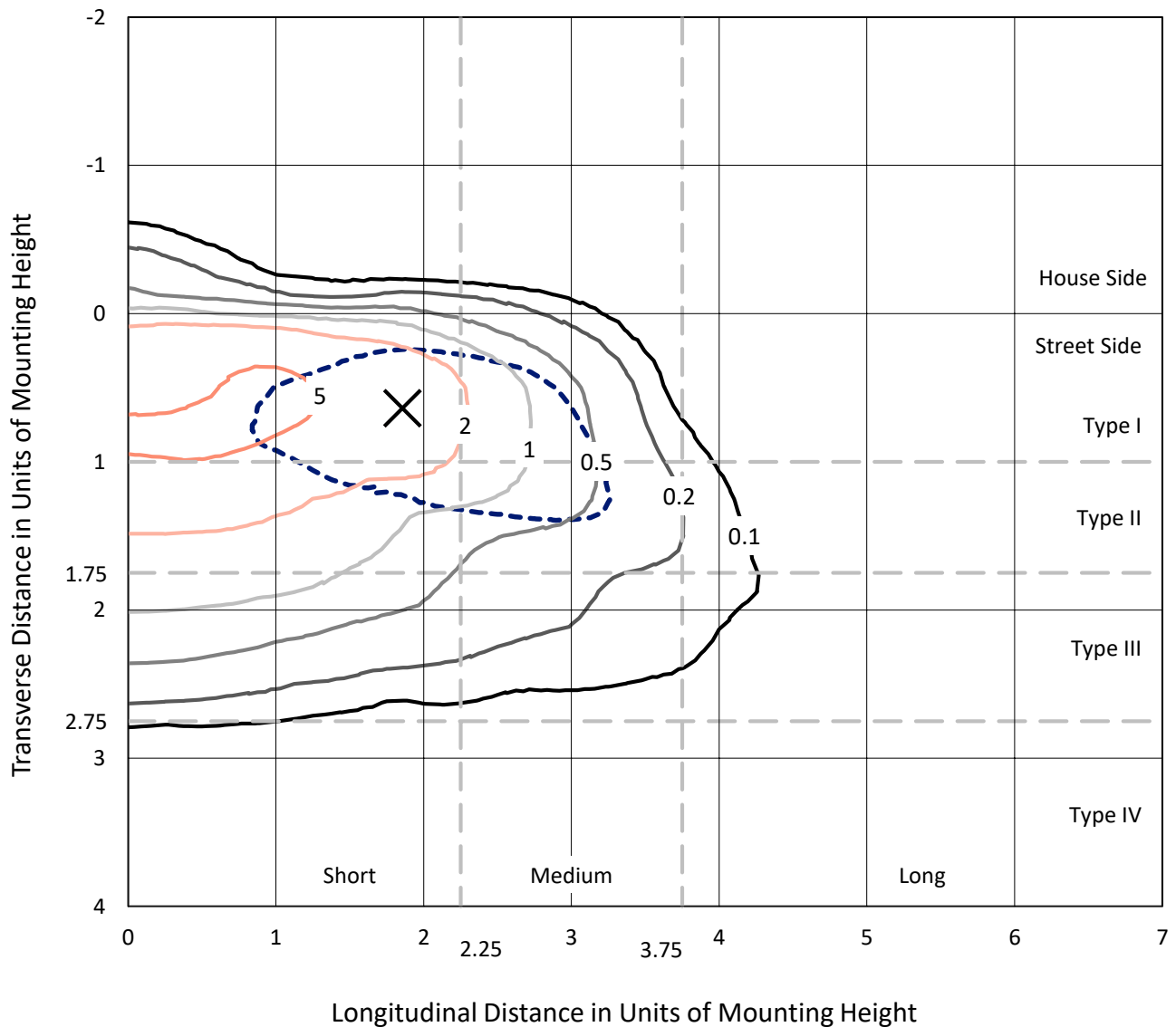
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

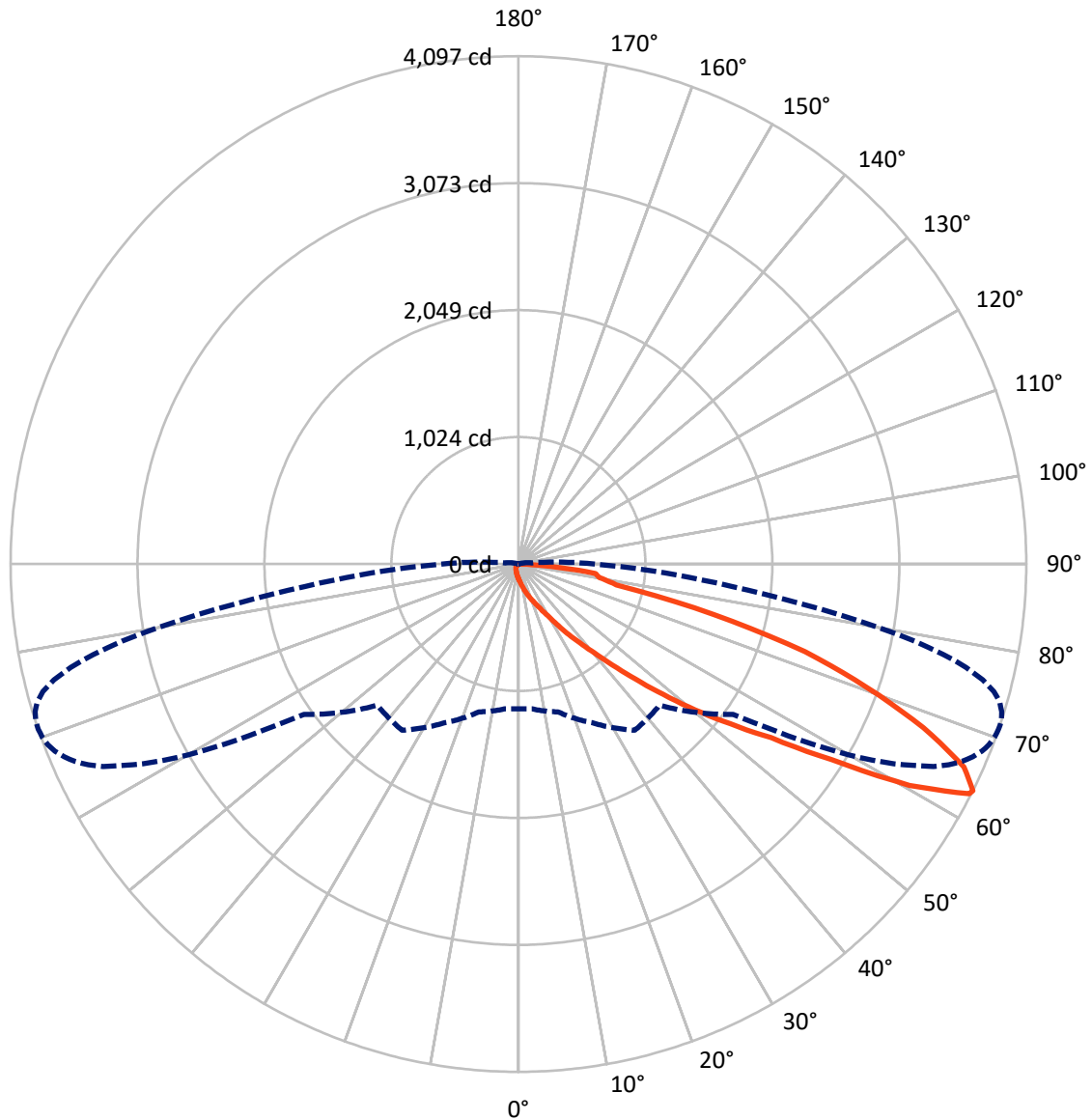
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	65.2	0.0	65.2
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	3004.1	0.0	3004.1
	% Fixture	97.9	0.0	97.9
Total	Lumens	3069.2	0.0	3069.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.0	0.4
10°-20°	50.5	1.6
20°-30°	102.5	3.3
30°-40°	250.4	8.2
40°-50°	560.1	18.2
50°-60°	787.5	25.7
60°-70°	926.1	30.2
70°-80°	334.4	10.9
80°-90°	44.7	1.5
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°	3069.2	100.0
0°-180°	3069.2	100.0



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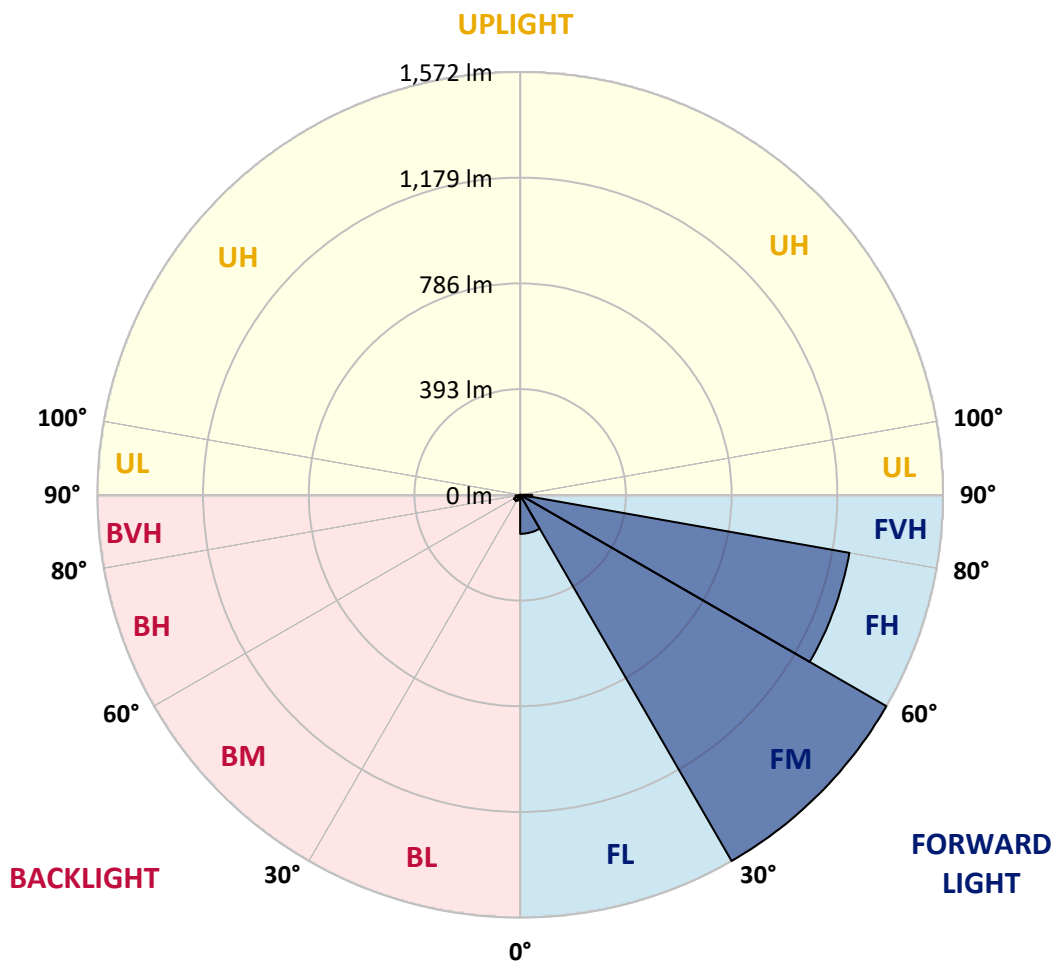
CATALOG NUMBER: VST-F02-LED-E-U-SL2-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	145.0	4.7			
FM	(30°-60°)	1571.8	51.2			
FH	(60°-80°)	1242.6	40.5			G1/1800
FVH	(80°-90°)	44.6	1.5			G1/100
BL	(0°-30°)	21.0	0.7	B0/110		
BM	(30°-60°)	26.2	0.9	B0/220		
BH	(60°-80°)	17.9	0.6	B0/110		G0/110
BVH	(80°-90°)	0.1	0.0			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
2.5°	154.0	155.6	154.6	151.7	148.4	143.9	140.0	140.0	139.5	137.8	138.4
5°	202.0	202.6	200.3	193.6	187.5	178.0	167.4	166.3	165.1	163.5	163.0
7.5°	248.9	251.1	248.9	241.6	229.3	214.8	198.1	196.4	193.1	193.1	190.8
10°	296.8	296.8	294.6	286.3	275.0	254.4	233.2	230.5	226.6	225.4	222.1
12.5°	330.8	330.8	329.8	325.3	316.4	298.0	272.3	269.5	264.5	262.8	258.9
15°	344.3	344.3	344.8	348.7	349.3	340.9	314.1	311.9	306.9	302.4	300.7
17.5°	352.6	352.1	352.1	357.7	367.7	373.3	356.0	353.8	348.2	346.0	340.4
20°	371.0	370.0	366.6	366.6	376.1	395.6	395.6	395.0	388.9	387.2	384.4
22.5°	398.4	397.3	387.2	378.8	383.3	407.9	430.7	429.7	427.4	425.2	423.5
25°	443.0	439.1	421.8	397.3	393.4	419.6	457.5	460.3	462.0	462.0	463.1
27.5°	510.5	505.6	474.8	429.1	411.8	438.5	487.1	492.7	497.7	498.8	503.8
30°	604.3	595.4	551.3	484.3	444.7	466.4	530.6	536.8	544.0	546.2	554.0
32.5°	758.3	753.2	710.9	610.4	525.6	521.2	591.5	599.3	608.8	612.7	622.1
35°	992.6	993.8	959.2	868.7	751.6	690.2	700.3	706.9	710.3	722.0	727.0
37.5°	1151.6	1154.4	1162.3	1126.6	1042.9	980.3	901.7	908.9	891.7	893.3	893.9
40°	1238.7	1247.6	1293.4	1328.0	1321.3	1285.0	1222.0	1225.9	1193.5	1186.3	1151.1
42.5°	1296.7	1308.4	1381.6	1488.7	1543.3	1576.3	1561.8	1560.1	1535.0	1525.5	1495.9
45°	1333.0	1343.6	1435.7	1593.5	1719.7	1815.6	1855.3	1859.7	1838.5	1829.0	1804.5
47.5°	1331.3	1343.6	1442.3	1632.6	1818.4	1971.8	2083.4	2089.0	2101.9	2093.5	2095.1
50°	1257.7	1269.4	1368.7	1566.2	1789.4	2043.3	2247.5	2265.4	2286.0	2299.9	2306.6
52.5°	1168.4	1176.8	1264.9	1452.4	1665.5	2013.7	2344.6	2375.3	2405.9	2432.2	2450.6
55°	1135.4	1144.9	1214.2	1369.8	1566.2	1889.8	2389.7	2435.0	2478.5	2521.5	2556.6
57.5°	1152.8	1161.7	1211.3	1330.7	1507.1	1759.3	2402.6	2472.9	2544.4	2614.1	2683.3
60°	1216.4	1225.9	1268.3	1367.0	1491.5	1684.0	2352.4	2469.0	2587.9	2709.5	2823.9
62.5°	1191.2	1195.1	1257.7	1430.6	1603.0	1619.8	2170.0	2332.9	2514.2	2701.7	2886.4
63°	1167.3	1171.7	1235.3	1413.3	1637.1	1610.3	2113.6	2285.5	2476.8	2678.8	2879.7
65°	1058.5	1059.0	1107.5	1248.2	1599.1	1627.0	1862.5	2026.6	2246.4	2488.6	2742.4
67.5°	790.1	786.2	833.0	940.2	1255.4	1627.6	1598.6	1690.7	1843.6	2058.4	2286.0
70°	280.1	274.0	349.9	498.2	782.3	1331.3	1373.7	1379.9	1422.3	1538.3	1681.2
72.5°	91.0	92.6	111.6	182.5	360.4	896.1	1243.7	1224.7	1213.6	1213.0	1232.0
75°	36.2	36.8	44.6	80.9	161.8	431.9	1089.2	1099.7	1103.7	1109.2	1115.4
77.5°	17.3	19.0	25.1	45.2	80.3	213.7	779.5	869.3	920.6	960.3	984.2
80°	6.1	7.3	14.0	27.9	37.4	98.2	410.6	495.5	570.8	667.9	751.6
82.5°	0.0	0.0	2.8	19.5	20.6	39.6	168.5	197.5	226.0	292.9	376.1
85°	0.0	0.0	0.0	5.6	6.1	6.7	56.9	68.6	77.0	89.8	103.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.7	3.4	8.3	12.8
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
2.5°	137.3	136.7	136.7	135.6	135.0	133.9	133.4	131.6	131.1	131.1	131.1
5°	162.4	160.1	159.0	156.2	154.6	154.0	151.2	150.1	148.4	149.0	146.2
7.5°	190.3	186.4	184.7	180.8	179.7	175.7	174.7	171.8	170.2	166.9	165.7
10°	221.0	215.9	213.2	207.0	205.3	202.6	199.2	195.8	193.1	189.7	188.0
12.5°	256.1	251.6	249.4	241.0	237.1	233.2	228.8	224.3	219.8	217.1	213.2
15°	297.4	290.2	287.9	280.1	273.4	268.4	262.3	256.7	253.3	247.7	243.8
17.5°	338.1	330.8	329.2	317.5	310.3	306.9	300.2	292.9	286.8	281.2	275.0
20°	378.8	373.9	369.4	358.2	350.4	344.8	335.9	328.6	323.6	315.8	308.0
22.5°	419.6	414.5	411.2	399.5	392.3	384.4	376.6	368.8	361.6	352.1	343.1
25°	461.5	458.1	456.4	445.9	439.1	431.9	424.0	415.1	406.2	395.6	386.2
27.5°	505.0	506.1	502.7	500.5	493.3	488.2	476.0	469.8	463.1	450.3	438.5
30°	560.2	563.5	562.4	564.1	559.6	556.3	546.8	539.0	531.2	518.9	505.6
32.5°	629.9	634.4	636.6	642.8	640.6	639.4	636.6	625.5	619.9	598.7	593.1
35°	737.6	735.4	744.9	749.9	747.7	746.6	743.2	737.1	730.4	715.3	701.4
37.5°	877.7	879.9	883.3	873.2	866.5	866.0	855.9	849.8	840.3	823.6	806.8
40°	1134.4	1120.4	1104.8	1062.4	1043.9	1033.4	1003.8	995.4	979.2	956.3	939.1
42.5°	1468.0	1454.0	1407.2	1336.3	1298.4	1246.0	1222.0	1192.4	1169.5	1132.1	1112.0
45°	1799.5	1759.3	1753.7	1671.1	1624.3	1555.1	1512.1	1462.4	1410.5	1361.5	1325.8
47.5°	2079.0	2070.1	2042.8	1992.5	1949.0	1891.0	1835.7	1759.3	1705.7	1636.0	1571.8
50°	2302.7	2302.2	2292.1	2263.1	2226.8	2180.0	2131.4	2066.7	2005.9	1920.5	1851.9
52.5°	2470.1	2479.1	2482.4	2473.4	2459.5	2418.2	2393.7	2339.6	2288.2	2215.7	2141.5
55°	2592.8	2625.8	2642.5	2661.5	2657.6	2643.1	2642.0	2606.8	2583.4	2525.9	2473.4
57.5°	2744.6	2798.8	2850.7	2942.8	2946.1	2978.5	2995.2	3011.9	3016.4	2993.5	2976.2
60°	2937.7	3048.2	3146.4	3338.9	3389.1	3468.4	3519.7	3575.5	3622.9	3626.8	3625.7
62.5°	3073.9	3244.0	3402.5	3688.1	3785.8	3877.3	3946.0	4000.1	4033.0	4066.5	4082.1
63°	3077.8	3264.1	3432.6	3727.3	3829.9	3916.9	3982.3	4032.5	4067.0	4087.1	4097.2
65°	2983.4	3209.5	3410.3	3703.8	3800.3	3887.9	3922.0	3954.9	3971.6	3979.4	3949.9
67.5°	2528.7	2749.7	2984.0	3312.1	3394.7	3499.6	3527.5	3544.3	3552.0	3550.4	3525.2
70°	1891.0	2076.2	2336.8	2711.7	2821.1	2923.7	2987.3	3014.7	3023.6	3020.8	2983.4
72.5°	1320.2	1429.0	1643.8	2061.1	2210.1	2341.8	2420.5	2461.2	2469.5	2452.8	2418.2
75°	1108.7	1114.3	1162.8	1391.0	1530.5	1671.1	1759.8	1785.5	1768.7	1718.0	1629.8
77.5°	989.8	1002.1	1002.1	1036.1	1063.5	1102.6	1110.9	1048.4	975.9	882.1	806.3
80°	830.3	873.2	903.4	928.4	931.3	923.5	902.8	867.7	811.9	740.4	661.2
82.5°	504.4	589.2	623.8	753.2	816.8	859.8	856.5	809.6	767.2	693.0	625.5
85°	127.3	137.3	149.0	193.6	217.1	265.0	295.1	309.1	314.1	288.5	261.1
87.5°	12.2	8.3	14.0	10.6	15.1	11.2	15.1	14.0	17.3	18.4	20.1
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
2.5°	130.0	129.4	128.9	128.3	127.8	127.3	126.1	126.1	125.0	124.4	123.9
5°	144.5	143.4	142.9	141.7	140.0	138.9	137.3	135.0	133.4	132.8	131.6
7.5°	163.0	160.1	159.0	157.4	155.1	151.7	149.5	147.8	145.1	143.4	140.0
10°	183.6	180.8	177.4	174.1	170.8	166.9	164.0	161.8	157.4	155.1	151.2
12.5°	209.8	204.8	200.9	196.4	191.9	187.5	184.1	177.4	173.5	168.5	165.1
15°	236.6	232.1	227.6	222.1	215.3	208.1	204.8	198.6	193.6	185.8	181.3
17.5°	268.9	260.6	253.9	247.2	241.0	234.4	227.6	218.2	210.9	204.2	195.3
20°	300.7	290.7	283.4	274.5	265.6	255.0	247.2	240.5	230.5	221.5	212.0
22.5°	334.7	324.7	313.0	304.1	291.8	283.4	272.9	261.7	251.6	239.9	228.2
25°	376.1	365.5	352.1	340.4	326.4	314.7	301.9	289.0	276.8	263.4	248.3
27.5°	426.8	415.7	401.2	387.2	368.8	354.3	342.1	324.7	309.1	292.4	275.0
30°	491.0	478.7	460.9	440.8	422.4	406.2	388.9	366.1	348.7	328.6	306.4
32.5°	574.7	560.2	536.2	517.2	494.3	473.2	449.2	426.3	401.8	375.5	349.9
35°	680.2	666.8	638.9	611.0	585.9	560.8	530.6	504.4	469.8	438.0	405.1
37.5°	789.5	765.5	739.9	709.7	678.5	648.4	611.5	575.3	535.7	501.1	459.8
40°	914.5	885.5	864.3	831.9	787.9	744.9	710.9	665.6	616.0	569.7	521.2
42.5°	1085.8	1053.5	1015.5	966.4	934.6	884.4	840.3	786.7	721.4	669.5	611.0
45°	1283.9	1239.8	1203.0	1155.5	1117.1	1054.6	1003.3	931.8	866.5	798.5	727.0
47.5°	1509.8	1455.2	1401.6	1354.7	1293.4	1232.0	1166.7	1090.9	1007.2	932.3	847.6
50°	1769.3	1691.8	1617.5	1557.3	1473.1	1402.2	1331.3	1246.0	1153.3	1067.4	970.9
52.5°	2057.8	1967.9	1869.8	1777.1	1679.5	1588.6	1503.2	1405.0	1301.8	1196.9	1089.2
55°	2405.9	2338.4	2222.9	2105.2	1974.7	1853.0	1743.1	1621.5	1495.9	1358.1	1244.8
57.5°	2951.1	2918.2	2821.6	2704.0	2533.7	2385.9	2199.5	2050.6	1868.6	1678.9	1532.8
60°	3689.9	3649.1	3595.0	3499.6	3364.6	3163.7	2958.4	2726.8	2450.0	2187.2	1937.8
62.5°	4083.8	4069.3	4025.2	3959.3	3833.3	3674.8	3467.8	3213.4	2900.9	2581.7	2263.7
63°	4095.5	4077.1	4039.1	3972.2	3861.1	3707.7	3504.6	3257.4	2951.6	2626.4	2301.6
65°	3937.0	3929.8	3891.2	3818.2	3742.3	3625.1	3467.8	3255.2	2998.5	2691.1	2368.0
67.5°	3491.8	3470.0	3410.9	3388.6	3335.5	3254.0	3134.1	2987.9	2804.3	2562.7	2283.7
70°	2953.3	2921.0	2846.8	2807.2	2742.4	2691.1	2618.0	2513.6	2400.4	2231.9	2023.7
72.5°	2382.5	2315.6	2247.5	2144.3	2053.9	1962.4	1881.5	1807.8	1683.4	1615.3	1457.4
75°	1547.2	1425.6	1309.0	1152.8	1012.1	887.8	766.6	705.3	577.5	525.6	451.4
77.5°	734.3	666.2	574.7	503.8	413.5	337.6	275.6	207.0	162.4	127.3	97.1
80°	592.6	535.1	479.9	415.7	347.6	277.3	212.6	159.0	112.7	78.1	55.2
82.5°	528.4	465.9	397.8	353.8	307.4	251.6	206.5	168.5	124.4	91.0	61.9
85°	205.3	173.0	133.4	108.8	84.8	69.7	63.1	43.5	34.1	26.8	20.6
87.5°	17.9	14.5	11.7	7.8	8.3	4.5	5.0	3.4	2.8	2.8	2.2
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):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
2.5°	123.3	122.8	122.2	121.1	121.1	120.0	119.4	118.9	116.0	109.9	104.9
5°	129.4	128.3	127.3	125.5	124.4	122.8	121.6	120.0	113.8	102.1	92.0
7.5°	138.4	136.1	134.5	131.1	129.4	127.3	125.5	122.8	112.7	94.9	80.9
10°	149.0	145.1	142.3	138.4	135.0	132.2	129.4	125.5	111.6	87.1	70.9
12.5°	161.8	157.4	151.7	147.3	142.9	138.9	135.0	130.0	109.9	80.3	63.1
15°	174.7	167.9	164.0	157.9	151.7	146.2	140.6	136.1	110.5	73.1	56.3
17.5°	189.1	182.5	174.1	167.4	160.7	153.5	146.8	137.8	107.7	67.5	51.4
20°	203.1	193.6	185.8	177.4	167.9	159.0	150.7	142.9	105.4	61.9	46.9
22.5°	218.2	207.0	197.0	186.4	174.7	164.6	154.6	144.5	101.5	56.9	43.0
25°	236.6	223.7	209.2	196.4	184.1	171.8	159.0	146.8	97.7	52.4	40.2
27.5°	258.9	242.2	227.6	211.4	194.2	178.6	164.6	151.2	93.8	49.1	37.4
30°	287.3	267.8	247.2	226.6	208.1	190.3	170.8	154.0	89.8	45.7	34.6
32.5°	325.3	300.7	275.6	251.6	227.1	204.2	183.6	161.8	87.6	43.0	31.8
35°	375.5	343.7	313.0	282.9	253.3	225.4	198.6	174.1	87.6	39.6	28.4
37.5°	422.9	386.2	347.0	309.7	274.5	242.2	210.4	180.8	83.2	36.8	25.7
40°	474.2	430.2	384.4	340.4	298.0	257.8	221.5	187.5	79.2	33.5	22.9
42.5°	553.0	497.2	437.5	386.2	335.3	285.7	240.5	200.3	74.2	30.1	20.1
45°	656.2	585.3	515.0	452.5	387.8	327.0	273.4	223.7	73.1	27.4	17.3
47.5°	766.6	682.9	600.4	520.6	444.7	373.9	309.7	250.0	73.1	24.5	15.1
50°	876.5	771.7	683.5	590.9	505.6	421.8	345.4	277.3	73.7	22.3	12.2
52.5°	975.9	863.8	765.0	657.8	563.5	466.4	383.3	304.1	72.5	19.5	10.0
55°	1113.7	982.0	867.7	749.3	638.9	529.5	435.2	344.3	73.1	17.3	8.3
57.5°	1367.6	1213.0	1075.2	920.1	792.8	651.7	537.3	426.8	79.8	14.5	6.1
60°	1732.0	1531.1	1337.5	1148.3	986.5	818.5	670.1	540.1	93.8	11.7	4.5
62.5°	1976.9	1714.1	1483.1	1274.4	1086.4	910.6	748.8	600.9	103.2	9.5	2.8
63°	2002.0	1730.3	1498.1	1282.8	1090.9	915.1	752.2	605.4	103.8	8.9	2.8
65°	2049.4	1758.2	1506.5	1284.4	1086.4	908.9	749.9	604.9	104.9	7.3	2.2
67.5°	1995.3	1715.2	1458.0	1236.5	1047.3	872.6	722.0	582.5	104.3	5.0	1.7
70°	1784.4	1552.3	1326.3	1119.8	948.0	790.1	657.3	531.2	95.9	3.4	1.1
72.5°	1310.1	1152.2	977.0	828.1	714.2	593.1	506.1	398.9	74.2	2.2	0.5
75°	388.3	353.8	297.4	262.3	231.5	191.4	170.2	132.8	37.9	1.1	0.0
77.5°	77.6	70.3	63.1	57.5	54.1	46.3	44.1	36.2	15.6	0.5	0.0
80°	40.7	33.5	28.4	25.1	21.8	17.9	15.1	12.2	2.8	0.0	0.0
82.5°	39.1	26.2	19.0	15.6	13.4	10.6	8.3	6.1	1.7	0.0	0.0
85°	14.5	11.2	8.3	6.7	5.6	5.0	3.9	3.4	0.0	0.0	0.0
87.5°	2.2	1.7	1.7	1.1	1.1	0.5	0.5	0.5	0.0	0.0	0.0
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):

	125°	135°	145°	155°	165°	175°	180°
0°	117.7	117.7	117.7	117.7	117.7	117.7	117.7
2.5°	99.9	95.4	93.2	90.4	90.4	89.8	91.0
5°	83.2	77.0	72.5	69.2	69.7	68.1	68.6
7.5°	70.3	64.2	60.2	58.0	57.5	56.9	56.9
10°	60.8	55.2	51.9	50.2	49.7	49.7	49.7
12.5°	54.1	48.5	45.7	44.6	44.6	44.1	44.1
15°	48.5	44.1	41.3	40.2	40.2	39.6	40.2
17.5°	44.1	39.6	37.4	36.2	36.2	35.7	35.7
20°	40.2	36.2	34.1	32.3	32.3	31.8	32.3
22.5°	36.8	32.9	30.1	29.0	28.4	27.9	28.4
25°	33.5	29.6	26.8	25.1	24.5	24.5	24.0
27.5°	30.7	26.8	23.5	21.8	21.2	21.2	20.6
30°	27.9	23.5	20.1	18.4	17.9	17.9	17.9
32.5°	25.1	20.1	17.3	15.6	15.1	15.1	15.1
35°	22.3	17.3	14.5	12.8	12.2	12.2	12.2
37.5°	19.0	14.5	11.2	10.0	9.5	8.9	8.9
40°	16.2	11.2	8.3	7.3	6.1	6.1	6.1
42.5°	13.4	8.9	6.1	4.5	3.9	3.4	3.9
45°	11.2	6.7	3.9	2.2	1.7	1.7	1.7
47.5°	8.9	4.5	1.7	0.5	0.5	0.5	0.5
50°	6.7	2.8	0.5	0.0	0.0	0.5	0.5
52.5°	5.0	1.7	0.0	0.0	0.0	0.0	0.0
55°	2.8	0.5	0.0	0.0	0.0	0.0	0.0
57.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)