

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: P165306

Luminaire Tested: **VST-E09-LED-E-U-SL3-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165306
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-E09-LED-E-U-SL3-HSS-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (189) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14082 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.5' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B0 - U0 - G3

Input Watts (W): 225.7
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



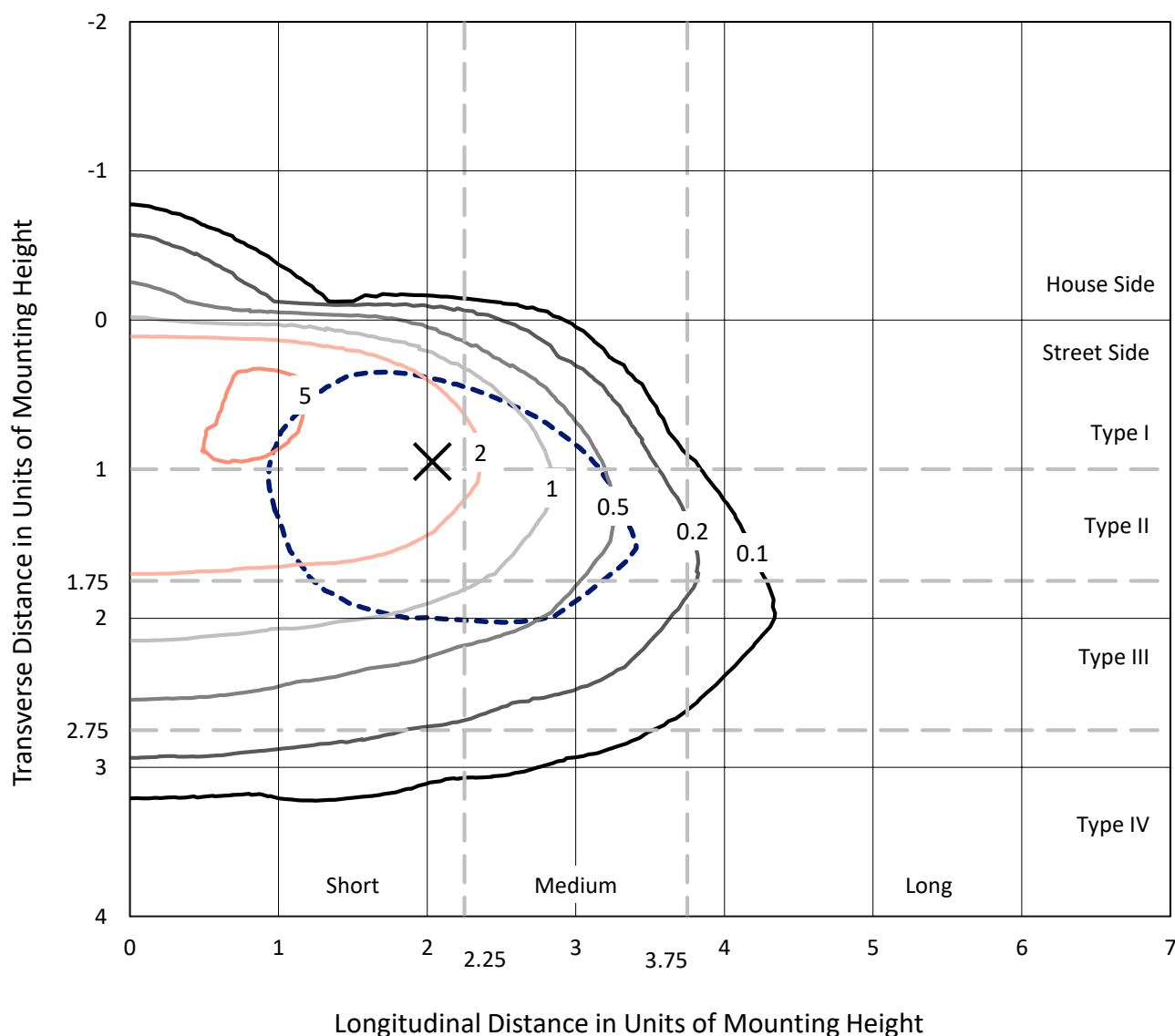
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

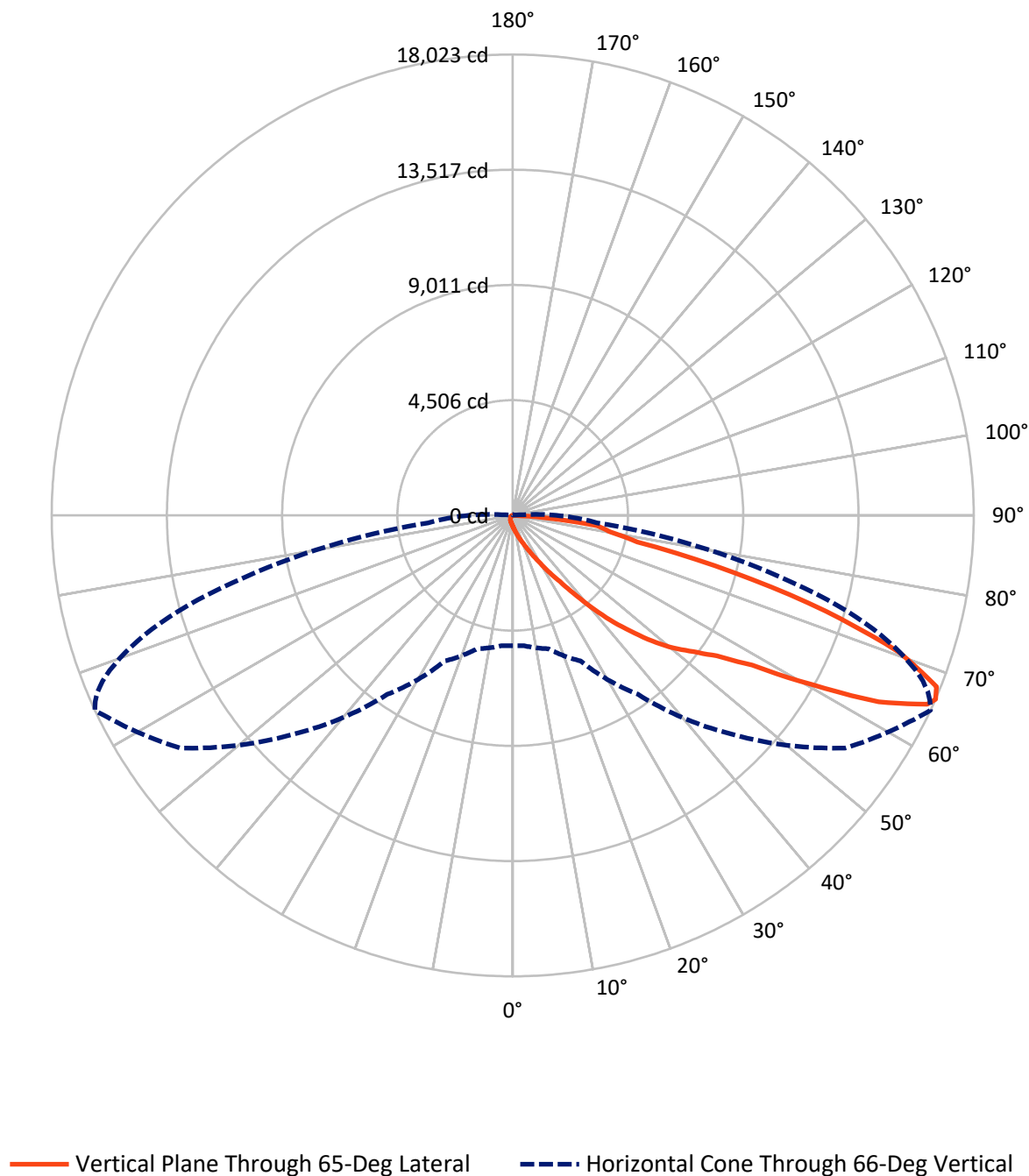


Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	305.2	0.0	305.2
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	13776.8	0.0	13776.8
	% Fixture	97.8	0.0	97.8
Total	Lumens	14082.0	0.0	14082.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	0.3
10°-20°	201.8	1.4
20°-30°	435.1	3.1
30°-40°	929.3	6.6
40°-50°	2055.1	14.6
50°-60°	3482.7	24.7
60°-70°	4647.4	33.0
70°-80°	2047.1	14.5
80°-90°	235.8	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°	14082.0	100.0
0°-180°	14082.0	100.0

Coefficient of Utilization



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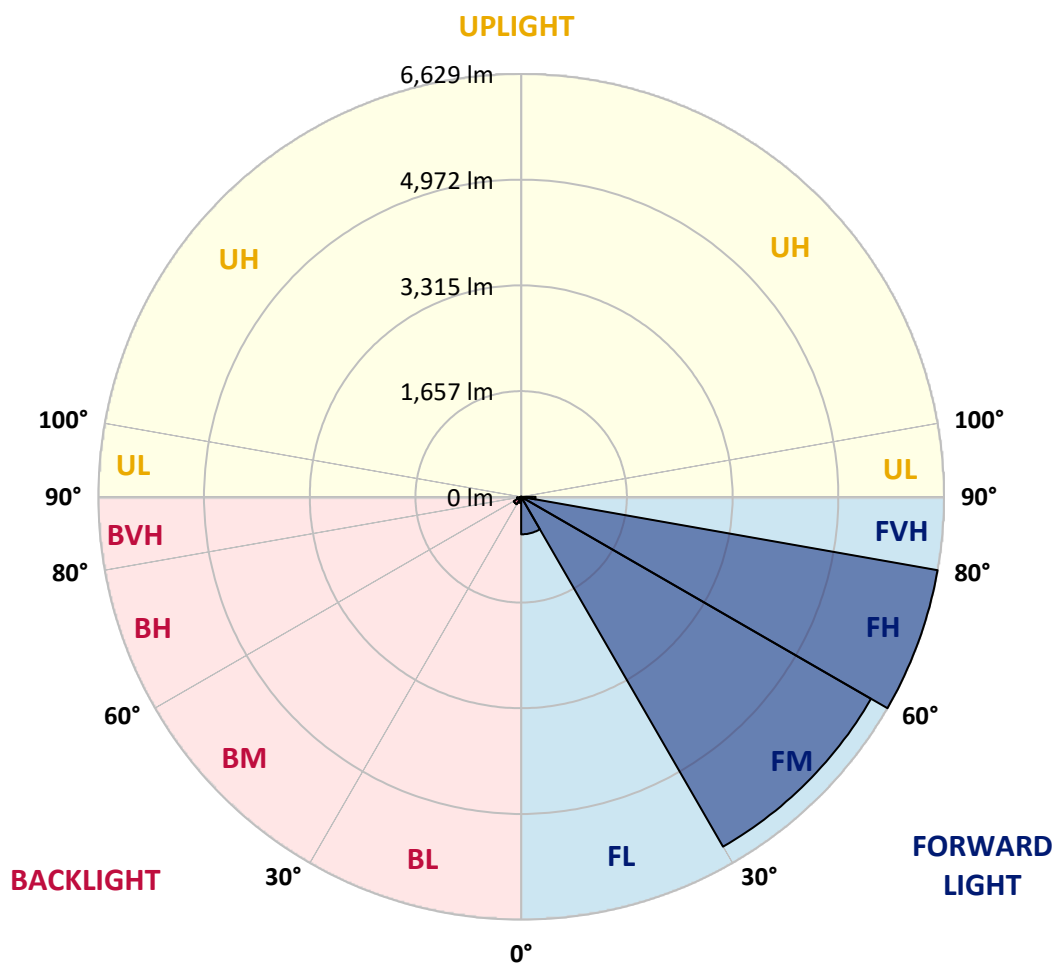
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	588.2	4.2			
FM	(30°-60°)	6333.1	45.0			
FH	(60°-80°)	6629.1	47.1			G3/7500
FVH	(80°-90°)	226.4	1.6			G3/500
BL	(0°-30°)	96.3	0.7	B0/110		
BM	(30°-60°)	134.0	1.0	B0/220		
BH	(60°-80°)	65.5	0.5	B0/110		G0/110
BVH	(80°-90°)	9.4	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0
2.5°	536.1	533.3	522.5	522.5	506.2	495.5	481.9	468.4	468.4	465.6	463.0
5°	709.2	693.1	690.3	660.6	636.2	601.1	568.5	525.3	519.8	514.4	511.6
7.5°	901.6	898.8	874.5	839.3	790.6	725.5	660.6	590.2	579.4	573.9	563.1
10°	1150.7	1137.0	1104.6	1044.9	972.0	885.3	779.8	668.6	655.1	644.3	638.9
12.5°	1388.9	1364.5	1345.5	1269.7	1177.6	1050.4	923.1	763.5	752.6	739.2	717.5
15°	1610.8	1589.1	1556.7	1491.8	1388.9	1229.1	1080.3	885.3	858.2	839.3	823.0
17.5°	1784.1	1770.6	1732.6	1659.6	1548.5	1407.8	1229.1	1009.8	988.2	963.7	934.0
20°	1949.3	1930.3	1870.7	1770.6	1651.4	1543.1	1405.2	1172.2	1142.4	1112.7	1080.3
22.5°	2106.3	2087.3	1989.9	1824.7	1697.5	1651.4	1602.8	1356.3	1310.3	1286.0	1253.4
25°	2325.6	2285.0	2133.3	1870.7	1700.3	1735.4	1819.3	1594.5	1551.3	1516.1	1464.7
27.5°	2620.7	2566.5	2328.3	1938.5	1710.9	1827.5	2068.4	1884.2	1838.2	1797.6	1740.9
30°	2953.7	2918.5	2634.2	2100.9	1789.5	1962.8	2347.2	2252.5	2198.4	2149.6	2082.0
32.5°	3289.4	3240.7	2959.1	2409.5	2000.6	2225.4	2696.5	2680.3	2609.9	2563.9	2490.7
35°	3584.5	3560.1	3351.7	2915.7	2482.7	2685.7	3162.1	3181.0	3118.9	3070.1	2988.8
37.5°	3784.9	3784.9	3744.3	3459.9	3248.8	3400.3	3847.0	3849.8	3787.5	3676.5	3635.9
40°	3887.6	3917.4	4063.7	4117.8	4107.0	4301.9	4746.0	4697.2	4645.7	4588.8	4453.5
42.5°	4098.9	4125.9	4437.2	4810.9	5054.6	5311.7	5617.7	5601.4	5539.2	5436.3	5311.7
45°	4456.3	4491.5	4862.4	5455.2	5956.0	6321.6	6516.4	6440.7	6378.3	6281.0	6215.9
47.5°	4911.0	4978.8	5398.3	6132.1	6735.8	7339.4	7542.5	7342.2	7288.2	7212.2	7106.7
50°	5395.7	5460.6	5907.3	6746.6	7428.9	8149.0	8487.5	8149.0	8070.5	8046.1	7927.0
52.5°	5815.3	5869.5	6299.9	7220.4	7959.4	8804.1	9296.8	8850.1	8793.3	8712.0	8625.4
55°	6064.3	6107.7	6511.0	7447.8	8319.6	9394.3	10079.4	9686.8	9602.8	9570.4	9445.8
57.5°	6148.3	6191.6	6554.4	7477.5	8514.4	9933.1	11029.6	11043.1	10943.0	10826.6	10788.6
60°	6148.3	6197.0	6503.0	7404.5	8704.0	10507.0	12296.5	13425.5	13209.0	13187.3	13049.2
62.5°	5893.8	5939.9	6248.5	7179.8	8958.5	11281.3	14061.7	16054.3	15992.1	15851.2	15623.9
65°	5341.5	5368.6	5671.7	6605.9	8861.0	11993.4	15591.3	17803.2	17703.1	17426.9	17134.6
66°	5092.4	5114.1	5398.3	6278.2	8541.6	12090.9	15862.1	18022.5	17857.5	17624.5	17294.2
67.5°	4732.3	4770.3	4970.6	5669.1	7775.4	11752.4	15691.6	17868.3	17724.8	17443.2	17112.9
70°	3159.5	3132.4	3839.0	4350.6	5923.6	9575.8	14078.0	16043.4	16046.2	15913.6	15780.9
72.5°	1499.8	1516.1	1721.8	2677.5	3876.8	6397.4	11205.5	12805.5	12989.7	12751.4	12586.2
75°	1077.5	1101.8	1226.4	1637.9	2312.0	3839.0	7263.7	8955.7	8961.1	8538.8	8162.6
77.5°	314.0	327.7	460.2	1009.8	1732.6	2590.8	4171.9	4978.8	4862.4	4559.1	4274.8
80°	129.9	129.9	135.3	322.2	695.8	1759.8	2918.5	3833.6	3820.1	3703.7	3535.8
82.5°	48.7	51.5	64.9	132.7	165.2	433.2	1946.5	3327.4	3319.1	3154.1	3034.9
85°	5.4	5.4	16.3	56.9	62.3	81.2	389.8	1467.3	1459.2	1467.3	1286.0
87.5°	0.0	0.0	2.6	5.4	8.1	10.9	16.3	56.9	62.3	59.5	54.1
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°	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0
2.5°	463.0	457.5	457.5	454.9	454.9	454.9	452.1	449.5	449.5	446.7	444.1
5°	506.2	500.8	498.1	492.7	490.1	487.3	481.9	479.2	473.8	471.0	468.4
7.5°	557.7	546.8	544.2	536.1	527.9	522.5	517.0	509.0	503.6	492.7	490.1
10°	622.8	609.1	598.3	587.4	579.4	565.9	557.7	546.8	536.1	527.9	519.8
12.5°	706.6	687.7	671.4	660.6	641.7	625.4	609.1	601.1	579.4	568.5	555.0
15°	798.7	777.0	758.1	736.4	722.9	695.8	674.1	649.7	638.9	620.0	598.3
17.5°	917.7	882.5	852.8	831.2	804.1	777.0	752.6	728.3	695.8	674.1	647.1
20°	1044.9	1015.2	974.6	936.8	904.2	871.8	836.5	804.1	774.3	739.2	706.6
22.5°	1207.5	1164.1	1115.5	1077.5	1034.3	999.1	950.2	907.0	858.2	812.2	774.3
25°	1413.2	1356.3	1310.3	1256.2	1204.7	1150.7	1091.0	1036.9	974.6	931.3	866.4
27.5°	1667.7	1613.6	1551.3	1480.9	1429.5	1348.3	1269.7	1202.1	1129.0	1061.2	988.2
30°	1992.6	1914.1	1849.0	1781.5	1678.6	1600.0	1507.9	1416.0	1315.7	1248.1	1137.0
32.5°	2382.4	2298.5	2201.0	2103.5	2008.8	1897.9	1784.1	1670.3	1559.4	1434.9	1321.1
35°	2859.0	2758.7	2647.7	2542.2	2396.0	2276.8	2133.3	1976.3	1851.8	1708.3	1564.8
37.5°	3489.8	3324.6	3227.1	3116.1	2918.5	2756.1	2596.3	2439.2	2219.9	2068.4	1865.3
40°	4280.2	4182.7	4023.1	3844.4	3665.7	3451.8	3235.3	3026.8	2772.3	2561.1	2325.6
42.5°	5208.8	5065.4	4903.0	4645.7	4464.4	4212.5	3966.2	3690.0	3378.6	3108.0	2831.8
45°	6080.6	5910.1	5785.5	5528.4	5338.8	5040.9	4743.2	4450.9	4090.7	3741.5	3422.0
47.5°	7022.8	6881.9	6676.2	6467.8	6275.6	5939.9	5617.7	5263.0	4883.9	4469.8	4055.5
50°	7851.2	7740.3	7599.4	7347.7	7133.8	6852.2	6473.2	6086.0	5606.8	5195.3	4724.3
52.5°	8555.0	8468.4	8270.8	8092.1	7899.9	7634.5	7296.2	6925.3	6408.3	5956.0	5420.0
55°	9386.3	9324.0	9150.7	9039.7	8869.2	8614.7	8297.9	7954.1	7407.2	6914.5	6308.0
57.5°	10748.0	10699.4	10547.6	10501.6	10333.7	10111.8	9722.0	9353.7	8714.8	8102.9	7410.0
60°	13003.1	12905.8	12683.7	12570.1	12215.3	11917.6	11411.4	10905.0	10133.5	9353.7	8519.9
62.5°	15418.0	15144.6	14722.3	14359.6	13856.1	13338.8	12662.0	11887.8	10983.6	10057.7	9099.2
65°	16720.3	16254.7	15721.4	15144.6	14492.3	13731.4	12878.7	11950.1	10978.2	10000.8	8988.2
66°	16869.2	16344.0	15778.3	15136.6	14411.1	13601.6	12735.2	11760.6	10750.6	9797.8	8785.2
67.5°	16682.5	16132.9	15534.6	14822.6	14037.4	13198.1	12288.5	11275.9	10304.0	9337.4	8352.0
70°	15374.8	14827.8	14294.5	13544.7	12708.0	11863.5	11002.5	9870.9	8950.4	8062.3	7185.2
72.5°	12277.6	11906.7	11378.8	10737.2	9922.2	8931.4	8213.9	7201.5	6402.8	5541.9	4862.4
75°	7672.5	7150.1	6497.5	5680.0	5057.2	4253.1	3833.6	3064.6	2609.9	2211.9	1827.5
77.5°	3922.8	3530.4	3072.9	2612.5	2171.3	1732.6	1340.0	947.6	638.9	444.1	330.3
80°	3240.7	2894.2	2515.0	2095.5	1705.7	1323.9	953.0	649.7	414.3	270.8	211.1
82.5°	2677.5	2385.2	2046.7	1656.9	1318.5	1039.7	722.9	471.0	292.3	189.6	148.9
85°	1139.8	1034.3	798.7	633.4	476.4	352.0	246.4	165.2	116.4	94.7	86.6
87.5°	48.7	54.1	51.5	40.6	29.8	29.8	27.1	21.7	21.7	21.7	21.7
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0	425.0
2.5°	444.1	441.3	438.6	438.6	435.8	433.2	416.9	403.4	387.2	376.3	365.5
5°	463.0	460.2	454.9	452.1	446.7	444.1	408.9	378.9	354.6	335.7	322.2
7.5°	481.9	479.2	471.0	463.0	460.2	454.9	398.0	360.0	327.7	306.0	292.3
10°	506.2	498.1	490.1	479.2	471.0	463.0	387.2	338.3	303.2	284.3	270.8
12.5°	541.4	527.9	514.4	500.8	490.1	476.4	381.7	319.4	284.3	262.6	249.1
15°	582.2	563.1	546.8	530.7	511.6	498.1	370.9	303.2	268.0	246.4	230.2
17.5°	620.0	598.3	573.9	549.6	530.7	511.6	360.0	287.0	251.7	230.2	213.9
20°	674.1	641.7	611.9	582.2	555.0	530.7	343.8	270.8	238.2	213.9	197.6
22.5°	733.7	695.8	657.9	617.3	582.2	549.6	330.3	257.1	224.7	200.4	181.3
25°	809.5	763.5	712.0	660.6	620.0	576.7	316.8	243.6	211.1	186.8	167.9
27.5°	915.1	850.1	793.2	728.3	666.0	617.3	306.0	232.8	197.6	173.3	154.4
30°	1058.6	963.7	874.5	804.1	730.9	660.6	295.1	219.3	186.8	159.8	138.1
32.5°	1218.2	1107.3	1004.3	898.8	806.7	725.5	284.3	208.5	173.3	146.2	127.2
35°	1416.0	1275.1	1137.0	1015.2	904.2	795.9	273.4	197.6	162.4	132.7	113.8
37.5°	1700.3	1524.2	1342.8	1185.8	1042.3	898.8	265.3	186.8	148.9	119.2	100.1
40°	2090.1	1862.7	1640.6	1426.7	1239.9	1061.2	254.5	175.9	138.1	108.3	89.3
42.5°	2512.4	2236.2	1943.9	1702.9	1445.8	1221.0	243.6	165.2	127.2	97.5	78.6
45°	3037.7	2693.7	2339.1	2011.5	1697.5	1407.8	232.8	154.4	113.8	86.6	67.7
47.5°	3611.6	3173.0	2772.3	2360.8	1987.1	1640.6	219.3	146.2	102.9	75.8	59.5
50°	4201.8	3738.9	3232.5	2764.1	2320.2	1873.5	205.8	132.7	92.1	67.7	48.7
52.5°	4837.9	4291.1	3774.0	3191.9	2674.8	2179.3	192.2	121.8	83.8	59.5	40.6
55°	5647.4	5035.7	4429.2	3776.7	3154.1	2534.1	178.7	108.3	73.2	51.5	32.6
57.5°	6665.4	5939.9	5195.3	4458.9	3703.7	2999.7	167.9	94.7	62.3	43.2	27.1
60°	7626.5	6779.2	5877.6	5030.2	4177.3	3357.1	151.6	83.8	54.1	35.2	27.1
62.5°	8124.6	7158.1	6186.2	5252.2	4342.5	3484.4	135.3	70.4	46.0	29.8	24.3
65°	8002.8	7017.4	6075.2	5133.0	4242.4	3403.1	119.2	62.3	40.6	27.1	24.3
66°	7826.9	6852.2	5904.7	5008.5	4158.4	3316.5	111.0	59.5	38.0	27.1	21.7
67.5°	7442.4	6500.2	5596.0	4762.1	3928.2	3151.3	100.1	54.1	35.2	24.3	21.7
70°	6356.8	5501.3	4778.4	4036.6	3357.1	2655.9	81.2	46.0	29.8	21.7	21.7
72.5°	4207.1	3625.1	3143.2	2704.6	2260.5	1754.3	67.7	38.0	24.3	21.7	18.9
75°	1586.5	1434.9	1231.9	1107.3	966.5	847.3	54.1	24.3	18.9	18.9	18.9
77.5°	281.6	259.9	230.2	211.1	195.0	178.7	43.2	16.3	16.3	18.9	18.9
80°	189.6	175.9	159.8	146.2	135.3	121.8	29.8	13.5	16.3	16.3	18.9
82.5°	135.3	127.2	119.2	108.3	100.1	89.3	18.9	13.5	16.3	16.3	16.3
85°	81.2	75.8	70.4	64.9	56.9	54.1	13.5	13.5	13.5	16.3	16.3
87.5°	21.7	18.9	21.7	21.7	16.3	18.9	10.9	10.9	10.9	13.5	13.5
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°	425.0	425.0	425.0	425.0	425.0
2.5°	360.0	360.0	354.6	362.8	362.8
5°	311.4	311.4	308.6	311.4	311.4
7.5°	284.3	281.6	281.6	281.6	284.3
10°	259.9	257.1	257.1	257.1	257.1
12.5°	238.2	235.6	232.8	235.6	235.6
15°	219.3	213.9	213.9	213.9	213.9
17.5°	203.0	197.6	195.0	195.0	195.0
20°	186.8	178.7	178.7	178.7	178.7
22.5°	170.5	162.4	162.4	162.4	162.4
25°	154.4	146.2	146.2	146.2	146.2
27.5°	140.7	132.7	132.7	132.7	132.7
30°	124.6	119.2	119.2	121.8	119.2
32.5°	113.8	105.5	105.5	108.3	108.3
35°	100.1	94.7	94.7	94.7	94.7
37.5°	86.6	81.2	81.2	81.2	81.2
40°	75.8	70.4	67.7	70.4	70.4
42.5°	64.9	59.5	56.9	56.9	56.9
45°	56.9	48.7	46.0	48.7	48.7
47.5°	46.0	40.6	40.6	43.2	43.2
50°	35.2	35.2	38.0	43.2	43.2
52.5°	32.6	32.6	38.0	43.2	43.2
55°	29.8	32.6	38.0	40.6	43.2
57.5°	27.1	32.6	38.0	40.6	40.6
60°	27.1	29.8	35.2	40.6	40.6
62.5°	24.3	27.1	32.6	38.0	38.0
65°	24.3	27.1	32.6	38.0	38.0
66°	24.3	27.1	32.6	38.0	38.0
67.5°	24.3	27.1	32.6	38.0	38.0
70°	24.3	27.1	32.6	35.2	35.2
72.5°	21.7	24.3	29.8	35.2	35.2
75°	21.7	24.3	29.8	35.2	35.2
77.5°	21.7	24.3	29.8	35.2	35.2
80°	21.7	24.3	29.8	32.6	35.2
82.5°	18.9	24.3	27.1	32.6	32.6
85°	18.9	21.7	27.1	29.8	32.6
87.5°	16.3	18.9	21.7	27.1	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)