

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: P159772

Luminaire Tested: **VST-E05-LED-E-U-T4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159772
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E05-LED-E-U-T4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (105) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15270.3 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 127.3
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

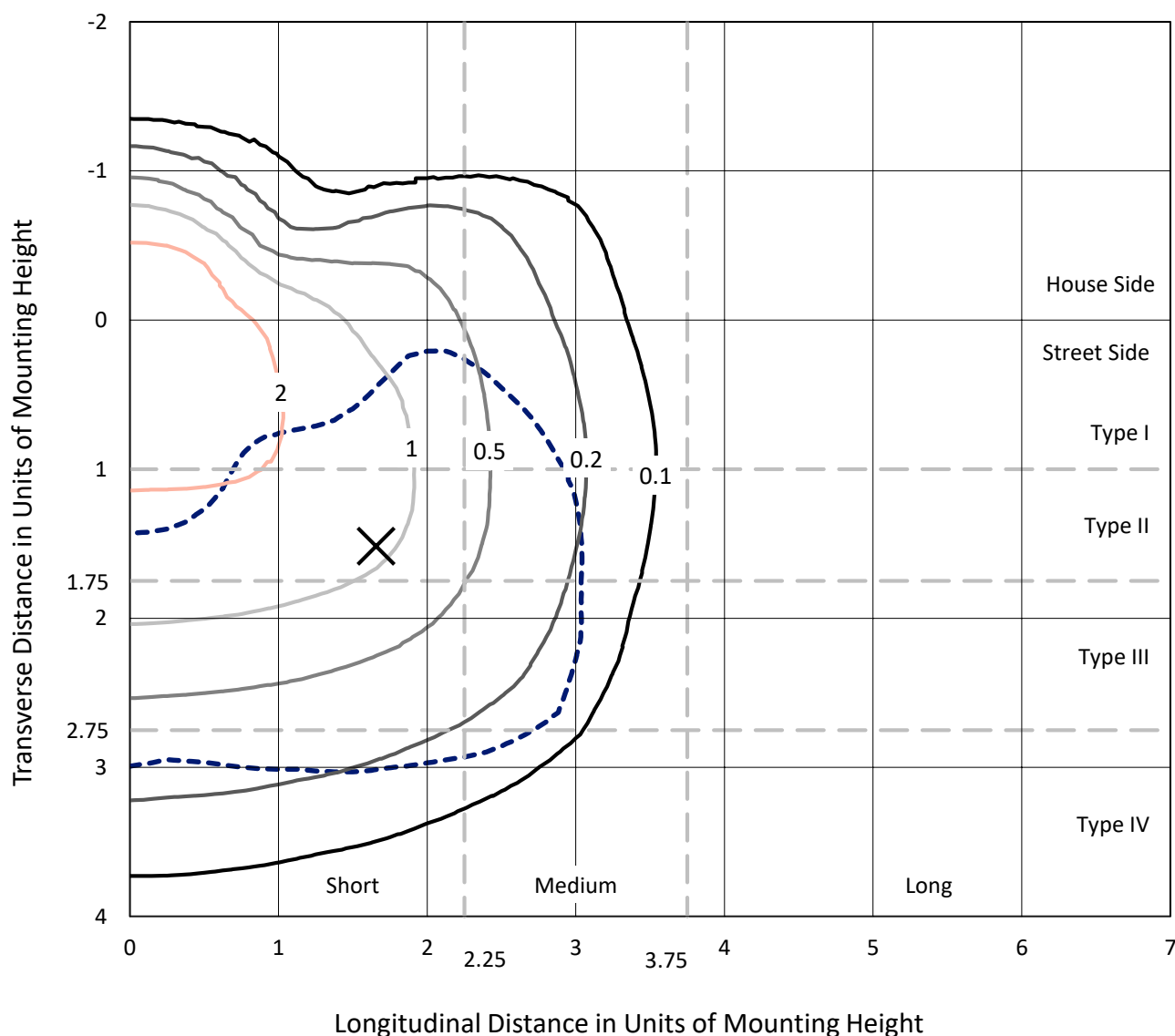


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

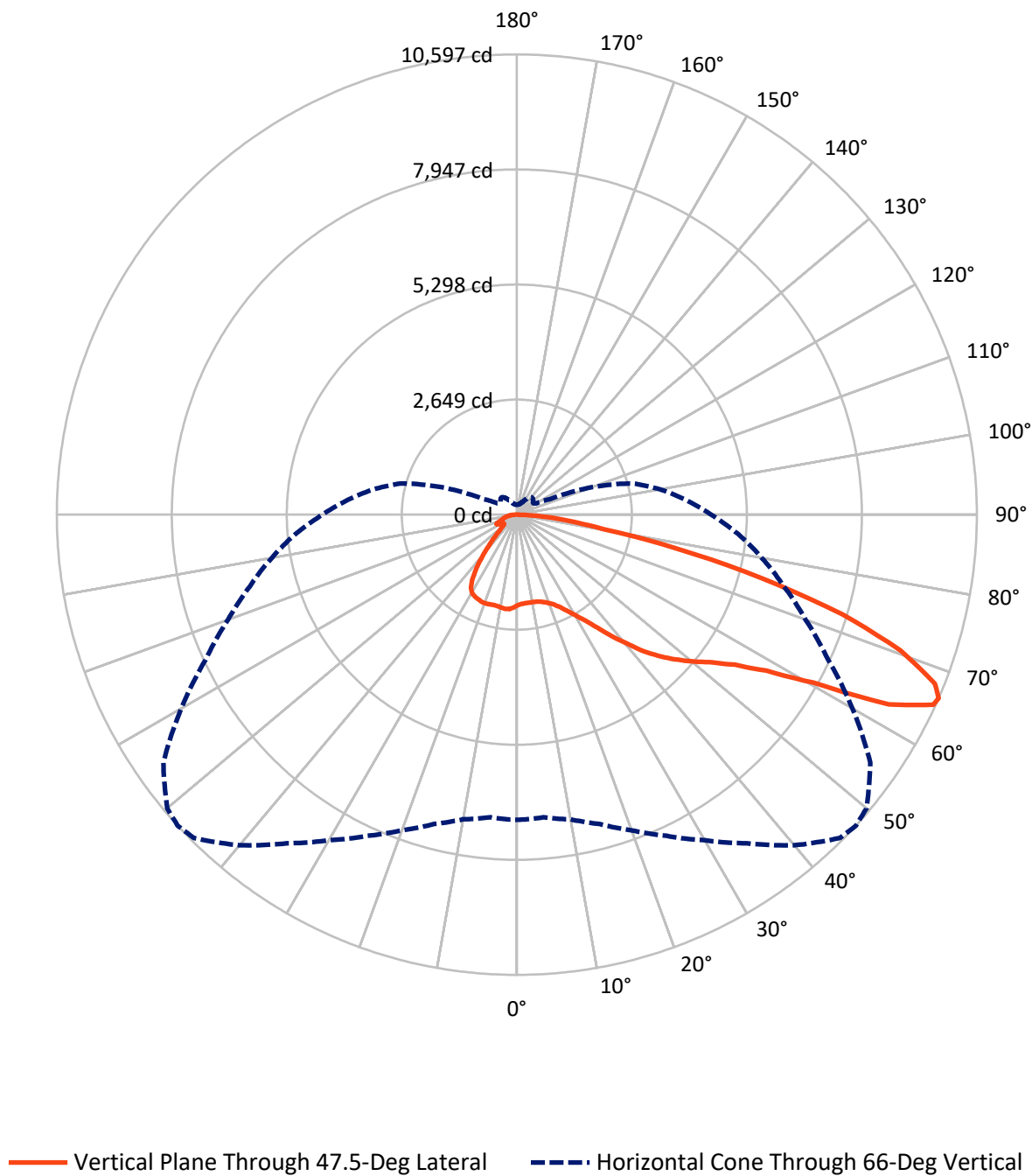


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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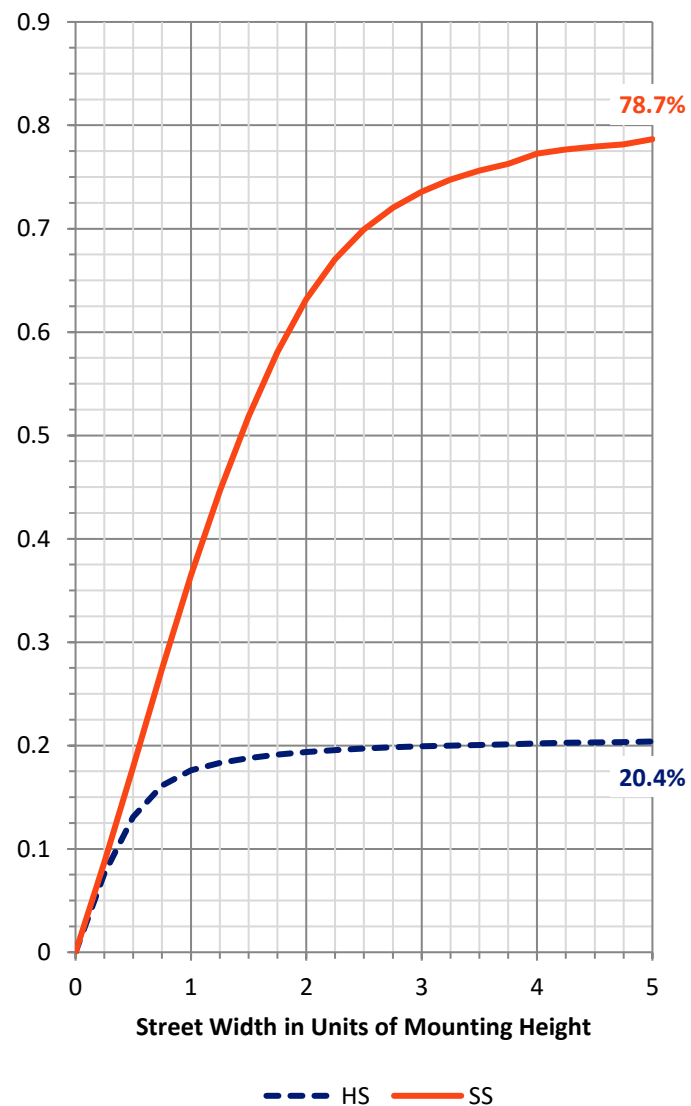
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3161.6	0.0	3161.6
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	12108.7	0.0	12108.7
	% Fixture	79.3	0.0	79.3
Total	Lumens	15270.3	0.0	15270.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	1.3
10°-20°	603.8	4.0
20°-30°	1030.3	6.7
30°-40°	1555.0	10.2
40°-50°	2021.2	13.2
50°-60°	2772.9	18.2
60°-70°	4265.6	27.9
70°-80°	2465.8	16.1
80°-90°	354.2	2.3
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°	15270.3	100.0
0°-180°	15270.3	100.0

Coefficient of Utilization



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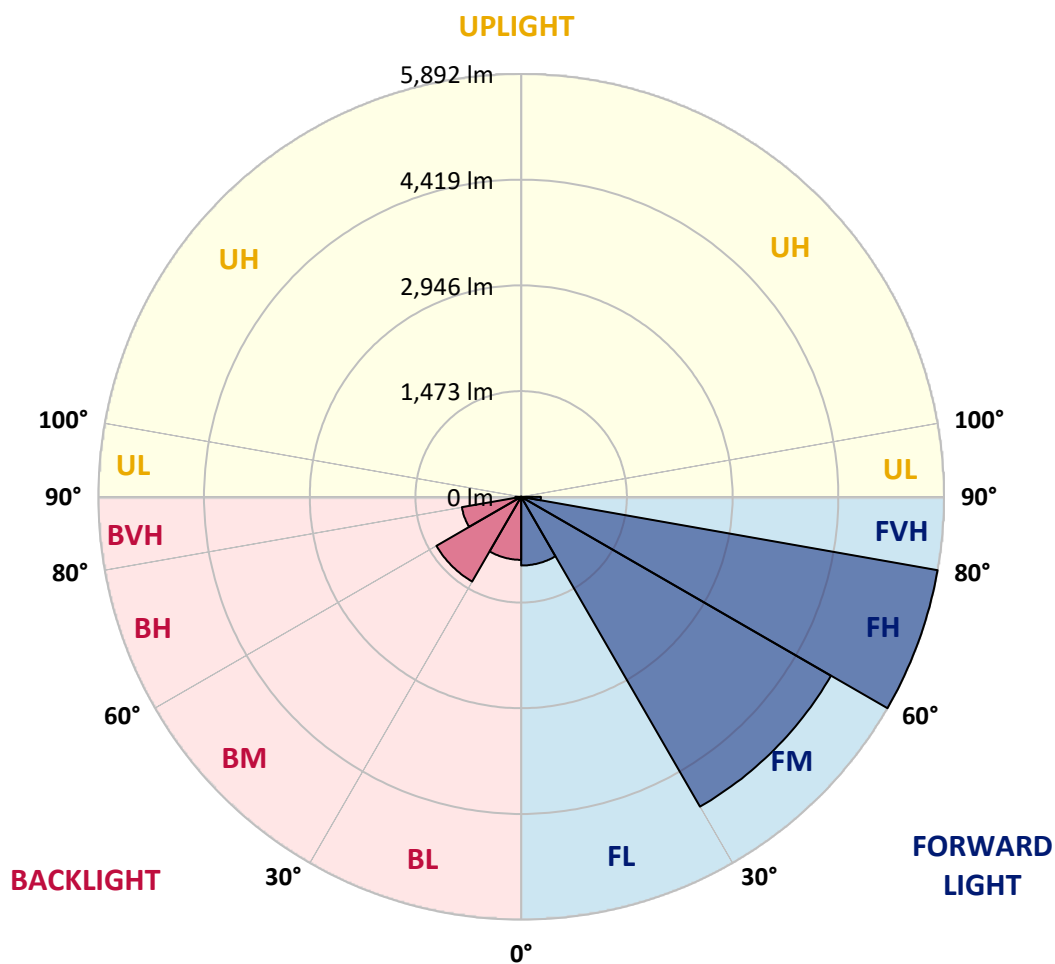
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	957.2	6.3			
FM	(30°-60°)	4985.1	32.6			
FH	(60°-80°)	5892.3	38.6			G3/7500
FVH	(80°-90°)	274.1	1.8			G3/500
BL	(0°-30°)	878.3	5.8	B2/1000		
BM	(30°-60°)	1364.1	8.9	B2/2500		
BH	(60°-80°)	839.1	5.5	B2/1000		G2/1000
BVH	(80°-90°)	80.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2
2.5°	2035.8	2036.8	2037.8	2037.8	2040.9	2040.9	2046.1	2049.1	2050.2	2056.3	2060.4
5°	1997.8	1996.8	1997.8	1999.9	2005.0	2009.1	2019.4	2026.6	2032.7	2043.0	2048.1
7.5°	1981.4	1983.5	1985.5	1986.5	1990.6	2000.9	2010.1	2017.3	2029.6	2041.9	2047.1
10°	2003.0	2006.0	2003.0	2005.0	2005.0	2014.2	2018.3	2023.5	2032.7	2044.0	2047.1
12.5°	2053.2	2059.4	2053.2	2048.1	2044.0	2052.2	2050.2	2046.1	2051.2	2054.3	2054.3
15°	2136.4	2136.4	2132.2	2125.1	2114.8	2115.8	2106.6	2097.4	2093.3	2086.1	2080.9
17.5°	2217.4	2215.4	2206.1	2196.9	2189.7	2186.6	2173.3	2161.0	2146.6	2135.3	2123.0
20°	2296.4	2304.6	2293.3	2280.0	2268.7	2261.5	2251.3	2226.6	2209.2	2190.7	2178.4
22.5°	2432.9	2425.7	2413.4	2393.9	2382.6	2370.3	2348.8	2322.1	2295.4	2272.8	2257.4
25°	2573.5	2566.3	2548.8	2534.5	2518.1	2507.8	2484.2	2451.4	2425.7	2390.8	2370.3
27.5°	2724.3	2718.2	2697.6	2686.3	2675.1	2662.7	2642.2	2608.4	2584.8	2544.7	2523.2
30°	2894.6	2893.6	2865.9	2863.9	2847.4	2834.1	2819.7	2791.0	2767.4	2727.4	2701.7
32.5°	3076.3	3072.2	3052.7	3046.5	3057.8	3048.6	3028.0	2998.3	2967.5	2943.9	2915.2
35°	3334.8	3327.7	3316.4	3321.5	3328.7	3354.3	3322.5	3296.9	3259.9	3229.2	3189.1
37.5°	3523.6	3513.4	3526.7	3555.5	3596.5	3616.0	3643.7	3644.7	3627.3	3586.2	3551.4
40°	3697.1	3693.0	3723.7	3763.8	3839.7	3895.1	3947.4	3973.1	3979.2	3952.6	3900.2
42.5°	3843.8	3856.1	3897.1	3958.7	4065.4	4149.6	4247.1	4307.6	4345.6	4331.2	4307.6
45°	4018.2	4024.4	4074.7	4152.6	4254.2	4393.8	4522.0	4624.7	4691.4	4690.3	4663.6
47.5°	4236.8	4237.8	4280.9	4372.2	4481.0	4622.6	4784.7	4921.2	5009.4	5013.6	4993.0
50°	4496.4	4494.3	4541.5	4627.7	4743.7	4880.2	5052.5	5222.9	5346.0	5346.0	5316.3
52.5°	4830.9	4826.8	4852.5	4928.4	5040.2	5183.9	5355.2	5552.3	5685.7	5714.4	5649.7
55°	5277.3	5283.4	5289.6	5356.3	5451.7	5565.6	5762.6	5944.2	6122.8	6139.2	6101.2
57.5°	5793.4	5772.9	5817.0	5925.8	6034.5	6177.2	6316.7	6531.2	6742.5	6778.5	6773.3
60°	6599.9	6573.2	6618.4	6756.9	6877.0	7101.7	7340.8	7617.8	7868.2	7942.1	7852.8
62.5°	7341.8	7374.6	7436.2	7597.3	7771.7	8071.3	8430.5	8905.6	9380.7	9639.2	9620.8
65°	7275.1	7244.3	7362.3	7581.9	7897.9	8279.6	8726.0	9298.6	9983.0	10502.2	10548.4
66°	7027.8	6996.0	7123.2	7374.6	7735.8	8160.6	8656.2	9239.1	9938.9	10525.8	10596.6
67.5°	6619.4	6587.6	6731.3	6960.1	7332.5	7867.2	8402.8	9040.0	9767.5	10329.8	10387.3
70°	5831.4	5788.3	5900.1	6158.7	6460.4	6977.5	7487.5	8162.7	8909.7	9359.1	9380.7
72.5°	4939.7	4839.1	4958.1	5157.2	5372.7	5800.6	6244.9	6706.6	7301.8	7717.3	7836.4
75°	3584.2	3636.5	3671.4	3802.7	3945.4	4299.4	4560.0	4946.9	5407.6	5708.2	5803.7
77.5°	1901.4	1980.4	2029.6	2161.0	2397.0	2666.8	2949.0	3188.1	3490.8	3659.1	3776.1
80°	1067.1	1122.6	1202.6	1306.2	1421.2	1628.4	1795.7	1918.8	1961.9	1991.7	2018.3
82.5°	586.9	727.5	846.5	918.4	986.1	1069.2	1168.7	1271.3	1304.2	1254.9	1229.3
85°	91.3	134.4	409.4	499.7	543.8	607.5	679.3	755.2	756.2	650.6	710.1
87.5°	25.7	28.7	58.5	88.2	86.2	69.8	86.2	157.0	92.3	46.2	53.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2
2.5°	2062.5	2064.5	2069.7	2074.8	2079.9	2085.0	2088.1	2093.3	2097.4	2103.5	2110.7
5°	2054.3	2059.4	2068.6	2079.9	2090.2	2099.4	2106.6	2116.9	2126.1	2134.3	2146.6
7.5°	2054.3	2064.5	2079.9	2092.2	2101.5	2112.8	2124.0	2134.3	2144.6	2152.8	2161.0
10°	2055.3	2065.6	2080.9	2095.3	2105.6	2117.9	2127.1	2136.4	2147.6	2152.8	2163.0
12.5°	2059.4	2063.5	2074.8	2089.2	2101.5	2113.8	2123.0	2132.2	2144.6	2146.6	2153.8
15°	2079.9	2073.8	2076.8	2087.1	2100.4	2110.7	2121.0	2128.1	2136.4	2134.3	2140.5
17.5°	2117.9	2102.5	2096.3	2097.4	2103.5	2110.7	2114.8	2115.8	2116.9	2107.6	2108.6
20°	2169.2	2147.6	2133.3	2126.1	2117.9	2110.7	2099.4	2086.1	2073.8	2055.3	2053.2
22.5°	2246.1	2214.3	2198.9	2179.4	2154.8	2124.0	2096.3	2063.5	2036.8	2009.1	1998.9
25°	2358.0	2325.2	2308.7	2278.0	2233.8	2189.7	2149.7	2105.6	2066.6	2033.7	2018.3
27.5°	2507.8	2475.0	2457.5	2425.7	2371.3	2327.2	2271.8	2224.6	2177.4	2129.2	2109.7
30°	2689.4	2660.7	2641.2	2615.5	2568.3	2520.1	2455.5	2382.6	2307.7	2230.8	2192.8
32.5°	2903.9	2872.1	2857.7	2827.9	2778.7	2728.4	2656.6	2563.2	2438.0	2316.9	2241.0
35°	3171.7	3135.8	3119.4	3080.4	3022.9	2949.0	2872.1	2746.9	2577.6	2409.3	2285.1
37.5°	3529.8	3449.8	3395.4	3306.1	3213.8	3110.1	3000.3	2872.1	2672.0	2463.7	2291.3
40°	3846.9	3765.8	3661.1	3532.9	3389.2	3246.6	3121.4	2975.7	2758.2	2502.7	2271.8
42.5°	4240.9	4097.2	3930.0	3756.6	3565.7	3390.3	3241.5	3070.1	2816.7	2512.9	2217.4
45°	4601.1	4429.7	4206.0	3975.1	3738.1	3517.5	3350.2	3159.4	2866.9	2512.9	2151.7
47.5°	4929.4	4724.2	4456.4	4169.1	3893.0	3651.9	3462.1	3250.7	2937.7	2544.7	2132.2
50°	5233.1	4997.1	4692.4	4358.9	4049.0	3791.5	3587.3	3367.7	3045.5	2626.8	2179.4
52.5°	5553.3	5302.9	4931.5	4577.5	4235.8	3959.7	3742.2	3512.4	3185.0	2756.1	2262.6
55°	5973.0	5679.5	5257.8	4867.8	4492.3	4187.5	3940.2	3685.8	3337.9	2901.8	2364.1
57.5°	6634.8	6209.0	5787.2	5280.3	4926.3	4525.1	4254.2	3961.8	3586.2	3091.7	2517.0
60°	7793.3	7270.0	6763.1	6180.2	5743.1	5323.4	4914.0	4532.3	4079.8	3520.6	2852.6
62.5°	9447.4	8915.8	8119.6	7406.4	6746.6	6190.5	5656.9	5171.6	4590.8	3979.2	3266.1
65°	10435.5	9827.0	8877.9	7919.5	7118.1	6428.6	5818.0	5223.9	4597.0	4000.8	3391.3
66°	10514.5	9938.9	8925.1	7912.3	7080.1	6364.9	5729.8	5115.1	4472.8	3902.3	3350.2
67.5°	10367.8	9872.2	8828.6	7772.7	6922.1	6149.4	5496.8	4852.5	4207.0	3678.6	3213.8
70°	9332.4	8974.3	8079.6	7090.4	6241.8	5560.5	4871.9	4252.2	3640.6	3196.3	2851.5
72.5°	7650.6	7197.1	6571.2	5906.3	5238.3	4633.9	4008.0	3480.5	2967.5	2644.3	2400.1
75°	5620.0	5211.6	4522.0	4107.5	3666.3	3286.6	2864.9	2365.2	2000.9	1838.8	1779.3
77.5°	3562.6	3119.4	2537.6	2079.9	1788.5	1537.1	1211.8	963.5	771.6	803.4	889.6
80°	1799.8	1550.4	1160.5	916.3	792.2	658.8	521.3	395.1	288.3	329.4	372.5
82.5°	1155.4	964.5	768.6	605.4	511.0	450.5	360.2	261.7	195.0	219.6	268.8
85°	695.7	588.0	468.9	383.8	333.5	278.1	204.2	144.7	143.7	153.9	189.8
87.5°	105.7	150.8	87.2	93.4	98.5	105.7	93.4	79.0	68.7	89.3	112.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2	2089.2
2.5°	2117.9	2119.9	2124.0	2129.2	2128.1	2135.3	2139.4	2135.3	2144.6	2144.6	2149.7
5°	2156.9	2160.0	2167.1	2172.3	2174.3	2180.5	2182.5	2181.5	2183.6	2184.6	2186.6
7.5°	2168.2	2176.4	2179.4	2182.5	2183.6	2185.6	2185.6	2183.6	2183.6	2182.5	2184.6
10°	2165.1	2168.2	2170.2	2169.2	2169.2	2167.1	2166.1	2165.1	2165.1	2163.0	2166.1
12.5°	2154.8	2154.8	2154.8	2152.8	2152.8	2151.7	2151.7	2151.7	2153.8	2154.8	2160.0
15°	2134.3	2134.3	2136.4	2135.3	2138.4	2143.5	2149.7	2153.8	2158.9	2160.0	2163.0
17.5°	2102.5	2103.5	2109.7	2123.0	2136.4	2151.7	2163.0	2166.1	2162.0	2151.7	2144.6
20°	2047.1	2060.4	2085.0	2116.9	2146.6	2166.1	2171.2	2158.9	2139.4	2112.8	2098.4
22.5°	1997.8	2024.5	2068.6	2121.0	2157.9	2171.2	2155.8	2127.1	2092.2	2061.4	2039.9
25°	2017.3	2048.1	2094.3	2139.4	2163.0	2155.8	2125.1	2084.0	2047.1	2011.2	1976.3
27.5°	2099.4	2130.2	2163.0	2176.4	2168.2	2141.5	2098.4	2054.3	2005.0	1953.7	1910.6
30°	2177.4	2194.8	2196.9	2183.6	2153.8	2110.7	2060.4	2009.1	1946.5	1885.0	1830.6
32.5°	2202.0	2181.5	2144.6	2106.6	2065.6	2021.4	1962.9	1895.2	1828.5	1758.7	1698.2
35°	2194.8	2111.7	2020.4	1939.3	1890.1	1839.8	1786.4	1696.2	1621.2	1561.7	1522.7
37.5°	2130.2	1978.3	1837.8	1719.8	1642.8	1583.3	1504.3	1429.4	1364.7	1338.0	1306.2
40°	2039.9	1808.0	1613.0	1447.8	1367.8	1291.9	1203.6	1146.2	1127.7	1103.1	1104.1
42.5°	1910.6	1608.9	1357.5	1167.7	1080.5	997.4	934.8	900.9	901.9	881.4	885.5
45°	1774.1	1408.8	1092.8	904.0	817.8	747.0	712.1	701.9	702.9	703.9	697.8
47.5°	1691.0	1252.9	876.3	685.4	609.5	569.5	551.0	545.9	546.9	547.9	540.8
50°	1678.7	1171.8	731.6	524.3	475.1	452.5	443.3	438.1	438.1	434.0	427.9
52.5°	1713.6	1151.3	660.8	454.6	407.4	386.8	379.7	375.6	369.4	361.2	349.9
55°	1769.0	1169.8	639.3	431.0	384.8	364.3	355.0	353.0	342.7	327.3	308.9
57.5°	1871.6	1236.5	653.6	437.1	388.9	370.4	364.3	362.2	347.8	324.2	300.6
60°	2166.1	1430.4	725.5	472.0	418.7	403.3	403.3	400.2	380.7	346.8	313.0
62.5°	2572.4	1714.6	822.9	520.2	459.7	457.6	475.1	476.1	441.2	386.8	333.5
65°	2768.4	1848.0	856.8	530.5	471.0	494.6	529.5	529.5	480.2	405.3	336.6
66°	2769.5	1844.9	846.5	518.2	458.7	489.5	525.4	525.4	474.1	400.2	331.4
67.5°	2698.7	1787.5	812.7	495.6	431.0	459.7	491.5	490.5	444.3	379.7	317.1
70°	2420.6	1581.2	716.2	458.7	398.1	399.2	410.4	403.3	372.5	328.4	288.3
72.5°	2087.1	1322.6	620.8	435.1	372.5	353.0	343.7	337.6	318.1	291.4	266.8
75°	1600.7	1027.1	540.8	413.5	349.9	316.0	303.7	298.6	285.3	269.9	250.4
77.5°	981.0	703.9	458.7	378.6	324.2	293.5	280.1	269.9	256.5	242.2	228.8
80°	422.8	424.8	367.3	321.2	282.2	246.3	228.8	216.5	209.3	204.2	197.0
82.5°	295.5	304.8	280.1	249.3	215.5	189.8	174.4	171.4	172.4	172.4	170.3
85°	221.6	217.5	196.0	178.5	163.2	146.7	134.4	133.4	137.5	137.5	134.4
87.5°	128.3	129.3	110.8	103.6	107.7	92.3	84.1	85.2	95.4	94.4	92.3
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):

	160°	165°	170°	175°	180°
0°	2089.2	2089.2	2089.2	2089.2	2089.2
2.5°	2149.7	2152.8	2151.7	2154.8	2151.7
5°	2189.7	2188.7	2187.7	2191.8	2186.6
7.5°	2183.6	2184.6	2184.6	2184.6	2183.6
10°	2168.2	2172.3	2174.3	2178.4	2177.4
12.5°	2163.0	2169.2	2175.3	2181.5	2182.5
15°	2164.1	2168.2	2171.2	2174.3	2175.3
17.5°	2137.4	2136.4	2133.3	2131.2	2129.2
20°	2083.0	2077.9	2072.7	2064.5	2068.6
22.5°	2015.3	2000.9	1984.5	1971.1	1970.1
25°	1936.3	1909.6	1882.9	1865.5	1859.3
27.5°	1866.5	1834.7	1807.0	1791.6	1787.5
30°	1783.4	1754.6	1730.0	1716.7	1708.5
32.5°	1660.2	1637.7	1606.9	1596.6	1595.6
35°	1488.9	1471.4	1449.9	1445.8	1440.7
37.5°	1294.9	1288.8	1278.5	1266.2	1264.2
40°	1087.7	1091.8	1088.7	1081.5	1070.2
42.5°	887.6	894.8	895.8	900.9	906.1
45°	707.0	713.1	713.1	718.3	724.4
47.5°	542.8	538.7	541.8	546.9	550.0
50°	410.4	407.4	402.2	398.1	394.0
52.5°	330.4	324.2	309.9	305.8	301.7
55°	291.4	280.1	269.9	265.8	265.8
57.5°	280.1	265.8	254.5	249.3	247.3
60°	282.2	261.7	247.3	239.1	236.0
62.5°	291.4	262.7	243.2	234.0	230.9
65°	290.4	260.6	242.2	231.9	228.8
66°	285.3	257.6	240.1	230.9	228.8
67.5°	277.0	253.4	238.1	229.8	226.8
70°	260.6	245.2	234.0	226.8	223.7
72.5°	247.3	237.0	226.8	218.6	216.5
75°	235.0	224.7	215.5	211.4	208.3
77.5°	216.5	207.3	202.1	198.0	196.0
80°	191.9	185.7	179.6	175.5	172.4
82.5°	167.3	159.0	152.9	149.8	147.8
85°	136.5	131.3	122.1	115.9	114.9
87.5°	91.3	86.2	83.1	78.0	72.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)