

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: P159593

Luminaire Tested: **VST-F09-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159593
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F09-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (63) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19177.8 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

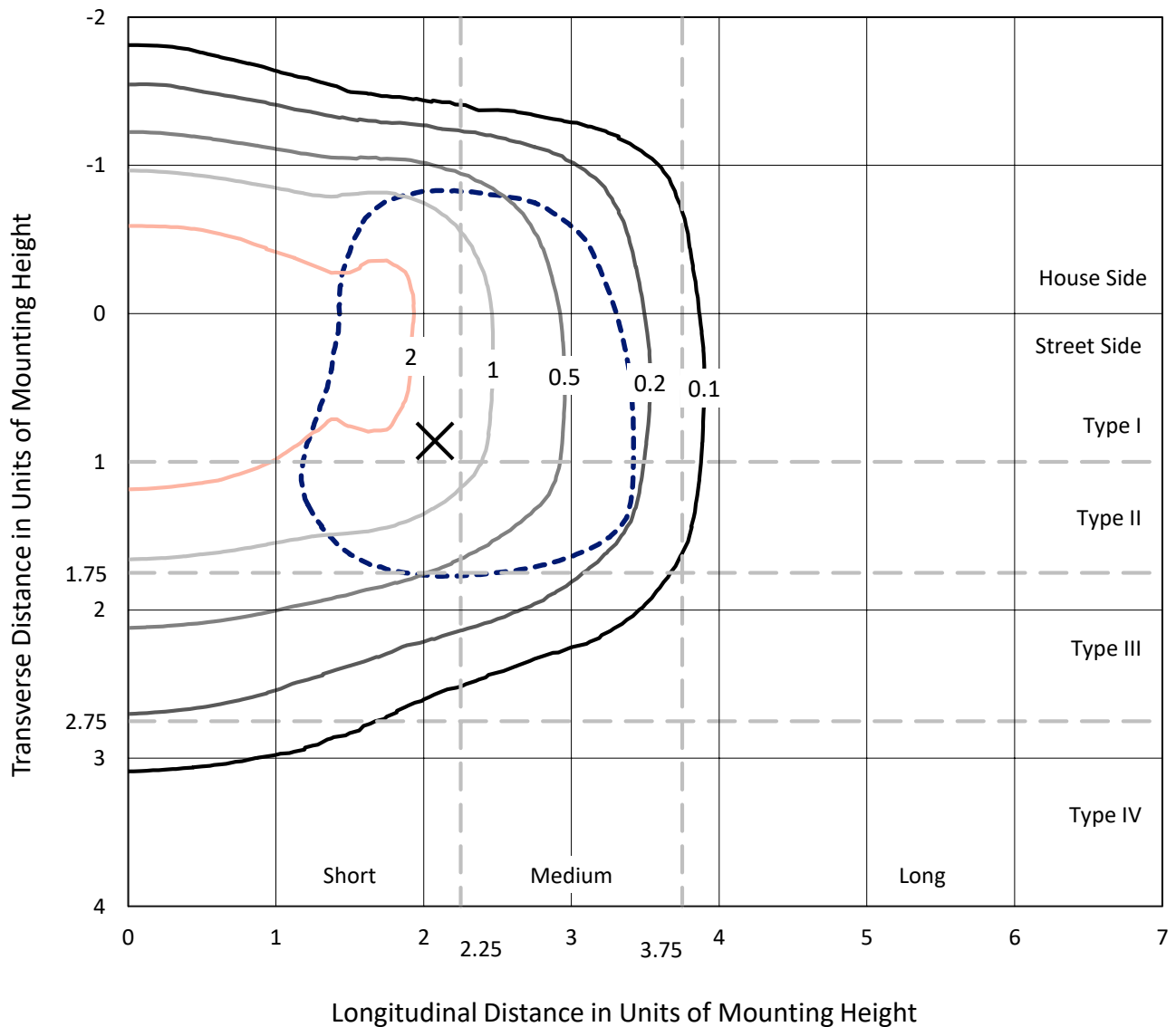
Input Watts (W): 234.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

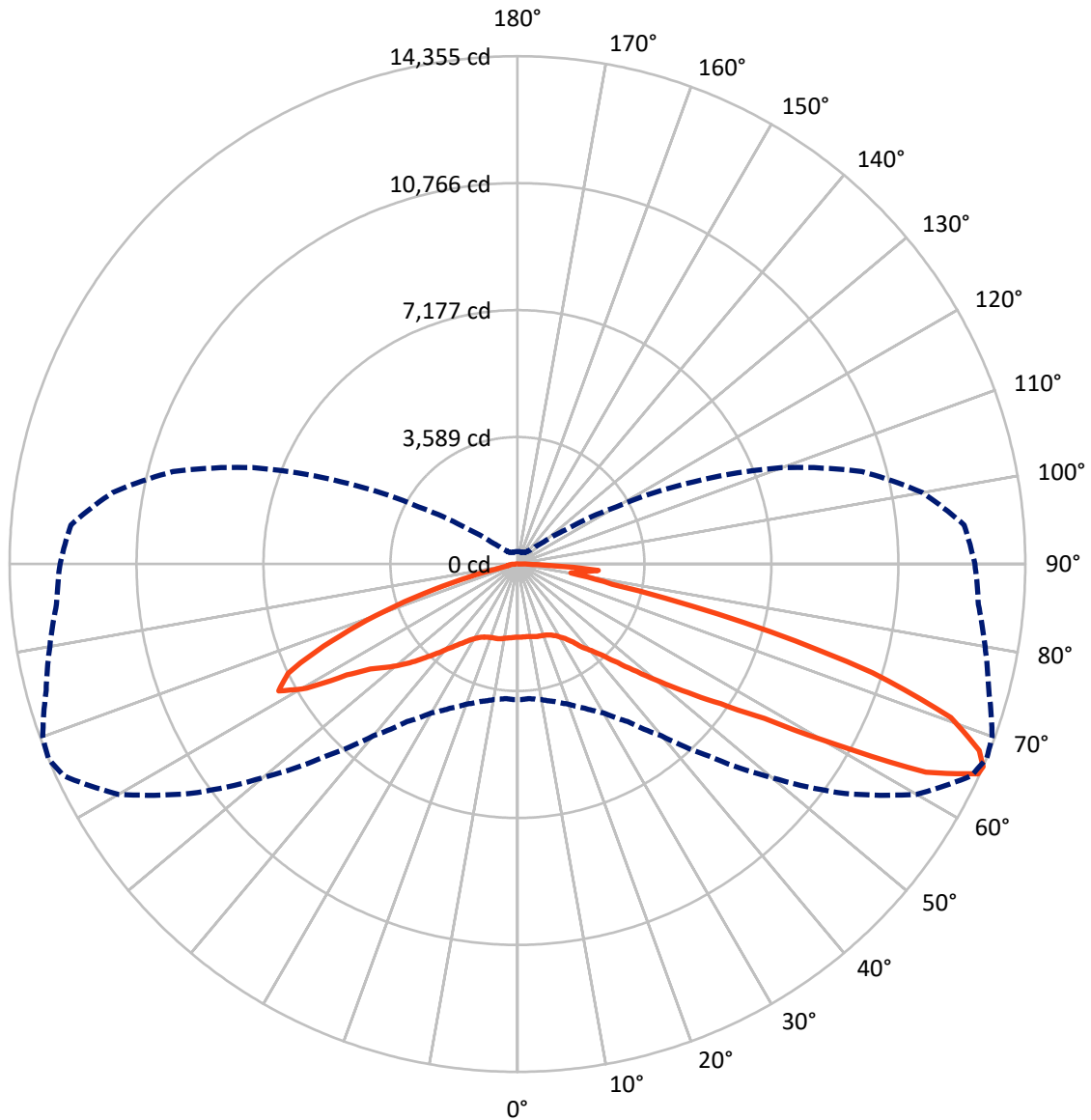


Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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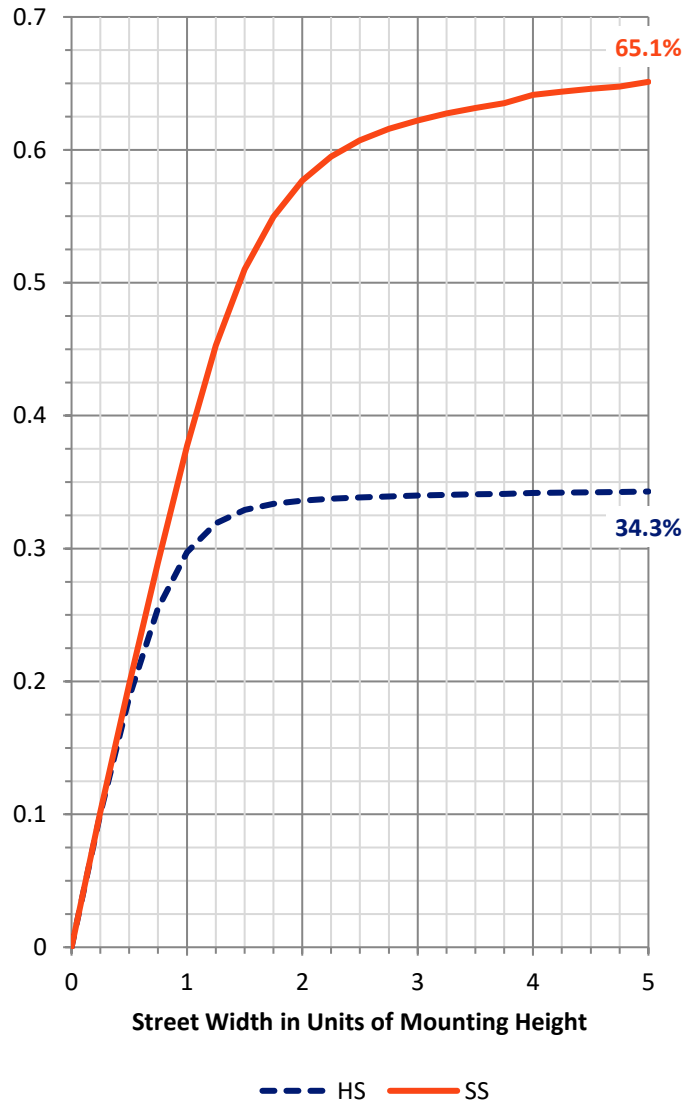
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6636.4	0.0	6636.4
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	12541.4	0.0	12541.4
	% Fixture	65.4	0.0	65.4
Total	Lumens	19177.8	0.0	19177.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.6	1.0
10°-20°	588.0	3.1
20°-30°	1010.8	5.3
30°-40°	1633.6	8.5
40°-50°	2707.2	14.1
50°-60°	4248.7	22.2
60°-70°	5808.9	30.3
70°-80°	2554.5	13.3
80°-90°	427.6	2.2
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°	19177.8	100.0
0°-180°	19177.8	100.0

Coefficient of Utilization



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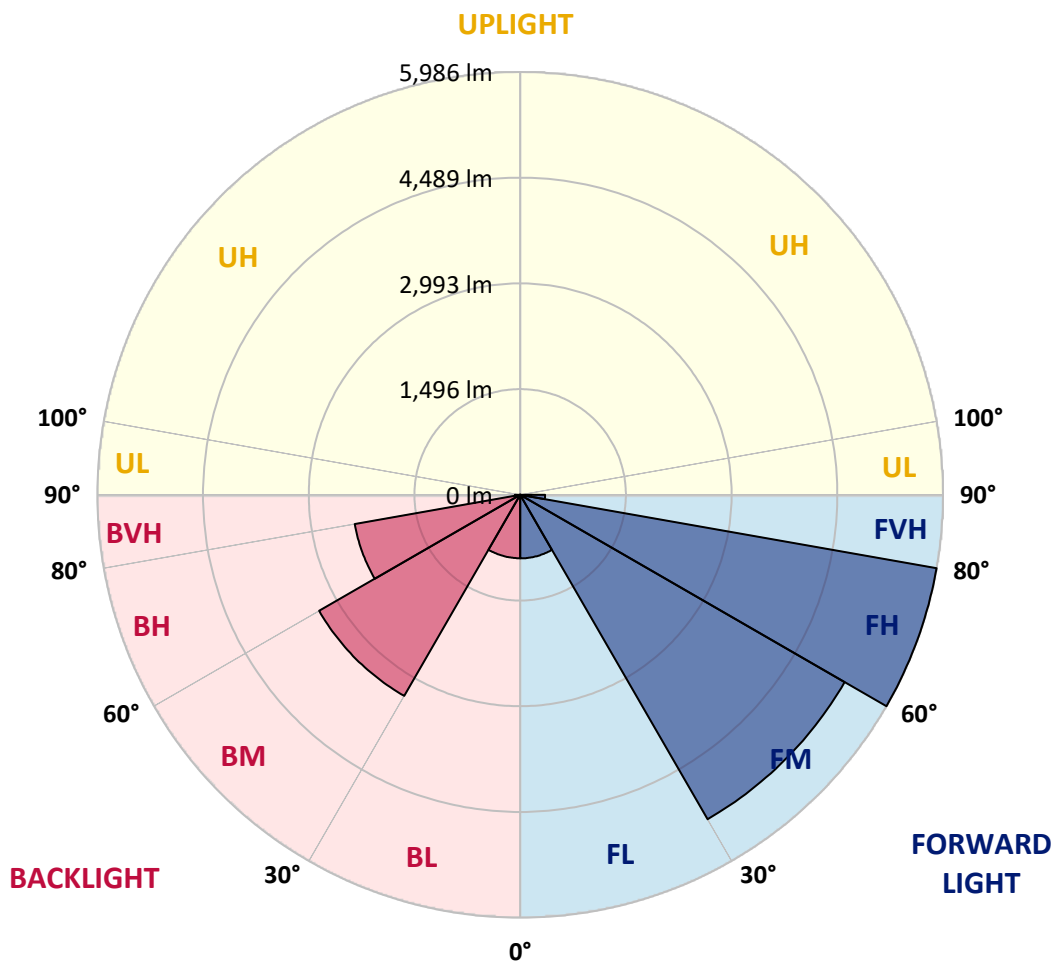
CATALOG NUMBER: VST-F09-LED-E-U-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	899.6	4.7			
FM	(30°-60°)	5303.2	27.7			
FH	(60°-80°)	5985.8	31.2			G3/7500
FVH	(80°-90°)	352.8	1.8			G3/500
BL	(0°-30°)	897.7	4.7	B2/1000		
BM	(30°-60°)	3286.3	17.1	B3/5000		
BH	(60°-80°)	2377.5	12.4	B3/2500		G3/2500
BVH	(80°-90°)	74.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3
2.5°	2065.5	2065.5	2066.8	2065.5	2065.5	2064.3	2069.3	2069.3	2069.3	2068.1	2071.8
5°	2060.5	2060.5	2061.8	2061.8	2063.0	2061.8	2065.5	2066.8	2066.8	2066.8	2070.6
7.5°	2048.0	2051.7	2049.2	2050.5	2051.7	2055.5	2060.5	2063.0	2065.5	2069.3	2070.6
10°	2021.6	2027.9	2026.7	2030.4	2031.7	2043.0	2046.7	2051.7	2060.5	2065.5	2069.3
12.5°	1985.3	1989.0	1990.3	1995.3	2000.3	2014.1	2024.2	2032.9	2045.5	2058.0	2070.6
15°	1956.4	1958.9	1958.9	1964.0	1971.5	1984.0	1996.6	2011.6	2030.4	2051.7	2071.8
17.5°	1965.2	1971.5	1966.5	1965.2	1967.7	1975.2	1986.5	1999.1	2021.6	2045.5	2069.3
20°	2022.9	2024.2	2021.6	2015.4	2010.4	2011.6	2011.6	2014.1	2027.9	2046.7	2065.5
22.5°	2070.6	2075.6	2074.3	2075.6	2074.3	2079.3	2076.8	2071.8	2066.8	2068.1	2076.8
25°	2111.9	2117.0	2117.0	2120.7	2127.0	2137.0	2144.6	2143.3	2135.8	2125.7	2122.0
27.5°	2179.7	2179.7	2179.7	2183.4	2192.2	2204.7	2217.3	2224.8	2231.1	2221.1	2199.7
30°	2286.3	2287.5	2283.8	2285.0	2291.3	2307.6	2322.6	2333.9	2346.5	2345.2	2317.6
32.5°	2402.9	2407.9	2406.7	2411.7	2420.5	2435.5	2451.8	2469.4	2485.7	2495.7	2478.1
35°	2553.4	2558.4	2559.7	2567.2	2577.2	2599.8	2622.4	2644.9	2662.5	2670.0	2666.3
37.5°	2800.5	2801.7	2796.7	2785.4	2789.2	2806.7	2833.1	2869.4	2880.7	2888.2	2905.8
40°	3170.4	3166.7	3146.6	3136.6	3130.3	3137.8	3132.8	3161.6	3188.0	3189.2	3188.0
42.5°	3619.4	3608.1	3589.3	3586.8	3584.3	3581.8	3568.0	3569.2	3593.1	3599.3	3591.8
45°	4065.9	4052.1	4038.3	4050.8	4035.8	4074.6	4085.9	4116.0	4119.8	4132.3	4113.5
47.5°	4432.1	4433.3	4433.3	4450.9	4481.0	4555.0	4621.4	4679.1	4700.5	4730.6	4734.3
50°	4709.2	4716.8	4740.6	4797.0	4861.0	4985.1	5096.8	5200.9	5294.9	5330.0	5422.8
52.5°	4871.0	4891.1	4941.2	5035.3	5149.4	5310.0	5485.5	5662.4	5825.4	5963.4	6073.7
55°	4842.2	4857.2	4945.0	5091.7	5269.8	5485.5	5731.3	5987.2	6241.8	6475.0	6655.6
57.5°	4656.6	4666.6	4754.4	4919.9	5141.9	5431.6	5779.0	6159.0	6516.4	6892.7	7201.2
60°	4413.3	4428.3	4509.8	4640.3	4872.3	5180.8	5583.4	6098.8	6669.4	7261.4	7838.3
62.5°	4257.8	4254.0	4325.5	4442.1	4616.4	4896.1	5283.6	5894.4	6684.5	7685.3	8825.3
65°	3999.4	3988.1	4062.1	4195.0	4384.4	4655.3	5022.8	5609.7	6526.5	7845.8	9462.4
66°	3838.9	3816.3	3890.3	4024.5	4213.9	4502.3	4854.7	5434.1	6334.6	7689.0	9394.6
67.5°	3557.9	3546.7	3581.8	3687.1	3827.6	4098.5	4465.9	5049.1	5880.6	7217.5	8898.0
70°	2892.0	2866.9	2894.5	2942.2	2996.1	3062.6	3288.3	3751.1	4454.6	5750.2	7168.6
72.5°	1970.2	1957.7	2009.1	2081.8	2226.1	2293.8	2382.8	2458.1	2706.4	3624.4	5000.2
75°	1498.7	1506.2	1571.4	1691.8	1877.4	2078.1	2273.7	2345.2	2262.4	2191.0	2838.1
77.5°	840.3	884.2	963.2	1116.2	1313.1	1596.5	1937.6	2313.9	2502.0	2455.6	2296.3
80°	346.1	339.9	378.7	462.8	530.5	762.5	1166.3	1637.9	2167.1	2502.0	2449.3
82.5°	96.6	99.1	127.9	164.3	211.9	269.6	421.4	677.2	1103.6	1716.9	2247.4
85°	30.1	30.1	41.4	61.5	72.7	84.0	106.6	175.6	299.7	598.2	1212.7
87.5°	6.3	6.3	8.8	17.6	18.8	18.8	23.8	32.6	28.8	26.3	117.9
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3
2.5°	2068.1	2065.5	2066.8	2068.1	2066.8	2066.8	2065.5	2064.3	2065.5	2065.5	2069.3
5°	2066.8	2065.5	2066.8	2066.8	2066.8	2068.1	2068.1	2068.1	2071.8	2071.8	2078.1
7.5°	2069.3	2069.3	2071.8	2071.8	2071.8	2071.8	2073.1	2075.6	2081.8	2080.6	2091.9
10°	2074.3	2076.8	2083.1	2084.4	2084.4	2088.1	2090.6	2095.6	2101.9	2104.4	2114.5
12.5°	2080.6	2093.1	2104.4	2106.9	2110.7	2117.0	2120.7	2123.2	2134.5	2138.3	2150.8
15°	2088.1	2105.7	2119.5	2124.5	2129.5	2137.0	2142.0	2145.8	2155.8	2160.9	2175.9
17.5°	2089.4	2109.4	2125.7	2133.3	2139.5	2148.3	2155.8	2163.4	2174.7	2182.2	2197.2
20°	2088.1	2114.5	2139.5	2149.6	2155.8	2172.1	2183.4	2193.5	2207.3	2214.8	2229.8
22.5°	2101.9	2132.0	2165.9	2178.4	2188.4	2211.0	2226.1	2242.4	2259.9	2264.9	2276.2
25°	2134.5	2165.9	2208.5	2226.1	2243.6	2273.7	2295.0	2318.9	2336.4	2338.9	2342.7
27.5°	2189.7	2218.5	2270.0	2296.3	2325.1	2367.8	2399.1	2423.0	2448.1	2448.1	2445.5
30°	2301.3	2307.6	2361.5	2395.4	2438.0	2500.7	2547.1	2573.5	2592.3	2592.3	2571.0
32.5°	2445.5	2438.0	2486.9	2523.3	2582.2	2670.0	2732.7	2752.8	2772.9	2766.6	2730.2
35°	2653.7	2632.4	2660.0	2715.2	2781.6	2902.0	2967.3	3012.4	3024.9	3007.4	2949.7
37.5°	2915.8	2913.3	2927.1	2988.6	3062.6	3218.1	3284.6	3313.4	3303.4	3272.0	3170.4
40°	3193.0	3185.5	3176.7	3218.1	3300.9	3487.7	3605.6	3620.7	3606.9	3560.5	3432.5
42.5°	3563.0	3563.0	3521.6	3532.9	3601.8	3811.3	3950.5	3998.1	3999.4	3931.7	3761.1
45°	4072.1	4067.1	3994.4	3976.8	4029.5	4235.2	4414.5	4440.9	4440.9	4351.8	4164.9
47.5°	4684.2	4677.9	4606.4	4544.9	4555.0	4777.0	4926.2	4966.3	4931.2	4864.7	4642.8
50°	5373.9	5362.6	5289.9	5232.2	5207.1	5431.6	5558.3	5577.1	5525.7	5446.7	5205.9
52.5°	6073.7	6107.6	6064.9	6033.6	6042.4	6187.8	6318.3	6229.2	6202.9	6117.6	5875.6
55°	6802.4	6906.5	7000.5	6972.9	7005.5	7147.3	7172.3	7054.4	7006.8	6945.3	6675.7
57.5°	7536.0	7839.5	8148.0	8234.6	8314.8	8518.0	8489.2	8296.0	8332.4	8424.0	8120.5
60°	8560.7	9437.3	10219.9	10364.1	10613.7	10786.7	10825.6	10788.0	10957.3	10909.6	10641.2
62.5°	10134.6	11595.6	12684.2	12955.1	13205.9	13197.1	13065.5	12930.0	13096.8	13096.8	12395.8
65°	11258.3	12916.2	14081.3	14305.8	14295.8	13993.5	13682.5	13411.6	13387.8	13202.2	12177.5
66°	11310.9	13017.8	14159.1	14354.7	14279.5	13792.9	13420.4	13076.8	12930.0	12671.7	11622.0
67.5°	10836.9	12730.6	13905.7	14076.3	13878.1	13180.8	12667.9	12207.6	11994.4	11559.3	10571.0
70°	8889.2	10941.0	12650.3	12999.0	12774.5	11891.6	11189.3	10567.2	10159.7	9531.3	8819.0
72.5°	6488.8	8077.8	9928.9	10495.8	10460.6	9648.0	9082.4	8513.0	7977.5	7405.6	6885.1
75°	4217.6	5254.8	6286.9	6618.0	6458.7	5988.4	5583.4	5251.0	4743.1	4345.5	4249.0
77.5°	2407.9	2942.2	2782.9	2741.5	2542.1	2051.7	1364.5	956.9	864.1	1078.5	1182.6
80°	2291.3	2076.8	1700.6	1533.8	1409.6	960.7	504.2	354.9	311.0	318.5	342.4
82.5°	2583.5	2692.6	2202.2	1839.8	1601.5	1168.8	638.3	297.2	217.0	257.1	288.4
85°	1936.4	2726.5	2702.6	2290.0	1878.7	1346.9	755.0	227.0	130.4	180.6	235.8
87.5°	392.5	645.9	622.0	546.8	465.3	324.8	126.7	71.5	65.2	89.0	135.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3	2069.3
2.5°	2071.8	2071.8	2074.3	2078.1	2079.3	2079.3	2081.8	2079.3	2084.4	2085.6	2086.9
5°	2083.1	2086.9	2089.4	2095.6	2099.4	2101.9	2105.7	2103.2	2108.2	2109.4	2111.9
7.5°	2095.6	2101.9	2106.9	2109.4	2114.5	2114.5	2115.7	2113.2	2111.9	2108.2	2106.9
10°	2118.2	2122.0	2128.2	2125.7	2123.2	2114.5	2106.9	2095.6	2089.4	2078.1	2071.8
12.5°	2154.6	2157.1	2157.1	2145.8	2129.5	2109.4	2090.6	2071.8	2056.8	2044.2	2036.7
15°	2179.7	2184.7	2178.4	2162.1	2138.3	2110.7	2085.6	2060.5	2040.5	2024.2	2014.1
17.5°	2198.5	2197.2	2185.9	2163.4	2140.8	2117.0	2094.4	2068.1	2043.0	2019.1	2004.1
20°	2227.3	2214.8	2194.7	2170.9	2147.1	2127.0	2109.4	2084.4	2058.0	2025.4	2002.8
22.5°	2266.2	2243.6	2214.8	2189.7	2167.1	2148.3	2128.2	2106.9	2079.3	2043.0	2011.6
25°	2321.4	2282.5	2249.9	2224.8	2204.7	2183.4	2160.9	2133.3	2105.7	2068.1	2030.4
27.5°	2405.4	2347.7	2306.3	2283.8	2264.9	2236.1	2207.3	2174.7	2139.5	2100.7	2058.0
30°	2507.0	2438.0	2390.4	2370.3	2347.7	2315.1	2283.8	2238.6	2189.7	2143.3	2090.6
32.5°	2626.1	2555.9	2508.2	2493.2	2456.8	2419.2	2375.3	2315.1	2251.2	2182.2	2119.5
35°	2806.7	2717.7	2673.8	2638.7	2588.5	2543.4	2469.4	2390.4	2298.8	2207.3	2129.5
37.5°	2992.3	2902.0	2856.9	2808.0	2742.8	2660.0	2560.9	2448.1	2326.4	2213.5	2118.2
40°	3240.7	3142.8	3085.1	3009.9	2904.6	2775.4	2628.6	2474.4	2326.4	2185.9	2070.6
42.5°	3530.4	3440.1	3351.0	3226.9	3057.6	2869.4	2663.8	2465.6	2286.3	2124.5	2002.8
45°	3931.7	3777.4	3635.7	3436.3	3189.2	2924.6	2667.5	2424.2	2217.3	2038.0	1902.5
47.5°	4383.2	4183.8	3932.9	3620.7	3283.3	2945.9	2631.2	2346.5	2108.2	1913.8	1765.8
50°	4903.6	4597.6	4212.6	3767.4	3331.0	2917.1	2544.6	2216.0	1957.7	1734.5	1576.4
52.5°	5499.3	5032.8	4465.9	3871.5	3323.4	2829.3	2401.6	2044.2	1755.8	1518.7	1363.2
55°	6160.3	5506.9	4708.0	3937.9	3255.7	2658.7	2177.2	1802.2	1504.9	1271.7	1135.0
57.5°	7325.3	6338.3	5169.5	4027.0	3114.0	2400.4	1892.5	1496.2	1227.8	1029.6	899.2
60°	9490.0	7791.9	6043.6	4236.4	2900.8	2076.8	1533.8	1173.9	949.4	805.1	708.6
62.5°	10829.4	8815.2	6470.0	4206.3	2554.7	1634.1	1138.7	870.4	693.5	598.2	538.0
65°	10512.1	8413.9	5949.6	3613.1	1987.8	1158.8	753.7	569.4	476.6	427.7	398.8
66°	10080.6	7964.9	5509.4	3235.6	1731.9	968.2	622.0	477.8	410.1	373.7	358.7
67.5°	9176.4	7144.7	4751.9	2591.0	1298.0	721.1	459.0	375.0	333.6	314.8	304.8
70°	7680.3	5756.4	3361.1	1530.0	703.6	391.3	293.5	260.9	250.8	244.6	240.8
72.5°	5938.3	4167.5	1964.0	752.5	354.9	253.3	223.2	209.4	205.7	205.7	206.9
75°	3741.1	2395.4	879.1	362.4	240.8	204.4	190.6	184.4	185.6	186.9	185.6
77.5°	1242.8	826.5	366.2	257.1	209.4	185.6	174.3	171.8	174.3	175.6	175.6
80°	357.4	312.3	264.6	227.0	191.9	173.1	163.0	161.8	168.1	169.3	166.8
82.5°	274.7	257.1	239.5	219.5	184.4	163.0	159.3	160.5	164.3	161.8	150.5
85°	252.1	249.6	179.3	178.1	160.5	155.5	151.7	153.0	149.2	135.4	122.9
87.5°	141.7	131.7	101.6	102.8	119.1	122.9	101.6	107.9	100.3	87.8	80.3
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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	160°	165°	170°	175°	180°
0°	2069.3	2069.3	2069.3	2069.3	2069.3
2.5°	2089.4	2088.1	2088.1	2091.9	2086.9
5°	2113.2	2111.9	2111.9	2115.7	2111.9
7.5°	2101.9	2098.1	2095.6	2094.4	2094.4
10°	2064.3	2060.5	2053.0	2050.5	2048.0
12.5°	2025.4	2021.6	2012.9	2012.9	2010.4
15°	2001.6	1996.6	1990.3	1986.5	1984.0
17.5°	1989.0	1981.5	1974.0	1970.2	1967.7
20°	1984.0	1974.0	1965.2	1958.9	1958.9
22.5°	1985.3	1972.7	1962.7	1955.2	1952.7
25°	1997.8	1979.0	1966.5	1958.9	1956.4
27.5°	2015.4	1992.8	1976.5	1966.5	1962.7
30°	2039.2	2007.9	1985.3	1972.7	1967.7
32.5°	2055.5	2011.6	1982.8	1965.2	1958.9
35°	2054.3	1997.8	1962.7	1940.1	1932.6
37.5°	2031.7	1965.2	1918.8	1891.2	1878.7
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42.5°	1908.8	1826.0	1782.1	1753.3	1737.0
45°	1794.7	1713.1	1659.2	1636.6	1615.3
47.5°	1636.6	1553.9	1507.5	1474.8	1461.1
50°	1451.0	1368.2	1319.3	1293.0	1280.5
52.5°	1247.9	1168.8	1133.7	1108.6	1091.1
55°	1037.2	964.4	949.4	921.8	905.5
57.5°	839.0	796.4	782.6	755.0	741.2
60°	655.9	642.1	627.1	609.5	602.0
62.5°	507.9	495.4	491.6	480.3	479.1
65°	387.5	388.8	386.3	383.8	381.3
66°	352.4	351.2	352.4	349.9	348.6
67.5°	299.7	304.8	308.5	307.3	307.3
70°	243.3	247.1	252.1	250.8	250.8
72.5°	208.2	214.5	217.0	215.7	215.7
75°	188.1	194.4	194.4	191.9	190.6
77.5°	175.6	178.1	175.6	173.1	170.6
80°	163.0	160.5	156.8	153.0	150.5
82.5°	141.7	135.4	131.7	125.4	125.4
85°	114.1	109.1	100.3	94.1	87.8
87.5°	74.0	71.5	65.2	48.9	38.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)