

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: P159793

Luminaire Tested: **VST-F07-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159793
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-F07-LED-E-U-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (49) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14516.1 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 180.5
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

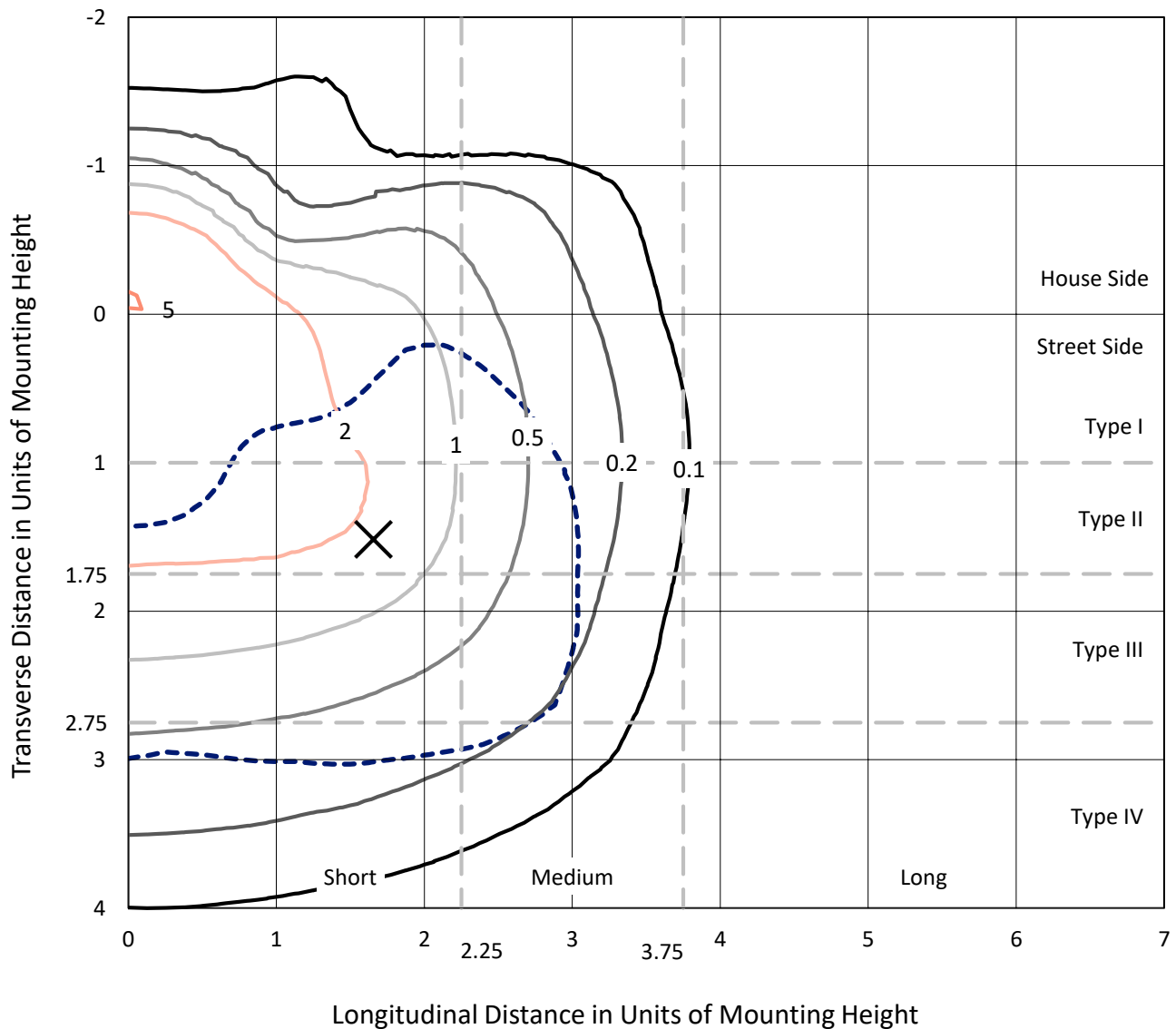


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

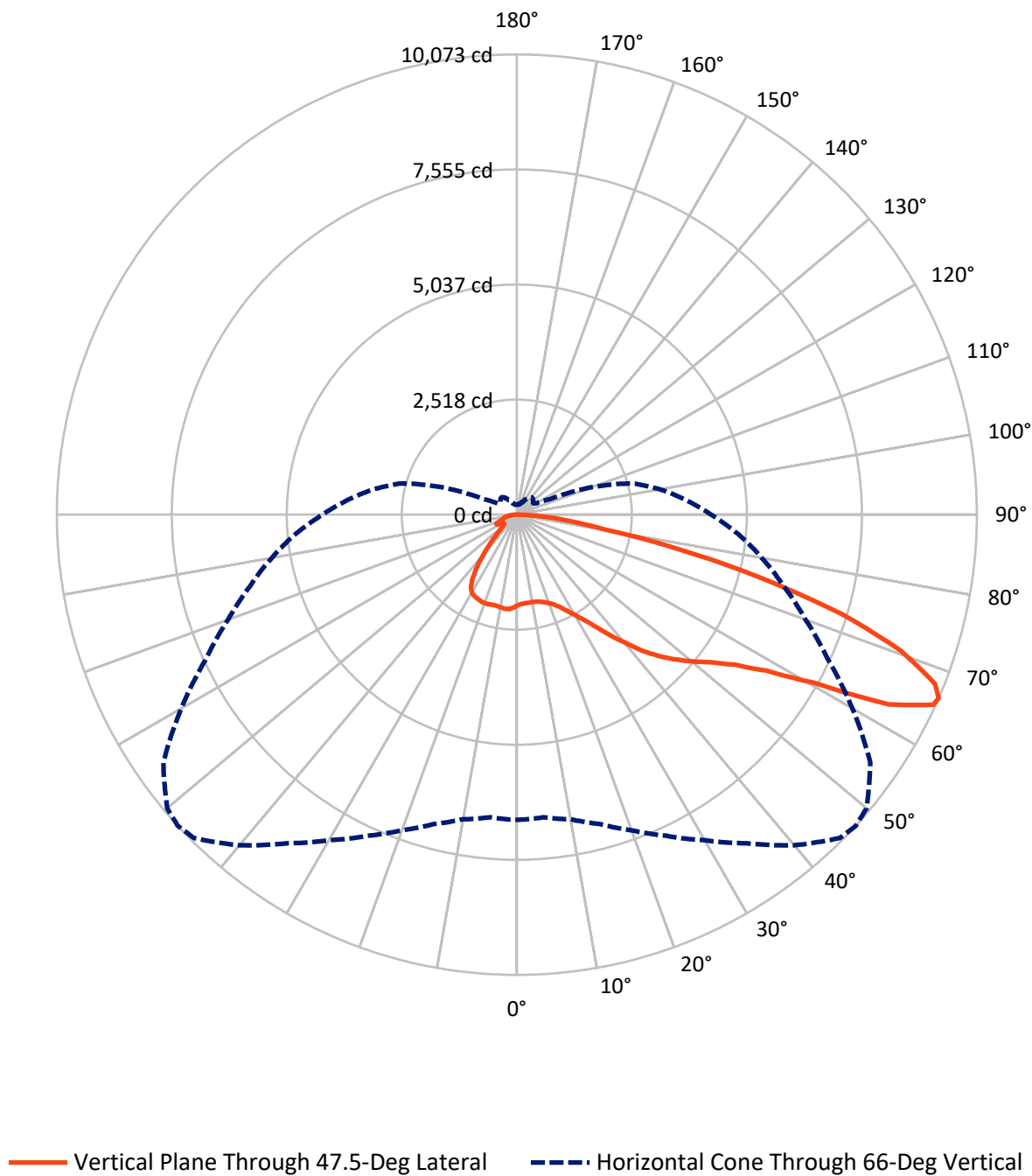


Based on 20 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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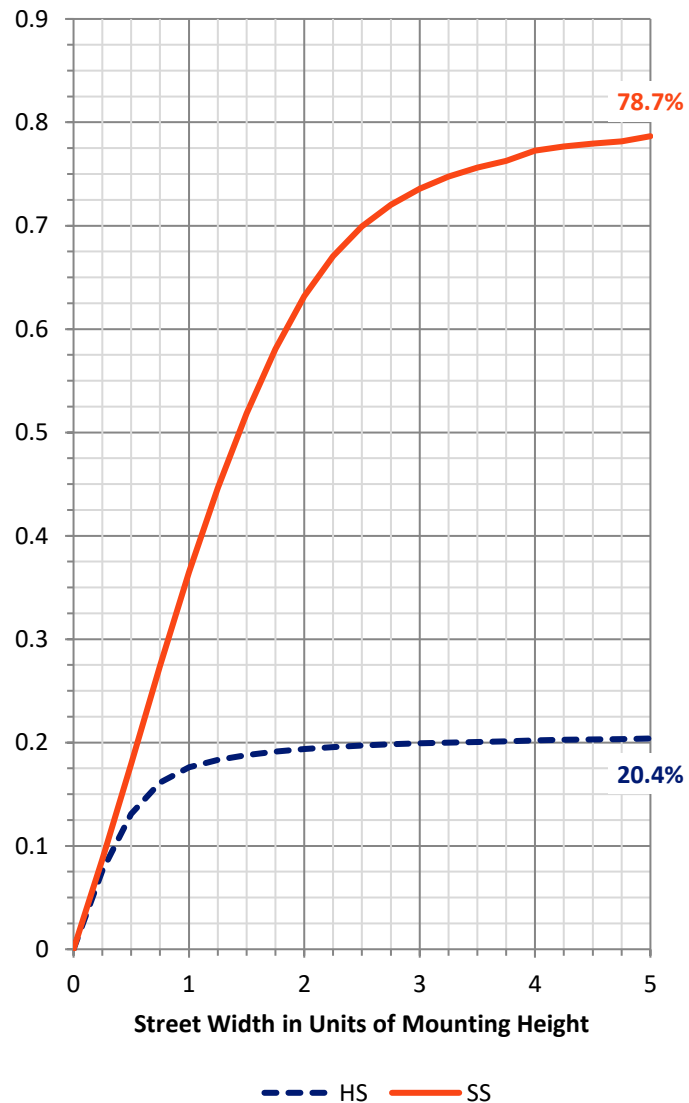
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3005.5	0.0	3005.5
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	11510.7	0.0	11510.7
	% Fixture	79.3	0.0	79.3
Total	Lumens	14516.1	0.0	14516.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.4	1.3
10°-20°	574.0	4.0
20°-30°	979.4	6.7
30°-40°	1478.2	10.2
40°-50°	1921.4	13.2
50°-60°	2636.0	18.2
60°-70°	4055.0	27.9
70°-80°	2344.0	16.1
80°-90°	336.7	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°	14516.1	100.0
0°-180°	14516.1	100.0

Coefficient of Utilization



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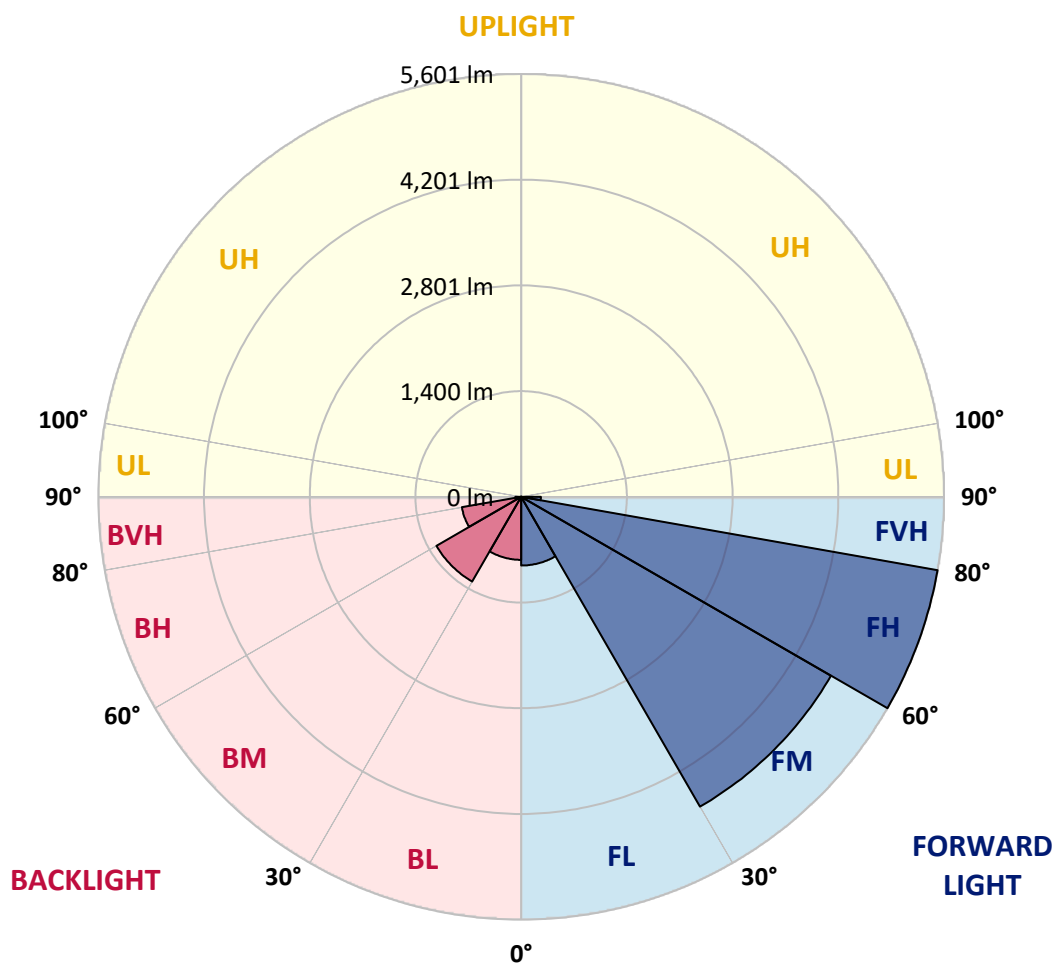
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	909.9	6.3			
FM	(30°-60°)	4738.9	32.6			
FH	(60°-80°)	5601.3	38.6			G3/7500
FVH	(80°-90°)	260.6	1.8			G3/500
BL	(0°-30°)	835.0	5.8	B2/1000		
BM	(30°-60°)	1296.7	8.9	B2/2500		
BH	(60°-80°)	797.7	5.5	B2/1000		G2/1000
BVH	(80°-90°)	76.1	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°	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0
2.5°	1935.3	1936.2	1937.2	1937.2	1940.1	1940.1	1945.0	1947.9	1948.9	1954.8	1958.7
5°	1899.2	1898.2	1899.2	1901.1	1906.0	1909.9	1919.6	1926.5	1932.3	1942.1	1947.0
7.5°	1883.6	1885.5	1887.5	1888.4	1892.3	1902.1	1910.9	1917.7	1929.4	1941.1	1946.0
10°	1904.0	1907.0	1904.0	1906.0	1906.0	1914.8	1918.7	1923.5	1932.3	1943.1	1946.0
12.5°	1951.8	1957.7	1951.8	1947.0	1943.1	1950.9	1948.9	1945.0	1949.9	1952.8	1952.8
15°	2030.8	2030.8	2026.9	2020.1	2010.4	2011.3	2002.6	1993.8	1989.9	1983.0	1978.2
17.5°	2107.9	2106.0	2097.2	2088.4	2081.6	2078.6	2066.0	2054.3	2040.6	2029.9	2018.2
20°	2183.0	2190.8	2180.1	2167.4	2156.7	2149.8	2140.1	2116.7	2100.1	2082.5	2070.8
22.5°	2312.7	2305.9	2294.2	2275.7	2264.9	2253.2	2232.8	2207.4	2182.0	2160.6	2145.9
25°	2446.4	2439.5	2423.0	2409.3	2393.7	2384.0	2361.5	2330.3	2305.9	2272.8	2253.2
27.5°	2589.8	2583.9	2564.4	2553.7	2542.9	2531.2	2511.7	2479.5	2457.1	2419.1	2398.6
30°	2751.7	2750.7	2724.4	2722.4	2706.8	2694.1	2680.5	2653.2	2630.7	2592.7	2568.3
32.5°	2924.3	2920.4	2901.9	2896.1	2906.8	2898.0	2878.5	2850.2	2820.9	2798.5	2771.2
35°	3170.1	3163.3	3152.6	3157.5	3164.3	3188.7	3158.4	3134.1	3098.9	3069.7	3031.6
37.5°	3349.6	3339.9	3352.6	3379.9	3418.9	3437.4	3463.8	3464.7	3448.1	3409.1	3376.0
40°	3514.5	3510.6	3539.8	3577.9	3650.1	3702.7	3752.5	3776.9	3782.7	3757.4	3707.6
42.5°	3654.0	3665.7	3704.7	3763.2	3864.7	3944.6	4037.3	4094.9	4130.9	4117.3	4094.9
45°	3819.8	3825.6	3873.4	3947.6	4044.1	4176.8	4298.7	4396.3	4459.7	4458.7	4433.3
47.5°	4027.5	4028.5	4069.5	4156.3	4259.7	4394.3	4548.4	4678.2	4762.0	4765.9	4746.4
50°	4274.3	4272.4	4317.3	4399.2	4509.4	4639.1	4803.0	4964.9	5082.0	5082.0	5053.7
52.5°	4592.3	4588.4	4612.8	4685.0	4791.3	4927.9	5090.8	5278.1	5404.9	5432.2	5370.7
55°	5016.6	5022.5	5028.3	5091.7	5182.5	5290.7	5478.0	5650.7	5820.4	5836.0	5799.9
57.5°	5507.3	5487.8	5529.7	5633.1	5736.5	5872.1	6004.7	6208.6	6409.5	6443.7	6438.8
60°	6274.0	6248.6	6291.5	6423.2	6537.3	6750.9	6978.2	7241.6	7479.6	7549.8	7465.0
62.5°	6979.2	7010.4	7068.9	7222.1	7387.9	7672.7	8014.1	8465.8	8917.4	9163.2	9145.6
65°	6915.8	6886.5	6998.7	7207.5	7507.9	7870.7	8295.1	8839.3	9490.0	9983.5	10027.4
66°	6680.7	6650.5	6771.4	7010.4	7353.8	7757.6	8228.7	8782.8	9448.0	10006.0	10073.3
67.5°	6292.5	6262.3	6398.8	6616.3	6970.4	7478.6	7987.8	8593.5	9285.1	9819.7	9874.3
70°	5543.4	5502.4	5608.7	5854.5	6141.3	6632.9	7117.7	7759.5	8469.7	8896.9	8917.4
72.5°	4695.7	4600.1	4713.3	4902.5	5107.4	5514.1	5936.5	6375.4	6941.2	7336.2	7449.4
75°	3407.2	3456.9	3490.1	3614.9	3750.5	4087.1	4334.8	4702.5	5140.5	5426.3	5517.0
77.5°	1807.5	1882.6	1929.4	2054.3	2278.6	2535.1	2803.4	3030.7	3318.4	3478.4	3589.6
80°	1014.4	1067.1	1143.2	1241.7	1351.0	1548.0	1707.0	1824.1	1865.0	1893.3	1918.7
82.5°	557.9	691.6	804.7	873.0	937.4	1016.4	1111.0	1208.6	1239.8	1193.0	1168.6
85°	86.8	127.8	389.2	475.0	517.0	577.5	645.7	717.9	718.9	618.4	675.0
87.5°	24.4	27.3	55.6	83.9	81.9	66.3	81.9	149.2	87.8	43.9	50.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0
2.5°	1960.6	1962.6	1967.4	1972.3	1977.2	1982.1	1985.0	1989.9	1993.8	1999.6	2006.5
5°	1952.8	1957.7	1966.5	1977.2	1987.0	1995.7	2002.6	2012.3	2021.1	2028.9	2040.6
7.5°	1952.8	1962.6	1977.2	1988.9	1997.7	2008.4	2019.1	2028.9	2038.6	2046.5	2054.3
10°	1953.8	1963.5	1978.2	1991.8	2001.6	2013.3	2022.1	2030.8	2041.6	2046.5	2056.2
12.5°	1957.7	1961.6	1972.3	1986.0	1997.7	2009.4	2018.2	2026.9	2038.6	2040.6	2047.4
15°	1977.2	1971.3	1974.3	1984.0	1996.7	2006.5	2016.2	2023.0	2030.8	2028.9	2034.7
17.5°	2013.3	1998.7	1992.8	1993.8	1999.6	2006.5	2010.4	2011.3	2012.3	2003.5	2004.5
20°	2062.1	2041.6	2027.9	2021.1	2013.3	2006.5	1995.7	1983.0	1971.3	1953.8	1951.8
22.5°	2135.2	2105.0	2090.3	2071.8	2048.4	2019.1	1992.8	1961.6	1936.2	1909.9	1900.1
25°	2241.5	2210.3	2194.7	2165.5	2123.5	2081.6	2043.5	2001.6	1964.5	1933.3	1918.7
27.5°	2384.0	2352.7	2336.2	2305.9	2254.2	2212.3	2159.6	2114.7	2069.9	2024.0	2005.5
30°	2556.6	2529.3	2510.8	2486.4	2441.5	2395.7	2334.2	2264.9	2193.7	2120.6	2084.5
32.5°	2760.5	2730.2	2716.6	2688.3	2641.5	2593.7	2525.4	2436.6	2317.6	2202.5	2130.3
35°	3015.1	2980.9	2965.3	2928.2	2873.6	2803.4	2730.2	2611.2	2450.3	2290.3	2172.3
37.5°	3355.5	3279.4	3227.7	3142.8	3055.0	2956.5	2852.2	2730.2	2540.0	2342.0	2178.1
40°	3656.9	3579.8	3480.3	3358.4	3221.8	3086.3	2967.3	2828.7	2622.0	2379.1	2159.6
42.5°	4031.5	3894.9	3735.9	3571.0	3389.6	3222.8	3081.4	2918.5	2677.6	2388.8	2107.9
45°	4373.8	4210.9	3998.3	3778.8	3553.5	3343.8	3184.8	3003.3	2725.4	2388.8	2045.5
47.5°	4686.0	4490.9	4236.3	3963.2	3700.8	3471.6	3291.1	3090.2	2792.7	2419.1	2026.9
50°	4974.7	4750.3	4460.6	4143.6	3849.0	3604.2	3410.1	3201.4	2895.1	2497.1	2071.8
52.5°	5279.0	5041.0	4687.9	4351.4	4026.6	3764.2	3557.4	3338.9	3027.7	2620.0	2150.8
55°	5678.0	5399.0	4998.1	4627.4	4270.4	3980.7	3745.7	3503.7	3173.1	2758.5	2247.4
57.5°	6307.1	5902.3	5501.4	5019.6	4683.0	4301.6	4044.1	3766.1	3409.1	2939.0	2392.7
60°	7408.4	6910.9	6429.1	5875.0	5459.5	5060.5	4671.3	4308.5	3878.3	3346.7	2711.7
62.5°	8980.8	8475.5	7718.6	7040.7	6413.5	5884.8	5377.5	4916.2	4364.1	3782.7	3104.8
65°	9920.1	9341.7	8439.4	7528.4	6766.6	6111.1	5530.7	4965.9	4369.9	3803.2	3223.8
66°	9995.2	9448.0	8484.3	7521.5	6730.5	6050.6	5446.8	4862.5	4251.9	3709.6	3184.8
67.5°	9855.7	9384.6	8392.6	7388.9	6580.2	5845.8	5225.4	4612.8	3999.3	3496.9	3055.0
70°	8871.5	8531.1	7680.5	6740.2	5933.5	5285.9	4631.3	4042.2	3460.8	3038.5	2710.7
72.5°	7272.8	6841.7	6246.7	5614.6	4979.6	4405.0	3810.0	3308.7	2820.9	2513.7	2281.5
75°	5342.4	4954.2	4298.7	3904.6	3485.2	3124.3	2723.4	2248.4	1902.1	1748.0	1691.4
77.5°	3386.7	2965.3	2412.2	1977.2	1700.2	1461.2	1152.0	915.9	733.5	763.8	845.7
80°	1710.9	1473.9	1103.2	871.1	753.0	626.2	495.5	375.5	274.1	313.1	354.1
82.5°	1098.3	916.9	730.6	575.5	485.8	428.2	342.4	248.7	185.3	208.7	255.6
85°	661.3	558.9	445.8	364.8	317.0	264.3	194.1	137.5	136.6	146.3	180.5
87.5°	100.5	143.4	82.9	88.8	93.6	100.5	88.8	75.1	65.4	84.9	107.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0	1986.0
2.5°	2013.3	2015.2	2019.1	2024.0	2023.0	2029.9	2033.8	2029.9	2038.6	2038.6	2043.5
5°	2050.4	2053.3	2060.1	2065.0	2066.9	2072.8	2074.7	2073.8	2075.7	2076.7	2078.6
7.5°	2061.1	2068.9	2071.8	2074.7	2075.7	2077.7	2077.7	2075.7	2075.7	2074.7	2076.7
10°	2058.2	2061.1	2063.0	2062.1	2062.1	2060.1	2059.1	2058.2	2058.2	2056.2	2059.1
12.5°	2048.4	2048.4	2048.4	2046.5	2046.5	2045.5	2045.5	2045.5	2047.4	2048.4	2053.3
15°	2028.9	2028.9	2030.8	2029.9	2032.8	2037.7	2043.5	2047.4	2052.3	2053.3	2056.2
17.5°	1998.7	1999.6	2005.5	2018.2	2030.8	2045.5	2056.2	2059.1	2055.2	2045.5	2038.6
20°	1946.0	1958.7	1982.1	2012.3	2040.6	2059.1	2064.0	2052.3	2033.8	2008.4	1994.8
22.5°	1899.2	1924.5	1966.5	2016.2	2051.3	2064.0	2049.4	2022.1	1988.9	1959.6	1939.2
25°	1917.7	1947.0	1990.9	2033.8	2056.2	2049.4	2020.1	1981.1	1946.0	1911.8	1878.7
27.5°	1995.7	2025.0	2056.2	2068.9	2061.1	2035.7	1994.8	1952.8	1906.0	1857.2	1816.3
30°	2069.9	2086.4	2088.4	2075.7	2047.4	2006.5	1958.7	1909.9	1850.4	1791.9	1740.2
32.5°	2093.3	2073.8	2038.6	2002.6	1963.5	1921.6	1866.0	1801.6	1738.2	1671.9	1614.3
35°	2086.4	2007.4	1920.6	1843.6	1796.7	1748.9	1698.2	1612.4	1541.2	1484.6	1447.5
37.5°	2025.0	1880.6	1747.0	1634.8	1561.7	1505.1	1430.0	1358.8	1297.3	1272.0	1241.7
40°	1939.2	1718.7	1533.4	1376.3	1300.2	1228.1	1144.2	1089.6	1072.0	1048.6	1049.6
42.5°	1816.3	1529.5	1290.5	1110.0	1027.1	948.1	888.6	856.4	857.4	837.9	841.8
45°	1686.5	1339.3	1038.8	859.4	777.4	710.1	676.9	667.2	668.2	669.1	663.3
47.5°	1607.5	1191.0	833.0	651.6	579.4	541.4	523.8	518.9	519.9	520.9	514.1
50°	1595.8	1113.9	695.5	498.4	451.6	430.2	421.4	416.5	416.5	412.6	406.8
52.5°	1629.0	1094.4	628.2	432.1	387.2	367.7	360.9	357.0	351.2	343.4	332.6
55°	1681.6	1112.0	607.7	409.7	365.8	346.3	337.5	335.5	325.8	311.2	293.6
57.5°	1779.2	1175.4	621.3	415.5	369.7	352.1	346.3	344.3	330.7	308.2	285.8
60°	2059.1	1359.7	689.6	448.7	398.0	383.3	383.3	380.4	361.9	329.7	297.5
62.5°	2445.4	1629.9	782.3	494.5	437.0	435.0	451.6	452.6	419.4	367.7	317.0
65°	2631.7	1756.7	814.5	504.3	447.7	470.2	503.3	503.3	456.5	385.3	319.9
66°	2632.7	1753.8	804.7	492.6	436.0	465.3	499.4	499.4	450.6	380.4	315.1
67.5°	2565.4	1699.2	772.5	471.1	409.7	437.0	467.2	466.3	422.4	360.9	301.4
70°	2301.0	1503.1	680.8	436.0	378.5	379.4	390.2	383.3	354.1	312.1	274.1
72.5°	1984.0	1257.3	590.1	413.6	354.1	335.5	326.8	320.9	302.4	277.0	253.6
75°	1521.7	976.4	514.1	393.1	332.6	300.4	288.7	283.9	271.2	256.5	238.0
77.5°	932.5	669.1	436.0	359.9	308.2	279.0	266.3	256.5	243.9	230.2	217.5
80°	401.9	403.8	349.2	305.3	268.2	234.1	217.5	205.8	199.0	194.1	187.3
82.5°	280.9	289.7	266.3	237.0	204.8	180.5	165.8	162.9	163.9	163.9	161.9
85°	210.7	206.8	186.3	169.7	155.1	139.5	127.8	126.8	130.7	130.7	127.8
87.5°	121.9	122.9	105.3	98.5	102.4	87.8	80.0	81.0	90.7	89.7	87.8
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):

	160°	165°	170°	175°	180°
0°	1986.0	1986.0	1986.0	1986.0	1986.0
2.5°	2043.5	2046.5	2045.5	2048.4	2045.5
5°	2081.6	2080.6	2079.6	2083.5	2078.6
7.5°	2075.7	2076.7	2076.7	2076.7	2075.7
10°	2061.1	2065.0	2066.9	2070.8	2069.9
12.5°	2056.2	2062.1	2067.9	2073.8	2074.7
15°	2057.2	2061.1	2064.0	2066.9	2067.9
17.5°	2031.8	2030.8	2027.9	2026.0	2024.0
20°	1980.1	1975.2	1970.4	1962.6	1966.5
22.5°	1915.7	1902.1	1886.5	1873.8	1872.8
25°	1840.6	1815.3	1789.9	1773.3	1767.5
27.5°	1774.3	1744.1	1717.7	1703.1	1699.2
30°	1695.3	1668.0	1644.6	1631.9	1624.1
32.5°	1578.2	1556.8	1527.5	1517.8	1516.8
35°	1415.3	1398.8	1378.3	1374.4	1369.5
37.5°	1231.0	1225.1	1215.4	1203.7	1201.7
40°	1034.0	1037.9	1034.9	1028.1	1017.4
42.5°	843.7	850.6	851.6	856.4	861.3
45°	672.1	677.9	677.9	682.8	688.7
47.5°	516.0	512.1	515.0	519.9	522.8
50°	390.2	387.2	382.4	378.5	374.6
52.5°	314.1	308.2	294.6	290.7	286.8
55°	277.0	266.3	256.5	252.6	252.6
57.5°	266.3	252.6	241.9	237.0	235.1
60°	268.2	248.7	235.1	227.3	224.3
62.5°	277.0	249.7	231.2	222.4	219.5
65°	276.0	247.8	230.2	220.4	217.5
66°	271.2	244.8	228.3	219.5	217.5
67.5°	263.4	240.9	226.3	218.5	215.6
70°	247.8	233.1	222.4	215.6	212.6
72.5°	235.1	225.3	215.6	207.8	205.8
75°	223.4	213.6	204.8	200.9	198.0
77.5°	205.8	197.0	192.2	188.3	186.3
80°	182.4	176.6	170.7	166.8	163.9
82.5°	159.0	151.2	145.3	142.4	140.5
85°	129.7	124.9	116.1	110.2	109.2
87.5°	86.8	81.9	79.0	74.1	69.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)