

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: P258172

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T2U-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14696.5 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 122
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

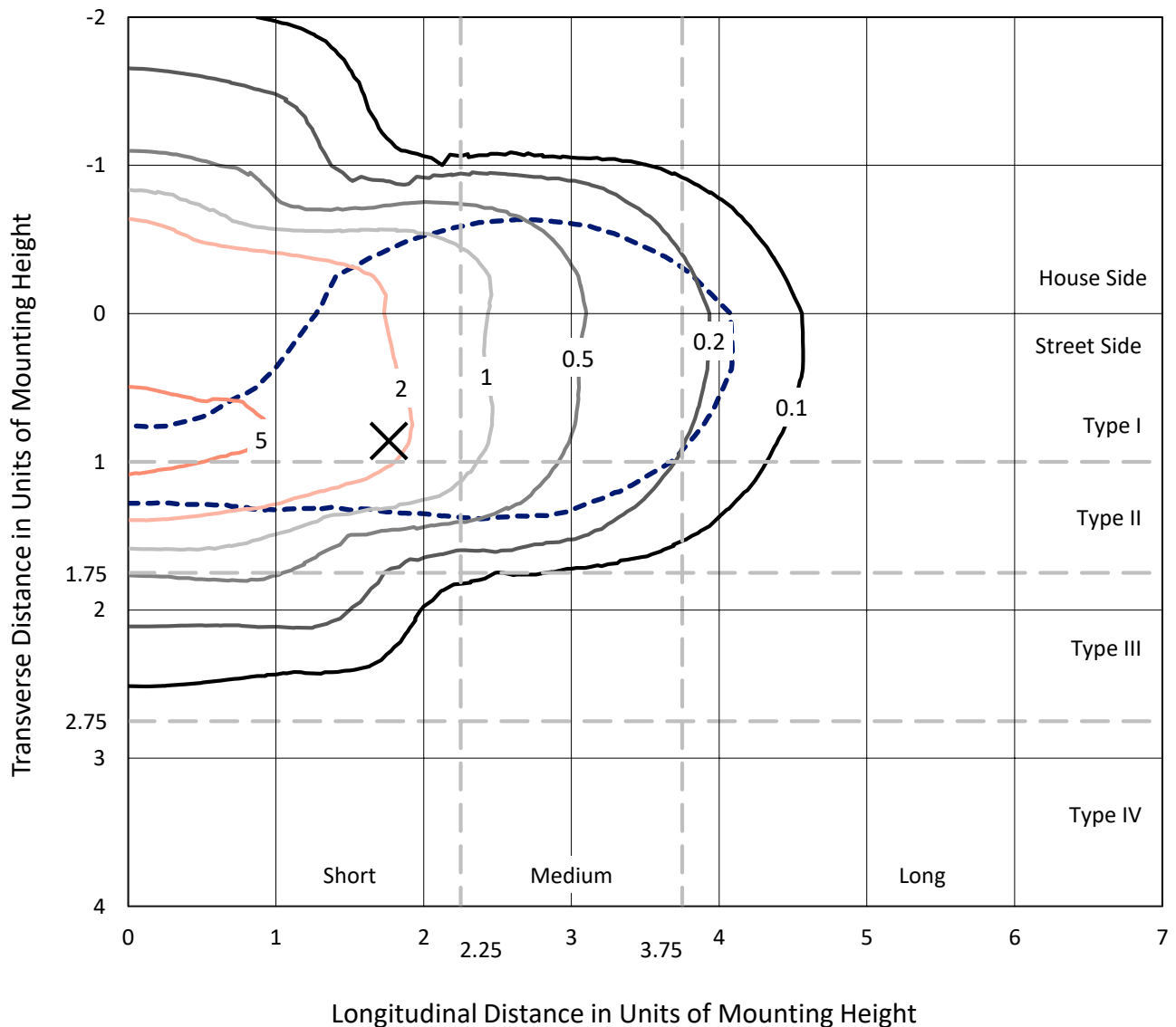


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

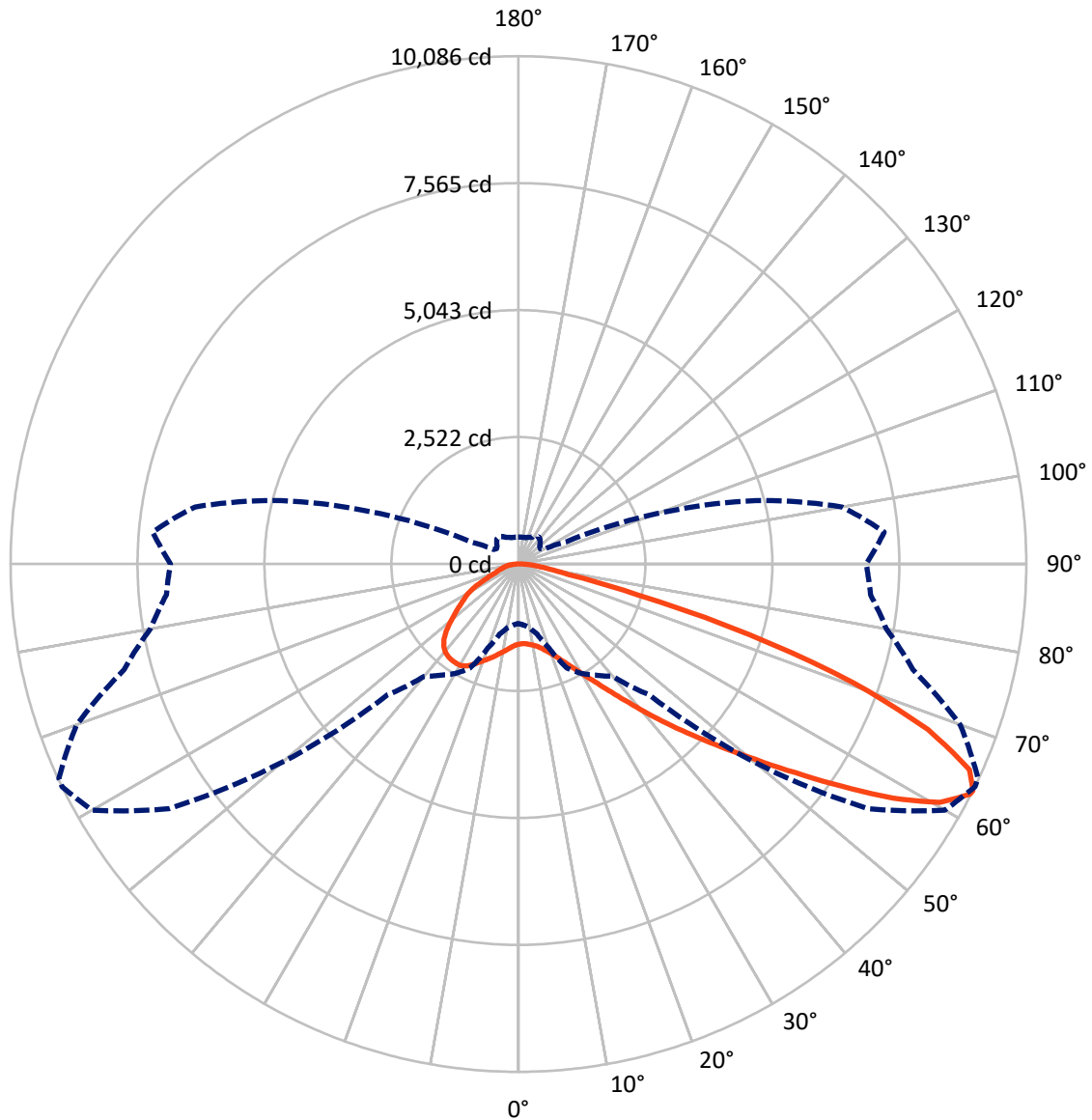


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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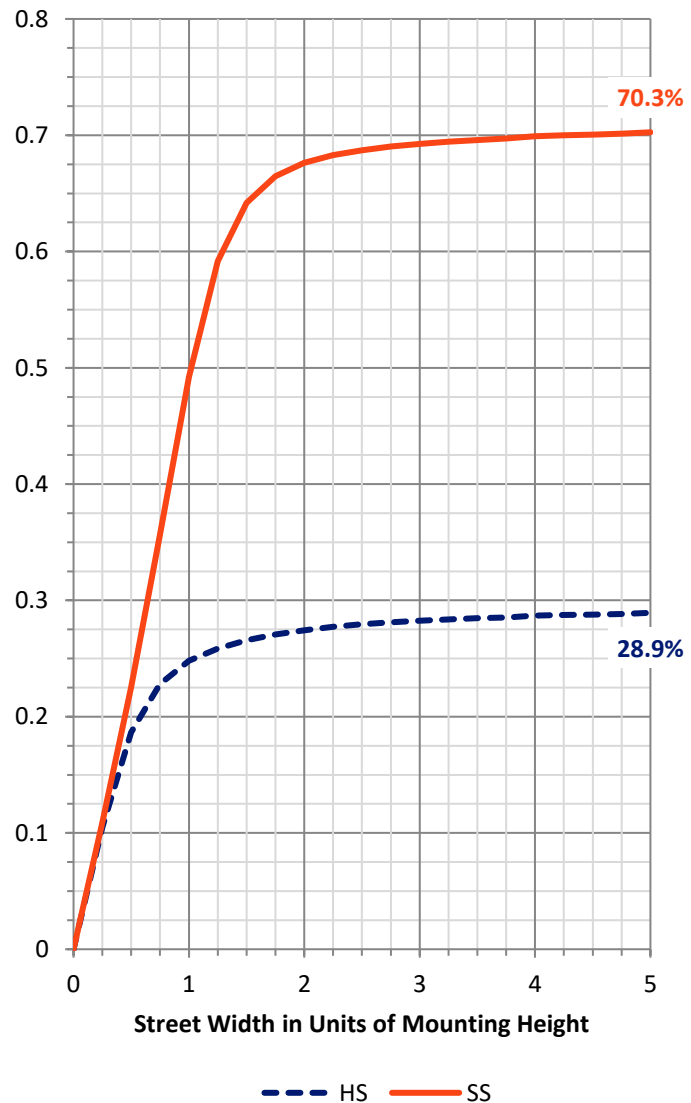
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4320.2	0.0	4320.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	10376.2	0.0	10376.2
	% Fixture	70.6	0.0	70.6
Total	Lumens	14696.5	0.0	14696.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.9	1.1
10°-20°	529.3	3.6
20°-30°	993.6	6.8
30°-40°	1665.3	11.3
40°-50°	2794.0	19.0
50°-60°	3541.9	24.1
60°-70°	3124.5	21.3
70°-80°	1612.9	11.0
80°-90°	276.0	1.9
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°	14696.5	100.0
0°-180°	14696.5	100.0



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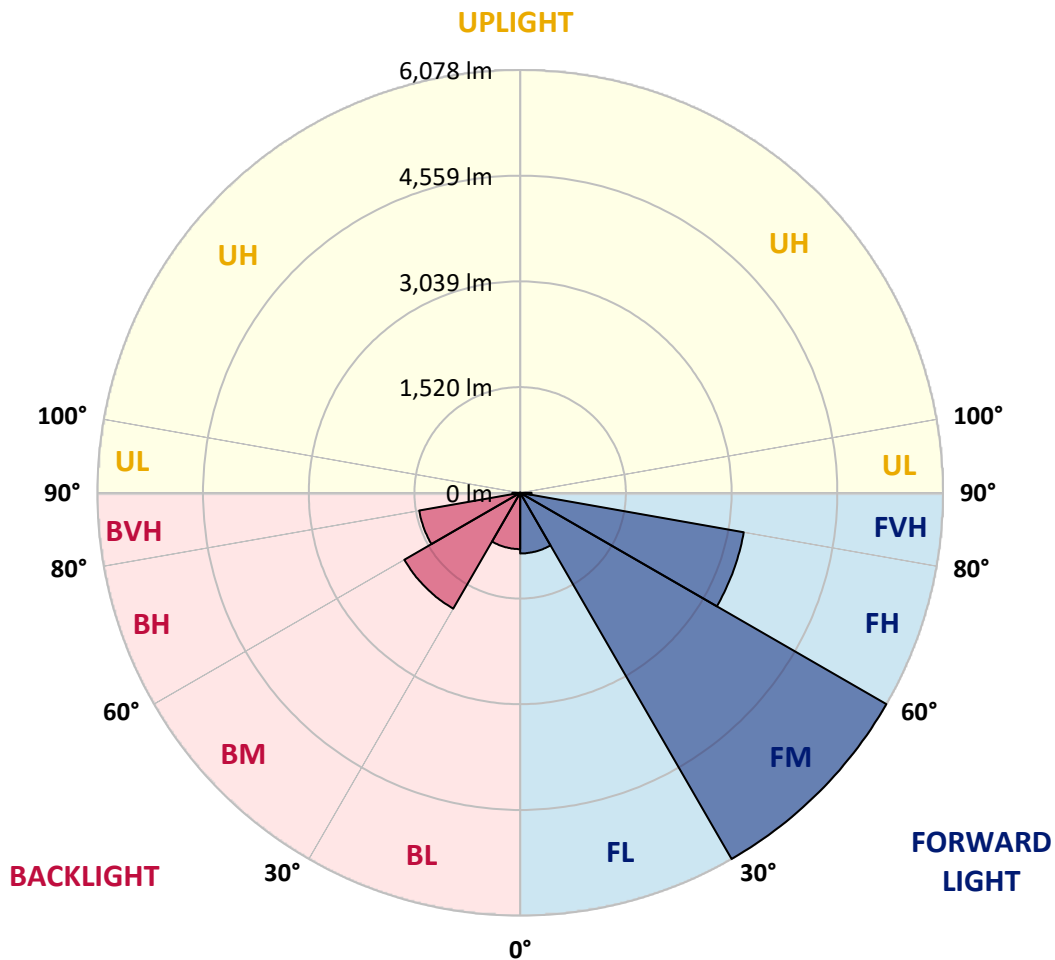
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	872.3	5.9			
FM	(30°-60°)	6078.1	41.4			
FH	(60°-80°)	3263.4	22.2			G2/5000
FVH	(80°-90°)	162.4	1.1			G2/225
BL	(0°-30°)	809.5	5.5	B2/1000		
BM	(30°-60°)	1923.2	13.1	B2/2500		
BH	(60°-80°)	1474.0	10.0	B3/2500		G3/2500
BVH	(80°-90°)	113.6	0.8			G2/225
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°	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6
2.5°	1581.7	1579.4	1579.4	1579.4	1579.4	1576.8	1579.4	1584.3	1581.7	1579.4	1584.3
5°	1586.7	1584.3	1584.3	1584.3	1586.7	1584.3	1586.7	1594.1	1589.1	1589.1	1594.1
7.5°	1599.0	1596.5	1599.0	1596.5	1596.5	1596.5	1599.0	1606.3	1603.9	1606.3	1613.8
10°	1613.8	1613.8	1613.8	1613.8	1613.8	1613.8	1618.6	1623.6	1626.1	1628.5	1638.4
12.5°	1658.0	1658.0	1658.0	1655.6	1655.6	1648.1	1658.0	1662.9	1667.9	1672.8	1680.2
15°	1751.5	1751.5	1749.0	1739.2	1739.2	1724.4	1727.0	1729.3	1729.3	1734.3	1739.2
17.5°	1874.6	1872.0	1867.1	1859.8	1849.9	1832.8	1827.8	1822.9	1815.5	1813.0	1813.0
20°	2046.8	2044.2	2034.4	2014.7	2002.4	1975.4	1955.7	1936.1	1928.7	1916.3	1913.9
22.5°	2292.7	2292.7	2273.0	2243.5	2233.7	2177.1	2120.5	2078.6	2063.9	2046.8	2046.8
25°	2590.4	2588.0	2560.8	2526.4	2484.5	2425.5	2356.7	2300.1	2263.2	2223.9	2209.1
27.5°	2947.0	2939.7	2902.8	2861.0	2782.3	2708.4	2627.2	2568.2	2504.3	2455.0	2410.8
30°	3365.3	3357.9	3293.9	3215.2	3134.0	3060.3	2942.2	2870.8	2769.9	2710.9	2661.8
32.5°	3849.9	3842.5	3727.0	3650.7	3564.6	3473.6	3333.3	3220.1	3092.2	3008.6	2939.7
35°	4467.4	4437.9	4273.0	4167.2	4032.0	3940.9	3793.4	3640.8	3490.8	3372.7	3271.8
37.5°	5134.0	5099.5	4954.5	4797.0	4664.2	4553.5	4344.3	4152.5	3975.4	3813.0	3687.5
40°	5830.2	5739.2	5584.2	5468.5	5377.5	5271.8	5052.8	4851.1	4573.1	4391.1	4201.7
42.5°	6312.4	6223.9	6115.6	6039.3	5995.0	5913.8	5790.8	5616.2	5367.7	5372.6	4873.3
45°	6629.8	6499.3	6425.5	6430.5	6447.7	6447.7	6425.5	6398.4	6290.3	6364.1	5945.8
47.5°	6516.6	6430.5	6383.7	6482.2	6605.0	6728.0	6870.8	7025.8	7202.9	7411.9	6897.9
50°	5852.4	5884.3	5906.4	6115.6	6378.8	6659.3	6986.4	7409.5	7904.1	8000.0	7751.5
52.5°	4792.1	4861.0	4934.8	5254.6	5601.4	6086.1	6659.3	7357.8	8022.1	8413.2	8388.6
55°	3722.0	3808.1	3965.6	4204.2	4479.6	4937.2	5645.8	6723.2	7758.8	8381.3	8760.1
57.5°	2649.4	2774.8	2981.5	3313.7	3557.2	3815.5	4339.4	5535.0	6669.0	7827.8	8698.5
60°	1761.4	1820.4	1955.7	2369.0	2779.8	3050.4	3421.9	3854.7	4782.3	6378.8	8063.9
62.5°	1249.7	1289.0	1372.8	1559.6	1931.0	2420.6	2644.5	2843.8	3141.4	4103.2	6474.7
63°	1180.8	1215.3	1284.2	1441.5	1776.1	2282.9	2511.7	2693.7	2910.2	3670.3	6125.4
65°	979.1	993.8	1030.8	1107.1	1286.5	1707.2	2081.2	2191.8	2228.8	2359.1	3837.6
67.5°	826.5	836.4	848.7	870.8	942.2	1136.6	1552.2	1692.5	1650.7	1562.1	1896.6
70°	718.3	725.7	745.3	772.5	797.0	846.2	1067.7	1276.7	1230.0	1109.4	1161.1
72.5°	573.2	585.5	607.6	654.4	703.5	767.5	821.6	951.9	922.4	806.9	819.2
75°	452.7	460.0	479.6	514.2	560.8	634.7	740.4	784.7	703.5	595.4	595.4
77.5°	359.1	366.6	383.7	410.9	440.4	492.0	565.9	681.4	632.2	447.8	445.2
80°	270.6	277.9	295.2	319.8	349.3	386.2	430.5	482.2	580.6	418.3	334.6
82.5°	199.3	201.7	231.2	248.4	258.3	287.8	324.7	354.2	398.5	386.2	297.6
85°	150.0	147.6	167.2	179.6	182.0	189.4	211.5	241.0	260.8	251.0	231.2
87.5°	83.7	73.8	86.1	98.5	98.5	100.8	105.8	123.0	140.2	135.3	123.0
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6
2.5°	1584.3	1584.3	1581.7	1581.7	1584.3	1584.3	1581.7	1589.1	1594.1	1594.1	1596.5
5°	1591.6	1594.1	1591.6	1591.6	1594.1	1594.1	1596.5	1603.9	1611.2	1616.3	1623.6
7.5°	1613.8	1616.3	1613.8	1613.8	1616.3	1618.6	1623.6	1633.4	1638.4	1648.1	1660.5
10°	1638.4	1640.8	1638.4	1640.8	1643.3	1645.8	1653.1	1660.5	1667.9	1677.6	1697.5
12.5°	1682.6	1685.1	1680.2	1682.6	1690.0	1690.0	1694.9	1699.8	1712.2	1724.4	1744.1
15°	1744.1	1744.1	1739.2	1741.7	1749.0	1749.0	1751.5	1756.5	1771.2	1786.0	1805.6
17.5°	1815.5	1820.4	1818.0	1820.4	1825.2	1827.8	1827.8	1832.8	1842.5	1852.4	1872.0
20°	1911.4	1913.9	1909.0	1913.9	1918.8	1913.9	1909.0	1906.5	1911.4	1916.3	1938.5
22.5°	2041.8	2039.4	2027.1	2027.1	2027.1	2017.3	2004.9	1990.1	1990.1	1982.7	2000.0
25°	2196.7	2189.4	2172.2	2174.6	2157.5	2142.7	2120.5	2098.5	2078.6	2071.3	2073.7
27.5°	2378.8	2364.1	2346.9	2342.0	2324.7	2297.6	2260.8	2218.9	2187.0	2162.3	2157.5
30°	2607.6	2575.6	2546.1	2541.2	2514.2	2469.8	2410.8	2354.2	2300.1	2258.3	2243.5
32.5°	2878.2	2829.0	2782.3	2777.4	2733.0	2674.0	2602.7	2524.0	2445.2	2378.8	2346.9
35°	3195.5	3121.7	3077.5	3065.2	3001.3	2927.4	2848.7	2747.9	2637.1	2543.7	2484.5
37.5°	3581.7	3505.5	3429.2	3431.8	3343.2	3257.0	3151.2	3028.2	2888.0	2757.7	2674.0
40°	4059.0	3950.9	3852.4	3830.2	3753.9	3633.4	3517.8	3375.1	3202.9	3030.8	2910.2
42.5°	4637.1	4460.0	4324.7	4305.1	4204.2	4056.6	3916.3	3727.0	3552.2	3343.2	3198.0
45°	5293.9	5011.0	4848.7	4819.1	4656.7	4506.7	4336.9	4135.3	3921.2	3685.1	3512.9
47.5°	6110.7	5707.1	5431.8	5382.4	5158.6	4961.8	4784.7	4560.8	4305.1	4041.8	3852.4
50°	7062.6	6467.4	6095.9	6019.6	5719.5	5488.3	5261.9	4981.4	4708.4	4432.9	4214.0
52.5°	8017.1	7377.5	6883.2	6789.6	6346.8	6036.8	5739.2	5458.7	5136.5	4863.4	4615.0
55°	8784.7	8359.1	7786.0	7655.6	7020.9	6600.2	6209.1	5889.3	5569.5	5352.9	5060.3
57.5°	9247.1	9225.0	8772.3	8592.8	7724.4	7102.1	6666.6	6302.5	5992.6	5901.5	5512.9
60°	9234.8	9807.9	9613.7	9478.4	8435.4	7616.1	7050.4	6656.7	6401.0	6504.2	5968.0
62.5°	8671.5	9832.7	10066.3	10029.5	9193.1	8029.5	7365.2	6959.4	6824.0	7131.6	6440.3
63°	8467.4	9776.1	10086.0	10071.2	9338.2	8108.1	7419.4	7018.4	6907.7	7291.4	6526.4
65°	7156.2	9281.6	9847.4	9913.8	9650.6	8378.8	7544.8	7168.4	7156.2	7648.1	6730.6
67.5°	4361.6	7842.5	8772.3	8900.3	9210.2	8464.9	7473.5	7116.8	7293.9	7699.8	6669.0
70°	1864.7	5175.8	7050.4	7257.0	8014.7	8036.8	7269.3	6905.1	7261.9	7296.4	6231.2
72.5°	1104.5	2440.3	4799.4	5249.7	6341.9	6915.0	6801.9	6536.2	6841.3	6408.3	5306.1
75°	782.3	1141.4	2437.9	2917.5	4415.7	5279.2	5714.6	5837.6	5825.2	5082.4	3982.7
77.5°	560.8	733.1	1028.2	1212.8	2464.9	3389.9	3921.2	4280.4	4164.8	3402.3	2455.0
80°	391.1	506.8	629.8	669.1	1144.0	1741.7	2066.4	2223.9	2154.9	1699.8	1099.5
82.5°	282.9	332.1	405.9	430.5	575.7	804.3	956.9	843.8	809.4	627.2	474.7
85°	218.9	214.0	253.4	263.2	337.1	420.6	430.5	334.6	292.7	260.8	265.7
87.5°	154.9	132.9	135.3	140.2	174.7	223.9	218.9	137.7	118.1	125.4	142.7
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6	1591.6
2.5°	1601.4	1603.9	1608.9	1611.2	1616.3	1616.3	1621.2	1623.6	1628.5	1633.4	1635.9
5°	1631.0	1638.4	1648.1	1653.1	1662.9	1670.3	1680.2	1685.1	1694.9	1702.4	1712.2
7.5°	1675.3	1687.5	1699.8	1714.6	1729.3	1741.7	1751.5	1763.8	1781.0	1793.4	1800.7
10°	1717.1	1734.3	1756.5	1773.8	1795.7	1813.0	1827.8	1849.9	1869.7	1886.8	1896.6
12.5°	1771.2	1793.4	1815.5	1842.5	1872.0	1894.2	1916.3	1945.9	1972.9	1992.6	2002.4
15°	1835.1	1862.3	1886.8	1918.8	1953.2	1982.7	2014.7	2046.8	2066.4	2066.4	2061.5
17.5°	1901.5	1923.7	1953.2	1990.1	2036.9	2073.7	2091.0	2095.9	2088.5	2071.3	2059.0
20°	1968.0	1987.7	2019.6	2063.9	2113.2	2120.5	2103.3	2081.2	2059.0	2029.5	2009.9
22.5°	2022.2	2049.1	2098.5	2150.0	2152.5	2110.7	2063.9	2027.1	1992.6	1958.2	1921.3
25°	2086.1	2123.0	2189.4	2209.1	2145.1	2066.4	2000.0	1945.9	1889.3	1832.8	1790.9
27.5°	2164.8	2218.9	2285.3	2228.8	2103.3	1992.6	1901.5	1820.4	1746.6	1667.9	1621.2
30°	2248.4	2332.0	2346.9	2199.3	2032.0	1889.3	1766.2	1643.3	1549.9	1478.5	1451.4
32.5°	2349.3	2457.6	2369.0	2147.6	1936.1	1749.0	1584.3	1436.6	1357.9	1313.7	1301.4
35°	2501.8	2590.4	2381.3	2093.4	1825.2	1581.7	1375.1	1257.0	1207.9	1178.4	1163.6
37.5°	2720.8	2718.3	2378.8	2027.1	1697.5	1399.7	1207.9	1124.2	1084.8	1060.3	1033.1
40°	2976.5	2816.7	2364.1	1931.0	1525.1	1225.2	1092.3	1013.5	976.7	947.1	915.1
42.5°	3230.0	2883.2	2322.2	1788.5	1311.2	1099.5	1008.6	937.2	897.9	865.9	821.6
45°	3448.9	2910.2	2241.0	1591.6	1119.3	1001.3	954.5	892.9	846.2	797.0	762.6
47.5°	3621.1	2905.3	2110.7	1360.4	991.4	932.3	910.2	868.4	811.8	750.3	706.1
50°	3766.2	2868.4	1933.6	1156.2	905.3	870.8	863.4	851.1	760.1	708.4	681.4
52.5°	3899.1	2814.2	1744.1	1018.4	831.5	802.0	816.7	804.3	740.4	696.2	669.1
55°	4081.2	2777.4	1557.2	912.7	745.3	738.0	750.3	767.5	728.2	686.3	656.8
57.5°	4295.2	2797.0	1414.5	794.6	664.2	669.1	710.9	735.6	715.8	671.6	642.0
60°	4541.2	2856.0	1289.0	681.4	597.7	610.1	671.6	706.1	703.5	651.9	617.5
62.5°	4816.7	2917.5	1089.8	595.4	541.2	560.8	624.9	669.1	676.6	632.2	590.4
63°	4870.8	2922.4	1038.1	578.1	531.3	553.5	612.5	659.3	669.1	627.2	585.5
65°	5003.6	2878.2	836.4	531.3	492.0	516.6	575.7	617.5	637.1	600.3	565.9
67.5°	4892.9	2516.6	629.8	474.7	460.0	477.3	529.0	568.2	585.5	568.2	533.8
70°	4474.7	1830.2	492.0	423.2	425.6	437.9	477.3	514.2	533.8	529.0	496.9
72.5°	3603.9	1038.1	410.9	378.8	386.2	401.0	428.1	462.5	479.6	477.3	455.1
75°	2373.8	531.3	346.9	339.5	344.3	356.7	376.4	403.5	423.2	420.6	410.9
77.5°	1175.8	369.0	297.6	300.1	302.5	312.4	327.2	351.9	364.1	366.6	364.1
80°	484.7	287.8	255.8	258.3	260.8	268.1	277.9	300.1	307.4	312.4	314.8
82.5°	290.3	218.9	204.2	209.1	211.5	218.9	226.2	246.1	253.4	260.8	260.8
85°	191.9	152.5	147.6	152.5	157.5	162.4	164.9	177.1	189.4	199.3	204.2
87.5°	103.4	91.0	88.6	91.0	91.0	95.9	100.8	113.2	128.0	137.7	142.7
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):

	160°	165°	170°	175°	180°
0°	1591.6	1591.6	1591.6	1591.6	1591.6
2.5°	1631.0	1633.4	1631.0	1633.4	1635.9
5°	1712.2	1717.1	1714.6	1714.6	1724.4
7.5°	1805.6	1815.5	1815.5	1820.4	1825.2
10°	1906.5	1916.3	1923.7	1923.7	1931.0
12.5°	2007.3	2012.2	2019.6	2019.6	2019.6
15°	2059.0	2056.6	2054.1	2051.7	2051.7
17.5°	2051.7	2041.8	2036.9	2032.0	2034.4
20°	1997.5	1980.4	1975.4	1968.0	1972.9
22.5°	1904.1	1879.5	1869.7	1857.3	1862.3
25°	1763.8	1734.3	1729.3	1714.6	1722.0
27.5°	1601.4	1586.7	1584.3	1581.7	1594.1
30°	1448.9	1453.9	1456.3	1461.3	1473.6
32.5°	1308.7	1318.5	1321.1	1323.4	1340.7
35°	1170.9	1158.7	1170.9	1166.1	1180.8
37.5°	1020.9	1011.0	1001.3	988.9	998.7
40°	895.5	878.2	848.7	833.9	836.4
42.5°	797.0	774.8	750.3	735.6	735.6
45°	733.1	706.1	683.9	674.0	674.0
47.5°	683.9	671.6	659.3	651.9	651.9
50°	664.2	649.4	642.0	637.1	637.1
52.5°	649.4	634.7	627.2	622.3	617.5
55°	637.1	615.0	607.6	605.2	605.2
57.5°	619.9	600.3	590.4	588.0	588.0
60°	592.8	578.1	568.2	565.9	565.9
62.5°	565.9	551.0	541.2	541.2	541.2
63°	560.8	543.7	536.3	536.3	536.3
65°	538.7	521.5	514.2	514.2	511.7
67.5°	509.2	492.0	487.1	487.1	482.2
70°	474.7	460.0	455.1	457.6	447.8
72.5°	440.4	425.6	418.3	418.3	408.4
75°	401.0	386.2	376.4	373.8	364.1
77.5°	356.7	344.3	334.6	324.7	319.8
80°	310.0	300.1	287.8	280.5	273.0
82.5°	260.8	251.0	243.5	253.4	216.5
85°	204.2	194.4	184.5	199.3	154.9
87.5°	150.0	145.1	135.3	118.1	103.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)