

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: P257773

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257773
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-AF48-90-D-U-T2U
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12512.7 lumens
Efficiency: N/A
Efficacy: 136.0 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

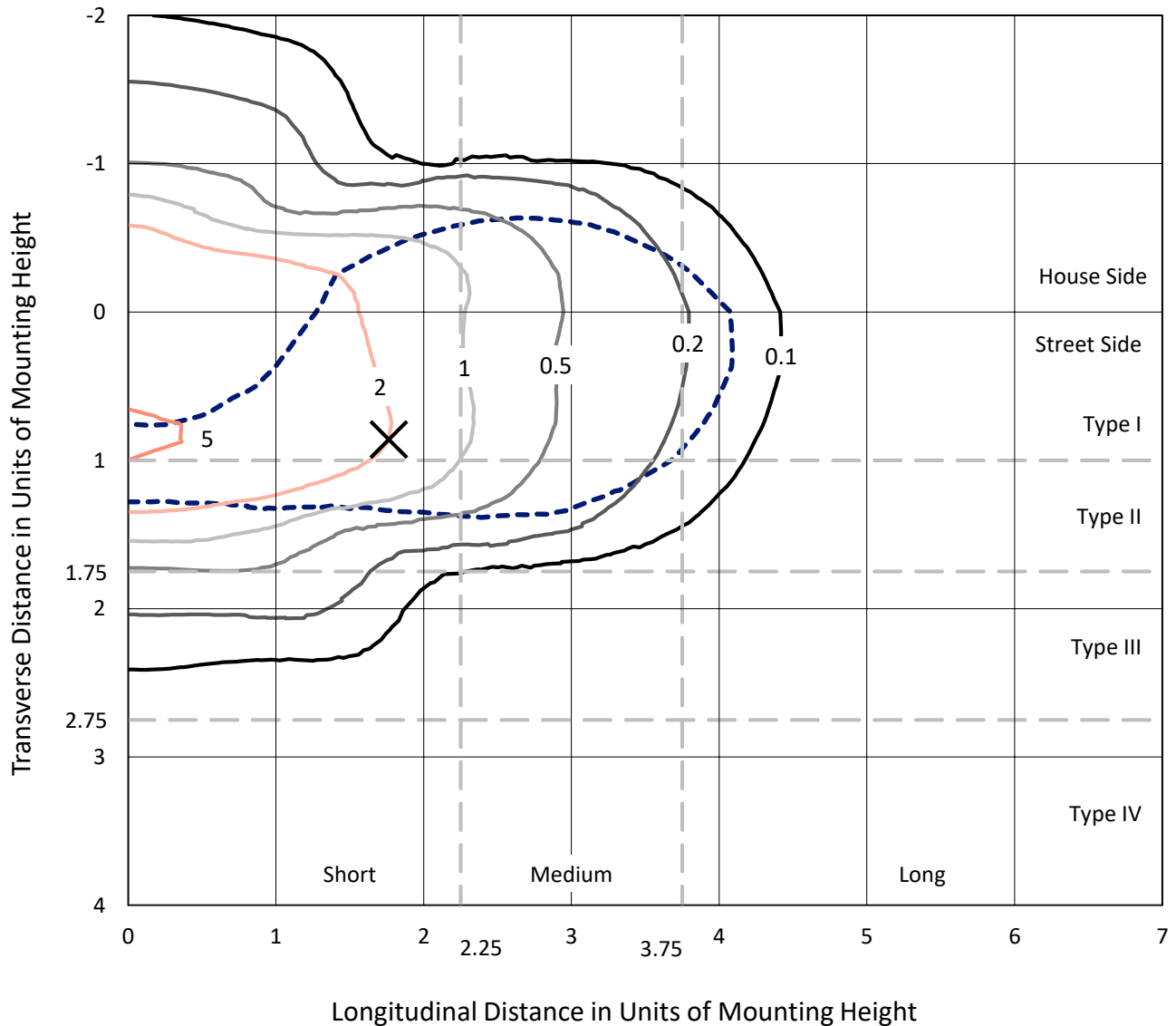
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

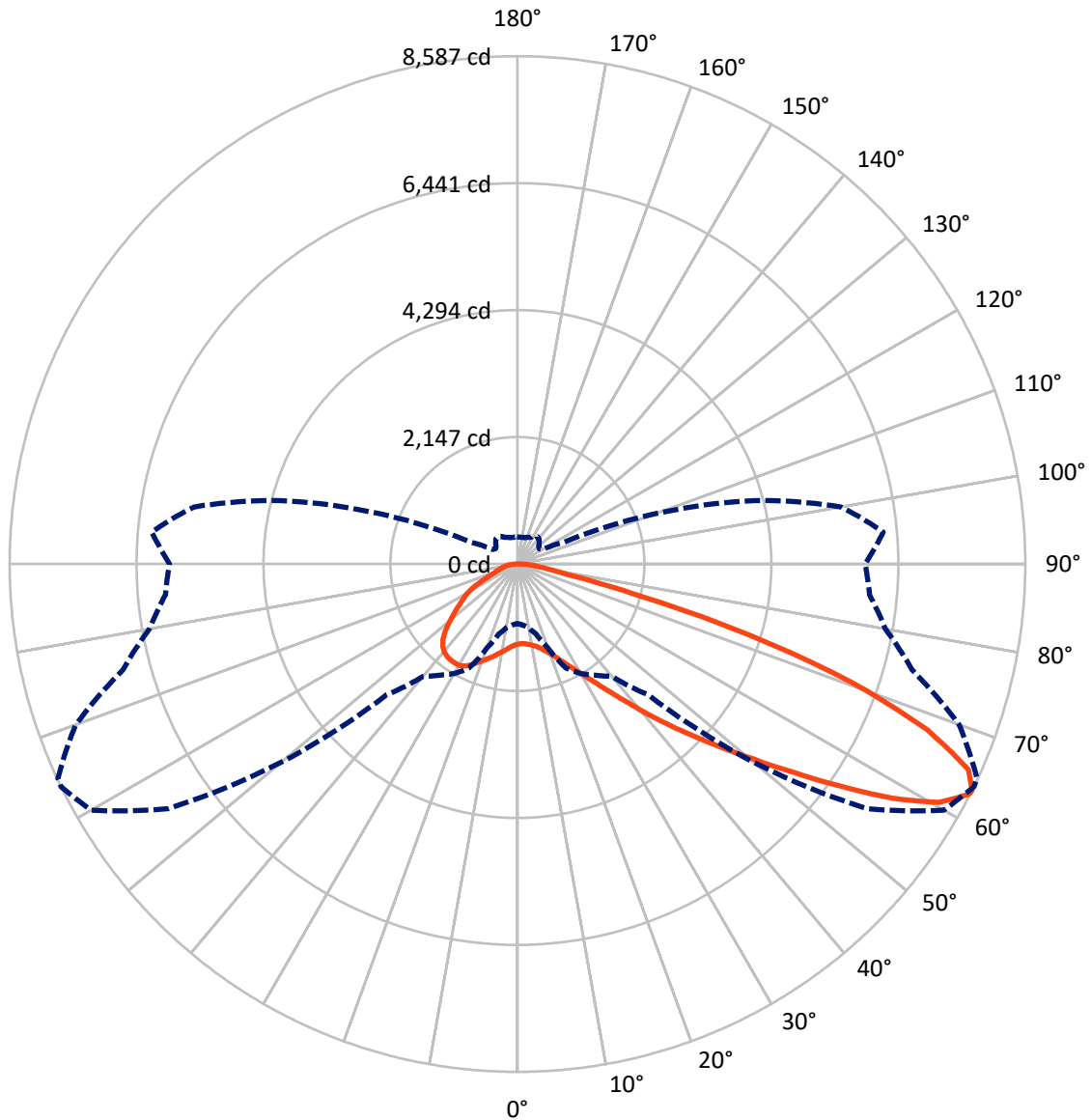


Based on 20 foot mounting height. Maximum calculated value = 5.5 fc
 Type II - Short - Semi-Cutoff

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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	3678.3	0.0	3678.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	8834.4	0.0	8834.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	12512.7	0.0	12512.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	1.1
10°-20°	450.6	3.6
20°-30°	845.9	6.8
30°-40°	1417.9	11.3
40°-50°	2378.8	19.0
50°-60°	3015.7	24.1
60°-70°	2660.3	21.3
70°-80°	1373.3	11.0
80°-90°	235.0	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°	12512.7	100.0
0°-180°	12512.7	100.0

Coefficient of Utilization



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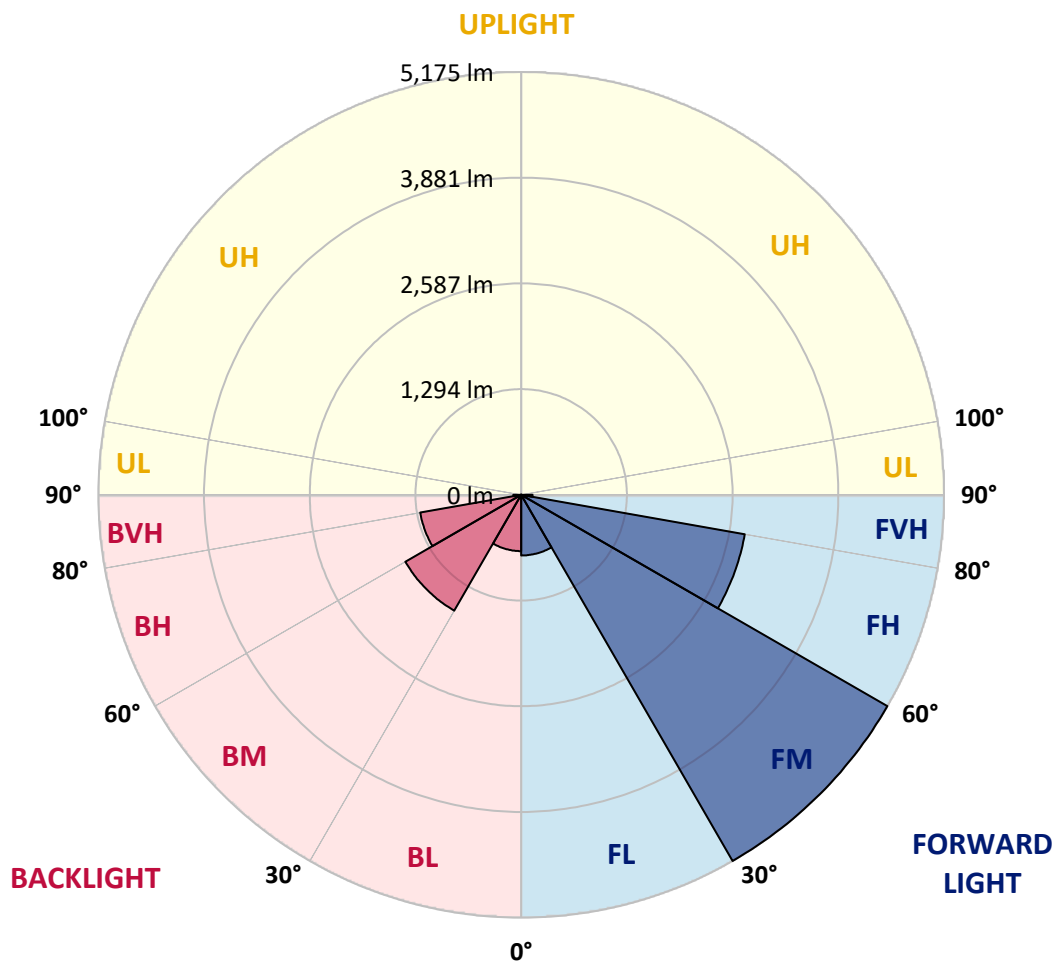
CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	742.7	5.9			
FM	(30°-60°)	5174.9	41.4			
FH	(60°-80°)	2778.5	22.2			G2/5000
FVH	(80°-90°)	138.3	1.1			G2/225
BL	(0°-30°)	689.2	5.5	B2/1000		
BM	(30°-60°)	1637.4	13.1	B2/2500		
BH	(60°-80°)	1255.0	10.0	B3/2500		G3/2500
BVH	(80°-90°)	96.7	0.8			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°	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1
2.5°	1346.7	1344.7	1344.7	1344.7	1344.7	1342.5	1344.7	1348.9	1346.7	1344.7	1348.9
5°	1350.9	1348.9	1348.9	1348.9	1350.9	1348.9	1350.9	1357.3	1353.1	1353.1	1357.3
7.5°	1361.4	1359.3	1361.4	1359.3	1359.3	1359.3	1361.4	1367.7	1365.6	1367.7	1373.9
10°	1373.9	1373.9	1373.9	1373.9	1373.9	1373.9	1378.1	1382.3	1384.5	1386.5	1394.9
12.5°	1411.7	1411.7	1411.7	1409.6	1409.6	1403.3	1411.7	1415.9	1420.1	1424.3	1430.5
15°	1491.3	1491.3	1489.2	1480.8	1480.8	1468.2	1470.3	1472.4	1472.4	1476.6	1480.8
17.5°	1596.0	1593.9	1589.7	1583.4	1575.0	1560.4	1556.2	1552.0	1545.7	1543.6	1543.6
20°	1742.6	1740.6	1732.2	1715.4	1704.8	1681.8	1665.1	1648.4	1642.0	1631.6	1629.5
22.5°	1952.1	1952.1	1935.3	1910.2	1901.8	1853.6	1805.4	1769.8	1757.2	1742.6	1742.6
25°	2205.5	2203.4	2180.3	2151.1	2115.5	2065.1	2006.5	1958.3	1926.9	1893.4	1880.8
27.5°	2509.2	2502.9	2471.4	2435.9	2368.8	2306.0	2236.9	2186.7	2132.1	2090.3	2052.6
30°	2865.3	2858.9	2804.5	2737.5	2668.4	2605.6	2505.0	2444.2	2358.4	2308.1	2266.2
32.5°	3277.8	3271.6	3173.1	3108.2	3034.9	2957.4	2838.0	2741.7	2632.8	2561.6	2502.9
35°	3803.5	3778.5	3638.1	3548.0	3432.8	3355.4	3229.7	3099.8	2972.1	2871.5	2785.7
37.5°	4371.2	4341.8	4218.2	4084.2	3971.1	3876.9	3698.9	3535.4	3384.6	3246.4	3139.6
40°	4963.9	4886.4	4754.5	4656.1	4578.5	4488.5	4302.0	4130.3	3893.7	3738.7	3577.4
42.5°	5374.4	5299.0	5206.8	5142.0	5104.2	5035.1	4930.4	4781.7	4570.1	4574.3	4149.2
45°	5644.6	5533.6	5470.7	5474.9	5489.6	5489.6	5470.7	5447.7	5355.6	5418.4	5062.4
47.5°	5548.3	5474.9	5435.1	5518.9	5623.7	5728.4	5849.8	5981.8	6132.6	6310.7	5872.9
50°	4982.8	5010.0	5028.8	5206.8	5430.9	5669.7	5948.3	6308.5	6729.6	6811.2	6599.7
52.5°	4080.0	4138.7	4201.5	4473.8	4769.1	5181.8	5669.7	6264.6	6830.0	7163.1	7142.1
55°	3168.9	3242.2	3376.2	3579.4	3814.1	4203.6	4806.8	5724.2	6606.0	7135.9	7458.4
57.5°	2255.7	2362.6	2538.5	2821.3	3028.7	3248.5	3694.7	4712.5	5678.1	6664.6	7406.1
60°	1499.6	1549.9	1665.1	2017.0	2366.8	2597.2	2913.4	3282.0	4071.7	5430.9	6865.6
62.5°	1064.0	1097.5	1168.7	1327.9	1644.2	2060.9	2251.5	2421.2	2674.6	3493.6	5512.7
63°	1005.4	1034.7	1093.3	1227.3	1512.2	1943.7	2138.5	2293.5	2477.8	3124.9	5215.2
65°	833.6	846.2	877.6	942.5	1095.4	1453.6	1772.0	1866.2	1897.6	2008.6	3267.4
67.5°	703.8	712.1	722.6	741.4	802.2	967.6	1321.7	1441.0	1405.4	1330.0	1614.8
70°	611.6	617.9	634.6	657.7	678.6	720.5	909.0	1087.0	1047.2	944.6	988.6
72.5°	488.0	498.5	517.3	557.1	599.0	653.5	699.6	810.6	785.4	687.0	697.4
75°	385.3	391.7	408.5	437.7	477.5	540.4	630.4	668.1	599.0	506.9	506.9
77.5°	305.8	312.1	326.7	349.7	374.9	418.9	481.7	580.2	538.3	381.2	379.1
80°	230.4	236.7	251.3	272.3	297.4	328.9	366.5	410.5	494.3	356.1	284.9
82.5°	169.6	171.8	196.9	211.5	219.9	245.1	276.5	301.6	339.3	328.9	253.4
85°	127.8	125.6	142.4	152.9	155.0	161.3	180.1	205.3	222.0	213.6	196.9
87.5°	71.2	62.8	73.3	83.8	83.8	85.8	90.0	104.8	119.4	115.2	104.8
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1
2.5°	1348.9	1348.9	1346.7	1346.7	1348.9	1348.9	1346.7	1353.1	1357.3	1357.3	1359.3
5°	1355.1	1357.3	1355.1	1355.1	1357.3	1357.3	1359.3	1365.6	1371.9	1376.1	1382.3
7.5°	1373.9	1376.1	1373.9	1373.9	1376.1	1378.1	1382.3	1390.7	1394.9	1403.3	1413.7
10°	1394.9	1397.0	1394.9	1397.0	1399.1	1401.2	1407.5	1413.7	1420.1	1428.4	1445.2
12.5°	1432.6	1434.7	1430.5	1432.6	1438.9	1438.9	1443.1	1447.3	1457.7	1468.2	1485.0
15°	1485.0	1485.0	1480.8	1482.9	1489.2	1489.2	1491.3	1495.5	1508.0	1520.6	1537.4
17.5°	1545.7	1549.9	1547.8	1549.9	1554.1	1556.2	1556.2	1560.4	1568.8	1577.2	1593.9
20°	1627.4	1629.5	1625.3	1629.5	1633.7	1629.5	1625.3	1623.2	1627.4	1631.6	1650.4
22.5°	1738.4	1736.4	1725.8	1725.8	1725.8	1717.4	1707.0	1694.4	1694.4	1688.2	1702.8
25°	1870.4	1864.1	1849.4	1851.5	1836.8	1824.3	1805.4	1786.6	1769.8	1763.6	1765.6
27.5°	2025.3	2012.8	1998.1	1993.9	1979.3	1956.2	1924.8	1889.2	1862.0	1841.0	1836.8
30°	2220.1	2192.9	2167.7	2163.5	2140.5	2102.9	2052.6	2004.4	1958.3	1922.7	1910.2
32.5°	2450.6	2408.6	2368.8	2364.7	2327.0	2276.7	2215.9	2148.9	2081.9	2025.3	1998.1
35°	2720.7	2657.9	2620.2	2609.8	2555.2	2492.4	2425.4	2339.5	2245.3	2165.7	2115.5
37.5°	3049.5	2984.7	2919.7	2921.8	2846.4	2773.1	2683.0	2578.2	2458.9	2347.9	2276.7
40°	3455.8	3363.8	3280.0	3261.1	3196.2	3093.5	2995.1	2873.6	2727.0	2580.4	2477.8
42.5°	3948.1	3797.3	3682.1	3665.3	3579.4	3453.8	3334.4	3173.1	3024.5	2846.4	2722.8
45°	4507.3	4266.4	4128.2	4103.1	3964.9	3837.1	3692.5	3520.8	3338.6	3137.5	2990.9
47.5°	5202.6	4859.2	4624.6	4582.7	4392.1	4224.6	4073.8	3883.1	3665.3	3441.2	3280.0
50°	6013.2	5506.3	5190.1	5125.2	4869.7	4672.7	4480.1	4241.3	4008.8	3774.3	3587.8
52.5°	6825.8	6281.3	5860.4	5780.7	5403.7	5139.8	4886.4	4647.7	4373.2	4140.8	3929.3
55°	7479.4	7117.0	6629.0	6518.0	5977.6	5619.5	5286.4	5014.2	4741.9	4557.6	4308.4
57.5°	7873.1	7854.3	7468.9	7316.0	6576.7	6046.8	5676.0	5366.0	5102.2	5024.6	4693.7
60°	7862.6	8350.7	8185.2	8070.0	7181.9	6484.5	6002.8	5667.7	5449.8	5537.7	5081.2
62.5°	7383.0	8371.6	8570.6	8539.2	7827.0	6836.4	6270.9	5925.2	5810.1	6071.8	5483.3
63°	7209.1	8323.4	8587.4	8574.8	7950.6	6903.4	6316.9	5975.6	5881.3	6208.0	5556.7
65°	6092.8	7902.4	8384.2	8440.8	8216.6	7133.8	6423.7	6103.3	6092.8	6511.7	5730.5
67.5°	3713.5	6677.2	7468.9	7577.8	7841.7	7207.1	6363.0	6059.3	6210.1	6555.7	5678.1
70°	1587.6	4406.8	6002.8	6178.7	6823.8	6842.6	6189.2	5879.2	6182.9	6212.2	5305.3
72.5°	940.4	2077.7	4086.3	4469.6	5399.5	5887.6	5791.2	5565.1	5824.7	5456.1	4517.8
75°	666.0	971.8	2075.7	2484.0	3759.5	4494.7	4865.5	4970.2	4959.7	4327.2	3391.0
77.5°	477.5	624.1	875.4	1032.6	2098.7	2886.2	3338.6	3644.4	3546.0	2896.7	2090.3
80°	333.0	431.5	536.2	569.7	974.0	1482.9	1759.4	1893.4	1834.8	1447.3	936.2
82.5°	240.9	282.7	345.6	366.5	490.1	684.9	814.8	718.4	689.1	534.1	404.3
85°	186.4	182.2	215.7	224.1	286.9	358.1	366.5	284.9	249.3	222.0	226.2
87.5°	132.0	113.1	115.2	119.4	148.7	190.6	186.4	117.3	100.6	106.8	121.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1	1355.1
2.5°	1363.5	1365.6	1369.8	1371.9	1376.1	1376.1	1380.3	1382.3	1386.5	1390.7	1392.8
5°	1388.7	1394.9	1403.3	1407.5	1415.9	1422.1	1430.5	1434.7	1443.1	1449.4	1457.7
7.5°	1426.3	1436.8	1447.3	1459.9	1472.4	1482.9	1491.3	1501.7	1516.4	1526.9	1533.2
10°	1461.9	1476.6	1495.5	1510.1	1529.0	1543.6	1556.2	1575.0	1591.8	1606.4	1614.8
12.5°	1508.0	1526.9	1545.7	1568.8	1593.9	1612.8	1631.6	1656.8	1679.8	1696.6	1704.8
15°	1562.5	1585.5	1606.4	1633.7	1663.0	1688.2	1715.4	1742.6	1759.4	1759.4	1755.2
17.5°	1619.0	1637.8	1663.0	1694.4	1734.2	1765.6	1780.3	1784.5	1778.2	1763.6	1753.0
20°	1675.6	1692.4	1719.6	1757.2	1799.2	1805.4	1790.8	1772.0	1753.0	1728.0	1711.2
22.5°	1721.6	1744.7	1786.6	1830.6	1832.6	1797.0	1757.2	1725.8	1696.6	1667.2	1635.8
25°	1776.1	1807.6	1864.1	1880.8	1826.4	1759.4	1702.8	1656.8	1608.6	1560.4	1524.8
27.5°	1843.2	1889.2	1945.8	1897.6	1790.8	1696.6	1619.0	1549.9	1487.1	1420.1	1380.3
30°	1914.4	1985.5	1998.1	1872.4	1730.0	1608.6	1503.8	1399.1	1319.5	1258.7	1235.7
32.5°	2000.2	2092.3	2017.0	1828.5	1648.4	1489.2	1348.9	1223.1	1156.1	1118.5	1108.0
35°	2130.1	2205.5	2027.5	1782.4	1554.1	1346.7	1170.8	1070.3	1028.4	1003.2	990.7
37.5°	2316.5	2314.4	2025.3	1725.8	1445.2	1191.7	1028.4	957.2	923.6	902.8	879.6
40°	2534.4	2398.2	2012.8	1644.2	1298.5	1043.0	930.0	863.0	831.6	806.4	779.2
42.5°	2750.0	2454.7	1977.2	1522.7	1116.3	936.2	858.8	798.0	764.5	737.2	699.6
45°	2936.5	2477.8	1908.1	1355.1	953.0	852.4	812.6	760.3	720.5	678.6	649.3
47.5°	3083.1	2473.6	1797.0	1158.3	844.0	793.8	775.0	739.4	691.2	638.8	601.1
50°	3206.6	2442.2	1646.2	984.4	770.8	741.4	735.2	724.7	647.2	603.2	580.2
52.5°	3319.8	2396.1	1485.0	867.2	707.9	682.8	695.4	684.9	630.4	592.7	569.7
55°	3474.8	2364.7	1325.8	777.0	634.6	628.3	638.8	653.5	620.0	584.3	559.2
57.5°	3656.9	2381.4	1204.3	676.5	565.5	569.7	605.3	626.3	609.5	571.8	546.7
60°	3866.4	2431.7	1097.5	580.2	508.9	519.5	571.8	601.1	599.0	555.1	525.7
62.5°	4101.0	2484.0	927.8	506.9	460.7	477.5	532.0	569.7	576.0	538.3	502.7
63°	4147.0	2488.2	883.8	492.2	452.5	471.3	521.5	561.3	569.7	534.1	498.5
65°	4260.2	2450.6	712.1	452.5	418.9	439.9	490.1	525.7	542.5	511.1	481.7
67.5°	4165.9	2142.7	536.2	404.3	391.7	406.3	450.3	483.9	498.5	483.9	454.5
70°	3809.9	1558.3	418.9	360.3	362.3	372.9	406.3	437.7	454.5	450.3	423.1
72.5°	3068.4	883.8	349.7	322.5	328.9	341.4	364.5	393.7	408.5	406.3	387.5
75°	2021.1	452.5	295.3	289.1	293.2	303.7	320.5	343.5	360.3	358.1	349.7
77.5°	1001.2	314.1	253.4	255.5	257.6	266.0	278.5	299.5	310.0	312.1	310.0
80°	412.7	245.1	217.8	219.9	222.0	228.3	236.7	255.5	261.8	266.0	268.1
82.5°	247.1	186.4	173.8	178.0	180.1	186.4	192.7	209.4	215.7	222.0	222.0
85°	163.4	129.8	125.6	129.8	134.0	138.2	140.3	150.8	161.3	169.6	173.8
87.5°	88.0	77.5	75.4	77.5	77.5	81.7	85.8	96.4	108.9	117.3	121.5
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):

	160°	165°	170°	175°	180°
0°	1355.1	1355.1	1355.1	1355.1	1355.1
2.5°	1388.7	1390.7	1388.7	1390.7	1392.8
5°	1457.7	1461.9	1459.9	1459.9	1468.2
7.5°	1537.4	1545.7	1545.7	1549.9	1554.1
10°	1623.2	1631.6	1637.8	1637.8	1644.2
12.5°	1709.0	1713.2	1719.6	1719.6	1719.6
15°	1753.0	1751.0	1748.8	1746.8	1746.8
17.5°	1746.8	1738.4	1734.2	1730.0	1732.2
20°	1700.8	1686.0	1681.8	1675.6	1679.8
22.5°	1621.2	1600.2	1591.8	1581.3	1585.5
25°	1501.7	1476.6	1472.4	1459.9	1466.1
27.5°	1363.5	1350.9	1348.9	1346.7	1357.3
30°	1233.7	1237.9	1239.9	1244.1	1254.5
32.5°	1114.3	1122.7	1124.7	1126.8	1141.5
35°	997.0	986.5	997.0	992.8	1005.4
37.5°	869.2	860.8	852.4	842.0	850.4
40°	762.4	747.8	722.6	710.0	712.1
42.5°	678.6	659.8	638.8	626.3	626.3
45°	624.1	601.1	582.3	573.9	573.9
47.5°	582.3	571.8	561.3	555.1	555.1
50°	565.5	552.9	546.7	542.5	542.5
52.5°	552.9	540.4	534.1	529.9	525.7
55°	542.5	523.6	517.3	515.3	515.3
57.5°	527.8	511.1	502.7	500.5	500.5
60°	504.7	492.2	483.9	481.7	481.7
62.5°	481.7	469.1	460.7	460.7	460.7
63°	477.5	462.9	456.6	456.6	456.6
65°	458.7	444.1	437.7	437.7	435.7
67.5°	433.5	418.9	414.7	414.7	410.5
70°	404.3	391.7	387.5	389.5	381.2
72.5°	374.9	362.3	356.1	356.1	347.7
75°	341.4	328.9	320.5	318.3	310.0
77.5°	303.7	293.2	284.9	276.5	272.3
80°	263.9	255.5	245.1	238.8	232.5
82.5°	222.0	213.6	207.4	215.7	184.3
85°	173.8	165.5	157.1	169.6	132.0
87.5°	127.8	123.6	115.2	100.6	88.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)