

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: P258169

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258169  
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-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 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: 11830.6 lumens  
Efficiency: N/A  
Efficacy: 128.6 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

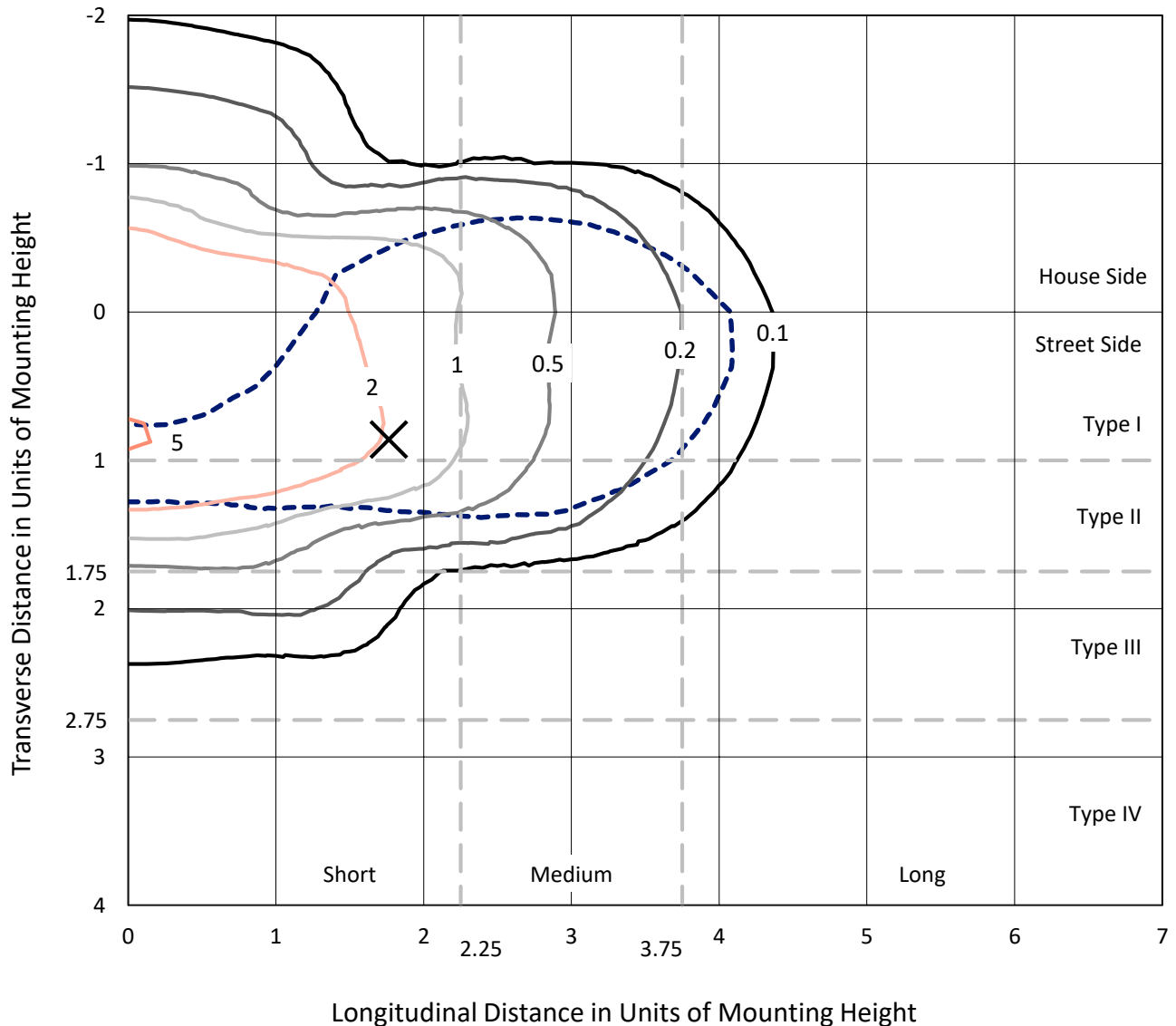


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

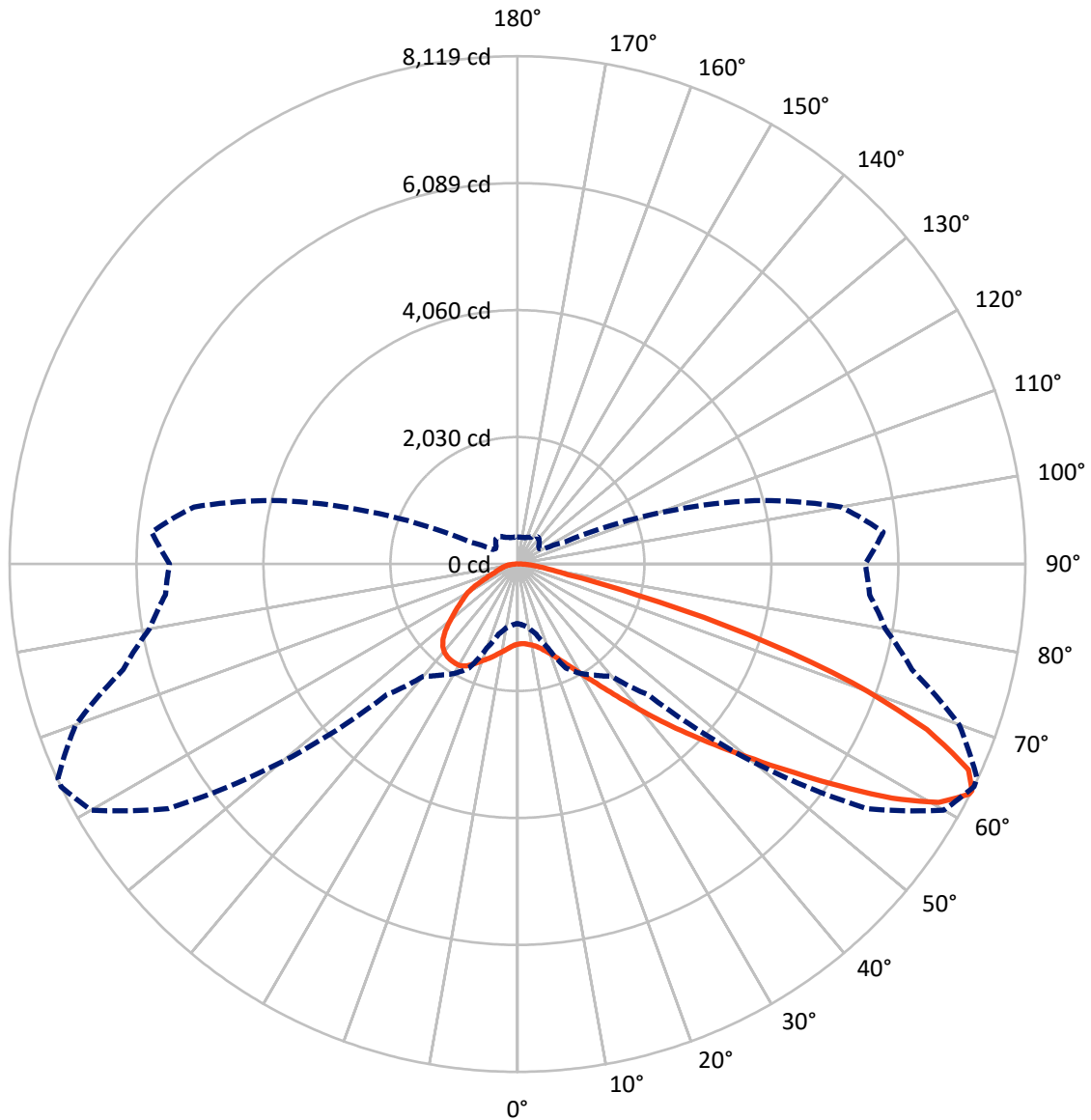


Based on 20 foot mounting height. Maximum calculated value = 5.2 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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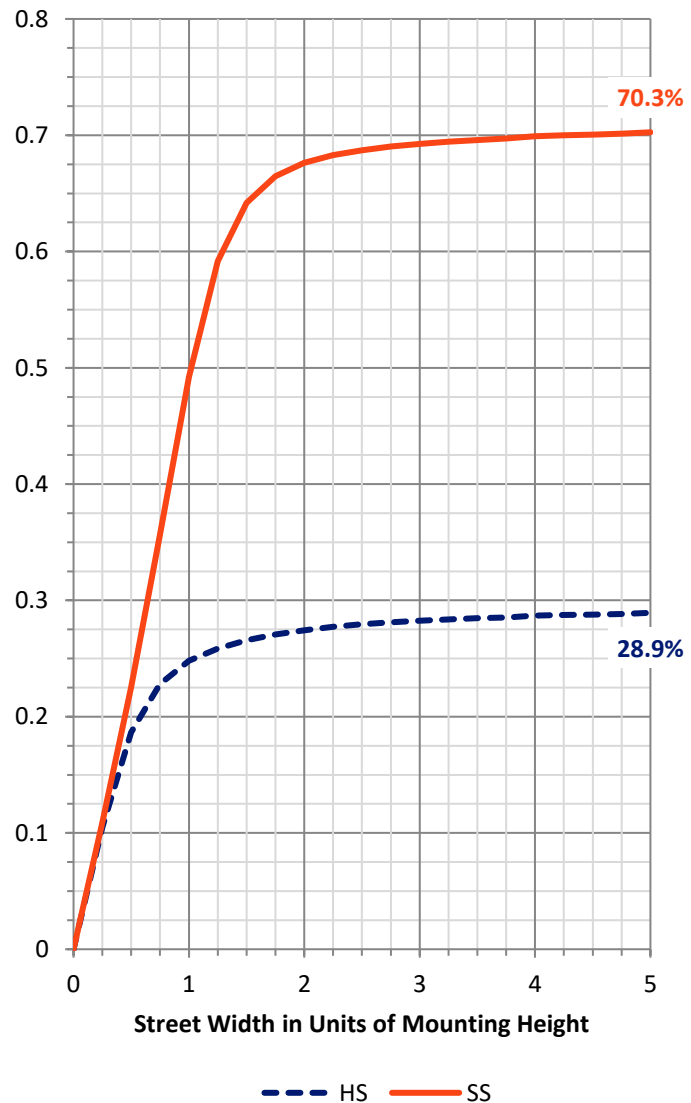
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3477.8	0.0	3477.8
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	8352.8	0.0	8352.8
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	11830.6	0.0	11830.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	1.1
10°-20°	426.1	3.6
20°-30°	799.8	6.8
30°-40°	1340.6	11.3
40°-50°	2249.2	19.0
50°-60°	2851.3	24.1
60°-70°	2515.2	21.3
70°-80°	1298.4	11.0
80°-90°	222.2	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°	11830.6	100.0
0°-180°	11830.6	100.0



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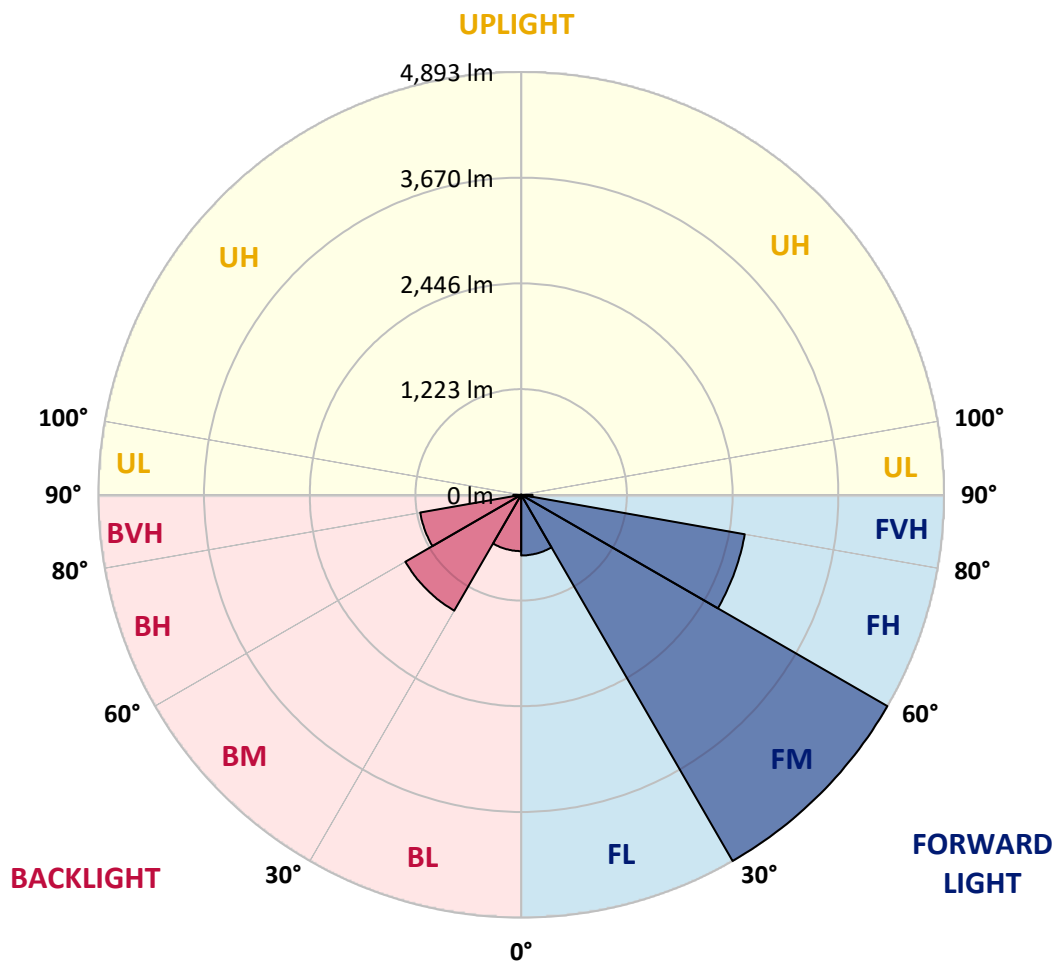
CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	702.2	5.9			
FM	(30°-60°)	4892.8	41.4			
FH	(60°-80°)	2627.1	22.2			G2/5000
FVH	(80°-90°)	130.8	1.1			G2/225
BL	(0°-30°)	651.6	5.5	B2/1000		
BM	(30°-60°)	1548.1	13.1	B2/2500		
BH	(60°-80°)	1186.6	10.0	B3/2500		G3/2500
BVH	(80°-90°)	91.4	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°	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3
2.5°	1273.3	1271.3	1271.3	1271.3	1271.3	1269.4	1271.3	1275.3	1273.3	1271.3	1275.3
5°	1277.2	1275.3	1275.3	1275.3	1277.2	1275.3	1277.2	1283.2	1279.3	1279.3	1283.2
7.5°	1287.2	1285.2	1287.2	1285.2	1285.2	1285.2	1287.2	1293.1	1291.1	1293.1	1299.1
10°	1299.1	1299.1	1299.1	1299.1	1299.1	1299.1	1303.0	1307.0	1308.9	1311.0	1318.9
12.5°	1334.7	1334.7	1334.7	1332.8	1332.8	1326.9	1334.7	1338.7	1342.7	1346.6	1352.5
15°	1410.0	1410.0	1408.1	1400.0	1400.0	1388.1	1390.3	1392.2	1392.2	1396.2	1400.0
17.5°	1509.0	1507.0	1503.1	1497.1	1489.2	1475.3	1471.4	1467.4	1461.5	1459.4	1459.4
20°	1647.6	1645.7	1637.7	1621.9	1612.0	1590.2	1574.3	1558.5	1552.6	1542.6	1540.7
22.5°	1845.6	1845.6	1829.8	1806.0	1798.1	1752.5	1706.9	1673.3	1661.5	1647.6	1647.6
25°	2085.2	2083.2	2061.5	2033.8	2000.1	1952.6	1897.1	1851.6	1821.9	1790.2	1778.3
27.5°	2372.3	2366.4	2336.7	2303.0	2239.7	2180.3	2114.9	2067.4	2016.0	1976.3	1940.7
30°	2709.1	2703.1	2651.6	2588.3	2522.9	2463.5	2368.4	2311.1	2229.8	2182.2	2142.7
32.5°	3099.1	3093.2	3000.2	2938.7	2869.4	2796.2	2683.3	2592.1	2489.3	2422.0	2366.4
35°	3596.2	3572.4	3439.8	3354.6	3245.6	3172.5	3053.6	2930.9	2810.0	2715.0	2633.8
37.5°	4132.8	4105.1	3988.3	3861.6	3754.5	3665.5	3497.2	3342.7	3200.2	3069.4	2968.5
40°	4693.3	4620.0	4495.3	4402.2	4329.0	4243.7	4067.5	3905.2	3681.4	3534.9	3382.3
42.5°	5081.4	5010.1	4923.0	4861.6	4826.0	4760.7	4661.6	4521.0	4320.9	4324.9	3923.0
45°	5336.9	5231.9	5172.6	5176.4	5190.4	5190.4	5172.6	5150.7	5063.6	5123.0	4786.3
47.5°	5245.7	5176.4	5138.9	5218.1	5317.1	5416.1	5530.9	5655.7	5798.3	5966.6	5552.8
50°	4711.2	4736.8	4754.6	4923.0	5134.8	5360.7	5624.0	5964.7	6362.7	6440.0	6239.9
52.5°	3857.6	3913.0	3972.4	4229.9	4509.1	4899.1	5360.7	5923.1	6457.8	6772.6	6752.8
55°	2996.2	3065.5	3192.2	3384.3	3606.1	3974.5	4544.7	5412.1	6245.8	6746.9	7051.8
57.5°	2132.7	2233.8	2400.1	2667.4	2863.4	3071.4	3493.2	4455.7	5368.6	6301.3	7002.3
60°	1417.8	1465.3	1574.3	1907.0	2237.7	2455.6	2754.5	3103.1	3849.6	5134.8	6491.4
62.5°	1006.0	1037.6	1105.0	1255.5	1554.5	1948.6	2128.8	2289.2	2528.8	3303.1	5212.1
63°	950.5	978.3	1033.7	1160.5	1429.7	1837.7	2021.9	2168.5	2342.7	2954.6	4930.9
65°	788.2	800.0	829.8	891.1	1035.7	1374.4	1675.3	1764.4	1794.1	1899.2	3089.3
67.5°	665.4	673.2	683.2	701.0	758.5	914.9	1249.6	1362.5	1328.8	1257.5	1526.8
70°	578.2	584.2	600.1	621.8	641.6	681.2	859.5	1027.8	990.1	893.0	934.7
72.5°	461.4	471.4	489.2	526.7	566.4	617.9	661.4	766.4	742.6	649.5	659.5
75°	364.4	370.3	386.1	413.9	451.5	510.9	596.1	631.7	566.4	479.2	479.2
77.5°	289.1	295.1	308.8	330.7	354.4	396.1	455.5	548.6	508.9	360.4	358.5
80°	217.9	223.8	237.6	257.5	281.3	311.0	346.6	388.1	467.3	336.6	269.4
82.5°	160.4	162.4	186.2	200.1	207.9	231.7	261.3	285.1	320.7	311.0	239.6
85°	120.8	118.8	134.6	144.5	146.5	152.5	170.3	194.1	209.9	202.0	186.2
87.5°	67.3	59.4	69.3	79.2	79.2	81.2	85.1	99.0	112.9	108.9	99.0
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°	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3
2.5°	1275.3	1275.3	1273.3	1273.3	1275.3	1275.3	1273.3	1279.3	1283.2	1283.2	1285.2
5°	1281.3	1283.2	1281.3	1281.3	1283.2	1283.2	1285.2	1291.1	1297.1	1301.1	1307.0
7.5°	1299.1	1301.1	1299.1	1299.1	1301.1	1303.0	1307.0	1314.9	1318.9	1326.9	1336.7
10°	1318.9	1320.8	1318.9	1320.8	1322.8	1324.8	1330.8	1336.7	1342.7	1350.6	1366.4
12.5°	1354.5	1356.5	1352.5	1354.5	1360.5	1360.5	1364.4	1368.4	1378.3	1388.1	1404.0
15°	1404.0	1404.0	1400.0	1402.1	1408.1	1408.1	1410.0	1414.0	1425.9	1437.8	1453.5
17.5°	1461.5	1465.3	1463.4	1465.3	1469.4	1471.4	1471.4	1475.3	1483.2	1491.2	1507.0
20°	1538.7	1540.7	1536.7	1540.7	1544.6	1540.7	1536.7	1534.8	1538.7	1542.6	1560.4
22.5°	1643.6	1641.6	1631.8	1631.8	1631.8	1623.8	1614.0	1602.1	1602.1	1596.2	1609.9
25°	1768.4	1762.5	1748.5	1750.6	1736.6	1724.8	1706.9	1689.1	1673.3	1667.4	1669.4
27.5°	1915.0	1903.1	1889.2	1885.3	1871.4	1849.5	1819.9	1786.2	1760.5	1740.7	1736.6
30°	2099.1	2073.4	2049.6	2045.7	2023.8	1988.2	1940.7	1895.1	1851.6	1817.8	1806.0
32.5°	2317.0	2277.3	2239.7	2235.8	2200.2	2152.6	2095.1	2031.7	1968.5	1915.0	1889.2
35°	2572.4	2513.0	2477.4	2467.4	2415.9	2356.5	2293.2	2212.0	2122.9	2047.6	2000.1
37.5°	2883.4	2821.9	2760.6	2762.5	2691.2	2621.9	2536.8	2437.8	2324.8	2219.9	2152.6
40°	3267.5	3180.3	3101.1	3083.3	3021.9	2924.9	2831.8	2717.0	2578.3	2439.8	2342.7
42.5°	3732.9	3590.3	3481.3	3465.4	3384.3	3265.5	3152.6	3000.2	2859.6	2691.2	2574.3
45°	4261.5	4033.9	3903.2	3879.4	3748.6	3627.9	3491.3	3328.9	3156.6	2966.5	2827.8
47.5°	4919.1	4594.3	4372.4	4332.9	4152.6	3994.3	3851.7	3671.4	3465.4	3253.6	3101.1
50°	5685.5	5206.2	4907.2	4845.7	4604.1	4418.0	4235.9	4010.2	3790.3	3568.5	3392.3
52.5°	6453.7	5938.9	5540.9	5465.5	5109.2	4859.7	4620.0	4394.3	4134.8	3915.1	3715.1
55°	7071.6	6729.1	6267.6	6162.7	5651.8	5313.2	4998.3	4740.9	4483.4	4309.0	4073.5
57.5°	7444.0	7426.2	7061.8	6917.2	6218.2	5717.1	5366.6	5073.5	4824.1	4750.7	4437.8
60°	7434.0	7895.4	7739.0	7630.0	6790.5	6131.0	5675.5	5358.6	5152.6	5235.9	4804.2
62.5°	6980.6	7915.2	8103.3	8073.6	7400.3	6463.7	5929.0	5602.3	5493.3	5740.8	5184.4
63°	6816.1	7869.7	8119.2	8107.4	7517.1	6527.0	5972.5	5649.8	5560.6	5869.6	5253.7
65°	5760.7	7471.5	7927.1	7980.7	7768.7	6744.9	6073.5	5770.5	5760.7	6156.8	5418.0
67.5°	3511.0	6313.2	7061.8	7164.6	7414.3	6814.2	6016.2	5729.0	5871.6	6198.3	5368.6
70°	1501.1	4166.5	5675.5	5841.9	6451.8	6469.6	5851.7	5558.7	5845.8	5873.6	5016.1
72.5°	889.2	1964.5	3863.5	4225.9	5105.1	5566.6	5475.5	5261.6	5507.2	5158.6	4271.5
75°	629.8	918.9	1962.6	2348.6	3554.6	4249.7	4600.3	4699.2	4689.3	4091.3	3206.1
77.5°	451.5	590.1	827.7	976.2	1984.2	2728.9	3156.6	3445.7	3352.6	2738.7	1976.3
80°	314.8	408.0	507.0	538.6	920.8	1402.1	1663.5	1790.2	1734.7	1368.4	885.2
82.5°	227.7	267.3	326.8	346.6	463.4	647.6	770.4	679.3	651.5	505.0	382.2
85°	176.2	172.3	204.0	211.9	271.3	338.6	346.6	269.4	235.7	209.9	213.8
87.5°	124.8	107.0	108.9	112.9	140.6	180.2	176.2	110.9	95.0	100.9	114.8
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3	1281.3
2.5°	1289.1	1291.1	1295.2	1297.1	1301.1	1301.1	1305.0	1307.0	1311.0	1314.9	1316.9
5°	1313.0	1318.9	1326.9	1330.8	1338.7	1344.7	1352.5	1356.5	1364.4	1370.3	1378.3
7.5°	1348.6	1358.5	1368.4	1380.3	1392.2	1402.1	1410.0	1419.9	1433.7	1443.7	1449.6
10°	1382.2	1396.2	1414.0	1427.8	1445.6	1459.4	1471.4	1489.2	1505.0	1518.9	1526.8
12.5°	1425.9	1443.7	1461.5	1483.2	1507.0	1524.8	1542.6	1566.4	1588.2	1604.0	1612.0
15°	1477.3	1499.0	1518.9	1544.6	1572.4	1596.2	1621.9	1647.6	1663.5	1663.5	1659.4
17.5°	1530.7	1548.6	1572.4	1602.1	1639.7	1669.4	1683.2	1687.2	1681.3	1667.4	1657.5
20°	1584.3	1600.1	1625.8	1661.5	1701.0	1706.9	1693.2	1675.3	1657.5	1633.8	1617.9
22.5°	1627.9	1649.6	1689.1	1730.7	1732.8	1699.1	1661.5	1631.8	1604.0	1576.3	1546.6
25°	1679.4	1709.1	1762.5	1778.3	1726.9	1663.5	1609.9	1566.4	1520.9	1475.3	1441.6
27.5°	1742.6	1786.2	1839.7	1794.1	1693.2	1604.0	1530.7	1465.3	1406.0	1342.7	1305.0
30°	1810.0	1877.3	1889.2	1770.3	1635.7	1520.9	1421.9	1322.8	1247.6	1190.2	1168.4
32.5°	1891.2	1978.3	1907.0	1728.8	1558.5	1408.1	1275.3	1156.5	1093.1	1057.5	1047.6
35°	2013.9	2085.2	1917.0	1685.3	1469.4	1273.3	1107.1	1012.0	972.3	948.6	936.7
37.5°	2190.2	2188.3	1915.0	1631.8	1366.4	1126.8	972.3	905.0	873.3	853.6	831.7
40°	2396.2	2267.4	1903.1	1554.5	1227.7	986.2	879.2	815.8	786.2	762.4	736.6
42.5°	2600.2	2320.8	1869.4	1439.7	1055.5	885.2	811.9	754.6	722.9	697.1	661.4
45°	2776.4	2342.7	1804.1	1281.3	901.1	806.0	768.3	718.8	681.2	641.6	613.9
47.5°	2915.0	2338.7	1699.1	1095.1	798.0	750.5	732.7	699.0	653.5	603.9	568.3
50°	3031.8	2308.9	1556.5	930.8	728.8	701.0	695.1	685.2	612.0	570.4	548.6
52.5°	3138.8	2265.5	1404.0	819.9	669.3	645.6	657.4	647.6	596.1	560.4	538.6
55°	3285.3	2235.8	1253.5	734.7	600.1	594.1	603.9	617.9	586.1	552.6	528.7
57.5°	3457.6	2251.7	1138.7	639.6	534.8	538.6	572.3	592.0	576.3	540.7	516.9
60°	3655.6	2299.2	1037.6	548.6	481.2	491.1	540.7	568.3	566.4	524.8	497.0
62.5°	3877.4	2348.6	877.3	479.2	435.6	451.5	503.0	538.6	544.5	508.9	475.3
63°	3921.0	2352.6	835.8	465.3	427.7	445.6	493.1	530.7	538.6	505.0	471.4
65°	4028.0	2317.0	673.2	427.7	396.1	415.8	463.4	497.0	512.9	483.2	455.5
67.5°	3938.8	2025.8	507.0	382.2	370.3	384.1	425.8	457.5	471.4	457.5	429.7
70°	3602.2	1473.4	396.1	340.6	342.6	352.5	384.1	413.9	429.7	425.8	400.0
72.5°	2901.2	835.8	330.7	305.0	311.0	322.8	344.6	372.2	386.1	384.1	366.3
75°	1911.0	427.7	279.2	273.2	277.2	287.2	302.9	324.7	340.6	338.6	330.7
77.5°	946.6	297.0	239.6	241.6	243.5	251.6	263.5	283.2	293.1	295.1	293.1
80°	390.2	231.7	206.0	207.9	209.9	215.9	223.8	241.6	247.6	251.6	253.5
82.5°	233.7	176.2	164.3	168.4	170.3	176.2	182.1	198.0	204.0	209.9	209.9
85°	154.5	122.8	118.8	122.8	126.7	130.7	132.6	142.6	152.5	160.4	164.3
87.5°	83.1	73.3	71.2	73.3	73.3	77.2	81.2	91.1	102.9	110.9	114.8
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°	1281.3	1281.3	1281.3	1281.3	1281.3
2.5°	1313.0	1314.9	1313.0	1314.9	1316.9
5°	1378.3	1382.2	1380.3	1380.3	1388.1
7.5°	1453.5	1461.5	1461.5	1465.3	1469.4
10°	1534.8	1542.6	1548.6	1548.6	1554.5
12.5°	1616.0	1619.9	1625.8	1625.8	1625.8
15°	1657.5	1655.5	1653.5	1651.6	1651.6
17.5°	1651.6	1643.6	1639.7	1635.7	1637.7
20°	1608.0	1594.1	1590.2	1584.3	1588.2
22.5°	1532.8	1512.9	1505.0	1495.1	1499.0
25°	1419.9	1396.2	1392.2	1380.3	1386.2
27.5°	1289.1	1277.2	1275.3	1273.3	1283.2
30°	1166.4	1170.3	1172.4	1176.2	1186.2
32.5°	1053.5	1061.5	1063.4	1065.4	1079.3
35°	942.6	932.7	942.6	938.6	950.5
37.5°	821.8	813.9	806.0	796.1	804.0
40°	720.8	707.0	683.2	671.3	673.2
42.5°	641.6	623.8	603.9	592.0	592.0
45°	590.1	568.3	550.5	542.6	542.6
47.5°	550.5	540.7	530.7	524.8	524.8
50°	534.8	522.8	516.9	512.9	512.9
52.5°	522.8	510.9	505.0	501.1	497.0
55°	512.9	495.1	489.2	487.2	487.2
57.5°	499.0	483.2	475.3	473.3	473.3
60°	477.3	465.3	457.5	455.5	455.5
62.5°	455.5	443.6	435.6	435.6	435.6
63°	451.5	437.7	431.7	431.7	431.7
65°	433.6	419.8	413.9	413.9	411.9
67.5°	409.9	396.1	392.1	392.1	388.1
70°	382.2	370.3	366.3	368.3	360.4
72.5°	354.4	342.6	336.6	336.6	328.8
75°	322.8	311.0	302.9	301.0	293.1
77.5°	287.2	277.2	269.4	261.3	257.5
80°	249.5	241.6	231.7	225.7	219.8
82.5°	209.9	202.0	196.0	204.0	174.3
85°	164.3	156.5	148.5	160.4	124.8
87.5°	120.8	116.8	108.9	95.0	83.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)