

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: P258167

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258167  
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-AF48-70-D-U-T2U-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9561.3 lumens  
Efficiency: N/A  
Efficacy: 131.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

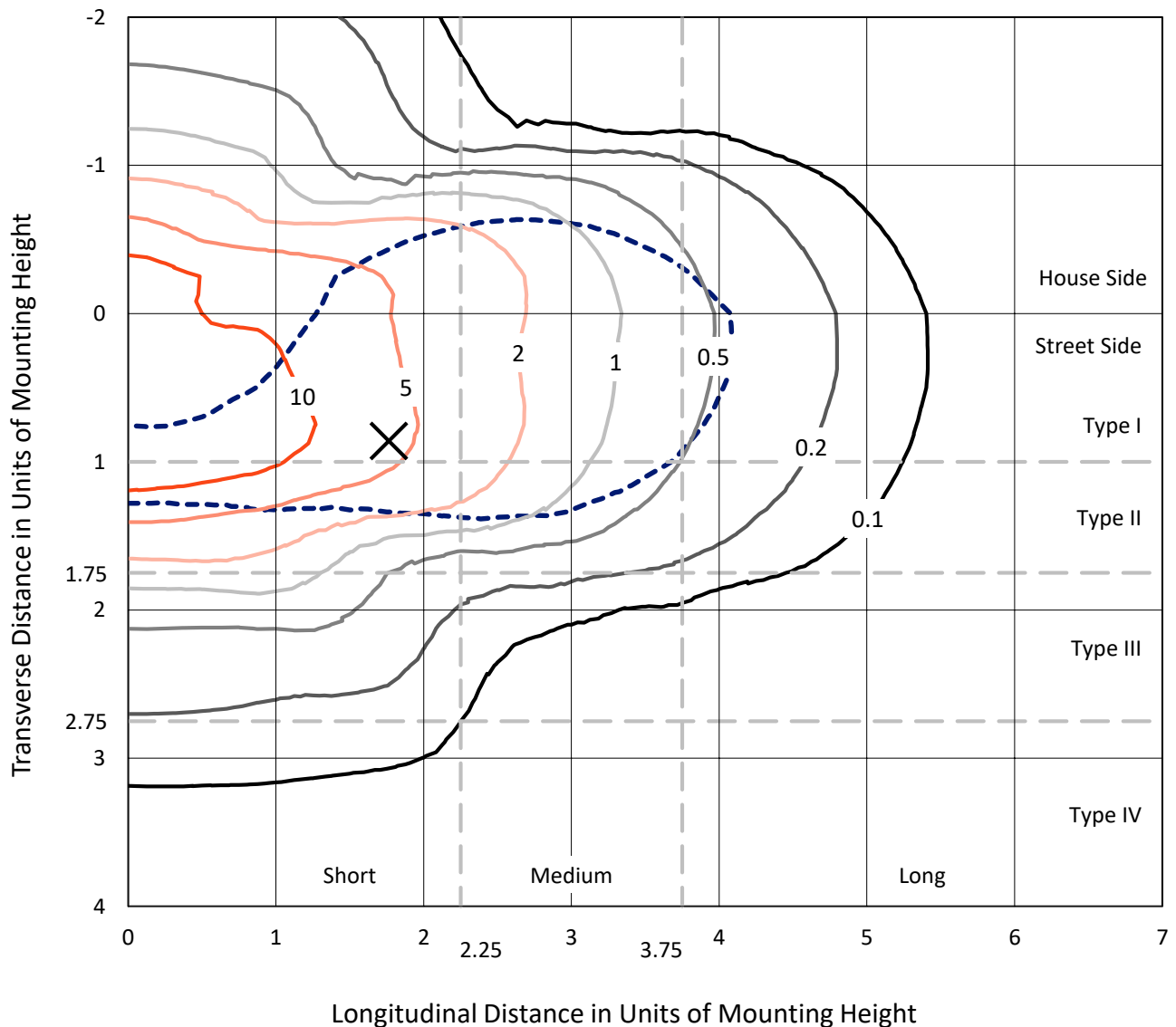
Input Watts (W): 73  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

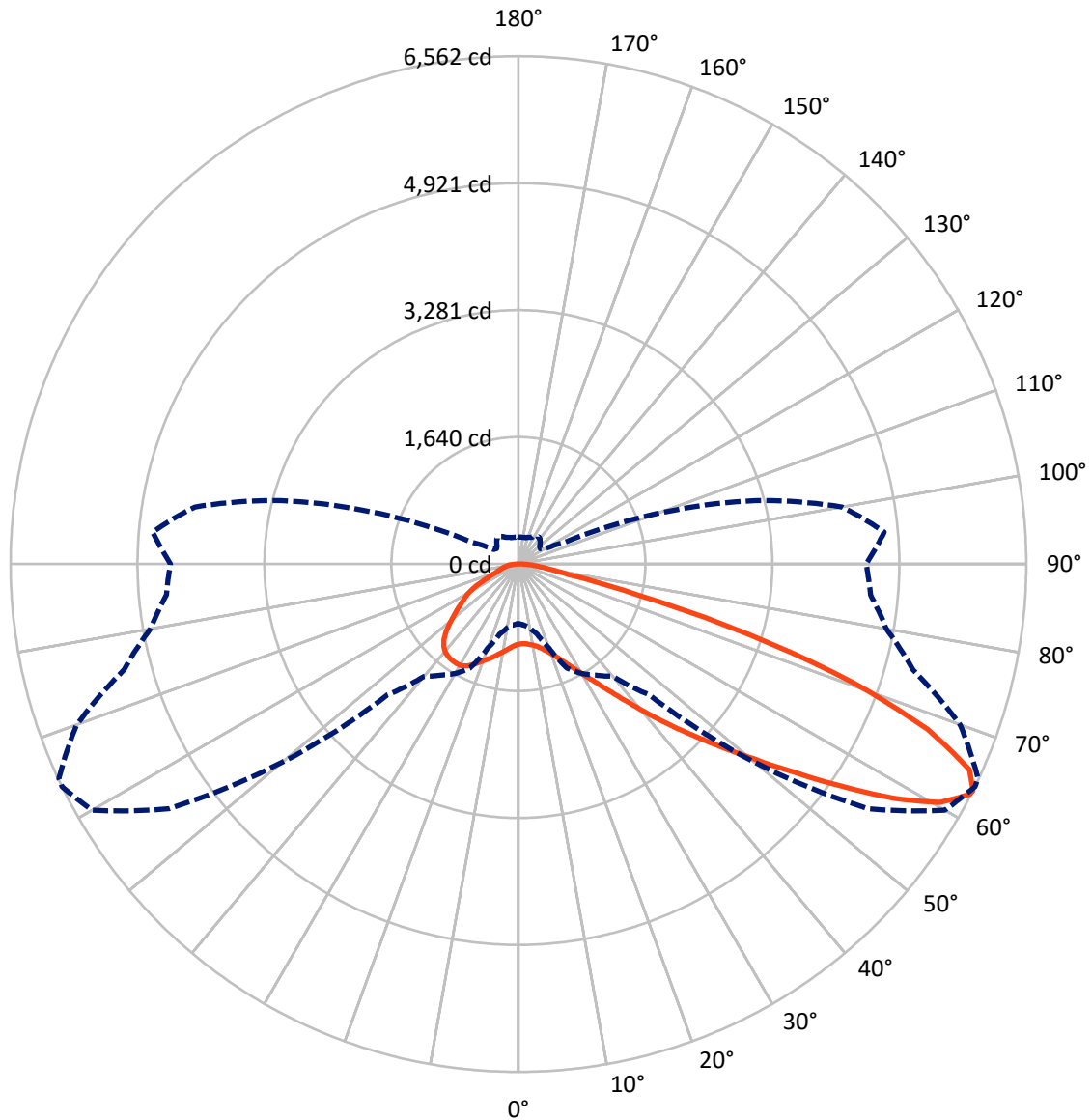
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.8 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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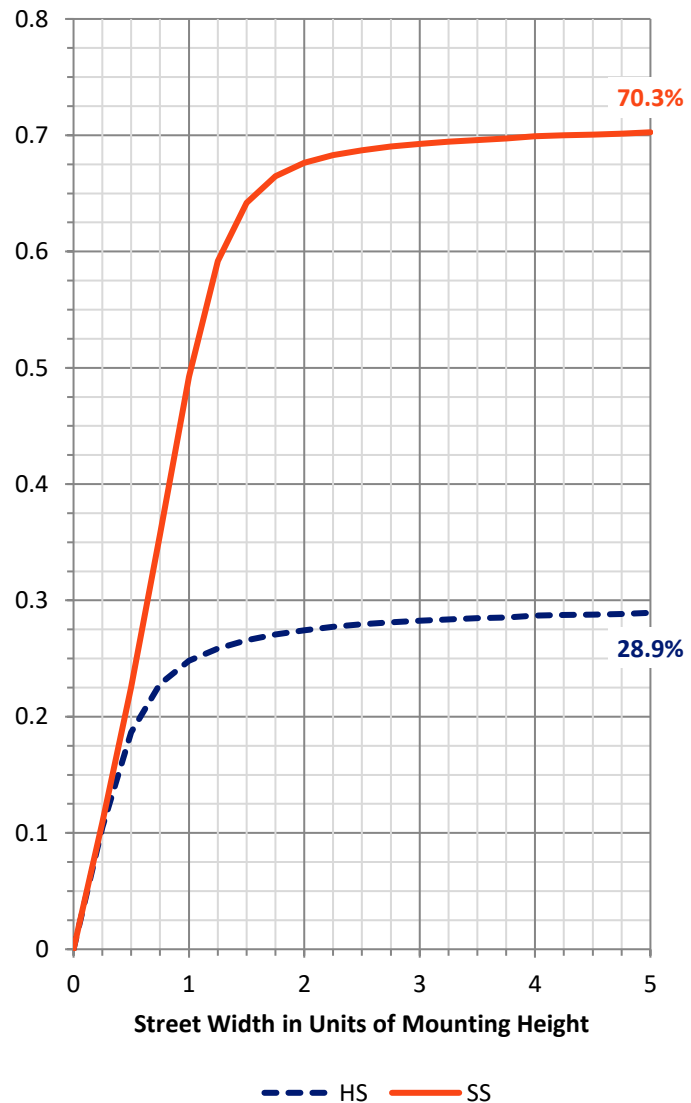
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2810.7	0.0	2810.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	6750.6	0.0	6750.6
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	9561.3	0.0	9561.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.4	1.1
10°-20°	344.3	3.6
20°-30°	646.4	6.8
30°-40°	1083.4	11.3
40°-50°	1817.7	19.0
50°-60°	2304.3	24.1
60°-70°	2032.8	21.3
70°-80°	1049.4	11.0
80°-90°	179.6	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°	9561.3	100.0
0°-180°	9561.3	100.0



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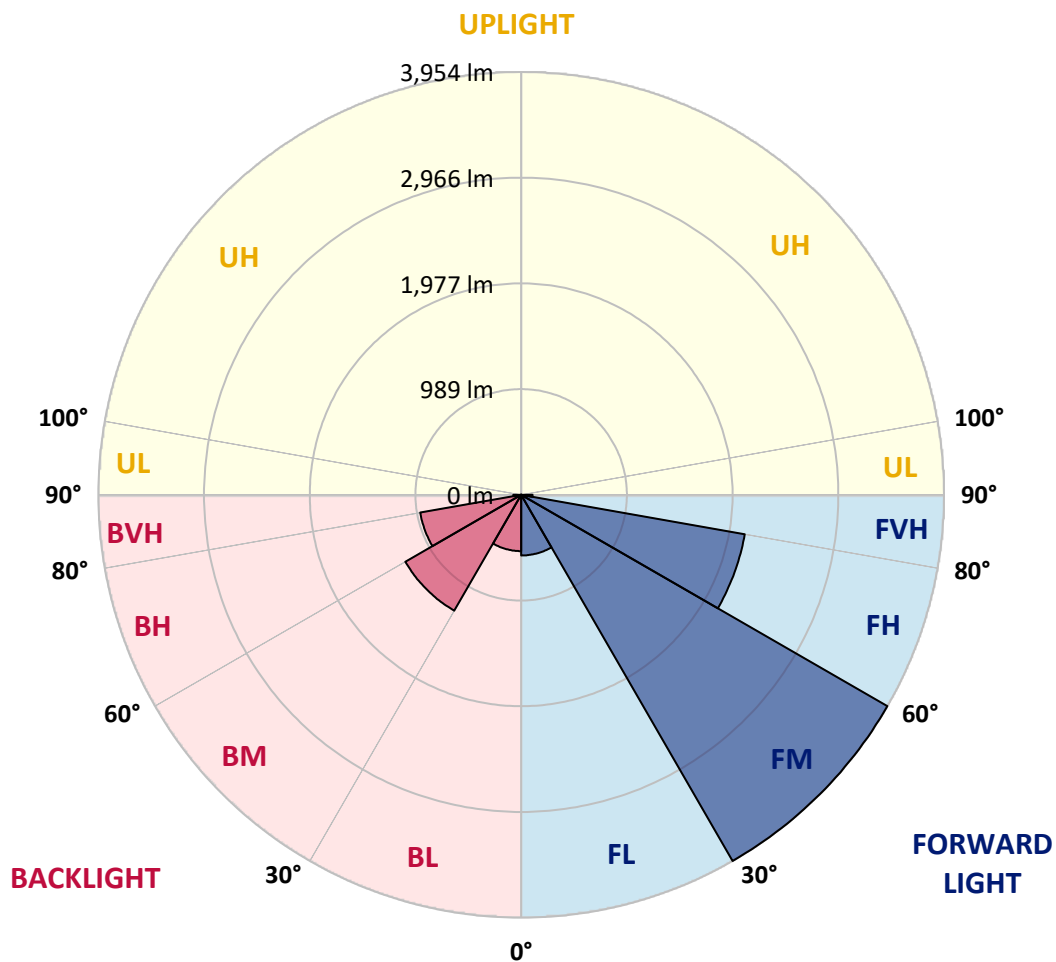
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	567.5	5.9			
FM (30°-60°)	3954.3	41.4			
FH (60°-80°)	2123.1	22.2			G2/5000
FVH (80°-90°)	105.7	1.1			G2/225
BL (0°-30°)	526.6	5.5	B2/1000		
BM (30°-60°)	1251.2	13.1	B2/2500		
BH (60°-80°)	959.0	10.0	B2/1000		G2/1000
BVH (80°-90°)	73.9	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4
2.5°	1029.1	1027.5	1027.5	1027.5	1027.5	1025.8	1027.5	1030.7	1029.1	1027.5	1030.7
5°	1032.3	1030.7	1030.7	1030.7	1032.3	1030.7	1032.3	1037.1	1033.9	1033.9	1037.1
7.5°	1040.2	1038.7	1040.2	1038.7	1038.7	1038.7	1040.2	1045.1	1043.5	1045.1	1049.9
10°	1049.9	1049.9	1049.9	1049.9	1049.9	1049.9	1053.0	1056.3	1057.8	1059.5	1066.0
12.5°	1078.7	1078.7	1078.7	1077.1	1077.1	1072.3	1078.7	1081.8	1085.1	1088.3	1093.1
15°	1139.5	1139.5	1137.9	1131.5	1131.5	1121.9	1123.5	1125.2	1125.2	1128.3	1131.5
17.5°	1219.6	1217.9	1214.8	1209.9	1203.5	1192.3	1189.2	1185.9	1181.1	1179.6	1179.6
20°	1331.6	1330.0	1323.5	1310.8	1302.8	1285.1	1272.4	1259.5	1254.8	1246.7	1245.1
22.5°	1491.6	1491.6	1478.9	1459.6	1453.1	1416.4	1379.6	1352.4	1342.8	1331.6	1331.6
25°	1685.3	1683.6	1666.1	1643.7	1616.5	1578.0	1533.2	1496.5	1472.4	1446.8	1437.2
27.5°	1917.3	1912.5	1888.5	1861.3	1810.1	1762.2	1709.3	1670.9	1629.3	1597.3	1568.4
30°	2189.4	2184.6	2143.0	2091.8	2039.0	1990.9	1914.1	1867.7	1802.1	1763.7	1731.6
32.5°	2504.7	2499.9	2424.7	2375.1	2319.0	2259.8	2168.6	2094.9	2011.8	1957.4	1912.5
35°	2906.4	2887.1	2780.0	2711.2	2623.1	2563.9	2467.8	2368.6	2271.1	2194.2	2128.6
37.5°	3340.2	3317.6	3223.2	3120.9	3034.4	2962.4	2826.3	2701.6	2586.2	2480.6	2399.0
40°	3793.1	3733.8	3633.0	3557.8	3498.6	3429.7	3287.3	3156.1	2975.2	2856.8	2733.5
42.5°	4106.7	4049.1	3978.6	3929.1	3900.2	3847.4	3767.5	3653.8	3492.2	3495.3	3170.4
45°	4313.2	4228.4	4180.4	4183.5	4194.8	4194.8	4180.4	4162.8	4092.3	4140.4	3868.3
47.5°	4239.6	4183.5	4153.2	4217.2	4297.1	4377.2	4470.1	4570.9	4686.1	4822.1	4487.6
50°	3807.4	3828.2	3842.6	3978.6	4149.8	4332.3	4545.1	4820.5	5142.2	5204.6	5043.0
52.5°	3117.6	3162.5	3210.5	3418.5	3644.3	3959.4	4332.3	4786.8	5219.0	5473.5	5457.5
55°	2421.5	2477.5	2579.9	2735.2	2914.4	3212.1	3673.0	4373.9	5047.8	5452.7	5699.2
57.5°	1723.7	1805.3	1939.7	2155.8	2314.2	2482.3	2823.2	3600.9	4338.8	5092.6	5659.2
60°	1145.9	1184.4	1272.4	1541.2	1808.5	1984.5	2226.1	2507.9	3111.2	4149.8	5246.2
62.5°	813.0	838.7	893.0	1014.7	1256.4	1574.9	1720.5	1850.1	2043.8	2669.5	4212.4
63°	768.2	790.6	835.4	937.9	1155.5	1485.2	1634.1	1752.5	1893.4	2387.9	3985.1
65°	637.0	646.6	670.7	720.2	837.0	1110.7	1353.9	1426.0	1450.0	1534.8	2496.7
67.5°	537.8	544.1	552.2	566.5	613.0	739.3	1009.9	1101.2	1073.9	1016.3	1234.0
70°	467.3	472.1	484.9	502.5	518.6	550.5	694.6	830.6	800.3	721.7	755.4
72.5°	372.9	380.9	395.3	425.7	457.7	499.4	534.5	619.4	600.2	525.0	532.9
75°	294.5	299.3	312.1	334.5	364.9	412.9	481.8	510.6	457.7	387.4	387.4
77.5°	233.7	238.5	249.6	267.2	286.5	320.1	368.1	443.4	411.4	291.2	289.6
80°	176.0	180.9	192.1	208.0	227.3	251.3	280.0	313.7	377.7	272.0	217.7
82.5°	129.6	131.2	150.4	161.6	168.0	187.3	211.3	230.4	259.3	251.3	193.6
85°	97.7	96.0	108.8	116.8	118.4	123.3	137.6	156.9	169.7	163.3	150.4
87.5°	54.4	48.0	56.0	64.0	64.0	65.7	68.9	80.0	91.2	88.1	80.0
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°	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4
2.5°	1030.7	1030.7	1029.1	1029.1	1030.7	1030.7	1029.1	1033.9	1037.1	1037.1	1038.7
5°	1035.4	1037.1	1035.4	1035.4	1037.1	1037.1	1038.7	1043.5	1048.3	1051.5	1056.3
7.5°	1049.9	1051.5	1049.9	1049.9	1051.5	1053.0	1056.3	1062.6	1066.0	1072.3	1080.2
10°	1066.0	1067.5	1066.0	1067.5	1069.1	1070.7	1075.4	1080.2	1085.1	1091.5	1104.3
12.5°	1094.7	1096.3	1093.1	1094.7	1099.4	1099.4	1102.8	1105.9	1113.9	1121.9	1134.6
15°	1134.6	1134.6	1131.5	1133.1	1137.9	1137.9	1139.5	1142.8	1152.3	1161.9	1174.7
17.5°	1181.1	1184.4	1182.7	1184.4	1187.5	1189.2	1189.2	1192.3	1198.7	1205.1	1217.9
20°	1243.6	1245.1	1242.0	1245.1	1248.3	1245.1	1242.0	1240.3	1243.6	1246.7	1261.2
22.5°	1328.4	1326.7	1318.8	1318.8	1318.8	1312.3	1304.3	1294.7	1294.7	1290.0	1301.2
25°	1429.2	1424.4	1413.2	1414.8	1403.6	1393.9	1379.6	1365.2	1352.4	1347.6	1349.2
27.5°	1547.6	1538.1	1526.8	1523.6	1512.3	1494.7	1470.8	1443.7	1422.8	1406.8	1403.6
30°	1696.5	1675.7	1656.5	1653.2	1635.6	1606.8	1568.4	1531.6	1496.5	1469.2	1459.6
32.5°	1872.4	1840.5	1810.1	1806.9	1778.0	1739.6	1693.3	1642.0	1590.9	1547.6	1526.8
35°	2078.9	2030.9	2002.1	1994.1	1952.6	1904.5	1853.2	1787.7	1715.7	1654.8	1616.5
37.5°	2330.3	2280.6	2231.0	2232.6	2175.1	2119.0	2050.1	1970.2	1878.9	1794.0	1739.6
40°	2640.7	2570.4	2506.3	2491.8	2442.3	2363.9	2288.7	2195.8	2083.8	1971.7	1893.4
42.5°	3016.8	2901.6	2813.5	2800.8	2735.2	2639.1	2547.9	2424.7	2311.1	2175.1	2080.6
45°	3444.2	3260.1	3154.5	3135.3	3029.6	2932.0	2821.6	2690.3	2551.1	2397.4	2285.3
47.5°	3975.5	3713.0	3533.8	3501.8	3356.1	3228.1	3112.8	2967.3	2800.8	2629.6	2506.3
50°	4594.9	4207.6	3965.9	3916.3	3721.1	3570.6	3423.3	3240.8	3063.2	2884.0	2741.6
52.5°	5215.8	4799.8	4478.0	4417.3	4129.1	3927.5	3733.8	3551.4	3341.7	3164.0	3002.5
55°	5715.2	5438.3	5065.4	4980.6	4567.7	4294.0	4039.6	3831.4	3623.4	3482.5	3292.1
57.5°	6016.1	6001.6	5707.1	5590.4	5025.4	4620.5	4337.1	4100.3	3898.7	3839.5	3586.6
60°	6008.0	6381.0	6254.5	6166.5	5487.9	4954.9	4586.8	4330.8	4164.3	4231.5	3882.6
62.5°	5641.5	6396.9	6549.0	6525.0	5980.9	5223.8	4791.7	4527.6	4439.6	4639.7	4190.0
63°	5508.8	6360.1	6561.8	6552.2	6075.3	5275.0	4827.0	4566.1	4494.1	4743.7	4246.0
65°	4655.6	6038.4	6406.5	6449.8	6278.5	5451.1	4908.6	4663.6	4655.6	4975.7	4378.8
67.5°	2837.6	5102.2	5707.1	5790.4	5992.0	5507.1	4862.1	4630.1	4745.3	5009.3	4338.8
70°	1213.1	3367.4	4586.8	4721.3	5214.2	5228.6	4729.3	4492.4	4724.5	4746.9	4053.9
72.5°	718.6	1587.6	3122.4	3415.3	4125.9	4498.9	4425.2	4252.4	4450.7	4169.2	3452.1
75°	508.9	742.6	1586.0	1898.2	2872.8	3434.6	3717.8	3797.9	3789.8	3306.5	2591.1
77.5°	364.9	476.9	669.0	789.0	1603.6	2205.4	2551.1	2784.8	2709.5	2213.4	1597.3
80°	254.5	329.8	409.7	435.3	744.2	1133.1	1344.3	1446.8	1402.1	1105.9	715.4
82.5°	184.1	216.0	264.1	280.0	374.5	523.4	622.6	548.9	526.5	408.1	308.8
85°	142.5	139.2	164.9	171.2	219.3	273.7	280.0	217.7	190.4	169.7	172.8
87.5°	100.8	86.5	88.1	91.2	113.6	145.7	142.5	89.6	76.8	81.6	92.9
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4	1035.4
2.5°	1041.9	1043.5	1046.7	1048.3	1051.5	1051.5	1054.7	1056.3	1059.5	1062.6	1064.3
5°	1061.1	1066.0	1072.3	1075.4	1081.8	1086.7	1093.1	1096.3	1102.8	1107.5	1113.9
7.5°	1089.9	1097.9	1105.9	1115.5	1125.2	1133.1	1139.5	1147.5	1158.7	1166.7	1171.5
10°	1117.0	1128.3	1142.8	1153.9	1168.3	1179.6	1189.2	1203.5	1216.4	1227.5	1234.0
12.5°	1152.3	1166.7	1181.1	1198.7	1217.9	1232.3	1246.7	1266.0	1283.6	1296.4	1302.8
15°	1193.8	1211.5	1227.5	1248.3	1270.8	1290.0	1310.8	1331.6	1344.3	1344.3	1341.1
17.5°	1237.2	1251.6	1270.8	1294.7	1325.2	1349.2	1360.4	1363.5	1358.7	1347.6	1339.5
20°	1280.3	1293.2	1314.0	1342.8	1374.8	1379.6	1368.4	1353.9	1339.5	1320.4	1307.5
22.5°	1315.6	1333.2	1365.2	1398.7	1400.3	1373.2	1342.8	1318.8	1296.4	1274.0	1249.9
25°	1357.2	1381.1	1424.4	1437.2	1395.6	1344.3	1301.2	1266.0	1229.1	1192.3	1165.1
27.5°	1408.4	1443.7	1486.8	1450.0	1368.4	1296.4	1237.2	1184.4	1136.3	1085.1	1054.7
30°	1462.8	1517.2	1526.8	1430.8	1321.9	1229.1	1149.1	1069.1	1008.3	961.8	944.2
32.5°	1528.4	1598.8	1541.2	1397.2	1259.5	1137.9	1030.7	934.6	883.5	854.6	846.6
35°	1627.6	1685.3	1549.2	1362.0	1187.5	1029.1	894.7	817.8	785.8	766.6	757.0
37.5°	1770.1	1768.5	1547.6	1318.8	1104.3	910.6	785.8	731.4	705.9	689.8	672.2
40°	1936.5	1832.5	1538.1	1256.4	992.3	797.0	710.6	659.4	635.4	616.2	595.4
42.5°	2101.4	1875.8	1510.8	1163.5	853.0	715.4	656.2	609.7	584.2	563.3	534.5
45°	2243.8	1893.4	1457.9	1035.4	728.2	651.4	620.9	580.9	550.5	518.6	496.1
47.5°	2355.8	1890.0	1373.2	885.0	644.9	606.6	592.1	565.0	528.2	488.2	459.3
50°	2450.2	1866.1	1257.9	752.2	588.9	566.5	561.7	553.7	494.5	461.0	443.4
52.5°	2536.7	1830.8	1134.6	662.5	541.0	521.7	531.3	523.4	481.8	452.9	435.3
55°	2655.1	1806.9	1013.1	593.8	484.9	480.0	488.2	499.4	473.7	446.6	427.3
57.5°	2794.5	1819.7	920.3	516.9	432.1	435.3	462.5	478.5	465.8	436.9	417.7
60°	2954.4	1858.1	838.7	443.4	388.9	396.9	436.9	459.3	457.7	424.2	401.7
62.5°	3133.7	1898.2	709.0	387.4	352.2	364.9	406.6	435.3	440.1	411.4	384.1
63°	3168.8	1901.3	675.3	376.1	345.7	360.1	398.5	429.0	435.3	408.1	380.9
65°	3255.3	1872.4	544.1	345.7	320.1	336.1	374.5	401.7	414.5	390.5	368.1
67.5°	3183.3	1637.2	409.7	308.8	299.3	310.6	344.0	369.8	380.9	369.8	347.3
70°	2911.2	1190.7	320.1	275.3	276.9	284.8	310.6	334.5	347.3	344.0	323.3
72.5°	2344.6	675.3	267.2	246.5	251.3	260.9	278.5	300.9	312.1	310.6	296.1
75°	1544.4	345.7	225.6	220.8	224.1	232.0	244.8	262.4	275.3	273.7	267.2
77.5°	765.1	240.1	193.6	195.2	196.8	203.2	212.8	228.9	236.9	238.5	236.9
80°	315.3	187.3	166.4	168.0	169.7	174.5	180.9	195.2	200.1	203.2	204.9
82.5°	188.8	142.5	132.9	136.0	137.6	142.5	147.3	160.1	164.9	169.7	169.7
85°	124.9	99.2	96.0	99.2	102.3	105.7	107.2	115.3	123.3	129.6	132.9
87.5°	67.2	59.2	57.6	59.2	59.2	62.4	65.7	73.6	83.2	89.6	92.9
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):**

	160°	165°	170°	175°	180°
0°	1035.4	1035.4	1035.4	1035.4	1035.4
2.5°	1061.1	1062.6	1061.1	1062.6	1064.3
5°	1113.9	1117.0	1115.5	1115.5	1121.9
7.5°	1174.7	1181.1	1181.1	1184.4	1187.5
10°	1240.3	1246.7	1251.6	1251.6	1256.4
12.5°	1305.9	1309.2	1314.0	1314.0	1314.0
15°	1339.5	1338.0	1336.4	1334.7	1334.7
17.5°	1334.7	1328.4	1325.2	1321.9	1323.5
20°	1299.5	1288.3	1285.1	1280.3	1283.6
22.5°	1238.8	1222.7	1216.4	1208.3	1211.5
25°	1147.5	1128.3	1125.2	1115.5	1120.4
27.5°	1041.9	1032.3	1030.7	1029.1	1037.1
30°	942.7	945.8	947.5	950.7	958.6
32.5°	851.4	857.8	859.5	861.1	872.2
35°	761.7	753.8	761.7	758.6	768.2
37.5°	664.2	657.7	651.4	643.4	649.8
40°	582.6	571.3	552.2	542.6	544.1
42.5°	518.6	504.1	488.2	478.5	478.5
45°	476.9	459.3	444.9	438.5	438.5
47.5°	444.9	436.9	429.0	424.2	424.2
50°	432.1	422.5	417.7	414.5	414.5
52.5°	422.5	412.9	408.1	405.0	401.7
55°	414.5	400.1	395.3	393.7	393.7
57.5°	403.2	390.5	384.1	382.5	382.5
60°	385.6	376.1	369.8	368.1	368.1
62.5°	368.1	358.5	352.2	352.2	352.2
63°	364.9	353.7	348.9	348.9	348.9
65°	350.5	339.2	334.5	334.5	332.9
67.5°	331.3	320.1	316.9	316.9	313.7
70°	308.8	299.3	296.1	297.7	291.2
72.5°	286.5	276.9	272.0	272.0	265.7
75°	260.9	251.3	244.8	243.3	236.9
77.5°	232.0	224.1	217.7	211.3	208.0
80°	201.7	195.2	187.3	182.5	177.6
82.5°	169.7	163.3	158.4	164.9	140.8
85°	132.9	126.4	120.0	129.6	100.8
87.5°	97.7	94.4	88.1	76.8	67.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)