

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: P239138

Luminaire Tested: **ARCH-AF24-80-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239138
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-AF24-80-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9177 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

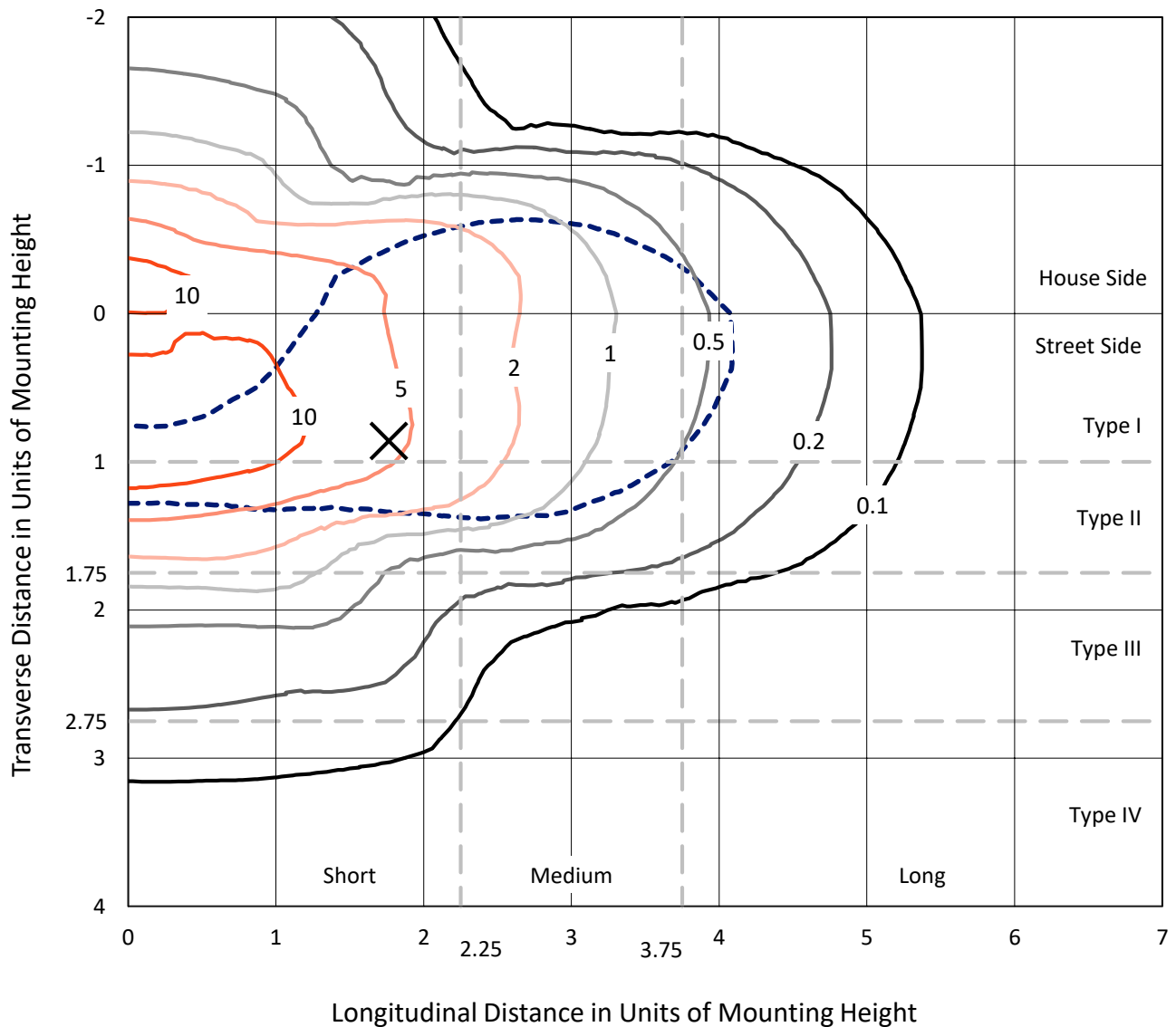
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

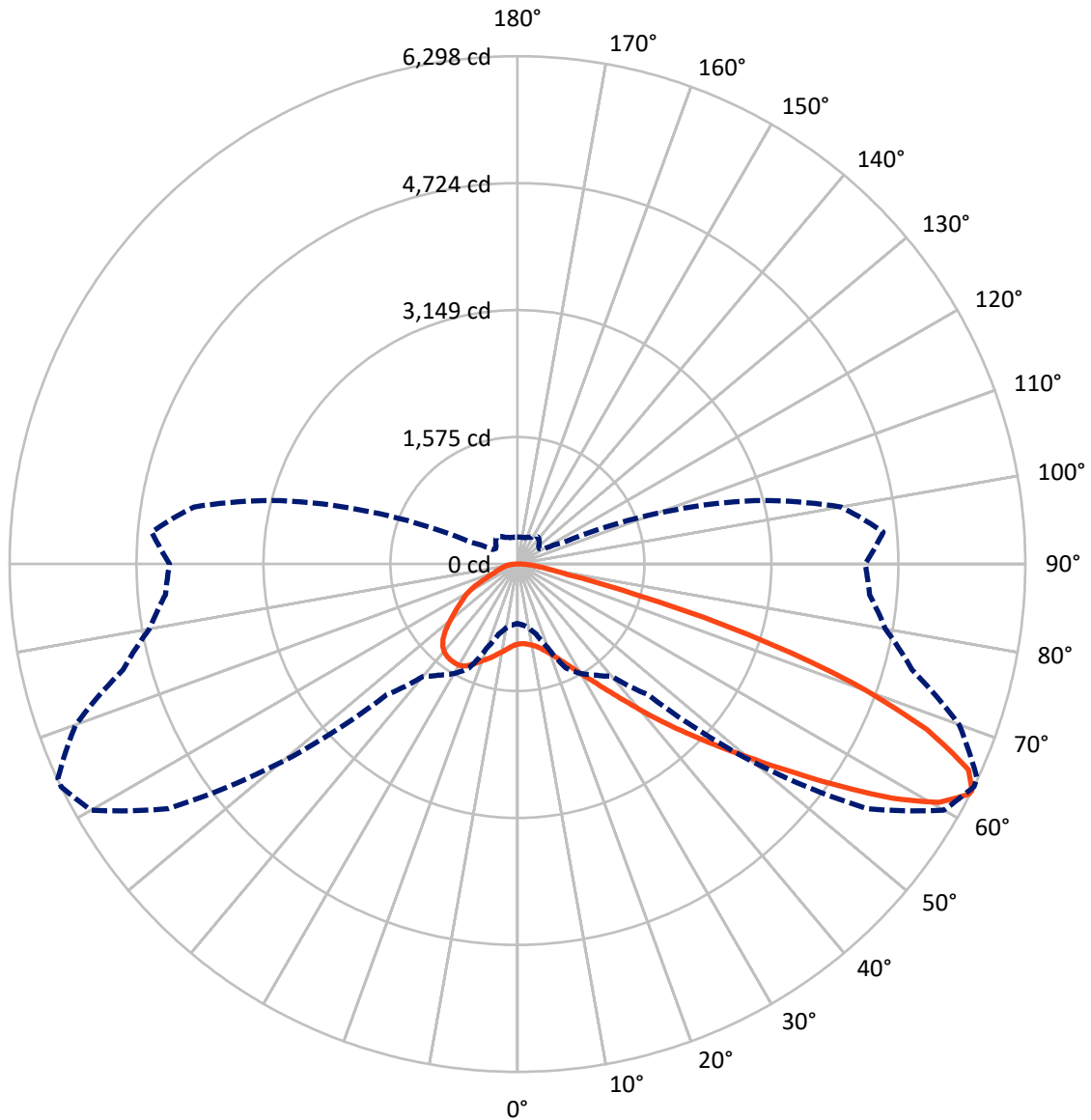
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.1 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	2697.7	0.0	2697.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6479.3	0.0	6479.3
	% Fixture	70.6	0.0	70.6
Total	Lumens	9177.0	0.0	9177.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	1.1
10°-20°	330.5	3.6
20°-30°	620.4	6.8
30°-40°	1039.9	11.3
40°-50°	1744.7	19.0
50°-60°	2211.7	24.1
60°-70°	1951.1	21.3
70°-80°	1007.2	11.0
80°-90°	172.3	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°	9177.0	100.0
0°-180°	9177.0	100.0



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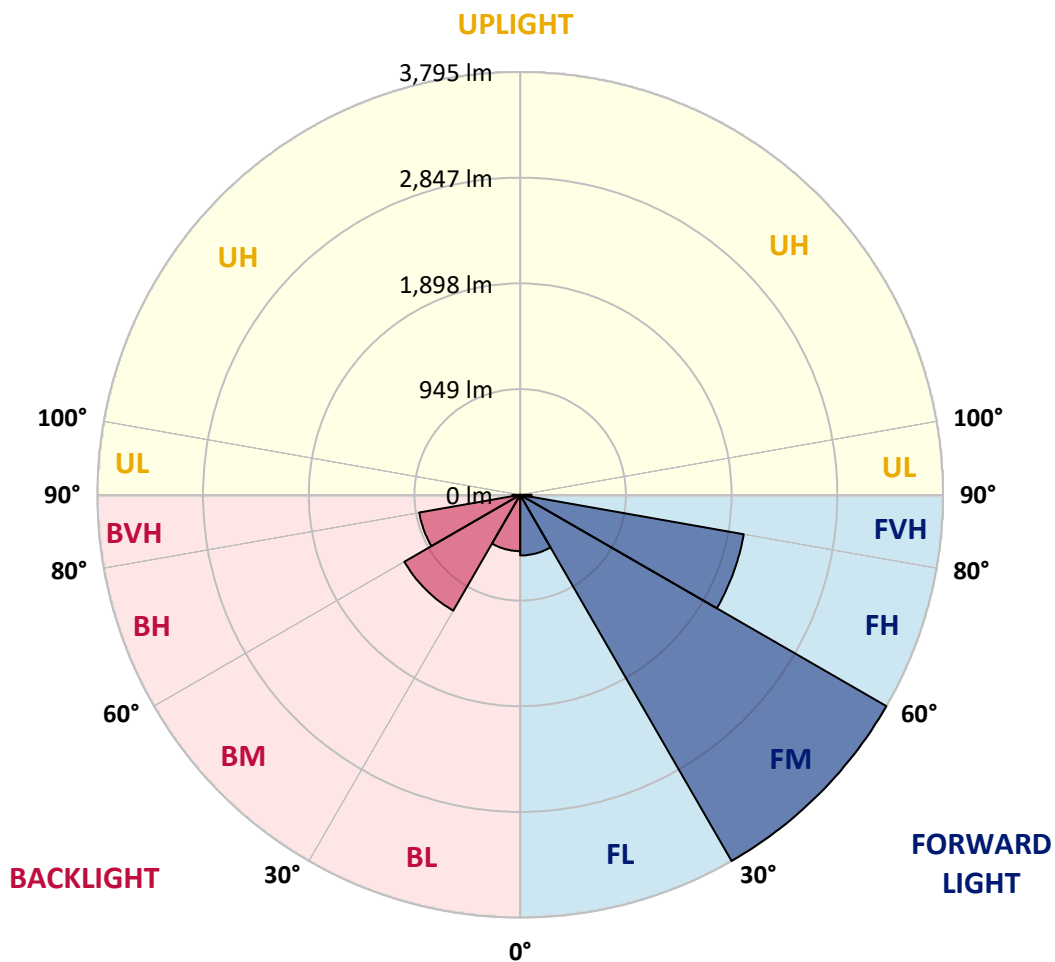
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	544.7	5.9			
FM	(30°-60°)	3795.4	41.4			
FH	(60°-80°)	2037.8	22.2			G2/5000
FVH	(80°-90°)	101.4	1.1			G2/225
BL	(0°-30°)	505.5	5.5	B2/1000		
BM	(30°-60°)	1200.9	13.1	B2/2500		
BH	(60°-80°)	920.4	10.0	B2/1000		G2/1000
BVH	(80°-90°)	70.9	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°	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9
2.5°	987.7	986.2	986.2	986.2	986.2	984.6	986.2	989.3	987.7	986.2	989.3
5°	990.8	989.3	989.3	989.3	990.8	989.3	990.8	995.4	992.3	992.3	995.4
7.5°	998.5	996.9	998.5	996.9	996.9	996.9	998.5	1003.1	1001.5	1003.1	1007.7
10°	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1010.8	1013.8	1015.4	1016.9	1023.1
12.5°	1035.3	1035.3	1035.3	1033.8	1033.8	1029.2	1035.3	1038.4	1041.5	1044.6	1049.2
15°	1093.7	1093.7	1092.2	1086.0	1086.0	1076.8	1078.4	1079.9	1079.9	1083.0	1086.0
17.5°	1170.5	1169.0	1165.9	1161.3	1155.2	1144.4	1141.3	1138.3	1133.7	1132.1	1132.1
20°	1278.0	1276.5	1270.4	1258.1	1250.4	1233.5	1221.2	1208.9	1204.3	1196.6	1195.1
22.5°	1431.7	1431.7	1419.4	1400.9	1394.8	1359.5	1324.1	1298.0	1288.8	1278.0	1278.0
25°	1617.5	1616.0	1599.1	1577.6	1551.5	1514.6	1471.6	1436.3	1413.2	1388.6	1379.4
27.5°	1840.3	1835.7	1812.6	1786.5	1737.3	1691.3	1640.6	1603.7	1563.8	1533.0	1505.4
30°	2101.4	2096.8	2056.9	2007.7	1957.0	1910.9	1837.2	1792.6	1729.7	1692.8	1662.1
32.5°	2404.0	2399.4	2327.2	2279.6	2225.8	2169.0	2081.4	2010.8	1930.9	1878.7	1835.7
35°	2789.6	2771.1	2668.2	2602.2	2517.7	2460.9	2368.7	2273.4	2179.7	2106.0	2043.0
37.5°	3205.9	3184.4	3093.7	2995.4	2912.5	2843.3	2712.8	2593.0	2482.4	2381.0	2302.6
40°	3640.6	3583.8	3487.0	3414.8	3357.9	3291.9	3155.2	3029.2	2855.6	2742.0	2623.7
42.5°	3941.7	3886.4	3818.8	3771.2	3743.5	3692.8	3616.0	3506.9	3351.8	3354.9	3043.0
45°	4139.8	4058.4	4012.3	4015.4	4026.2	4026.2	4012.3	3995.4	3927.8	3973.9	3712.8
47.5°	4069.2	4015.4	3986.2	4047.7	4124.5	4201.3	4290.4	4387.1	4497.7	4628.3	4307.3
50°	3654.4	3674.4	3688.2	3818.8	3983.1	4158.3	4362.6	4626.8	4935.5	4995.4	4840.3
52.5°	2992.3	3035.4	3081.4	3281.1	3497.7	3800.3	4158.3	4594.5	5009.3	5253.5	5238.1
55°	2324.1	2377.9	2476.2	2625.2	2797.3	3083.0	3525.4	4198.2	4844.9	5233.5	5470.1
57.5°	1654.4	1732.7	1861.8	2069.1	2221.2	2382.5	2709.7	3456.3	4164.4	4887.9	5431.7
60°	1099.9	1136.7	1221.2	1479.3	1735.8	1904.8	2136.7	2407.1	2986.2	3983.1	5035.4
62.5°	780.3	804.9	857.2	973.9	1205.8	1511.5	1651.3	1775.7	1961.6	2562.2	4043.1
63°	737.3	758.8	801.9	900.2	1109.1	1425.5	1568.4	1682.0	1817.2	2291.9	3824.9
65°	611.4	620.6	643.6	691.3	803.4	1066.1	1299.6	1368.7	1391.7	1473.1	2396.3
67.5°	516.1	522.3	530.0	543.8	588.3	709.7	969.3	1056.8	1030.7	975.4	1184.3
70°	448.5	453.2	465.4	482.3	497.7	528.4	666.7	797.2	768.1	692.8	725.0
72.5°	357.9	365.6	379.4	408.6	439.3	479.3	513.1	594.5	576.0	503.8	511.5
75°	282.6	287.3	299.5	321.0	350.2	396.3	462.4	490.0	439.3	371.7	371.7
77.5°	224.3	228.9	239.6	256.5	275.0	307.2	353.3	425.5	394.8	279.6	278.0
80°	169.0	173.6	184.3	199.7	218.1	241.2	268.8	301.1	362.5	261.1	208.9
82.5°	124.4	126.0	144.4	155.1	161.3	179.7	202.8	221.2	248.9	241.2	185.9
85°	93.7	92.2	104.5	112.1	113.7	118.3	132.1	150.5	162.8	156.7	144.4
87.5°	52.2	46.1	53.8	61.4	61.4	63.0	66.1	76.8	87.6	84.5	76.8
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°	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9
2.5°	989.3	989.3	987.7	987.7	989.3	989.3	987.7	992.3	995.4	995.4	996.9
5°	993.9	995.4	993.9	993.9	995.4	995.4	996.9	1001.5	1006.2	1009.2	1013.8
7.5°	1007.7	1009.2	1007.7	1007.7	1009.2	1010.8	1013.8	1020.0	1023.1	1029.2	1036.9
10°	1023.1	1024.6	1023.1	1024.6	1026.1	1027.7	1032.3	1036.9	1041.5	1047.6	1059.9
12.5°	1050.7	1052.2	1049.2	1050.7	1055.3	1055.3	1058.4	1061.5	1069.1	1076.8	1089.1
15°	1089.1	1089.1	1086.0	1087.6	1092.2	1092.2	1093.7	1096.8	1106.0	1115.2	1127.5
17.5°	1133.7	1136.7	1135.2	1136.7	1139.8	1141.3	1141.3	1144.4	1150.5	1156.7	1169.0
20°	1193.6	1195.1	1192.0	1195.1	1198.2	1195.1	1192.0	1190.5	1193.6	1196.6	1210.5
22.5°	1275.0	1273.4	1265.8	1265.8	1265.8	1259.6	1251.9	1242.7	1242.7	1238.1	1248.9
25°	1371.7	1367.1	1356.4	1357.9	1347.2	1338.0	1324.1	1310.3	1298.0	1293.4	1294.9
27.5°	1485.4	1476.2	1465.5	1462.4	1451.6	1434.7	1411.7	1385.6	1365.6	1350.2	1347.2
30°	1628.3	1608.3	1589.9	1586.8	1569.9	1542.3	1505.4	1470.1	1436.3	1410.2	1400.9
32.5°	1797.3	1766.5	1737.3	1734.3	1706.6	1669.8	1625.2	1576.1	1526.9	1485.4	1465.5
35°	1995.4	1949.3	1921.7	1914.0	1874.1	1828.0	1778.8	1715.8	1646.7	1588.3	1551.5
37.5°	2236.6	2189.0	2141.3	2142.9	2087.6	2033.8	1967.8	1891.0	1803.4	1722.0	1669.8
40°	2534.6	2467.0	2405.6	2391.7	2344.1	2268.8	2196.6	2107.5	2000.0	1892.5	1817.2
42.5°	2895.6	2785.0	2700.5	2688.2	2625.2	2533.1	2445.5	2327.2	2218.1	2087.6	1996.9
45°	3305.7	3129.1	3027.7	3009.2	2907.9	2814.2	2708.2	2582.2	2448.6	2301.1	2193.6
47.5°	3815.7	3563.8	3391.7	3361.0	3221.2	3098.3	2987.7	2848.0	2688.2	2523.8	2405.6
50°	4410.2	4038.4	3806.5	3758.9	3571.5	3427.1	3285.7	3110.6	2940.1	2768.1	2631.4
52.5°	5006.2	4606.8	4298.0	4239.7	3963.2	3769.6	3583.8	3408.6	3207.4	3036.9	2881.7
55°	5485.5	5219.7	4861.8	4780.4	4384.1	4121.4	3877.1	3677.5	3477.8	3342.6	3159.8
57.5°	5774.2	5760.4	5477.8	5365.6	4823.4	4434.8	4162.9	3935.5	3742.0	3685.1	3442.4
60°	5766.6	6124.5	6003.1	5918.6	5267.3	4755.8	4402.5	4156.7	3997.0	4061.5	3726.6
62.5°	5414.8	6139.8	6285.8	6262.7	5740.5	5013.9	4599.1	4345.7	4261.2	4453.2	4021.5
63°	5287.3	6104.5	6298.1	6288.8	5831.1	5063.0	4632.9	4382.5	4313.4	4553.0	4075.3
65°	4468.6	5795.8	6149.1	6190.5	6026.2	5232.0	4711.3	4476.2	4468.6	4775.8	4202.8
67.5°	2723.5	4897.1	5477.8	5557.7	5751.2	5285.8	4666.7	4444.0	4554.6	4808.0	4164.4
70°	1164.4	3232.0	4402.5	4531.5	5004.7	5018.5	4539.2	4311.9	4534.6	4556.1	3891.0
72.5°	689.7	1523.8	2997.0	3278.1	3960.1	4318.0	4247.4	4081.5	4271.9	4001.6	3313.4
75°	488.5	712.8	1522.3	1821.8	2757.3	3296.5	3568.4	3645.2	3637.5	3173.6	2487.0
77.5°	350.2	457.8	642.1	757.3	1539.2	2116.8	2448.6	2672.8	2600.6	2124.4	1533.0
80°	244.2	316.4	393.2	417.8	714.3	1087.6	1290.3	1388.6	1345.6	1061.5	686.6
82.5°	176.7	207.4	253.5	268.8	359.5	502.3	597.5	526.9	505.4	391.7	296.5
85°	136.7	133.6	158.2	164.4	210.4	262.7	268.8	208.9	182.8	162.8	165.9
87.5°	96.8	83.0	84.5	87.6	109.1	139.8	136.7	86.0	73.7	78.3	89.1
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°	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9	993.9
2.5°	1000.0	1001.5	1004.6	1006.2	1009.2	1009.2	1012.3	1013.8	1016.9	1020.0	1021.5
5°	1018.4	1023.1	1029.2	1032.3	1038.4	1043.0	1049.2	1052.2	1058.4	1063.0	1069.1
7.5°	1046.1	1053.8	1061.5	1070.7	1079.9	1087.6	1093.7	1101.4	1112.1	1119.8	1124.4
10°	1072.2	1083.0	1096.8	1107.5	1121.4	1132.1	1141.3	1155.2	1167.4	1178.2	1184.3
12.5°	1106.0	1119.8	1133.7	1150.5	1169.0	1182.8	1196.6	1215.1	1232.0	1244.3	1250.4
15°	1145.9	1162.8	1178.2	1198.2	1219.7	1238.1	1258.1	1278.0	1290.3	1290.3	1287.3
17.5°	1187.4	1201.2	1219.7	1242.7	1271.9	1294.9	1305.7	1308.8	1304.2	1293.4	1285.7
20°	1228.9	1241.2	1261.1	1288.8	1319.5	1324.1	1313.4	1299.6	1285.7	1267.3	1255.0
22.5°	1262.7	1279.6	1310.3	1342.6	1344.1	1318.0	1288.8	1265.8	1244.3	1222.7	1199.7
25°	1302.6	1325.7	1367.1	1379.4	1339.5	1290.3	1248.9	1215.1	1179.7	1144.4	1118.3
27.5°	1351.8	1385.6	1427.0	1391.7	1313.4	1244.3	1187.4	1136.7	1090.6	1041.5	1012.3
30°	1404.0	1456.2	1465.5	1373.3	1268.8	1179.7	1102.9	1026.1	967.8	923.2	906.3
32.5°	1467.0	1534.6	1479.3	1341.0	1208.9	1092.2	989.3	897.1	847.9	820.3	812.6
35°	1562.2	1617.5	1487.0	1307.2	1139.8	987.7	858.7	785.0	754.2	735.8	726.6
37.5°	1698.9	1697.4	1485.4	1265.8	1059.9	874.0	754.2	702.0	677.4	662.1	645.2
40°	1858.7	1758.8	1476.2	1205.8	952.4	765.0	682.0	632.9	609.8	591.4	571.4
42.5°	2016.9	1800.3	1450.1	1116.8	818.7	686.6	629.8	585.3	560.7	540.7	513.1
45°	2153.6	1817.2	1399.4	993.9	698.9	625.2	596.0	557.6	528.4	497.7	476.2
47.5°	2261.2	1814.1	1318.0	849.5	619.1	582.2	568.4	542.2	506.9	468.5	440.9
50°	2351.8	1791.1	1207.4	722.0	565.3	543.8	539.2	531.5	474.7	442.4	425.5
52.5°	2434.7	1757.3	1089.1	636.0	519.2	500.8	510.0	502.3	462.4	434.7	417.8
55°	2548.4	1734.3	972.4	569.9	465.4	460.8	468.5	479.3	454.7	428.6	410.1
57.5°	2682.1	1746.6	883.3	496.2	414.8	417.8	443.9	459.3	447.0	419.4	400.9
60°	2835.7	1783.4	804.9	425.5	373.3	381.0	419.4	440.9	439.3	407.1	385.6
62.5°	3007.7	1821.8	680.5	371.7	337.9	350.2	390.2	417.8	422.4	394.8	368.7
63°	3041.5	1824.9	648.2	361.0	331.8	345.6	382.5	411.7	417.8	391.7	365.6
65°	3124.5	1797.3	522.3	331.8	307.2	322.6	359.5	385.6	397.9	374.8	353.3
67.5°	3055.3	1571.4	393.2	296.5	287.3	298.0	330.3	354.8	365.6	354.8	333.3
70°	2794.2	1142.9	307.2	264.2	265.7	273.4	298.0	321.0	333.3	330.3	310.3
72.5°	2250.4	648.2	256.5	236.6	241.2	250.4	267.3	288.8	299.5	298.0	284.2
75°	1482.3	331.8	216.6	212.0	215.1	222.7	235.0	251.9	264.2	262.7	256.5
77.5°	734.3	230.4	185.9	187.4	188.9	195.1	204.3	219.7	227.3	228.9	227.3
80°	302.6	179.7	159.8	161.3	162.8	167.4	173.6	187.4	192.0	195.1	196.6
82.5°	181.3	136.7	127.5	130.6	132.1	136.7	141.3	153.6	158.2	162.8	162.8
85°	119.8	95.2	92.2	95.2	98.3	101.4	102.9	110.6	118.3	124.4	127.5
87.5°	64.5	56.8	55.3	56.8	56.8	59.9	63.0	70.7	79.9	86.0	89.1
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°	993.9	993.9	993.9	993.9	993.9
2.5°	1018.4	1020.0	1018.4	1020.0	1021.5
5°	1069.1	1072.2	1070.7	1070.7	1076.8
7.5°	1127.5	1133.7	1133.7	1136.7	1139.8
10°	1190.5	1196.6	1201.2	1201.2	1205.8
12.5°	1253.5	1256.5	1261.1	1261.1	1261.1
15°	1285.7	1284.2	1282.7	1281.1	1281.1
17.5°	1281.1	1275.0	1271.9	1268.8	1270.4
20°	1247.3	1236.6	1233.5	1228.9	1232.0
22.5°	1189.0	1173.6	1167.4	1159.8	1162.8
25°	1101.4	1083.0	1079.9	1070.7	1075.3
27.5°	1000.0	990.8	989.3	987.7	995.4
30°	904.8	907.8	909.4	912.5	920.1
32.5°	817.2	823.4	824.9	826.4	837.2
35°	731.2	723.5	731.2	728.1	737.3
37.5°	637.5	631.3	625.2	617.5	623.7
40°	559.1	548.4	530.0	520.7	522.3
42.5°	497.7	483.9	468.5	459.3	459.3
45°	457.8	440.9	427.0	420.9	420.9
47.5°	427.0	419.4	411.7	407.1	407.1
50°	414.8	405.5	400.9	397.9	397.9
52.5°	405.5	396.3	391.7	388.6	385.6
55°	397.9	384.0	379.4	377.9	377.9
57.5°	387.1	374.8	368.7	367.1	367.1
60°	370.2	361.0	354.8	353.3	353.3
62.5°	353.3	344.1	337.9	337.9	337.9
63°	350.2	339.5	334.9	334.9	334.9
65°	336.4	325.7	321.0	321.0	319.5
67.5°	318.0	307.2	304.2	304.2	301.1
70°	296.5	287.3	284.2	285.7	279.6
72.5°	275.0	265.7	261.1	261.1	255.0
75°	250.4	241.2	235.0	233.5	227.3
77.5°	222.7	215.1	208.9	202.8	199.7
80°	193.6	187.4	179.7	175.1	170.5
82.5°	162.8	156.7	152.1	158.2	135.2
85°	127.5	121.4	115.2	124.4	96.8
87.5°	93.7	90.6	84.5	73.7	64.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)