

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: P239130

Luminaire Tested: **ARCH-AF16-50-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239130
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-AF16-50-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5974 lumens
Efficiency: N/A
Efficacy: 112.7 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

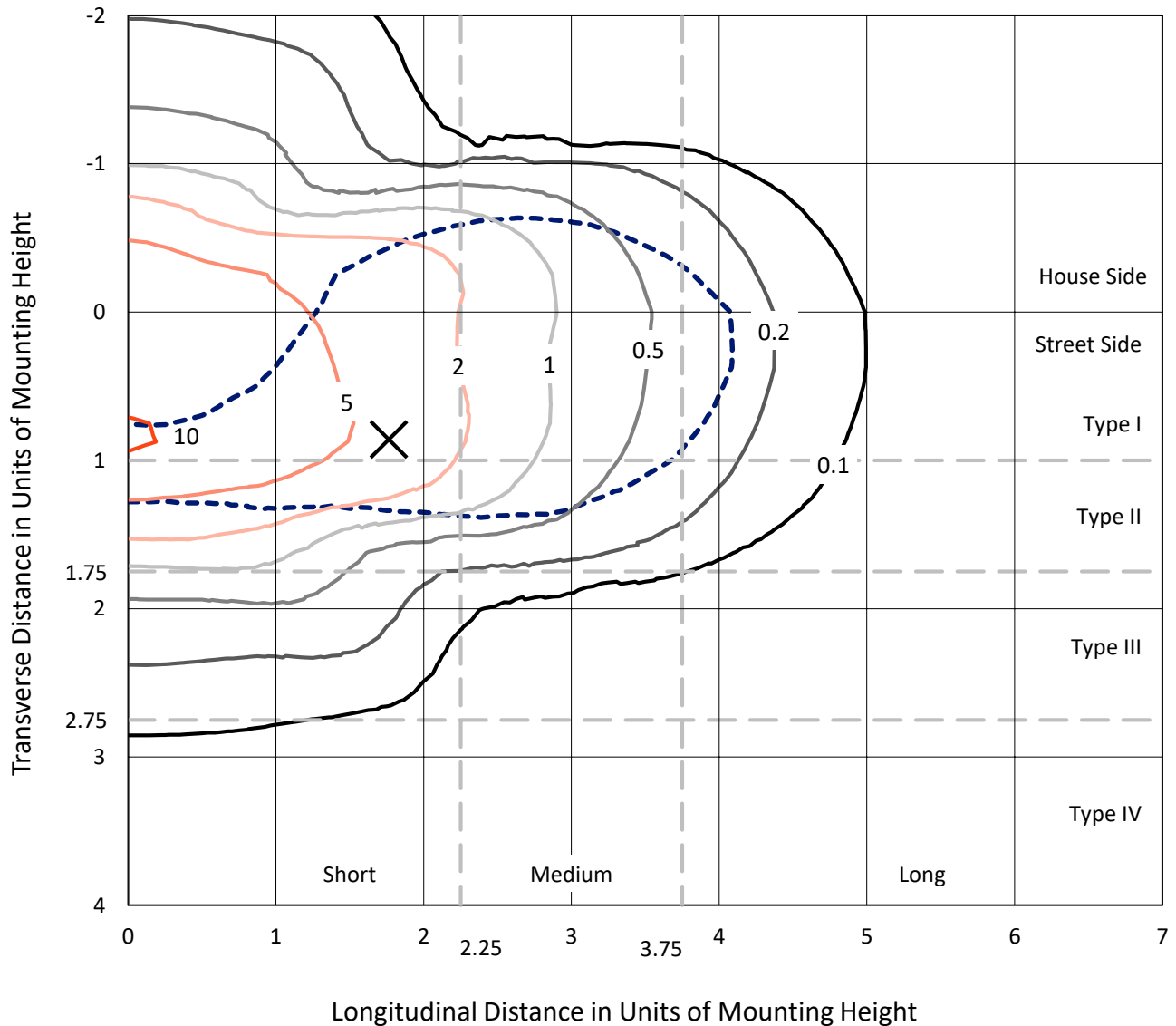
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

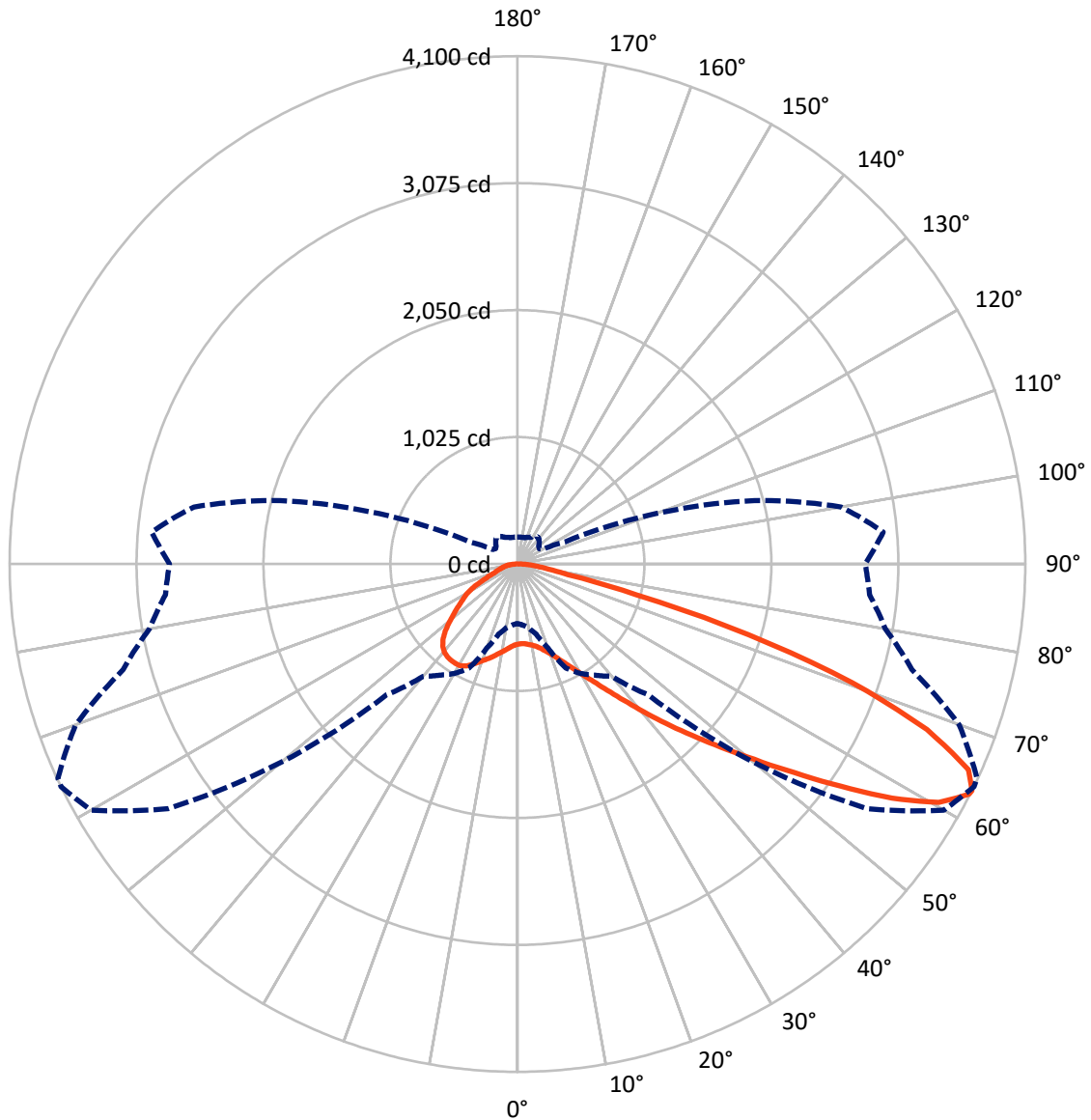
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 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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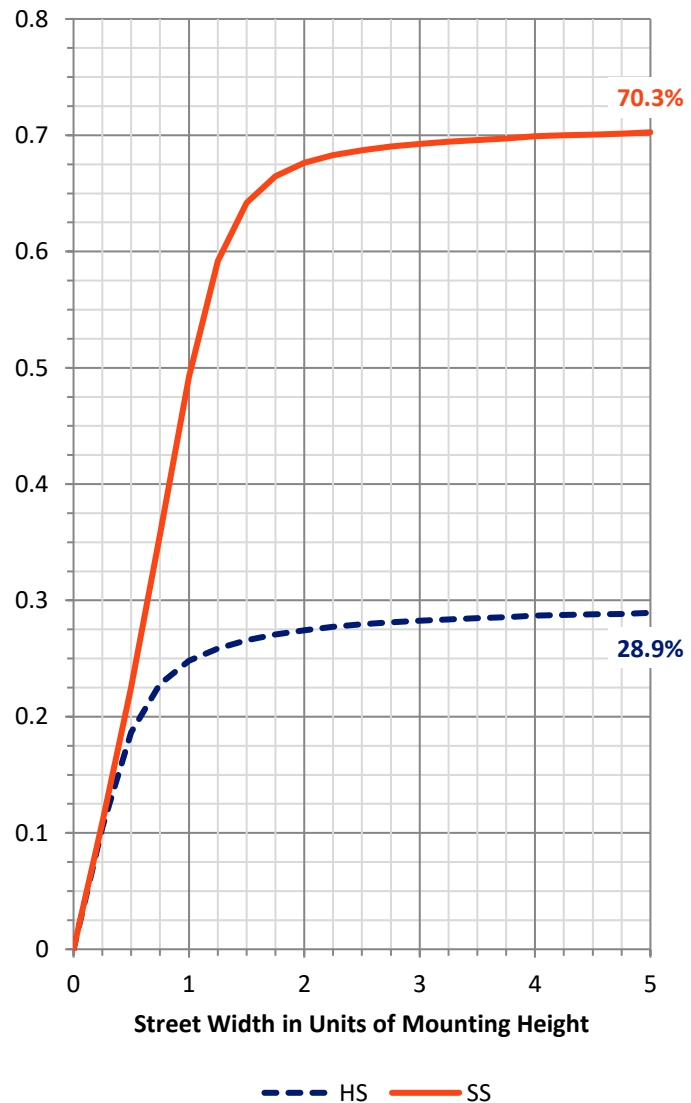
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1756.2	0.0	1756.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4217.9	0.0	4217.9
	% Fixture	70.6	0.0	70.6
Total	Lumens	5974.0	0.0	5974.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	1.1
10°-20°	215.2	3.6
20°-30°	403.9	6.8
30°-40°	676.9	11.3
40°-50°	1135.7	19.0
50°-60°	1439.8	24.1
60°-70°	1270.1	21.3
70°-80°	655.7	11.0
80°-90°	112.2	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°	5974.0	100.0
0°-180°	5974.0	100.0



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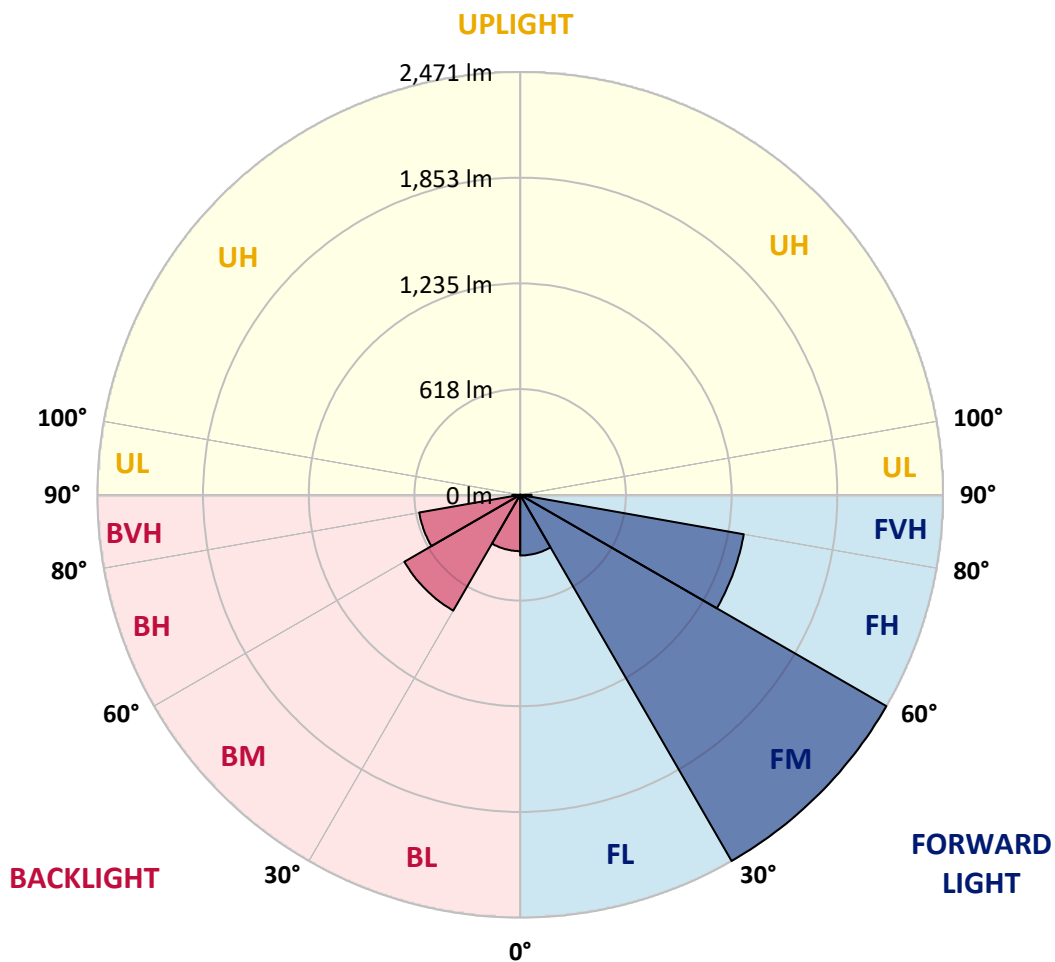
CATALOG NUMBER: ARCH-AF16-50-D-U-T2U-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	354.6	5.9			
FM	(30°-60°)	2470.7	41.4			
FH	(60°-80°)	1326.6	22.2			G1/1800
FVH	(80°-90°)	66.0	1.1			G1/100
BL	(0°-30°)	329.1	5.5	B1/500		
BM	(30°-60°)	781.8	13.1	B1/1000		
BH	(60°-80°)	599.2	10.0	B2/1000		G2/1000
BVH	(80°-90°)	46.2	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°	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
2.5°	643.0	642.0	642.0	642.0	642.0	641.0	642.0	644.0	643.0	642.0	644.0
5°	645.0	644.0	644.0	644.0	645.0	644.0	645.0	648.0	646.0	646.0	648.0
7.5°	650.0	649.0	650.0	649.0	649.0	649.0	650.0	653.0	652.0	653.0	656.0
10°	656.0	656.0	656.0	656.0	656.0	656.0	658.0	660.0	661.0	662.0	666.0
12.5°	674.0	674.0	674.0	673.0	673.0	670.0	674.0	676.0	678.0	680.0	683.0
15°	712.0	712.0	711.0	707.0	707.0	701.0	702.0	703.0	703.0	705.0	707.0
17.5°	762.0	761.0	759.0	756.0	752.0	745.0	743.0	741.0	738.0	737.0	737.0
20°	832.0	831.0	827.0	819.0	814.0	803.0	795.0	787.0	784.0	779.0	778.0
22.5°	932.0	932.0	924.0	912.0	908.0	885.0	862.0	845.0	839.0	832.0	832.0
25°	1053.0	1052.0	1041.0	1027.0	1010.0	986.0	958.0	935.0	920.0	904.0	898.0
27.5°	1198.0	1195.0	1180.0	1163.0	1131.0	1101.0	1068.0	1044.0	1018.0	998.0	980.0
30°	1368.0	1365.0	1339.0	1307.0	1274.0	1244.0	1196.0	1167.0	1126.0	1102.0	1082.0
32.5°	1565.0	1562.0	1515.0	1484.0	1449.0	1412.0	1355.0	1309.0	1257.0	1223.0	1195.0
35°	1815.9	1803.9	1737.0	1694.0	1639.0	1602.0	1542.0	1480.0	1419.0	1371.0	1330.0
37.5°	2086.9	2072.9	2013.9	1949.9	1895.9	1850.9	1766.0	1688.0	1616.0	1550.0	1499.0
40°	2369.9	2332.9	2269.9	2222.9	2185.9	2142.9	2053.9	1971.9	1858.9	1784.9	1708.0
42.5°	2565.9	2529.9	2485.9	2454.9	2436.9	2403.9	2353.9	2282.9	2181.9	2183.9	1980.9
45°	2694.9	2641.9	2611.9	2613.9	2620.9	2620.9	2611.9	2600.9	2556.9	2586.9	2416.9
47.5°	2648.9	2613.9	2594.9	2634.9	2684.9	2734.9	2792.9	2855.9	2927.9	3012.9	2803.9
50°	2378.9	2391.9	2400.9	2485.9	2592.9	2706.9	2839.9	3011.9	3212.9	3251.9	3150.9
52.5°	1947.9	1975.9	2005.9	2135.9	2276.9	2473.9	2706.9	2990.9	3260.9	3419.9	3409.9
55°	1513.0	1548.0	1612.0	1709.0	1820.9	2006.9	2294.9	2732.9	3153.9	3406.9	3560.9
57.5°	1077.0	1128.0	1212.0	1347.0	1446.0	1551.0	1764.0	2249.9	2710.9	3181.9	3535.9
60°	716.0	740.0	795.0	963.0	1130.0	1240.0	1391.0	1567.0	1943.9	2592.9	3277.9
62.5°	508.0	524.0	558.0	634.0	785.0	984.0	1075.0	1156.0	1277.0	1668.0	2631.9
63°	480.0	494.0	522.0	586.0	722.0	928.0	1021.0	1095.0	1183.0	1492.0	2489.9
65°	398.0	404.0	419.0	450.0	523.0	694.0	846.0	891.0	906.0	959.0	1560.0
67.5°	336.0	340.0	345.0	354.0	383.0	462.0	631.0	688.0	671.0	635.0	771.0
70°	292.0	295.0	303.0	314.0	324.0	344.0	434.0	519.0	500.0	451.0	472.0
72.5°	233.0	238.0	247.0	266.0	286.0	312.0	334.0	387.0	375.0	328.0	333.0
75°	184.0	187.0	195.0	209.0	228.0	258.0	301.0	319.0	286.0	242.0	242.0
77.5°	146.0	149.0	156.0	167.0	179.0	200.0	230.0	277.0	257.0	182.0	181.0
80°	110.0	113.0	120.0	130.0	142.0	157.0	175.0	196.0	236.0	170.0	136.0
82.5°	81.0	82.0	94.0	101.0	105.0	117.0	132.0	144.0	162.0	157.0	121.0
85°	61.0	60.0	68.0	73.0	74.0	77.0	86.0	98.0	106.0	102.0	94.0
87.5°	34.0	30.0	35.0	40.0	40.0	41.0	43.0	50.0	57.0	55.0	50.0
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°	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
2.5°	644.0	644.0	643.0	643.0	644.0	644.0	643.0	646.0	648.0	648.0	649.0
5°	647.0	648.0	647.0	647.0	648.0	648.0	649.0	652.0	655.0	657.0	660.0
7.5°	656.0	657.0	656.0	656.0	657.0	658.0	660.0	664.0	666.0	670.0	675.0
10°	666.0	667.0	666.0	667.0	668.0	669.0	672.0	675.0	678.0	682.0	690.0
12.5°	684.0	685.0	683.0	684.0	687.0	687.0	689.0	691.0	696.0	701.0	709.0
15°	709.0	709.0	707.0	708.0	711.0	711.0	712.0	714.0	720.0	726.0	734.0
17.5°	738.0	740.0	739.0	740.0	742.0	743.0	743.0	745.0	749.0	753.0	761.0
20°	777.0	778.0	776.0	778.0	780.0	778.0	776.0	775.0	777.0	779.0	788.0
22.5°	830.0	829.0	824.0	824.0	824.0	820.0	815.0	809.0	809.0	806.0	813.0
25°	893.0	890.0	883.0	884.0	877.0	871.0	862.0	853.0	845.0	842.0	843.0
27.5°	967.0	961.0	954.0	952.0	945.0	934.0	919.0	902.0	889.0	879.0	877.0
30°	1060.0	1047.0	1035.0	1033.0	1022.0	1004.0	980.0	957.0	935.0	918.0	912.0
32.5°	1170.0	1150.0	1131.0	1129.0	1111.0	1087.0	1058.0	1026.0	994.0	967.0	954.0
35°	1299.0	1269.0	1251.0	1246.0	1220.0	1190.0	1158.0	1117.0	1072.0	1034.0	1010.0
37.5°	1456.0	1425.0	1394.0	1395.0	1359.0	1324.0	1281.0	1231.0	1174.0	1121.0	1087.0
40°	1650.0	1606.0	1566.0	1557.0	1526.0	1477.0	1430.0	1372.0	1302.0	1232.0	1183.0
42.5°	1884.9	1812.9	1758.0	1750.0	1709.0	1649.0	1592.0	1515.0	1444.0	1359.0	1300.0
45°	2151.9	2036.9	1970.9	1958.9	1892.9	1831.9	1763.0	1681.0	1594.0	1498.0	1428.0
47.5°	2483.9	2319.9	2207.9	2187.9	2096.9	2016.9	1944.9	1853.9	1750.0	1643.0	1566.0
50°	2870.9	2628.9	2477.9	2446.9	2324.9	2230.9	2138.9	2024.9	1913.9	1801.9	1713.0
52.5°	3258.9	2998.9	2797.9	2759.9	2579.9	2453.9	2332.9	2218.9	2087.9	1976.9	1875.9
55°	3570.9	3397.9	3164.9	3111.9	2853.9	2682.9	2523.9	2393.9	2263.9	2175.9	2056.9
57.5°	3758.9	3749.9	3565.9	3492.9	3139.9	2886.9	2709.9	2561.9	2435.9	2398.9	2240.9
60°	3753.9	3986.9	3907.9	3852.9	3428.9	3095.9	2865.9	2705.9	2601.9	2643.9	2425.9
62.5°	3524.9	3996.9	4091.9	4076.9	3736.9	3263.9	2993.9	2828.9	2773.9	2898.9	2617.9
63°	3441.9	3973.9	4099.9	4093.9	3795.9	3295.9	3015.9	2852.9	2807.9	2963.9	2652.9
65°	2908.9	3772.9	4002.9	4029.9	3922.9	3405.9	3066.9	2913.9	2908.9	3108.9	2735.9
67.5°	1772.9	3187.9	3565.9	3617.9	3743.9	3440.9	3037.9	2892.9	2964.9	3129.9	2710.9
70°	758.0	2103.9	2865.9	2949.9	3257.9	3266.9	2954.9	2806.9	2951.9	2965.9	2532.9
72.5°	449.0	992.0	1950.9	2133.9	2577.9	2810.9	2764.9	2656.9	2780.9	2604.9	2156.9
75°	318.0	464.0	991.0	1186.0	1794.9	2145.9	2322.9	2372.9	2367.9	2065.9	1619.0
77.5°	228.0	298.0	418.0	493.0	1002.0	1378.0	1594.0	1740.0	1693.0	1383.0	998.0
80°	159.0	206.0	256.0	272.0	465.0	708.0	840.0	904.0	876.0	691.0	447.0
82.5°	115.0	135.0	165.0	175.0	234.0	327.0	389.0	343.0	329.0	255.0	193.0
85°	89.0	87.0	103.0	107.0	137.0	171.0	175.0	136.0	119.0	106.0	108.0
87.5°	63.0	54.0	55.0	57.0	71.0	91.0	89.0	56.0	48.0	51.0	58.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
2.5°	651.0	652.0	654.0	655.0	657.0	657.0	659.0	660.0	662.0	664.0	665.0
5°	663.0	666.0	670.0	672.0	676.0	679.0	683.0	685.0	689.0	692.0	696.0
7.5°	681.0	686.0	691.0	697.0	703.0	708.0	712.0	717.0	724.0	729.0	732.0
10°	698.0	705.0	714.0	721.0	730.0	737.0	743.0	752.0	760.0	767.0	771.0
12.5°	720.0	729.0	738.0	749.0	761.0	770.0	779.0	791.0	802.0	810.0	814.0
15°	746.0	757.0	767.0	780.0	794.0	806.0	819.0	832.0	840.0	840.0	838.0
17.5°	773.0	782.0	794.0	809.0	828.0	843.0	850.0	852.0	849.0	842.0	837.0
20°	800.0	808.0	821.0	839.0	859.0	862.0	855.0	846.0	837.0	825.0	817.0
22.5°	822.0	833.0	853.0	874.0	875.0	858.0	839.0	824.0	810.0	796.0	781.0
25°	848.0	863.0	890.0	898.0	872.0	840.0	813.0	791.0	768.0	745.0	728.0
27.5°	880.0	902.0	929.0	906.0	855.0	810.0	773.0	740.0	710.0	678.0	659.0
30°	914.0	948.0	954.0	894.0	826.0	768.0	718.0	668.0	630.0	601.0	590.0
32.5°	955.0	999.0	963.0	873.0	787.0	711.0	644.0	584.0	552.0	534.0	529.0
35°	1017.0	1053.0	968.0	851.0	742.0	643.0	559.0	511.0	491.0	479.0	473.0
37.5°	1106.0	1105.0	967.0	824.0	690.0	569.0	491.0	457.0	441.0	431.0	420.0
40°	1210.0	1145.0	961.0	785.0	620.0	498.0	444.0	412.0	397.0	385.0	372.0
42.5°	1313.0	1172.0	944.0	727.0	533.0	447.0	410.0	381.0	365.0	352.0	334.0
45°	1402.0	1183.0	911.0	647.0	455.0	407.0	388.0	363.0	344.0	324.0	310.0
47.5°	1472.0	1181.0	858.0	553.0	403.0	379.0	370.0	353.0	330.0	305.0	287.0
50°	1531.0	1166.0	786.0	470.0	368.0	354.0	351.0	346.0	309.0	288.0	277.0
52.5°	1585.0	1144.0	709.0	414.0	338.0	326.0	332.0	327.0	301.0	283.0	272.0
55°	1659.0	1129.0	633.0	371.0	303.0	300.0	305.0	312.0	296.0	279.0	267.0
57.5°	1746.0	1137.0	575.0	323.0	270.0	272.0	289.0	299.0	291.0	273.0	261.0
60°	1845.9	1161.0	524.0	277.0	243.0	248.0	273.0	287.0	286.0	265.0	251.0
62.5°	1957.9	1186.0	443.0	242.0	220.0	228.0	254.0	272.0	275.0	257.0	240.0
63°	1979.9	1188.0	422.0	235.0	216.0	225.0	249.0	268.0	272.0	255.0	238.0
65°	2033.9	1170.0	340.0	216.0	200.0	210.0	234.0	251.0	259.0	244.0	230.0
67.5°	1988.9	1023.0	256.0	193.0	187.0	194.0	215.0	231.0	238.0	231.0	217.0
70°	1818.9	744.0	200.0	172.0	173.0	178.0	194.0	209.0	217.0	215.0	202.0
72.5°	1465.0	422.0	167.0	154.0	157.0	163.0	174.0	188.0	195.0	194.0	185.0
75°	965.0	216.0	141.0	138.0	140.0	145.0	153.0	164.0	172.0	171.0	167.0
77.5°	478.0	150.0	121.0	122.0	123.0	127.0	133.0	143.0	148.0	149.0	148.0
80°	197.0	117.0	104.0	105.0	106.0	109.0	113.0	122.0	125.0	127.0	128.0
82.5°	118.0	89.0	83.0	85.0	86.0	89.0	92.0	100.0	103.0	106.0	106.0
85°	78.0	62.0	60.0	62.0	64.0	66.0	67.0	72.0	77.0	81.0	83.0
87.5°	42.0	37.0	36.0	37.0	37.0	39.0	41.0	46.0	52.0	56.0	58.0
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):

	160°	165°	170°	175°	180°
0°	647.0	647.0	647.0	647.0	647.0
2.5°	663.0	664.0	663.0	664.0	665.0
5°	696.0	698.0	697.0	697.0	701.0
7.5°	734.0	738.0	738.0	740.0	742.0
10°	775.0	779.0	782.0	782.0	785.0
12.5°	816.0	818.0	821.0	821.0	821.0
15°	837.0	836.0	835.0	834.0	834.0
17.5°	834.0	830.0	828.0	826.0	827.0
20°	812.0	805.0	803.0	800.0	802.0
22.5°	774.0	764.0	760.0	755.0	757.0
25°	717.0	705.0	703.0	697.0	700.0
27.5°	651.0	645.0	644.0	643.0	648.0
30°	589.0	591.0	592.0	594.0	599.0
32.5°	532.0	536.0	537.0	538.0	545.0
35°	476.0	471.0	476.0	474.0	480.0
37.5°	415.0	411.0	407.0	402.0	406.0
40°	364.0	357.0	345.0	339.0	340.0
42.5°	324.0	315.0	305.0	299.0	299.0
45°	298.0	287.0	278.0	274.0	274.0
47.5°	278.0	273.0	268.0	265.0	265.0
50°	270.0	264.0	261.0	259.0	259.0
52.5°	264.0	258.0	255.0	253.0	251.0
55°	259.0	250.0	247.0	246.0	246.0
57.5°	252.0	244.0	240.0	239.0	239.0
60°	241.0	235.0	231.0	230.0	230.0
62.5°	230.0	224.0	220.0	220.0	220.0
63°	228.0	221.0	218.0	218.0	218.0
65°	219.0	212.0	209.0	209.0	208.0
67.5°	207.0	200.0	198.0	198.0	196.0
70°	193.0	187.0	185.0	186.0	182.0
72.5°	179.0	173.0	170.0	170.0	166.0
75°	163.0	157.0	153.0	152.0	148.0
77.5°	145.0	140.0	136.0	132.0	130.0
80°	126.0	122.0	117.0	114.0	111.0
82.5°	106.0	102.0	99.0	103.0	88.0
85°	83.0	79.0	75.0	81.0	63.0
87.5°	61.0	59.0	55.0	48.0	42.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)