

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: P257963

Luminaire Tested: **ARCH-L-AF72-270-D-U-T2U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257963  
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-L-AF72-270-D-U-T2U  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1155mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30290.6 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G4

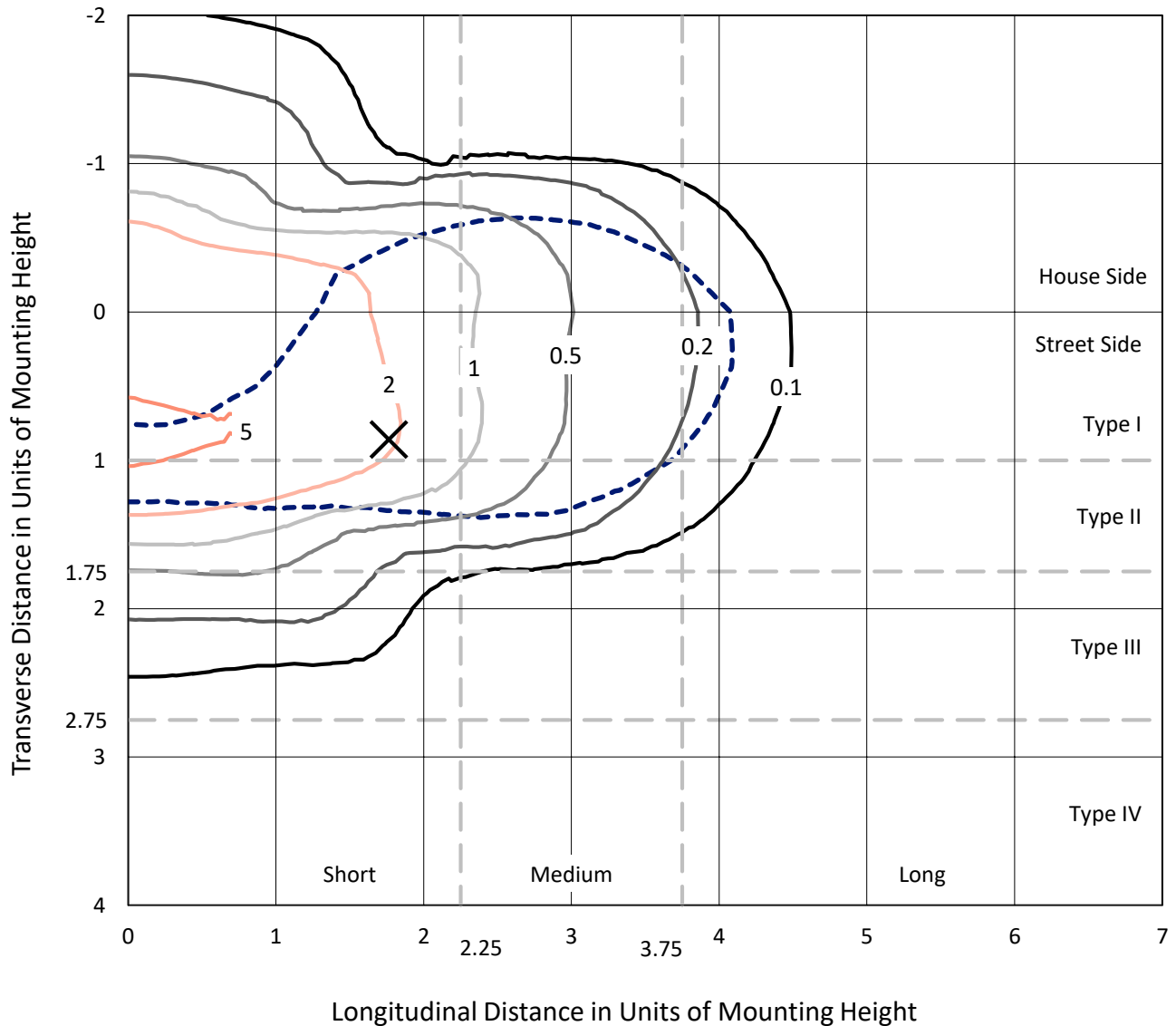
Input Watts (W): 273  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

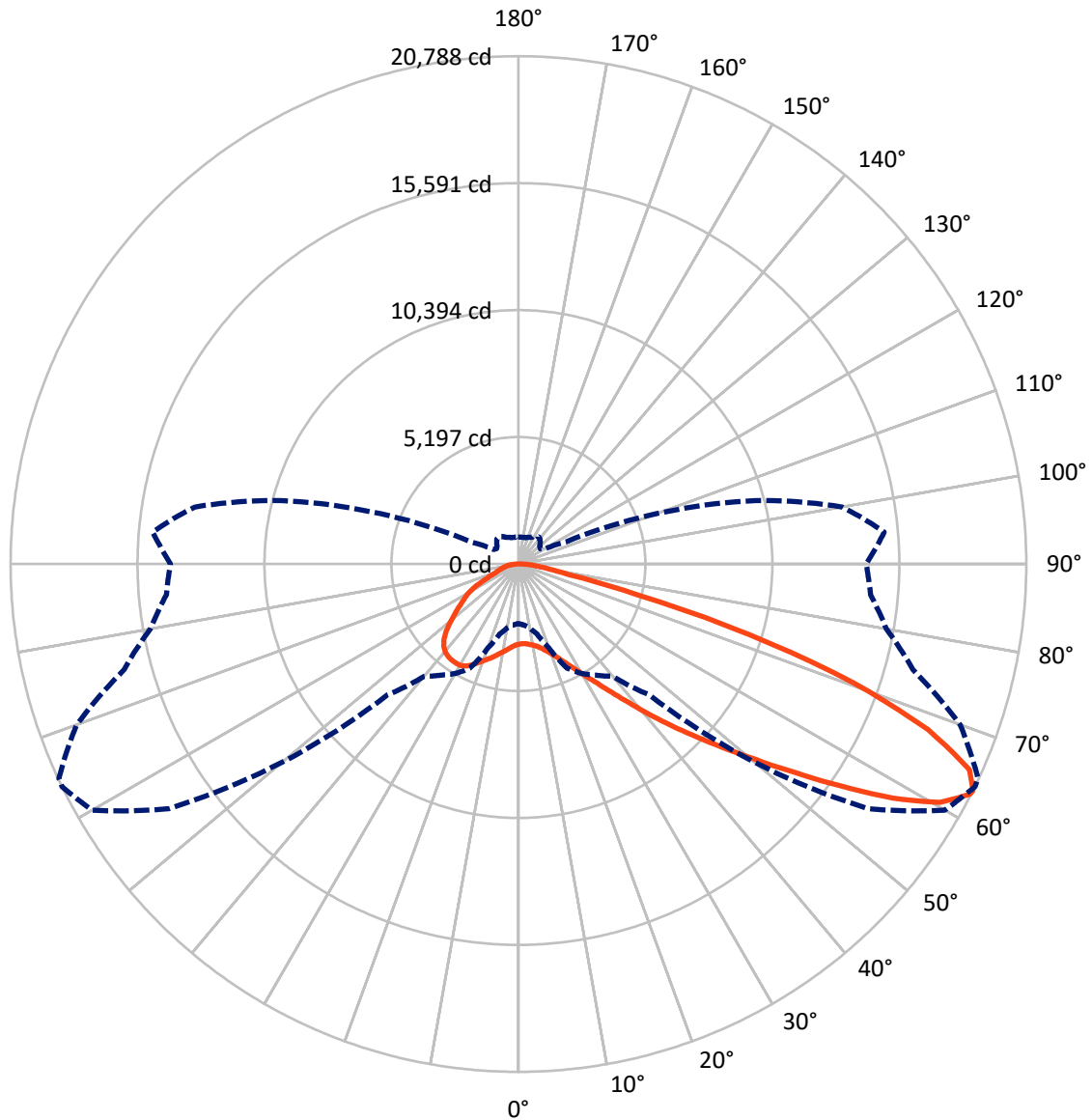
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 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	8904.3	0.0	8904.3
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	21386.3	0.0	21386.3
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	30290.6	0.0	30290.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	327.5	1.1
10°-20°	1090.9	3.6
20°-30°	2047.8	6.8
30°-40°	3432.3	11.3
40°-50°	5758.6	19.0
50°-60°	7300.2	24.1
60°-70°	6439.9	21.3
70°-80°	3324.4	11.0
80°-90°	568.9	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°	30290.6	100.0
0°-180°	30290.6	100.0



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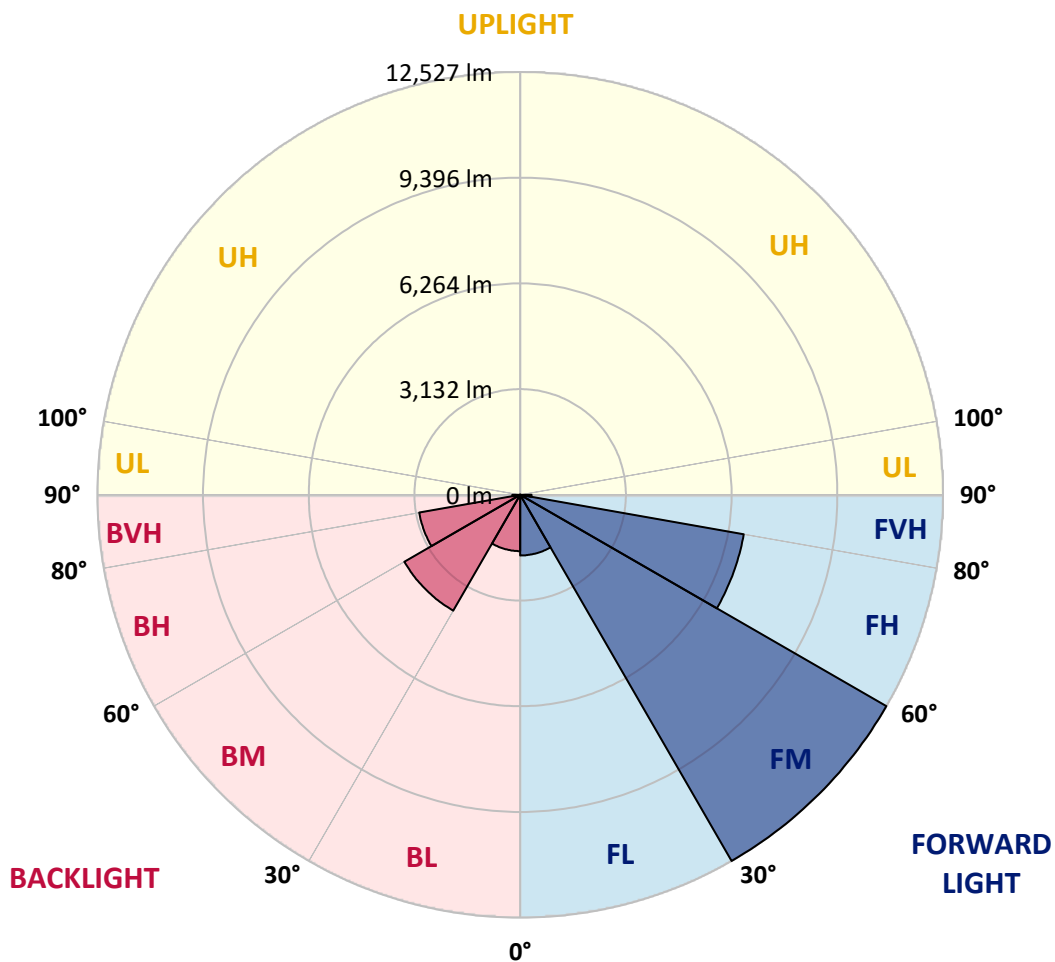
CATALOG NUMBER: ARCH-L-AF72-270-D-U-T2U

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1797.9	5.9			
FM (30°-60°)	12527.4	41.4			
FH (60°-80°)	6726.2	22.2			G3/7500
FVH (80°-90°)	334.8	1.1			G3/500
BL (0°-30°)	1668.4	5.5	B3/2500		
BM (30°-60°)	3963.8	13.1	B3/5000		
BH (60°-80°)	3038.1	10.0	B4/5000		G4/5000
BVH (80°-90°)	234.1	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5
2.5°	3260.1	3255.1	3255.1	3255.1	3255.1	3250.0	3255.1	3265.3	3260.1	3255.1	3265.3
5°	3270.3	3265.3	3265.3	3265.3	3270.3	3265.3	3270.3	3285.5	3275.4	3275.4	3285.5
7.5°	3295.6	3290.6	3295.6	3290.6	3290.6	3290.6	3295.6	3310.9	3305.8	3310.9	3326.1
10°	3326.1	3326.1	3326.1	3326.1	3326.1	3326.1	3336.3	3346.4	3351.4	3356.5	3376.8
12.5°	3417.4	3417.4	3417.4	3412.3	3412.3	3397.1	3417.4	3427.5	3437.6	3447.8	3463.0
15°	3610.0	3610.0	3605.0	3584.6	3584.6	3554.2	3559.4	3564.4	3564.4	3574.5	3584.6
17.5°	3863.6	3858.5	3848.3	3833.1	3812.8	3777.3	3767.2	3757.1	3741.9	3736.7	3736.7
20°	4218.4	4213.4	4193.1	4152.6	4127.2	4071.4	4030.8	3990.3	3975.1	3949.7	3944.7
22.5°	4725.5	4725.5	4684.9	4624.0	4603.8	4487.2	4370.6	4284.3	4253.9	4218.4	4218.4
25°	5339.0	5333.9	5278.1	5207.1	5121.0	4999.3	4857.3	4740.7	4664.7	4583.5	4553.1
27.5°	6074.2	6058.9	5982.9	5896.7	5734.5	5582.3	5415.0	5293.4	5161.5	5060.1	4968.9
30°	6936.1	6920.9	6789.1	6626.9	6459.5	6307.4	6064.1	5917.0	5709.1	5587.5	5486.0
32.5°	7934.9	7919.8	7681.4	7524.3	7346.8	7159.2	6870.2	6637.0	6373.3	6200.9	6058.9
35°	9207.6	9146.7	8807.0	8589.0	8310.1	8122.5	7818.3	7504.0	7194.7	6951.4	6743.5
37.5°	10581.6	10510.6	10211.5	9887.0	9613.2	9385.1	8954.1	8558.6	8193.5	7858.9	7600.3
40°	12016.5	11828.9	11509.5	11271.2	11083.6	10865.6	10414.4	9998.5	9425.6	9050.5	8660.0
42.5°	13010.3	12827.8	12604.7	12447.5	12356.2	12188.9	11935.4	11575.4	11063.3	11073.4	10044.1
45°	13664.4	13395.6	13243.5	13253.7	13289.2	13289.2	13243.5	13187.8	12964.7	13116.8	12254.8
47.5°	13431.1	13253.7	13157.3	13360.1	13613.6	13867.1	14161.2	14480.7	14845.7	15276.7	14217.0
50°	12062.1	12128.1	12173.7	12604.7	13147.2	13725.2	14399.6	15271.6	16290.8	16488.5	15976.3
52.5°	9876.9	10018.9	10170.9	10830.1	11545.0	12543.8	13725.2	15165.1	16534.2	17340.2	17289.6
55°	7671.3	7848.8	8173.3	8665.1	9232.9	10176.0	11636.3	13857.0	15991.6	17274.4	18055.2
57.5°	5460.7	5719.2	6145.2	6829.6	7331.6	7863.9	8944.0	11408.0	13745.5	16133.6	17928.4
60°	3630.4	3752.0	4030.8	4882.6	5729.4	6287.2	7052.7	7945.1	9856.5	13147.2	16620.3
62.5°	2575.7	2656.8	2829.2	3214.5	3980.2	4989.1	5450.5	5861.2	6474.8	8457.2	13344.9
63°	2433.7	2504.7	2646.7	2971.2	3660.7	4705.2	5176.7	5552.0	5998.1	7564.8	12625.0
65°	2018.0	2048.4	2124.5	2281.6	2651.8	3518.7	4289.4	4517.6	4593.7	4862.4	7909.6
67.5°	1703.6	1723.9	1749.2	1794.9	1941.9	2342.5	3199.4	3488.4	3402.1	3219.6	3909.2
70°	1480.5	1495.8	1536.3	1592.0	1642.8	1744.1	2200.5	2631.4	2535.2	2286.7	2393.2
72.5°	1181.4	1206.7	1252.4	1348.7	1450.1	1581.9	1693.5	1962.2	1901.4	1663.0	1688.4
75°	932.9	948.2	988.7	1059.7	1156.0	1308.1	1526.1	1617.4	1450.1	1227.0	1227.0
77.5°	740.2	755.4	790.9	846.7	907.6	1014.1	1166.2	1404.5	1303.0	922.8	917.7
80°	557.7	573.0	608.5	659.1	720.0	796.1	887.3	993.8	1196.5	861.9	689.6
82.5°	410.7	415.7	476.6	512.1	532.3	593.2	669.3	730.1	821.4	796.1	613.5
85°	309.2	304.2	344.7	370.1	375.2	390.5	436.1	496.8	537.5	517.2	476.6
87.5°	172.4	152.1	177.5	202.9	202.9	207.9	218.0	253.5	289.0	278.9	253.5
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):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5
2.5°	3265.3	3265.3	3260.1	3260.1	3265.3	3265.3	3260.1	3275.4	3285.5	3285.5	3290.6
5°	3280.5	3285.5	3280.5	3280.5	3285.5	3285.5	3290.6	3305.8	3321.0	3331.1	3346.4
7.5°	3326.1	3331.1	3326.1	3326.1	3331.1	3336.3	3346.4	3366.6	3376.8	3397.1	3422.4
10°	3376.8	3381.9	3376.8	3381.9	3386.9	3392.0	3407.2	3422.4	3437.6	3457.9	3498.5
12.5°	3468.0	3473.1	3463.0	3468.0	3483.2	3483.2	3493.4	3503.5	3528.9	3554.2	3594.9
15°	3594.9	3594.9	3584.6	3589.7	3605.0	3605.0	3610.0	3620.1	3650.6	3681.0	3721.6
17.5°	3741.9	3752.0	3747.0	3752.0	3762.1	3767.2	3767.2	3777.3	3797.6	3817.9	3858.5
20°	3939.6	3944.7	3934.5	3944.7	3954.8	3944.7	3934.5	3929.5	3939.6	3949.7	3995.3
22.5°	4208.3	4203.2	4177.9	4177.9	4177.9	4157.6	4132.3	4101.8	4101.8	4086.6	4122.1
25°	4527.8	4512.5	4477.0	4482.2	4446.7	4416.2	4370.6	4324.9	4284.3	4269.2	4274.2
27.5°	4902.9	4872.5	4837.0	4826.9	4791.4	4735.6	4659.5	4573.4	4507.4	4456.8	4446.7
30°	5374.5	5308.6	5247.7	5237.6	5181.8	5090.5	4968.9	4852.3	4740.7	4654.5	4624.0
32.5°	5932.2	5830.8	5734.5	5724.3	5633.1	5511.4	5364.4	5202.1	5039.9	4902.9	4837.0
35°	6586.3	6434.2	6342.9	6317.5	6185.7	6033.6	5871.3	5663.5	5435.3	5242.6	5121.0
37.5°	7382.3	7225.1	7068.0	7073.0	6890.5	6713.0	6495.0	6241.5	5952.4	5683.7	5511.4
40°	8365.9	8142.8	7940.0	7894.4	7737.2	7488.8	7250.5	6956.4	6601.5	6246.5	5998.1
42.5°	9557.4	9192.3	8913.5	8873.0	8665.1	8360.9	8071.9	7681.4	7321.5	6890.5	6591.4
45°	10911.2	10328.1	9993.5	9932.6	9598.0	9288.7	8938.9	8523.1	8082.0	7595.2	7240.3
47.5°	12594.6	11763.0	11195.2	11093.7	10632.3	10226.7	9861.7	9400.3	8873.0	8330.4	7940.0
50°	14556.7	13329.8	12564.1	12407.0	11788.4	11311.8	10845.3	10267.3	9704.5	9136.6	8685.4
52.5°	16524.0	15205.8	14186.6	13994.0	13081.3	12442.5	11828.9	11250.9	10586.7	10023.9	9511.8
55°	18105.9	17228.7	16047.3	15778.6	14470.6	13603.5	12797.3	12138.2	11479.0	11032.9	10429.5
57.5°	19059.1	19013.5	18080.6	17710.4	15920.6	14637.8	13740.4	12990.0	12351.1	12163.6	11362.4
60°	19033.7	20215.1	19814.6	19535.7	17386.0	15697.5	14531.3	13720.1	13192.8	13405.8	12300.5
62.5°	17872.7	20265.9	20747.5	20671.5	18947.6	16549.3	15180.4	14343.8	14064.9	14698.7	13273.9
63°	17451.8	20149.3	20788.1	20757.6	19246.7	16711.5	15291.9	14465.4	14237.3	15028.3	13451.4
65°	14749.4	19130.1	20296.3	20433.1	19890.7	17269.4	15550.5	14774.8	14749.4	15763.5	13872.2
67.5°	8989.6	16164.0	18080.6	18344.2	18983.1	17446.7	15403.5	14668.3	15033.3	15870.0	13745.5
70°	3843.2	10667.8	14531.3	14957.3	16518.9	16564.5	14982.6	14232.2	14967.4	15038.4	12842.9
72.5°	2276.6	5029.7	9892.0	10820.0	13071.2	14252.5	14019.2	13471.6	14100.4	13208.0	10936.6
75°	1612.4	2352.6	5024.6	6013.3	9101.1	10880.8	11778.3	12031.7	12006.4	10475.1	8208.8
77.5°	1156.0	1510.9	2119.3	2499.7	5080.4	6986.9	8082.0	8822.2	8584.0	7012.1	5060.1
80°	806.2	1044.4	1298.0	1379.1	2357.7	3589.7	4259.1	4583.5	4441.6	3503.5	2266.4
82.5°	583.1	684.5	836.6	887.3	1186.4	1658.0	1972.4	1739.1	1668.1	1292.9	978.6
85°	451.2	441.1	522.2	542.5	694.6	867.1	887.3	689.6	603.3	537.5	547.6
87.5°	319.5	273.8	278.9	289.0	360.0	461.4	451.2	284.0	243.4	258.6	294.1
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°	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5	3280.5
2.5°	3300.8	3305.8	3316.0	3321.0	3331.1	3331.1	3341.3	3346.4	3356.5	3366.6	3371.7
5°	3361.6	3376.8	3397.1	3407.2	3427.5	3442.7	3463.0	3473.1	3493.4	3508.6	3528.9
7.5°	3452.9	3478.2	3503.5	3534.0	3564.4	3589.7	3610.0	3635.4	3670.9	3696.2	3711.5
10°	3539.0	3574.5	3620.1	3655.6	3701.2	3736.7	3767.2	3812.8	3853.4	3888.8	3909.2
12.5°	3650.6	3696.2	3741.9	3797.6	3858.5	3904.1	3949.7	4010.6	4066.3	4106.9	4127.2
15°	3782.5	3838.2	3888.8	3954.8	4025.8	4086.6	4152.6	4218.4	4259.1	4259.1	4248.9
17.5°	3919.3	3965.0	4025.8	4101.8	4198.2	4274.2	4309.7	4319.8	4304.7	4269.2	4243.8
20°	4056.2	4096.8	4162.7	4253.9	4355.3	4370.6	4335.1	4289.4	4243.8	4182.9	4142.4
22.5°	4167.7	4223.6	4324.9	4431.4	4436.4	4350.3	4253.9	4177.9	4106.9	4036.0	3959.8
25°	4299.6	4375.7	4512.5	4553.1	4421.3	4259.1	4122.1	4010.6	3894.0	3777.3	3691.1
27.5°	4461.8	4573.4	4710.3	4593.7	4335.1	4106.9	3919.3	3752.0	3599.9	3437.6	3341.3
30°	4634.2	4806.6	4837.0	4532.8	4188.1	3894.0	3640.5	3386.9	3194.3	3047.3	2991.4
32.5°	4842.1	5065.1	4882.6	4426.3	3990.3	3605.0	3265.3	2961.0	2798.8	2707.5	2682.2
35°	5156.5	5339.0	4908.0	4314.8	3762.1	3260.1	2834.3	2590.9	2489.5	2428.7	2398.2
37.5°	5607.7	5602.6	4902.9	4177.9	3498.5	2885.0	2489.5	2317.1	2236.0	2185.3	2129.5
40°	6135.0	5805.5	4872.5	3980.2	3143.5	2524.9	2251.2	2089.0	2012.9	1952.1	1886.1
42.5°	6657.3	5942.3	4786.3	3686.1	2702.4	2266.4	2078.8	1931.7	1850.6	1784.7	1693.5
45°	7108.5	5998.1	4619.0	3280.5	2307.0	2063.6	1967.2	1840.5	1744.1	1642.8	1571.8
47.5°	7463.4	5987.9	4350.3	2803.8	2043.3	1921.6	1876.0	1789.8	1673.1	1546.4	1455.1
50°	7762.6	5911.9	3985.2	2383.1	1865.9	1794.9	1779.6	1754.4	1566.8	1460.3	1404.5
52.5°	8036.4	5800.3	3594.9	2099.1	1713.7	1652.9	1683.4	1658.0	1526.1	1434.9	1379.1
55°	8411.5	5724.3	3209.5	1881.1	1536.3	1521.1	1546.4	1581.9	1500.8	1414.6	1353.8
57.5°	8852.7	5764.8	2915.4	1637.7	1369.0	1379.1	1465.3	1516.0	1475.4	1384.2	1323.3
60°	9359.7	5886.6	2656.8	1404.5	1232.0	1257.4	1384.2	1455.1	1450.1	1343.6	1272.7
62.5°	9927.5	6013.3	2246.1	1227.0	1115.4	1156.0	1287.9	1379.1	1394.3	1303.0	1216.9
63°	10039.1	6023.4	2139.6	1191.5	1095.2	1140.8	1262.5	1358.8	1379.1	1292.9	1206.7
65°	10312.9	5932.2	1723.9	1095.2	1014.1	1064.8	1186.4	1272.7	1313.2	1237.2	1166.2
67.5°	10084.8	5186.9	1298.0	978.6	948.2	983.7	1090.1	1171.3	1206.7	1171.3	1100.3
70°	9222.8	3772.2	1014.1	872.1	877.2	902.5	983.7	1059.7	1100.3	1090.1	1024.2
72.5°	7428.0	2139.6	846.7	780.8	796.1	826.4	882.2	953.2	988.7	983.7	938.0
75°	4892.8	1095.2	714.9	699.7	709.8	735.2	775.7	831.6	872.1	867.1	846.7
77.5°	2423.6	760.6	613.5	618.6	623.7	643.9	674.3	725.1	750.4	755.4	750.4
80°	998.8	593.2	527.3	532.3	537.5	552.7	573.0	618.6	633.8	643.9	649.0
82.5°	598.3	451.2	420.8	431.0	436.1	451.2	466.5	507.1	522.2	537.5	537.5
85°	395.5	314.4	304.2	314.4	324.5	334.6	339.7	365.1	390.5	410.7	420.8
87.5°	213.0	187.6	182.5	187.6	187.6	197.7	207.9	233.2	263.6	284.0	294.1
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°	3280.5	3280.5	3280.5	3280.5	3280.5
2.5°	3361.6	3366.6	3361.6	3366.6	3371.7
5°	3528.9	3539.0	3534.0	3534.0	3554.2
7.5°	3721.6	3741.9	3741.9	3752.0	3762.1
10°	3929.5	3949.7	3965.0	3965.0	3980.2
12.5°	4137.3	4147.5	4162.7	4162.7	4162.7
15°	4243.8	4238.7	4233.7	4228.6	4228.6
17.5°	4228.6	4208.3	4198.2	4188.1	4193.1
20°	4117.1	4081.6	4071.4	4056.2	4066.3
22.5°	3924.3	3873.7	3853.4	3828.1	3838.2
25°	3635.4	3574.5	3564.4	3534.0	3549.2
27.5°	3300.8	3270.3	3265.3	3260.1	3285.5
30°	2986.4	2996.5	3001.6	3011.8	3037.0
32.5°	2697.4	2717.7	2722.7	2727.8	2763.3
35°	2413.4	2388.1	2413.4	2403.3	2433.7
37.5°	2104.1	2083.9	2063.6	2038.2	2058.5
40°	1845.6	1810.1	1749.2	1718.9	1723.9
42.5°	1642.8	1597.1	1546.4	1516.0	1516.0
45°	1510.9	1455.1	1409.5	1389.3	1389.3
47.5°	1409.5	1384.2	1358.8	1343.6	1343.6
50°	1369.0	1338.5	1323.3	1313.2	1313.2
52.5°	1338.5	1308.1	1292.9	1282.8	1272.7
55°	1313.2	1267.5	1252.4	1247.3	1247.3
57.5°	1277.7	1237.2	1216.9	1211.8	1211.8
60°	1221.9	1191.5	1171.3	1166.2	1166.2
62.5°	1166.2	1135.8	1115.4	1115.4	1115.4
63°	1156.0	1120.5	1105.3	1105.3	1105.3
65°	1110.4	1074.9	1059.7	1059.7	1054.7
67.5°	1049.5	1014.1	1003.9	1003.9	993.8
70°	978.6	948.2	938.0	943.1	922.8
72.5°	907.6	877.2	861.9	861.9	841.7
75°	826.4	796.1	775.7	770.7	750.4
77.5°	735.2	709.8	689.6	669.3	659.1
80°	638.8	618.6	593.2	578.0	562.8
82.5°	537.5	517.2	502.0	522.2	446.2
85°	420.8	400.6	380.2	410.7	319.5
87.5°	309.2	299.1	278.9	243.4	213.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)