

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: P236851

Luminaire Tested: **ARCH-L-AF72-180-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P236851  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-180-D-U-T2R  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 775mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23183.2 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

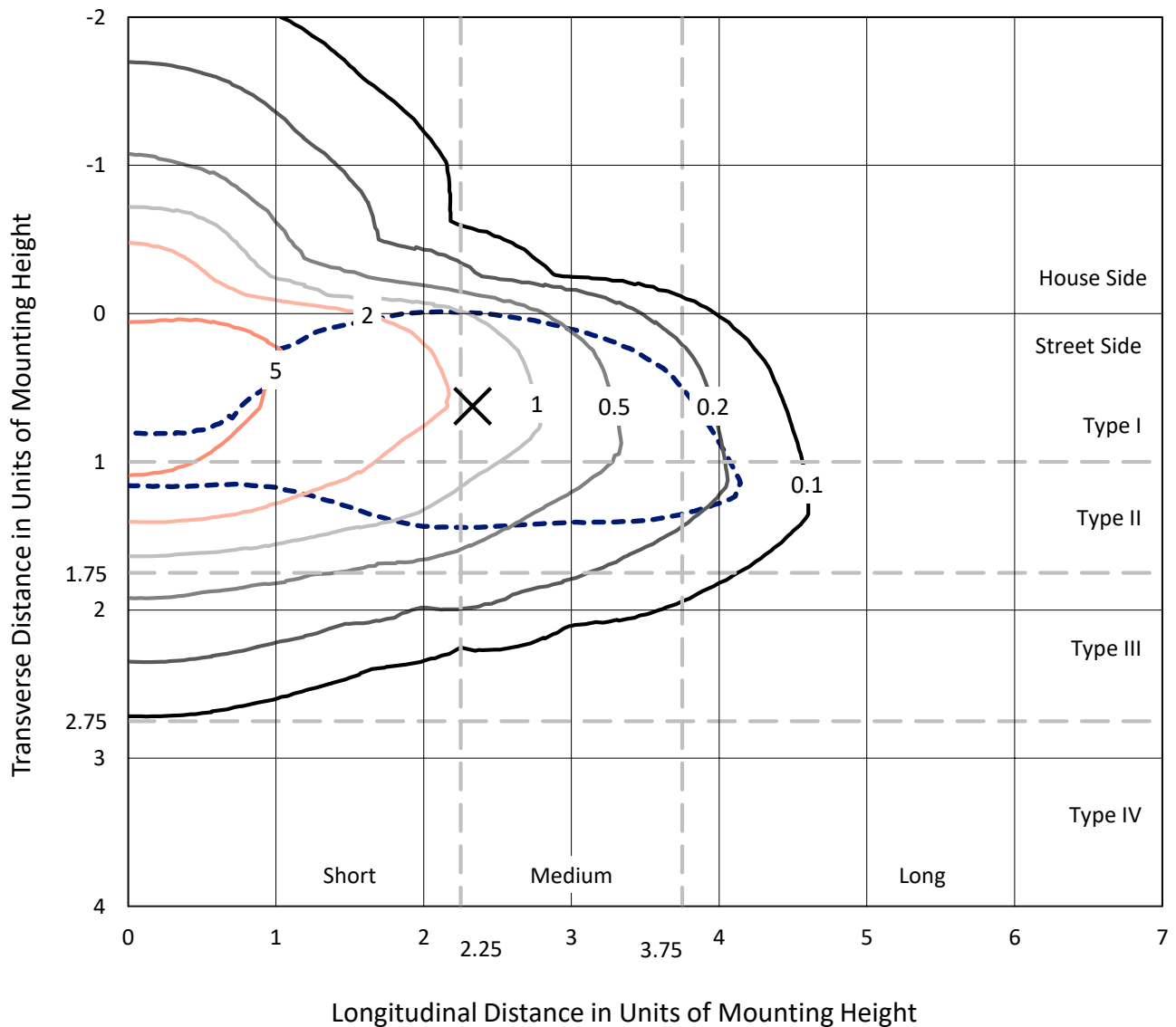
Input Watts (W): 181  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

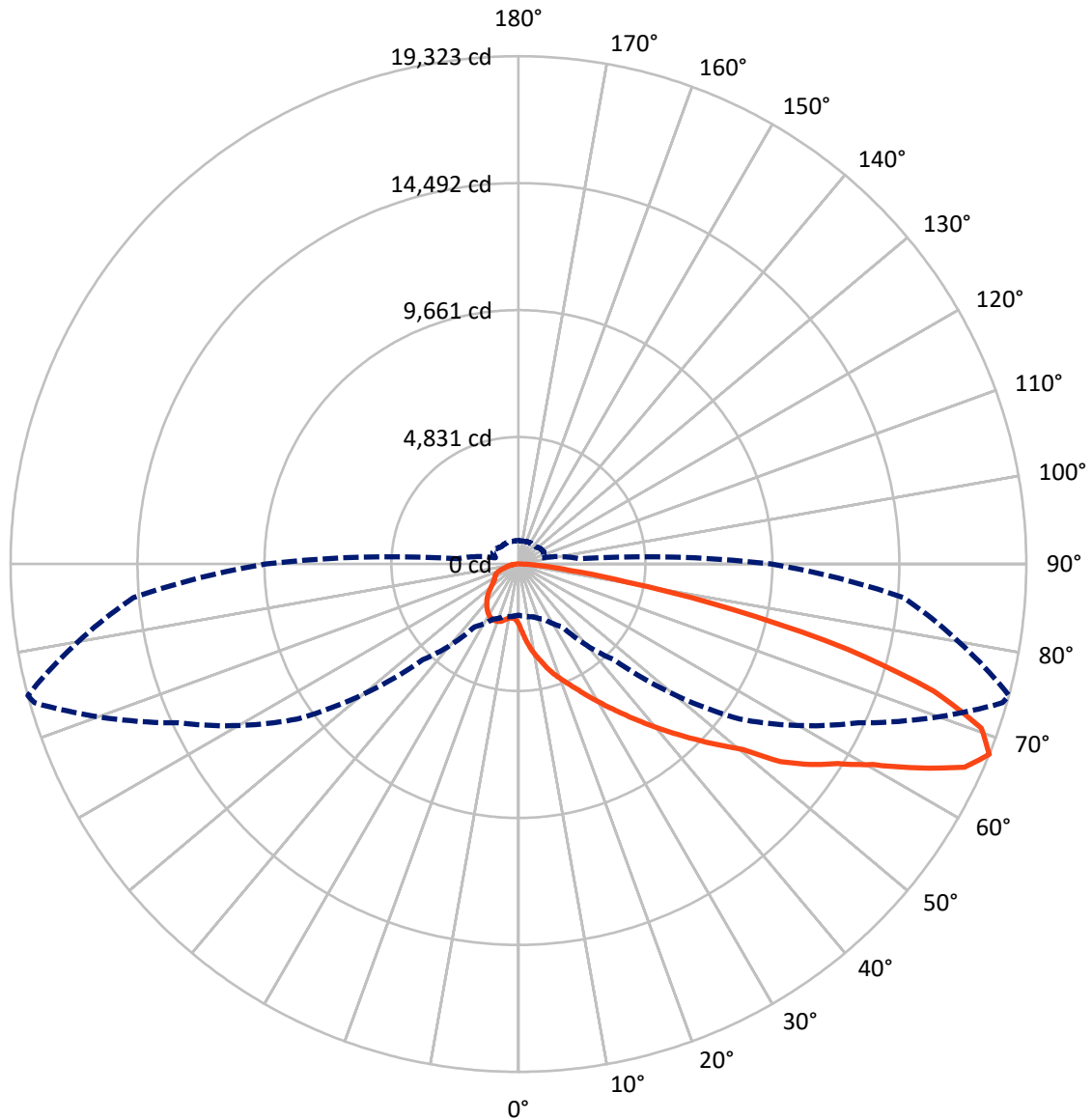


Based on 25 foot mounting height. Maximum calculated value = 7.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3958.8	0.0	3958.8
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	19224.3	0.0	19224.3
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	23183.2	0.0	23183.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.9	1.2
10°-20°	975.3	4.2
20°-30°	1778.9	7.7
30°-40°	2919.8	12.6
40°-50°	4222.5	18.2
50°-60°	4976.2	21.5
60°-70°	4835.7	20.9
70°-80°	2688.0	11.6
80°-90°	516.9	2.2
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°	23183.2	100.0
0°-180°	23183.2	100.0



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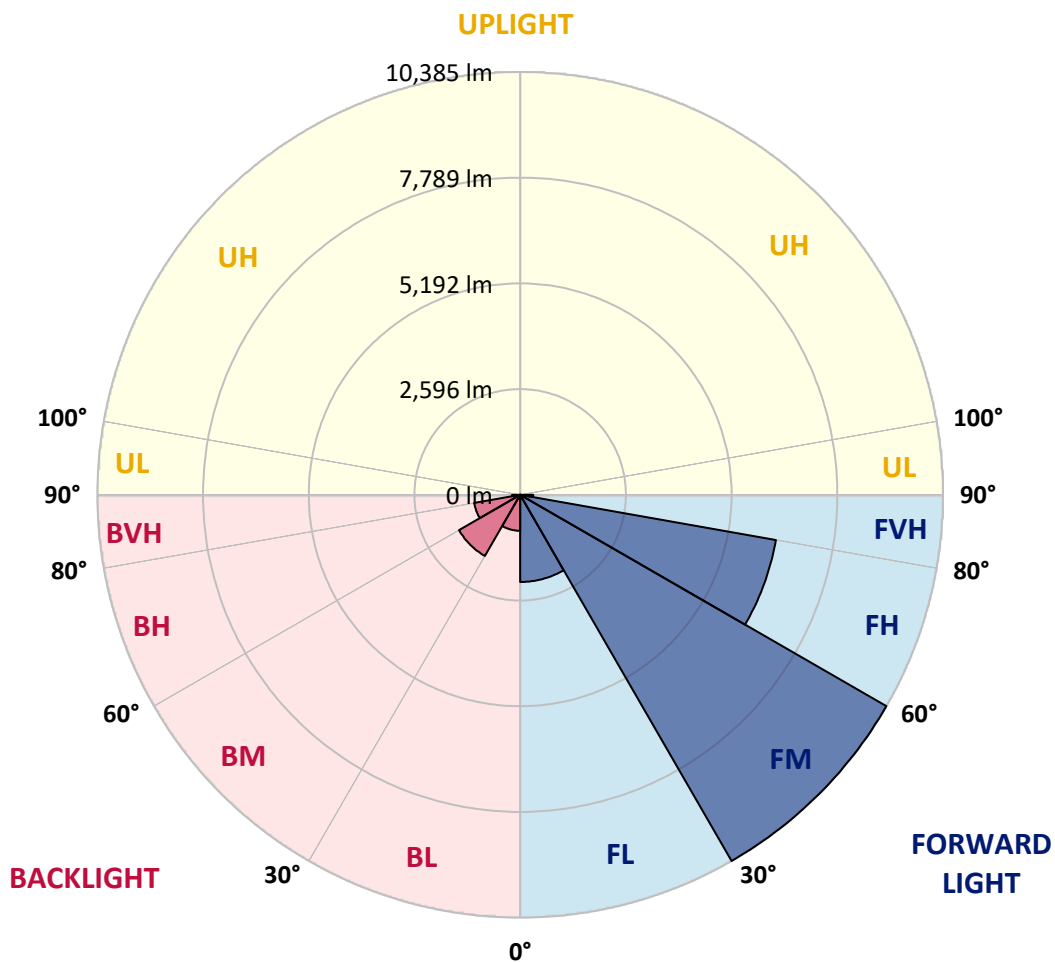
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2140.4	9.2			
FM (30°-60°)	10384.8	44.8			
FH (60°-80°)	6377.4	27.5			G3/7500
FVH (80°-90°)	321.7	1.4			G3/500
BL (0°-30°)	883.6	3.8	B2/1000		
BM (30°-60°)	1733.8	7.5	B2/2500		
BH (60°-80°)	1146.3	4.9	B3/2500		G3/2500
BVH (80°-90°)	195.2	0.8			G2/225
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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2
2.5°	3256.9	3266.5	3247.2	3203.5	3140.5	3024.1	2922.4	2743.1	2583.2	2563.8	2394.1
5°	3828.7	3838.4	3814.2	3760.9	3693.0	3567.0	3426.5	3193.9	2937.0	2888.5	2529.9
7.5°	4221.3	4226.1	4197.1	4143.8	4090.4	3964.4	3823.9	3562.1	3247.2	3208.4	2704.3
10°	4555.7	4565.3	4526.6	4492.7	4434.5	4308.5	4163.1	3886.9	3562.1	3508.8	2883.6
12.5°	4865.9	4875.6	4851.3	4822.2	4802.9	4686.5	4526.6	4197.1	3848.1	3789.9	3096.9
15°	5074.2	5084.0	5088.8	5127.5	5151.8	5069.4	4909.4	4550.8	4158.3	4105.0	3348.9
17.5°	5016.0	5040.3	5113.0	5253.6	5403.8	5408.6	5277.8	4899.7	4463.5	4405.4	3605.8
20°	4846.4	4865.9	4953.1	5166.3	5461.9	5631.5	5621.9	5253.6	4749.6	4686.5	3843.2
22.5°	4987.0	5011.2	5011.2	5142.1	5432.9	5747.9	5873.9	5602.5	5035.5	4977.3	4080.8
25°	5588.0	5602.5	5500.7	5447.4	5554.0	5844.8	6082.3	5980.6	5384.4	5316.6	4337.6
27.5°	6426.4	6402.1	6276.2	6062.9	5946.6	6024.2	6266.5	6339.1	5786.6	5704.3	4604.1
30°	7260.0	7245.5	7100.1	6814.1	6552.4	6387.6	6470.1	6659.0	6222.8	6125.9	4861.0
32.5°	8040.3	8016.0	7856.2	7521.7	7226.0	6920.8	6760.8	6949.8	6688.2	6576.7	5147.0
35°	8757.6	8694.6	8534.6	8185.7	7880.3	7589.6	7197.0	7226.0	7192.2	7075.9	5461.9
37.5°	9339.1	9290.6	9116.2	8791.4	8466.8	8190.6	7778.5	7541.1	7734.9	7623.4	5825.4
40°	9852.9	9799.6	9620.2	9295.6	8995.0	8733.3	8408.7	7924.0	8345.6	8219.6	6232.5
42.5°	10240.6	10201.8	10056.4	9736.5	9445.7	9208.3	9048.3	8408.7	8980.5	8859.4	6678.4
45°	10448.9	10410.2	10332.6	10075.8	9809.3	9625.0	9639.6	8985.3	9644.5	9542.7	7206.7
47.5°	10192.1	10221.2	10289.0	10240.6	10075.8	9988.5	10167.8	9581.5	10385.9	10289.0	7778.5
50°	9503.9	9533.0	9804.4	10138.8	10197.0	10303.6	10642.8	10269.6	11171.1	11093.6	8486.2
52.5°	7812.5	7972.5	8723.6	9523.3	10071.0	10511.9	11171.1	11292.3	12494.2	12494.2	9736.5
55°	5902.9	6043.5	6901.3	8297.2	9581.5	10531.4	11558.8	11985.3	13448.9	13468.3	10390.8
57.5°	4783.4	4870.7	5292.3	6722.0	8554.0	10289.0	12019.3	12581.4	14243.8	14330.9	11234.0
60°	3882.0	3930.5	4206.7	5200.3	7134.0	9634.8	12348.8	13434.4	15377.8	15498.9	12310.0
62.5°	3121.1	3169.6	3353.7	3949.8	5597.7	8408.7	12290.7	14321.3	16889.9	17088.6	13720.3
65°	2491.1	2544.4	2665.5	3033.9	4148.6	6886.8	11694.5	14776.8	18455.4	18649.2	14655.7
67.5°	1943.4	1991.9	2074.2	2316.6	2922.4	5151.8	10284.2	14297.1	19158.0	19322.8	14704.2
70°	1468.4	1492.7	1560.5	1715.7	2088.9	3421.6	8050.0	12688.1	18528.0	18678.3	13734.9
72.5°	1139.0	1134.0	1172.8	1250.4	1458.8	2355.3	5335.9	10318.1	16381.0	16536.1	11718.7
75°	930.5	925.7	949.9	974.2	1056.5	1579.9	3150.2	7768.9	13221.1	12925.5	8791.4
77.5°	785.1	780.3	804.6	809.4	843.3	1090.5	1793.2	5113.0	8820.6	8311.7	4953.1
80°	664.0	659.1	688.2	697.9	722.1	799.6	1032.3	2767.3	4429.7	4197.1	2365.1
82.5°	499.2	518.5	571.9	596.1	625.2	591.3	639.8	1221.3	2054.9	1962.8	1027.5
85°	242.3	285.9	431.4	479.8	513.7	373.2	436.2	576.7	925.7	882.1	416.8
87.5°	82.3	72.7	256.9	305.4	334.4	169.6	242.3	319.9	382.9	348.9	130.8
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2	2297.2
2.5°	2321.5	2248.8	2142.2	2059.7	2006.4	1962.8	1943.4	1938.6	1928.9	1924.1	1924.1
5°	2369.9	2239.0	2074.2	1987.1	1962.8	1943.4	1953.1	1957.9	1957.9	1957.9	1957.9
7.5°	2442.6	2258.5	2059.7	2001.6	1996.7	1996.7	2025.9	2040.4	2050.1	2050.1	2050.1
10°	2539.6	2292.3	2084.0	2035.5	2050.1	2059.7	2093.7	2113.0	2122.7	2127.6	2132.4
12.5°	2670.4	2365.1	2132.4	2093.7	2113.0	2117.9	2142.2	2151.8	2161.5	2166.4	2166.4
15°	2844.8	2471.7	2210.0	2161.5	2166.4	2161.5	2161.5	2151.8	2147.0	2147.0	2156.7
17.5°	3024.1	2573.4	2277.8	2210.0	2190.6	2151.8	2122.7	2098.5	2084.0	2074.2	2079.1
20°	3203.5	2665.5	2316.6	2219.7	2166.4	2103.4	2050.1	2016.1	1996.7	1977.4	1987.1
22.5°	3382.8	2752.8	2331.1	2190.6	2113.0	2020.9	1962.8	1909.5	1865.9	1836.8	1841.6
25°	3581.6	2849.7	2331.1	2156.7	2040.4	1943.4	1870.8	1783.5	1720.5	1696.3	1706.0
27.5°	3780.2	2932.1	2307.0	2093.7	1957.9	1861.1	1754.5	1652.7	1613.9	1599.3	1604.2
30°	3979.0	2995.1	2253.6	2016.1	1870.8	1764.1	1623.5	1555.7	1507.2	1468.4	1473.4
32.5°	4177.6	3038.8	2180.9	1919.2	1778.6	1643.0	1526.7	1449.1	1361.9	1313.4	1318.3
35°	4405.4	3072.6	2093.7	1822.3	1676.9	1536.4	1449.1	1323.1	1231.0	1192.2	1182.5
37.5°	4642.9	3096.9	2001.6	1715.7	1575.1	1458.8	1371.6	1216.5	1129.2	1075.9	1071.0
40°	4899.7	3106.6	1890.1	1604.2	1478.2	1410.3	1269.8	1153.5	1003.2	969.2	969.2
42.5°	5205.1	3101.7	1778.6	1492.7	1371.6	1298.8	1197.1	1143.8	1012.9	979.0	959.6
45°	5554.0	3101.7	1657.5	1361.9	1264.9	1158.3	1114.7	1080.7	993.5	1008.0	1017.7
47.5°	5951.4	3092.1	1512.1	1255.3	1177.7	1085.7	1061.4	988.7	954.7	964.4	974.2
50°	6499.1	3106.6	1381.3	1168.0	1114.7	1037.2	1008.0	969.2	954.7	959.6	954.7
52.5°	7260.0	3058.1	1255.3	1114.7	1066.2	964.4	964.4	959.6	964.4	959.6	959.6
55°	7676.8	2951.5	1163.2	1085.7	1032.3	930.5	949.9	959.6	969.2	964.4	964.4
57.5°	8268.1	2878.8	1090.5	1066.2	1012.9	920.9	940.2	959.6	964.4	959.6	959.6
60°	8966.0	2830.3	1042.0	1071.0	998.4	920.9	945.1	959.6	954.7	949.9	949.9
62.5°	9775.3	2811.0	1008.0	1085.7	983.9	925.7	945.1	959.6	940.2	935.4	935.4
65°	10080.7	2636.5	964.4	1095.3	993.5	925.7	940.2	945.1	920.9	916.0	911.1
67.5°	9610.5	2336.0	901.4	1075.9	1022.6	925.7	925.7	920.9	891.7	886.9	877.2
70°	8558.8	1938.6	804.6	1012.9	1042.0	930.5	906.3	882.1	852.9	852.9	833.6
72.5°	7007.9	1526.7	678.5	901.4	1027.5	945.1	867.6	833.6	799.6	799.6	780.3
75°	5050.0	1139.0	542.8	751.2	964.4	940.2	819.1	775.4	736.6	731.8	707.6
77.5°	2878.8	799.6	441.0	586.5	857.8	916.0	775.4	707.6	664.0	649.5	634.8
80°	1478.2	538.0	358.6	460.4	712.4	848.1	741.5	630.0	581.5	557.3	533.1
82.5°	702.8	358.6	276.3	339.2	538.0	741.5	697.9	542.8	489.5	460.4	431.4
85°	315.1	213.3	184.1	218.1	382.9	576.7	615.5	445.9	382.9	479.8	353.8
87.5°	101.8	97.0	97.0	101.8	184.1	252.1	450.7	329.6	305.4	252.1	213.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)