

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: P236870

Luminaire Tested: **ARCH-L-AF72-170-D-U-T2R-7050**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P236870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-170-D-U-T2R-7050  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 750mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22134 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

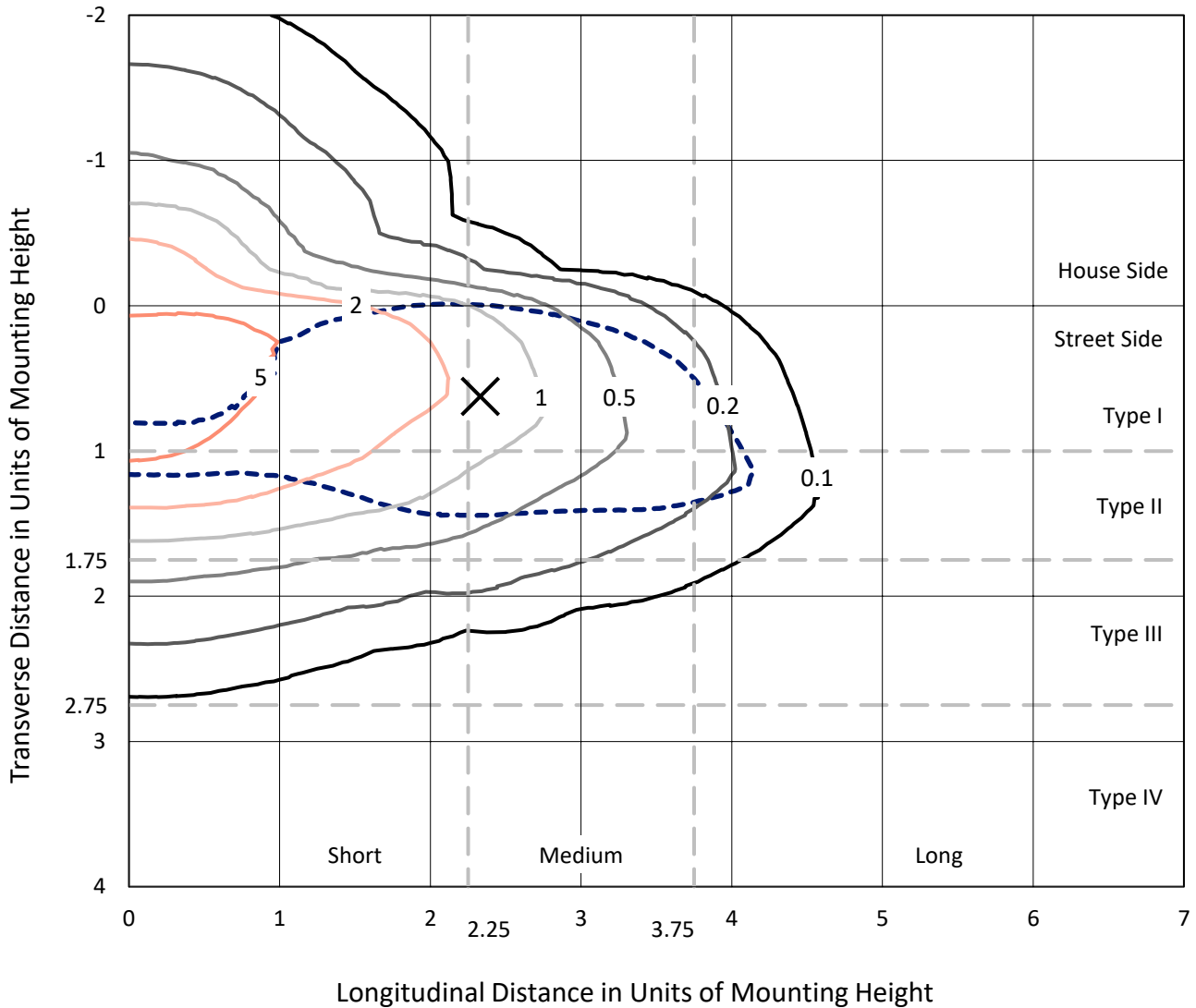
Input Watts (W): 173  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

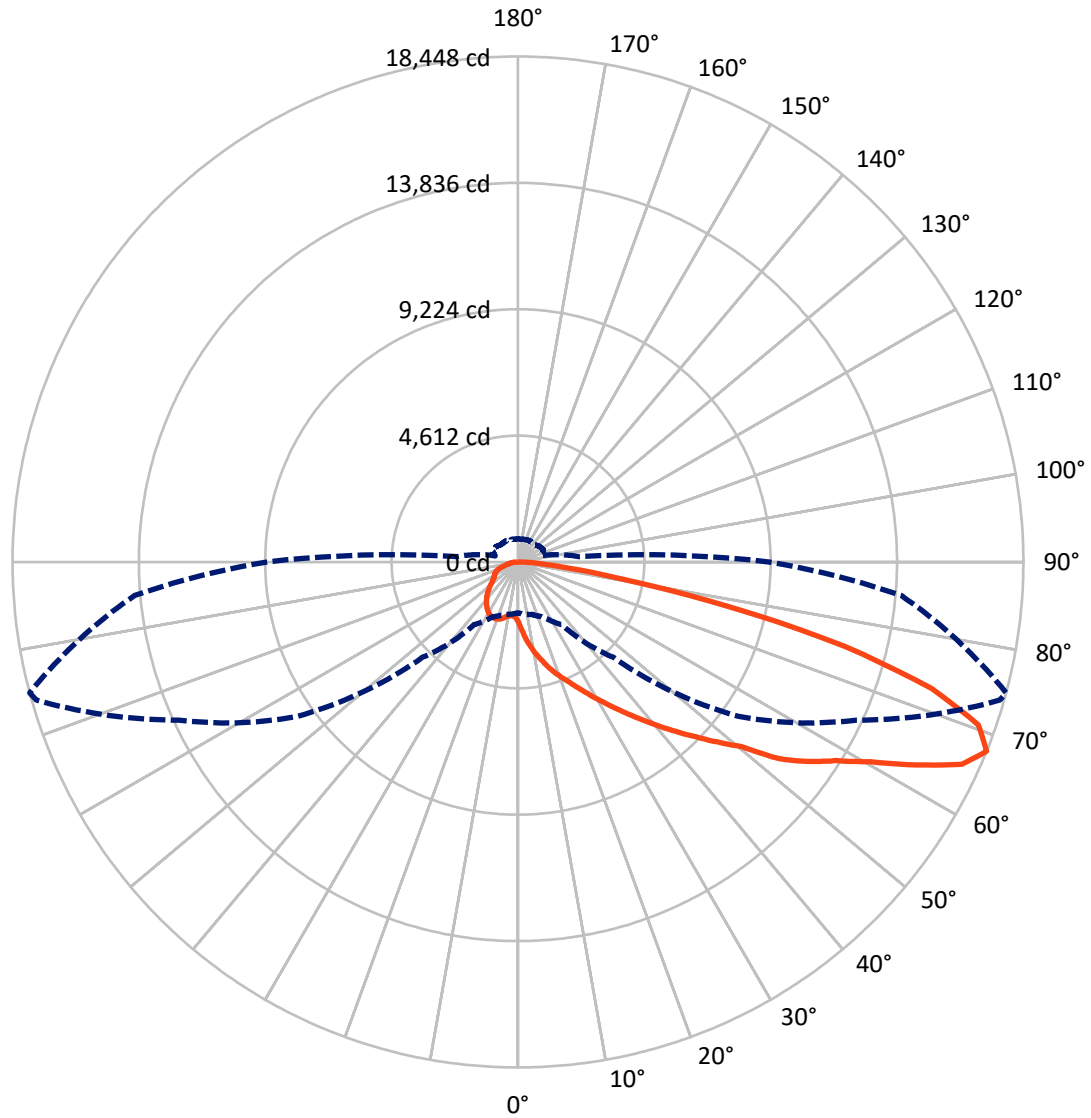
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Medium - N/A

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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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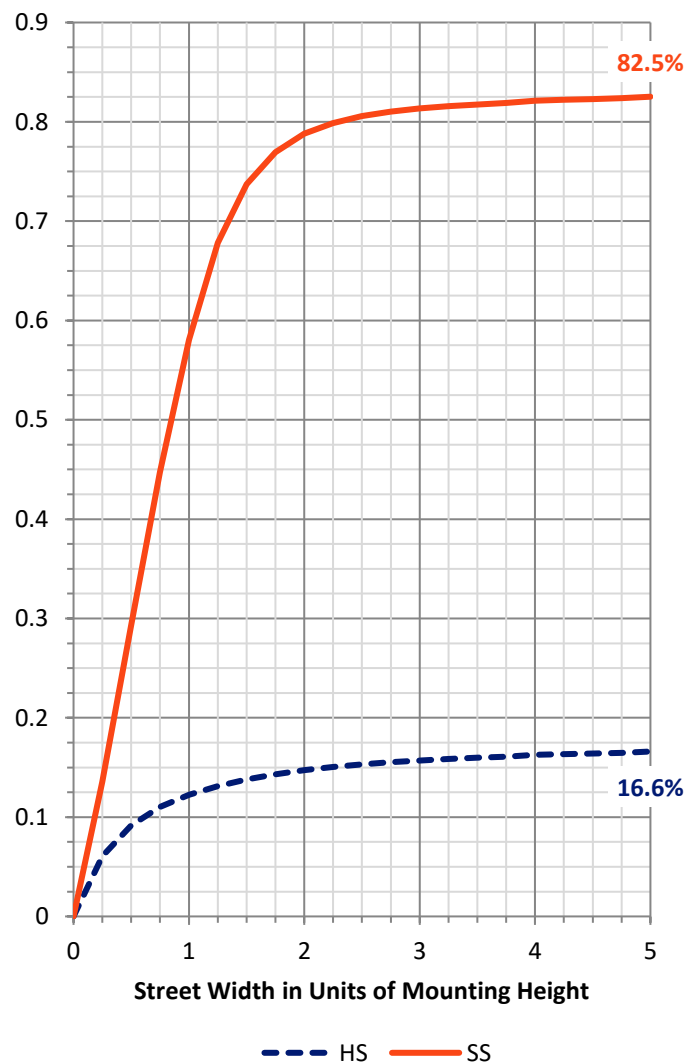
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3779.7	0.0	3779.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	18354.3	0.0	18354.3
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	22134.0	0.0	22134.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.7	1.2
10°-20°	931.2	4.2
20°-30°	1698.4	7.7
30°-40°	2787.7	12.6
40°-50°	4031.4	18.2
50°-60°	4751.0	21.5
60°-70°	4616.9	20.9
70°-80°	2566.3	11.6
80°-90°	493.5	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°	22134.0	100.0
0°-180°	22134.0	100.0



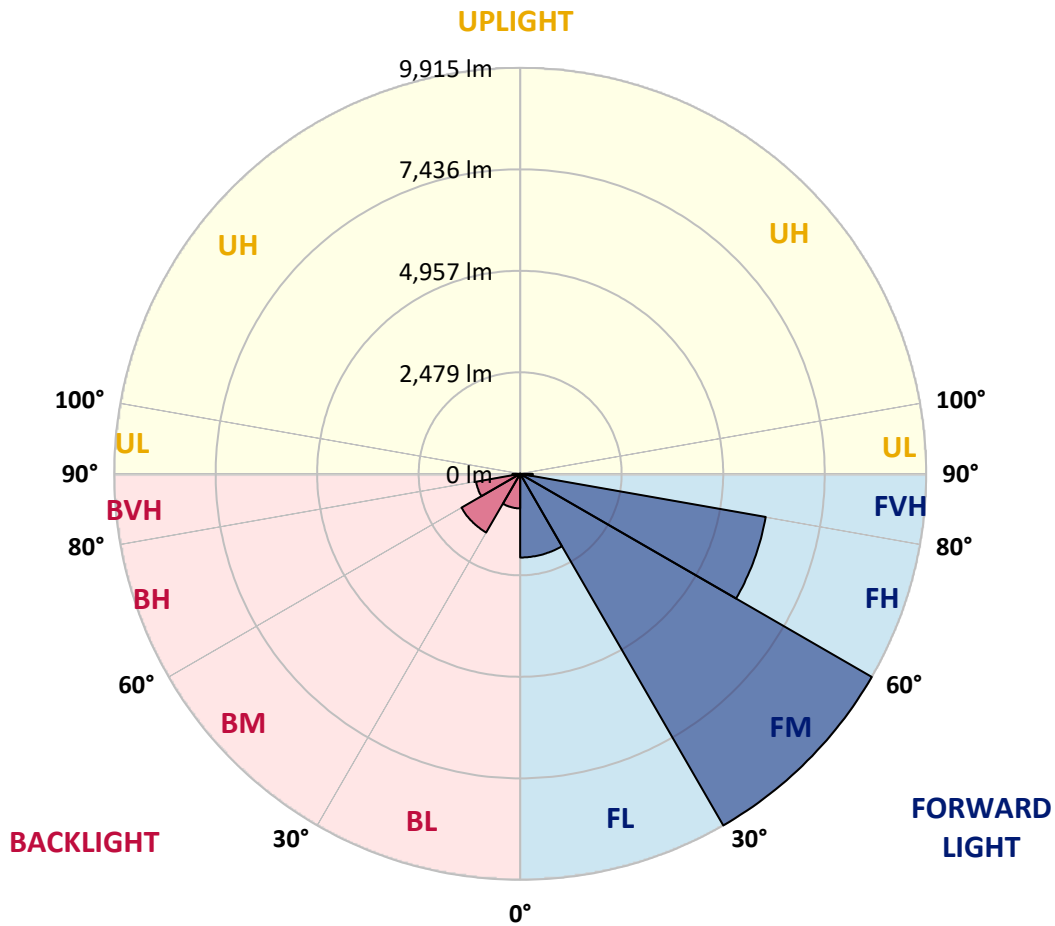
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2043.6	9.2			
FM (30°-60°)	9914.9	44.8			
FH (60°-80°)	6088.8	27.5			G3/7500
FVH (80°-90°)	307.1	1.4			G3/500
BL (0°-30°)	843.6	3.8	B2/1000		
BM (30°-60°)	1655.3	7.5	B2/2500		
BH (60°-80°)	1094.4	4.9	B3/2500		G3/2500
BVH (80°-90°)	186.3	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°	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3
2.5°	3109.4	3118.7	3100.2	3058.5	2998.4	2887.3	2790.2	2619.0	2466.3	2447.8	2285.8
5°	3655.4	3664.7	3641.6	3590.7	3525.9	3405.6	3271.4	3049.3	2804.0	2757.8	2415.4
7.5°	4030.2	4034.9	4007.1	3956.2	3905.3	3785.0	3650.8	3400.9	3100.2	3063.2	2581.9
10°	4349.5	4358.8	4321.7	4289.4	4233.8	4113.5	3974.7	3711.0	3400.9	3350.0	2753.1
12.5°	4645.6	4654.9	4631.8	4604.0	4585.5	4474.4	4321.7	4007.1	3673.9	3618.4	2956.7
15°	4844.6	4853.9	4858.5	4895.5	4918.6	4840.0	4687.3	4344.9	3970.1	3919.2	3197.4
17.5°	4789.1	4812.2	4881.6	5015.8	5159.3	5163.9	5039.0	4678.0	4261.6	4206.1	3442.6
20°	4627.1	4645.6	4728.9	4932.5	5214.8	5376.7	5367.5	5015.8	4534.6	4474.4	3669.3
22.5°	4761.3	4784.5	4784.5	4909.4	5187.0	5487.8	5608.1	5349.0	4807.6	4752.1	3896.0
25°	5335.1	5349.0	5251.8	5200.9	5302.7	5580.3	5807.1	5709.9	5140.7	5076.0	4141.3
27.5°	6135.6	6112.4	5992.1	5788.5	5677.5	5751.5	5982.9	6052.3	5524.8	5446.1	4395.8
30°	6931.4	6917.6	6778.8	6505.8	6255.9	6098.6	6177.2	6357.7	5941.2	5848.7	4641.0
32.5°	7676.4	7653.3	7500.6	7181.3	6899.1	6607.6	6454.9	6635.3	6385.4	6279.0	4914.0
35°	8361.2	8301.1	8148.4	7815.2	7523.7	7246.1	6871.3	6899.1	6866.7	6755.6	5214.8
37.5°	8916.5	8870.2	8703.6	8393.6	8083.6	7819.9	7426.6	7199.8	7384.9	7278.5	5561.8
40°	9407.0	9356.1	9184.9	8874.8	8588.0	8338.1	8028.1	7565.4	7967.9	7847.6	5950.5
42.5°	9777.1	9740.1	9601.3	9295.9	9018.3	8791.6	8638.9	8028.1	8574.1	8458.4	6376.2
45°	9976.1	9939.1	9865.1	9619.8	9365.3	9189.5	9203.4	8578.7	9208.0	9110.8	6880.6
47.5°	9730.9	9758.6	9823.4	9777.1	9619.8	9536.5	9707.7	9147.8	9916.0	9823.4	7426.6
50°	9073.8	9101.6	9360.7	9680.0	9735.5	9837.3	10161.2	9804.9	10665.5	10591.5	8102.1
52.5°	7458.9	7611.6	8328.8	9092.3	9615.2	10036.3	10665.5	10781.2	11928.8	11928.8	9295.9
55°	5635.9	5770.0	6589.0	7921.7	9147.8	10054.8	11035.7	11442.9	12840.3	12858.8	9920.6
57.5°	4567.0	4650.3	5052.8	6417.8	8166.9	9823.4	11475.3	12012.0	13599.2	13682.4	10725.7
60°	3706.3	3752.6	4016.4	4964.9	6811.1	9198.7	11789.9	12826.4	14681.9	14797.6	11752.9
62.5°	2979.9	3026.1	3202.0	3771.1	5344.3	8028.1	11734.4	13673.2	16125.6	16315.3	13099.4
65°	2378.3	2429.2	2544.9	2896.6	3960.8	6575.2	11165.3	14108.1	17620.1	17805.2	13992.5
67.5°	1855.5	1901.8	1980.4	2211.8	2790.2	4918.6	9818.8	13650.1	18291.1	18448.4	14038.7
70°	1402.0	1425.2	1489.9	1638.0	1994.3	3266.8	7685.7	12113.8	17689.5	17833.0	13113.3
72.5°	1087.4	1082.7	1119.8	1193.8	1392.8	2248.8	5094.5	9851.2	15639.7	15787.8	11188.4
75°	888.4	883.8	906.9	930.1	1008.7	1508.4	3007.6	7417.3	12622.8	12340.6	8393.6
77.5°	749.6	745.0	768.1	772.7	805.1	1041.1	1712.0	4881.6	8421.4	7935.5	4728.9
80°	633.9	629.3	657.1	666.3	689.4	763.5	985.6	2642.1	4229.2	4007.1	2258.0
82.5°	476.6	495.1	546.0	569.1	596.9	564.5	610.8	1166.0	1961.9	1874.0	981.0
85°	231.4	273.0	411.8	458.1	490.5	356.3	416.4	550.6	883.8	842.1	397.9
87.5°	78.7	69.4	245.2	291.5	319.3	161.9	231.4	305.4	365.5	333.2	124.9
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3	2193.3
2.5°	2216.4	2147.0	2045.2	1966.5	1915.6	1874.0	1855.5	1850.9	1841.6	1837.0	1837.0
5°	2262.7	2137.7	1980.4	1897.1	1874.0	1855.5	1864.7	1869.4	1869.4	1869.4	1869.4
7.5°	2332.1	2156.2	1966.5	1911.0	1906.4	1906.4	1934.1	1948.0	1957.3	1957.3	1957.3
10°	2424.6	2188.6	1989.7	1943.4	1957.3	1966.5	1998.9	2017.4	2026.7	2031.3	2035.9
12.5°	2549.6	2258.0	2035.9	1998.9	2017.4	2022.1	2045.2	2054.4	2063.7	2068.3	2068.3
15°	2716.1	2359.8	2110.0	2063.7	2068.3	2063.7	2063.7	2054.4	2049.8	2049.8	2059.1
17.5°	2887.3	2457.0	2174.8	2110.0	2091.5	2054.4	2026.7	2003.5	1989.7	1980.4	1985.0
20°	3058.5	2544.9	2211.8	2119.2	2068.3	2008.2	1957.3	1924.9	1906.4	1887.9	1897.1
22.5°	3229.7	2628.2	2225.7	2091.5	2017.4	1929.5	1874.0	1823.1	1781.4	1753.7	1758.3
25°	3419.5	2720.8	2225.7	2059.1	1948.0	1855.5	1786.1	1702.8	1642.6	1619.5	1628.8
27.5°	3609.2	2799.4	2202.5	1998.9	1869.4	1776.8	1675.0	1577.9	1540.8	1527.0	1531.6
30°	3798.9	2859.6	2151.6	1924.9	1786.1	1684.3	1550.1	1485.3	1439.0	1402.0	1406.6
32.5°	3988.6	2901.2	2082.2	1832.3	1698.2	1568.6	1457.5	1383.5	1300.2	1254.0	1258.6
35°	4206.1	2933.6	1998.9	1739.8	1601.0	1466.8	1383.5	1263.2	1175.3	1138.3	1129.0
37.5°	4432.8	2956.7	1911.0	1638.0	1503.8	1392.8	1309.5	1161.4	1078.1	1027.2	1022.6
40°	4678.0	2966.0	1804.6	1531.6	1411.3	1346.5	1212.3	1101.3	957.8	925.4	925.4
42.5°	4969.5	2961.4	1698.2	1425.2	1309.5	1240.1	1142.9	1092.0	967.1	934.7	916.2
45°	5302.7	2961.4	1582.5	1300.2	1207.7	1105.9	1064.2	1031.9	948.6	962.4	971.7
47.5°	5682.1	2952.1	1443.7	1198.4	1124.4	1036.5	1013.3	943.9	911.5	920.8	930.1
50°	6205.0	2966.0	1318.7	1115.1	1064.2	990.2	962.4	925.4	911.5	916.2	911.5
52.5°	6931.4	2919.7	1198.4	1064.2	1018.0	920.8	920.8	916.2	920.8	916.2	916.2
55°	7329.4	2817.9	1110.5	1036.5	985.6	888.4	906.9	916.2	925.4	920.8	920.8
57.5°	7893.9	2748.5	1041.1	1018.0	967.1	879.2	897.7	916.2	920.8	916.2	916.2
60°	8560.2	2702.2	994.8	1022.6	953.2	879.2	902.3	916.2	911.5	906.9	906.9
62.5°	9332.9	2683.7	962.4	1036.5	939.3	883.8	902.3	916.2	897.7	893.0	893.0
65°	9624.4	2517.2	920.8	1045.7	948.6	883.8	897.7	902.3	879.2	874.5	869.9
67.5°	9175.6	2230.3	860.6	1027.2	976.3	883.8	883.8	879.2	851.4	846.8	837.5
70°	8171.5	1850.9	768.1	967.1	994.8	888.4	865.3	842.1	814.4	814.4	795.9
72.5°	6690.8	1457.5	647.8	860.6	981.0	902.3	828.3	795.9	763.5	763.5	745.0
75°	4821.5	1087.4	518.2	717.2	920.8	897.7	820.0	740.3	703.3	698.7	675.6
77.5°	2748.5	763.5	421.1	559.9	819.0	874.5	740.3	675.6	633.9	620.0	606.2
80°	1411.3	513.6	342.4	439.6	680.2	809.7	708.0	601.5	555.3	532.1	509.0
82.5°	670.9	342.4	263.7	323.9	513.6	708.0	666.3	518.2	467.3	439.6	411.8
85°	300.8	203.6	175.8	208.2	365.5	550.6	587.6	425.7	365.5	458.1	337.8
87.5°	97.2	92.5	92.5	97.2	175.8	240.6	430.3	314.6	291.5	240.6	203.6
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)