

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: P237231

Luminaire Tested: **ARCH-L-AF72-180-D-U-T3-7050-HSS**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-180-D-U-T3-7050-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 775mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16435 lumens  
Efficiency: N/A  
Efficacy: 90.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

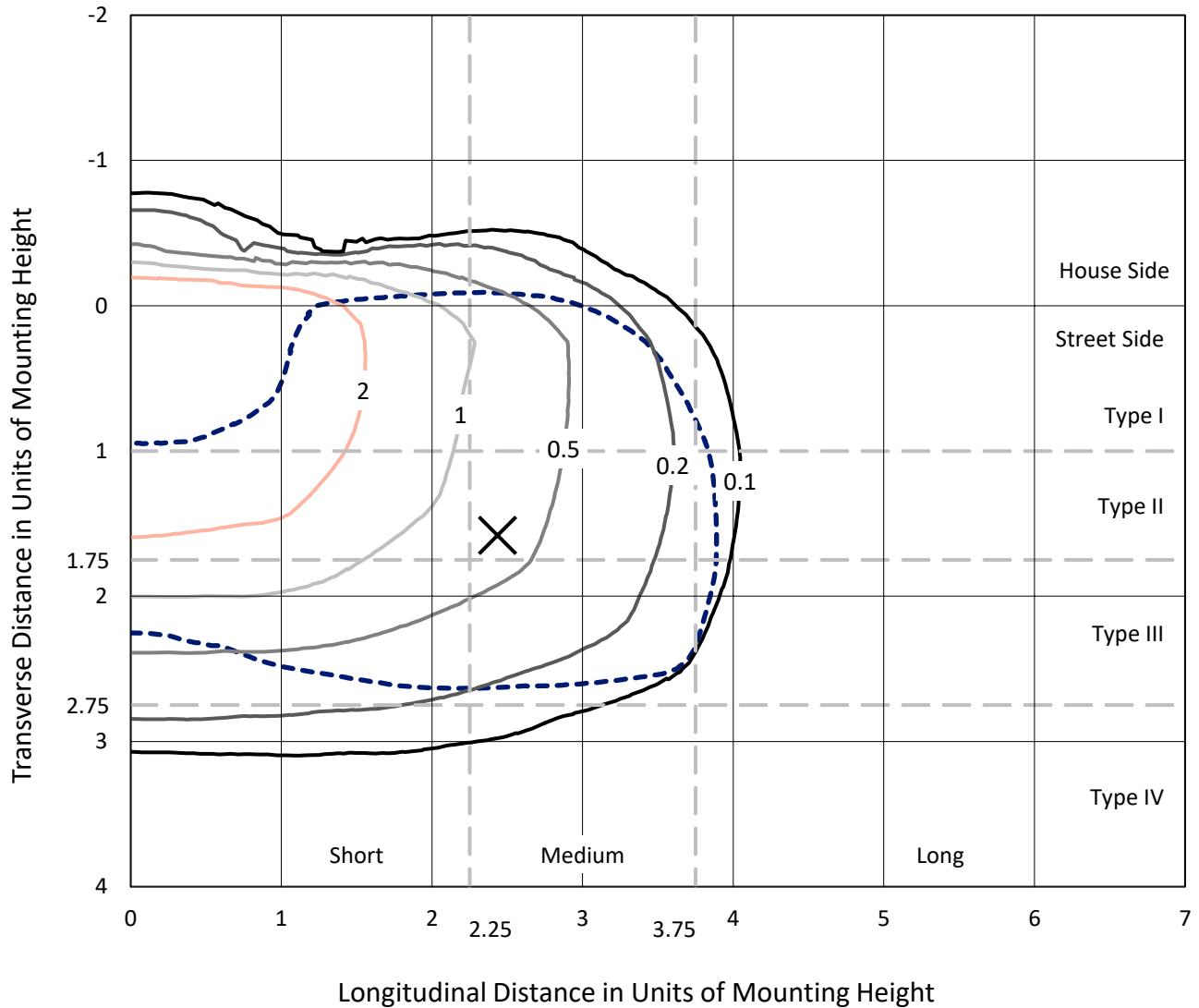
Input Watts (W): 181  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

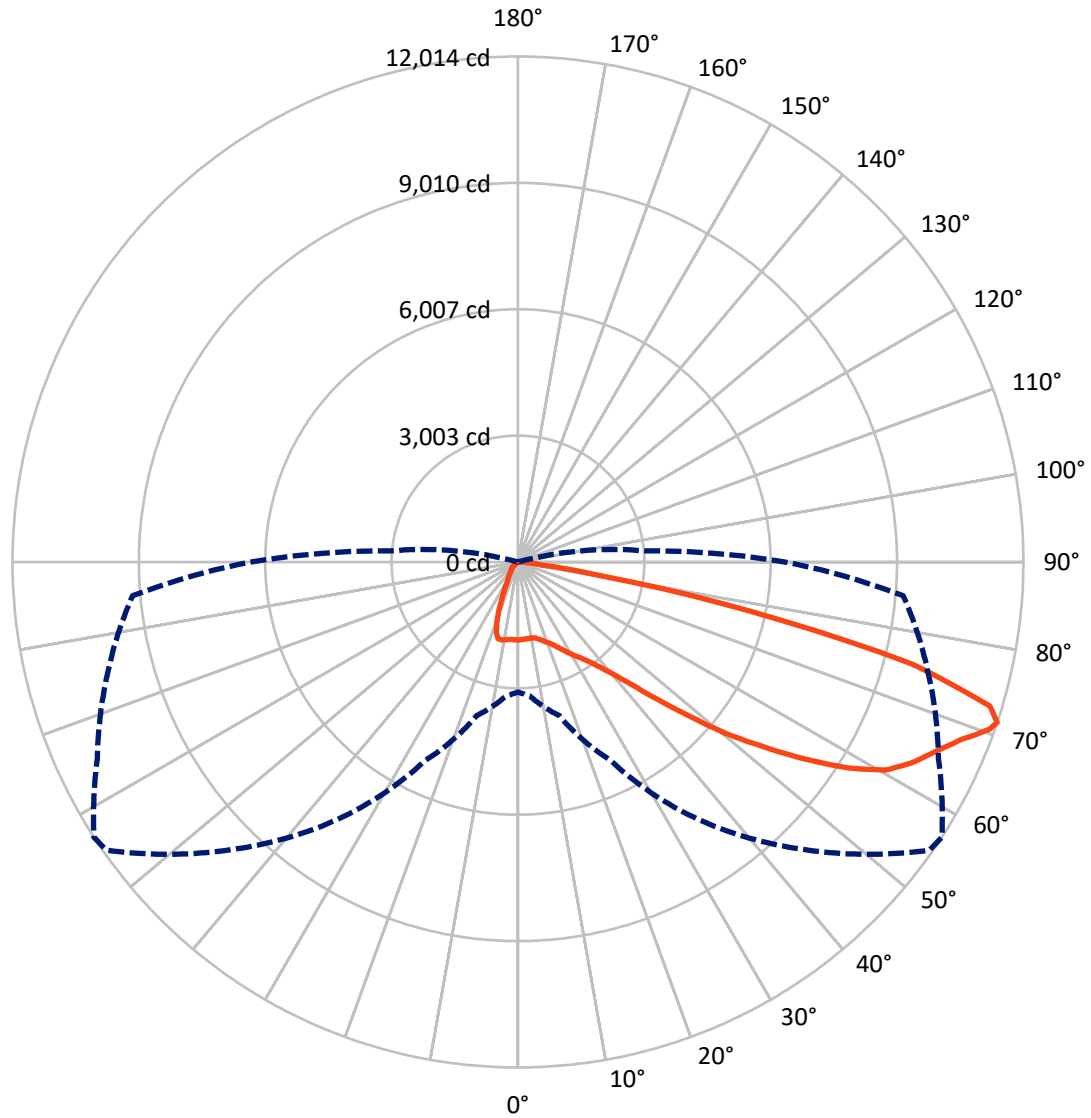
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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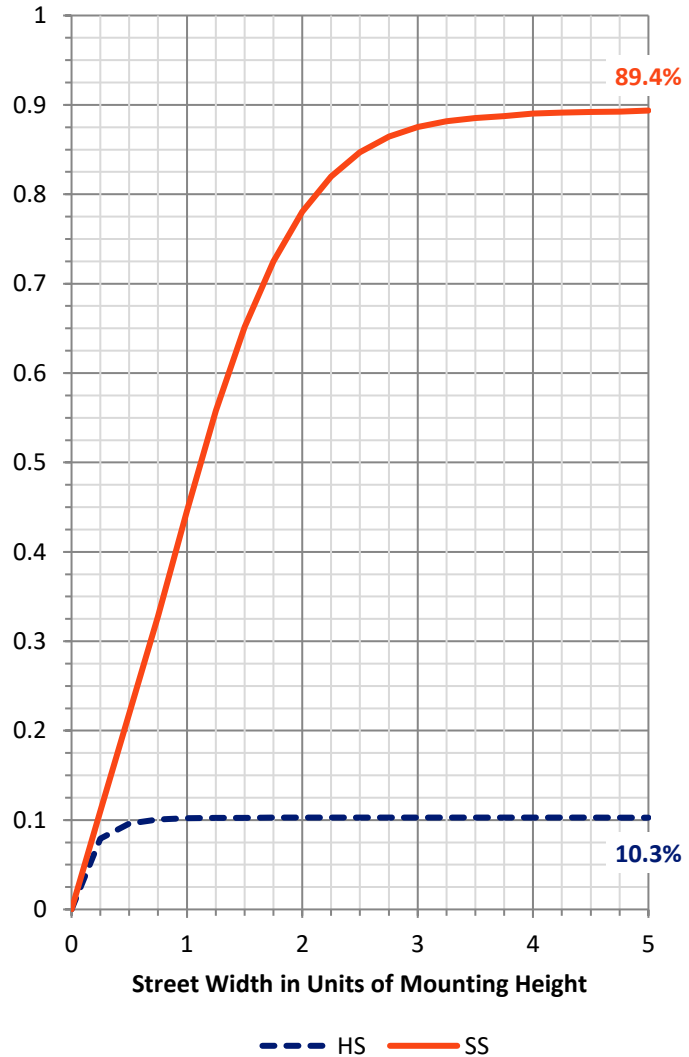
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1703.2	0.0	1703.2
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	14731.8	0.0	14731.8
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	16435.0	0.0	16435.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.4	1.1
10°-20°	466.4	2.8
20°-30°	727.6	4.4
30°-40°	1229.7	7.5
40°-50°	2388.4	14.5
50°-60°	4010.9	24.4
60°-70°	4786.7	29.1
70°-80°	2522.6	15.3
80°-90°	128.2	0.8
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°	16435.0	100.0
0°-180°	16435.0	100.0



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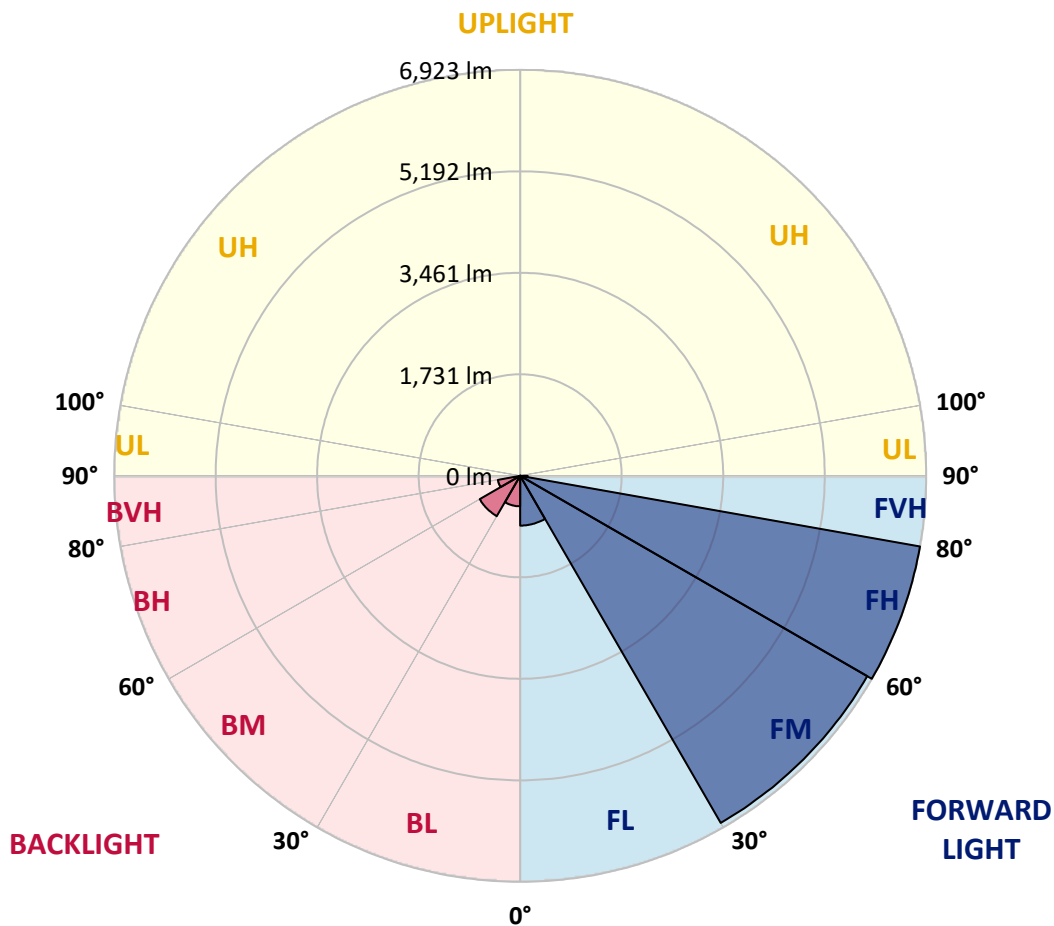
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	848.5	5.2			
FM (30°-60°)	6833.8	41.6			
FH (60°-80°)	6922.5	42.1			G3/7500
FVH (80°-90°)	127.0	0.8			G2/225
BL (0°-30°)	519.9	3.2	B2/1000		
BM (30°-60°)	795.3	4.8	B1/1000		
BH (60°-80°)	386.8	2.4	B1/500		G1/500
BVH (80°-90°)	1.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4
2.5°	1830.6	1830.6	1830.6	1834.4	1838.3	1838.3	1845.9	1842.1	1842.1	1842.1	1849.7
5°	1780.8	1784.6	1788.5	1796.1	1811.4	1822.9	1842.1	1842.1	1845.9	1853.6	1857.4
7.5°	1711.9	1715.7	1727.2	1742.5	1773.2	1800.0	1830.6	1838.3	1849.7	1868.9	1876.6
10°	1669.7	1677.4	1692.7	1711.9	1746.3	1780.8	1819.1	1830.6	1865.1	1899.5	1918.7
12.5°	1658.3	1662.1	1677.4	1708.0	1750.2	1792.3	1842.1	1853.6	1903.4	1957.0	1987.6
15°	1677.4	1681.2	1688.9	1723.4	1773.2	1826.8	1891.9	1907.2	1968.5	2029.7	2068.0
17.5°	1711.9	1711.9	1719.5	1750.2	1803.8	1865.1	1949.3	1972.3	2041.2	2110.2	2152.3
20°	1734.9	1734.9	1746.3	1777.0	1838.3	1918.7	2018.3	2048.9	2125.5	2202.1	2240.4
22.5°	1757.8	1761.7	1773.2	1807.6	1876.6	1987.6	2102.5	2133.1	2221.2	2301.6	2339.9
25°	1822.9	1819.1	1822.9	1853.6	1934.0	2071.9	2217.4	2255.7	2347.6	2435.7	2454.8
27.5°	2002.9	1995.3	1945.5	1926.3	1987.6	2160.0	2362.9	2401.2	2508.5	2596.5	2596.5
30°	2416.5	2401.2	2278.7	2121.7	2071.9	2240.4	2500.8	2554.4	2692.3	2768.9	2745.9
32.5°	2941.2	2906.7	2749.7	2481.6	2282.5	2347.6	2646.3	2707.6	2883.8	2948.9	2899.1
35°	3515.7	3511.8	3316.5	2971.8	2688.4	2569.7	2834.0	2906.7	3128.9	3186.3	3105.9
37.5°	4124.6	4139.9	4009.7	3534.8	3201.6	2933.5	3082.9	3167.2	3439.1	3508.0	3431.4
40°	4802.4	4798.6	4748.8	4185.9	3818.2	3450.6	3442.9	3519.5	3848.8	3956.1	3848.8
42.5°	5660.3	5652.6	5472.6	4967.1	4565.0	4124.6	3967.6	3994.4	4362.0	4538.2	4381.2
45°	6533.5	6479.9	6273.0	5836.5	5480.3	4959.5	4660.7	4660.7	4974.8	5216.1	4970.9
47.5°	7019.8	6966.2	6882.0	6640.7	6533.5	5951.4	5510.9	5457.3	5702.4	5947.5	5602.9
50°	7659.4	7659.4	7448.8	7356.9	7540.7	7130.9	6449.2	6395.6	6514.3	6709.6	6257.7
52.5°	8164.9	8073.0	7923.6	8004.1	8528.7	8341.1	7387.5	7284.1	7376.0	7425.8	6828.4
55°	8375.6	8287.5	8276.0	8570.9	9382.8	9122.3	8348.7	8256.8	8249.2	8004.1	7326.2
57.5°	8417.7	8341.1	8486.6	9003.6	10213.8	9761.9	9306.2	9237.2	9022.8	8410.0	7835.6
60°	8061.5	8099.8	8452.1	9241.1	10704.0	10317.2	10114.2	10041.5	9547.4	8754.7	8402.4
62.5°	7330.0	7422.0	8080.7	9264.0	10524.0	10543.2	10562.3	10512.5	9953.4	9068.7	8973.0
65°	6464.5	6491.3	7284.1	8946.2	10210.0	10474.2	10891.7	10887.8	10263.6	9421.1	9616.4
67.5°	5327.1	5373.1	6058.6	7873.9	9581.9	10443.6	11324.4	11312.9	10615.9	9823.2	9999.3
70°	3963.7	4021.2	4576.5	6123.7	8180.2	10060.6	11891.2	11898.9	10987.4	10129.6	9735.1
71°	3090.6	3194.0	3776.1	5200.7	7464.1	9673.8	11944.8	12013.8	11029.5	10087.4	9191.3
72.5°	1516.6	1639.1	2370.6	3661.2	6142.8	8808.3	11592.5	11726.5	10765.3	9562.8	7858.5
75°	394.5	417.4	708.5	1497.4	3293.5	5836.5	9348.3	9689.1	8800.6	7280.3	4802.4
77.5°	248.9	256.6	333.2	582.1	1233.2	2217.4	5491.8	5660.3	5028.4	3688.0	1692.7
80°	176.2	180.0	210.6	375.3	720.0	647.2	1976.1	2048.9	1819.1	976.6	302.5
82.5°	107.2	107.2	153.2	241.3	444.2	352.3	520.8	555.3	490.2	271.9	99.6
85°	61.3	65.1	95.7	164.7	210.6	172.3	195.3	206.8	210.6	180.0	42.1
87.5°	49.8	53.6	84.3	137.9	114.9	84.3	84.3	88.1	91.9	107.2	19.1
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4	1857.4
2.5°	1849.7	1849.7	1853.6	1849.7	1849.7	1849.7	1853.6	1853.6	1853.6	1861.2	1865.1
5°	1857.4	1857.4	1857.4	1853.6	1849.7	1849.7	1857.4	1861.2	1861.2	1872.7	1872.7
7.5°	1876.6	1876.6	1868.9	1861.2	1853.6	1842.1	1845.9	1849.7	1845.9	1849.7	1849.7
10°	1918.7	1918.7	1907.2	1891.9	1868.9	1834.4	1788.5	1731.0	1677.4	1658.3	1650.6
12.5°	1987.6	1983.8	1960.8	1934.0	1884.2	1765.5	1593.2	1390.2	1221.7	1175.7	1160.4
15°	2064.2	2056.5	2029.7	1983.8	1849.7	1535.7	1175.7	915.3	754.5	716.2	708.5
17.5°	2144.6	2133.1	2094.8	2002.9	1692.7	1141.3	758.3	574.5	486.4	478.7	482.5
20°	2228.9	2213.6	2160.0	1964.6	1367.2	762.1	490.2	444.2	436.6	436.6	440.4
22.5°	2324.6	2305.5	2232.7	1826.8	995.7	505.5	421.3	417.4	413.6	409.8	409.8
25°	2435.7	2412.7	2301.6	1577.8	685.5	413.6	402.1	390.6	383.0	375.3	371.5
27.5°	2569.7	2539.1	2355.3	1271.5	471.1	386.8	379.1	360.0	344.7	329.4	329.4
30°	2703.8	2665.5	2339.9	957.4	383.0	360.0	344.7	321.7	298.7	283.4	279.6
32.5°	2845.5	2807.2	2240.4	643.4	348.5	329.4	310.2	275.7	248.9	229.8	226.0
35°	3056.1	3025.5	2045.1	425.1	314.0	291.1	264.2	229.8	195.3	176.2	172.3
37.5°	3370.1	3331.8	1803.8	325.5	275.7	241.3	218.3	180.0	145.5	126.4	122.6
40°	3791.4	3676.5	1516.6	287.2	241.3	199.1	168.5	130.2	103.4	91.9	91.9
42.5°	4281.6	4009.7	1206.4	260.4	214.5	164.7	122.6	88.1	72.8	68.9	68.9
45°	4802.4	4319.9	896.1	241.3	187.7	130.2	88.1	61.3	53.6	49.8	49.8
47.5°	5338.6	4572.7	624.2	218.3	157.0	99.6	61.3	46.0	38.3	34.5	34.5
50°	5840.3	4737.3	440.4	195.3	134.0	72.8	46.0	34.5	26.8	26.8	26.8
52.5°	6188.8	4722.0	317.9	168.5	103.4	49.8	30.6	23.0	23.0	23.0	23.0
55°	6495.2	4664.6	248.9	145.5	80.4	34.5	23.0	19.1	19.1	15.3	15.3
57.5°	6755.6	4572.7	210.6	118.7	57.4	26.8	15.3	15.3	11.5	11.5	11.5
60°	6977.7	4457.8	176.2	99.6	38.3	19.1	11.5	7.7	7.7	3.8	7.7
62.5°	7280.3	4385.0	153.2	76.6	26.8	11.5	7.7	3.8	3.8	0.0	0.0
65°	7502.4	4247.1	130.2	53.6	15.3	7.7	3.8	3.8	0.0	0.0	0.0
67.5°	7510.0	3998.2	95.7	30.6	11.5	7.7	3.8	0.0	0.0	0.0	0.0
70°	6904.9	3408.4	61.3	15.3	7.7	3.8	3.8	0.0	0.0	0.0	0.0
71°	6349.6	3017.8	49.8	11.5	7.7	3.8	0.0	0.0	0.0	0.0	0.0
72.5°	5231.4	2217.4	38.3	11.5	3.8	3.8	0.0	0.0	0.0	0.0	0.0
75°	2883.8	804.2	19.1	7.7	3.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	923.0	245.1	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	157.0	38.3	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	53.6	15.3	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.3	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.7	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)