

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: P237227

Luminaire Tested: **ARCH-L-AF72-140-D-U-T3-7050-HSS**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237227  
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-AF72-140-D-U-T3-7050-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 620mA 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: 13812 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G3

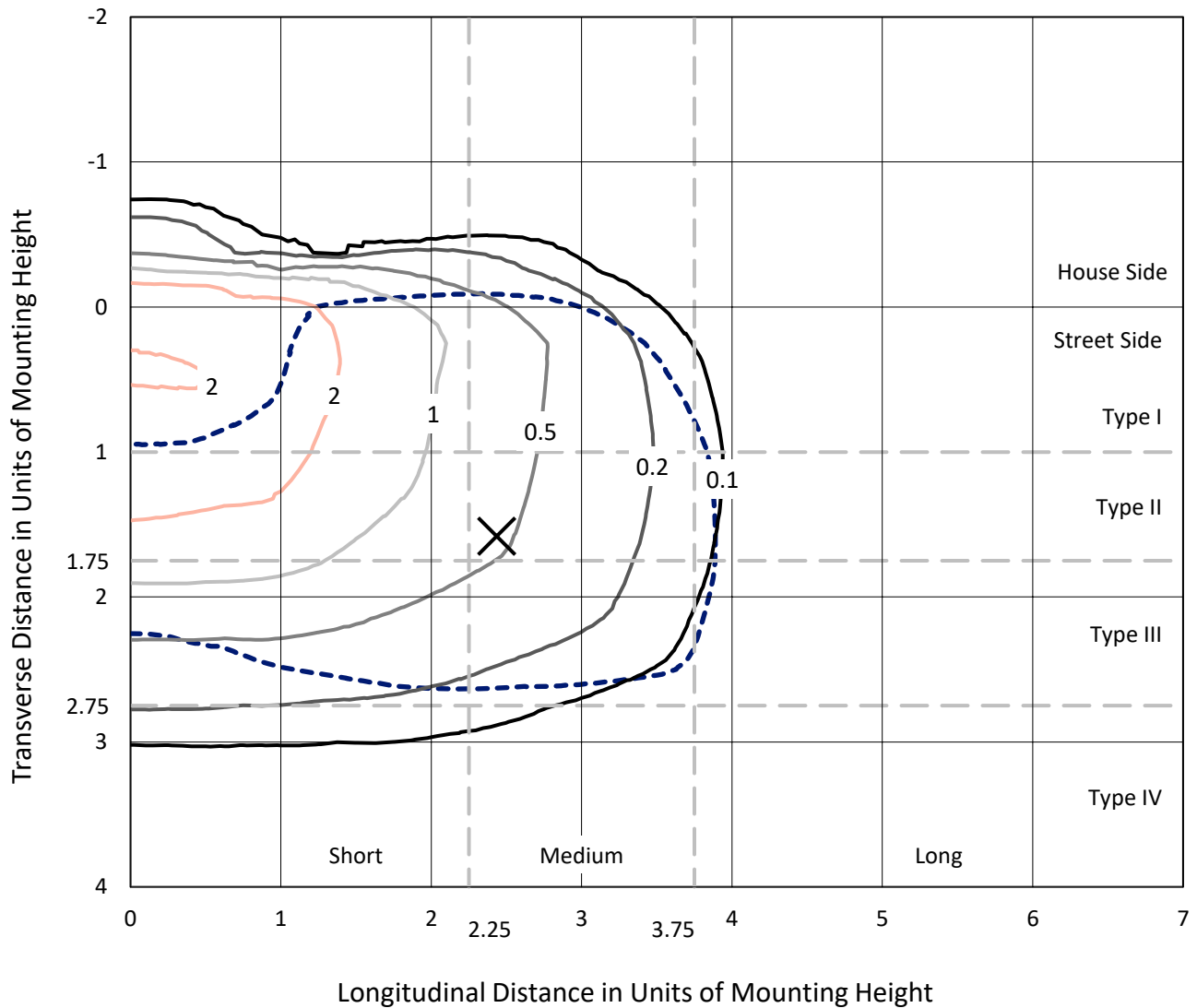
Input Watts (W): 143  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

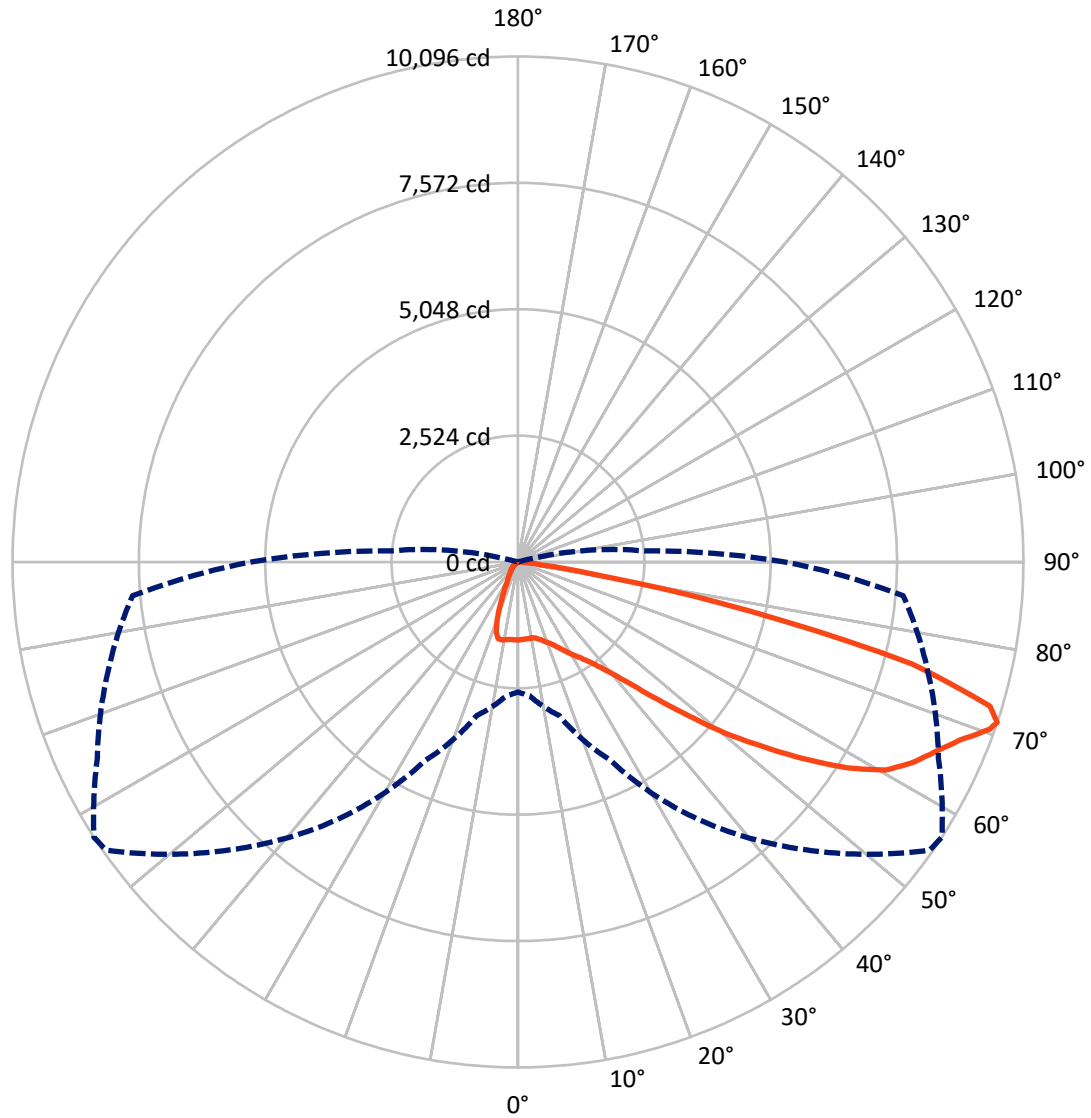
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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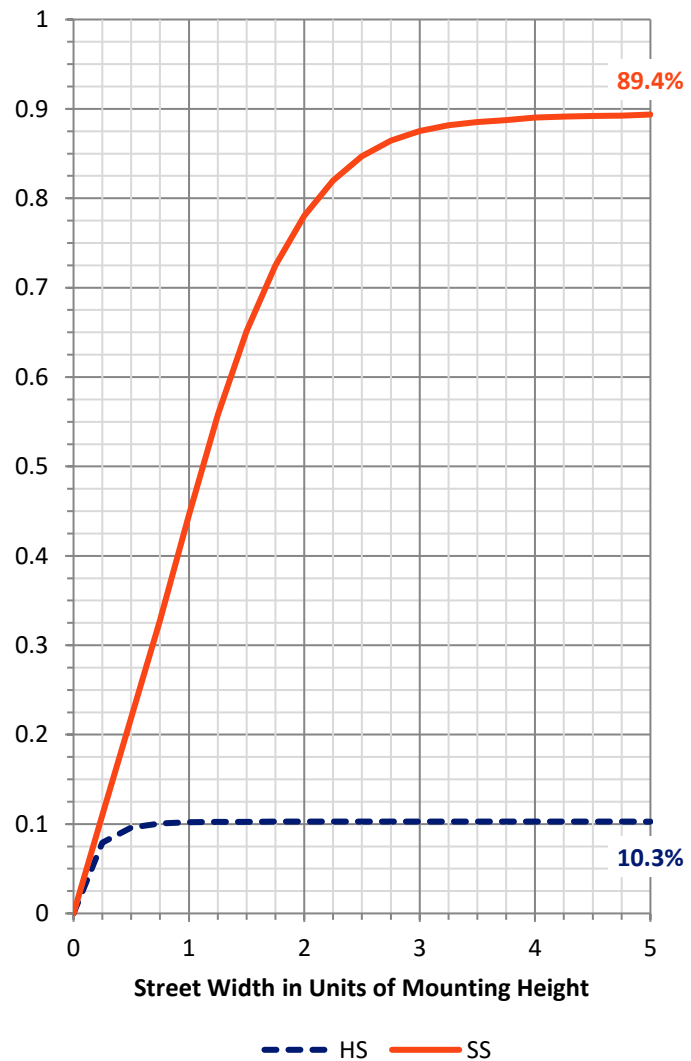
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1431.4	0.0	1431.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	12380.7	0.0	12380.7
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	13812.0	0.0	13812.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.6	1.1
10°-20°	392.0	2.8
20°-30°	611.5	4.4
30°-40°	1033.5	7.5
40°-50°	2007.2	14.5
50°-60°	3370.8	24.4
60°-70°	4022.7	29.1
70°-80°	2120.0	15.3
80°-90°	107.7	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°	13812.0	100.0
0°-180°	13812.0	100.0



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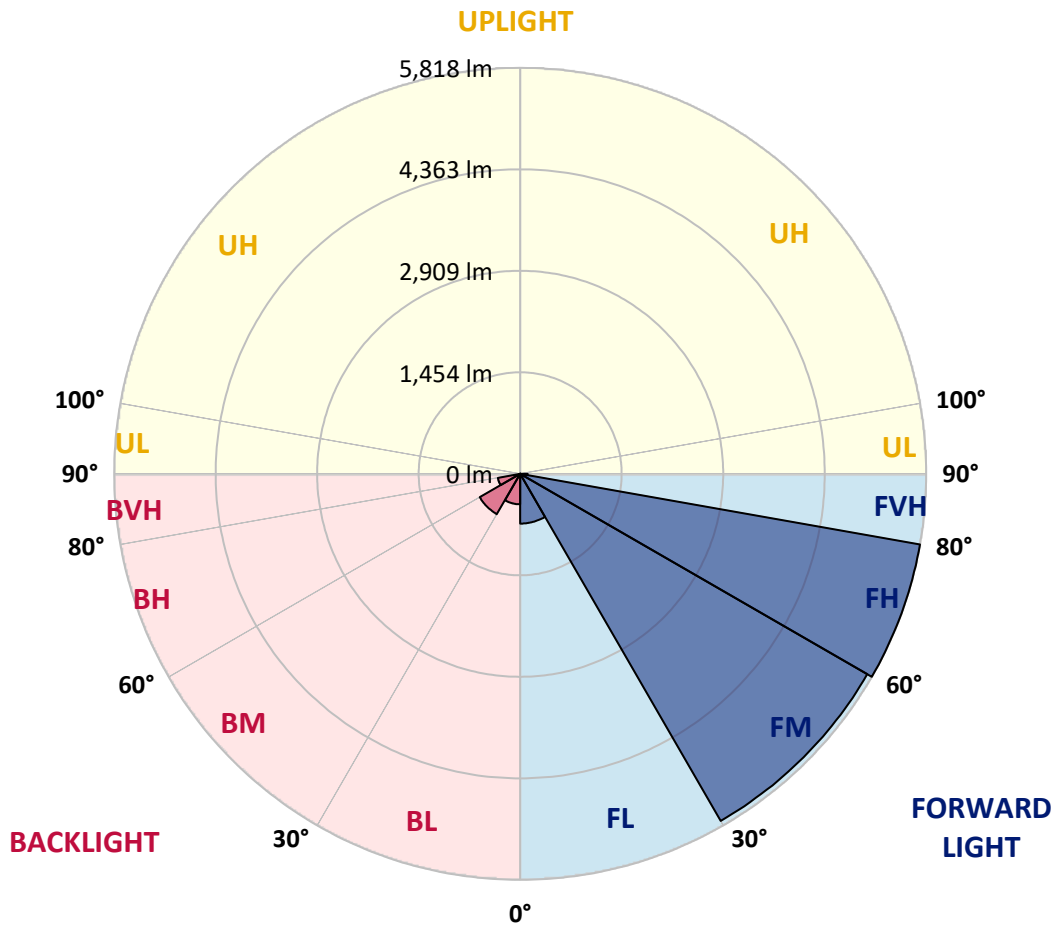
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	713.1	5.2			
FM (30°-60°)	5743.2	41.6			
FH (60°-80°)	5817.7	42.1			G3/7500
FVH (80°-90°)	106.7	0.8			G2/225
BL (0°-30°)	436.9	3.2	B1/500		
BM (30°-60°)	668.4	4.8	B1/1000		
BH (60°-80°)	325.0	2.4	B1/500		G1/500
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0
2.5°	1538.4	1538.4	1538.4	1541.7	1544.9	1544.9	1551.3	1548.1	1548.1	1548.1	1554.5
5°	1496.6	1499.8	1503.0	1509.5	1522.3	1532.0	1548.1	1548.1	1551.3	1557.7	1561.0
7.5°	1438.7	1441.9	1451.5	1464.4	1490.2	1512.7	1538.4	1544.9	1554.5	1570.6	1577.1
10°	1403.3	1409.7	1422.6	1438.7	1467.6	1496.6	1528.8	1538.4	1567.4	1596.4	1612.5
12.5°	1393.6	1396.8	1409.7	1435.4	1470.8	1506.3	1548.1	1557.7	1599.6	1644.6	1670.4
15°	1409.7	1412.9	1419.4	1448.3	1490.2	1535.2	1589.9	1602.8	1654.3	1705.8	1738.0
17.5°	1438.7	1438.7	1445.1	1470.8	1515.9	1567.4	1638.2	1657.5	1715.5	1773.4	1808.8
20°	1458.0	1458.0	1467.6	1493.4	1544.9	1612.5	1696.1	1721.9	1786.3	1850.6	1882.8
22.5°	1477.3	1480.5	1490.2	1519.1	1577.1	1670.4	1766.9	1792.7	1866.7	1934.3	1966.5
25°	1532.0	1528.8	1532.0	1557.7	1625.3	1741.2	1863.5	1895.7	1972.9	2047.0	2063.0
27.5°	1683.3	1676.8	1635.0	1618.9	1670.4	1815.2	1985.8	2018.0	2108.1	2182.1	2182.1
30°	2030.9	2018.0	1915.0	1783.0	1741.2	1882.8	2101.7	2146.7	2262.6	2327.0	2307.7
32.5°	2471.8	2442.8	2310.9	2085.6	1918.2	1972.9	2224.0	2275.5	2423.5	2478.2	2436.4
35°	2954.6	2951.4	2787.2	2497.5	2259.4	2159.6	2381.7	2442.8	2629.5	2677.8	2610.2
37.5°	3466.3	3479.2	3369.8	2970.7	2690.7	2465.4	2590.9	2661.7	2890.2	2948.1	2883.8
40°	4036.0	4032.8	3990.9	3517.8	3208.8	2899.9	2893.4	2957.8	3234.6	3324.7	3234.6
42.5°	4756.9	4750.5	4599.2	4174.4	3836.4	3466.3	3334.4	3356.9	3665.9	3813.9	3681.9
45°	5490.7	5445.7	5271.9	4905.0	4605.7	4167.9	3916.9	3916.9	4180.8	4383.6	4177.6
47.5°	5899.5	5854.4	5783.6	5580.9	5490.7	5001.5	4631.4	4586.3	4792.3	4998.3	4708.6
50°	6437.0	6437.0	6260.0	6182.7	6337.2	5992.8	5419.9	5374.9	5474.6	5638.8	5259.0
52.5°	6861.8	6784.6	6659.0	6726.6	7167.6	7009.9	6208.5	6121.6	6198.8	6240.6	5738.6
55°	7038.8	6964.8	6955.1	7203.0	7885.3	7666.4	7016.3	6939.1	6932.6	6726.6	6157.0
57.5°	7074.2	7009.9	7132.2	7566.7	8583.7	8203.9	7820.9	7763.0	7582.8	7067.8	6585.0
60°	6774.9	6807.1	7103.2	7766.2	8995.7	8670.6	8500.0	8438.9	8023.7	7357.5	7061.4
62.5°	6160.2	6237.4	6791.0	7785.5	8844.4	8860.5	8876.6	8834.7	8364.8	7621.4	7540.9
65°	5432.8	5455.3	6121.6	7518.4	8580.5	8802.6	9153.4	9150.2	8625.5	7917.5	8081.6
67.5°	4476.9	4515.5	5091.6	6617.2	8052.7	8776.8	9517.1	9507.4	8921.6	8255.4	8403.5
70°	3331.1	3379.4	3846.1	5146.4	6874.7	8455.0	9993.4	9999.8	9233.8	8512.9	8181.4
71°	2597.3	2684.2	3173.4	4370.7	6272.8	8129.9	10038.5	10096.4	9269.2	8477.5	7724.4
72.5°	1274.5	1377.5	1992.2	3076.9	5162.5	7402.5	9742.4	9855.0	9047.2	8036.6	6604.3
75°	331.5	350.8	595.4	1258.4	2767.9	4905.0	7856.3	8142.8	7396.1	6118.3	4036.0
77.5°	209.2	215.6	280.0	489.2	1036.4	1863.5	4615.3	4756.9	4225.9	3099.4	1422.6
80°	148.1	151.3	177.0	315.4	605.1	543.9	1660.7	1721.9	1528.8	820.7	254.3
82.5°	90.1	90.1	128.7	202.8	373.3	296.1	437.7	466.7	412.0	228.5	83.7
85°	51.5	54.7	80.5	138.4	177.0	144.8	164.1	173.8	177.0	151.3	35.4
87.5°	41.8	45.1	70.8	115.9	96.6	70.8	70.8	74.0	77.2	90.1	16.1
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°	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0	1561.0
2.5°	1554.5	1554.5	1557.7	1554.5	1554.5	1554.5	1557.7	1557.7	1557.7	1564.2	1567.4
5°	1561.0	1561.0	1561.0	1557.7	1554.5	1554.5	1561.0	1564.2	1564.2	1573.8	1573.8
7.5°	1577.1	1577.1	1570.6	1564.2	1557.7	1548.1	1551.3	1554.5	1551.3	1554.5	1554.5
10°	1612.5	1612.5	1602.8	1589.9	1570.6	1541.7	1503.0	1454.8	1409.7	1393.6	1387.2
12.5°	1670.4	1667.2	1647.9	1625.3	1583.5	1483.7	1338.9	1168.3	1026.7	988.1	975.2
15°	1734.8	1728.3	1705.8	1667.2	1554.5	1290.6	988.1	769.2	634.0	601.9	595.4
17.5°	1802.4	1792.7	1760.5	1683.3	1422.6	959.1	637.3	482.8	408.7	402.3	405.5
20°	1873.2	1860.3	1815.2	1651.1	1149.0	640.5	412.0	373.3	366.9	366.9	370.1
22.5°	1953.6	1937.5	1876.4	1535.2	836.8	424.8	354.0	350.8	347.6	344.4	344.4
25°	2047.0	2027.6	1934.3	1326.0	576.1	347.6	337.9	328.3	321.8	315.4	312.2
27.5°	2159.6	2133.9	1979.4	1068.5	395.9	325.1	318.6	302.5	289.7	276.8	276.8
30°	2272.3	2240.1	1966.5	804.6	321.8	302.5	289.7	270.4	251.0	238.2	234.9
32.5°	2391.3	2359.1	1882.8	540.7	292.9	276.8	260.7	231.7	209.2	193.1	189.9
35°	2568.4	2542.6	1718.7	357.3	263.9	244.6	222.1	193.1	164.1	148.1	144.8
37.5°	2832.3	2800.1	1515.9	273.6	231.7	202.8	183.5	151.3	122.3	106.2	103.0
40°	3186.3	3089.7	1274.5	241.4	202.8	167.4	141.6	109.4	86.9	77.2	77.2
42.5°	3598.3	3369.8	1013.8	218.9	180.2	138.4	103.0	74.0	61.2	57.9	57.9
45°	4036.0	3630.5	753.1	202.8	157.7	109.4	74.0	51.5	45.1	41.8	41.8
47.5°	4486.6	3842.9	524.6	183.5	132.0	83.7	51.5	38.6	32.2	29.0	29.0
50°	4908.2	3981.3	370.1	164.1	112.6	61.2	38.6	29.0	22.5	22.5	22.5
52.5°	5201.1	3968.4	267.1	141.6	86.9	41.8	25.7	19.3	19.3	19.3	19.3
55°	5458.6	3920.1	209.2	122.3	67.6	29.0	19.3	16.1	16.1	12.9	12.9
57.5°	5677.4	3842.9	177.0	99.8	48.3	22.5	12.9	12.9	9.7	9.7	9.7
60°	5864.1	3746.3	148.1	83.7	32.2	16.1	9.7	6.4	6.4	3.2	6.4
62.5°	6118.3	3685.2	128.7	64.4	22.5	9.7	6.4	3.2	3.2	0.0	0.0
65°	6305.0	3569.3	109.4	45.1	12.9	6.4	3.2	3.2	0.0	0.0	0.0
67.5°	6311.4	3360.1	80.5	25.7	9.7	6.4	3.2	0.0	0.0	0.0	0.0
70°	5802.9	2864.5	51.5	12.9	6.4	3.2	3.2	0.0	0.0	0.0	0.0
71°	5336.2	2536.2	41.8	9.7	6.4	3.2	0.0	0.0	0.0	0.0	0.0
72.5°	4396.5	1863.5	32.2	9.7	3.2	3.2	0.0	0.0	0.0	0.0	0.0
75°	2423.5	675.9	16.1	6.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	775.7	206.0	9.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	132.0	32.2	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	45.1	12.9	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.9	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.4	3.2	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)