

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: P265846

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T3-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14762.5 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

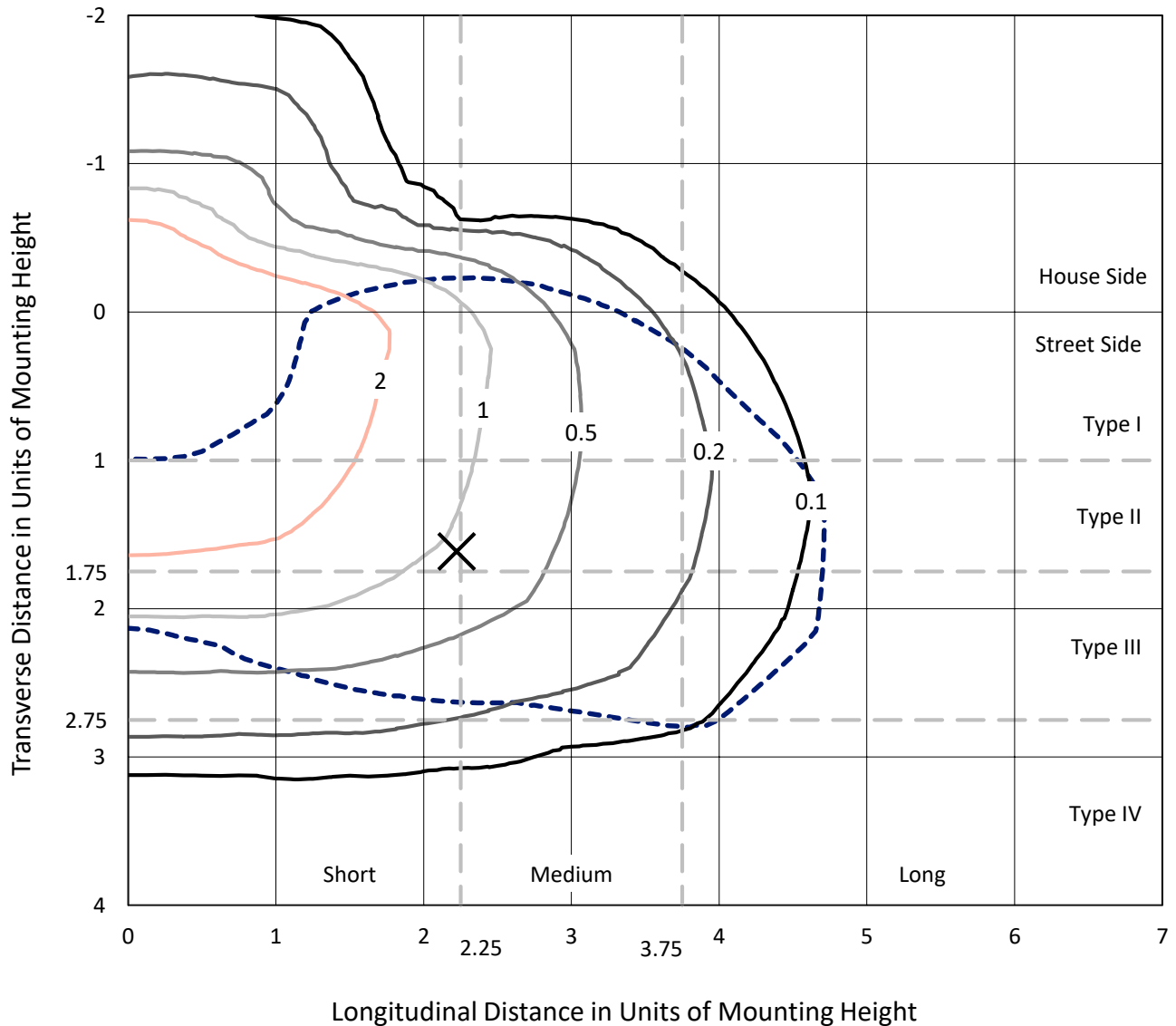
Input Watts (W): 141
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

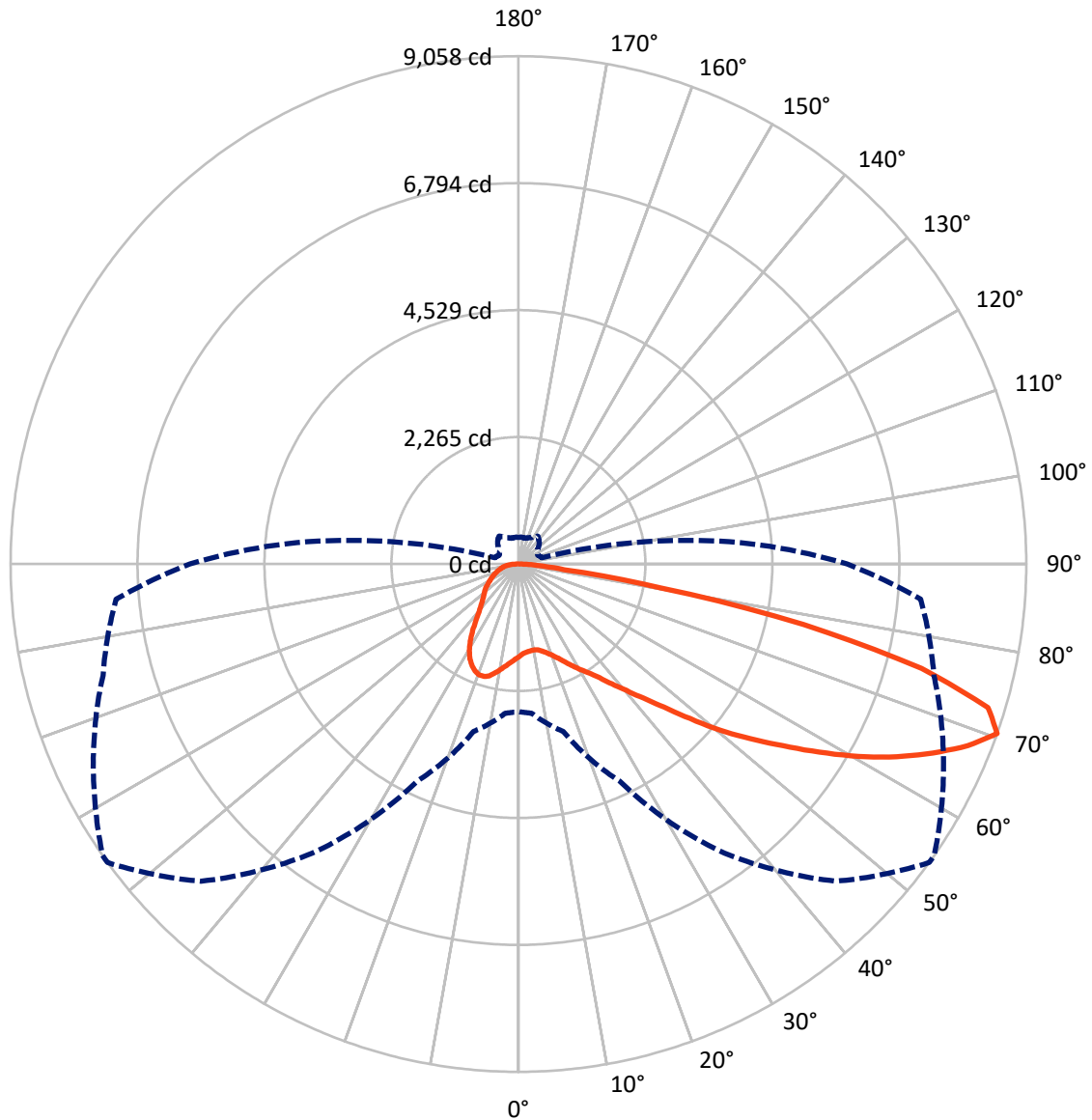


Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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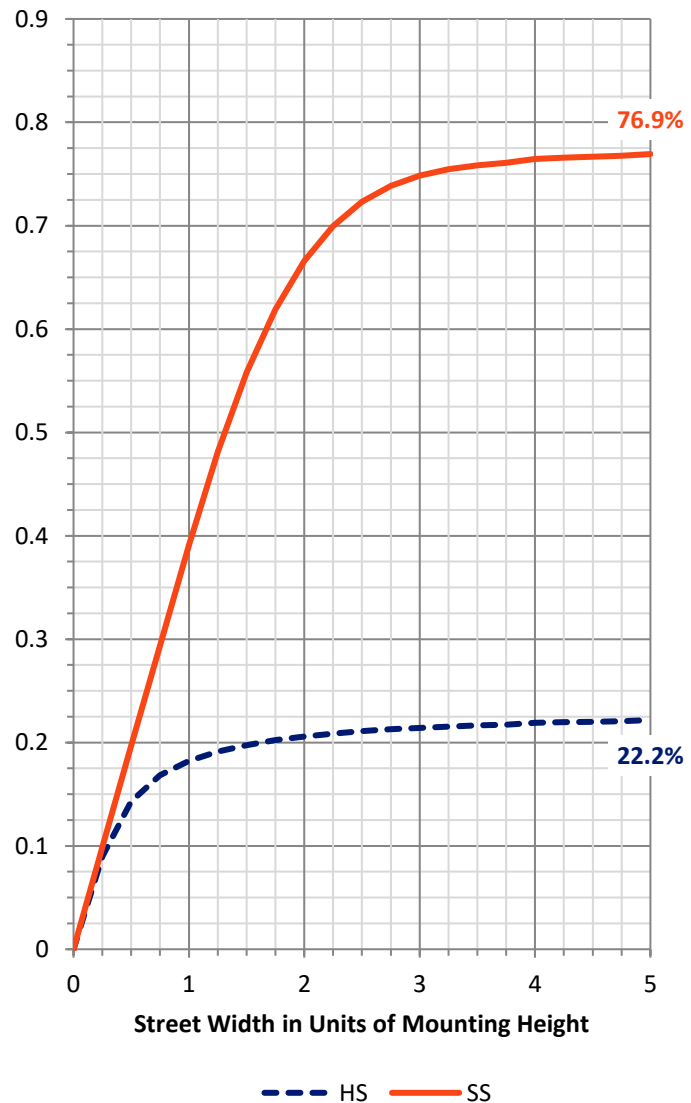
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3348.1	0.0	3348.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	11414.4	0.0	11414.4
	% Fixture	77.3	0.0	77.3
Total	Lumens	14762.5	0.0	14762.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.1	1.1
10°-20°	517.9	3.5
20°-30°	899.8	6.1
30°-40°	1314.9	8.9
40°-50°	2063.7	14.0
50°-60°	3173.5	21.5
60°-70°	3877.3	26.3
70°-80°	2403.9	16.3
80°-90°	349.2	2.4
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°	14762.5	100.0
0°-180°	14762.5	100.0

Coefficient of Utilization



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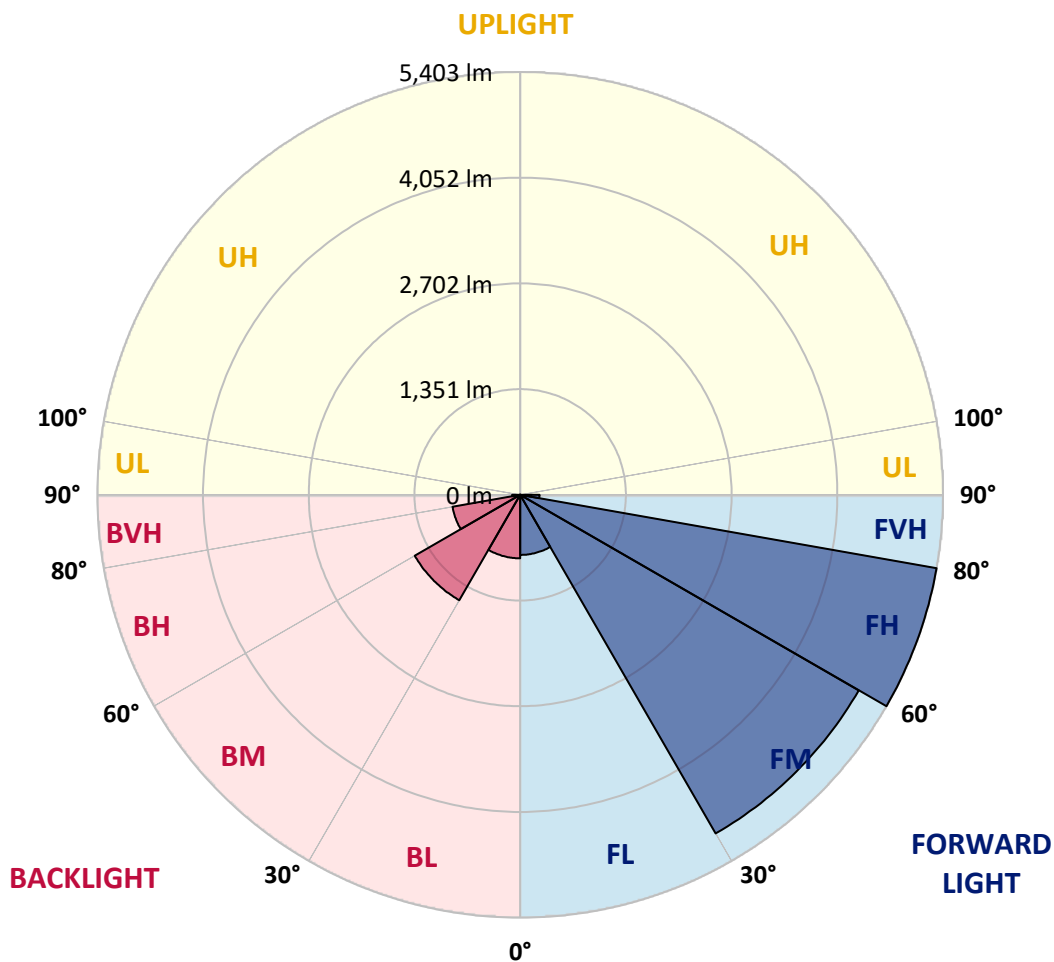
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	768.1	5.2			
FM	(30°-60°)	4996.4	33.8			
FH	(60°-80°)	5403.3	36.6			G3/7500
FVH	(80°-90°)	246.6	1.7			G3/500
BL	(0°-30°)	811.7	5.5	B2/1000		
BM	(30°-60°)	1555.8	10.5	B2/2500		
BH	(60°-80°)	878.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	102.6	0.7			G2/225
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7
2.5°	1586.8	1581.3	1581.3	1589.5	1592.2	1600.3	1600.3	1602.9	1611.1	1624.6	1640.8
5°	1538.1	1535.5	1538.1	1548.9	1554.2	1570.5	1575.9	1578.6	1594.9	1616.5	1640.8
7.5°	1489.4	1486.8	1492.2	1508.3	1524.6	1548.9	1562.4	1565.1	1589.5	1619.1	1651.7
10°	1473.2	1470.5	1478.6	1492.2	1508.3	1535.5	1557.0	1559.6	1594.9	1630.1	1676.0
12.5°	1494.8	1492.2	1500.3	1513.7	1530.0	1548.9	1573.2	1575.9	1621.9	1667.9	1716.5
15°	1548.9	1548.9	1551.6	1559.6	1575.9	1592.2	1613.7	1616.5	1665.2	1719.1	1767.9
17.5°	1632.7	1627.3	1627.3	1624.6	1635.5	1643.4	1670.6	1673.3	1724.6	1773.3	1821.9
20°	1735.4	1732.7	1722.0	1708.3	1705.7	1711.1	1738.1	1740.8	1792.2	1832.7	1878.6
22.5°	1859.9	1862.5	1838.1	1808.4	1795.0	1803.0	1827.3	1830.0	1867.8	1903.0	1943.6
25°	2024.7	2016.5	1981.4	1938.2	1911.1	1911.1	1935.5	1935.5	1970.6	1992.3	2019.2
27.5°	2181.4	2165.3	2132.8	2070.7	2027.4	2035.5	2059.9	2059.9	2092.2	2100.3	2113.8
30°	2351.8	2335.6	2295.0	2216.6	2159.9	2154.4	2184.1	2181.4	2224.7	2222.0	2211.2
32.5°	2559.9	2551.7	2484.3	2384.2	2308.5	2289.6	2316.5	2319.3	2346.4	2338.2	2303.1
35°	2851.8	2849.2	2786.9	2611.3	2511.2	2476.1	2492.3	2492.3	2511.2	2489.7	2430.2
37.5°	3219.4	3224.8	3170.7	2911.2	2770.7	2711.3	2714.0	2711.3	2716.7	2692.3	2630.1
40°	3587.1	3600.5	3597.9	3284.4	3105.9	3003.3	2965.3	2959.9	2973.5	2962.6	2903.2
42.5°	4070.8	4103.4	4027.7	3743.9	3543.9	3370.8	3268.2	3254.6	3284.4	3297.9	3241.1
45°	4573.7	4562.9	4443.9	4238.6	4057.5	3835.8	3641.1	3619.5	3641.1	3681.7	3622.2
47.5°	4835.9	4827.9	4798.0	4695.4	4668.3	4414.2	4119.5	4100.7	4060.1	4116.9	4046.7
50°	5268.4	5276.6	5155.0	5144.1	5257.6	5117.0	4660.2	4617.0	4543.9	4589.9	4530.5
52.5°	5582.0	5546.9	5471.1	5565.8	5919.9	5844.3	5168.4	5149.5	5081.9	5071.1	5044.1
55°	5709.1	5709.1	5722.6	5941.5	6447.0	6347.0	5719.9	5738.8	5646.8	5571.2	5606.3
57.5°	5746.8	5763.0	5879.3	6241.6	7066.0	6738.9	6328.1	6355.1	6222.6	6071.3	6182.0
60°	5560.4	5609.0	5887.4	6411.8	7414.7	7155.2	6968.7	6976.9	6784.9	6563.2	6757.9
62.5°	5081.9	5141.4	5638.8	6482.1	7357.9	7582.4	7574.1	7593.2	7330.9	7055.2	7298.5
65°	4495.3	4554.8	5084.6	6284.8	7314.7	7887.7	8128.4	8179.7	7841.8	7471.6	7636.4
67.5°	3633.0	3711.3	4214.2	5619.8	7103.8	8139.2	8647.4	8701.4	8236.5	7687.8	7606.7
70°	2632.8	2670.8	3092.3	4271.0	6244.3	8001.4	9058.1	9055.5	8366.3	7671.5	7201.2
72.5°	1267.8	1297.5	1662.5	2651.7	4465.7	6790.3	8760.9	8812.3	8187.8	7436.3	6274.0
75°	521.7	551.4	673.1	1119.1	2343.6	4487.3	7425.5	7547.2	7436.3	6674.0	4908.9
77.5°	324.4	335.2	394.6	578.5	1070.4	2094.9	5198.1	5363.1	5892.8	5346.8	3241.1
80°	243.4	251.3	294.6	405.5	675.7	773.1	2581.5	2789.6	3570.9	3068.2	1467.8
82.5°	202.7	205.4	235.1	294.6	459.6	443.4	827.2	921.8	1665.2	1170.4	505.4
85°	189.3	194.7	210.8	210.8	291.9	278.5	343.3	359.5	483.8	400.0	175.7
87.5°	97.2	91.8	186.5	164.8	151.4	135.1	146.0	156.8	181.1	191.9	78.4
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°	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7	1651.7
2.5°	1646.2	1654.3	1667.9	1681.4	1697.5	1716.5	1727.4	1740.8	1751.7	1746.2	1743.5
5°	1654.3	1667.9	1697.5	1724.6	1757.1	1795.0	1819.2	1846.2	1867.8	1873.2	1865.2
7.5°	1667.9	1692.1	1732.7	1781.3	1824.5	1873.2	1911.1	1949.0	1976.0	1981.4	1981.4
10°	1700.3	1727.4	1781.3	1846.2	1897.6	1949.0	1992.3	2021.9	2046.2	2057.1	2057.1
12.5°	1746.2	1778.6	1843.5	1922.0	1978.6	2027.4	2051.6	2065.3	2076.1	2086.9	2089.5
15°	1800.4	1835.4	1913.7	1997.7	2057.1	2081.5	2081.5	2078.7	2078.7	2084.1	2089.5
17.5°	1854.3	1892.2	1973.2	2062.5	2100.3	2086.9	2067.9	2059.9	2054.5	2051.6	2059.9
20°	1911.1	1949.0	2030.1	2113.8	2103.0	2046.2	2019.2	2000.3	1984.0	1976.0	1986.8
22.5°	1973.2	2008.4	2092.2	2148.9	2067.9	1981.4	1930.1	1900.4	1873.2	1857.1	1867.8
25°	2046.2	2081.5	2162.5	2159.9	2005.7	1884.0	1803.0	1754.3	1724.6	1708.3	1708.3
27.5°	2132.8	2162.5	2240.9	2132.8	1919.1	1754.3	1635.5	1589.5	1581.3	1567.8	1567.8
30°	2222.0	2246.3	2313.9	2070.7	1800.4	1584.0	1454.3	1432.6	1435.4	1421.8	1424.5
32.5°	2313.9	2338.2	2357.2	1978.6	1646.2	1392.2	1305.6	1289.3	1286.7	1276.0	1265.1
35°	2443.6	2478.9	2362.5	1854.3	1459.7	1232.7	1170.4	1154.2	1138.1	1100.2	1100.2
37.5°	2640.9	2678.8	2349.1	1700.3	1267.8	1108.2	1051.6	1029.8	1002.9	965.0	951.6
40°	2911.2	2911.2	2319.3	1527.3	1113.7	1008.3	954.2	927.2	897.4	859.6	851.6
42.5°	3230.2	3154.6	2273.3	1351.6	1000.2	940.6	892.0	862.4	827.2	784.0	778.6
45°	3603.3	3397.8	2208.5	1194.7	916.5	900.1	870.4	819.1	759.5	713.7	705.4
47.5°	3965.5	3616.8	2146.3	1084.0	846.1	883.9	859.6	773.1	692.1	627.1	619.0
50°	4362.9	3811.4	2073.3	992.1	792.0	873.2	846.1	705.4	616.2	570.3	564.9
52.5°	4760.3	4008.7	1995.0	894.7	746.0	851.6	813.7	656.9	613.6	551.4	543.4
55°	5179.2	4238.6	1903.0	786.6	692.1	808.2	770.3	654.1	632.5	551.4	532.5
57.5°	5587.4	4492.7	1754.3	681.2	632.5	743.3	754.1	637.9	592.1	546.0	524.4
60°	6038.9	4763.0	1508.3	592.1	581.2	689.3	732.6	602.9	546.0	529.8	519.0
62.5°	6401.1	5006.3	1178.5	529.8	537.9	646.1	705.4	581.2	527.1	513.7	510.9
65°	6557.8	5011.6	846.1	475.7	494.6	605.5	678.5	562.2	510.9	505.4	502.8
67.5°	6393.0	4736.0	594.7	424.4	448.8	567.6	643.4	543.4	494.6	497.4	492.0
70°	5860.5	4154.8	435.1	375.8	405.5	527.1	605.5	519.0	475.7	481.1	473.0
72.5°	4903.5	3238.4	348.7	335.2	370.3	483.8	567.6	492.0	446.0	448.8	432.5
75°	3622.2	2146.3	291.9	300.0	329.8	443.4	519.0	456.9	413.6	402.8	392.0
77.5°	2154.4	1102.8	240.6	262.2	294.6	394.6	465.0	413.6	378.5	359.5	351.3
80°	889.3	446.0	197.4	221.6	256.7	351.3	410.9	362.2	337.9	319.0	308.2
82.5°	354.1	218.9	156.8	181.1	216.2	305.5	359.5	319.0	294.6	281.1	251.3
85°	135.1	108.2	105.5	127.0	162.1	235.1	297.3	267.6	248.7	213.5	205.4
87.5°	54.1	48.7	48.7	62.2	91.8	148.7	213.5	186.5	194.7	154.1	156.8
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)