

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: P231343

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231343
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T4W-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10048 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 122
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

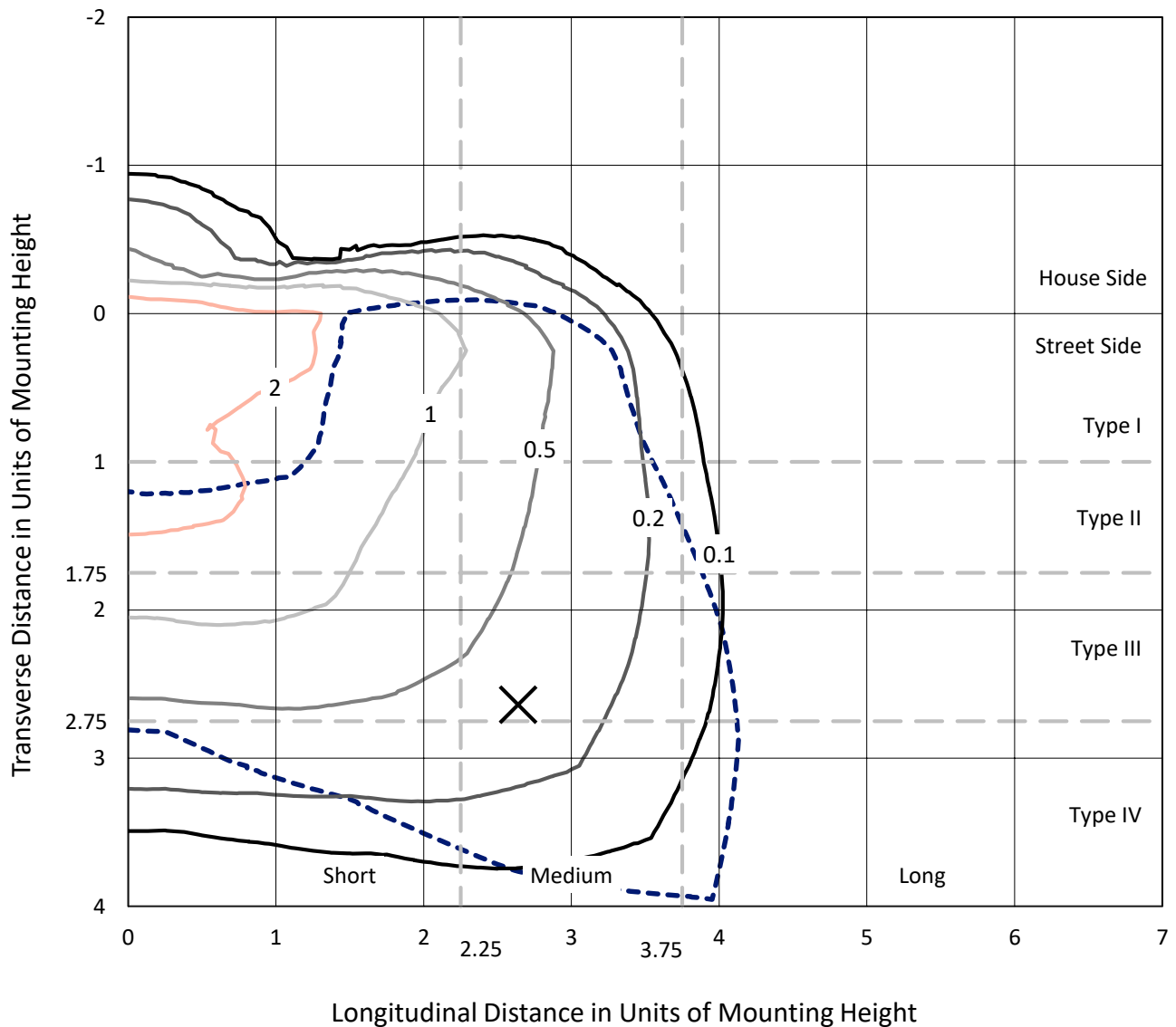


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

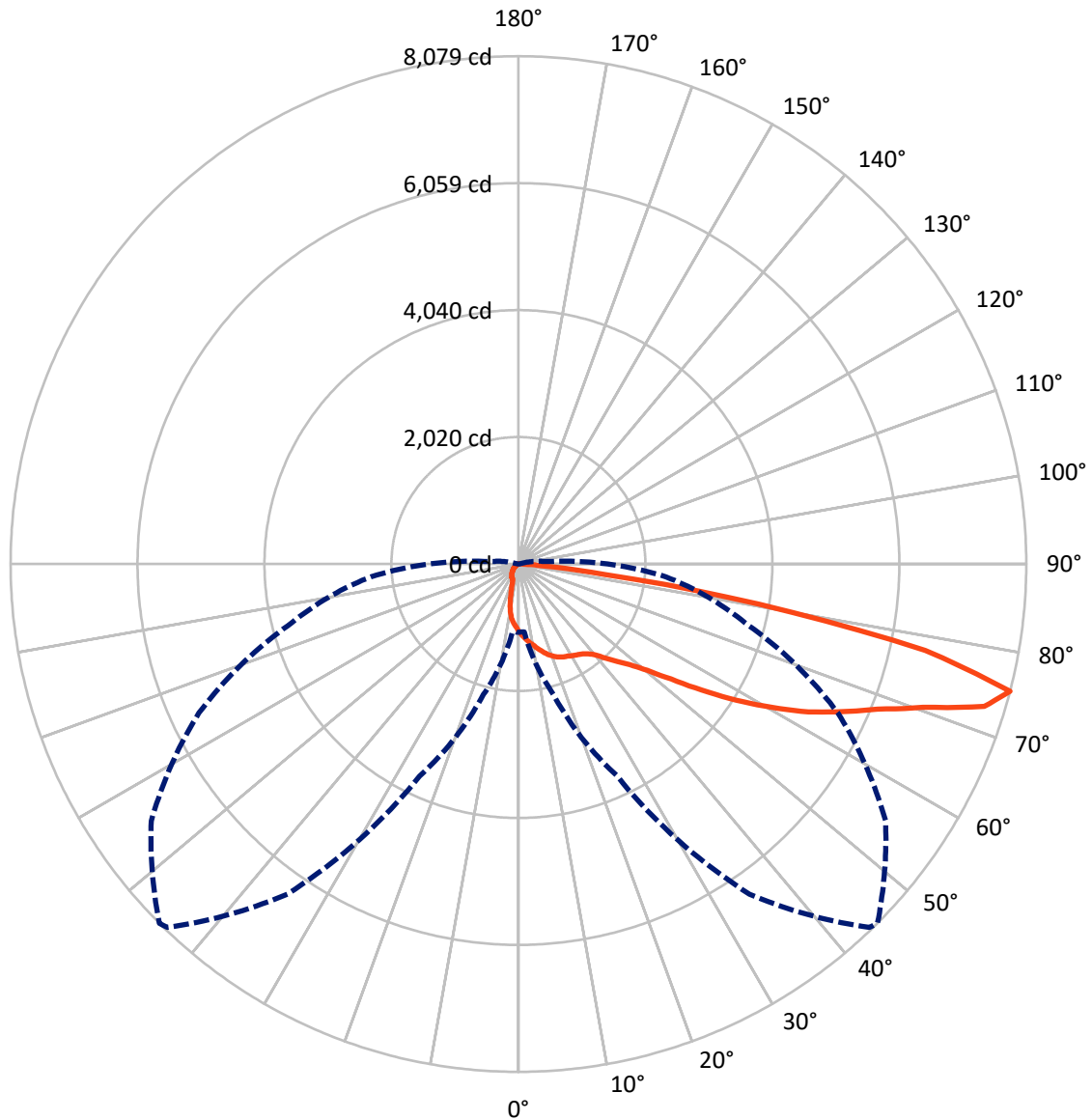


Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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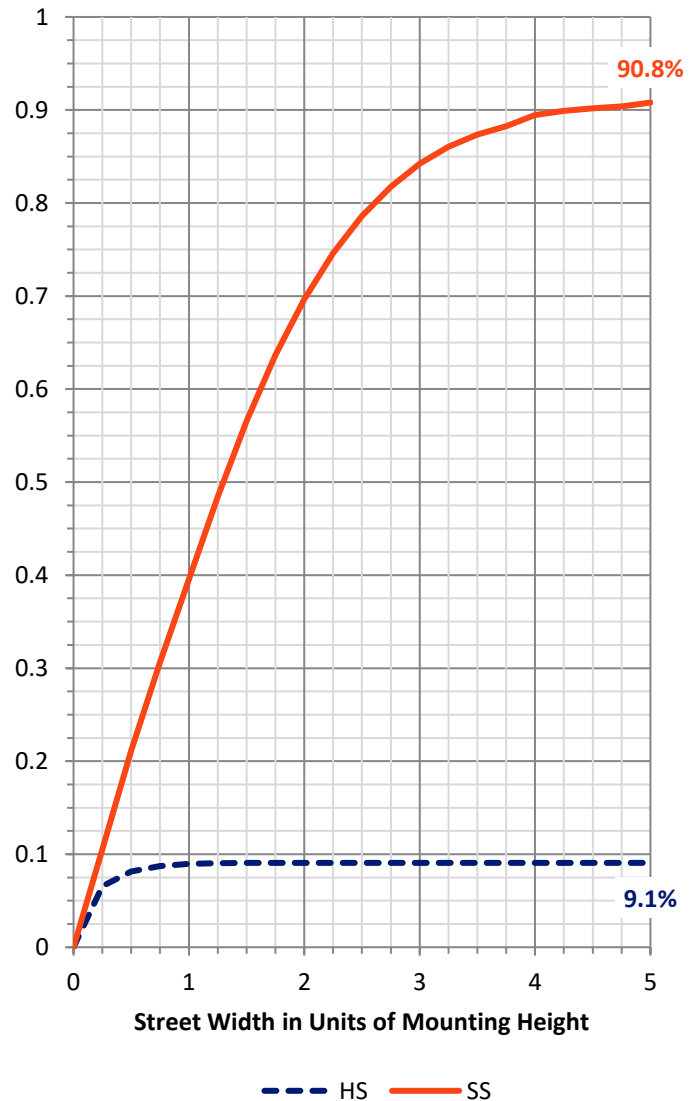
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	919.1	0.0	919.1
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	9128.9	0.0	9128.9
	% Fixture	90.9	0.0	90.9
Total	Lumens	10048.0	0.0	10048.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.4	1.0
10°-20°	287.3	2.9
20°-30°	475.9	4.7
30°-40°	688.7	6.9
40°-50°	1127.7	11.2
50°-60°	2009.4	20.0
60°-70°	2954.1	29.4
70°-80°	2228.6	22.2
80°-90°	174.8	1.7
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°	10048.0	100.0
0°-180°	10048.0	100.0



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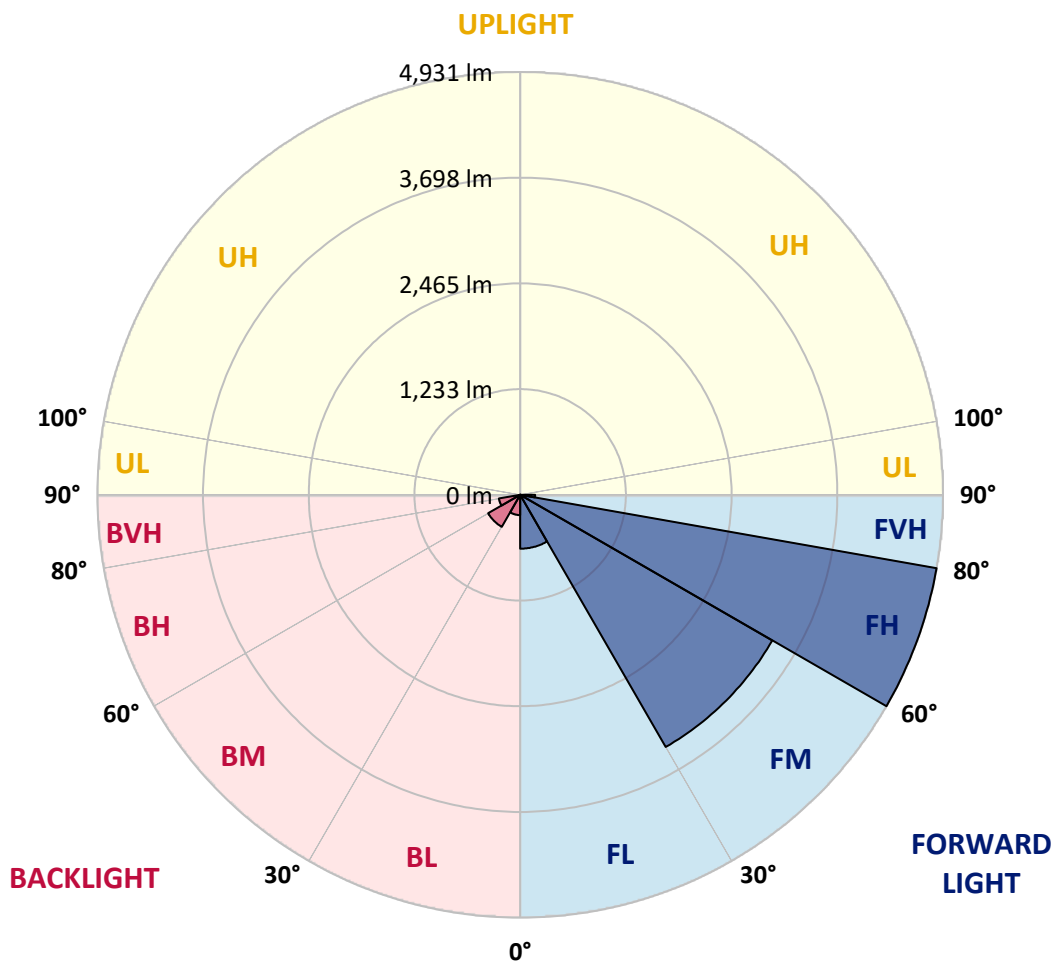
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	628.5	6.3			
FM	(30°-60°)	3395.2	33.8			
FH	(60°-80°)	4930.9	49.1			G2/5000
FVH	(80°-90°)	174.4	1.7			G2/225
BL	(0°-30°)	236.2	2.4	B1/500		
BM	(30°-60°)	430.7	4.3	B1/1000		
BH	(60°-80°)	251.7	2.5	B1/500		G1/500
BVH	(80°-90°)	0.5	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-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7
2.5°	1167.4	1167.4	1165.0	1162.7	1150.8	1138.9	1136.5	1129.4	1108.0	1093.7	1079.4
5°	1264.9	1267.3	1262.5	1250.6	1224.5	1198.3	1195.9	1176.9	1136.5	1108.0	1077.1
7.5°	1357.6	1362.4	1350.5	1329.1	1298.2	1260.1	1257.8	1222.1	1169.8	1129.4	1084.2
10°	1436.1	1436.1	1419.4	1393.3	1360.0	1319.6	1314.8	1274.4	1215.0	1165.0	1105.6
12.5°	1521.7	1519.3	1495.5	1459.9	1421.8	1383.8	1381.4	1331.5	1274.4	1210.2	1136.5
15°	1600.1	1595.4	1564.5	1531.2	1490.8	1450.4	1448.0	1398.0	1338.6	1262.5	1181.7
17.5°	1642.9	1640.6	1612.0	1578.7	1545.5	1514.5	1512.2	1459.9	1395.7	1317.2	1226.9
20°	1650.1	1652.5	1628.7	1600.1	1581.1	1564.5	1564.5	1516.9	1448.0	1364.8	1274.4
22.5°	1652.5	1659.6	1642.9	1604.9	1600.1	1602.5	1607.3	1569.2	1497.9	1419.4	1324.3
25°	1669.1	1678.6	1666.7	1621.5	1616.8	1633.4	1638.2	1621.5	1557.3	1478.9	1381.4
27.5°	1702.4	1711.9	1702.4	1645.3	1638.2	1654.8	1659.6	1669.1	1621.5	1535.9	1440.8
30°	1769.0	1771.3	1749.9	1678.6	1664.3	1685.7	1692.9	1719.0	1681.0	1590.6	1497.9
32.5°	1885.5	1861.7	1797.5	1702.4	1690.5	1714.3	1721.4	1749.9	1735.7	1642.9	1557.3
35°	2123.2	1999.6	1852.2	1735.7	1723.8	1747.6	1757.1	1797.5	1804.6	1716.6	1631.1
37.5°	2120.8	2009.1	1980.6	1799.9	1783.2	1799.9	1811.8	1861.7	1890.2	1814.1	1738.0
40°	2270.6	2223.1	2223.1	1921.1	1866.4	1890.2	1902.1	1952.0	2002.0	1942.5	1864.1
42.5°	2741.4	2710.5	2677.2	2154.1	1982.9	2049.5	2056.6	2087.6	2147.0	2128.0	2035.2
45°	3266.9	3238.3	3109.9	2548.8	2182.7	2194.6	2211.2	2261.1	2346.7	2382.4	2273.0
47.5°	3678.2	3649.7	3540.3	3024.3	2494.1	2389.5	2389.5	2487.0	2620.1	2710.5	2605.9
50°	4008.7	3975.4	3908.8	3530.8	3005.3	2670.1	2655.8	2769.9	2967.3	3107.6	3036.2
52.5°	4329.7	4232.2	4191.8	4053.9	3583.1	3076.7	3038.6	3119.4	3392.9	3566.4	3507.0
55°	4543.6	4529.4	4486.6	4534.1	4189.4	3571.2	3537.9	3554.6	3896.9	4013.4	3939.7
57.5°	4743.4	4741.0	4836.1	5057.2	4850.4	4137.1	4084.8	4058.6	4384.3	4355.8	4420.0
60°	4990.6	4947.8	5169.0	5485.2	5456.7	4688.7	4629.2	4576.9	4757.6	4676.8	4995.4
62.5°	5002.5	4990.6	5440.0	5894.1	6058.2	5249.8	5180.9	4993.0	5083.4	4990.6	5544.6
65°	4548.4	4607.8	5554.1	6110.5	6562.3	5742.0	5658.8	5366.3	5373.4	5311.6	6191.3
67.5°	4446.2	4477.1	5240.3	6343.5	6926.0	6238.9	6160.4	5796.7	5711.1	5715.8	6574.1
70°	4191.8	4239.3	4850.4	6326.9	7213.7	6902.3	6823.8	6429.1	6222.3	5991.6	6279.3
72.5°	3202.7	3283.5	4087.1	5547.0	7135.3	7770.1	7748.7	7230.4	6426.7	5501.8	4750.5
75°	1084.2	1081.8	2147.0	3725.7	6410.1	8036.4	8079.2	7130.5	5606.4	3794.7	2358.6
77.5°	233.0	235.4	442.2	1509.8	4258.3	6452.9	6616.9	5378.2	3616.4	1690.5	539.7
80°	114.1	116.5	183.1	399.4	1702.4	3618.8	3875.5	2765.2	1336.2	337.6	90.3
82.5°	57.1	59.4	95.1	211.6	630.1	1286.3	1374.3	1017.6	382.8	190.2	45.2
85°	21.4	21.4	47.6	126.0	287.7	302.0	370.9	294.8	230.6	154.5	11.9
87.5°	4.8	4.8	26.2	61.8	128.4	95.1	95.1	90.3	140.3	104.6	4.8
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°	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7	1074.7
2.5°	1072.3	1062.8	1046.2	1029.5	1017.6	1003.4	996.2	989.1	986.7	984.3	989.1
5°	1060.4	1046.2	1015.2	989.1	965.3	946.3	932.0	917.8	910.6	905.9	908.3
7.5°	1060.4	1039.0	993.8	953.4	915.4	875.0	834.5	803.6	779.9	765.6	768.0
10°	1072.3	1043.8	984.3	929.7	858.3	772.7	684.8	618.2	573.0	546.9	546.9
12.5°	1098.5	1060.4	986.7	901.1	779.9	630.1	496.9	416.1	382.8	363.8	366.2
15°	1134.1	1089.0	998.6	863.1	670.5	468.4	347.1	294.8	294.8	299.6	302.0
17.5°	1174.5	1124.6	1008.1	806.0	530.2	335.2	273.4	268.7	275.8	287.7	287.7
20°	1215.0	1160.3	1012.9	715.7	397.1	266.3	259.2	259.2	263.9	275.8	278.2
22.5°	1264.9	1205.5	1008.1	603.9	297.2	252.0	249.7	249.7	249.7	263.9	263.9
25°	1317.2	1257.8	989.1	485.0	252.0	242.5	240.1	237.8	237.8	249.7	252.0
27.5°	1376.6	1312.5	943.9	370.9	237.8	233.0	230.6	225.9	225.9	235.4	235.4
30°	1436.1	1374.3	875.0	280.6	225.9	223.5	218.7	214.0	209.2	218.7	218.7
32.5°	1500.3	1438.5	784.6	223.5	209.2	209.2	206.9	199.7	195.0	199.7	202.1
35°	1585.9	1512.2	682.4	195.0	187.8	187.8	187.8	185.5	175.9	180.7	180.7
37.5°	1700.0	1614.4	563.5	180.7	171.2	166.4	166.4	166.4	159.3	161.7	161.7
40°	1845.0	1733.3	449.4	168.8	159.3	147.4	142.7	145.0	140.3	140.3	137.9
42.5°	2042.4	1861.7	337.6	159.3	149.8	133.1	123.6	121.3	116.5	114.1	114.1
45°	2325.3	2018.6	242.5	149.8	142.7	116.5	107.0	99.9	88.0	80.8	80.8
47.5°	2691.5	2196.9	180.7	140.3	135.5	102.2	90.3	76.1	59.4	54.7	54.7
50°	3138.5	2396.6	152.2	126.0	123.6	90.3	71.3	49.9	33.3	28.5	30.9
52.5°	3573.6	2584.5	135.5	111.7	109.4	78.5	52.3	26.2	14.3	14.3	14.3
55°	3939.7	2717.6	123.6	99.9	95.1	61.8	28.5	11.9	7.1	7.1	7.1
57.5°	4270.2	2793.7	111.7	88.0	76.1	42.8	11.9	4.8	4.8	2.4	2.4
60°	4572.2	2838.9	97.5	76.1	59.4	23.8	4.8	2.4	2.4	0.0	0.0
62.5°	4869.4	2872.2	83.2	61.8	45.2	9.5	2.4	2.4	0.0	0.0	0.0
65°	5095.3	2860.3	66.6	49.9	28.5	4.8	2.4	0.0	0.0	0.0	0.0
67.5°	5088.1	2698.6	49.9	38.0	14.3	2.4	0.0	0.0	0.0	0.0	0.0
70°	4550.8	2273.0	33.3	23.8	4.8	2.4	0.0	0.0	0.0	0.0	0.0
72.5°	3228.8	1457.5	21.4	14.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	1421.8	442.2	11.9	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	278.2	102.2	7.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	66.6	11.9	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	28.5	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.8	2.4	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)