

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: P231145

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231145
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-AF48-90-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10893 lumens
Efficiency: N/A
Efficacy: 118.4 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 - G2

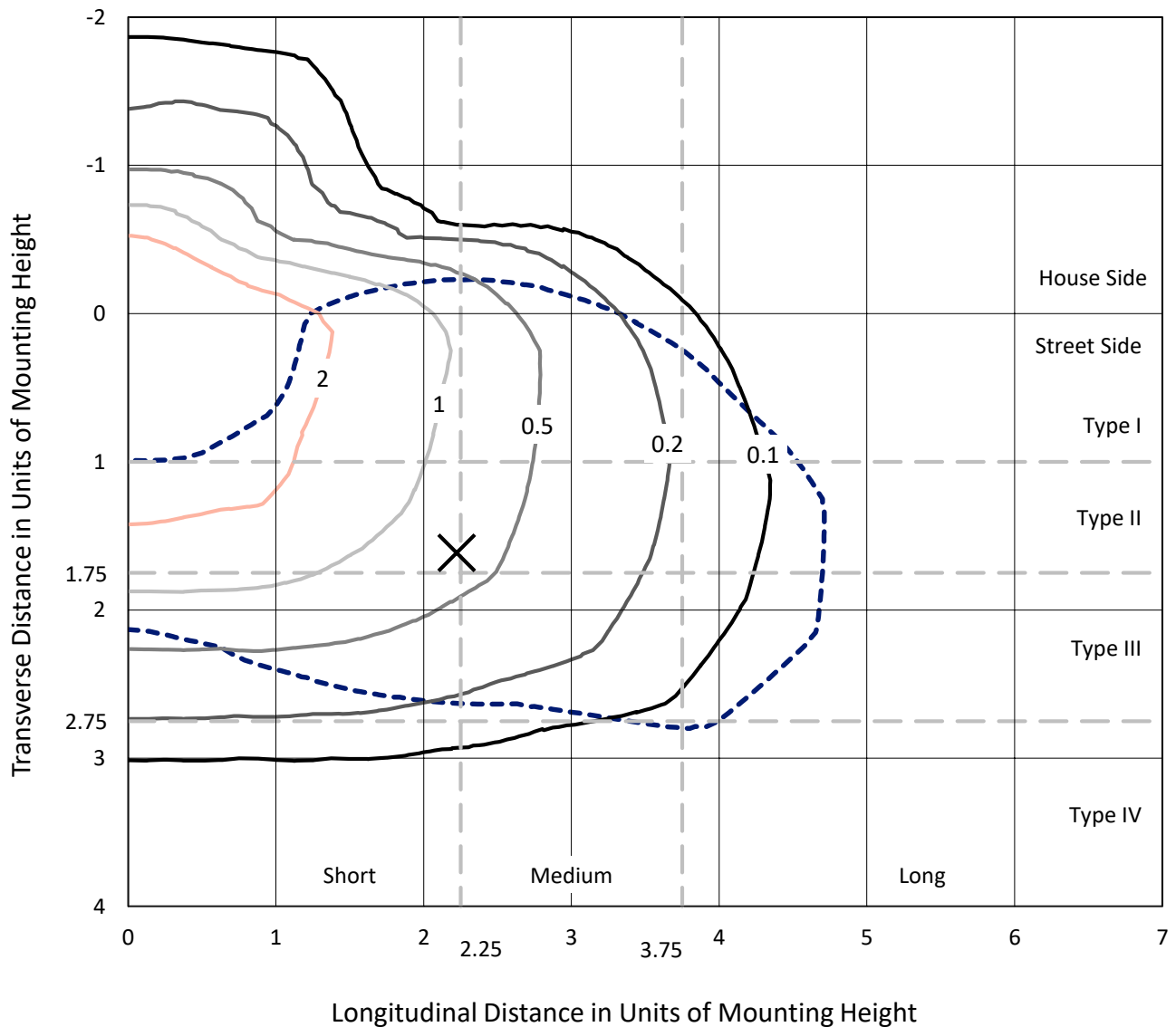
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

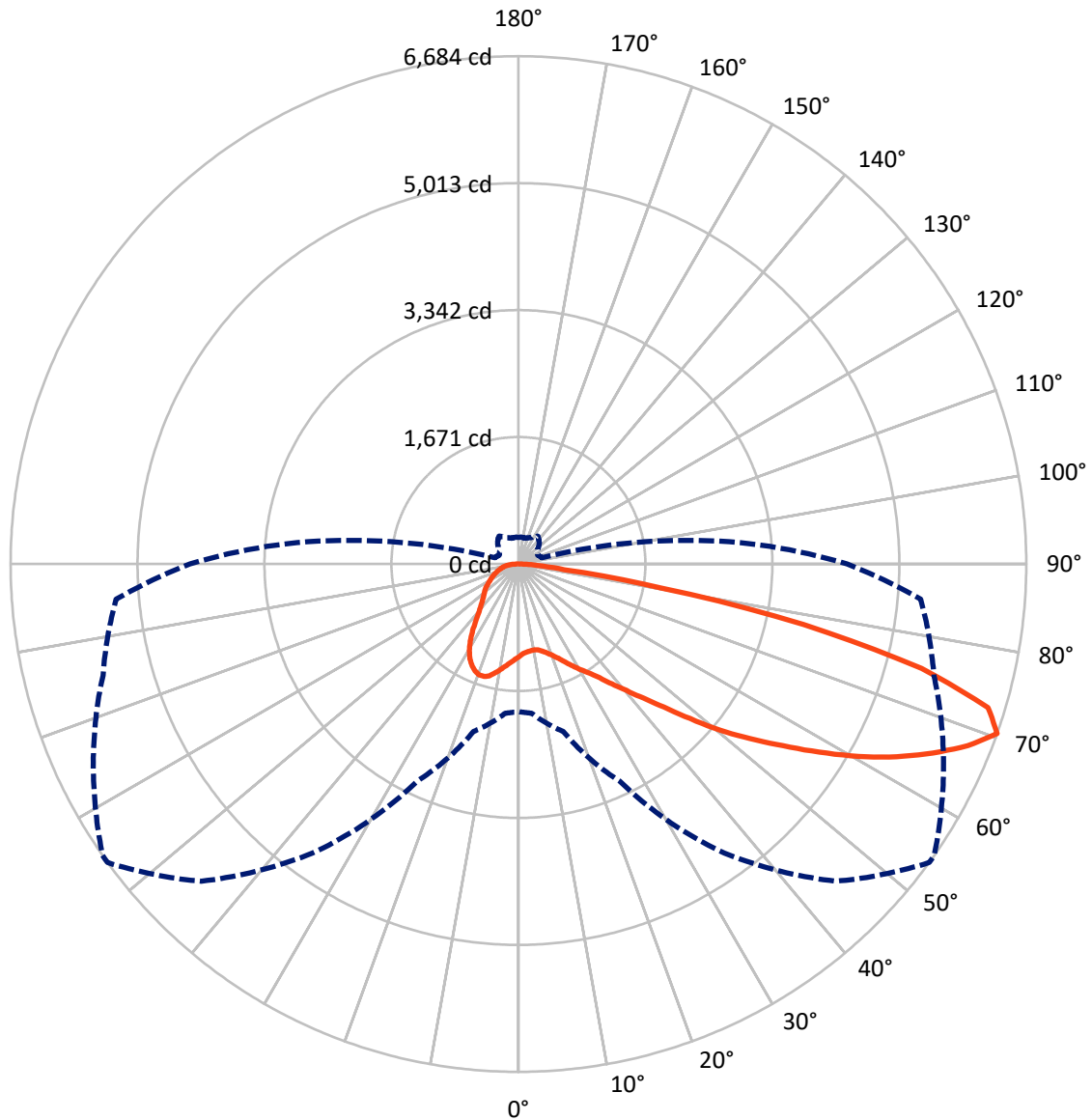
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 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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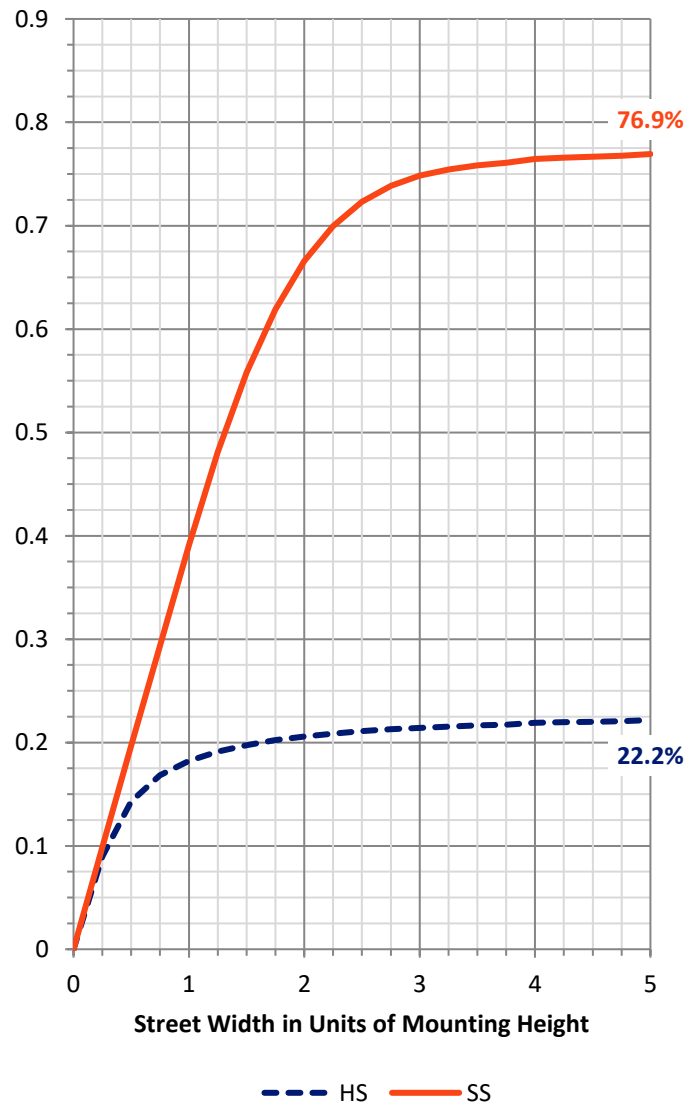
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2470.5	0.0	2470.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	8422.5	0.0	8422.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	10893.0	0.0	10893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	1.1
10°-20°	382.2	3.5
20°-30°	663.9	6.1
30°-40°	970.3	8.9
40°-50°	1522.8	14.0
50°-60°	2341.7	21.5
60°-70°	2861.0	26.3
70°-80°	1773.8	16.3
80°-90°	257.7	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°	10893.0	100.0
0°-180°	10893.0	100.0

Coefficient of Utilization



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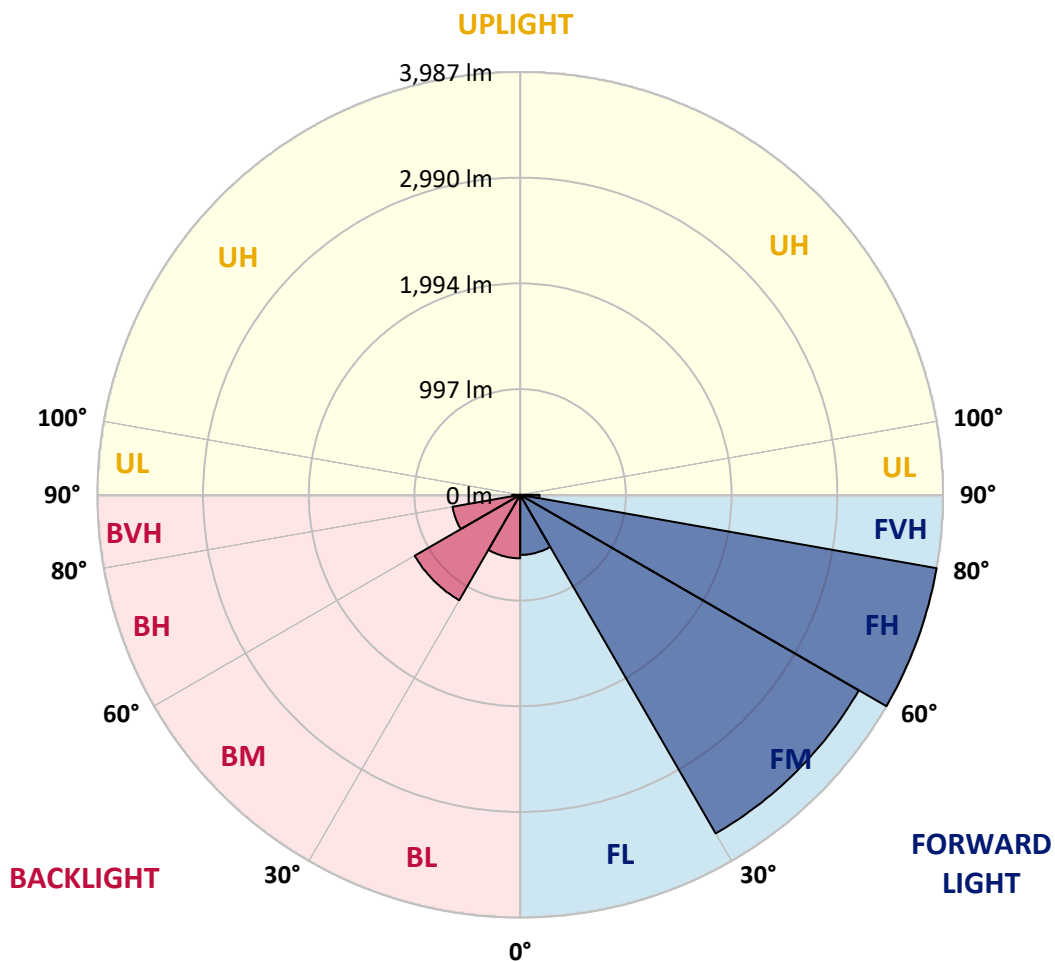
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	566.8	5.2			
FM	(30°-60°)	3686.8	33.8			
FH	(60°-80°)	3987.0	36.6			G2/5000
FVH	(80°-90°)	182.0	1.7			G2/225
BL	(0°-30°)	598.9	5.5	B2/1000		
BM	(30°-60°)	1148.0	10.5	B2/2500		
BH	(60°-80°)	647.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	75.7	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7
2.5°	1170.8	1166.8	1166.8	1172.8	1174.8	1180.8	1180.8	1182.8	1188.8	1198.8	1210.7
5°	1134.9	1132.9	1134.9	1142.9	1146.9	1158.9	1162.9	1164.9	1176.8	1192.8	1210.7
7.5°	1099.0	1097.0	1101.0	1113.0	1125.0	1142.9	1152.9	1154.9	1172.8	1194.8	1218.7
10°	1087.1	1085.1	1091.1	1101.0	1113.0	1132.9	1148.9	1150.9	1176.8	1202.7	1236.7
12.5°	1103.0	1101.0	1107.0	1117.0	1128.9	1142.9	1160.9	1162.9	1196.8	1230.7	1266.6
15°	1142.9	1142.9	1144.9	1150.9	1162.9	1174.8	1190.8	1192.8	1228.7	1268.6	1304.5
17.5°	1204.7	1200.8	1200.8	1198.8	1206.7	1212.7	1232.7	1234.7	1272.6	1308.5	1344.4
20°	1280.5	1278.5	1270.6	1260.6	1258.6	1262.6	1282.5	1284.5	1322.4	1352.3	1386.3
22.5°	1372.3	1374.3	1356.3	1334.4	1324.4	1330.4	1348.4	1350.4	1378.3	1404.2	1434.1
25°	1494.0	1488.0	1462.0	1430.1	1410.2	1410.2	1428.1	1428.1	1454.1	1470.0	1490.0
27.5°	1609.7	1597.7	1573.7	1527.9	1496.0	1501.9	1519.9	1519.9	1543.8	1549.8	1559.8
30°	1735.3	1723.3	1693.4	1635.6	1593.7	1589.7	1611.6	1609.7	1641.6	1639.6	1631.6
32.5°	1888.9	1882.9	1833.0	1759.2	1703.4	1689.4	1709.4	1711.4	1731.3	1725.3	1699.4
35°	2104.3	2102.3	2056.4	1926.8	1853.0	1827.1	1839.0	1839.0	1853.0	1837.0	1793.2
37.5°	2375.6	2379.6	2339.7	2148.2	2044.5	2000.6	2002.6	2000.6	2004.6	1986.6	1940.8
40°	2646.8	2656.8	2654.8	2423.5	2291.8	2216.0	2188.1	2184.1	2194.1	2186.1	2142.2
42.5°	3003.9	3027.8	2972.0	2762.5	2614.9	2487.3	2411.5	2401.5	2423.5	2433.4	2391.5
45°	3374.9	3366.9	3279.1	3127.5	2993.9	2830.4	2686.7	2670.8	2686.7	2716.7	2672.8
47.5°	3568.4	3562.4	3540.4	3464.6	3444.7	3257.2	3039.8	3025.8	2995.9	3037.8	2985.9
50°	3887.5	3893.5	3803.7	3795.7	3879.5	3775.8	3438.7	3406.8	3352.9	3386.8	3343.0
52.5°	4118.9	4092.9	4037.1	4106.9	4368.2	4312.3	3813.7	3799.7	3749.9	3741.9	3721.9
55°	4212.6	4212.6	4222.6	4384.2	4757.1	4683.3	4220.6	4234.6	4166.7	4110.9	4136.8
57.5°	4240.5	4252.5	4338.3	4605.6	5213.9	4972.6	4669.4	4689.3	4591.6	4479.9	4561.7
60°	4102.9	4138.8	4344.3	4731.2	5471.2	5279.7	5142.1	5148.1	5006.5	4842.9	4986.5
62.5°	3749.9	3793.7	4160.8	4783.1	5429.3	5594.9	5588.9	5602.9	5409.4	5205.9	5385.4
65°	3317.0	3360.9	3751.9	4637.5	5397.4	5820.3	5997.8	6035.7	5786.4	5513.1	5634.8
67.5°	2680.8	2738.6	3109.6	4146.8	5241.8	6005.8	6380.8	6420.6	6077.6	5672.7	5612.8
70°	1942.8	1970.7	2281.8	3151.5	4607.5	5904.0	6683.9	6681.9	6173.3	5660.7	5313.6
72.5°	935.5	957.4	1226.7	1956.7	3295.1	5010.5	6464.5	6502.4	6041.7	5487.2	4629.5
75°	385.0	406.9	496.7	825.8	1729.3	3311.1	5479.2	5569.0	5487.2	4924.7	3622.2
77.5°	239.4	247.3	291.2	426.8	789.9	1545.8	3835.6	3957.3	4348.2	3945.3	2391.5
80°	179.5	185.5	217.4	299.2	498.7	570.5	1904.9	2058.4	2634.9	2263.9	1083.1
82.5°	149.6	151.6	173.5	217.4	339.1	327.1	610.4	680.2	1228.7	863.7	373.0
85°	139.6	143.6	155.6	155.6	215.4	205.4	253.3	265.3	357.0	295.2	129.6
87.5°	71.8	67.8	137.6	121.7	111.7	99.7	107.7	115.7	133.6	141.6	57.8
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°	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7	1218.7
2.5°	1214.7	1220.7	1230.7	1240.6	1252.6	1266.6	1274.6	1284.5	1292.5	1288.5	1286.5
5°	1220.7	1230.7	1252.6	1272.6	1296.5	1324.4	1342.4	1362.3	1378.3	1382.3	1376.3
7.5°	1230.7	1248.6	1278.5	1314.4	1346.4	1382.3	1410.2	1438.1	1458.1	1462.0	1462.0
10°	1254.6	1274.6	1314.4	1362.3	1400.2	1438.1	1470.0	1492.0	1509.9	1517.9	1517.9
12.5°	1288.5	1312.5	1360.3	1418.2	1460.1	1496.0	1513.9	1523.9	1531.9	1539.8	1541.8
15°	1328.4	1354.3	1412.2	1474.0	1517.9	1535.8	1535.8	1533.9	1533.9	1537.8	1541.8
17.5°	1368.3	1396.2	1456.1	1521.9	1549.8	1539.8	1525.9	1519.9	1515.9	1513.9	1519.9
20°	1410.2	1438.1	1498.0	1559.8	1551.8	1509.9	1490.0	1476.0	1464.0	1458.1	1466.0
22.5°	1456.1	1482.0	1543.8	1585.7	1525.9	1462.0	1424.2	1402.2	1382.3	1370.3	1378.3
25°	1509.9	1535.8	1595.7	1593.7	1480.0	1390.2	1330.4	1294.5	1272.6	1260.6	1260.6
27.5°	1573.7	1595.7	1653.5	1573.7	1416.2	1294.5	1206.7	1172.8	1166.8	1156.9	1156.9
30°	1639.6	1657.5	1707.4	1527.9	1328.4	1168.8	1073.1	1057.1	1059.1	1049.2	1051.2
32.5°	1707.4	1725.3	1739.3	1460.1	1214.7	1027.2	963.4	951.4	949.4	941.5	933.5
35°	1803.1	1829.1	1743.3	1368.3	1077.1	909.5	863.7	851.7	839.7	811.8	811.8
37.5°	1948.7	1976.7	1733.3	1254.6	935.5	817.8	775.9	759.9	740.0	712.1	702.1
40°	2148.2	2148.2	1711.4	1127.0	821.8	744.0	704.1	684.2	662.2	634.3	628.3
42.5°	2383.6	2327.7	1677.5	997.3	738.0	694.1	658.2	636.3	610.4	578.4	574.4
45°	2658.8	2507.2	1629.6	881.6	676.2	664.2	642.3	604.4	560.5	526.6	520.6
47.5°	2926.1	2668.8	1583.7	799.8	624.3	652.2	634.3	570.5	510.6	462.7	456.8
50°	3219.3	2812.4	1529.9	732.0	584.4	644.3	624.3	520.6	454.8	420.9	416.9
52.5°	3512.5	2958.0	1472.0	660.2	550.5	628.3	600.4	484.7	452.8	406.9	400.9
55°	3821.7	3127.5	1404.2	580.4	510.6	596.4	568.5	482.7	466.7	406.9	392.9
57.5°	4122.9	3315.0	1294.5	502.6	466.7	548.5	556.5	470.7	436.8	402.9	387.0
60°	4456.0	3514.5	1113.0	436.8	428.8	508.6	540.5	444.8	402.9	390.9	383.0
62.5°	4723.2	3694.0	869.6	390.9	396.9	476.7	520.6	428.8	388.9	379.0	377.0
65°	4838.9	3698.0	624.3	351.1	365.0	446.8	500.6	414.9	377.0	373.0	371.0
67.5°	4717.3	3494.6	438.8	313.2	331.1	418.9	474.7	400.9	365.0	367.0	363.0
70°	4324.3	3065.7	321.1	277.3	299.2	388.9	446.8	383.0	351.1	355.0	349.1
72.5°	3618.2	2389.5	257.3	247.3	273.3	357.0	418.9	363.0	329.1	331.1	319.1
75°	2672.8	1583.7	215.4	221.4	243.3	327.1	383.0	337.1	305.2	297.2	289.2
77.5°	1589.7	813.8	177.5	193.5	217.4	291.2	343.1	305.2	279.2	265.3	259.3
80°	656.2	329.1	145.6	163.6	189.5	259.3	303.2	267.3	249.3	235.4	227.4
82.5°	261.3	161.6	115.7	133.6	159.6	225.4	265.3	235.4	217.4	207.4	185.5
85°	99.7	79.8	77.8	93.7	119.7	173.5	219.4	197.5	183.5	157.6	151.6
87.5°	39.9	35.9	35.9	45.9	67.8	109.7	157.6	137.6	143.6	113.7	115.7
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)