

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: P231351

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231351
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-AF48-70-D-U-T4W-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA 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: 7554.5 lumens
Efficiency: N/A
Efficacy: 103.5 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

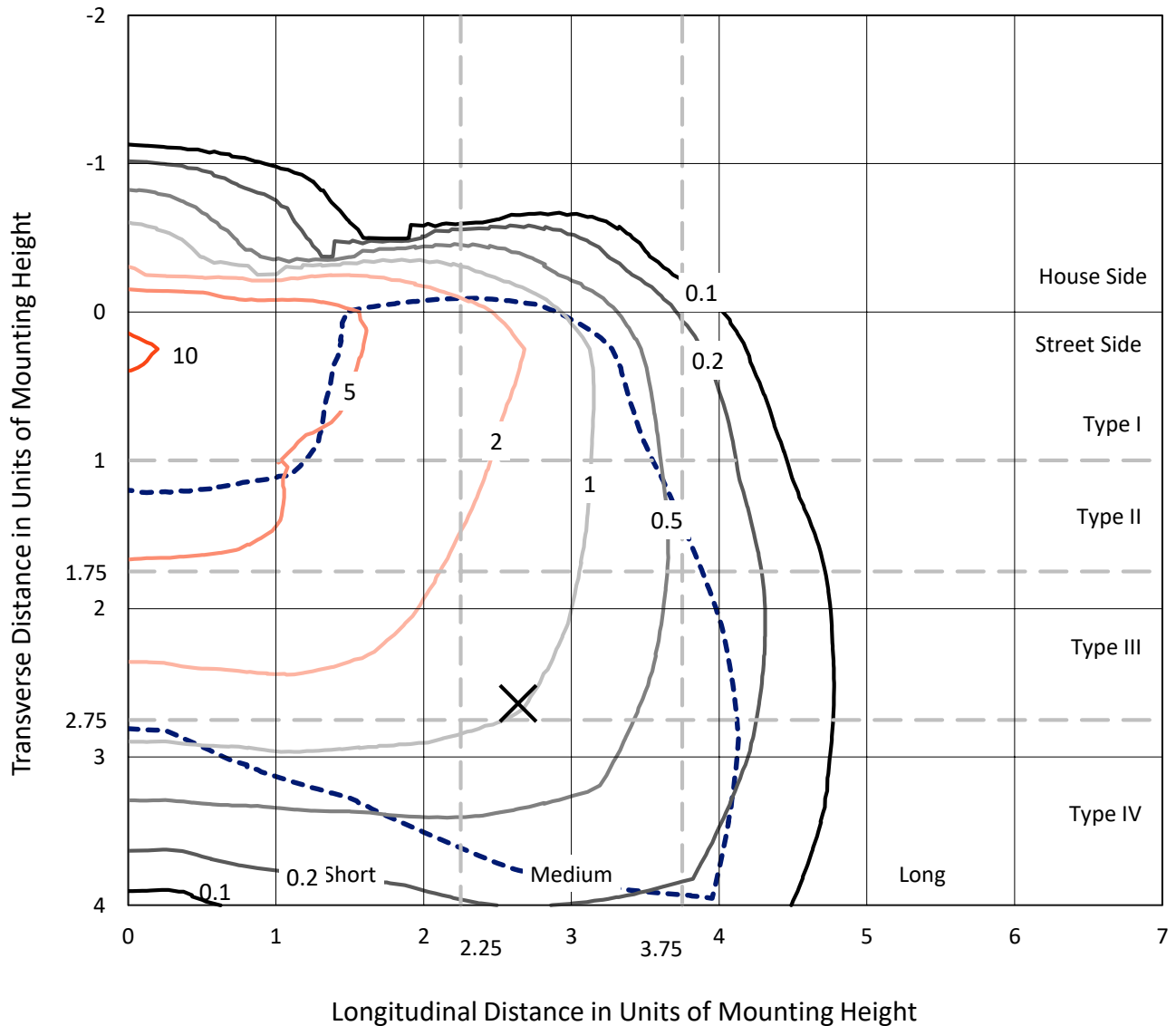
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P231351
 CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

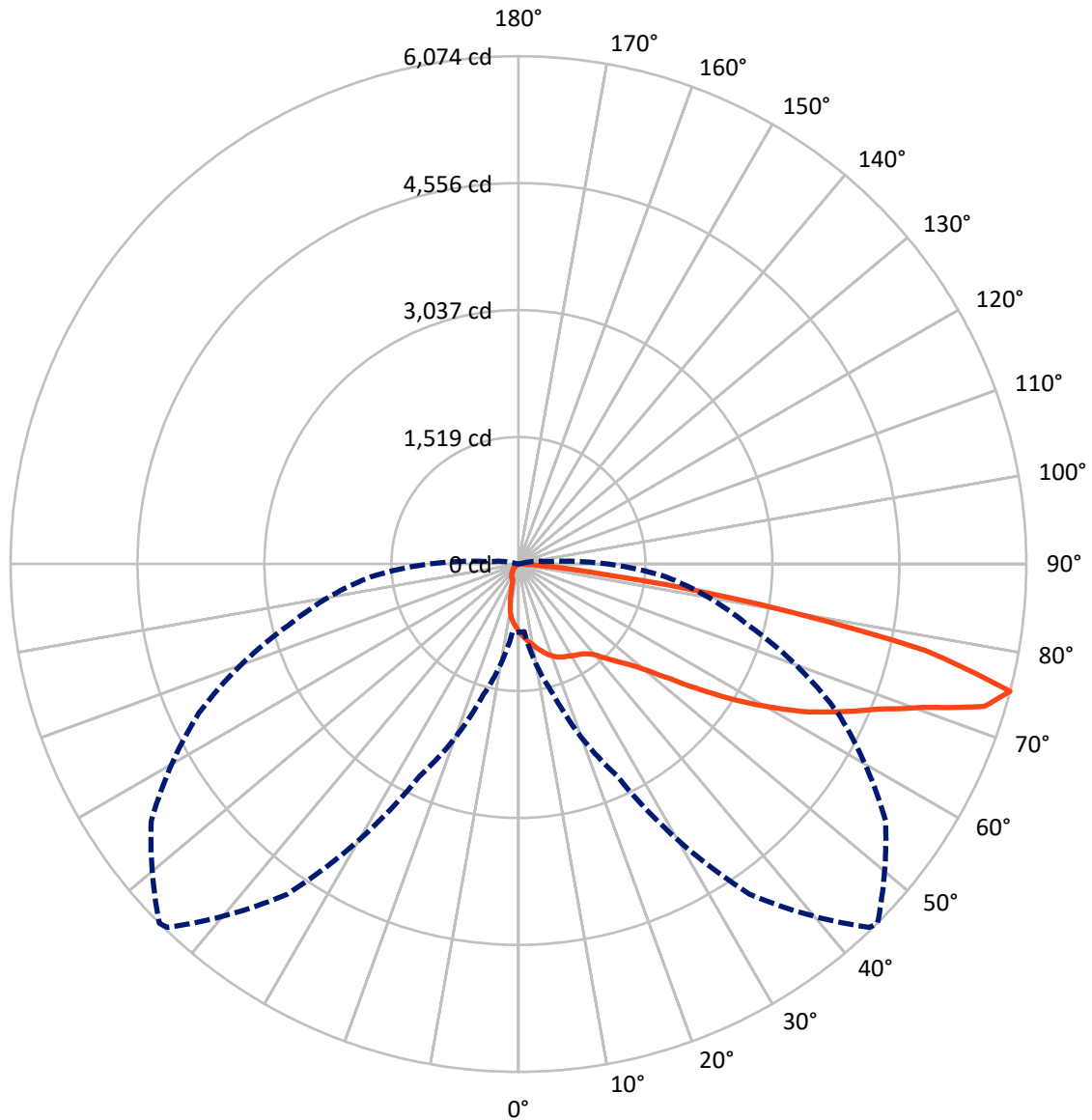


Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231351

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P231351

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

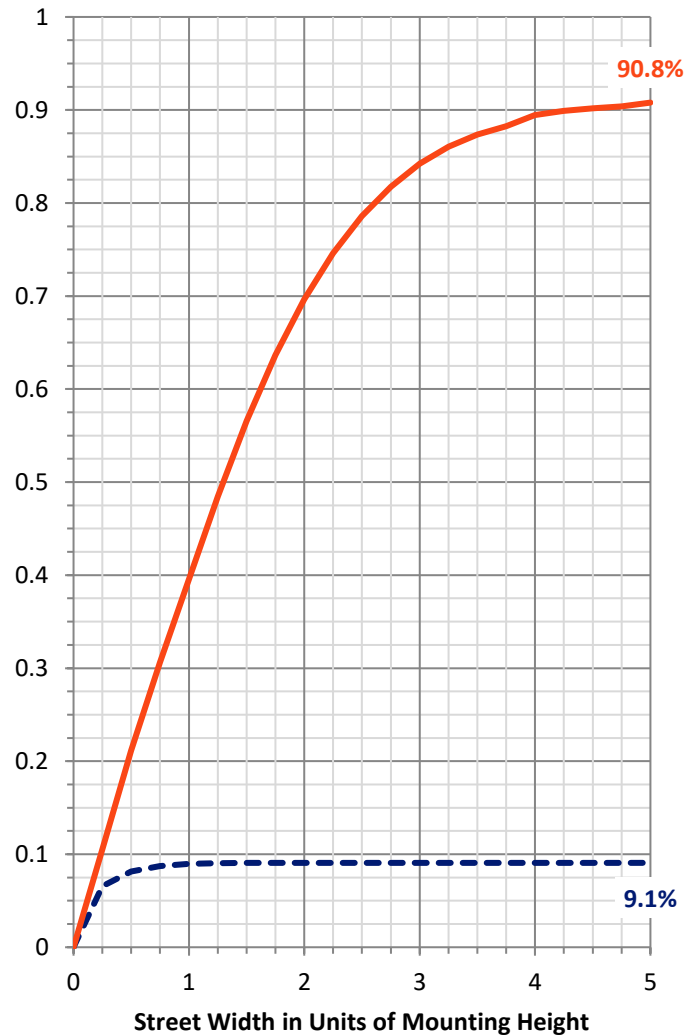
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	691.0	0.0	691.0
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6863.5	0.0	6863.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	7554.5	0.0	7554.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	1.0
10°-20°	216.0	2.9
20°-30°	357.8	4.7
30°-40°	517.8	6.9
40°-50°	847.9	11.2
50°-60°	1510.7	20.0
60°-70°	2221.0	29.4
70°-80°	1675.5	22.2
80°-90°	131.5	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°	7554.5	100.0
0°-180°	7554.5	100.0



REPORT NUMBER: P231351

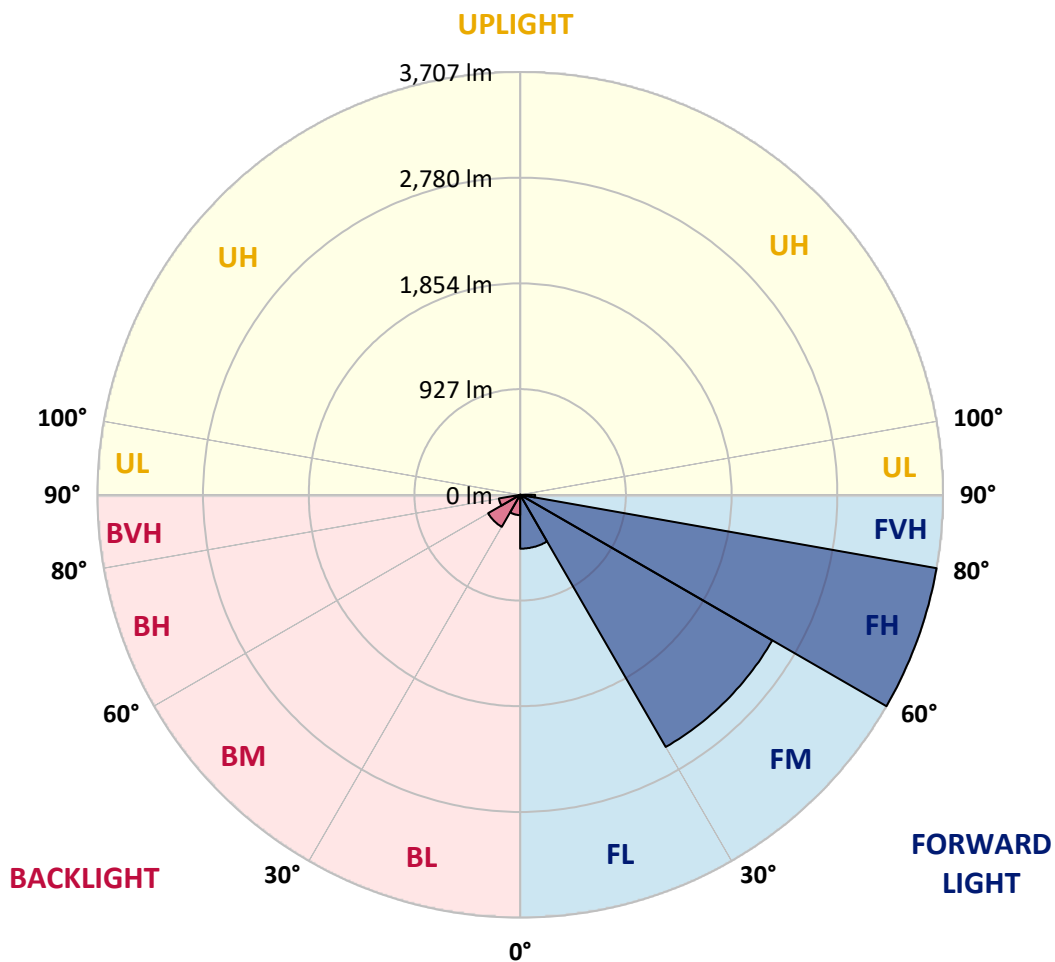
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	472.5	6.3			
FM (30°-60°)	2552.6	33.8			
FH (60°-80°)	3707.3	49.1			G2/5000
FVH (80°-90°)	131.1	1.7			G2/225
BL (0°-30°)	177.6	2.4	B1/500		
BM (30°-60°)	323.8	4.3	B1/1000		
BH (60°-80°)	189.3	2.5	B1/500		G1/500
BVH (80°-90°)	0.4	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





REPORT NUMBER: P231351

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0
2.5°	877.7	877.7	876.0	874.1	865.2	856.2	854.5	849.2	833.0	822.2	811.6
5°	951.0	952.8	949.2	940.3	920.7	900.9	899.2	884.9	854.5	833.0	809.8
7.5°	1020.7	1024.3	1015.4	999.2	976.0	947.5	945.6	918.8	879.5	849.2	815.2
10°	1079.7	1079.7	1067.2	1047.5	1022.5	992.2	988.6	958.2	913.5	876.0	831.2
12.5°	1144.1	1142.2	1124.4	1097.6	1069.0	1040.3	1038.6	1001.1	958.2	909.9	854.5
15°	1203.1	1199.5	1176.2	1151.2	1120.8	1090.5	1088.6	1051.1	1006.4	949.2	888.4
17.5°	1235.2	1233.5	1212.0	1186.9	1162.0	1138.7	1136.9	1097.6	1049.3	990.3	922.4
20°	1240.6	1242.4	1224.5	1203.1	1188.8	1176.2	1176.2	1140.5	1088.6	1026.1	958.2
22.5°	1242.4	1247.7	1235.2	1206.7	1203.1	1204.8	1208.4	1179.8	1126.2	1067.2	995.7
25°	1254.9	1262.0	1253.1	1219.2	1215.6	1228.1	1231.6	1219.2	1170.9	1111.8	1038.6
27.5°	1279.9	1287.1	1279.9	1237.1	1231.6	1244.2	1247.7	1254.9	1219.2	1154.8	1083.3
30°	1329.9	1331.8	1315.7	1262.0	1251.3	1267.4	1272.8	1292.4	1263.9	1195.9	1126.2
32.5°	1417.6	1399.7	1351.4	1279.9	1271.0	1288.8	1294.2	1315.7	1305.0	1235.2	1170.9
35°	1596.3	1503.3	1392.5	1305.0	1296.0	1313.9	1321.0	1351.4	1356.7	1290.7	1226.3
37.5°	1594.6	1510.5	1489.1	1353.3	1340.7	1353.3	1362.2	1399.7	1421.2	1363.9	1306.7
40°	1707.2	1671.4	1671.4	1444.4	1403.3	1421.2	1430.1	1467.6	1505.2	1460.5	1401.4
42.5°	2061.1	2037.8	2012.9	1619.5	1490.8	1540.9	1546.3	1569.5	1614.2	1599.9	1530.2
45°	2456.2	2434.7	2338.2	1916.3	1641.0	1649.9	1662.5	1700.0	1764.4	1791.2	1708.9
47.5°	2765.4	2744.0	2661.7	2273.8	1875.2	1796.5	1796.5	1869.9	1969.9	2037.8	1959.2
50°	3013.9	2988.9	2938.8	2654.6	2259.5	2007.4	1996.7	2082.5	2231.0	2336.4	2282.7
52.5°	3255.2	3181.9	3151.5	3047.9	2693.9	2313.2	2284.6	2345.3	2550.9	2681.4	2636.7
55°	3416.1	3405.4	3373.2	3409.0	3149.8	2684.9	2660.0	2672.5	2929.8	3017.5	2962.1
57.5°	3566.2	3564.5	3636.0	3802.2	3646.7	3110.4	3071.1	3051.5	3296.4	3274.9	3323.2
60°	3752.2	3720.0	3886.2	4124.0	4102.5	3525.2	3480.5	3441.1	3577.0	3516.2	3755.8
62.5°	3761.1	3752.2	4090.1	4431.4	4554.8	3947.1	3895.2	3753.9	3821.8	3752.2	4168.6
65°	3419.6	3464.3	4175.8	4594.2	4933.8	4317.1	4254.5	4034.6	4039.9	3993.5	4654.9
67.5°	3342.8	3366.0	3939.9	4769.3	5207.2	4690.6	4631.6	4358.2	4293.8	4297.4	4942.7
70°	3151.5	3187.3	3646.7	4756.8	5423.6	5189.4	5130.4	4833.6	4678.2	4504.8	4721.0
72.5°	2407.9	2468.7	3072.8	4170.5	5364.6	5841.9	5825.8	5436.1	4831.9	4136.5	3571.6
75°	815.2	813.3	1614.2	2801.1	4819.3	6042.1	6074.3	5361.0	4215.2	2853.0	1773.3
77.5°	175.2	177.0	332.5	1135.2	3201.6	4851.5	4974.9	4043.5	2718.9	1271.0	405.8
80°	85.8	87.6	137.7	300.3	1279.9	2720.7	2913.8	2078.9	1004.6	253.8	67.9
82.5°	42.9	44.7	71.5	159.1	473.7	967.1	1033.2	765.1	287.8	143.0	34.0
85°	16.1	16.1	35.7	94.7	216.3	227.0	278.9	221.7	173.4	116.2	8.9
87.5°	3.6	3.6	19.6	46.4	96.6	71.5	71.5	67.9	105.5	78.7	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231351

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0	808.0
2.5°	806.2	799.0	786.5	774.1	765.1	754.3	749.0	743.7	741.8	740.1	743.7
5°	797.3	786.5	763.3	743.7	725.8	711.5	700.7	690.0	684.7	681.1	682.8
7.5°	797.3	781.2	747.3	716.8	688.2	657.9	627.5	604.3	586.4	575.6	577.4
10°	806.2	784.7	740.1	699.0	645.3	580.9	514.9	464.7	430.8	411.1	411.1
12.5°	825.8	797.3	741.8	677.5	586.4	473.7	373.6	312.8	287.8	273.5	275.3
15°	852.7	818.8	750.7	648.9	504.1	352.2	261.0	221.7	221.7	225.3	227.0
17.5°	883.1	845.6	757.9	606.0	398.6	252.1	205.6	202.0	207.4	216.3	216.3
20°	913.5	872.4	761.5	538.1	298.5	200.2	194.9	194.9	198.5	207.4	209.2
22.5°	951.0	906.3	757.9	454.1	223.4	189.5	187.7	187.7	187.7	198.5	198.5
25°	990.3	945.6	743.7	364.7	189.5	182.3	180.6	178.7	178.7	187.7	189.5
27.5°	1035.0	986.7	709.7	278.9	178.7	175.2	173.4	169.8	169.8	177.0	177.0
30°	1079.7	1033.2	657.9	210.9	169.8	168.1	164.5	160.9	157.3	164.5	164.5
32.5°	1128.0	1081.5	589.9	168.1	157.3	157.3	155.5	150.2	146.6	150.2	151.9
35°	1192.4	1136.9	513.0	146.6	141.3	141.3	141.3	139.4	132.3	135.8	135.8
37.5°	1278.2	1213.7	423.7	135.8	128.7	125.1	125.1	125.1	119.8	121.5	121.5
40°	1387.2	1303.1	337.9	126.9	119.8	110.8	107.2	109.0	105.5	105.5	103.7
42.5°	1535.6	1399.7	253.8	119.8	112.6	100.1	93.0	91.1	87.6	85.8	85.8
45°	1748.2	1517.6	182.3	112.6	107.2	87.6	80.4	75.1	66.2	60.8	60.8
47.5°	2023.6	1651.8	135.8	105.5	101.9	76.8	67.9	57.2	44.7	41.1	41.1
50°	2359.6	1801.9	114.4	94.7	93.0	67.9	53.6	37.5	25.1	21.5	23.2
52.5°	2686.8	1943.1	101.9	84.0	82.2	59.0	39.3	19.6	10.7	10.7	10.7
55°	2962.1	2043.2	93.0	75.1	71.5	46.4	21.5	8.9	5.3	5.3	5.3
57.5°	3210.5	2100.4	84.0	66.2	57.2	32.2	8.9	3.6	3.6	1.7	1.7
60°	3437.5	2134.4	73.2	57.2	44.7	17.9	3.6	1.7	1.7	0.0	0.0
62.5°	3661.0	2159.4	62.6	46.4	34.0	7.2	1.7	1.7	0.0	0.0	0.0
65°	3830.8	2150.4	50.0	37.5	21.5	3.6	1.7	0.0	0.0	0.0	0.0
67.5°	3825.4	2028.9	37.5	28.6	10.7	1.7	0.0	0.0	0.0	0.0	0.0
70°	3421.5	1708.9	25.1	17.9	3.6	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2427.6	1095.8	16.1	10.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1069.0	332.5	8.9	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	209.2	76.8	5.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	50.0	8.9	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.5	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	1.7	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)