

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: P234809

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234809  
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-AF48-80-D-U-T3-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8641 lumens  
Efficiency: N/A  
Efficacy: 104.1 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

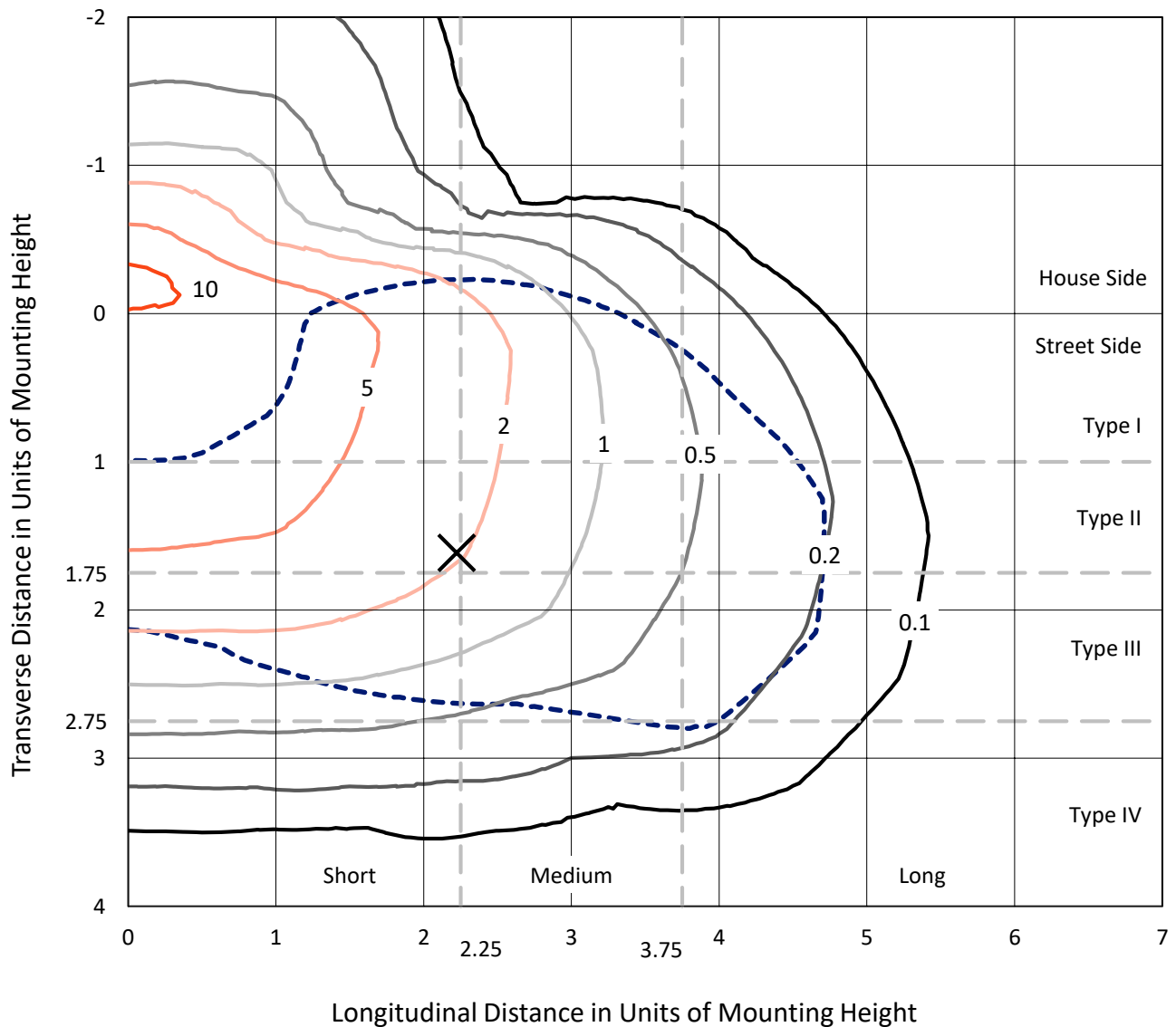
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P234809  
 CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

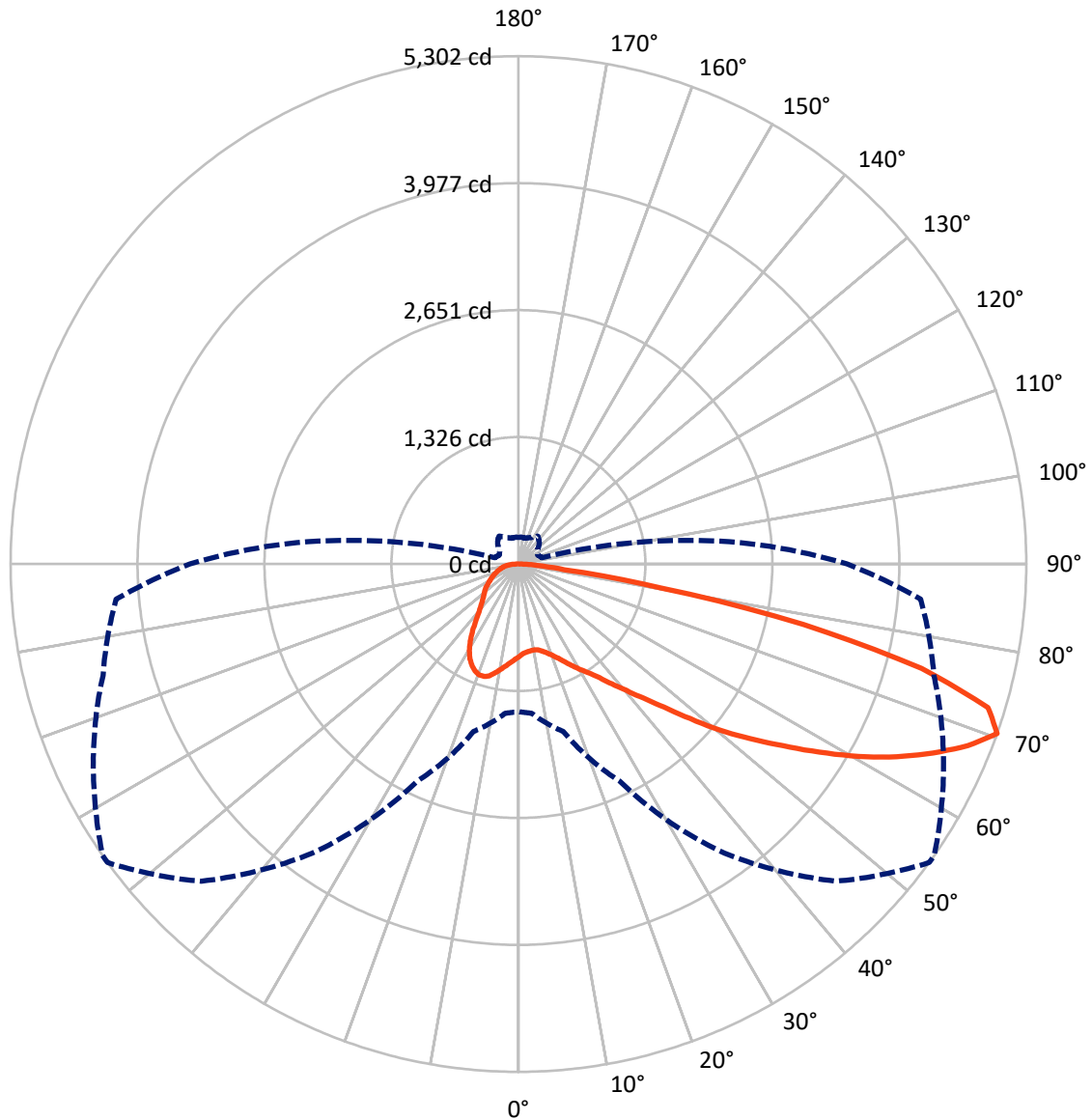


Based on 10 foot mounting height. Maximum calculated value = 11.2 fc  
 Type III - Short - Non-Cutoff

REPORT NUMBER: P234809

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P234809

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

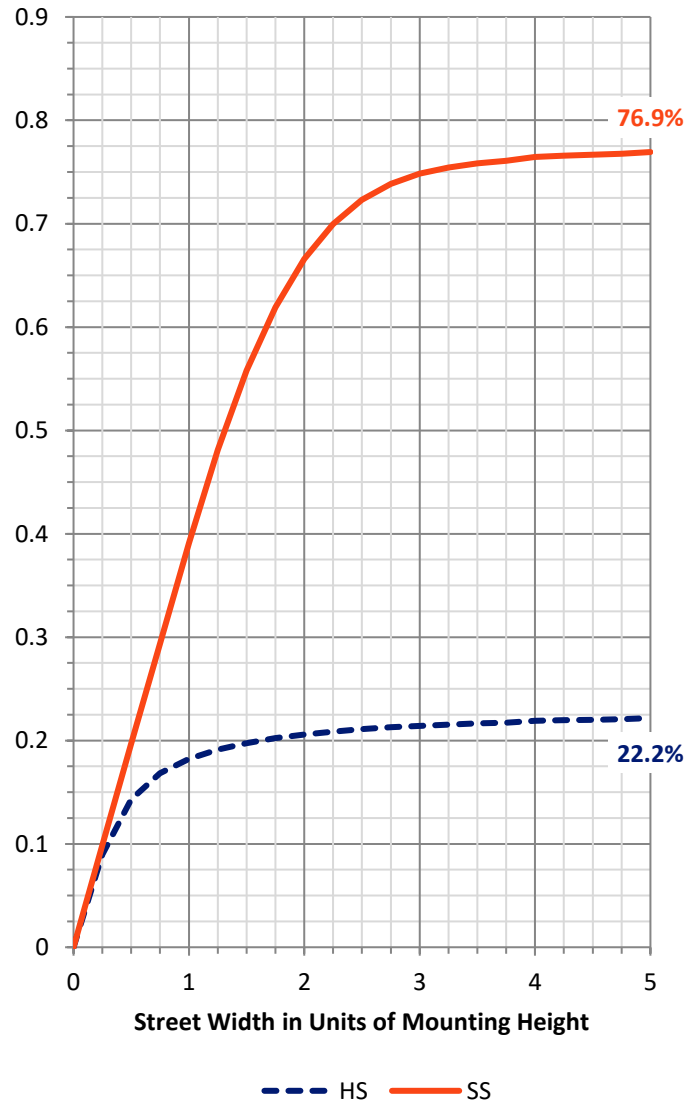
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1959.8	0.0	1959.8
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	6681.3	0.0	6681.3
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	8641.0	0.0	8641.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.9	1.1
10°-20°	303.2	3.5
20°-30°	526.7	6.1
30°-40°	769.7	8.9
40°-50°	1208.0	14.0
50°-60°	1857.6	21.5
60°-70°	2269.5	26.3
70°-80°	1407.1	16.3
80°-90°	204.4	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°	8641.0	100.0
0°-180°	8641.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P234809

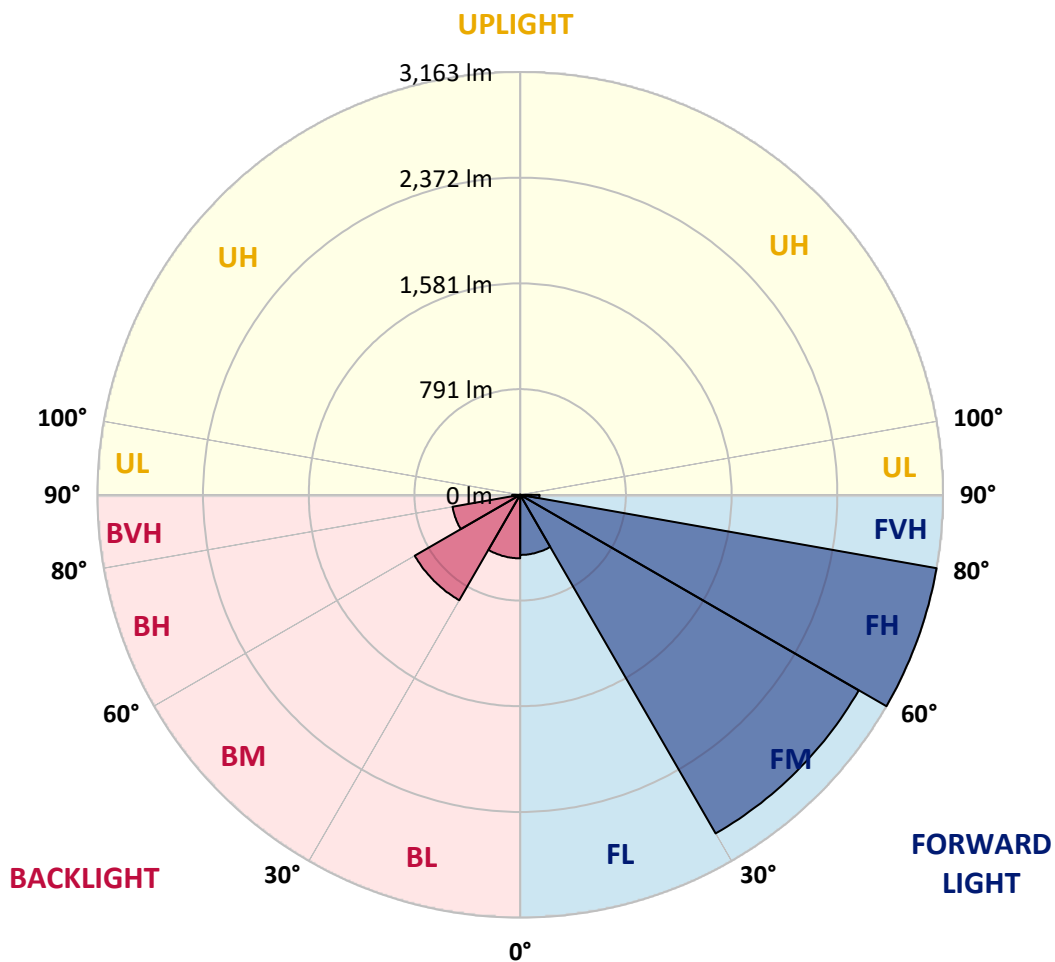
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	449.6	5.2			
FM	(30°-60°)	2924.6	33.8			
FH	(60°-80°)	3162.7	36.6			G2/5000
FVH	(80°-90°)	144.3	1.7			G2/225
BL	(0°-30°)	475.1	5.5	B1/500		
BM	(30°-60°)	910.7	10.5	B1/1000		
BH	(60°-80°)	513.9	5.9	B2/1000		G2/1000
BVH	(80°-90°)	60.1	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





REPORT NUMBER: P234809

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8
2.5°	928.8	925.6	925.6	930.4	931.9	936.7	936.7	938.3	943.0	950.9	960.4
5°	900.3	898.7	900.3	906.6	909.8	919.3	922.5	924.0	933.5	946.2	960.4
7.5°	871.8	870.2	873.4	882.9	892.4	906.6	914.5	916.1	930.4	947.8	966.8
10°	862.3	860.7	865.5	873.4	882.9	898.7	911.4	913.0	933.5	954.1	981.0
12.5°	875.0	873.4	878.1	886.1	895.6	906.6	920.9	922.5	949.3	976.2	1004.7
15°	906.6	906.6	908.2	913.0	922.5	931.9	944.6	946.2	974.7	1006.3	1034.8
17.5°	955.7	952.5	952.5	950.9	957.3	962.0	977.8	979.4	1009.5	1038.0	1066.4
20°	1015.8	1014.2	1007.9	1000.0	998.4	1001.6	1017.4	1019.0	1049.0	1072.8	1099.7
22.5°	1088.6	1090.2	1075.9	1058.5	1050.6	1055.4	1069.6	1071.2	1093.3	1113.9	1137.6
25°	1185.1	1180.4	1159.8	1134.5	1118.6	1118.6	1132.9	1132.9	1153.5	1166.1	1181.9
27.5°	1276.9	1267.4	1248.4	1212.0	1186.7	1191.4	1205.7	1205.7	1224.7	1229.4	1237.3
30°	1376.6	1367.1	1343.3	1297.4	1264.2	1261.1	1278.5	1276.9	1302.2	1300.6	1294.3
32.5°	1498.4	1493.6	1454.1	1395.5	1351.2	1340.2	1356.0	1357.6	1373.4	1368.6	1348.1
35°	1669.3	1667.7	1631.3	1528.5	1469.9	1449.3	1458.8	1458.8	1469.9	1457.3	1422.4
37.5°	1884.5	1887.6	1856.0	1704.1	1621.8	1587.0	1588.6	1587.0	1590.2	1575.9	1539.5
40°	2099.6	2107.6	2106.0	1922.4	1818.0	1757.9	1735.7	1732.6	1740.5	1734.1	1699.3
42.5°	2382.9	2401.9	2357.5	2191.4	2074.3	1973.1	1912.9	1905.0	1922.4	1930.3	1897.1
45°	2677.2	2670.8	2601.2	2481.0	2375.0	2245.2	2131.3	2118.6	2131.3	2155.0	2120.2
47.5°	2830.6	2825.9	2808.5	2748.4	2732.5	2583.8	2411.3	2400.3	2376.5	2409.8	2368.6
50°	3083.8	3088.5	3017.3	3011.0	3077.5	2995.2	2727.8	2702.5	2659.8	2686.7	2651.8
52.5°	3267.3	3246.8	3202.5	3257.8	3465.1	3420.8	3025.3	3014.2	2974.6	2968.3	2952.5
55°	3341.7	3341.7	3349.6	3477.8	3773.7	3715.1	3348.0	3359.1	3305.3	3261.0	3281.6
57.5°	3363.9	3373.4	3441.4	3653.4	4136.0	3944.5	3704.0	3719.9	3642.3	3553.7	3618.6
60°	3254.7	3283.2	3446.1	3753.1	4340.1	4188.2	4079.0	4083.8	3971.4	3841.7	3955.6
62.5°	2974.6	3009.4	3300.6	3794.2	4306.9	4438.2	4433.5	4444.5	4291.1	4129.7	4272.1
65°	2631.3	2666.1	2976.2	3678.7	4281.6	4617.0	4757.8	4787.9	4590.1	4373.3	4469.8
67.5°	2126.5	2172.4	2466.7	3289.5	4158.1	4764.1	5061.6	5093.3	4821.1	4499.9	4452.4
70°	1541.1	1563.3	1810.1	2500.0	3655.0	4683.5	5302.1	5300.5	4897.1	4490.4	4215.1
72.5°	742.1	759.5	973.1	1552.2	2613.9	3974.6	5128.1	5158.1	4792.6	4352.8	3672.4
75°	305.4	322.8	394.0	655.1	1371.8	2626.5	4346.4	4417.6	4352.8	3906.6	2873.4
77.5°	189.9	196.2	231.0	338.6	626.6	1226.2	3042.7	3139.2	3449.3	3129.7	1897.1
80°	142.4	147.1	172.5	237.3	395.6	452.5	1511.0	1632.9	2090.1	1795.9	859.2
82.5°	118.7	120.3	137.7	172.5	269.0	259.5	484.2	539.5	974.7	685.1	295.9
85°	110.8	113.9	123.4	123.4	170.9	163.0	200.9	210.4	283.2	234.2	102.8
87.5°	57.0	53.8	109.2	96.5	88.6	79.1	85.4	91.8	106.0	112.3	45.9
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: P234809

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-8027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8	966.8
2.5°	963.6	968.3	976.2	984.2	993.7	1004.7	1011.1	1019.0	1025.3	1022.1	1020.5
5°	968.3	976.2	993.7	1009.5	1028.5	1050.6	1064.9	1080.7	1093.3	1096.5	1091.8
7.5°	976.2	990.5	1014.2	1042.7	1068.0	1096.5	1118.6	1140.8	1156.6	1159.8	1159.8
10°	995.2	1011.1	1042.7	1080.7	1110.7	1140.8	1166.1	1183.5	1197.8	1204.1	1204.1
12.5°	1022.1	1041.1	1079.1	1125.0	1158.2	1186.7	1200.9	1208.8	1215.2	1221.5	1223.1
15°	1053.8	1074.3	1120.2	1169.3	1204.1	1218.3	1218.3	1216.7	1216.7	1219.9	1223.1
17.5°	1085.4	1107.6	1155.0	1207.3	1229.4	1221.5	1210.4	1205.7	1202.5	1200.9	1205.7
20°	1118.6	1140.8	1188.3	1237.3	1231.0	1197.8	1181.9	1170.9	1161.4	1156.6	1163.0
22.5°	1155.0	1175.6	1224.7	1257.9	1210.4	1159.8	1129.7	1112.3	1096.5	1087.0	1093.3
25°	1197.8	1218.3	1265.8	1264.2	1174.0	1102.8	1055.4	1026.9	1009.5	1000.0	1000.0
27.5°	1248.4	1265.8	1311.7	1248.4	1123.4	1026.9	957.3	930.4	925.6	917.7	917.7
30°	1300.6	1314.8	1354.4	1212.0	1053.8	927.2	851.2	838.6	840.2	832.3	833.8
32.5°	1354.4	1368.6	1379.7	1158.2	963.6	814.9	764.2	754.7	753.1	746.8	740.5
35°	1430.4	1450.9	1382.9	1085.4	854.4	721.5	685.1	675.6	666.1	644.0	644.0
37.5°	1545.9	1568.0	1375.0	995.2	742.1	648.7	615.5	602.8	587.0	564.9	557.0
40°	1704.1	1704.1	1357.6	894.0	651.9	590.2	558.5	542.7	525.3	503.2	498.4
42.5°	1890.8	1846.5	1330.7	791.1	585.4	550.6	522.1	504.7	484.2	458.9	455.7
45°	2109.1	1988.9	1292.7	699.4	536.4	526.9	509.5	479.4	444.6	417.7	413.0
47.5°	2321.2	2117.0	1256.3	634.5	495.2	517.4	503.2	452.5	405.1	367.1	362.3
50°	2553.7	2231.0	1213.6	580.7	463.6	511.1	495.2	413.0	360.8	333.9	330.7
52.5°	2786.3	2346.5	1167.7	523.7	436.7	498.4	476.3	384.5	359.2	322.8	318.0
55°	3031.6	2481.0	1113.9	460.4	405.1	473.1	450.9	382.9	370.2	322.8	311.7
57.5°	3270.5	2629.7	1026.9	398.7	370.2	435.1	441.4	373.4	346.5	319.6	307.0
60°	3534.7	2787.9	882.9	346.5	340.2	403.5	428.8	352.8	319.6	310.1	303.8
62.5°	3746.8	2930.3	689.9	310.1	314.9	378.2	413.0	340.2	308.5	300.6	299.0
65°	3838.5	2933.5	495.2	278.5	289.6	354.4	397.1	329.1	299.0	295.9	294.3
67.5°	3742.0	2772.1	348.1	248.4	262.7	332.3	376.6	318.0	289.6	291.1	288.0
70°	3430.3	2431.9	254.7	219.9	237.3	308.5	354.4	303.8	278.5	281.6	276.9
72.5°	2870.2	1895.5	204.1	196.2	216.8	283.2	332.3	288.0	261.1	262.7	253.2
75°	2120.2	1256.3	170.9	175.6	193.0	259.5	303.8	267.4	242.1	235.8	229.4
77.5°	1261.1	645.6	140.8	153.5	172.5	231.0	272.1	242.1	221.5	210.4	205.7
80°	520.6	261.1	115.5	129.7	150.3	205.7	240.5	212.0	197.8	186.7	180.4
82.5°	207.3	128.2	91.8	106.0	126.6	178.8	210.4	186.7	172.5	164.6	147.1
85°	79.1	63.3	61.7	74.4	94.9	137.7	174.0	156.6	145.6	125.0	120.3
87.5°	31.6	28.5	28.5	36.4	53.8	87.0	125.0	109.2	113.9	90.2	91.8
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)