

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: P214746

Luminaire Tested: **ARCH-AF24-70-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214746  
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-AF24-70-D-U-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8475 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G2

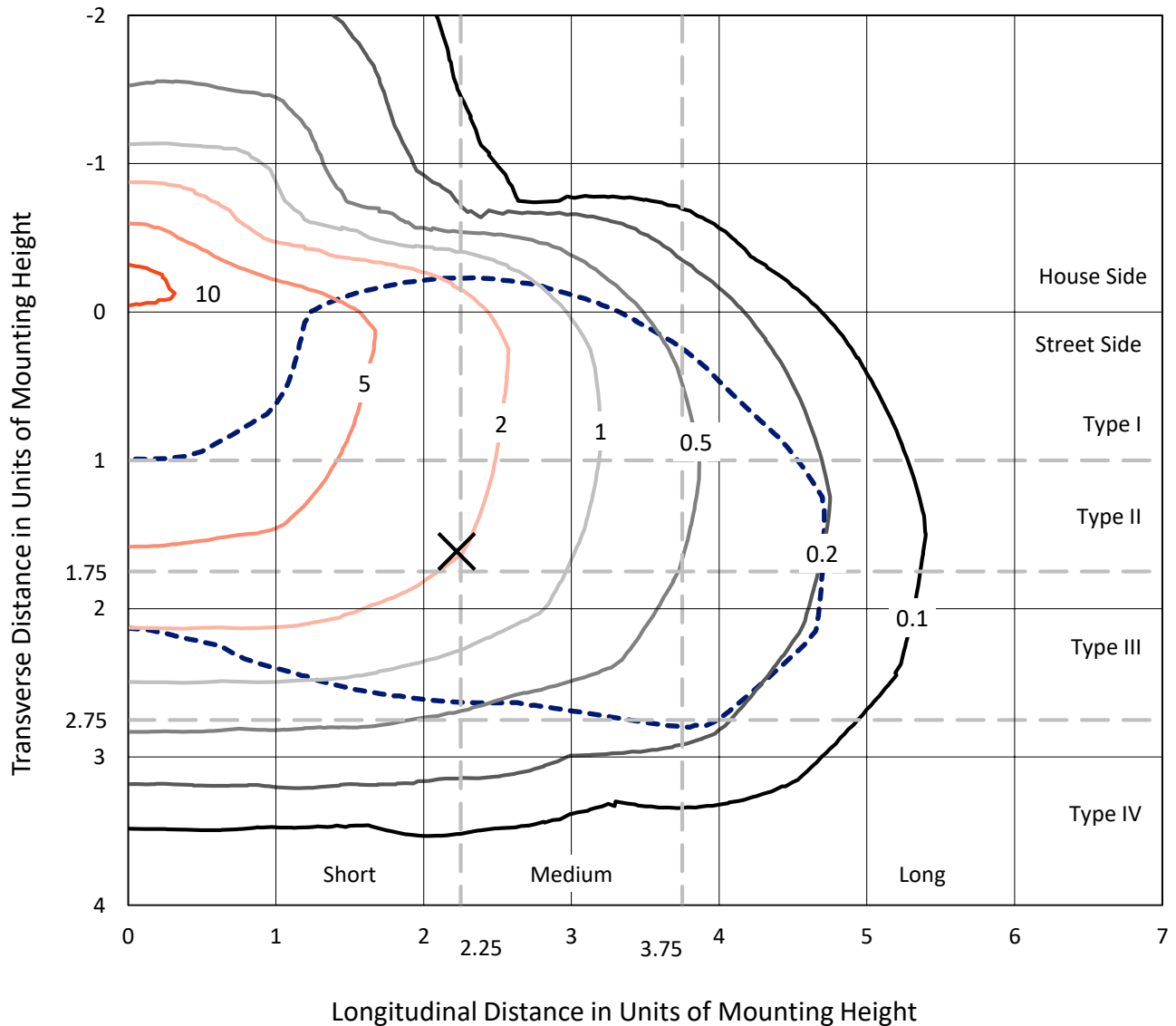
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

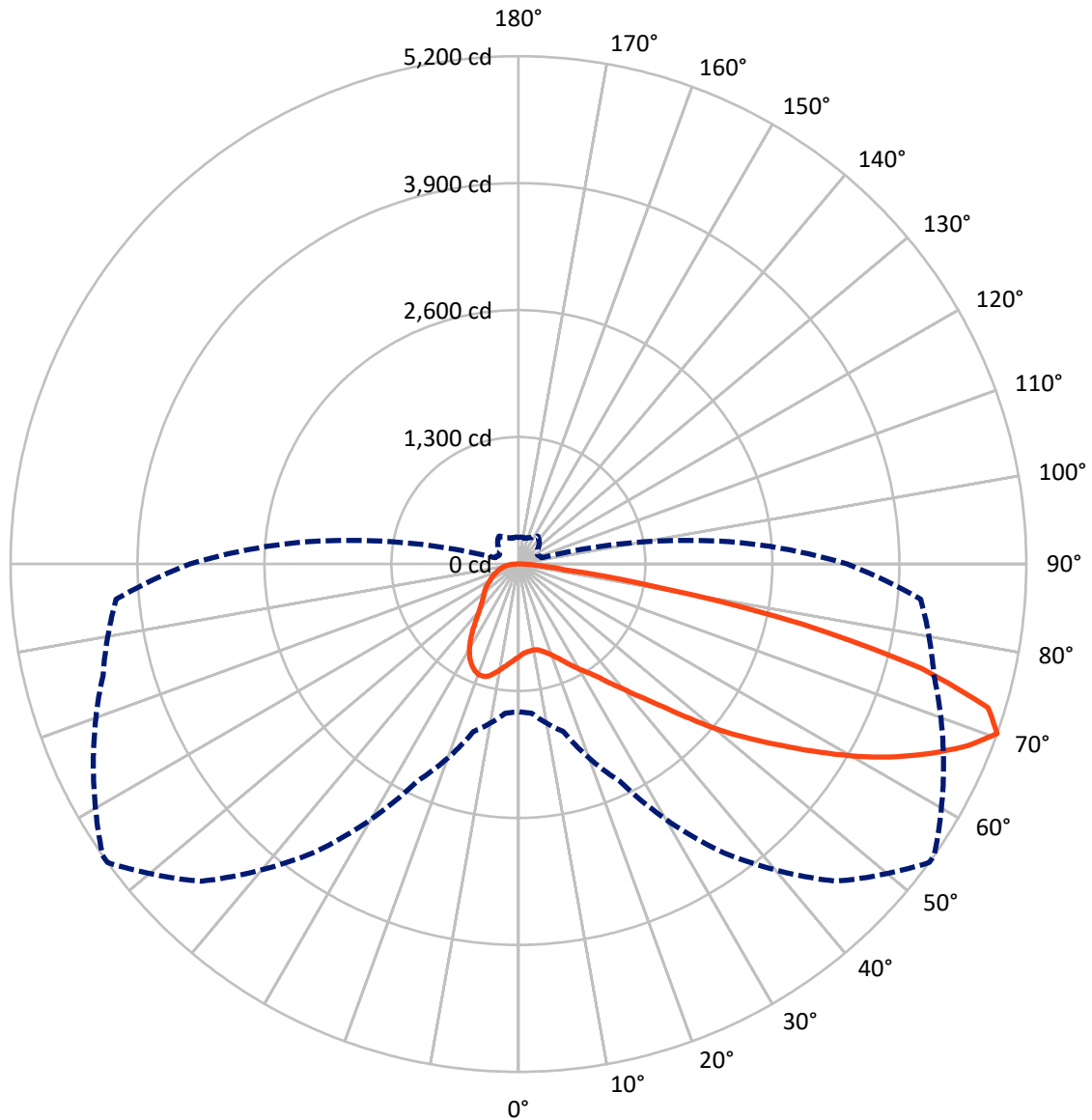
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11 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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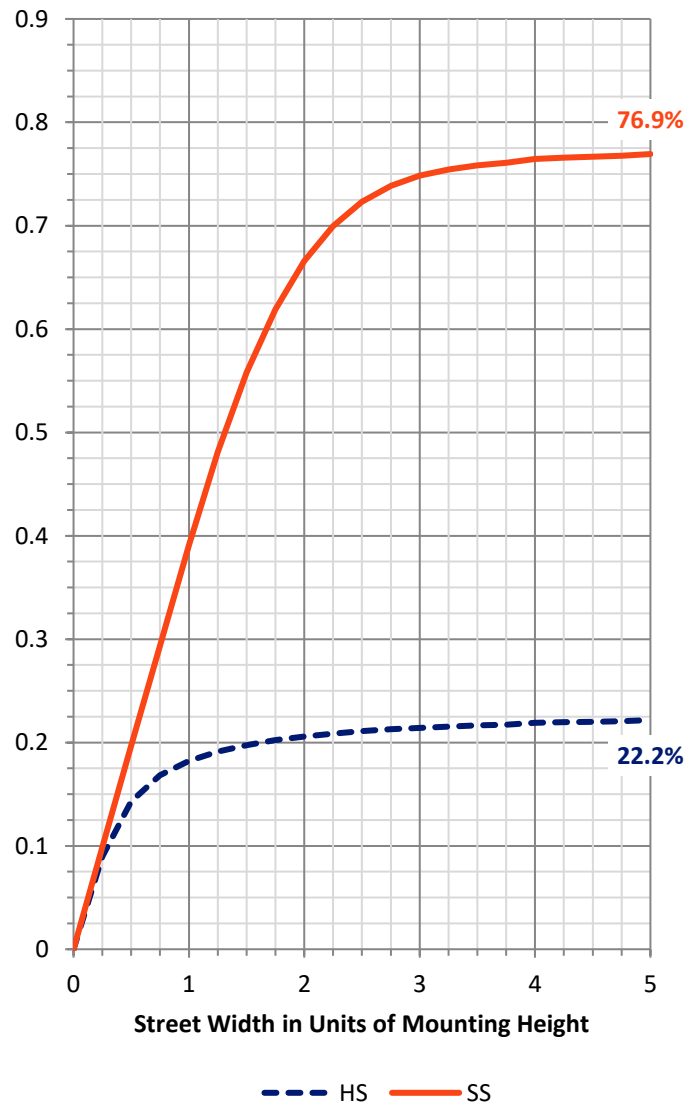
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1922.1	0.0	1922.1
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	6552.9	0.0	6552.9
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	8475.0	0.0	8475.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.1	1.1
10°-20°	297.3	3.5
20°-30°	516.6	6.1
30°-40°	754.9	8.9
40°-50°	1184.8	14.0
50°-60°	1821.9	21.5
60°-70°	2225.9	26.3
70°-80°	1380.1	16.3
80°-90°	200.5	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°	8475.0	100.0
0°-180°	8475.0	100.0

**Coefficient of Utilization**



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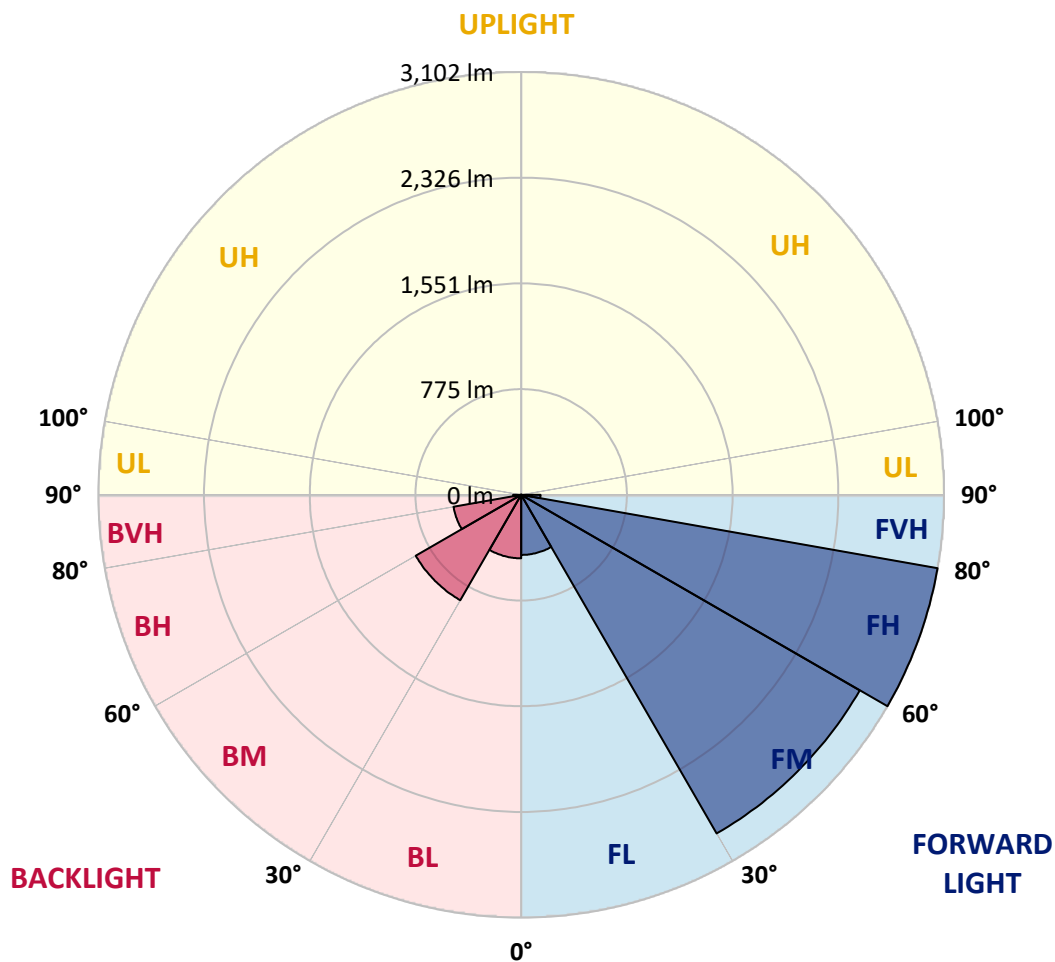
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	440.9	5.2			
FM	(30°-60°)	2868.4	33.8			
FH	(60°-80°)	3102.0	36.6			G2/5000
FVH	(80°-90°)	141.6	1.7			G2/225
BL	(0°-30°)	466.0	5.5	B1/500		
BM	(30°-60°)	893.2	10.5	B1/1000		
BH	(60°-80°)	504.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	58.9	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°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	910.9	907.8	907.8	912.5	914.0	918.7	918.7	920.2	924.9	932.7	942.0
5°	883.0	881.5	883.0	889.2	892.3	901.6	904.7	906.3	915.6	928.0	942.0
7.5°	855.1	853.5	856.6	865.9	875.2	889.2	897.0	898.5	912.5	929.6	948.2
10°	845.8	844.2	848.9	856.6	865.9	881.5	893.9	895.4	915.6	935.8	962.1
12.5°	858.2	856.6	861.3	869.0	878.3	889.2	903.2	904.7	931.1	957.5	985.4
15°	889.2	889.2	890.8	895.4	904.7	914.0	926.5	928.0	955.9	987.0	1014.9
17.5°	937.3	934.2	934.2	932.7	938.9	943.5	959.0	960.6	990.1	1018.0	1045.9
20°	996.3	994.7	988.5	980.8	979.2	982.3	997.8	999.4	1028.9	1052.2	1078.5
22.5°	1067.7	1069.2	1055.3	1038.2	1030.4	1035.1	1049.1	1050.6	1072.3	1092.5	1115.8
25°	1162.3	1157.7	1137.5	1112.7	1097.2	1097.2	1111.1	1111.1	1131.3	1143.7	1159.2
27.5°	1252.3	1243.0	1224.4	1188.7	1163.9	1168.5	1182.5	1182.5	1201.1	1205.8	1213.5
30°	1350.1	1340.8	1317.5	1272.5	1239.9	1236.8	1253.9	1252.3	1277.2	1275.6	1269.4
32.5°	1469.6	1464.9	1426.2	1368.7	1325.3	1314.4	1329.9	1331.5	1347.0	1342.4	1322.2
35°	1637.2	1635.7	1600.0	1499.1	1441.7	1421.5	1430.8	1430.8	1441.7	1429.3	1395.1
37.5°	1848.3	1851.4	1820.3	1671.3	1590.6	1556.5	1558.1	1556.5	1559.6	1545.6	1510.0
40°	2059.3	2067.1	2065.5	1885.5	1783.1	1724.1	1702.4	1699.3	1707.0	1700.8	1666.7
42.5°	2337.1	2355.7	2312.3	2149.3	2034.5	1935.2	1876.2	1868.4	1885.5	1893.3	1860.7
45°	2625.7	2619.5	2551.2	2433.3	2329.3	2202.1	2090.3	2077.9	2090.3	2113.6	2079.5
47.5°	2776.3	2771.6	2754.5	2695.6	2680.0	2534.2	2365.0	2354.2	2330.9	2363.5	2323.1
50°	3024.6	3029.2	2959.4	2953.2	3018.4	2937.7	2675.4	2650.6	2608.7	2635.0	2600.9
52.5°	3204.6	3184.4	3140.9	3195.3	3398.6	3355.1	2967.1	2956.3	2917.5	2911.3	2895.8
55°	3277.5	3277.5	3285.3	3411.0	3701.2	3643.7	3283.7	3294.6	3241.8	3198.4	3218.5
57.5°	3299.2	3308.5	3375.3	3583.2	4056.5	3868.8	3632.9	3648.4	3572.4	3485.5	3549.1
60°	3192.2	3220.1	3379.9	3681.0	4256.7	4107.8	4000.7	4005.3	3895.1	3767.9	3879.6
62.5°	2917.5	2951.6	3237.2	3721.3	4224.1	4352.9	4348.3	4359.2	4208.6	4050.3	4190.0
65°	2580.7	2614.9	2919.0	3608.1	4199.3	4528.3	4666.4	4695.9	4501.9	4289.3	4384.0
67.5°	2085.7	2130.7	2419.3	3226.3	4078.3	4672.6	4964.4	4995.4	4728.5	4413.5	4366.9
70°	1511.5	1533.2	1775.3	2451.9	3584.8	4593.5	5200.3	5198.7	4803.0	4404.2	4134.1
72.5°	727.8	744.9	954.4	1522.4	2563.7	3898.3	5029.6	5059.0	4700.6	4269.1	3601.8
75°	299.5	316.6	386.4	642.5	1345.5	2576.1	4262.9	4332.8	4269.1	3831.5	2818.2
77.5°	186.2	192.4	226.6	332.1	614.5	1202.7	2984.2	3078.9	3383.0	3069.6	1860.7
80°	139.7	144.3	169.2	232.8	388.0	443.8	1482.0	1601.5	2050.0	1761.4	842.7
82.5°	116.4	117.9	135.0	169.2	263.8	254.5	474.9	529.2	955.9	672.0	290.2
85°	108.6	111.7	121.0	121.0	167.6	159.8	197.1	206.4	277.8	229.7	100.9
87.5°	55.9	52.8	107.1	94.7	86.9	77.6	83.8	90.0	104.0	110.2	45.0
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°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	945.1	949.7	957.5	965.3	974.6	985.4	991.6	999.4	1005.6	1002.5	1000.9
5°	949.7	957.5	974.6	990.1	1008.7	1030.4	1044.4	1059.9	1072.3	1075.4	1070.8
7.5°	957.5	971.5	994.7	1022.7	1047.5	1075.4	1097.2	1118.9	1134.4	1137.5	1137.5
10°	976.1	991.6	1022.7	1059.9	1089.4	1118.9	1143.7	1160.8	1174.8	1181.0	1181.0
12.5°	1002.5	1021.1	1058.4	1103.4	1136.0	1163.9	1177.9	1185.6	1191.8	1198.0	1199.6
15°	1033.5	1053.7	1098.7	1146.8	1181.0	1194.9	1194.9	1193.4	1193.4	1196.5	1199.6
17.5°	1064.6	1086.3	1132.9	1184.1	1205.8	1198.0	1187.2	1182.5	1179.4	1177.9	1182.5
20°	1097.2	1118.9	1165.4	1213.5	1207.3	1174.8	1159.2	1148.4	1139.1	1134.4	1140.6
22.5°	1132.9	1153.0	1201.1	1233.7	1187.2	1137.5	1108.0	1091.0	1075.4	1066.1	1072.3
25°	1174.8	1194.9	1241.5	1239.9	1151.5	1081.6	1035.1	1007.2	990.1	980.8	980.8
27.5°	1224.4	1241.5	1286.5	1224.4	1101.8	1007.2	938.9	912.5	907.8	900.1	900.1
30°	1275.6	1289.6	1328.4	1188.7	1033.5	909.4	834.9	822.5	824.0	816.3	817.8
32.5°	1328.4	1342.4	1353.2	1136.0	945.1	799.2	749.5	740.2	738.7	732.5	726.3
35°	1402.9	1423.0	1356.3	1064.6	838.0	707.6	672.0	662.6	653.3	631.6	631.6
37.5°	1516.2	1537.9	1348.6	976.1	727.8	636.3	603.7	591.3	575.7	554.0	546.3
40°	1671.3	1671.3	1331.5	876.8	639.4	578.8	547.8	532.3	515.2	493.5	488.8
42.5°	1854.5	1811.0	1305.1	775.9	574.2	540.0	512.1	495.0	474.9	450.0	446.9
45°	2068.6	1950.7	1267.9	685.9	526.1	516.8	499.7	470.2	436.1	409.7	405.0
47.5°	2276.6	2076.4	1232.2	622.3	485.7	507.5	493.5	443.8	397.3	360.0	355.4
50°	2504.7	2188.1	1190.3	569.5	454.7	501.2	485.7	405.0	353.8	327.4	324.3
52.5°	2732.8	2301.4	1145.3	513.7	428.3	488.8	467.1	377.1	352.3	316.6	311.9
55°	2973.3	2433.3	1092.5	451.6	397.3	464.0	442.3	375.5	363.1	316.6	305.7
57.5°	3207.7	2579.2	1007.2	391.1	363.1	426.8	433.0	366.2	339.9	313.5	301.1
60°	3466.8	2734.4	865.9	339.9	333.6	395.7	420.6	346.1	313.5	304.2	298.0
62.5°	3674.8	2874.0	676.6	304.2	308.8	370.9	405.0	333.6	302.6	294.9	293.3
65°	3764.8	2877.1	485.7	273.1	284.0	347.6	389.5	322.8	293.3	290.2	288.6
67.5°	3670.1	2718.8	341.4	243.6	257.6	325.9	369.3	311.9	284.0	285.5	282.4
70°	3364.4	2385.2	249.8	215.7	232.8	302.6	347.6	298.0	273.1	276.2	271.6
72.5°	2815.1	1859.1	200.2	192.4	212.6	277.8	325.9	282.4	256.1	257.6	248.3
75°	2079.5	1232.2	167.6	172.3	189.3	254.5	298.0	262.3	237.4	231.2	225.0
77.5°	1236.8	633.2	138.1	150.5	169.2	226.6	266.9	237.4	217.3	206.4	201.7
80°	510.6	256.1	113.3	127.3	147.4	201.7	235.9	207.9	194.0	183.1	176.9
82.5°	203.3	125.7	90.0	104.0	124.1	175.4	206.4	183.1	169.2	161.4	144.3
85°	77.6	62.1	60.5	72.9	93.1	135.0	170.7	153.6	142.8	122.6	117.9
87.5°	31.0	27.9	27.9	35.7	52.8	85.4	122.6	107.1	111.7	88.5	90.0
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)