

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: P234723

Luminaire Tested: **ARCH-AF24-100-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234723
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-AF24-100-D-U-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7706 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

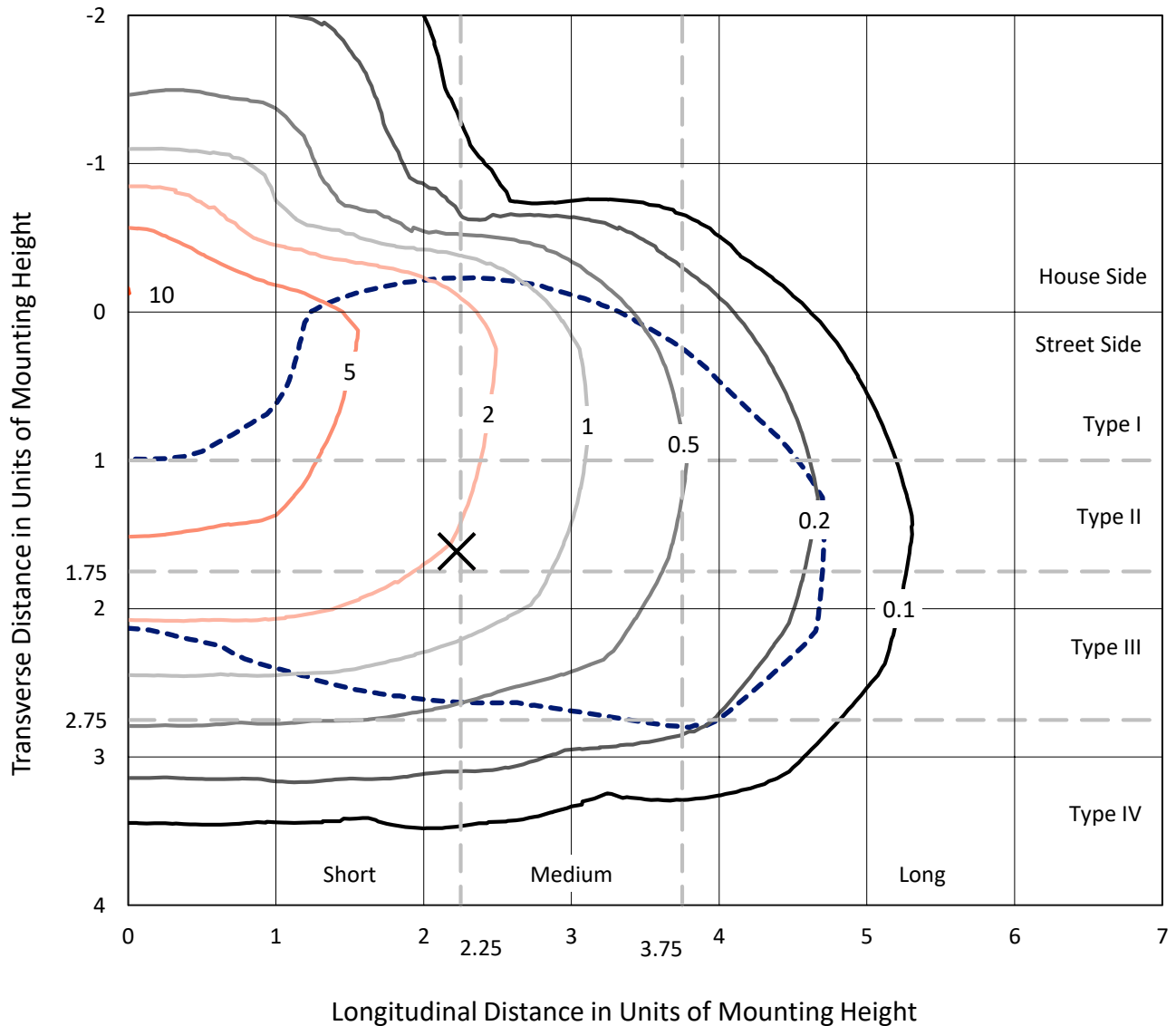
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

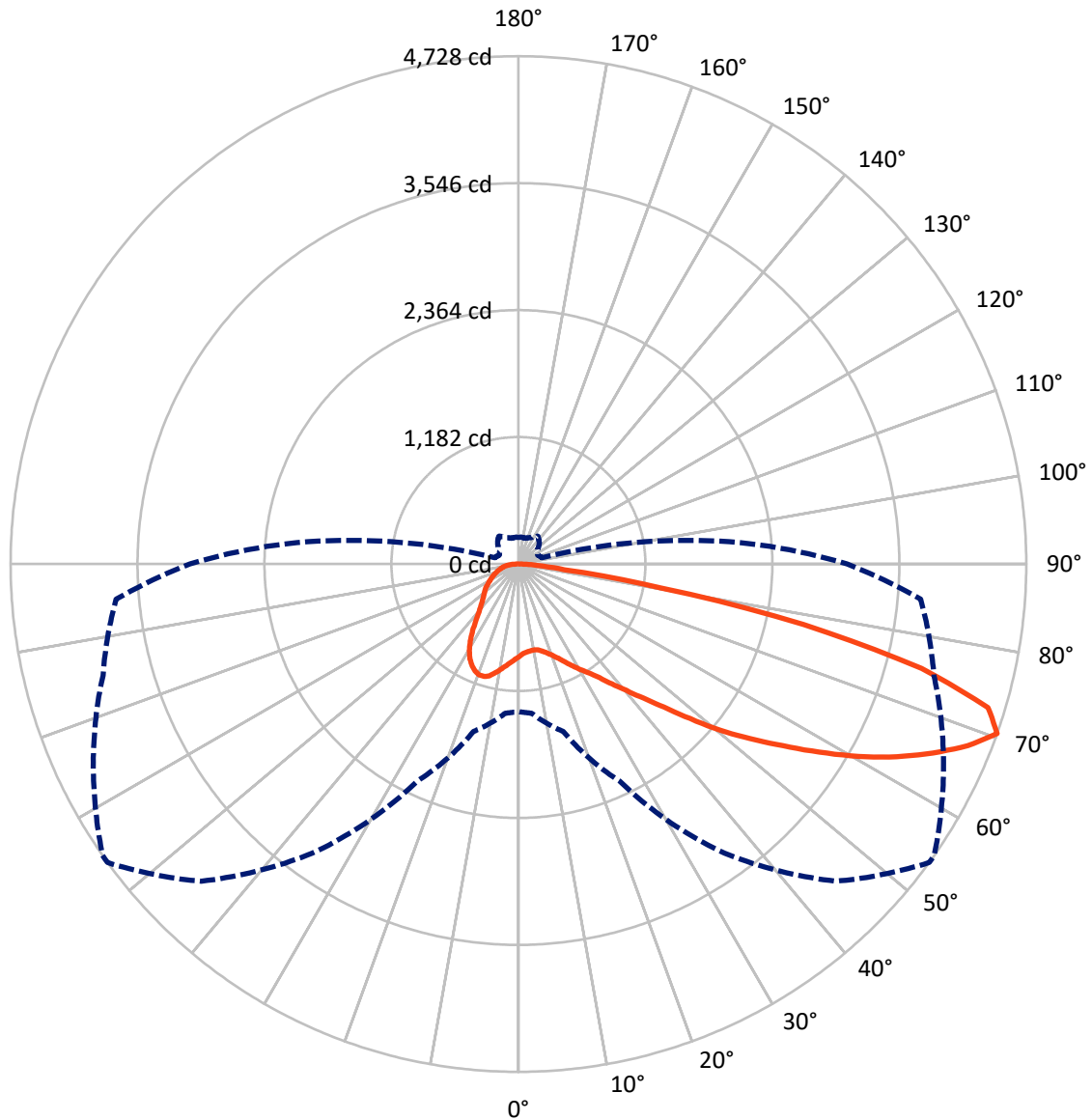
× Max cd
 - - - 1/2 Max cd



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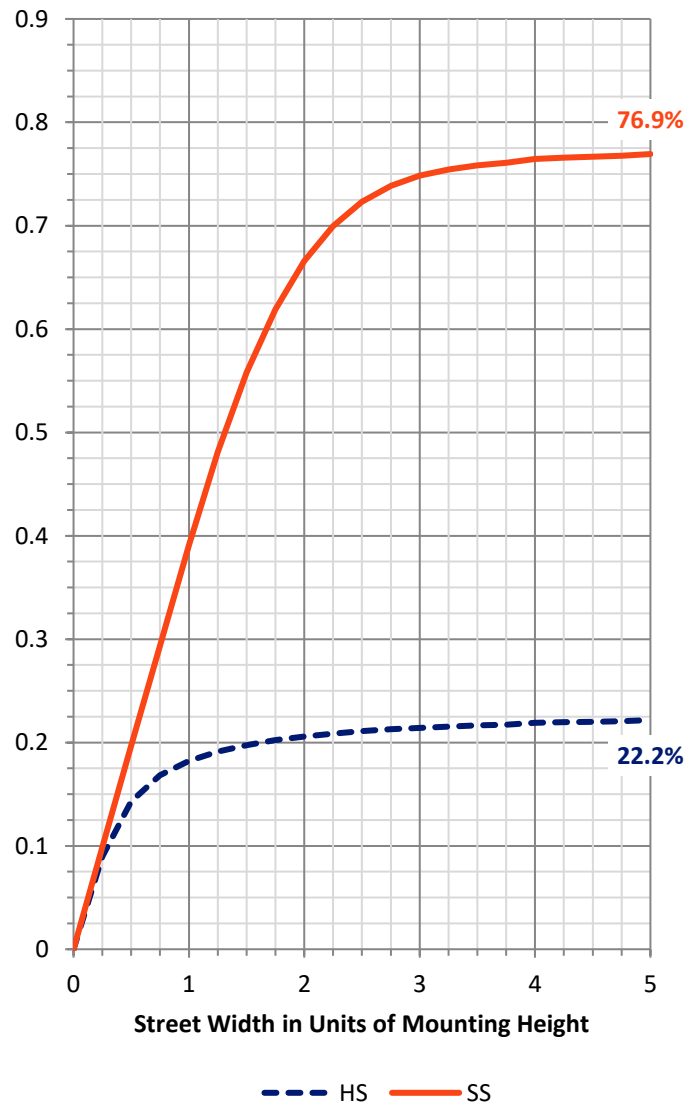
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1747.7	0.0	1747.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5958.3	0.0	5958.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	7706.0	0.0	7706.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.6	1.1
10°-20°	270.3	3.5
20°-30°	469.7	6.1
30°-40°	686.4	8.9
40°-50°	1077.3	14.0
50°-60°	1656.6	21.5
60°-70°	2023.9	26.3
70°-80°	1254.9	16.3
80°-90°	182.3	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°	7706.0	100.0
0°-180°	7706.0	100.0



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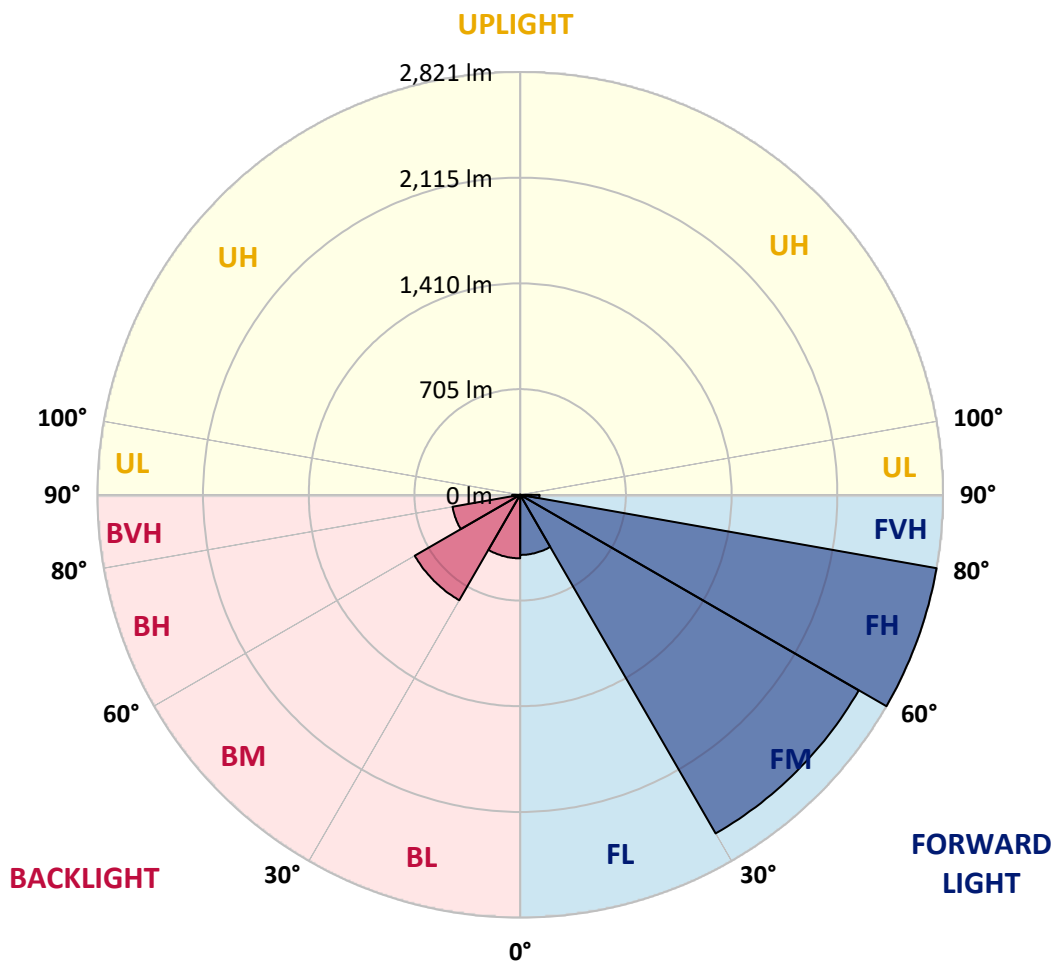
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	400.9	5.2			
FM	(30°-60°)	2608.1	33.8			
FH	(60°-80°)	2820.5	36.6			G2/5000
FVH	(80°-90°)	128.7	1.7			G2/225
BL	(0°-30°)	423.7	5.5	B1/500		
BM	(30°-60°)	812.1	10.5	B1/1000		
BH	(60°-80°)	458.3	5.9	B1/500		G1/500
BVH	(80°-90°)	53.6	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	828.3	825.5	825.5	829.7	831.1	835.3	835.3	836.7	841.0	848.0	856.5
5°	802.9	801.5	802.9	808.5	811.3	819.8	822.6	824.0	832.5	843.8	856.5
7.5°	777.5	776.1	778.9	787.4	795.8	808.5	815.6	817.0	829.7	845.2	862.1
10°	769.0	767.6	771.8	778.9	787.4	801.5	812.8	814.2	832.5	850.9	874.8
12.5°	780.3	778.9	783.1	790.2	798.6	808.5	821.2	822.6	846.6	870.6	896.0
15°	808.5	808.5	809.9	814.2	822.6	831.1	842.4	843.8	869.2	897.4	922.8
17.5°	852.3	849.4	849.4	848.0	853.7	857.9	872.0	873.4	900.2	925.6	951.0
20°	905.9	904.5	898.8	891.8	890.4	893.2	907.3	908.7	935.5	956.7	980.7
22.5°	970.8	972.2	959.5	944.0	936.9	941.2	953.9	955.3	975.0	993.4	1014.5
25°	1056.9	1052.6	1034.3	1011.7	997.6	997.6	1010.3	1010.3	1028.6	1039.9	1054.0
27.5°	1138.7	1130.2	1113.3	1080.9	1058.3	1062.5	1075.2	1075.2	1092.1	1096.4	1103.4
30°	1227.6	1219.1	1198.0	1157.1	1127.4	1124.6	1140.1	1138.7	1161.3	1159.9	1154.2
32.5°	1336.3	1332.0	1296.7	1244.5	1205.0	1195.2	1209.3	1210.7	1224.8	1220.6	1202.2
35°	1488.6	1487.2	1454.8	1363.1	1310.9	1292.5	1301.0	1301.0	1310.9	1299.6	1268.5
37.5°	1680.5	1683.4	1655.2	1519.7	1446.3	1415.3	1416.7	1415.3	1418.1	1405.4	1372.9
40°	1872.5	1879.5	1878.1	1714.4	1621.3	1567.7	1547.9	1545.1	1552.1	1546.5	1515.5
42.5°	2125.0	2142.0	2102.5	1954.3	1849.9	1759.6	1705.9	1698.9	1714.4	1721.5	1691.8
45°	2387.5	2381.8	2319.8	2212.5	2118.0	2002.3	1900.7	1889.4	1900.7	1921.8	1890.8
47.5°	2524.4	2520.1	2504.6	2451.0	2436.9	2304.2	2150.4	2140.5	2119.4	2149.0	2112.3
50°	2750.1	2754.4	2690.9	2685.2	2744.5	2671.1	2432.6	2410.1	2372.0	2395.9	2364.9
52.5°	2913.8	2895.5	2855.9	2905.3	3090.2	3050.7	2697.9	2688.0	2652.8	2647.1	2633.0
55°	2980.1	2980.1	2987.2	3101.5	3365.3	3313.1	2985.8	2995.6	2947.7	2908.2	2926.5
57.5°	2999.9	3008.3	3069.0	3258.1	3688.5	3517.7	3303.2	3317.4	3248.2	3169.2	3227.0
60°	2902.5	2927.9	3073.2	3347.0	3870.5	3735.0	3637.7	3641.9	3541.7	3426.0	3527.6
62.5°	2652.8	2683.8	2943.4	3383.7	3840.9	3958.0	3953.7	3963.6	3826.7	3682.8	3809.8
65°	2346.6	2377.6	2654.2	3280.7	3818.3	4117.4	4243.0	4269.8	4093.4	3900.1	3986.2
67.5°	1896.4	1937.4	2199.8	2933.6	3708.2	4248.6	4513.9	4542.1	4299.4	4013.0	3970.7
70°	1374.4	1394.1	1614.2	2229.4	3259.5	4176.7	4728.4	4727.0	4367.2	4004.5	3759.0
72.5°	661.8	677.3	867.8	1384.2	2331.0	3544.5	4573.2	4600.0	4274.0	3881.8	3275.0
75°	272.3	287.9	351.3	584.2	1223.4	2342.3	3876.1	3939.6	3881.8	3483.9	2562.4
77.5°	169.3	175.0	206.0	302.0	558.8	1093.6	2713.4	2799.5	3076.1	2791.0	1691.8
80°	127.0	131.2	153.8	211.7	352.8	403.6	1347.5	1456.2	1864.0	1601.5	766.2
82.5°	105.8	107.2	122.8	153.8	239.9	231.4	431.8	481.2	869.2	611.0	263.9
85°	98.8	101.6	110.1	110.1	152.4	145.3	179.2	187.7	252.6	208.8	91.7
87.5°	50.8	48.0	97.4	86.1	79.0	70.6	76.2	81.8	94.5	100.2	40.9
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°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	859.3	863.6	870.6	877.7	886.1	896.0	901.7	908.7	914.4	911.5	910.1
5°	863.6	870.6	886.1	900.2	917.2	936.9	949.6	963.7	975.0	977.9	973.6
7.5°	870.6	883.3	904.5	929.9	952.5	977.9	997.6	1017.4	1031.5	1034.3	1034.3
10°	887.5	901.7	929.9	963.7	990.6	1017.4	1039.9	1055.5	1068.2	1073.8	1073.8
12.5°	911.5	928.5	962.3	1003.2	1032.9	1058.3	1071.0	1078.0	1083.7	1089.3	1090.7
15°	939.8	958.1	999.0	1042.8	1073.8	1086.5	1086.5	1085.1	1085.1	1087.9	1090.7
17.5°	968.0	987.7	1030.1	1076.6	1096.4	1089.3	1079.4	1075.2	1072.4	1071.0	1075.2
20°	997.6	1017.4	1059.7	1103.4	1097.8	1068.2	1054.0	1044.2	1035.7	1031.5	1037.1
22.5°	1030.1	1048.4	1092.1	1121.8	1079.4	1034.3	1007.5	992.0	977.9	969.4	975.0
25°	1068.2	1086.5	1128.8	1127.4	1047.0	983.5	941.2	915.8	900.2	891.8	891.8
27.5°	1113.3	1128.8	1169.8	1113.3	1001.8	915.8	853.7	829.7	825.5	818.4	818.4
30°	1159.9	1172.6	1207.9	1080.9	939.8	826.9	759.1	747.9	749.3	742.2	743.6
32.5°	1207.9	1220.6	1230.4	1032.9	859.3	726.7	681.5	673.1	671.7	666.0	660.4
35°	1275.6	1293.9	1233.2	968.0	762.0	643.4	611.0	602.5	594.0	574.3	574.3
37.5°	1378.6	1398.3	1226.2	887.5	661.8	578.5	548.9	537.6	523.5	503.7	496.7
40°	1519.7	1519.7	1210.7	797.2	581.3	526.3	498.1	484.0	468.5	448.7	444.5
42.5°	1686.2	1646.7	1186.7	705.5	522.1	491.0	465.6	450.1	431.8	409.2	406.4
45°	1880.9	1773.7	1152.8	623.7	478.3	469.9	454.4	427.5	396.5	372.5	368.3
47.5°	2070.0	1888.0	1120.4	565.8	441.7	461.4	448.7	403.6	361.2	327.4	323.1
50°	2277.4	1989.6	1082.3	517.9	413.4	455.8	441.7	368.3	321.7	297.7	294.9
52.5°	2484.8	2092.6	1041.3	467.1	389.4	444.5	424.7	342.9	320.3	287.9	283.6
55°	2703.6	2212.5	993.4	410.6	361.2	421.9	402.1	341.5	330.2	287.9	278.0
57.5°	2916.6	2345.1	915.8	355.6	330.2	388.0	393.7	333.0	309.0	285.0	273.7
60°	3152.3	2486.3	787.4	309.0	303.4	359.8	382.4	314.7	285.0	276.6	270.9
62.5°	3341.3	2613.2	615.2	276.6	280.8	337.2	368.3	303.4	275.2	268.1	266.7
65°	3423.2	2616.1	441.7	248.3	258.2	316.1	354.2	293.5	266.7	263.9	262.5
67.5°	3337.1	2472.1	310.4	221.5	234.2	296.3	335.8	283.6	258.2	259.6	256.8
70°	3059.1	2168.8	227.2	196.1	211.7	275.2	316.1	270.9	248.3	251.2	246.9
72.5°	2559.6	1690.4	182.0	175.0	193.3	252.6	296.3	256.8	232.8	234.2	225.8
75°	1890.8	1120.4	152.4	156.6	172.1	231.4	270.9	238.5	215.9	210.2	204.6
77.5°	1124.6	575.7	125.6	136.9	153.8	206.0	242.7	215.9	197.5	187.7	183.4
80°	464.2	232.8	103.0	115.7	134.0	183.4	214.5	189.1	176.4	166.5	160.9
82.5°	184.8	114.3	81.8	94.5	112.9	159.4	187.7	166.5	153.8	146.7	131.2
85°	70.6	56.4	55.0	66.3	84.7	122.8	155.2	139.7	129.8	111.5	107.2
87.5°	28.2	25.4	25.4	32.5	48.0	77.6	111.5	97.4	101.6	80.4	81.8
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)