

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: P234808

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234808
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-AF48-70-D-U-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7727 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

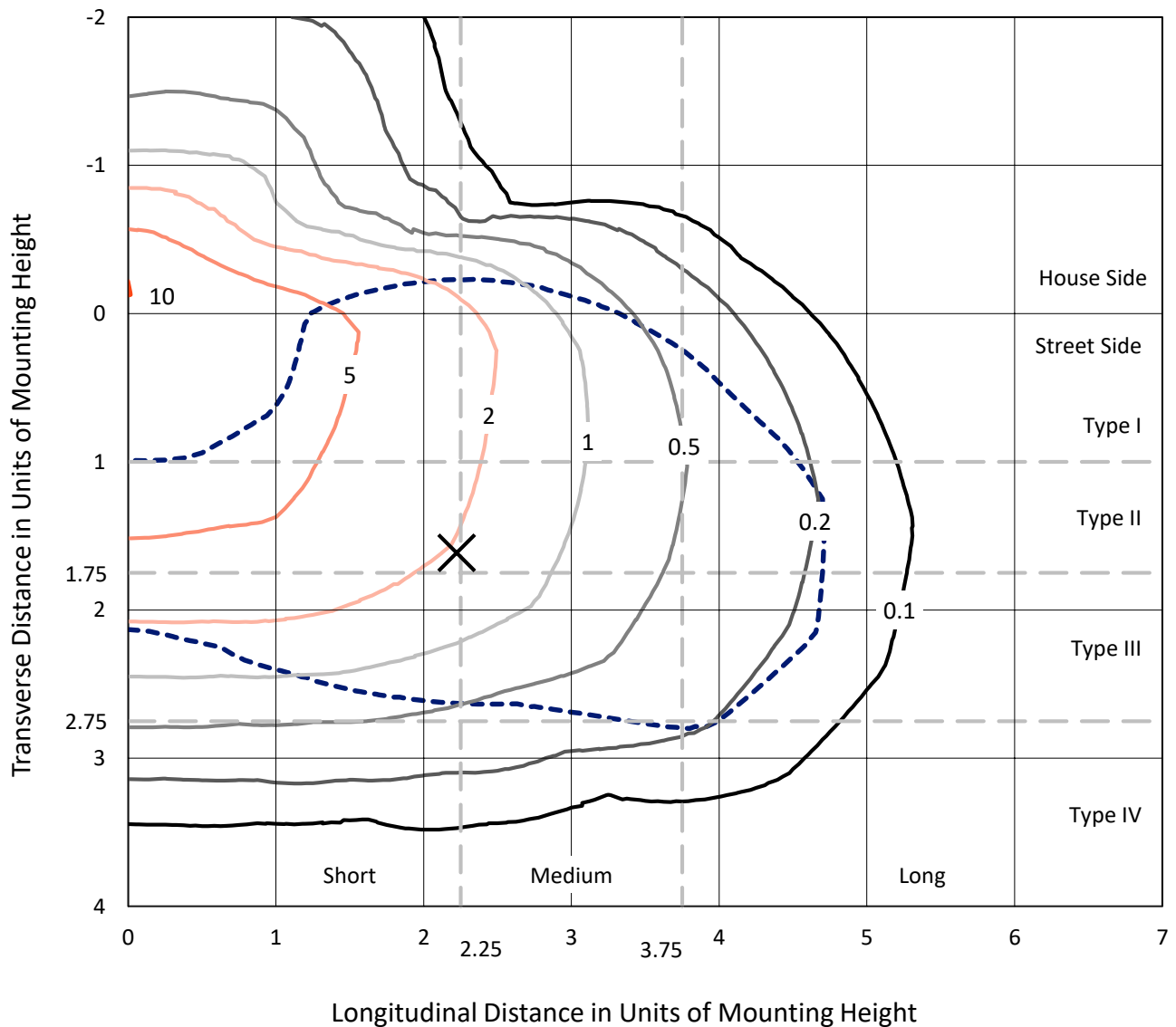
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

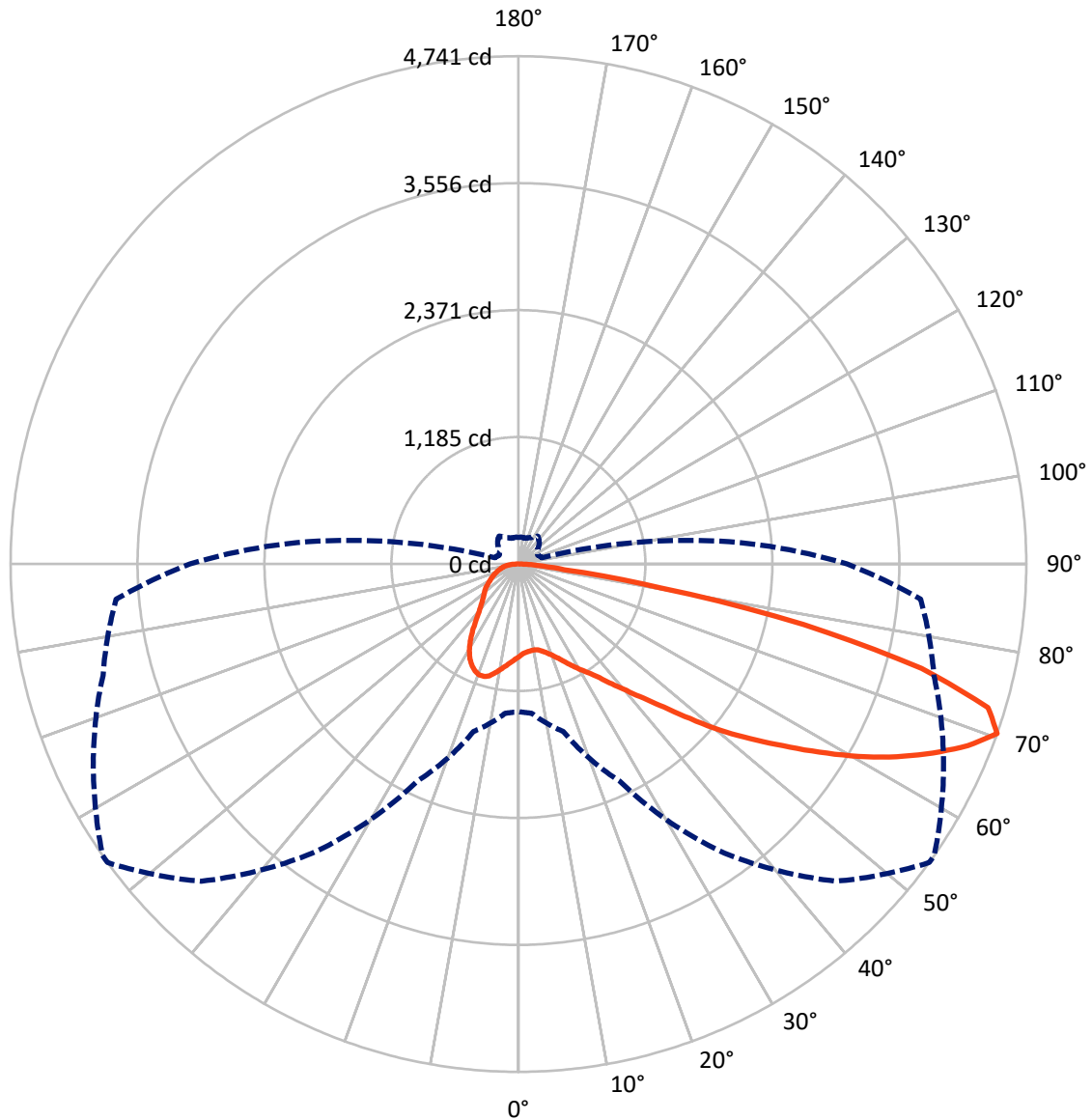


Based on 10 foot mounting height. Maximum calculated value = 10 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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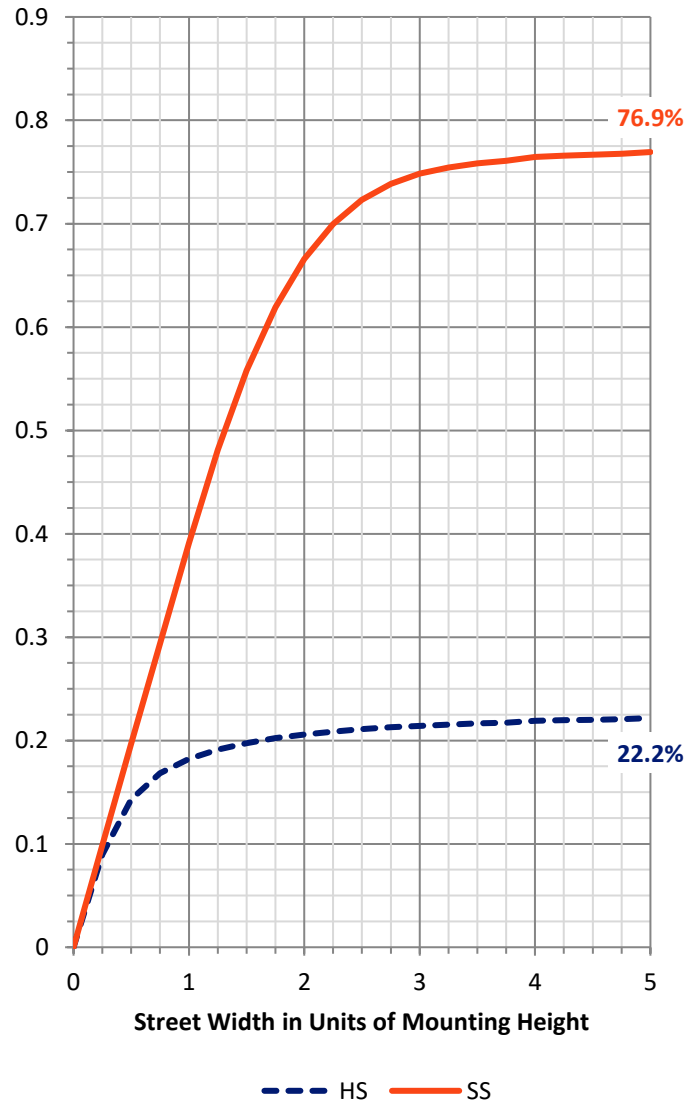
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1752.5	0.0	1752.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5974.5	0.0	5974.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	7727.0	0.0	7727.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.1
10°-20°	271.1	3.5
20°-30°	471.0	6.1
30°-40°	688.3	8.9
40°-50°	1080.2	14.0
50°-60°	1661.1	21.5
60°-70°	2029.5	26.3
70°-80°	1258.3	16.3
80°-90°	182.8	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°	7727.0	100.0
0°-180°	7727.0	100.0

Coefficient of Utilization



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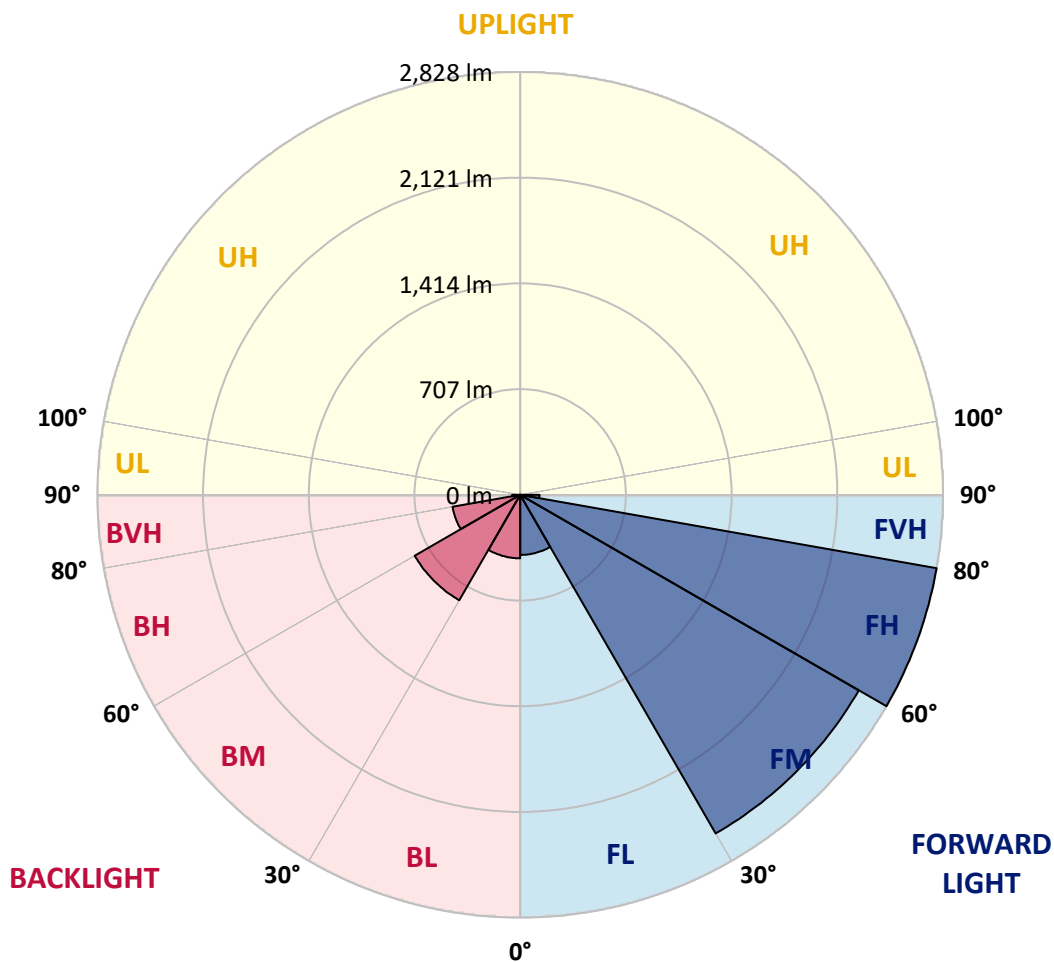
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	402.0	5.2			
FM	(30°-60°)	2615.2	33.8			
FH	(60°-80°)	2828.2	36.6			G2/5000
FVH	(80°-90°)	129.1	1.7			G2/225
BL	(0°-30°)	424.9	5.5	B1/500		
BM	(30°-60°)	814.3	10.5	B1/1000		
BH	(60°-80°)	459.5	5.9	B1/500		G1/500
BVH	(80°-90°)	53.7	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5
2.5°	830.5	827.7	827.7	832.0	833.4	837.6	837.6	839.0	843.3	850.3	858.8
5°	805.1	803.7	805.1	810.7	813.6	822.0	824.9	826.3	834.8	846.1	858.8
7.5°	779.6	778.2	781.0	789.5	798.0	810.7	817.8	819.2	832.0	847.5	864.5
10°	771.1	769.7	773.9	781.0	789.5	803.7	815.0	816.4	834.8	853.2	877.2
12.5°	782.4	781.0	785.3	792.3	800.8	810.7	823.5	824.9	848.9	873.0	898.5
15°	810.7	810.7	812.1	816.4	824.9	833.4	844.7	846.1	871.6	899.9	925.3
17.5°	854.6	851.8	851.8	850.3	856.0	860.3	874.4	875.8	902.7	928.2	953.6
20°	908.4	906.9	901.3	894.2	892.8	895.6	909.8	911.2	938.1	959.3	983.3
22.5°	973.4	974.9	962.1	946.6	939.5	943.7	956.5	957.9	977.7	996.1	1017.3
25°	1059.7	1055.5	1037.1	1014.5	1000.3	1000.3	1013.1	1013.1	1031.5	1042.8	1056.9
27.5°	1141.8	1133.3	1116.3	1083.8	1061.2	1065.4	1078.1	1078.1	1095.1	1099.4	1106.4
30°	1231.0	1222.5	1201.2	1160.2	1130.5	1127.7	1143.2	1141.8	1164.5	1163.0	1157.4
32.5°	1339.9	1335.7	1300.3	1247.9	1208.3	1198.4	1212.6	1214.0	1228.1	1223.9	1205.5
35°	1492.7	1491.3	1458.7	1366.8	1314.4	1296.0	1304.5	1304.5	1314.4	1303.1	1272.0
37.5°	1685.1	1688.0	1659.7	1523.8	1450.3	1419.1	1420.5	1419.1	1422.0	1409.2	1376.7
40°	1877.6	1884.6	1883.2	1719.1	1625.7	1571.9	1552.1	1549.3	1556.4	1550.7	1519.6
42.5°	2130.8	2147.8	2108.2	1959.6	1854.9	1764.4	1710.6	1703.5	1719.1	1726.2	1696.4
45°	2394.0	2388.3	2326.1	2218.5	2123.7	2007.7	1905.9	1894.5	1905.9	1927.1	1895.9
47.5°	2531.2	2527.0	2511.4	2457.7	2443.5	2310.5	2156.3	2146.4	2125.2	2154.9	2118.1
50°	2757.6	2761.9	2698.2	2692.5	2752.0	2678.4	2439.3	2416.6	2378.4	2402.5	2371.3
52.5°	2921.7	2903.3	2863.7	2913.2	3098.6	3059.0	2705.3	2695.4	2660.0	2654.3	2640.2
55°	2988.2	2988.2	2995.3	3109.9	3374.5	3322.2	2993.9	3003.8	2955.7	2916.1	2934.5
57.5°	3008.0	3016.5	3077.4	3267.0	3698.5	3527.3	3312.2	3326.4	3257.1	3177.8	3235.8
60°	2910.4	2935.9	3081.6	3356.1	3881.0	3745.2	3647.6	3651.8	3551.4	3435.3	3537.2
62.5°	2660.0	2691.1	2951.5	3392.9	3851.3	3968.8	3964.5	3974.4	3837.2	3692.9	3820.2
65°	2353.0	2384.1	2661.4	3289.6	3828.7	4128.6	4254.6	4281.4	4104.6	3910.7	3997.1
67.5°	1901.6	1942.6	2205.8	2941.5	3718.3	4260.2	4526.2	4554.5	4311.2	4023.9	3981.5
70°	1378.1	1397.9	1618.6	2235.5	3268.4	4188.1	4741.3	4739.9	4379.1	4015.4	3769.3
72.5°	663.6	679.1	870.2	1388.0	2337.4	3554.2	4585.6	4612.5	4285.7	3892.4	3283.9
75°	273.1	288.6	352.3	585.8	1226.7	2348.7	3886.7	3950.4	3892.4	3493.4	2569.4
77.5°	169.8	175.4	206.6	302.8	560.3	1096.5	2720.8	2807.1	3084.5	2798.6	1696.4
80°	127.3	131.6	154.2	212.2	353.7	404.7	1351.2	1460.2	1869.1	1605.9	768.3
82.5°	106.1	107.5	123.1	154.2	240.5	232.0	433.0	482.5	871.6	612.6	264.6
85°	99.0	101.9	110.4	110.4	152.8	145.7	179.7	188.2	253.3	209.4	92.0
87.5°	50.9	48.1	97.6	86.3	79.2	70.7	76.4	82.1	94.8	100.5	41.0
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°	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5
2.5°	861.7	865.9	873.0	880.1	888.5	898.5	904.1	911.2	916.8	914.0	912.6
5°	865.9	873.0	888.5	902.7	919.7	939.5	952.2	966.4	977.7	980.5	976.3
7.5°	873.0	885.7	906.9	932.4	955.0	980.5	1000.3	1020.1	1034.3	1037.1	1037.1
10°	890.0	904.1	932.4	966.4	993.2	1020.1	1042.8	1058.3	1071.1	1076.7	1076.7
12.5°	914.0	931.0	965.0	1006.0	1035.7	1061.2	1073.9	1081.0	1086.6	1092.3	1093.7
15°	942.3	960.7	1001.7	1045.6	1076.7	1089.5	1089.5	1088.0	1088.0	1090.9	1093.7
17.5°	970.6	990.4	1032.9	1079.6	1099.4	1092.3	1082.4	1078.1	1075.3	1073.9	1078.1
20°	1000.3	1020.1	1062.6	1106.4	1100.8	1071.1	1056.9	1047.0	1038.5	1034.3	1039.9
22.5°	1032.9	1051.3	1095.1	1124.8	1082.4	1037.1	1010.2	994.7	980.5	972.0	977.7
25°	1071.1	1089.5	1131.9	1130.5	1049.8	986.2	943.7	918.3	902.7	894.2	894.2
27.5°	1116.3	1131.9	1172.9	1116.3	1004.6	918.3	856.0	832.0	827.7	820.6	820.6
30°	1163.0	1175.8	1211.1	1083.8	942.3	829.1	761.2	749.9	751.3	744.2	745.6
32.5°	1211.1	1223.9	1233.8	1035.7	861.7	728.7	683.4	674.9	673.5	667.8	662.2
35°	1279.1	1297.5	1236.6	970.6	764.0	645.2	612.6	604.2	595.7	575.9	575.9
37.5°	1382.3	1402.2	1229.5	890.0	663.6	580.1	550.4	539.1	524.9	505.1	498.0
40°	1523.8	1523.8	1214.0	799.4	582.9	527.8	499.5	485.3	469.7	449.9	445.7
42.5°	1690.8	1651.2	1189.9	707.4	523.5	492.4	466.9	451.3	433.0	410.3	407.5
45°	1886.0	1778.5	1156.0	625.4	479.6	471.2	455.6	428.7	397.6	373.5	369.3
47.5°	2075.6	1893.1	1123.4	567.4	442.9	462.7	449.9	404.7	362.2	328.3	324.0
50°	2283.6	1995.0	1085.2	519.3	414.6	457.0	442.9	369.3	322.6	298.5	295.7
52.5°	2491.6	2098.3	1044.2	468.3	390.5	445.7	425.9	343.8	321.2	288.6	284.4
55°	2710.9	2218.5	996.1	411.7	362.2	423.1	403.2	342.4	331.1	288.6	278.7
57.5°	2924.6	2351.5	918.3	356.6	331.1	389.1	394.8	333.9	309.9	285.8	274.5
60°	3160.9	2493.0	789.5	309.9	304.2	360.8	383.4	315.5	285.8	277.3	271.7
62.5°	3350.4	2620.4	616.9	277.3	281.6	338.2	369.3	304.2	275.9	268.8	267.4
65°	3432.5	2623.2	442.9	249.0	258.9	316.9	355.1	294.3	267.4	264.6	263.2
67.5°	3346.2	2478.9	311.3	222.1	234.9	297.1	336.7	284.4	258.9	260.3	257.5
70°	3067.5	2174.7	227.8	196.7	212.2	275.9	316.9	271.7	249.0	251.8	247.6
72.5°	2566.6	1695.0	182.5	175.4	193.8	253.3	297.1	257.5	233.5	234.9	226.4
75°	1895.9	1123.4	152.8	157.1	172.6	232.0	271.7	239.1	216.5	210.8	205.2
77.5°	1127.7	577.3	125.9	137.2	154.2	206.6	243.4	216.5	198.1	188.2	183.9
80°	465.5	233.5	103.3	116.0	134.4	183.9	215.1	189.6	176.9	167.0	161.3
82.5°	185.4	114.6	82.1	94.8	113.2	159.9	188.2	167.0	154.2	147.1	131.6
85°	70.7	56.6	55.2	66.5	84.9	123.1	155.6	140.1	130.2	111.8	107.5
87.5°	28.3	25.5	25.5	32.5	48.1	77.8	111.8	97.6	101.9	80.6	82.1
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)