

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: P231286

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231286
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10120 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

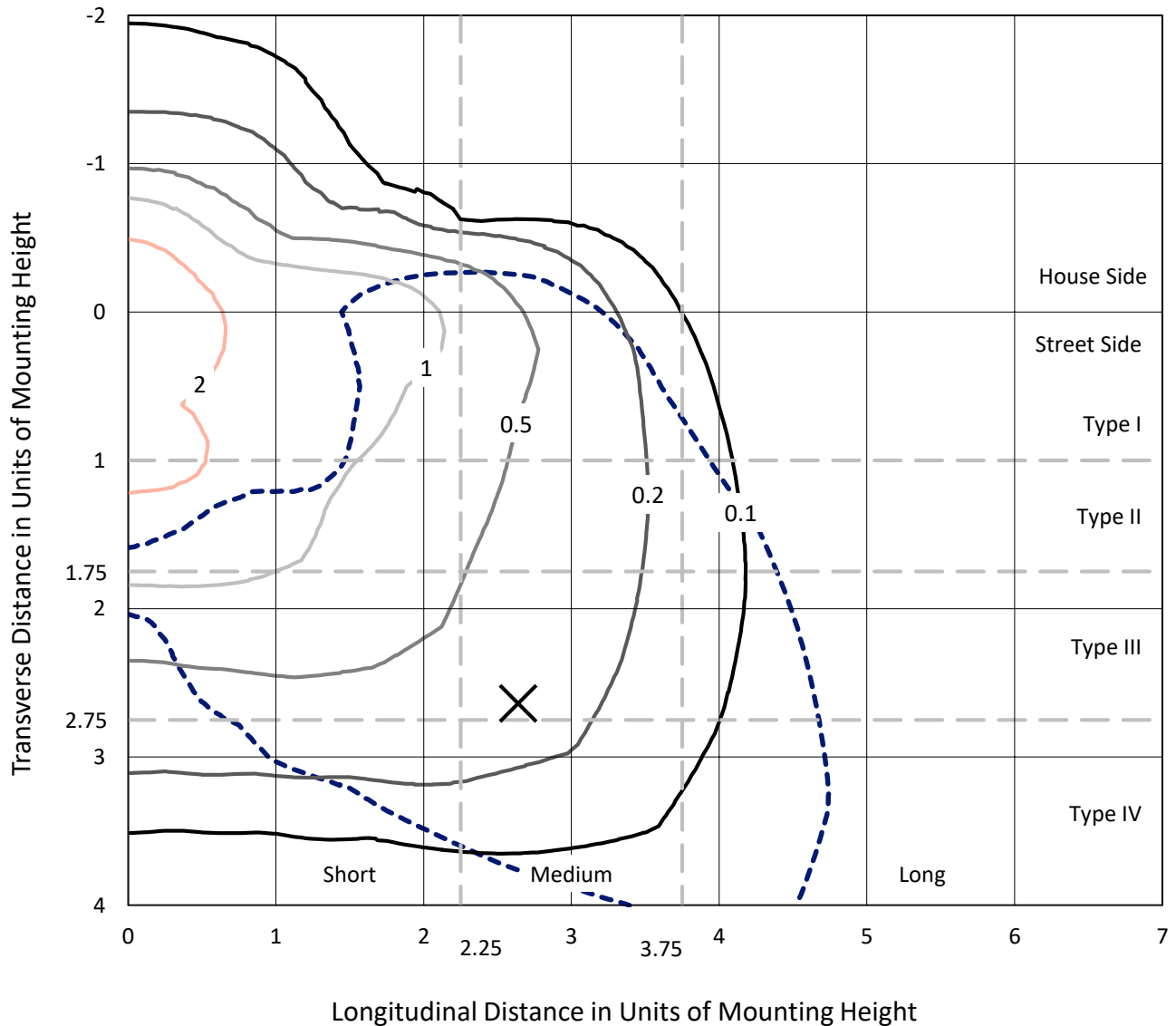
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

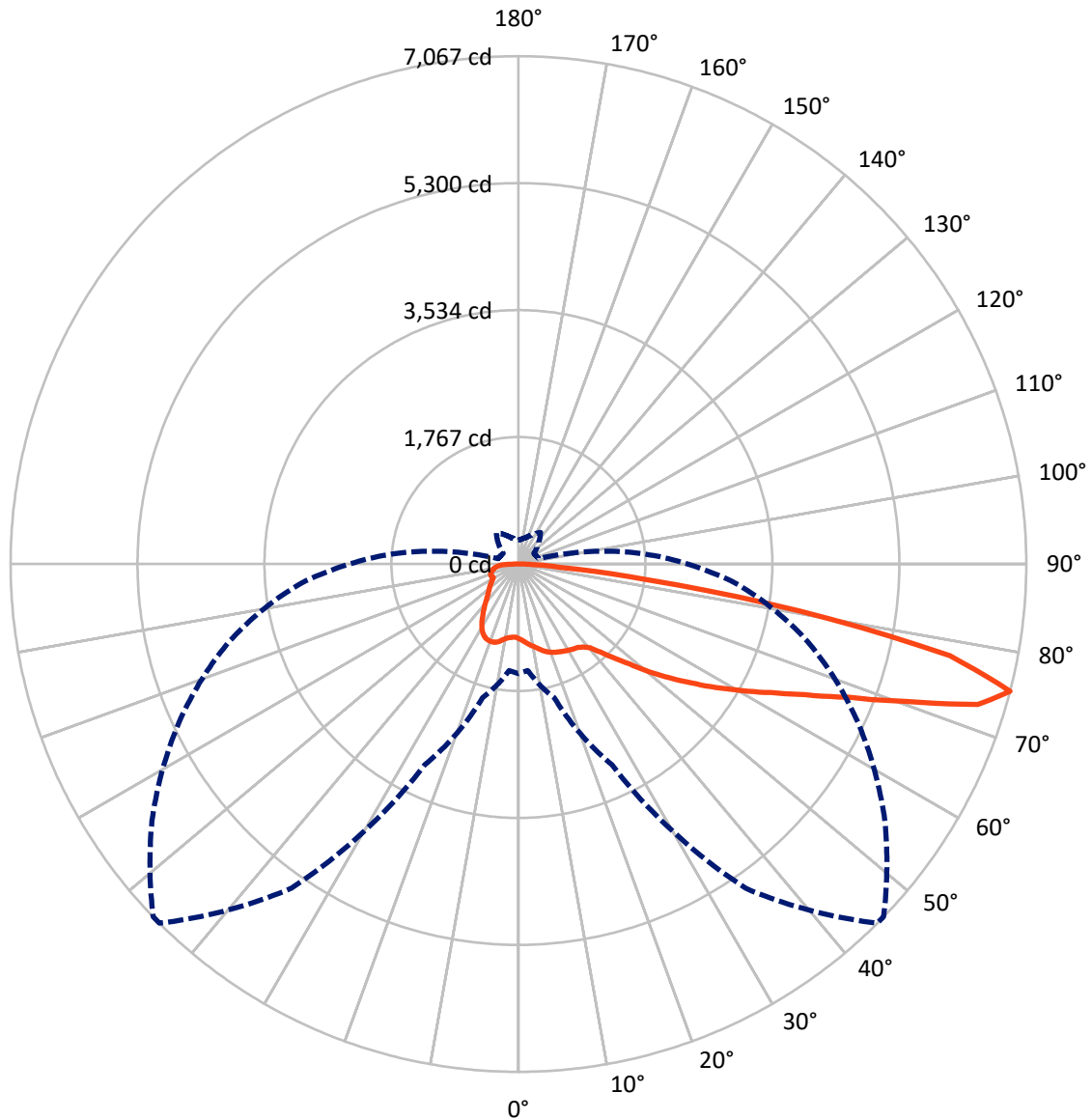


Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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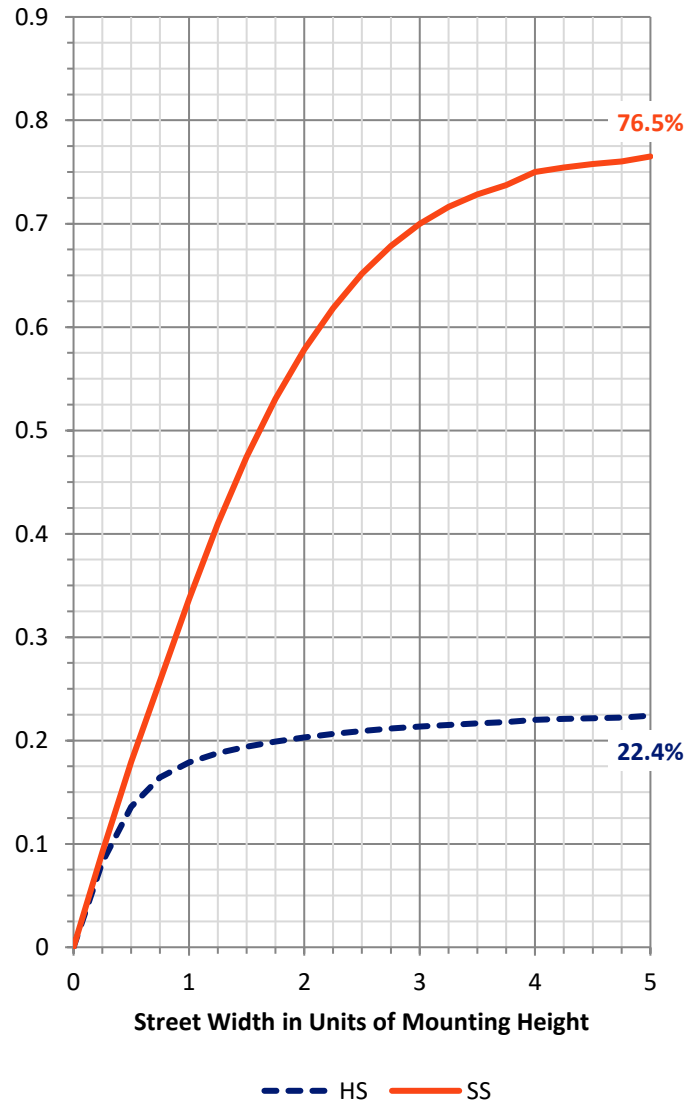
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2344.4	0.0	2344.4
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7775.7	0.0	7775.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	10120.0	0.0	10120.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	1.0
10°-20°	333.2	3.3
20°-30°	571.7	5.6
30°-40°	799.6	7.9
40°-50°	1172.9	11.6
50°-60°	1827.1	18.1
60°-70°	2629.1	26.0
70°-80°	2290.2	22.6
80°-90°	393.3	3.9
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°	10120.0	100.0
0°-180°	10120.0	100.0



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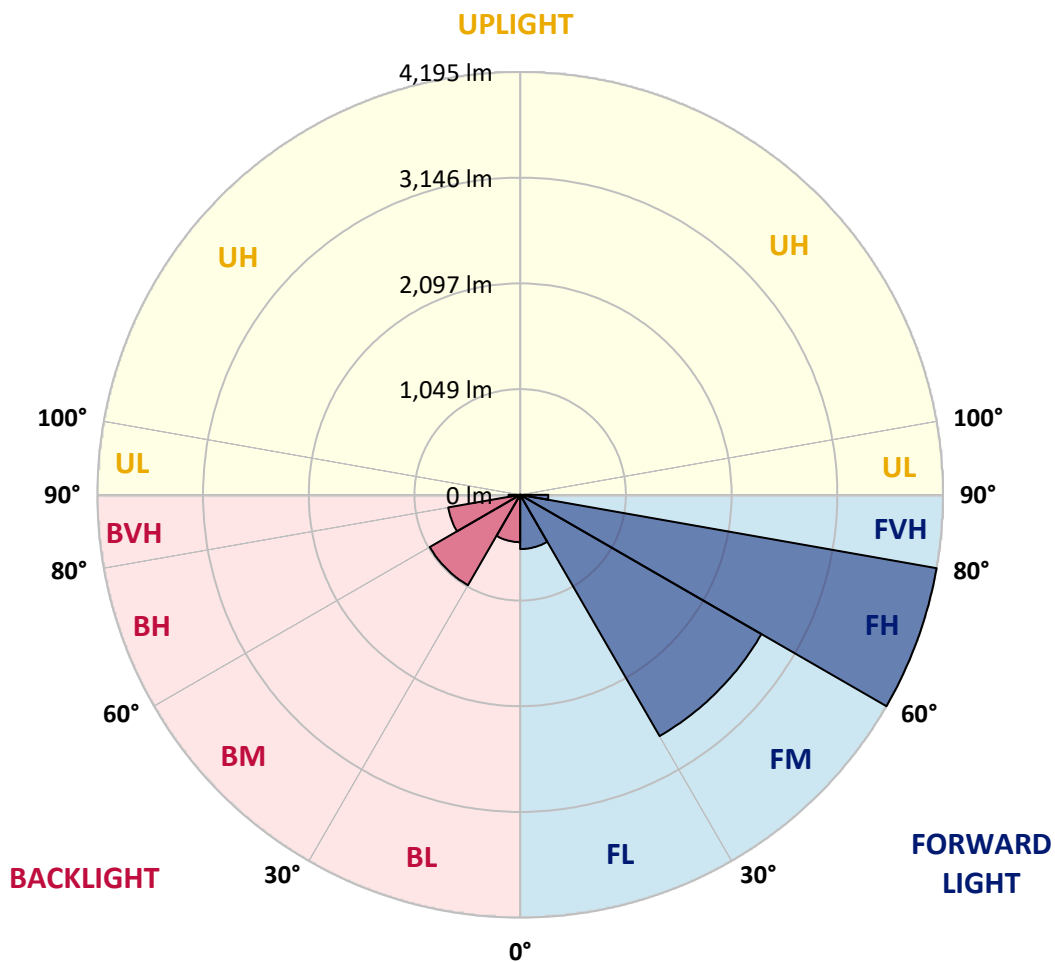
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	538.1	5.3			
FM (30°-60°)	2763.6	27.3			
FH (60°-80°)	4194.8	41.5			G2/5000
FVH (80°-90°)	279.1	2.8			G3/500
BL (0°-30°)	469.5	4.6	B1/500		
BM (30°-60°)	1036.1	10.2	B2/2500		
BH (60°-80°)	724.5	7.2	B2/1000		G2/1000
BVH (80°-90°)	114.3	1.1			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5
2.5°	1088.6	1080.7	1080.7	1074.8	1074.8	1065.0	1061.1	1059.1	1049.2	1043.3	1037.5
5°	1151.6	1141.8	1139.8	1126.1	1120.1	1098.4	1096.5	1082.7	1065.0	1047.3	1033.5
7.5°	1208.7	1202.8	1193.0	1179.2	1161.5	1133.9	1131.9	1110.3	1080.7	1057.1	1037.5
10°	1250.0	1246.2	1232.3	1214.7	1194.9	1167.4	1165.4	1141.8	1106.3	1078.8	1051.2
12.5°	1299.2	1293.3	1275.6	1252.0	1230.4	1204.7	1202.8	1183.1	1143.8	1108.4	1072.9
15°	1346.5	1338.6	1316.9	1293.3	1269.8	1248.1	1248.1	1226.4	1185.1	1143.8	1102.4
17.5°	1370.1	1366.3	1344.6	1319.0	1299.2	1283.5	1281.6	1261.9	1220.5	1177.2	1131.9
20°	1378.0	1380.0	1360.3	1332.7	1319.0	1311.1	1309.1	1295.4	1250.0	1208.7	1165.4
22.5°	1376.1	1381.9	1366.3	1336.7	1332.7	1332.7	1332.7	1316.9	1281.6	1240.2	1197.0
25°	1384.0	1391.8	1380.0	1344.6	1344.6	1352.4	1352.4	1344.6	1313.1	1277.7	1234.3
27.5°	1411.5	1417.4	1407.6	1358.4	1360.3	1372.1	1370.1	1372.1	1352.4	1319.0	1275.6
30°	1444.9	1452.8	1441.0	1380.0	1378.0	1389.8	1389.8	1399.7	1385.9	1350.5	1315.0
32.5°	1535.6	1533.5	1496.2	1403.6	1397.7	1409.5	1409.5	1419.3	1411.5	1384.0	1350.5
35°	1805.2	1775.6	1693.0	1480.4	1421.3	1427.2	1427.2	1444.9	1448.9	1427.2	1397.7
37.5°	2080.8	2071.0	2008.0	1685.1	1507.9	1464.7	1462.6	1488.3	1506.0	1488.3	1468.5
40°	2358.4	2350.5	2336.7	1958.7	1689.1	1531.6	1525.6	1547.3	1578.8	1567.0	1555.2
42.5°	2616.3	2612.3	2626.1	2228.5	1919.4	1675.3	1657.6	1631.9	1677.2	1673.3	1673.3
45°	2819.0	2828.9	2836.7	2480.5	2169.4	1860.3	1838.7	1752.0	1813.1	1828.8	1840.6
47.5°	2933.2	2941.1	2968.6	2726.5	2419.4	2074.9	2059.2	1917.4	1998.1	2045.4	2078.8
50°	3096.6	3075.0	3098.5	2966.7	2720.6	2354.4	2311.2	2139.9	2242.2	2324.9	2403.6
52.5°	3254.1	3218.6	3238.4	3244.3	3063.1	2628.1	2582.7	2401.7	2529.7	2659.6	2799.3
55°	3395.8	3393.8	3413.6	3513.9	3393.8	2921.3	2870.2	2691.1	2876.1	3015.9	3252.2
57.5°	3510.1	3529.7	3616.3	3827.0	3775.8	3240.3	3183.2	3027.7	3246.2	3386.0	3777.8
60°	3643.9	3675.4	3819.1	4092.7	4124.2	3575.0	3515.9	3403.7	3626.2	3767.9	4386.0
62.5°	3689.2	3734.4	4029.7	4372.3	4488.4	3941.1	3887.9	3813.2	4025.8	4153.7	4992.3
65°	3387.9	3474.6	4145.8	4515.9	4880.2	4382.1	4336.8	4271.8	4423.4	4508.0	5403.8
67.5°	3305.3	3344.6	3919.4	4722.7	5248.2	4949.0	4903.7	4791.6	4795.5	4760.1	5537.6
70°	3189.2	3232.4	3687.2	4878.1	5775.9	5724.6	5669.5	5338.8	5136.0	4921.5	5273.8
72.5°	2716.7	2702.8	3177.3	4458.8	6029.8	6685.4	6620.3	5927.4	5388.1	4781.7	4451.0
75°	1525.6	1486.2	1927.2	3084.8	5506.1	7067.3	7065.3	6224.7	5210.9	4165.6	3029.7
77.5°	442.9	431.1	635.9	1293.3	3706.9	6140.1	6214.8	5614.5	4348.7	2992.2	1663.4
80°	208.7	212.6	273.6	427.2	1582.7	3962.8	4177.3	3697.0	2598.5	1380.0	687.0
82.5°	131.9	133.9	187.0	275.6	669.3	1799.3	1976.4	1663.4	1029.6	596.5	303.2
85°	82.7	82.7	124.0	181.1	399.7	574.8	624.0	566.9	441.0	324.8	165.4
87.5°	45.3	45.3	74.8	104.3	218.5	185.1	191.0	226.4	275.6	198.9	82.7
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°	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5	1037.5
2.5°	1035.4	1031.5	1025.6	1023.7	1021.7	1019.8	1021.7	1025.6	1021.7	1021.7	1023.7
5°	1029.6	1025.6	1017.7	1017.7	1019.8	1021.7	1031.5	1037.5	1039.4	1039.4	1039.4
7.5°	1029.6	1023.7	1017.7	1019.8	1023.7	1031.5	1047.3	1057.1	1065.0	1066.9	1066.9
10°	1039.4	1031.5	1027.7	1031.5	1043.3	1049.2	1065.0	1080.7	1090.6	1094.6	1094.6
12.5°	1057.1	1049.2	1049.2	1057.1	1072.9	1080.7	1094.6	1106.3	1118.2	1124.0	1124.0
15°	1086.7	1076.9	1078.8	1092.6	1110.3	1118.2	1128.0	1131.9	1141.8	1149.7	1149.7
17.5°	1114.2	1104.4	1108.4	1124.0	1135.9	1139.8	1145.7	1143.8	1147.6	1153.6	1155.5
20°	1145.7	1135.9	1137.8	1147.6	1149.7	1145.7	1145.7	1139.8	1137.8	1147.6	1151.6
22.5°	1177.2	1167.4	1165.4	1159.5	1149.7	1139.8	1133.9	1128.0	1124.0	1133.9	1137.8
25°	1214.7	1200.8	1191.0	1165.4	1139.8	1122.1	1114.2	1110.3	1108.4	1118.2	1122.1
27.5°	1256.0	1242.2	1212.6	1157.6	1116.1	1086.7	1080.7	1080.7	1084.7	1090.6	1094.6
30°	1295.4	1281.6	1228.4	1139.8	1074.8	1031.5	1025.6	1031.5	1041.4	1047.3	1053.2
32.5°	1334.7	1320.9	1238.3	1112.3	1013.8	958.7	954.7	964.6	980.4	984.3	988.3
35°	1387.8	1374.0	1250.0	1072.9	937.0	878.0	874.0	879.9	893.8	899.7	905.5
37.5°	1462.6	1454.8	1267.7	1029.6	866.1	801.2	789.4	785.4	793.3	791.4	799.2
40°	1561.1	1567.0	1299.2	972.5	797.3	730.4	704.7	692.9	685.1	669.3	677.2
42.5°	1704.8	1708.7	1334.7	907.6	738.3	663.4	629.9	608.2	592.6	566.9	570.9
45°	1915.5	1882.0	1376.1	838.6	685.1	610.3	570.9	545.3	523.6	502.0	504.0
47.5°	2194.9	2092.7	1421.3	781.5	631.9	566.9	531.5	502.0	476.4	458.7	460.6
50°	2539.5	2354.4	1466.6	728.3	578.8	533.5	502.0	470.5	444.9	427.2	425.2
52.5°	2994.3	2669.4	1496.2	669.3	525.6	504.0	476.4	446.8	415.4	393.7	391.8
55°	3466.7	3035.6	1521.7	598.4	474.4	470.5	456.7	423.3	385.9	358.2	354.4
57.5°	3986.4	3427.3	1541.4	529.6	435.1	442.9	438.9	399.7	358.2	332.7	330.7
60°	4458.8	3832.9	1478.4	468.5	399.7	415.4	419.3	385.9	364.2	370.1	372.0
62.5°	4935.2	4145.8	1238.3	423.3	376.0	397.6	431.1	429.1	419.3	429.1	431.1
65°	5106.6	4210.8	878.0	385.9	352.4	405.5	468.5	464.6	419.3	401.6	397.6
67.5°	5010.1	4017.9	590.5	356.3	334.7	415.4	507.9	464.6	403.6	379.9	372.0
70°	4551.4	3543.5	433.1	326.8	319.0	413.4	529.6	462.6	395.7	370.1	360.3
72.5°	3630.0	2734.3	348.4	299.2	295.3	403.6	541.3	458.7	387.8	360.3	348.4
75°	2350.5	1700.9	293.3	271.7	259.8	387.8	535.4	446.8	378.0	342.6	334.7
77.5°	1090.6	732.3	250.0	240.2	226.4	364.2	517.7	423.3	356.3	322.8	313.0
80°	507.9	346.5	210.6	208.7	202.7	344.5	494.1	395.7	330.7	303.2	287.4
82.5°	271.7	208.7	171.2	171.2	177.2	320.9	464.6	362.2	297.3	283.5	242.1
85°	143.7	120.1	124.0	133.9	151.6	283.5	425.2	326.8	259.8	216.6	210.6
87.5°	72.8	76.8	76.8	90.5	116.1	230.4	350.4	269.6	220.4	177.2	173.2
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)