

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: P231274

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231274
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-AF48-80-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9794 lumens
Efficiency: N/A
Efficacy: 118.0 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): 83
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

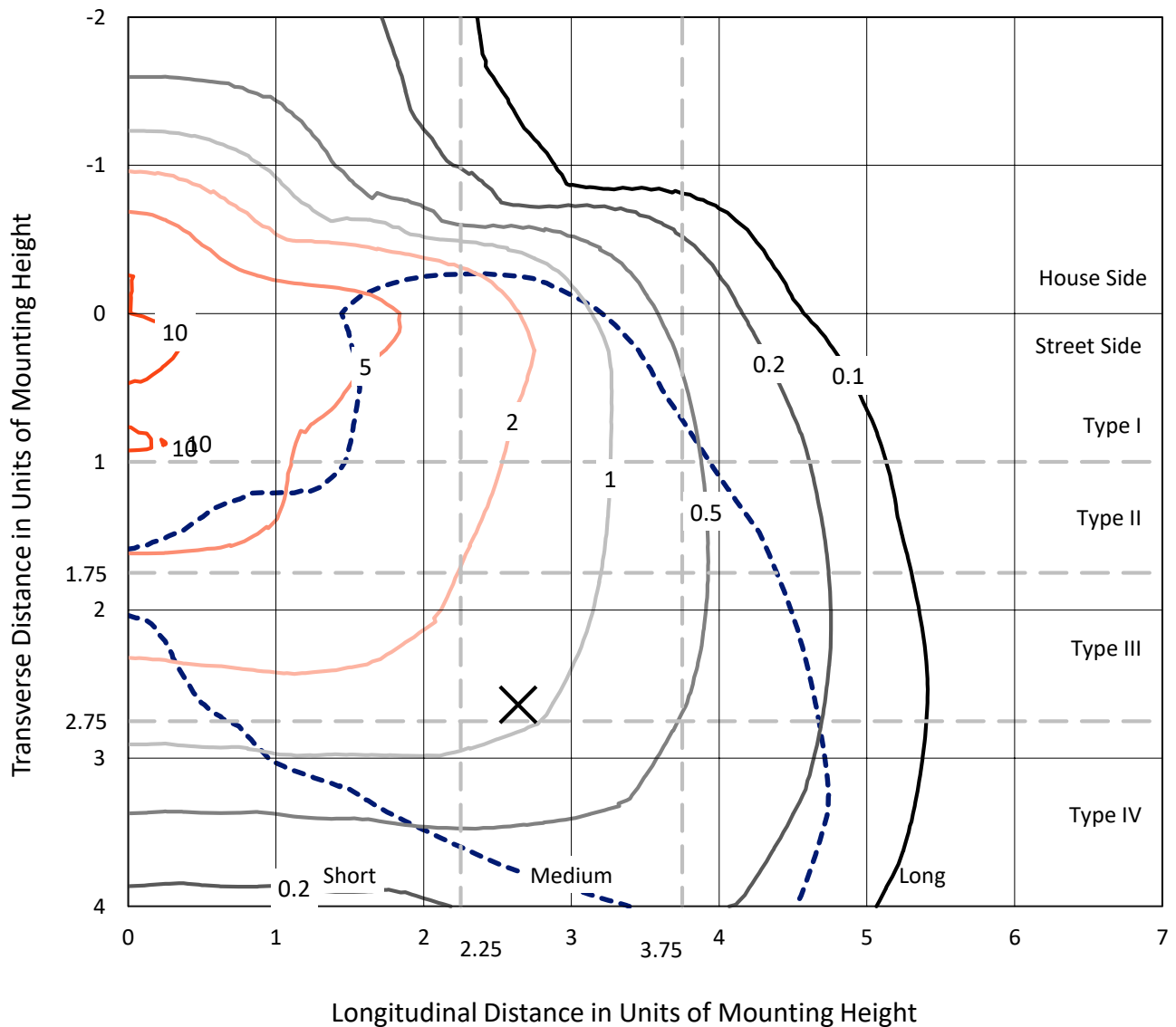


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

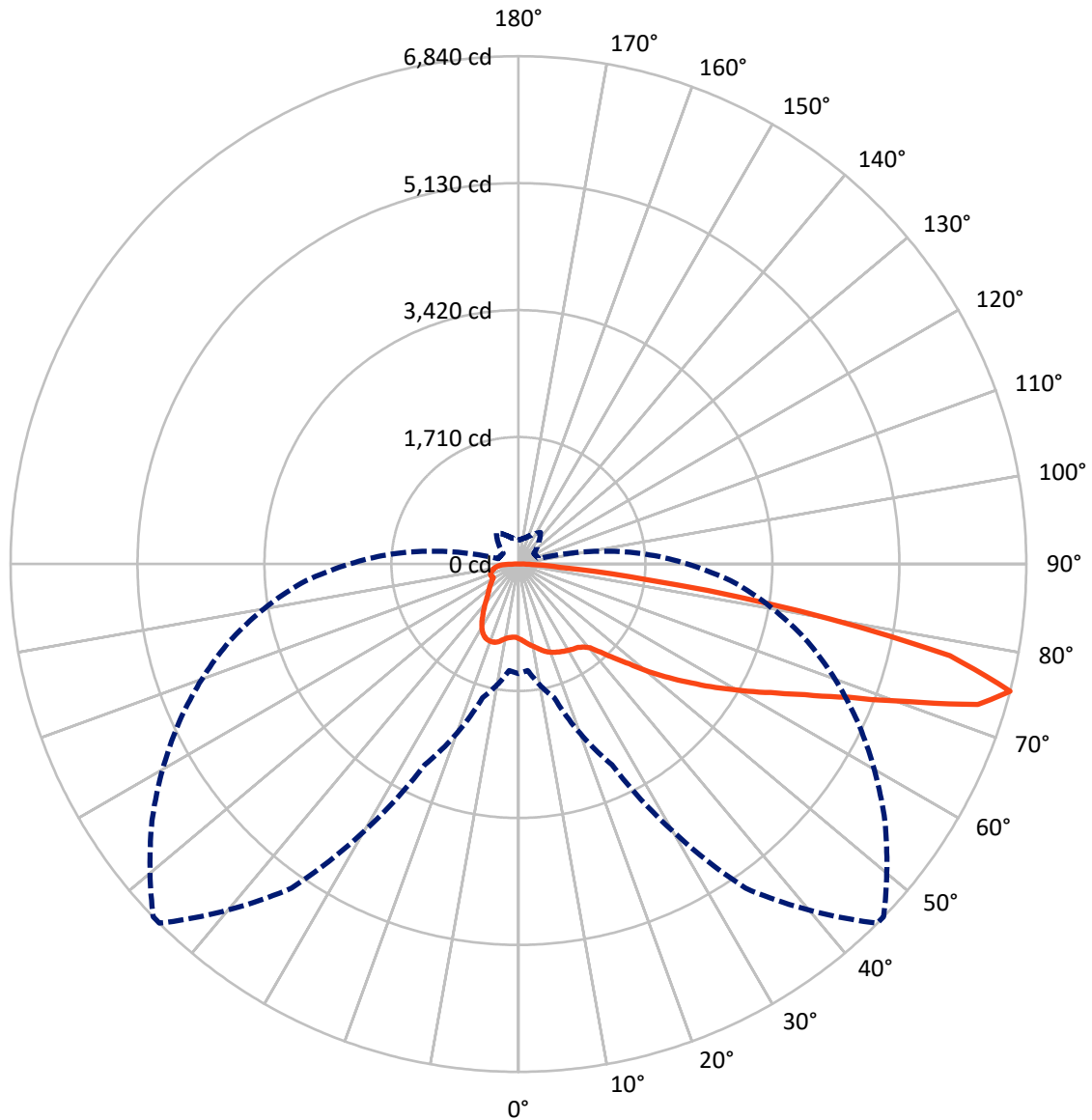


Based on 10 foot mounting height. Maximum calculated value = 11.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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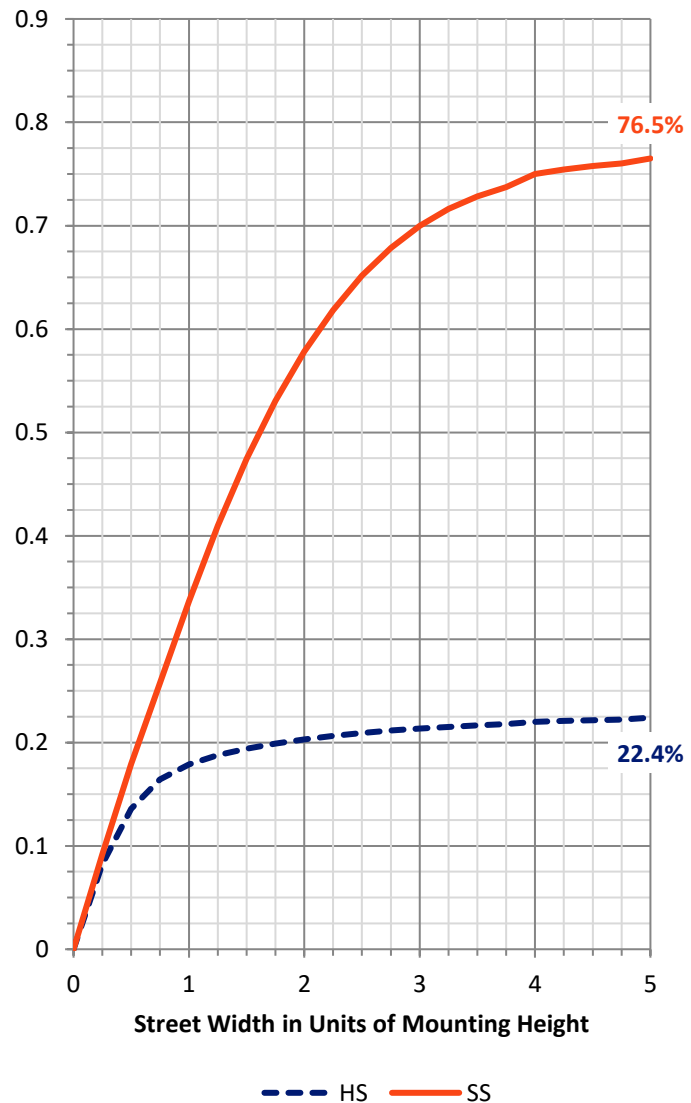
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2268.9	0.0	2268.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7525.1	0.0	7525.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	9794.0	0.0	9794.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	1.0
10°-20°	322.4	3.3
20°-30°	553.3	5.6
30°-40°	773.8	7.9
40°-50°	1135.2	11.6
50°-60°	1768.3	18.1
60°-70°	2544.4	26.0
70°-80°	2216.5	22.6
80°-90°	380.6	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°	9794.0	100.0
0°-180°	9794.0	100.0

Coefficient of Utilization



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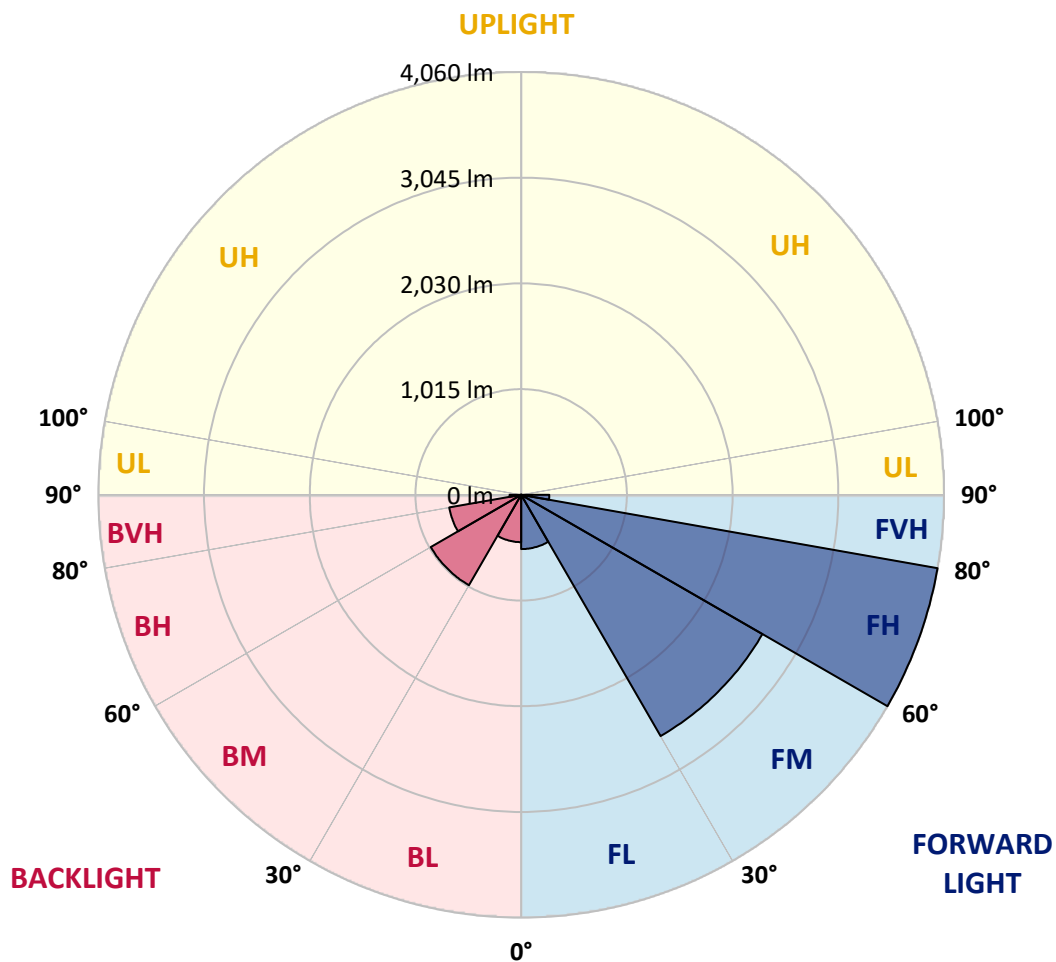
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	520.8	5.3			
FM (30°-60°)	2674.5	27.3			
FH (60°-80°)	4059.7	41.5			G2/5000
FVH (80°-90°)	270.1	2.8			G3/500
BL (0°-30°)	454.4	4.6	B1/500		
BM (30°-60°)	1002.7	10.2	B2/2500		
BH (60°-80°)	701.1	7.2	B2/1000		G2/1000
BVH (80°-90°)	110.6	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°	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0
2.5°	1053.6	1045.9	1045.9	1040.2	1040.2	1030.7	1026.9	1025.0	1015.5	1009.7	1004.0
5°	1114.5	1105.0	1103.1	1089.8	1084.0	1063.1	1061.2	1047.8	1030.7	1013.5	1000.2
7.5°	1169.8	1164.1	1154.5	1141.2	1124.0	1097.4	1095.5	1074.5	1045.9	1023.1	1004.0
10°	1209.8	1206.0	1192.6	1175.5	1156.4	1129.8	1127.9	1105.0	1070.7	1044.0	1017.4
12.5°	1257.4	1251.7	1234.5	1211.7	1190.7	1166.0	1164.1	1145.0	1106.9	1072.6	1038.3
15°	1303.1	1295.5	1274.6	1251.7	1228.8	1207.9	1207.9	1186.9	1146.9	1106.9	1066.9
17.5°	1326.0	1322.2	1301.2	1276.5	1257.4	1242.2	1240.3	1221.2	1181.2	1139.3	1095.5
20°	1333.6	1335.5	1316.5	1289.8	1276.5	1268.8	1266.9	1253.6	1209.8	1169.8	1127.9
22.5°	1331.7	1337.4	1322.2	1293.6	1289.8	1289.8	1289.8	1274.6	1240.3	1200.3	1158.3
25°	1339.3	1347.0	1335.5	1301.2	1301.2	1308.9	1308.9	1301.2	1270.7	1236.5	1194.5
27.5°	1366.0	1371.7	1362.2	1314.6	1316.5	1327.9	1326.0	1327.9	1308.9	1276.5	1234.5
30°	1398.4	1406.0	1394.6	1335.5	1333.6	1345.0	1345.0	1354.6	1341.2	1306.9	1272.7
32.5°	1486.0	1484.1	1447.9	1358.4	1352.7	1364.1	1364.1	1373.6	1366.0	1339.3	1306.9
35°	1747.0	1718.5	1638.4	1432.7	1375.5	1381.2	1381.2	1398.4	1402.2	1381.2	1352.7
37.5°	2013.8	2004.2	1943.3	1630.8	1459.4	1417.4	1415.5	1440.3	1457.5	1440.3	1421.3
40°	2282.4	2274.8	2261.4	1895.6	1634.6	1482.2	1476.5	1497.5	1527.9	1516.5	1505.1
42.5°	2532.0	2528.2	2541.5	2156.7	1857.5	1621.3	1604.2	1579.4	1623.2	1619.4	1619.4
45°	2728.2	2737.7	2745.3	2400.5	2099.5	1800.4	1779.4	1695.6	1754.7	1769.9	1781.3
47.5°	2838.7	2846.3	2873.0	2638.7	2341.5	2008.0	1992.8	1855.6	1933.7	1979.5	2011.9
50°	2996.8	2975.9	2998.7	2871.1	2632.9	2278.6	2236.7	2070.9	2170.0	2250.0	2326.2
52.5°	3149.2	3115.0	3134.0	3139.7	2964.4	2543.4	2499.6	2324.3	2448.1	2573.9	2709.2
55°	3286.4	3284.5	3303.6	3400.7	3284.5	2827.3	2777.7	2604.4	2783.5	2918.7	3147.3
57.5°	3396.9	3416.0	3499.8	3703.6	3654.1	3135.9	3080.7	2930.1	3141.6	3276.9	3656.0
60°	3526.5	3557.0	3696.0	3960.8	3991.3	3459.8	3402.6	3294.0	3509.3	3646.5	4244.7
62.5°	3570.3	3614.1	3899.9	4231.4	4343.8	3814.1	3762.7	3690.3	3896.1	4019.9	4831.5
65°	3278.8	3362.6	4012.3	4370.5	4722.9	4240.9	4197.1	4134.2	4280.9	4362.8	5229.7
67.5°	3198.8	3236.9	3793.2	4570.5	5079.2	4789.6	4745.8	4637.2	4641.0	4606.7	5359.2
70°	3086.4	3128.3	3568.4	4721.0	5589.8	5540.2	5486.9	5166.8	4970.6	4762.9	5103.9
72.5°	2629.1	2615.8	3074.9	4315.2	5835.5	6470.0	6407.1	5736.5	5214.4	4627.7	4307.6
75°	1476.5	1438.4	1865.2	2985.4	5328.8	6839.6	6837.7	6024.1	5043.0	4031.3	2932.1
77.5°	428.7	417.2	615.4	1251.7	3587.4	5942.2	6014.6	5433.5	4208.5	2895.9	1609.9
80°	201.9	205.8	264.8	413.4	1531.8	3835.1	4042.8	3577.9	2514.8	1335.5	664.9
82.5°	127.6	129.6	181.0	266.7	647.8	1741.3	1912.8	1609.9	996.4	577.3	293.4
85°	80.0	80.0	120.0	175.3	386.7	556.3	603.9	548.7	426.8	314.4	160.0
87.5°	43.8	43.8	72.4	101.0	211.5	179.1	184.8	219.1	266.7	192.4	80.0
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°	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0	1004.0
2.5°	1002.1	998.3	992.6	990.7	988.8	986.9	988.8	992.6	988.8	988.8	990.7
5°	996.4	992.6	985.0	985.0	986.9	988.8	998.3	1004.0	1005.9	1005.9	1005.9
7.5°	996.4	990.7	985.0	986.9	990.7	998.3	1013.5	1023.1	1030.7	1032.6	1032.6
10°	1005.9	998.3	994.5	998.3	1009.7	1015.5	1030.7	1045.9	1055.5	1059.3	1059.3
12.5°	1023.1	1015.5	1015.5	1023.1	1038.3	1045.9	1059.3	1070.7	1082.1	1087.9	1087.9
15°	1051.7	1042.1	1044.0	1057.4	1074.5	1082.1	1091.7	1095.5	1105.0	1112.6	1112.6
17.5°	1078.3	1068.8	1072.6	1087.9	1099.3	1103.1	1108.8	1106.9	1110.7	1116.4	1118.3
20°	1108.8	1099.3	1101.2	1110.7	1112.6	1108.8	1108.8	1103.1	1101.2	1110.7	1114.5
22.5°	1139.3	1129.8	1127.9	1122.1	1112.6	1103.1	1097.4	1091.7	1087.9	1097.4	1101.2
25°	1175.5	1162.2	1152.6	1127.9	1103.1	1085.9	1078.3	1074.5	1072.6	1082.1	1085.9
27.5°	1215.5	1202.2	1173.6	1120.2	1080.2	1051.7	1045.9	1045.9	1049.7	1055.5	1059.3
30°	1253.6	1240.3	1188.8	1103.1	1040.2	998.3	992.6	998.3	1007.8	1013.5	1019.3
32.5°	1291.7	1278.4	1198.4	1076.4	981.2	927.8	924.0	933.5	948.8	952.6	956.4
35°	1343.1	1329.8	1209.8	1038.3	906.9	849.7	845.9	851.6	864.9	870.7	876.4
37.5°	1415.5	1407.9	1226.9	996.4	838.3	775.4	764.0	760.2	767.8	765.9	773.5
40°	1510.8	1516.5	1257.4	941.2	771.6	706.8	682.1	670.6	663.0	647.8	655.4
42.5°	1649.9	1653.7	1291.7	878.3	714.4	642.0	609.7	588.7	573.5	548.7	552.5
45°	1853.7	1821.3	1331.7	811.6	663.0	590.6	552.5	527.7	506.8	485.8	487.7
47.5°	2124.3	2025.2	1375.5	756.4	611.6	548.7	514.4	485.8	461.1	443.9	445.8
50°	2457.7	2278.6	1419.4	704.9	560.1	516.3	485.8	455.3	430.6	413.4	411.5
52.5°	2897.8	2583.4	1447.9	647.8	508.7	487.7	461.1	432.5	402.0	381.0	379.1
55°	3355.0	2937.8	1472.7	579.2	459.1	455.3	442.0	409.6	373.4	346.7	342.9
57.5°	3858.0	3316.9	1491.7	512.5	421.0	428.7	424.9	386.7	346.7	322.0	320.1
60°	4315.2	3709.4	1430.8	453.4	386.7	402.0	405.8	373.4	352.5	358.2	360.1
62.5°	4776.3	4012.3	1198.4	409.6	363.9	384.8	417.2	415.3	405.8	415.3	417.2
65°	4942.0	4075.2	849.7	373.4	341.0	392.5	453.4	449.6	405.8	388.7	384.8
67.5°	4848.7	3888.4	571.6	344.8	323.9	402.0	491.5	449.6	390.6	367.7	360.1
70°	4404.8	3429.3	419.1	316.3	308.6	400.1	512.5	447.7	382.9	358.2	348.6
72.5°	3513.1	2646.3	337.2	289.6	285.8	390.6	523.9	443.9	375.3	348.6	337.2
75°	2274.8	1646.1	283.9	262.9	251.5	375.3	518.2	432.5	365.8	331.5	323.9
77.5°	1055.5	708.7	242.0	232.4	219.1	352.5	501.1	409.6	344.8	312.4	302.9
80°	491.5	335.3	203.9	201.9	196.2	333.4	478.2	382.9	320.1	293.4	278.2
82.5°	262.9	201.9	165.7	165.7	171.5	310.5	449.6	350.6	287.7	274.3	234.3
85°	139.1	116.2	120.0	129.6	146.7	274.3	411.5	316.3	251.5	209.6	203.9
87.5°	70.5	74.3	74.3	87.6	112.4	222.9	339.1	261.0	213.4	171.5	167.7
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)