

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: P231018

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T2R-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13616 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 122
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

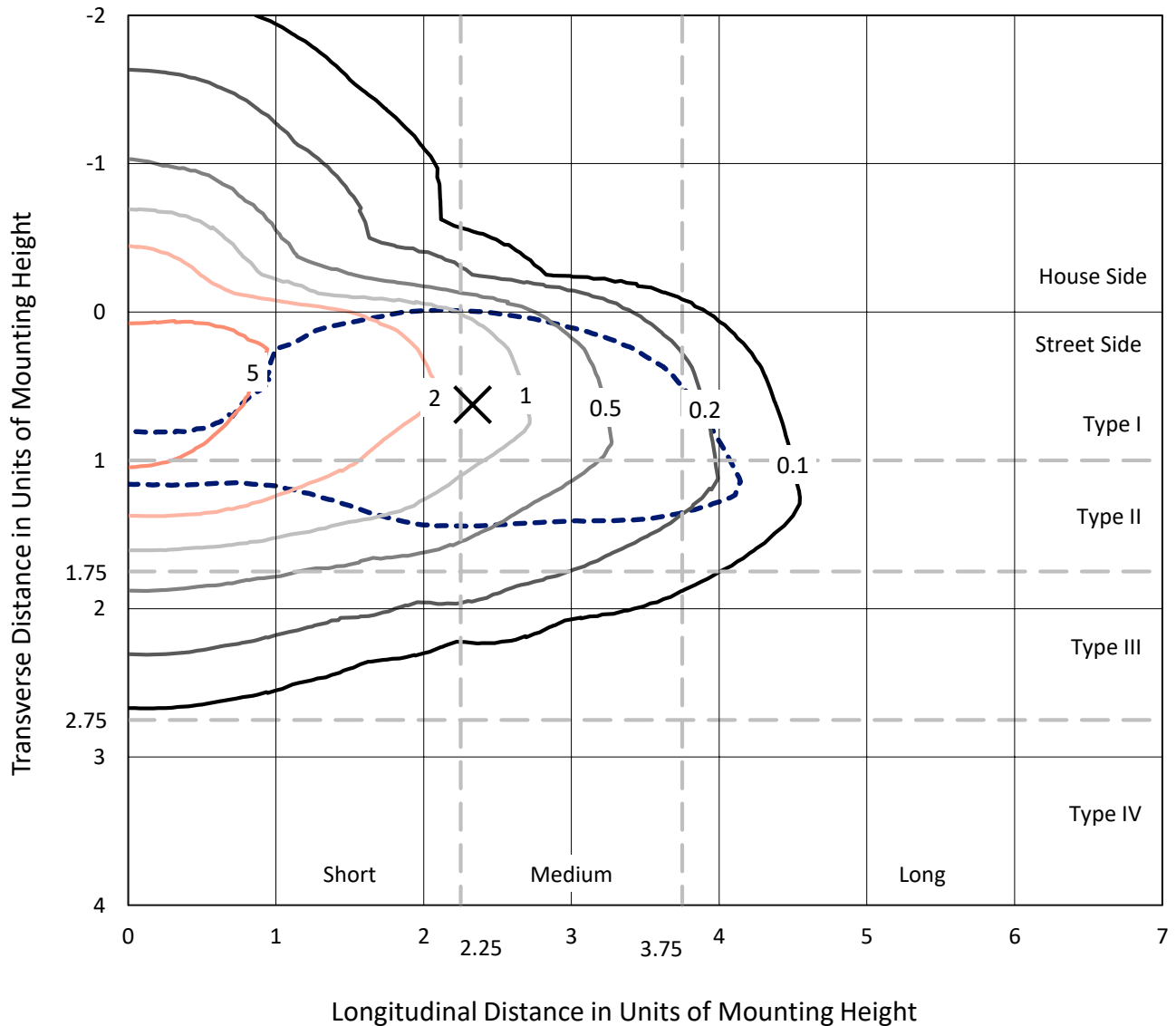


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

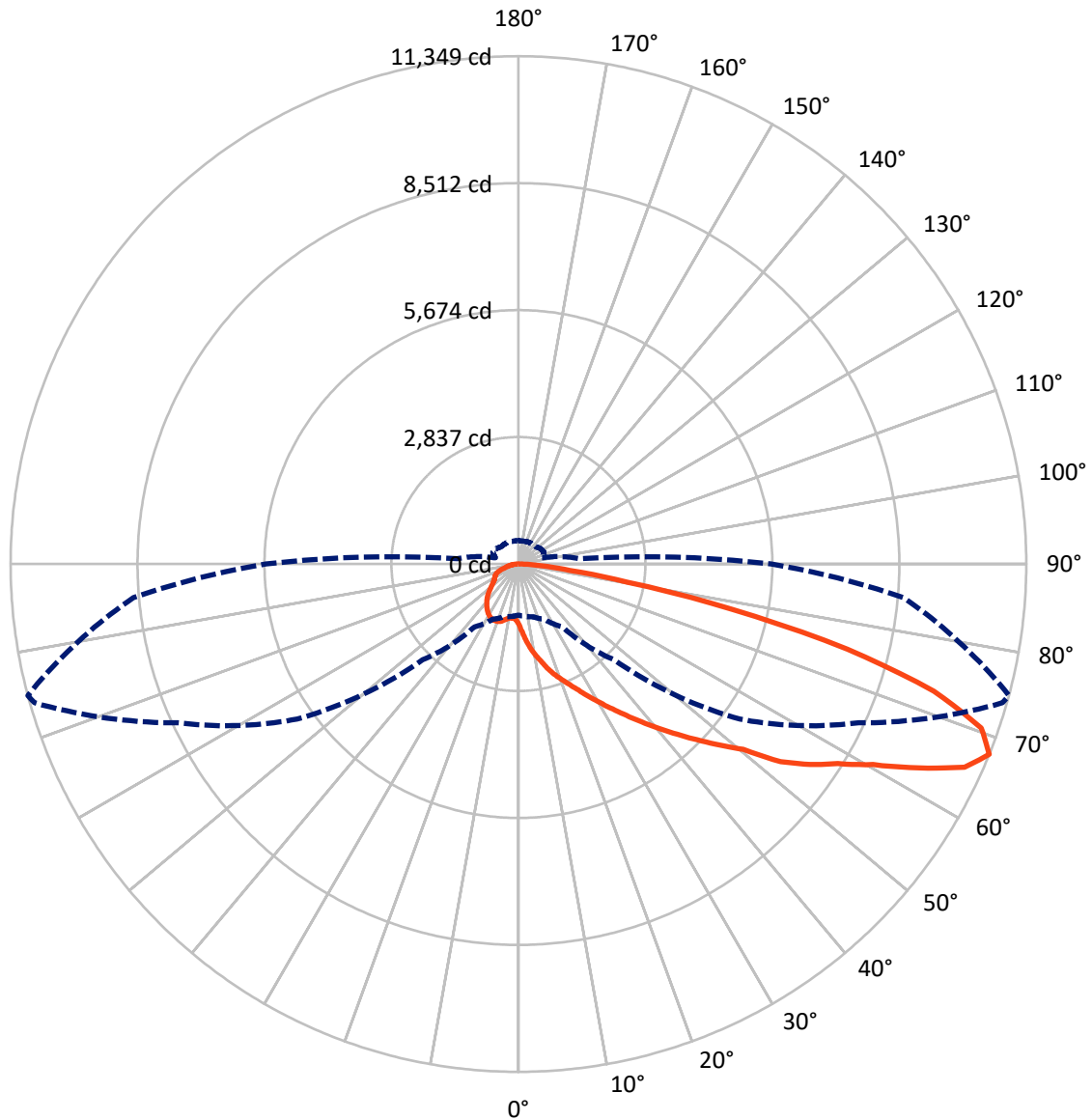


Based on 20 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2325.1	0.0	2325.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	11290.9	0.0	11290.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	13616.0	0.0	13616.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	1.2
10°-20°	572.8	4.2
20°-30°	1044.8	7.7
30°-40°	1714.9	12.6
40°-50°	2480.0	18.2
50°-60°	2922.7	21.5
60°-70°	2840.1	20.9
70°-80°	1578.7	11.6
80°-90°	303.6	2.2
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°	13616.0	100.0
0°-180°	13616.0	100.0

Coefficient of Utilization



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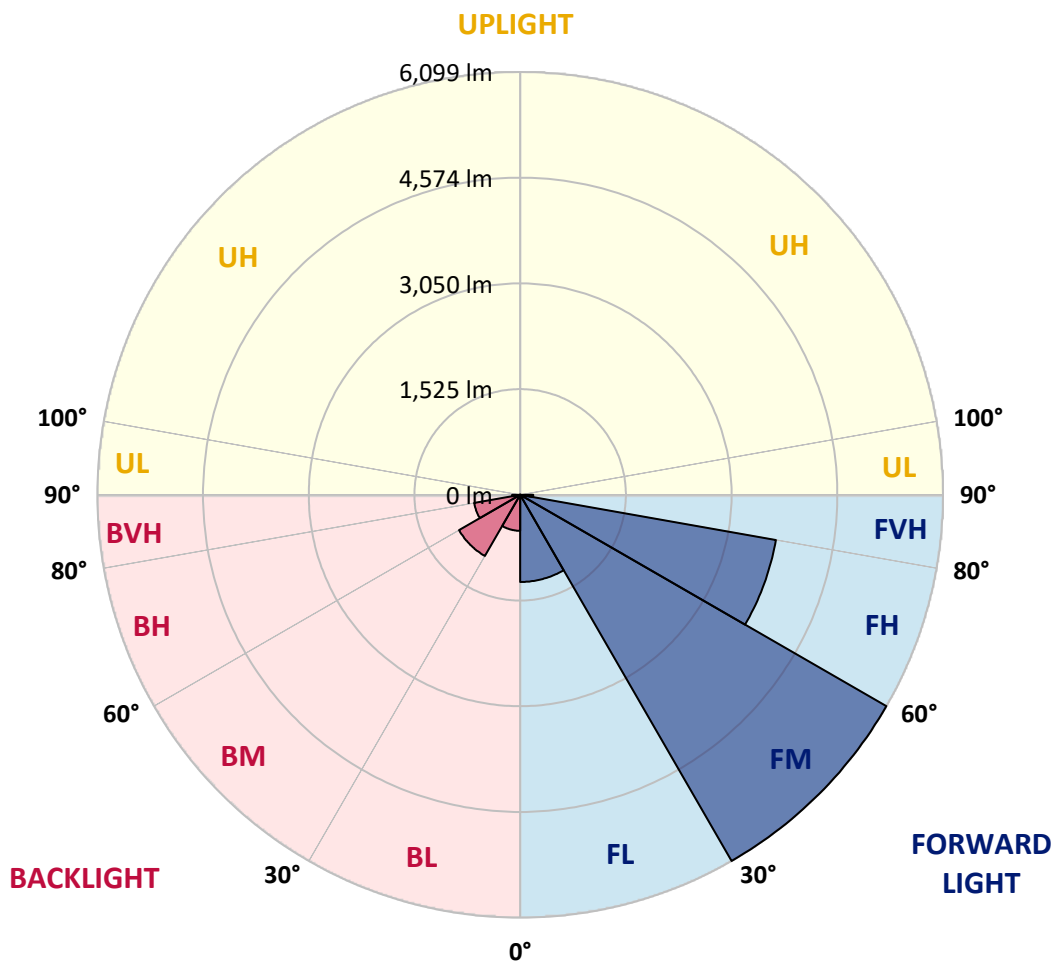
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1257.1	9.2			
FM (30°-60°)	6099.2	44.8			
FH (60°-80°)	3745.6	27.5			G2/5000
FVH (80°-90°)	188.9	1.4			G2/225
BL (0°-30°)	519.0	3.8	B2/1000		
BM (30°-60°)	1018.3	7.5	B2/2500		
BH (60°-80°)	673.2	4.9	B2/1000		G2/1000
BVH (80°-90°)	114.6	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2
2.5°	1912.8	1918.5	1907.1	1881.5	1844.5	1776.2	1716.4	1611.1	1517.2	1505.8	1406.1
5°	2248.7	2254.4	2240.1	2208.8	2169.0	2095.0	2012.4	1875.8	1724.9	1696.5	1485.8
7.5°	2479.2	2482.1	2465.0	2433.7	2402.4	2328.4	2245.8	2092.1	1907.1	1884.3	1588.3
10°	2675.7	2681.3	2658.6	2638.6	2604.5	2530.5	2445.1	2282.8	2092.1	2060.8	1693.6
12.5°	2857.8	2863.5	2849.3	2832.2	2820.8	2752.5	2658.6	2465.0	2260.1	2225.9	1818.9
15°	2980.2	2985.9	2988.8	3011.5	3025.8	2977.4	2883.4	2672.8	2442.2	2410.9	1966.9
17.5°	2946.1	2960.3	3003.0	3085.5	3173.8	3176.6	3099.8	2877.7	2621.6	2587.4	2117.8
20°	2846.4	2857.8	2909.1	3034.3	3207.9	3307.6	3301.9	3085.5	2789.5	2752.5	2257.2
22.5°	2929.0	2943.2	2943.2	3020.1	3190.9	3375.9	3449.9	3290.5	2957.5	2923.3	2396.7
25°	3281.9	3290.5	3230.7	3199.4	3262.0	3432.8	3572.3	3512.5	3162.4	3122.5	2547.6
27.5°	3774.4	3760.1	3686.1	3560.9	3492.6	3538.1	3680.4	3723.1	3398.6	3350.3	2704.1
30°	4264.0	4255.4	4170.0	4002.1	3848.4	3751.6	3800.0	3911.0	3654.8	3597.9	2855.0
32.5°	4722.2	4708.0	4614.1	4417.7	4244.0	4064.7	3970.8	4081.8	3928.1	3862.6	3022.9
35°	5143.5	5106.5	5012.6	4807.6	4628.3	4457.5	4227.0	4244.0	4224.1	4155.8	3207.9
37.5°	5485.1	5456.6	5354.2	5163.4	4972.7	4810.5	4568.5	4429.1	4542.9	4477.4	3421.4
40°	5786.8	5755.5	5650.2	5459.5	5283.0	5129.3	4938.6	4653.9	4901.6	4827.6	3660.5
42.5°	6014.5	5991.8	5906.4	5718.5	5547.7	5408.2	5314.3	4938.6	5274.5	5203.3	3922.4
45°	6136.9	6114.2	6068.6	5917.7	5761.2	5653.0	5661.6	5277.3	5664.4	5604.6	4232.7
47.5°	5986.1	6003.1	6043.0	6014.5	5917.7	5866.5	5971.8	5627.4	6099.9	6043.0	4568.5
50°	5581.9	5598.9	5758.3	5954.8	5988.9	6051.5	6250.8	6031.6	6561.0	6515.5	4984.1
52.5°	4588.5	4682.4	5123.6	5593.3	5914.9	6173.9	6561.0	6632.2	7338.1	7338.1	5718.5
55°	3467.0	3549.5	4053.3	4873.1	5627.4	6185.3	6788.8	7039.2	7898.9	7910.3	6102.8
57.5°	2809.4	2860.7	3108.3	3948.0	5024.0	6043.0	7059.2	7389.4	8365.7	8416.9	6598.0
60°	2280.0	2308.5	2470.7	3054.2	4190.0	5658.7	7252.7	7890.3	9031.8	9102.9	7230.0
62.5°	1833.1	1861.6	1969.7	2319.8	3287.6	4938.6	7218.6	8411.2	9919.8	10036.5	8058.3
65°	1463.1	1494.4	1565.5	1781.9	2436.6	4044.8	6868.5	8678.8	10839.2	10953.1	8607.6
67.5°	1141.4	1169.9	1218.3	1360.6	1716.4	3025.8	6040.1	8397.0	11252.0	11348.8	8636.1
70°	862.5	876.7	916.6	1007.6	1226.8	2009.6	4727.9	7452.0	10881.9	10970.2	8066.8
72.5°	668.9	666.1	688.8	734.4	856.8	1383.4	3133.9	6060.1	9621.0	9712.1	6882.7
75°	546.5	543.7	557.9	572.1	620.5	927.9	1850.2	4562.8	7765.1	7591.5	5163.4
77.5°	461.1	458.3	472.5	475.4	495.3	640.4	1053.2	3003.0	5180.5	4881.6	2909.1
80°	390.0	387.1	404.2	409.9	424.1	469.7	606.3	1625.3	2601.6	2465.0	1389.1
82.5°	293.2	304.6	335.9	350.1	367.2	347.3	375.7	717.3	1206.9	1152.8	603.4
85°	142.3	167.9	253.3	281.8	301.7	219.2	256.2	338.7	543.7	518.1	244.8
87.5°	48.4	42.7	150.9	179.3	196.4	99.6	142.3	187.9	224.9	204.9	76.9
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°	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2	1349.2
2.5°	1363.4	1320.7	1258.1	1209.7	1178.4	1152.8	1141.4	1138.6	1132.9	1130.0	1130.0
5°	1391.9	1315.1	1218.3	1167.0	1152.8	1141.4	1147.1	1150.0	1150.0	1150.0	1150.0
7.5°	1434.6	1326.4	1209.7	1175.6	1172.7	1172.7	1189.8	1198.4	1204.0	1204.0	1204.0
10°	1491.5	1346.4	1224.0	1195.5	1204.0	1209.7	1229.7	1241.0	1246.7	1249.6	1252.4
12.5°	1568.4	1389.1	1252.4	1229.7	1241.0	1243.9	1258.1	1263.8	1269.5	1272.4	1272.4
15°	1670.9	1451.7	1298.0	1269.5	1272.4	1269.5	1269.5	1263.8	1261.0	1261.0	1266.7
17.5°	1776.2	1511.5	1337.8	1298.0	1286.6	1263.8	1246.7	1232.5	1224.0	1218.3	1221.1
20°	1881.5	1565.5	1360.6	1303.7	1272.4	1235.4	1204.0	1184.1	1172.7	1161.3	1167.0
22.5°	1986.8	1616.8	1369.1	1286.6	1241.0	1187.0	1152.8	1121.5	1095.9	1078.8	1081.6
25°	2103.5	1673.7	1369.1	1266.7	1198.4	1141.4	1098.7	1047.5	1010.5	996.3	1001.9
27.5°	2220.2	1722.1	1354.9	1229.7	1150.0	1093.0	1030.4	970.6	947.9	939.3	942.2
30°	2336.9	1759.1	1323.6	1184.1	1098.7	1036.1	953.6	913.7	885.2	862.5	865.3
32.5°	2453.6	1784.7	1280.9	1127.2	1044.6	964.9	896.6	851.1	799.8	771.4	774.2
35°	2587.4	1804.6	1229.7	1070.3	984.9	902.3	851.1	777.1	723.0	700.2	694.5
37.5°	2726.9	1818.9	1175.6	1007.6	925.1	856.8	805.5	714.5	663.2	631.9	629.1
40°	2877.7	1824.6	1110.1	942.2	868.2	828.3	745.8	677.5	589.2	569.3	569.3
42.5°	3057.1	1821.7	1044.6	876.7	805.5	762.8	703.1	671.8	594.9	575.0	563.6
45°	3262.0	1821.7	973.5	799.8	742.9	680.3	654.7	634.8	583.5	592.1	597.8
47.5°	3495.4	1816.0	888.1	737.2	691.7	637.6	623.4	580.7	560.7	566.4	572.1
50°	3817.1	1824.6	811.2	686.0	654.7	609.1	592.1	569.3	560.7	563.6	560.7
52.5°	4264.0	1796.1	737.2	654.7	626.2	566.4	566.4	563.6	566.4	563.6	563.6
55°	4508.8	1733.5	683.1	637.6	606.3	546.5	557.9	563.6	569.3	566.4	566.4
57.5°	4856.0	1690.8	640.4	626.2	594.9	540.8	552.2	563.6	566.4	563.6	563.6
60°	5265.9	1662.3	612.0	629.1	586.4	540.8	555.1	563.6	560.7	557.9	557.9
62.5°	5741.3	1650.9	592.1	637.6	577.8	543.7	555.1	563.6	552.2	549.4	549.4
65°	5920.6	1548.5	566.4	643.3	583.5	543.7	552.2	555.1	540.8	538.0	535.1
67.5°	5644.5	1372.0	529.4	631.9	600.6	543.7	543.7	540.8	523.7	520.9	515.2
70°	5026.8	1138.6	472.5	594.9	612.0	546.5	532.3	518.1	501.0	501.0	489.6
72.5°	4116.0	896.6	398.5	529.4	603.4	555.1	509.5	489.6	469.7	469.7	458.3
75°	2966.0	668.9	318.8	441.2	566.4	552.2	481.0	455.4	432.7	429.8	415.6
77.5°	1690.8	469.7	259.0	344.4	503.8	538.0	455.4	415.6	390.0	381.4	372.9
80°	868.2	316.0	210.6	270.4	418.4	498.1	435.5	370.0	341.6	327.3	313.1
82.5°	412.7	210.6	162.2	199.3	316.0	435.5	409.9	318.8	287.5	270.4	253.3
85°	185.0	125.2	108.2	128.1	224.9	338.7	361.5	261.9	224.9	281.8	207.8
87.5°	59.8	56.9	56.9	59.8	108.2	148.0	264.7	193.6	179.3	148.0	125.2
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)