

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: P231030

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231030
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-AF48-110-D-U-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14662.9 lumens
Efficiency: N/A
Efficacy: 132.1 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

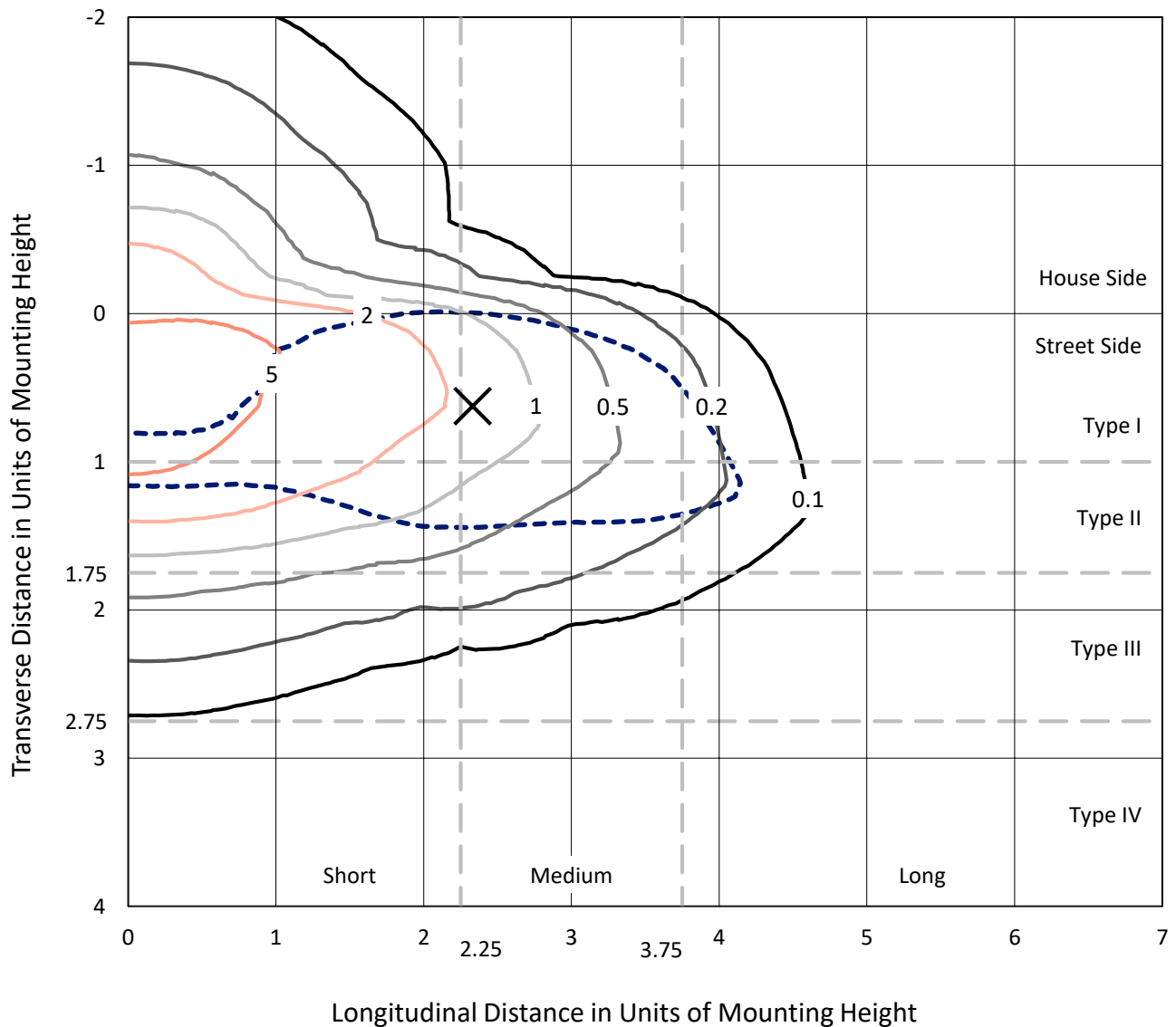
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

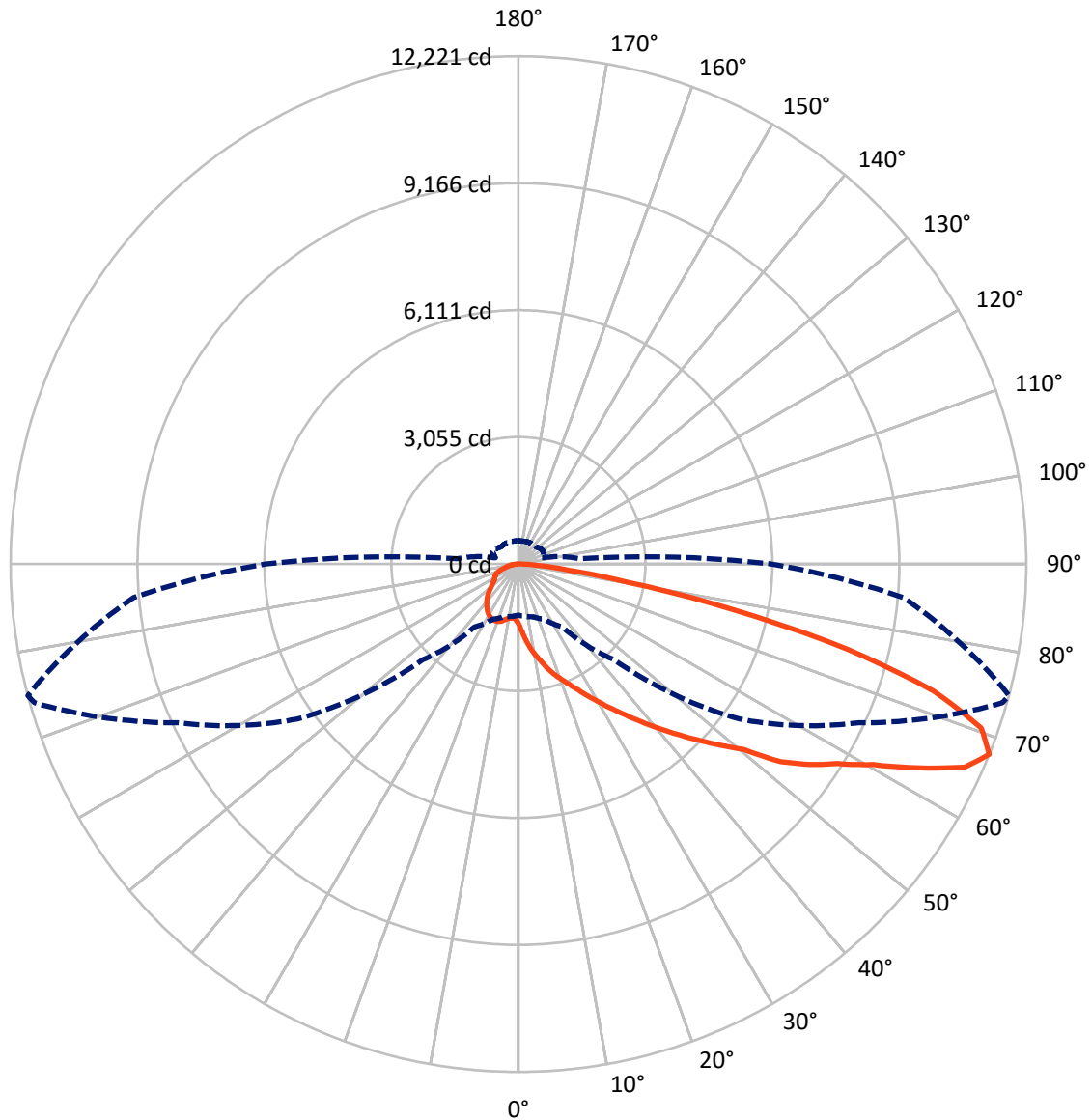
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.6 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	2503.9	0.0	2503.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	12159.1	0.0	12159.1
	% Fixture	82.9	0.0	82.9
Total	Lumens	14662.9	0.0	14662.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.7	1.2
10°-20°	616.9	4.2
20°-30°	1125.1	7.7
30°-40°	1846.8	12.6
40°-50°	2670.7	18.2
50°-60°	3147.4	21.5
60°-70°	3058.5	20.9
70°-80°	1700.1	11.6
80°-90°	326.9	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°	14662.9	100.0
0°-180°	14662.9	100.0

Coefficient of Utilization



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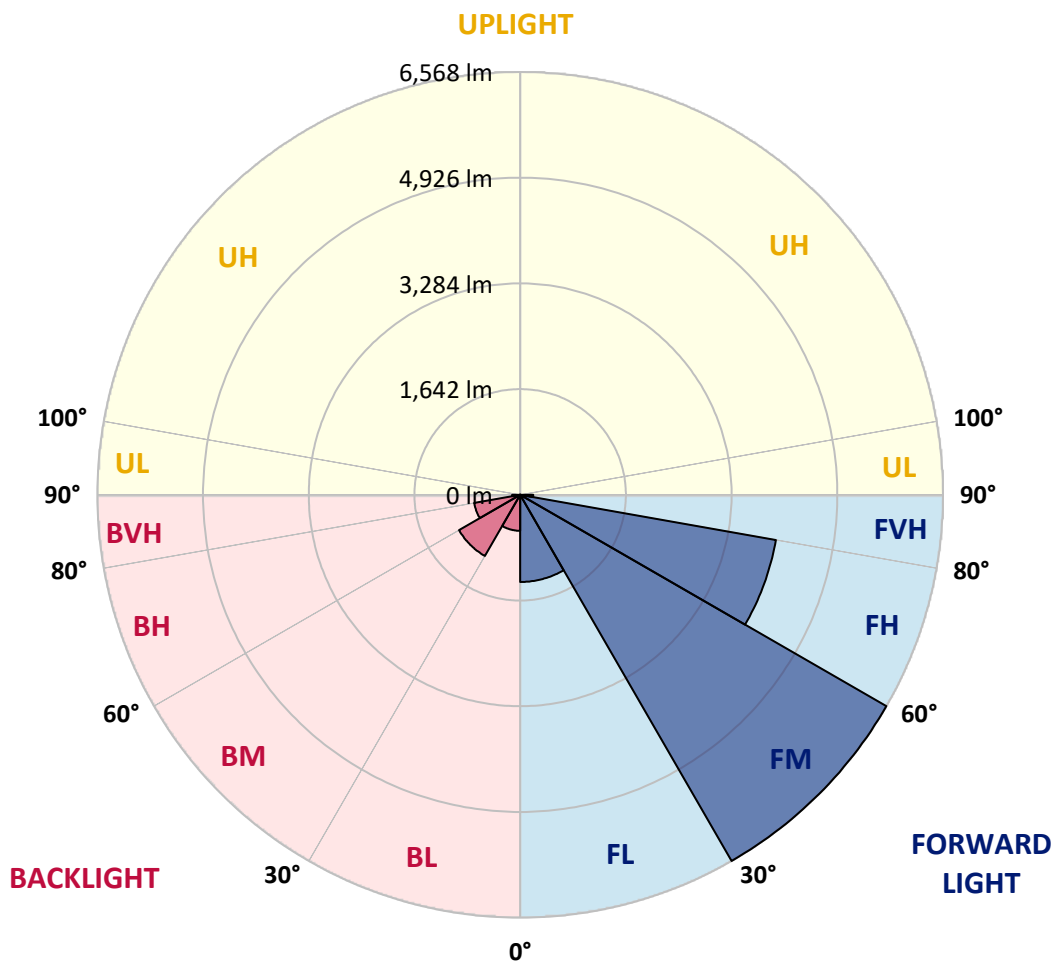
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1353.8	9.2			
FM (30°-60°)	6568.2	44.8			
FH (60°-80°)	4033.6	27.5			G2/5000
FVH (80°-90°)	203.4	1.4			G2/225
BL (0°-30°)	558.9	3.8	B2/1000		
BM (30°-60°)	1096.6	7.5	B2/2500		
BH (60°-80°)	725.0	4.9	B2/1000		G2/1000
BVH (80°-90°)	123.4	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°	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0
2.5°	2059.9	2066.1	2053.8	2026.2	1986.4	1912.7	1848.4	1734.9	1633.9	1621.6	1514.3
5°	2421.6	2427.8	2412.4	2378.7	2335.8	2256.1	2167.2	2020.0	1857.6	1826.9	1600.1
7.5°	2669.9	2673.0	2654.6	2620.8	2587.1	2507.5	2418.6	2253.0	2053.8	2029.2	1710.5
10°	2881.3	2887.5	2863.0	2841.6	2804.7	2725.0	2633.1	2458.4	2253.0	2219.3	1823.8
12.5°	3077.5	3083.7	3068.3	3050.0	3037.8	2964.2	2863.0	2654.6	2433.9	2397.1	1958.7
15°	3209.4	3215.5	3218.6	3243.1	3258.4	3206.3	3105.2	2878.3	2630.0	2596.4	2118.1
17.5°	3172.6	3187.9	3233.9	3322.7	3417.8	3420.8	3338.1	3099.0	2823.1	2786.4	2280.6
20°	3065.3	3077.5	3132.8	3267.6	3454.6	3561.9	3555.8	3322.7	3004.0	2964.2	2430.8
22.5°	3154.2	3169.5	3169.5	3252.3	3436.2	3635.5	3715.2	3543.5	3184.9	3148.0	2581.0
25°	3534.3	3543.5	3479.2	3445.4	3512.8	3696.7	3847.0	3782.6	3405.6	3362.6	2743.5
27.5°	4064.6	4049.2	3969.6	3834.7	3761.2	3810.2	3963.4	4009.5	3660.0	3607.8	2912.0
30°	4591.8	4582.6	4490.7	4309.8	4144.3	4040.0	4092.2	4211.7	3935.9	3874.5	3074.5
32.5°	5085.4	5070.1	4968.9	4757.3	4570.3	4377.3	4276.1	4395.6	4230.1	4159.6	3255.3
35°	5539.0	5499.2	5398.0	5177.4	4984.2	4800.3	4552.0	4570.3	4549.0	4475.3	3454.6
37.5°	5906.8	5876.2	5765.9	5560.5	5355.1	5180.3	4919.8	4769.6	4892.3	4821.8	3684.5
40°	6231.8	6198.1	6084.6	5879.3	5689.2	5523.7	5318.3	5011.7	5278.4	5198.7	3941.9
42.5°	6477.0	6452.5	6360.5	6158.2	5974.3	5824.1	5722.9	5318.3	5680.0	5603.4	4224.0
45°	6608.8	6584.3	6535.2	6372.8	6204.2	6087.7	6096.9	5683.1	6100.0	6035.6	4558.2
47.5°	6446.3	6464.7	6507.6	6477.0	6372.8	6317.6	6431.0	6060.2	6569.0	6507.6	4919.8
50°	6011.1	6029.5	6201.1	6412.7	6449.4	6516.8	6731.4	6495.4	7065.5	7016.5	5367.3
52.5°	4941.3	5042.4	5517.6	6023.3	6369.7	6648.7	7065.5	7142.1	7902.4	7902.4	6158.2
55°	3733.6	3822.5	4365.0	5247.8	6060.2	6660.9	7310.7	7580.5	8506.2	8518.5	6572.0
57.5°	3025.5	3080.6	3347.3	4251.6	5410.3	6507.6	7602.0	7957.5	9008.9	9064.2	7105.4
60°	2455.3	2486.0	2660.7	3289.1	4512.1	6093.8	7810.4	8497.0	9726.2	9802.8	7785.9
62.5°	1974.1	2004.7	2121.2	2498.3	3540.4	5318.3	7773.6	9058.0	10682.6	10808.3	8677.9
65°	1575.5	1609.3	1685.9	1918.9	2623.9	4355.8	7396.5	9346.1	11672.7	11795.3	9269.5
67.5°	1229.2	1259.9	1311.9	1465.2	1848.4	3258.4	6504.6	9042.7	12117.2	12221.4	9300.2
70°	928.8	944.1	987.0	1085.1	1321.1	2164.2	5091.4	8024.9	11718.7	11813.8	8687.1
72.5°	720.4	717.3	741.8	790.8	922.7	1489.7	3374.9	6526.0	10360.8	10458.9	7411.9
75°	588.5	585.4	600.8	616.1	668.2	999.3	1992.4	4913.7	8362.2	8175.2	5560.5
77.5°	496.5	493.5	508.8	511.9	533.4	689.7	1134.1	3233.9	5578.9	5257.0	3132.8
80°	419.9	416.9	435.3	441.4	456.7	505.7	652.9	1750.3	2801.7	2654.6	1495.9
82.5°	315.7	328.0	361.7	377.1	395.5	374.0	404.6	772.4	1299.7	1241.5	649.9
85°	153.2	180.9	272.8	303.5	324.9	236.0	275.9	364.8	585.4	557.9	263.6
87.5°	52.1	45.9	162.4	193.1	211.5	107.3	153.2	202.3	242.1	220.8	82.8
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°	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0	1453.0
2.5°	1468.2	1422.3	1354.9	1302.7	1269.1	1241.5	1229.2	1226.1	1220.0	1216.9	1216.9
5°	1498.9	1416.2	1311.9	1256.8	1241.5	1229.2	1235.3	1238.4	1238.4	1238.4	1238.4
7.5°	1545.0	1428.4	1302.7	1266.0	1262.9	1262.9	1281.3	1290.5	1296.6	1296.6	1296.6
10°	1606.2	1449.9	1318.1	1287.4	1296.6	1302.7	1324.2	1336.5	1342.6	1345.7	1348.8
12.5°	1689.0	1495.9	1348.8	1324.2	1336.5	1339.6	1354.9	1361.0	1367.2	1370.2	1370.2
15°	1799.4	1563.3	1397.8	1367.2	1370.2	1367.2	1367.2	1361.0	1358.0	1358.0	1364.1
17.5°	1912.7	1627.7	1440.7	1397.8	1385.5	1361.0	1342.6	1327.3	1318.1	1311.9	1315.0
20°	2026.2	1685.9	1465.2	1403.9	1370.2	1330.3	1296.6	1275.2	1262.9	1250.7	1256.8
22.5°	2139.6	1741.1	1474.4	1385.5	1336.5	1278.3	1241.5	1207.7	1180.2	1161.8	1164.8
25°	2265.2	1802.4	1474.4	1364.1	1290.5	1229.2	1183.2	1128.0	1088.2	1072.9	1079.0
27.5°	2390.9	1854.5	1459.1	1324.2	1238.4	1177.1	1109.6	1045.3	1020.7	1011.6	1014.7
30°	2516.7	1894.4	1425.4	1275.2	1183.2	1115.7	1026.8	984.0	953.3	928.8	931.8
32.5°	2642.3	1921.9	1379.3	1213.8	1124.9	1039.1	965.6	916.6	861.3	830.7	833.8
35°	2786.4	1943.4	1324.2	1152.6	1060.6	971.7	916.6	836.9	778.6	754.0	748.0
37.5°	2936.6	1958.7	1266.0	1085.1	996.3	922.7	867.5	769.4	714.2	680.5	677.4
40°	3099.0	1964.9	1195.4	1014.7	934.9	892.0	803.1	729.6	634.5	613.1	613.1
42.5°	3292.2	1961.8	1124.9	944.1	867.5	821.5	757.1	723.4	640.7	619.2	606.9
45°	3512.8	1961.8	1048.3	861.3	800.0	732.6	705.0	683.5	628.4	637.6	643.7
47.5°	3764.2	1955.7	956.4	793.9	744.9	686.6	671.3	625.3	603.8	610.0	616.1
50°	4110.6	1964.9	873.6	738.8	705.0	656.0	637.6	613.1	603.8	606.9	603.8
52.5°	4591.8	1934.2	793.9	705.0	674.3	610.0	610.0	606.9	610.0	606.9	606.9
55°	4855.4	1866.8	735.7	686.6	652.9	588.5	600.8	606.9	613.1	610.0	610.0
57.5°	5229.4	1820.8	689.7	674.3	640.7	582.4	594.6	606.9	610.0	606.9	606.9
60°	5670.8	1790.2	659.1	677.4	631.5	582.4	597.7	606.9	603.8	600.8	600.8
62.5°	6182.7	1777.9	637.6	686.6	622.3	585.4	597.7	606.9	594.6	591.6	591.6
65°	6375.8	1667.5	610.0	692.7	628.4	585.4	594.6	597.7	582.4	579.3	576.2
67.5°	6078.5	1477.4	570.2	680.5	646.8	585.4	585.4	582.4	564.1	561.0	554.8
70°	5413.4	1226.1	508.8	640.7	659.1	588.5	573.3	557.9	539.5	539.5	527.2
72.5°	4432.4	965.6	429.1	570.2	649.9	597.7	548.7	527.2	505.7	505.7	493.5
75°	3194.1	720.4	343.3	475.2	610.0	594.6	518.0	490.4	466.0	462.9	447.5
77.5°	1820.8	505.7	279.0	370.9	542.6	579.3	490.4	447.5	419.9	410.7	401.5
80°	934.9	340.2	226.8	291.2	450.6	536.4	469.0	398.4	367.9	352.5	337.2
82.5°	444.5	226.8	174.7	214.6	340.2	469.0	441.4	343.3	309.6	291.2	272.8
85°	199.3	134.8	116.5	137.9	242.1	364.8	389.3	282.0	242.1	303.5	223.7
87.5°	64.3	61.3	61.3	64.3	116.5	159.4	285.1	208.5	193.1	159.4	134.8
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)