

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: P234786

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234786  
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-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 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: 11138 lumens  
Efficiency: N/A  
Efficacy: 100.3 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

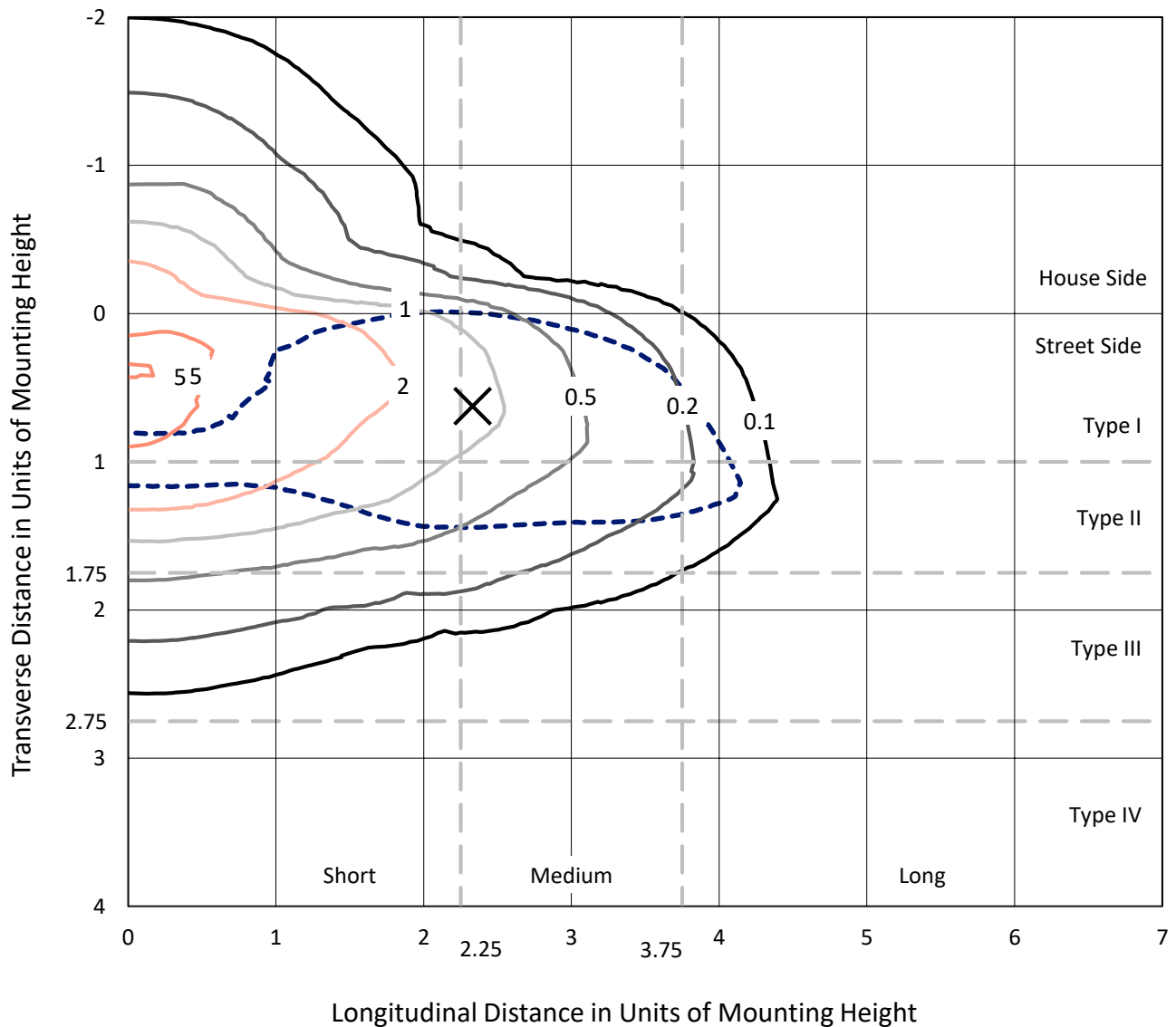


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

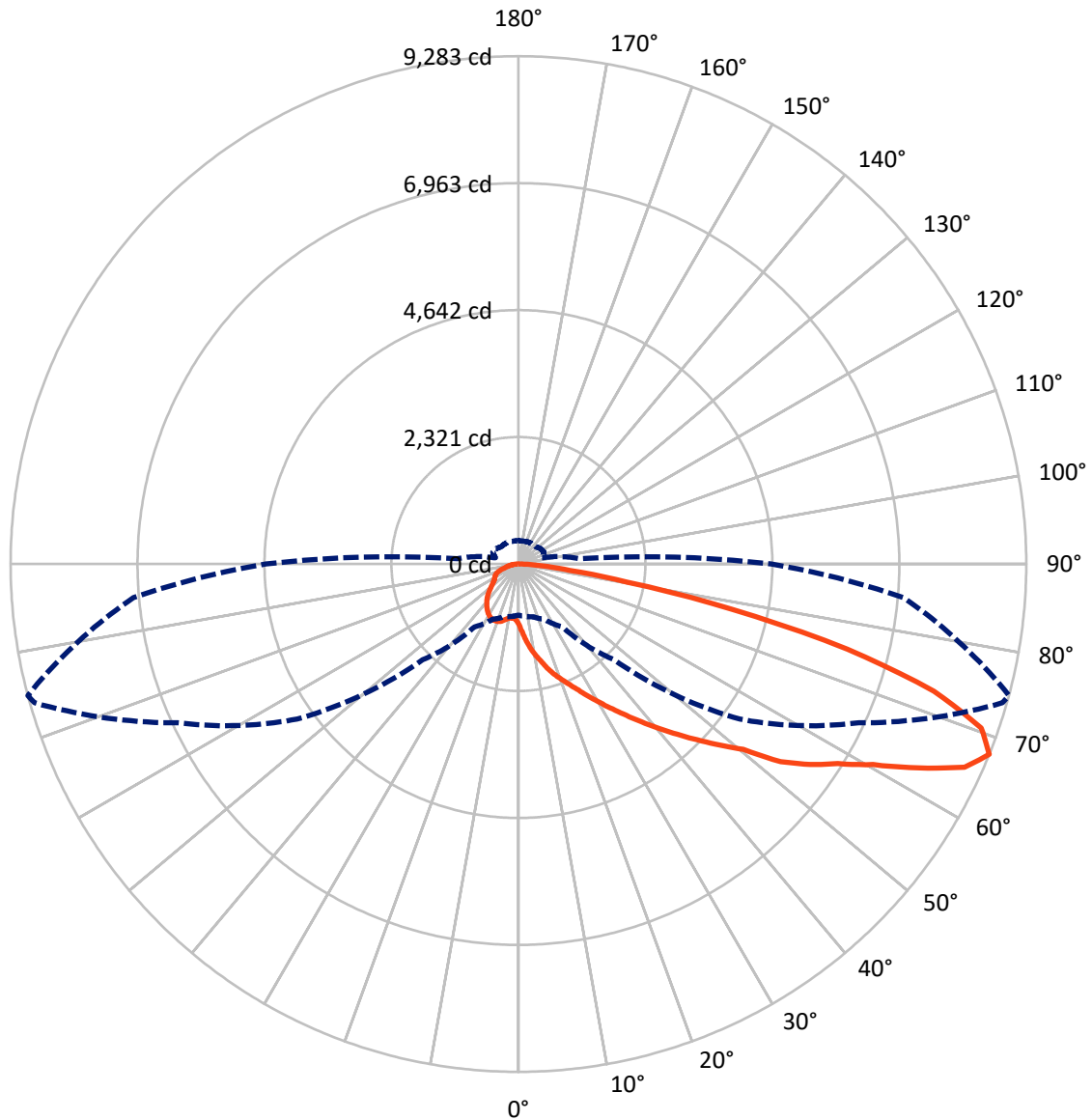


Based on 20 foot mounting height. Maximum calculated value = 5.8 fc  
 Type II - Medium - Semi-Cutoff

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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
<b>House Side</b>	Lumens	1902.0	0.0	1902.0
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	9236.0	0.0	9236.0
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	11138.0	0.0	11138.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	1.2
10°-20°	468.6	4.2
20°-30°	854.6	7.7
30°-40°	1402.8	12.6
40°-50°	2028.6	18.2
50°-60°	2390.8	21.5
60°-70°	2323.2	20.9
70°-80°	1291.4	11.6
80°-90°	248.3	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°	11138.0	100.0
0°-180°	11138.0	100.0

**Coefficient of Utilization**



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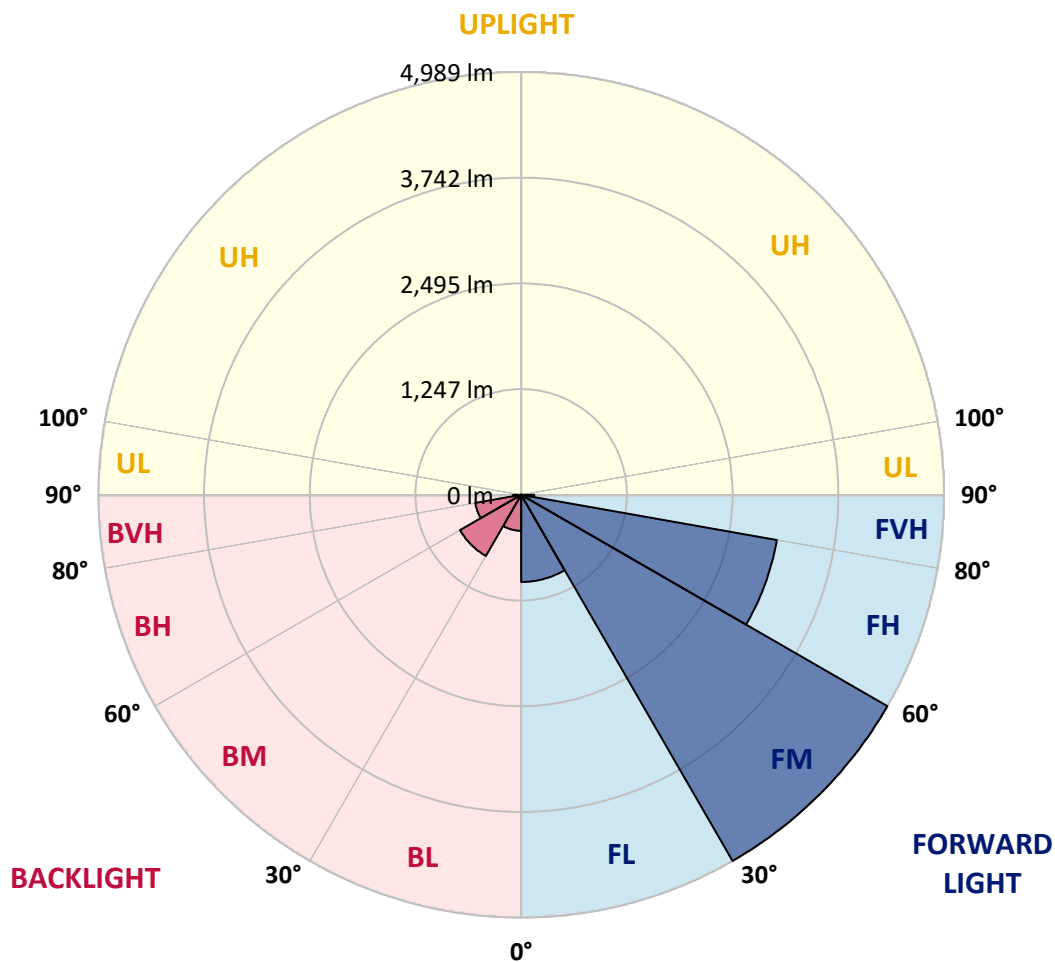
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1028.3	9.2			
FM	(30°-60°)	4989.2	44.8			
FH	(60°-80°)	3063.9	27.5			G2/5000
FVH	(80°-90°)	154.5	1.4			G2/225
BL	(0°-30°)	424.5	3.8	B1/500		
BM	(30°-60°)	833.0	7.5	B1/1000		
BH	(60°-80°)	550.7	4.9	B2/1000		G2/1000
BVH	(80°-90°)	93.8	0.8			G1/100
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°	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7
2.5°	1564.7	1569.3	1560.0	1539.1	1508.8	1452.9	1404.0	1317.9	1241.0	1231.7	1150.2
5°	1839.4	1844.1	1832.5	1806.8	1774.2	1713.7	1646.2	1534.4	1411.0	1387.7	1215.4
7.5°	2028.0	2030.4	2016.4	1990.8	1965.2	1904.6	1837.1	1711.4	1560.0	1541.4	1299.3
10°	2188.7	2193.4	2174.7	2158.4	2130.5	2070.0	2000.1	1867.4	1711.4	1685.8	1385.4
12.5°	2337.7	2342.4	2330.7	2316.8	2307.5	2251.6	2174.7	2016.4	1848.8	1820.8	1487.9
15°	2437.8	2442.5	2444.8	2463.5	2475.1	2435.5	2358.7	2186.4	1997.8	1972.2	1608.9
17.5°	2409.9	2421.5	2456.5	2524.0	2596.2	2598.5	2535.6	2354.0	2144.5	2116.5	1732.3
20°	2328.4	2337.7	2379.6	2482.1	2624.1	2705.6	2701.0	2524.0	2281.8	2251.6	1846.4
22.5°	2395.9	2407.6	2407.6	2470.4	2610.1	2761.5	2822.0	2691.6	2419.2	2391.3	1960.5
25°	2684.7	2691.6	2642.7	2617.1	2668.4	2808.1	2922.2	2873.3	2586.9	2554.3	2083.9
27.5°	3087.5	3075.8	3015.3	2912.8	2857.0	2894.2	3010.6	3045.6	2780.1	2740.5	2212.0
30°	3488.0	3481.0	3411.1	3273.7	3148.0	3068.8	3108.4	3199.2	2989.7	2943.1	2335.4
32.5°	3862.8	3851.2	3774.4	3613.7	3471.7	3325.0	3248.1	3338.9	3213.2	3159.7	2472.8
35°	4207.4	4177.2	4100.3	3932.7	3786.0	3646.3	3457.7	3471.7	3455.4	3399.5	2624.1
37.5°	4486.8	4463.6	4379.7	4223.7	4067.7	3935.0	3737.1	3623.0	3716.1	3662.6	2798.7
40°	4733.7	4708.0	4621.9	4465.9	4321.5	4195.8	4039.8	3807.0	4009.5	3949.0	2994.3
42.5°	4919.9	4901.3	4831.5	4677.8	4538.1	4424.0	4347.1	4039.8	4314.5	4256.3	3208.5
45°	5020.1	5001.4	4964.2	4840.8	4712.7	4624.2	4631.2	4316.9	4633.5	4584.6	3462.3
47.5°	4896.6	4910.6	4943.2	4919.9	4840.8	4798.9	4885.0	4603.3	4989.8	4943.2	3737.1
50°	4566.0	4580.0	4710.4	4871.0	4899.0	4950.2	5113.2	4933.9	5367.0	5329.7	4077.0
52.5°	3753.4	3830.2	4191.1	4575.3	4838.4	5050.3	5367.0	5425.2	6002.6	6002.6	4677.8
55°	2836.0	2903.5	3315.7	3986.2	4603.3	5059.6	5553.3	5758.2	6461.3	6470.7	4992.1
57.5°	2298.1	2340.1	2542.6	3229.5	4109.6	4943.2	5774.5	6044.6	6843.2	6885.1	5397.3
60°	1865.1	1888.3	2021.1	2498.4	3427.4	4628.9	5932.8	6454.4	7388.0	7446.3	5914.2
62.5°	1499.5	1522.8	1611.3	1897.7	2689.3	4039.8	5904.8	6880.5	8114.5	8210.0	6591.7
65°	1196.8	1222.4	1280.6	1457.6	1993.1	3308.7	5618.5	7099.3	8866.6	8959.7	7041.1
67.5°	933.7	957.0	996.6	1113.0	1404.0	2475.1	4940.9	6868.8	9204.2	9283.4	7064.4
70°	705.5	717.2	749.7	824.3	1003.5	1643.9	3867.5	6095.8	8901.5	8973.7	6598.7
72.5°	547.2	544.8	563.5	600.7	700.9	1131.6	2563.6	4957.2	7870.0	7944.5	5630.1
75°	447.1	444.7	456.4	468.0	507.6	759.1	1513.5	3732.4	6351.9	6209.9	4223.7
77.5°	377.2	374.9	386.5	388.8	405.1	523.9	861.5	2456.5	4237.7	3993.2	2379.6
80°	319.0	316.7	330.6	335.3	346.9	384.2	496.0	1329.5	2128.2	2016.4	1136.3
82.5°	239.8	249.1	274.8	286.4	300.4	284.1	307.4	586.8	987.2	943.0	493.6
85°	116.4	137.4	207.2	230.5	246.8	179.3	209.6	277.1	444.7	423.8	200.2
87.5°	39.6	34.9	123.4	146.7	160.7	81.5	116.4	153.7	183.9	167.6	62.9
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°	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7	1103.7
2.5°	1115.3	1080.4	1029.2	989.6	964.0	943.0	933.7	931.4	926.7	924.4	924.4
5°	1138.6	1075.7	996.6	954.6	943.0	933.7	938.3	940.7	940.7	940.7	940.7
7.5°	1173.5	1085.0	989.6	961.6	959.3	959.3	973.3	980.3	984.9	984.9	984.9
10°	1220.1	1101.3	1001.2	977.9	984.9	989.6	1005.9	1015.2	1019.8	1022.2	1024.5
12.5°	1283.0	1136.3	1024.5	1005.9	1015.2	1017.5	1029.2	1033.8	1038.5	1040.8	1040.8
15°	1366.8	1187.5	1061.8	1038.5	1040.8	1038.5	1038.5	1033.8	1031.5	1031.5	1036.1
17.5°	1452.9	1236.4	1094.4	1061.8	1052.4	1033.8	1019.8	1008.2	1001.2	996.6	998.9
20°	1539.1	1280.6	1113.0	1066.4	1040.8	1010.5	984.9	968.6	959.3	950.0	954.6
22.5°	1625.2	1322.5	1120.0	1052.4	1015.2	970.9	943.0	917.4	896.4	882.5	884.8
25°	1720.7	1369.1	1120.0	1036.1	980.3	933.7	898.8	856.9	826.6	814.9	819.6
27.5°	1816.2	1408.7	1108.3	1005.9	940.7	894.1	842.9	794.0	775.4	768.4	770.7
30°	1911.6	1439.0	1082.7	968.6	898.8	847.5	780.0	747.4	724.1	705.5	707.8
32.5°	2007.1	1459.9	1047.8	922.1	854.5	789.3	733.4	696.2	654.3	631.0	633.3
35°	2116.5	1476.2	1005.9	875.5	805.6	738.1	696.2	635.7	591.4	572.8	568.1
37.5°	2230.6	1487.9	961.6	824.3	756.7	700.9	658.9	584.4	542.5	516.9	514.6
40°	2354.0	1492.5	908.1	770.7	710.2	677.6	610.0	554.2	482.0	465.7	465.7
42.5°	2500.7	1490.2	854.5	717.2	658.9	624.0	575.1	549.5	486.6	470.3	461.0
45°	2668.4	1490.2	796.3	654.3	607.7	556.5	535.5	519.2	477.3	484.3	489.0
47.5°	2859.3	1485.5	726.5	603.1	565.8	521.6	509.9	475.0	458.7	463.4	468.0
50°	3122.4	1492.5	663.6	561.1	535.5	498.3	484.3	465.7	458.7	461.0	458.7
52.5°	3488.0	1469.2	603.1	535.5	512.3	463.4	463.4	461.0	463.4	461.0	461.0
55°	3688.2	1418.0	558.8	521.6	496.0	447.1	456.4	461.0	465.7	463.4	463.4
57.5°	3972.3	1383.1	523.9	512.3	486.6	442.4	451.7	461.0	463.4	461.0	461.0
60°	4307.6	1359.8	500.6	514.6	479.7	442.4	454.0	461.0	458.7	456.4	456.4
62.5°	4696.4	1350.5	484.3	521.6	472.7	444.7	454.0	461.0	451.7	449.4	449.4
65°	4843.1	1266.7	463.4	526.2	477.3	444.7	451.7	454.0	442.4	440.1	437.7
67.5°	4617.2	1122.3	433.1	516.9	491.3	444.7	444.7	442.4	428.4	426.1	421.4
70°	4112.0	931.4	386.5	486.6	500.6	447.1	435.4	423.8	409.8	409.8	400.5
72.5°	3366.9	733.4	326.0	433.1	493.6	454.0	416.8	400.5	384.2	384.2	374.9
75°	2426.2	547.2	260.8	360.9	463.4	451.7	393.5	372.5	353.9	351.6	339.9
77.5°	1383.1	384.2	211.9	281.7	412.1	440.1	372.5	339.9	319.0	312.0	305.0
80°	710.2	258.5	172.3	221.2	342.3	407.5	356.2	302.7	279.4	267.8	256.1
82.5°	337.6	172.3	132.7	163.0	258.5	356.2	335.3	260.8	235.2	221.2	207.2
85°	151.3	102.5	88.5	104.8	183.9	277.1	295.7	214.2	183.9	230.5	170.0
87.5°	48.9	46.6	46.6	48.9	88.5	121.1	216.5	158.3	146.7	121.1	102.5
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)