

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: P234806

Luminaire Tested: **ARCH-M-AF48-50-D-U-T3-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234806  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-50-D-U-T3-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5239 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

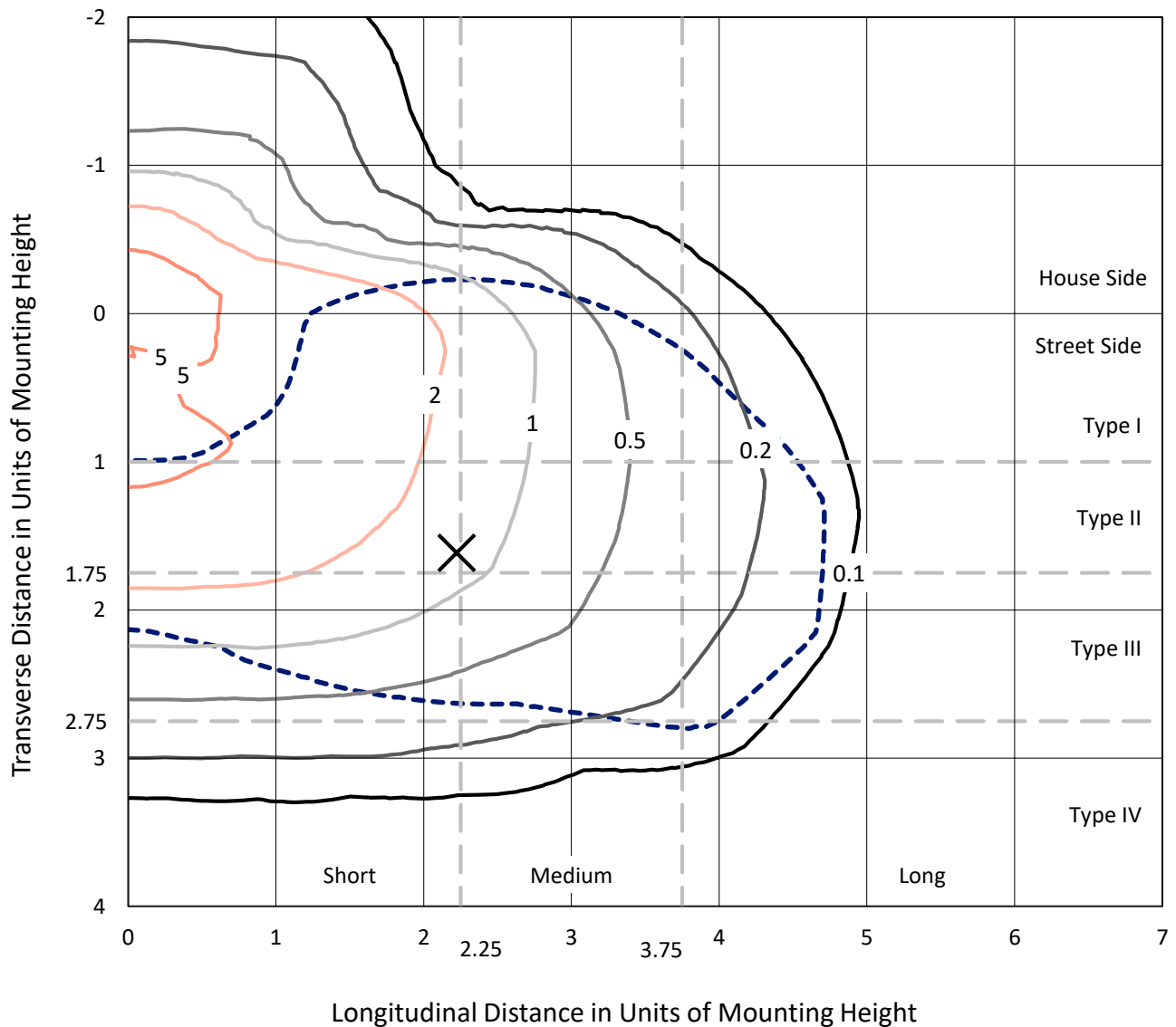
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

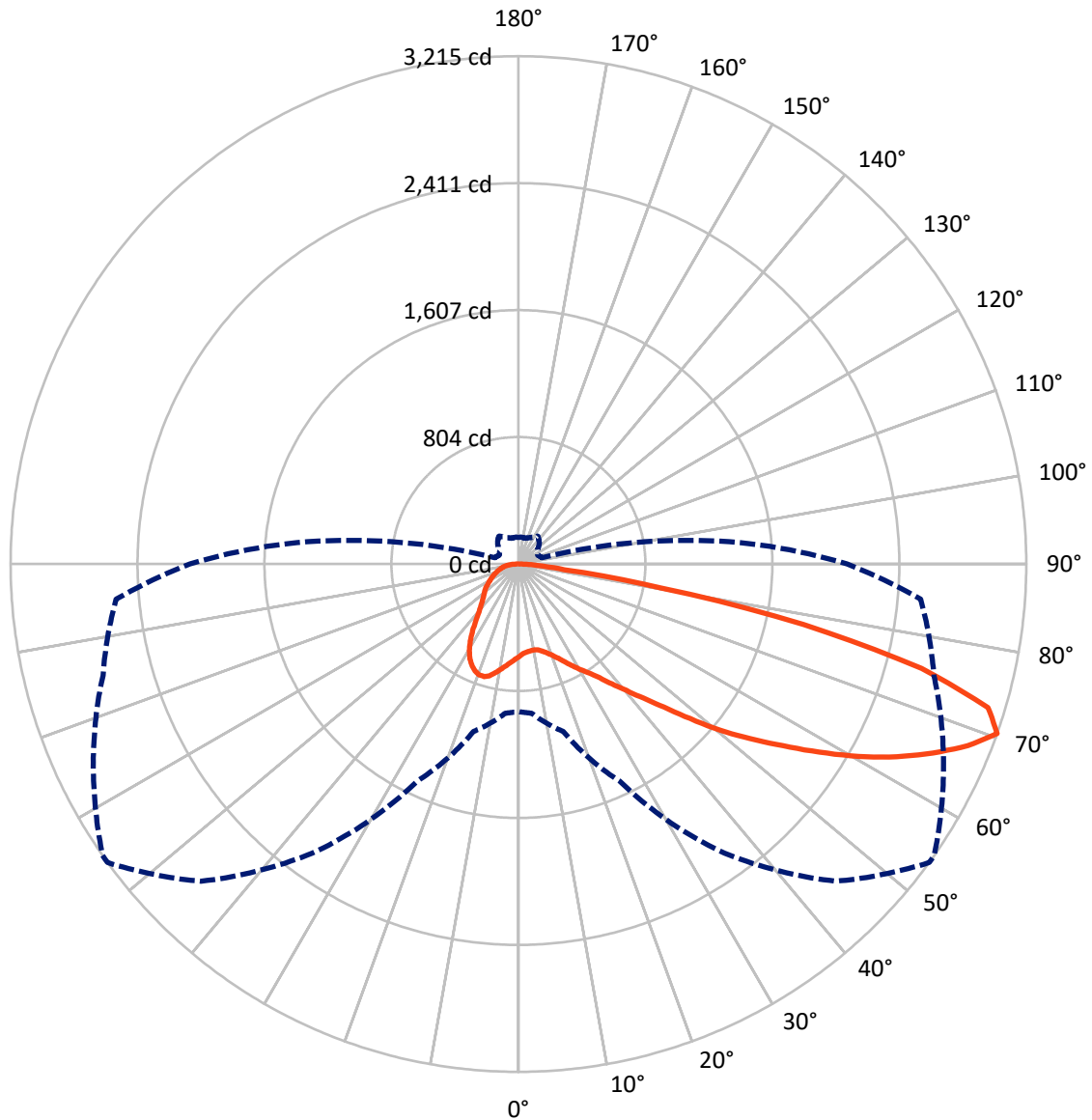


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1188.2	0.0	1188.2
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	4050.8	0.0	4050.8
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	5239.0	0.0	5239.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	1.1
10°-20°	183.8	3.5
20°-30°	319.3	6.1
30°-40°	466.6	8.9
40°-50°	732.4	14.0
50°-60°	1126.3	21.5
60°-70°	1376.0	26.3
70°-80°	853.1	16.3
80°-90°	123.9	2.4
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°	5239.0	100.0
0°-180°	5239.0	100.0



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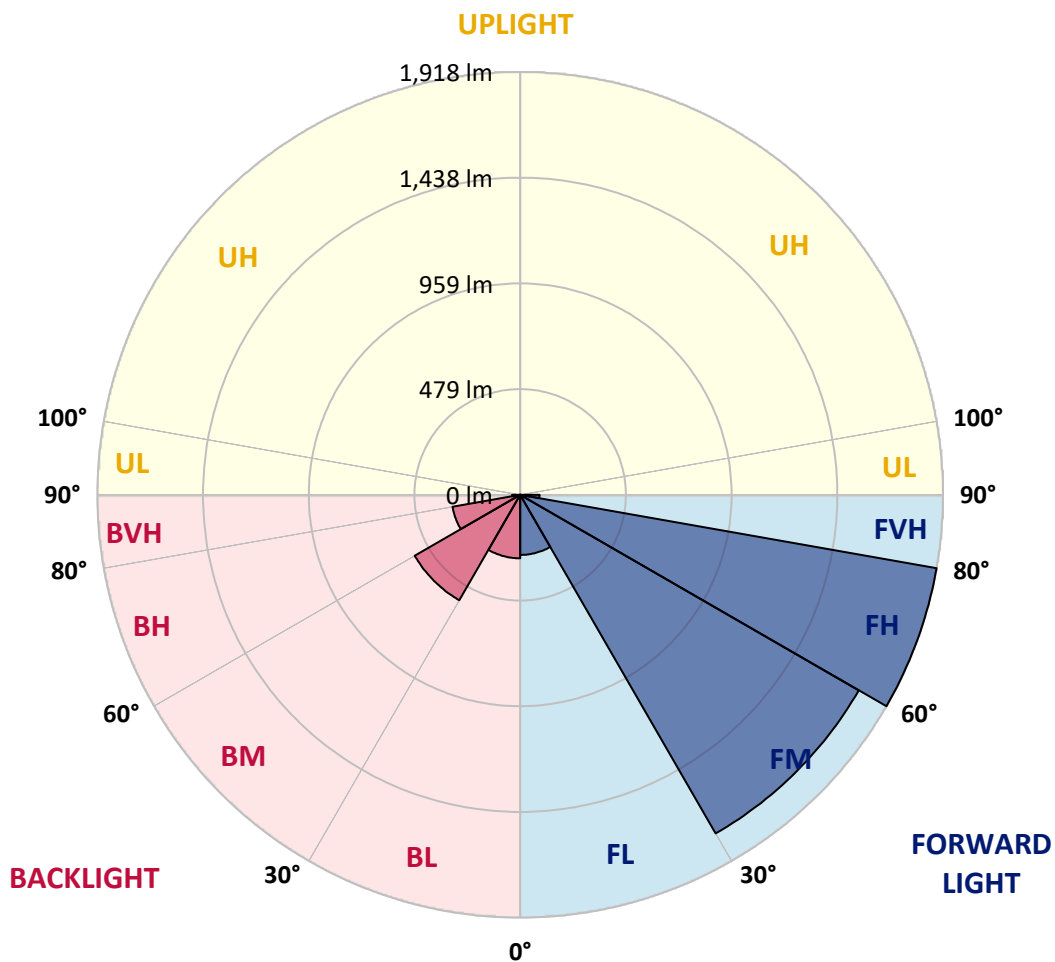
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	272.6	5.2			
FM	(30°-60°)	1773.2	33.8			
FH	(60°-80°)	1917.6	36.6			G2/5000
FVH	(80°-90°)	87.5	1.7			G1/100
BL	(0°-30°)	288.1	5.5	B1/500		
BM	(30°-60°)	552.1	10.5	B1/1000		
BH	(60°-80°)	311.6	5.9	B1/500		G1/500
BVH	(80°-90°)	36.4	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1
2.5°	563.1	561.2	561.2	564.1	565.0	567.9	567.9	568.9	571.7	576.5	582.3
5°	545.8	544.9	545.8	549.7	551.6	557.4	559.3	560.2	566.0	573.7	582.3
7.5°	528.6	527.6	529.5	535.3	541.1	549.7	554.5	555.4	564.1	574.6	586.1
10°	522.8	521.9	524.7	529.5	535.3	544.9	552.6	553.5	566.0	578.5	594.8
12.5°	530.5	529.5	532.4	537.2	543.0	549.7	558.3	559.3	575.6	591.9	609.2
15°	549.7	549.7	550.6	553.5	559.3	565.0	572.7	573.7	590.9	610.1	627.4
17.5°	579.4	577.5	577.5	576.5	580.4	583.3	592.9	593.8	612.0	629.3	646.6
20°	615.9	614.9	611.1	606.3	605.3	607.2	616.8	617.8	636.0	650.4	666.7
22.5°	660.0	661.0	652.3	641.8	637.0	639.9	648.5	649.5	662.9	675.4	689.7
25°	718.5	715.6	703.2	687.8	678.2	678.2	686.9	686.9	699.3	707.0	716.6
27.5°	774.2	768.4	756.9	734.8	719.5	722.4	731.0	731.0	742.5	745.4	750.2
30°	834.6	828.8	814.5	786.6	766.5	764.6	775.1	774.2	789.5	788.6	784.7
32.5°	908.5	905.6	881.6	846.1	819.3	812.5	822.1	823.1	832.7	829.8	817.3
35°	1012.1	1011.1	989.0	926.7	891.2	878.7	884.5	884.5	891.2	883.5	862.4
37.5°	1142.5	1144.5	1125.3	1033.2	983.3	962.2	963.1	962.2	964.1	955.5	933.4
40°	1273.0	1277.8	1276.8	1165.6	1102.2	1065.8	1052.4	1050.4	1055.2	1051.4	1030.3
42.5°	1444.7	1456.2	1429.4	1328.6	1257.7	1196.3	1159.8	1155.0	1165.6	1170.4	1150.2
45°	1623.2	1619.3	1577.1	1504.2	1439.9	1361.3	1292.2	1284.5	1292.2	1306.6	1285.5
47.5°	1716.2	1713.3	1702.8	1666.3	1656.7	1566.6	1462.0	1455.3	1440.9	1461.0	1436.1
50°	1869.7	1872.6	1829.4	1825.6	1865.9	1816.0	1653.9	1638.5	1612.6	1628.9	1607.8
52.5°	1981.0	1968.5	1941.6	1975.2	2100.9	2074.0	1834.2	1827.5	1803.5	1799.7	1790.1
55°	2026.1	2026.1	2030.9	2108.6	2288.0	2252.5	2029.9	2036.6	2004.0	1977.1	1989.6
57.5°	2039.5	2045.2	2086.5	2215.0	2507.6	2391.6	2245.7	2255.3	2208.3	2154.6	2193.9
60°	1973.3	1990.6	2089.4	2275.5	2631.4	2539.3	2473.1	2476.0	2407.9	2329.2	2398.3
62.5°	1803.5	1824.6	2001.1	2300.4	2611.2	2690.9	2688.0	2694.7	2601.6	2503.8	2590.1
65°	1595.3	1616.4	1804.5	2230.4	2595.9	2799.3	2884.6	2902.9	2783.0	2651.5	2710.1
67.5°	1289.3	1317.1	1495.6	1994.4	2521.1	2888.5	3068.8	3088.0	2923.0	2728.3	2699.5
70°	934.4	947.8	1097.5	1515.7	2216.0	2839.6	3214.6	3213.7	2969.1	2722.5	2555.6
72.5°	449.9	460.5	590.0	941.1	1584.8	2409.8	3109.1	3127.3	2905.7	2639.1	2226.6
75°	185.1	195.7	238.9	397.2	831.7	1592.5	2635.2	2678.4	2639.1	2368.5	1742.1
77.5°	115.1	119.0	140.1	205.3	379.9	743.5	1844.8	1903.3	2091.3	1897.5	1150.2
80°	86.3	89.2	104.6	143.9	239.8	274.4	916.1	990.0	1267.2	1088.8	520.9
82.5°	71.9	72.9	83.5	104.6	163.1	157.3	293.5	327.1	590.9	415.4	179.4
85°	67.2	69.1	74.8	74.8	103.6	98.8	121.8	127.6	171.7	142.0	62.4
87.5°	34.5	32.6	66.2	58.5	53.7	48.0	51.8	55.6	64.3	68.1	27.8
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°	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1	586.1
2.5°	584.2	587.1	591.9	596.7	602.4	609.2	613.0	617.8	621.6	619.7	618.8
5°	587.1	591.9	602.4	612.0	623.6	637.0	645.6	655.2	662.9	664.8	661.9
7.5°	591.9	600.5	614.9	632.2	647.5	664.8	678.2	691.7	701.3	703.2	703.2
10°	603.4	613.0	632.2	655.2	673.4	691.7	707.0	717.6	726.2	730.0	730.0
12.5°	619.7	631.2	654.2	682.1	702.2	719.5	728.1	732.9	736.7	740.6	741.5
15°	638.9	651.4	679.2	708.9	730.0	738.7	738.7	737.7	737.7	739.6	741.5
17.5°	658.1	671.5	700.3	732.0	745.4	740.6	733.9	731.0	729.1	728.1	731.0
20°	678.2	691.7	720.4	750.2	746.3	726.2	716.6	709.9	704.1	701.3	705.1
22.5°	700.3	712.8	742.5	762.7	733.9	703.2	684.9	674.4	664.8	659.0	662.9
25°	726.2	738.7	767.4	766.5	711.8	668.6	639.9	622.6	612.0	606.3	606.3
27.5°	756.9	767.4	795.3	756.9	681.1	622.6	580.4	564.1	561.2	556.4	556.4
30°	788.6	797.2	821.2	734.8	638.9	562.2	516.1	508.4	509.4	504.6	505.6
32.5°	821.2	829.8	836.5	702.2	584.2	494.0	463.3	457.6	456.6	452.8	449.0
35°	867.2	879.7	838.4	658.1	518.0	437.4	415.4	409.6	403.9	390.4	390.4
37.5°	937.2	950.7	833.6	603.4	449.9	393.3	373.2	365.5	355.9	342.5	337.7
40°	1033.2	1033.2	823.1	542.0	395.2	357.8	338.6	329.0	318.5	305.1	302.2
42.5°	1146.4	1119.5	806.8	479.7	354.9	333.8	316.6	306.0	293.5	278.2	276.3
45°	1278.8	1205.9	783.8	424.0	325.2	319.5	308.9	290.7	269.6	253.3	250.4
47.5°	1407.3	1283.6	761.7	384.7	300.3	313.7	305.1	274.4	245.6	222.6	219.7
50°	1548.3	1352.6	735.8	352.1	281.1	309.9	300.3	250.4	218.7	202.4	200.5
52.5°	1689.3	1422.7	708.0	317.5	264.8	302.2	288.8	233.1	217.8	195.7	192.8
55°	1838.0	1504.2	675.4	279.2	245.6	286.8	273.4	232.2	224.5	195.7	189.0
57.5°	1982.9	1594.4	622.6	241.7	224.5	263.8	267.6	226.4	210.1	193.8	186.1
60°	2143.1	1690.3	535.3	210.1	206.3	244.6	260.0	213.9	193.8	188.0	184.2
62.5°	2271.6	1776.6	418.3	188.0	190.9	229.3	250.4	206.3	187.1	182.3	181.3
65°	2327.3	1778.6	300.3	168.8	175.6	214.9	240.8	199.5	181.3	179.4	178.4
67.5°	2268.8	1680.7	211.0	150.6	159.2	201.5	228.3	192.8	175.6	176.5	174.6
70°	2079.8	1474.5	154.4	133.3	143.9	187.1	214.9	184.2	168.8	170.8	167.9
72.5°	1740.2	1149.3	123.8	119.0	131.4	171.7	201.5	174.6	158.3	159.2	153.5
75°	1285.5	761.7	103.6	106.5	117.0	157.3	184.2	162.1	146.8	142.9	139.1
77.5°	764.6	391.4	85.4	93.1	104.6	140.1	165.0	146.8	134.3	127.6	124.7
80°	315.6	158.3	70.0	78.7	91.1	124.7	145.8	128.5	119.9	113.2	109.4
82.5°	125.7	77.7	55.6	64.3	76.7	108.4	127.6	113.2	104.6	99.8	89.2
85°	48.0	38.4	37.4	45.1	57.6	83.5	105.5	95.0	88.3	75.8	72.9
87.5°	19.2	17.3	17.3	22.1	32.6	52.8	75.8	66.2	69.1	54.7	55.6
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)