

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: P234831

Luminaire Tested: **ARCH-M-AF48-40-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234831  
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-AF48-40-D-U-T4W-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4195 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 38  
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

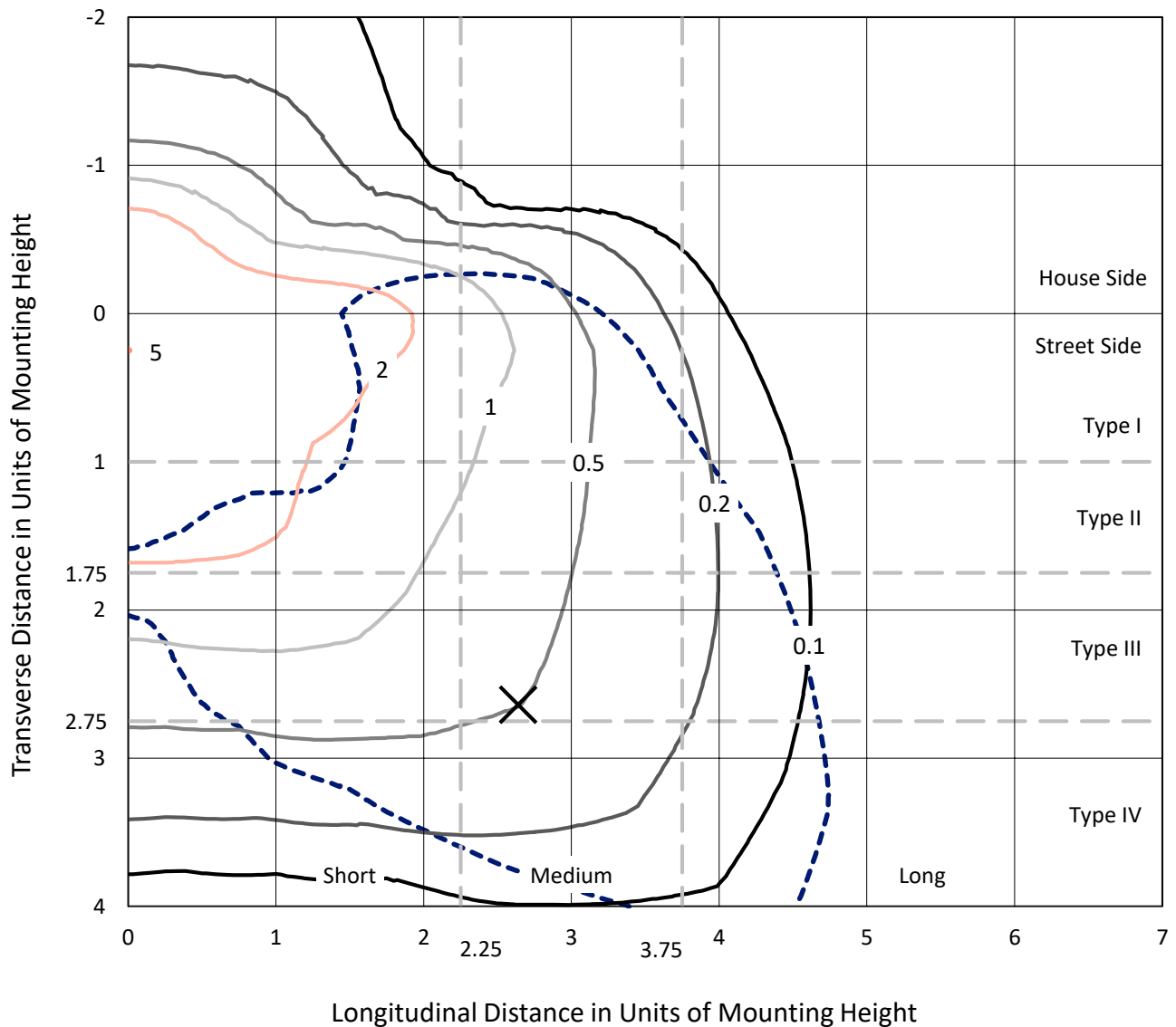


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

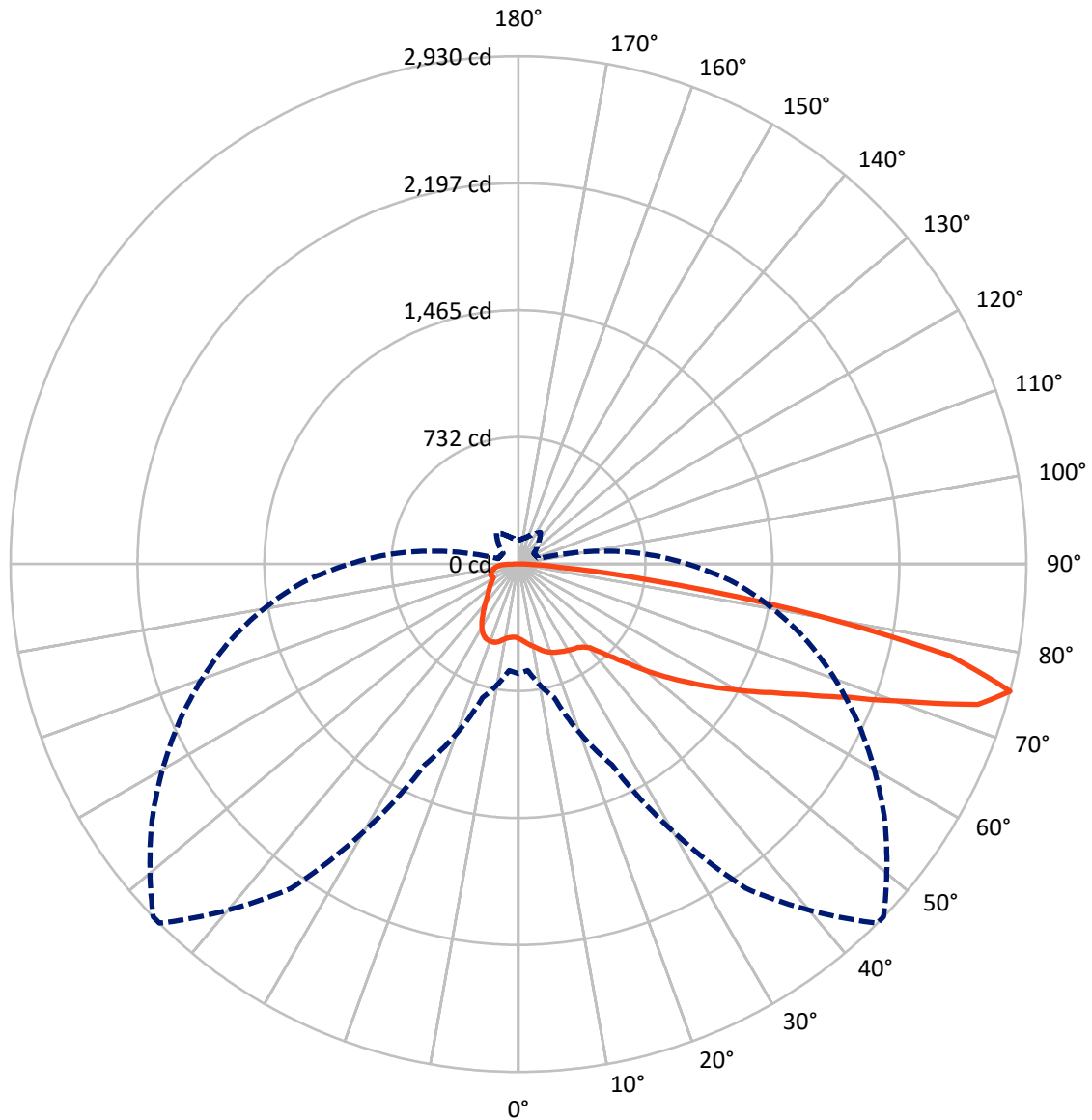


Based on 10 foot mounting height. Maximum calculated value = 5 fc  
 Type IV - Medium - Non-Cutoff

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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
<b>House Side</b>	Lumens	971.8	0.0	971.8
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	3223.2	0.0	3223.2
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	4195.0	0.0	4195.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.6	1.0
10°-20°	138.1	3.3
20°-30°	237.0	5.6
30°-40°	331.5	7.9
40°-50°	486.2	11.6
50°-60°	757.4	18.1
60°-70°	1089.8	26.0
70°-80°	949.4	22.6
80°-90°	163.0	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°	4195.0	100.0
0°-180°	4195.0	100.0

**Coefficient of Utilization**



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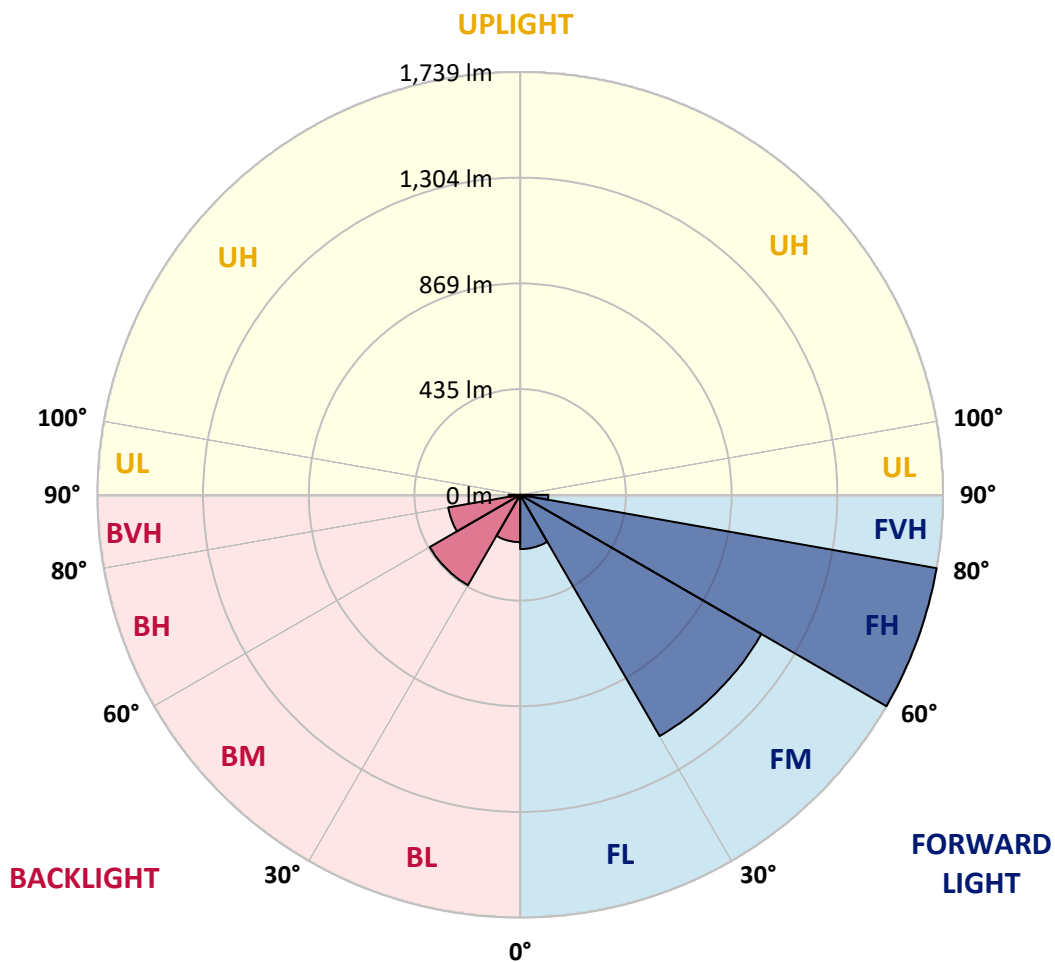
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	223.1	5.3			
FM	(30°-60°)	1145.6	27.3			
FH	(60°-80°)	1738.9	41.5			G1/1800
FVH	(80°-90°)	115.7	2.8			G2/225
BL	(0°-30°)	194.6	4.6	B1/500		
BM	(30°-60°)	429.5	10.2	B1/1000		
BH	(60°-80°)	300.3	7.2	B1/500		G1/500
BVH	(80°-90°)	47.4	1.1			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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0
2.5°	451.3	448.0	448.0	445.6	445.6	441.5	439.8	439.0	434.9	432.5	430.0
5°	477.4	473.3	472.5	466.8	464.3	455.3	454.5	448.8	441.5	434.1	428.4
7.5°	501.0	498.6	494.5	488.8	481.5	470.0	469.2	460.2	448.0	438.2	430.0
10°	518.2	516.5	510.8	503.5	495.3	483.9	483.1	473.3	458.6	447.2	435.8
12.5°	538.6	536.1	528.8	519.0	510.0	499.4	498.6	490.4	474.1	459.4	444.7
15°	558.2	554.9	545.9	536.1	526.3	517.4	517.4	508.4	491.2	474.1	457.0
17.5°	568.0	566.3	557.3	546.7	538.6	532.1	531.2	523.1	505.9	488.0	469.2
20°	571.2	572.0	563.9	552.5	546.7	543.5	542.7	536.9	518.2	501.0	483.1
22.5°	570.4	572.9	566.3	554.1	552.5	552.5	552.5	545.9	531.2	514.1	496.1
25°	573.7	576.9	572.0	557.3	557.3	560.6	560.6	557.3	544.3	529.6	511.6
27.5°	585.1	587.5	583.5	563.1	563.9	568.8	568.0	568.8	560.6	546.7	528.8
30°	599.0	602.2	597.3	572.0	571.2	576.1	576.1	580.2	574.5	559.8	545.1
32.5°	636.5	635.7	620.2	581.8	579.4	584.3	584.3	588.4	585.1	573.7	559.8
35°	748.3	736.1	701.8	613.7	589.2	591.6	591.6	599.0	600.6	591.6	579.4
37.5°	862.5	858.5	832.3	698.5	625.1	607.1	606.3	616.9	624.3	616.9	608.8
40°	977.6	974.3	968.6	811.9	700.2	634.9	632.4	641.4	654.5	649.6	644.7
42.5°	1084.5	1082.9	1088.6	923.7	795.6	694.4	687.1	676.5	695.3	693.6	693.6
45°	1168.6	1172.6	1175.9	1028.2	899.3	771.1	762.2	726.3	751.6	758.1	763.0
47.5°	1215.9	1219.1	1230.6	1130.2	1002.9	860.1	853.6	794.8	828.3	847.9	861.7
50°	1283.6	1274.6	1284.4	1229.8	1127.8	976.0	958.0	887.0	929.5	963.7	996.4
52.5°	1348.9	1334.2	1342.4	1344.8	1269.7	1089.4	1070.6	995.6	1048.6	1102.5	1160.4
55°	1407.6	1406.8	1415.0	1456.6	1406.8	1211.0	1189.8	1115.5	1192.2	1250.2	1348.1
57.5°	1455.0	1463.1	1499.0	1586.4	1565.1	1343.2	1319.5	1255.1	1345.6	1403.6	1566.0
60°	1510.5	1523.5	1583.1	1696.5	1709.6	1481.9	1457.4	1410.9	1503.1	1561.9	1818.1
62.5°	1529.2	1548.0	1670.4	1812.4	1860.5	1633.7	1611.7	1580.6	1668.8	1721.8	2069.4
65°	1404.4	1440.3	1718.6	1872.0	2022.9	1816.5	1797.7	1770.8	1833.6	1868.7	2240.0
67.5°	1370.1	1386.4	1624.7	1957.7	2175.5	2051.5	2032.7	1986.2	1987.8	1973.2	2295.5
70°	1322.0	1339.9	1528.4	2022.1	2394.2	2373.0	2350.2	2213.1	2129.0	2040.1	2186.1
72.5°	1126.1	1120.4	1317.1	1848.3	2499.5	2771.2	2744.3	2457.1	2233.5	1982.1	1845.0
75°	632.4	616.1	798.9	1278.7	2282.4	2929.5	2928.7	2580.3	2160.0	1726.7	1255.9
77.5°	183.6	178.7	263.6	536.1	1536.6	2545.2	2576.2	2327.3	1802.6	1240.4	689.5
80°	86.5	88.1	113.4	177.1	656.1	1642.7	1731.6	1532.5	1077.2	572.0	284.8
82.5°	54.7	55.5	77.5	114.2	277.4	745.9	819.3	689.5	426.8	247.3	125.7
85°	34.3	34.3	51.4	75.1	165.7	238.3	258.7	235.0	182.8	134.6	68.5
87.5°	18.8	18.8	31.0	43.2	90.6	76.7	79.2	93.8	114.2	82.4	34.3
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°	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0	430.0
2.5°	429.2	427.6	425.2	424.3	423.5	422.7	423.5	425.2	423.5	423.5	424.3
5°	426.8	425.2	421.9	421.9	422.7	423.5	427.6	430.0	430.9	430.9	430.9
7.5°	426.8	424.3	421.9	422.7	424.3	427.6	434.1	438.2	441.5	442.3	442.3
10°	430.9	427.6	426.0	427.6	432.5	434.9	441.5	448.0	452.1	453.7	453.7
12.5°	438.2	434.9	434.9	438.2	444.7	448.0	453.7	458.6	463.5	466.0	466.0
15°	450.4	446.4	447.2	452.9	460.2	463.5	467.6	469.2	473.3	476.6	476.6
17.5°	461.9	457.8	459.4	466.0	470.8	472.5	474.9	474.1	475.7	478.2	479.0
20°	474.9	470.8	471.7	475.7	476.6	474.9	474.9	472.5	471.7	475.7	477.4
22.5°	488.0	483.9	483.1	480.6	476.6	472.5	470.0	467.6	466.0	470.0	471.7
25°	503.5	497.8	493.7	483.1	472.5	465.1	461.9	460.2	459.4	463.5	465.1
27.5°	520.6	514.9	502.7	479.8	462.7	450.4	448.0	448.0	449.6	452.1	453.7
30°	536.9	531.2	509.2	472.5	445.6	427.6	425.2	427.6	431.7	434.1	436.6
32.5°	553.3	547.6	513.3	461.1	420.3	397.4	395.8	399.9	406.4	408.0	409.6
35°	575.3	569.6	518.2	444.7	388.4	363.9	362.3	364.8	370.5	372.9	375.4
37.5°	606.3	603.0	525.5	426.8	359.1	332.1	327.2	325.6	328.9	328.0	331.3
40°	647.1	649.6	538.6	403.1	330.5	302.7	292.1	287.2	284.0	277.4	280.7
42.5°	706.7	708.3	553.3	376.2	306.0	275.0	261.1	252.2	245.6	235.0	236.6
45°	794.0	780.1	570.4	347.6	284.0	253.0	236.6	226.0	217.1	208.1	208.9
47.5°	909.9	867.4	589.2	324.0	261.9	235.0	220.3	208.1	197.5	190.1	191.0
50°	1052.7	976.0	607.9	301.9	239.9	221.1	208.1	195.0	184.4	177.1	176.3
52.5°	1241.2	1106.5	620.2	277.4	217.9	208.9	197.5	185.2	172.2	163.2	162.4
55°	1437.0	1258.3	630.8	248.1	196.7	195.0	189.3	175.4	159.9	148.5	146.9
57.5°	1652.5	1420.7	639.0	219.5	180.3	183.6	182.0	165.7	148.5	137.9	137.1
60°	1848.3	1588.8	612.8	194.2	165.7	172.2	173.8	159.9	151.0	153.4	154.2
62.5°	2045.8	1718.6	513.3	175.4	155.9	164.8	178.7	177.9	173.8	177.9	178.7
65°	2116.8	1745.5	363.9	159.9	146.1	168.1	194.2	192.6	173.8	166.5	164.8
67.5°	2076.8	1665.5	244.8	147.7	138.7	172.2	210.5	192.6	167.3	157.5	154.2
70°	1886.7	1468.9	179.5	135.5	132.2	171.4	219.5	191.8	164.0	153.4	149.3
72.5°	1504.8	1133.5	144.4	124.0	122.4	167.3	224.4	190.1	160.8	149.3	144.4
75°	974.3	705.0	121.6	112.6	107.7	160.8	222.0	185.2	156.7	142.0	138.7
77.5°	452.1	303.6	103.6	99.6	93.8	151.0	214.6	175.4	147.7	133.8	129.7
80°	210.5	143.6	87.3	86.5	84.1	142.8	204.8	164.0	137.1	125.7	119.1
82.5°	112.6	86.5	71.0	71.0	73.4	133.0	192.6	150.1	123.2	117.5	100.4
85°	59.6	49.8	51.4	55.5	62.8	117.5	176.3	135.5	107.7	89.8	87.3
87.5°	30.2	31.8	31.8	37.5	48.1	95.5	145.3	111.8	91.4	73.4	71.8
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)