

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: P234832

Luminaire Tested: **ARCH-M-AF48-50-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234832  
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-AF48-50-D-U-T4W-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5212 lumens  
Efficiency: N/A  
Efficacy: 108.6 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): 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

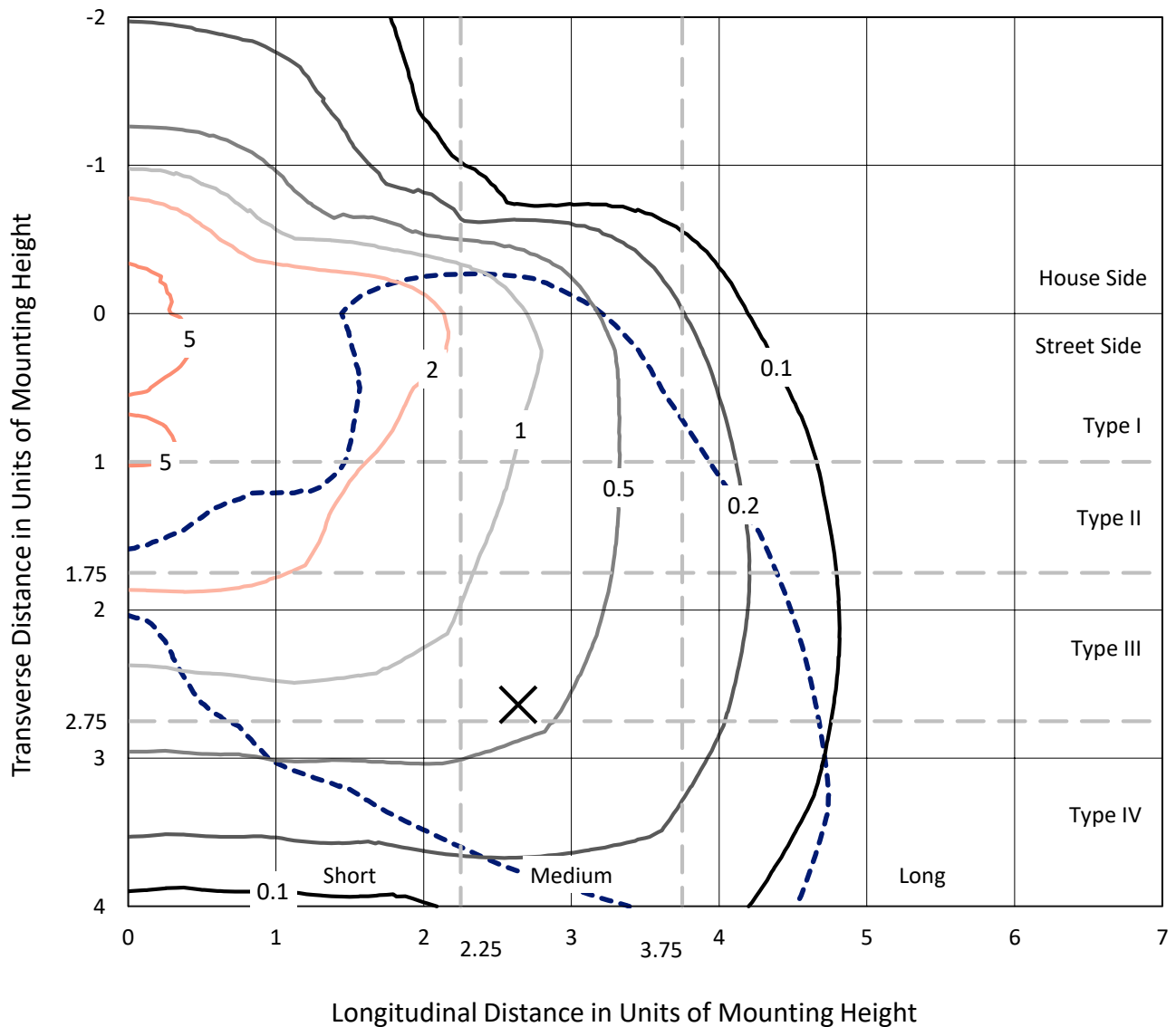


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

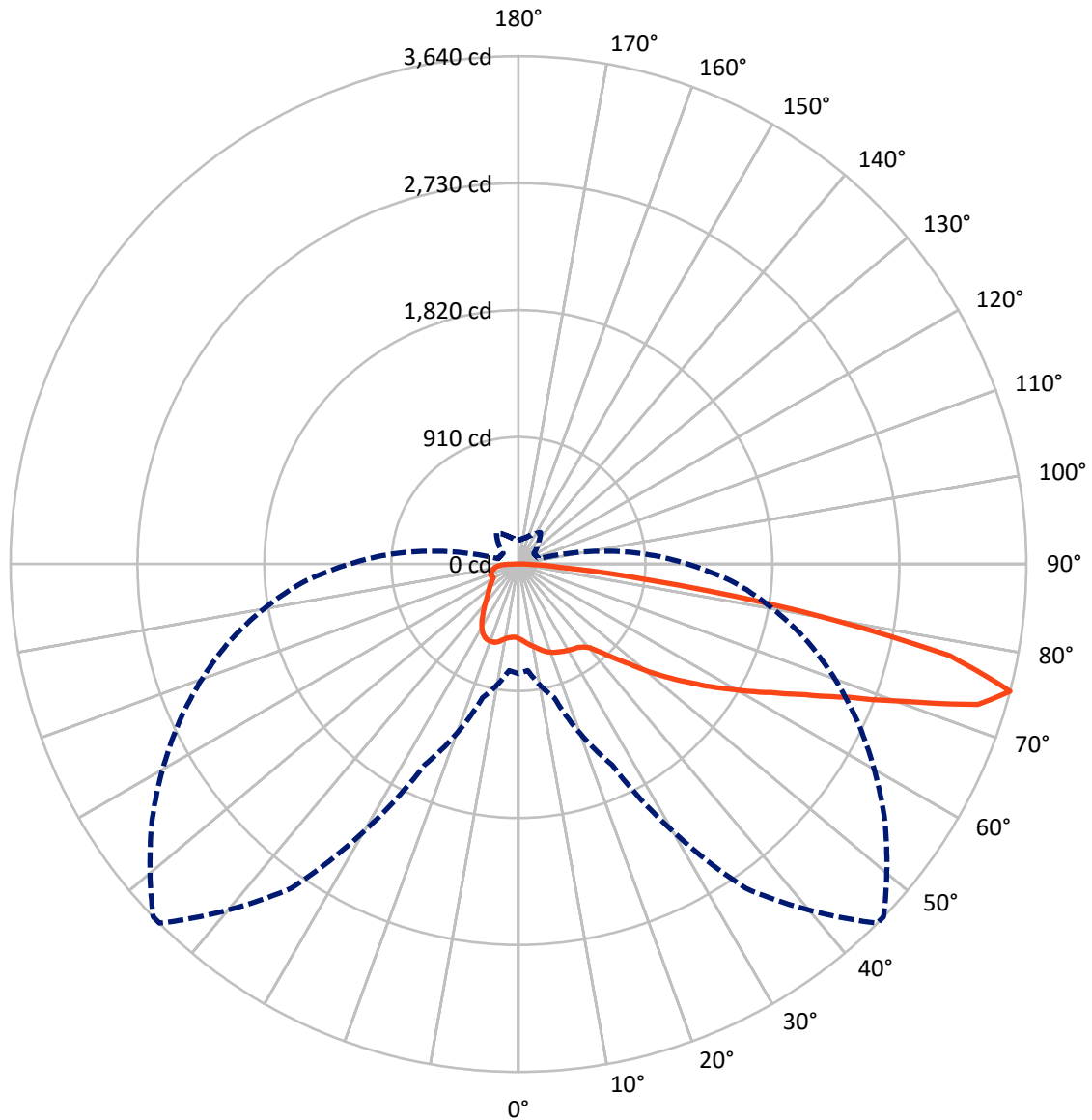


Based on 10 foot mounting height. Maximum calculated value = 6.2 fc  
 Type IV - Medium - Non-Cutoff

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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	1207.4	0.0	1207.4
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	4004.6	0.0	4004.6
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	5212.0	0.0	5212.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	1.0
10°-20°	171.6	3.3
20°-30°	294.4	5.6
30°-40°	411.8	7.9
40°-50°	604.1	11.6
50°-60°	941.0	18.1
60°-70°	1354.0	26.0
70°-80°	1179.5	22.6
80°-90°	202.6	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°	5212.0	100.0
0°-180°	5212.0	100.0



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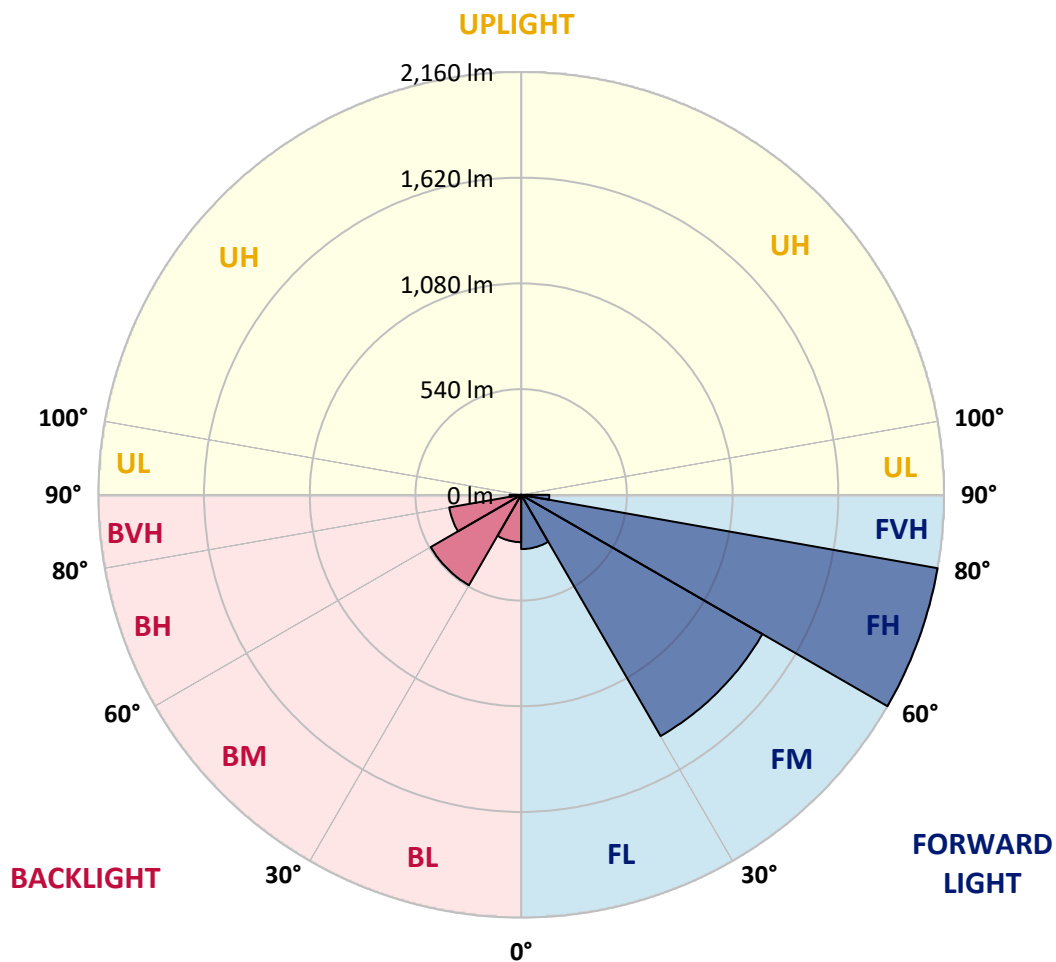
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	277.2	5.3			
FM	(30°-60°)	1423.3	27.3			
FH	(60°-80°)	2160.4	41.5			G2/5000
FVH	(80°-90°)	143.7	2.8			G2/225
BL	(0°-30°)	241.8	4.6	B1/500		
BM	(30°-60°)	533.6	10.2	B1/1000		
BH	(60°-80°)	373.1	7.2	B1/500		G1/500
BVH	(80°-90°)	58.8	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°	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3
2.5°	560.7	556.6	556.6	553.6	553.6	548.5	546.5	545.5	540.4	537.3	534.3
5°	593.1	588.0	587.0	579.9	576.9	565.7	564.7	557.6	548.5	539.4	532.3
7.5°	622.5	619.5	614.4	607.3	598.2	584.0	583.0	571.8	556.6	544.4	534.3
10°	643.8	641.8	634.7	625.6	615.4	601.2	600.2	588.0	569.8	555.6	541.4
12.5°	669.1	666.1	657.0	644.8	633.7	620.5	619.5	609.3	589.1	570.8	552.6
15°	693.5	689.4	678.3	666.1	653.9	642.8	642.8	631.6	610.3	589.1	567.8
17.5°	705.6	703.6	692.5	679.3	669.1	661.0	660.0	649.9	628.6	606.3	583.0
20°	709.7	710.7	700.6	686.4	679.3	675.2	674.2	667.1	643.8	622.5	600.2
22.5°	708.7	711.7	703.6	688.4	686.4	686.4	686.4	678.3	660.0	638.7	616.4
25°	712.7	716.8	710.7	692.5	692.5	696.5	696.5	692.5	676.2	658.0	635.7
27.5°	726.9	730.0	724.9	699.6	700.6	706.7	705.6	706.7	696.5	679.3	657.0
30°	744.2	748.2	742.1	710.7	709.7	715.8	715.8	720.9	713.8	695.5	677.3
32.5°	790.8	789.8	770.5	722.9	719.8	725.9	725.9	731.0	726.9	712.7	695.5
35°	929.7	914.5	871.9	762.4	732.0	735.0	735.0	744.2	746.2	735.0	719.8
37.5°	1071.6	1066.6	1034.1	867.9	776.6	754.3	753.3	766.5	775.6	766.5	756.3
40°	1214.6	1210.5	1203.5	1008.8	869.9	788.8	785.7	796.9	813.1	807.0	800.9
42.5°	1347.4	1345.4	1352.5	1147.7	988.5	862.8	853.7	840.5	863.8	861.8	861.8
45°	1451.8	1456.9	1461.0	1277.5	1117.3	958.1	946.9	902.3	933.8	941.9	948.0
47.5°	1510.7	1514.7	1528.9	1404.2	1246.0	1068.6	1060.5	987.5	1029.1	1053.4	1070.6
50°	1594.8	1583.6	1595.8	1527.9	1401.2	1212.6	1190.3	1102.1	1154.8	1197.4	1237.9
52.5°	1675.9	1657.7	1667.8	1670.8	1577.6	1353.5	1330.2	1236.9	1302.8	1369.7	1441.7
55°	1748.9	1747.9	1758.0	1809.7	1747.9	1504.6	1478.2	1385.9	1481.2	1553.2	1674.9
57.5°	1807.7	1817.9	1862.5	1970.9	1944.6	1668.8	1639.4	1559.3	1671.9	1743.8	1945.6
60°	1876.7	1892.9	1966.9	2107.8	2124.0	1841.2	1810.8	1753.0	1867.5	1940.5	2258.9
62.5°	1900.0	1923.3	2075.4	2251.8	2311.6	2029.7	2002.4	1963.8	2073.3	2139.2	2571.1
65°	1744.9	1789.5	2135.2	2325.8	2513.4	2256.9	2233.5	2200.1	2278.1	2321.7	2783.0
67.5°	1702.3	1722.5	2018.6	2432.2	2702.9	2548.8	2525.5	2467.7	2469.8	2451.5	2852.0
70°	1642.5	1664.8	1899.0	2512.3	2974.7	2948.3	2919.9	2749.6	2645.2	2534.6	2716.1
72.5°	1399.1	1392.0	1636.4	2296.4	3105.5	3443.1	3409.6	3052.7	2774.9	2462.7	2292.3
75°	785.7	765.5	992.6	1588.7	2835.8	3639.8	3638.7	3205.8	2683.7	2145.3	1560.3
77.5°	228.1	222.0	327.5	666.1	1909.1	3162.2	3200.8	2891.5	2239.6	1541.1	856.7
80°	107.5	109.5	140.9	220.0	815.1	2040.9	2151.4	1904.0	1338.3	710.7	353.8
82.5°	67.9	68.9	96.3	141.9	344.7	926.7	1017.9	856.7	530.2	307.2	156.1
85°	42.6	42.6	63.9	93.3	205.8	296.0	321.4	292.0	227.1	167.3	85.2
87.5°	23.3	23.3	38.5	53.7	112.5	95.3	98.3	116.6	141.9	102.4	42.6
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°	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3	534.3
2.5°	533.3	531.3	528.2	527.2	526.2	525.2	526.2	528.2	526.2	526.2	527.2
5°	530.2	528.2	524.2	524.2	525.2	526.2	531.3	534.3	535.3	535.3	535.3
7.5°	530.2	527.2	524.2	525.2	527.2	531.3	539.4	544.4	548.5	549.5	549.5
10°	535.3	531.3	529.2	531.3	537.3	540.4	548.5	556.6	561.7	563.7	563.7
12.5°	544.4	540.4	540.4	544.4	552.6	556.6	563.7	569.8	575.9	578.9	578.9
15°	559.7	554.6	555.6	562.7	571.8	575.9	580.9	583.0	588.0	592.1	592.1
17.5°	573.8	568.8	570.8	578.9	585.0	587.0	590.1	589.1	591.1	594.1	595.1
20°	590.1	585.0	586.0	591.1	592.1	590.1	590.1	587.0	586.0	591.1	593.1
22.5°	606.3	601.2	600.2	597.2	592.1	587.0	584.0	580.9	578.9	584.0	586.0
25°	625.6	618.5	613.4	600.2	587.0	577.9	573.8	571.8	570.8	575.9	577.9
27.5°	646.8	639.7	624.5	596.1	574.9	559.7	556.6	556.6	558.6	561.7	563.7
30°	667.1	660.0	632.6	587.0	553.6	531.3	528.2	531.3	536.3	539.4	542.4
32.5°	687.4	680.3	637.7	572.8	522.1	493.7	491.7	496.8	504.9	506.9	509.0
35°	714.8	707.7	643.8	552.6	482.6	452.2	450.2	453.2	460.3	463.3	466.4
37.5°	753.3	749.2	652.9	530.2	446.1	412.6	406.6	404.5	408.6	407.6	411.6
40°	804.0	807.0	669.1	500.8	410.6	376.1	363.0	356.9	352.8	344.7	348.8
42.5°	878.0	880.0	687.4	467.4	380.2	341.7	324.4	313.3	305.2	292.0	294.0
45°	986.5	969.2	708.7	431.9	352.8	314.3	294.0	280.8	269.7	258.5	259.5
47.5°	1130.5	1077.7	732.0	402.5	325.4	292.0	273.7	258.5	245.4	236.2	237.2
50°	1307.9	1212.6	755.3	375.1	298.1	274.8	258.5	242.3	229.1	220.0	219.0
52.5°	1542.1	1374.8	770.5	344.7	270.7	259.5	245.4	230.1	213.9	202.8	201.8
55°	1785.4	1563.4	783.7	308.2	244.3	242.3	235.2	218.0	198.7	184.5	182.5
57.5°	2053.1	1765.1	793.9	272.7	224.1	228.1	226.1	205.8	184.5	171.3	170.3
60°	2296.4	1974.0	761.4	241.3	205.8	213.9	216.0	198.7	187.6	190.6	191.6
62.5°	2541.7	2135.2	637.7	218.0	193.6	204.8	222.0	221.0	216.0	221.0	222.0
65°	2630.0	2168.6	452.2	198.7	181.5	208.9	241.3	239.3	216.0	206.8	204.8
67.5°	2580.3	2069.3	304.2	183.5	172.4	213.9	261.6	239.3	207.8	195.7	191.6
70°	2344.0	1824.9	223.0	168.3	164.2	212.9	272.7	238.3	203.8	190.6	185.5
72.5°	1869.6	1408.3	179.5	154.1	152.1	207.8	278.8	236.2	199.7	185.5	179.5
75°	1210.5	876.0	151.1	139.9	133.8	199.7	275.8	230.1	194.7	176.4	172.4
77.5°	561.7	377.2	128.8	123.7	116.6	187.6	266.6	218.0	183.5	166.3	161.2
80°	261.6	178.4	108.5	107.5	104.4	177.4	254.5	203.8	170.3	156.1	148.0
82.5°	139.9	107.5	88.2	88.2	91.2	165.3	239.3	186.6	153.1	146.0	124.7
85°	74.0	61.8	63.9	68.9	78.1	146.0	219.0	168.3	133.8	111.5	108.5
87.5°	37.5	39.5	39.5	46.6	59.8	118.6	180.5	138.9	113.6	91.2	89.2
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)