

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: P214879

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214879  
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-AF16-50-D-U-T4W-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5962 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 53  
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

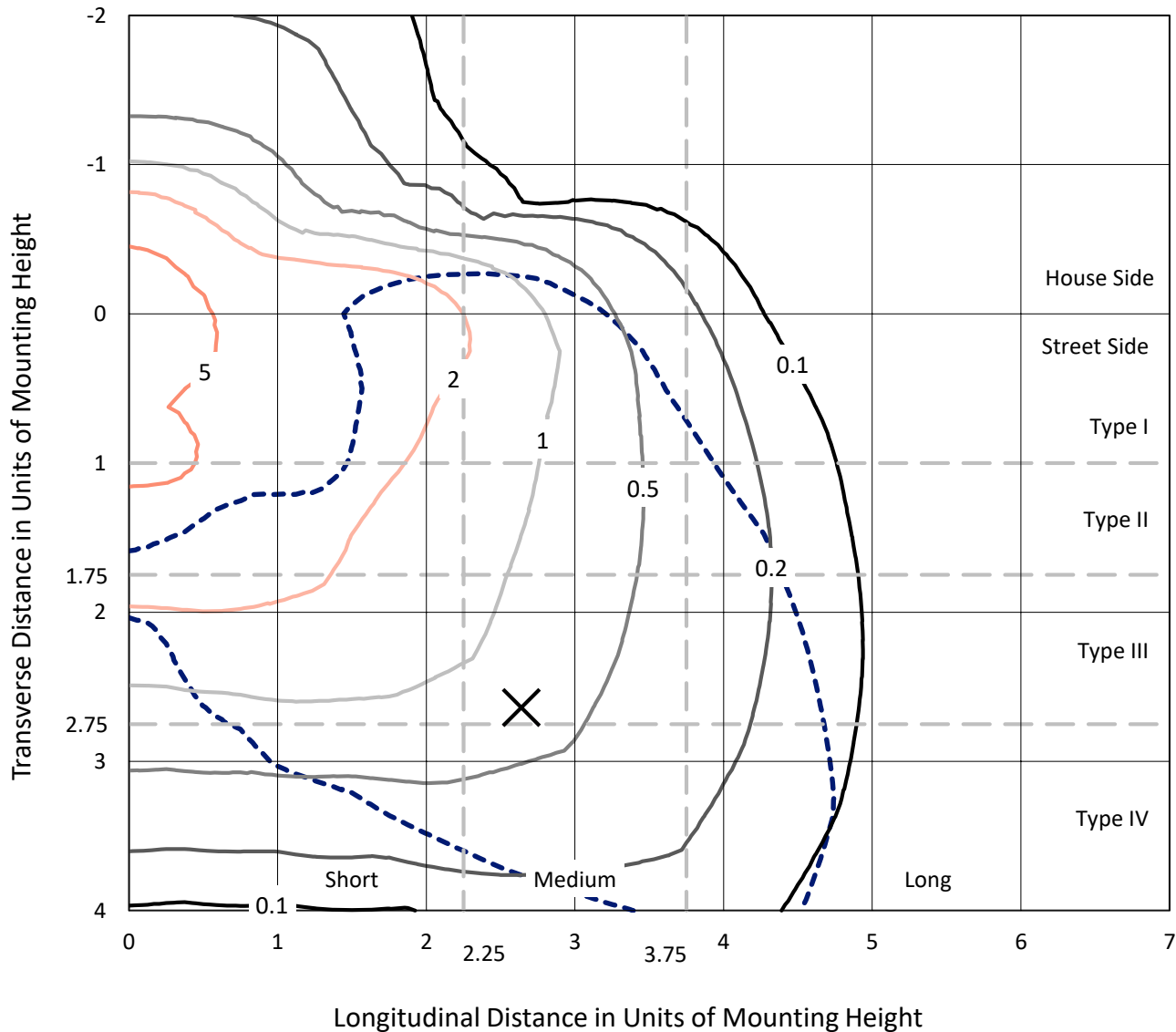


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

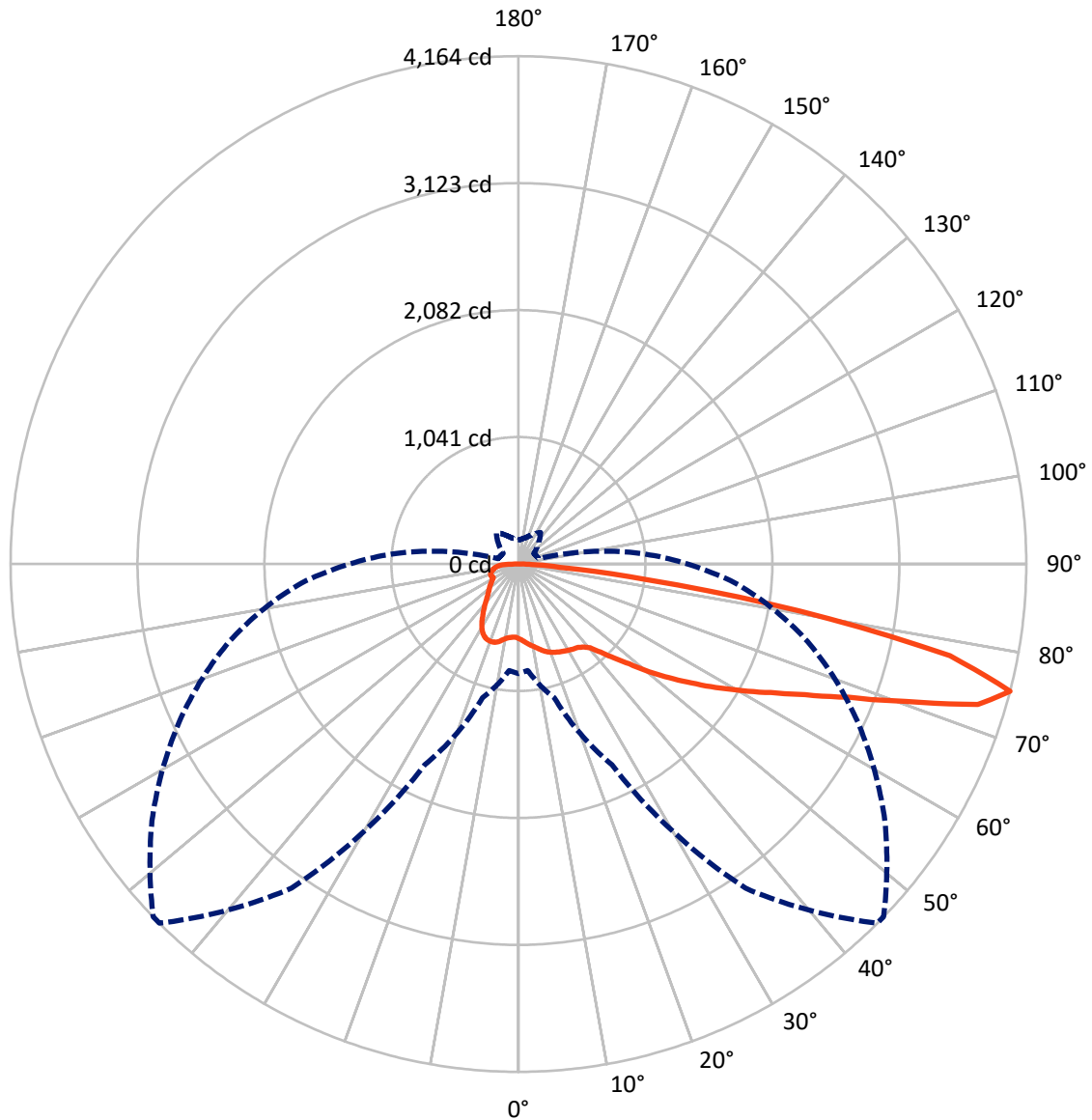


Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type IV - Medium - Non-Cutoff

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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	1381.1	0.0	1381.1
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	4580.9	0.0	4580.9
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	5962.0	0.0	5962.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.6	1.0
10°-20°	196.3	3.3
20°-30°	336.8	5.6
30°-40°	471.1	7.9
40°-50°	691.0	11.6
50°-60°	1076.4	18.1
60°-70°	1548.9	26.0
70°-80°	1349.2	22.6
80°-90°	231.7	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°	5962.0	100.0
0°-180°	5962.0	100.0

**Coefficient of Utilization**



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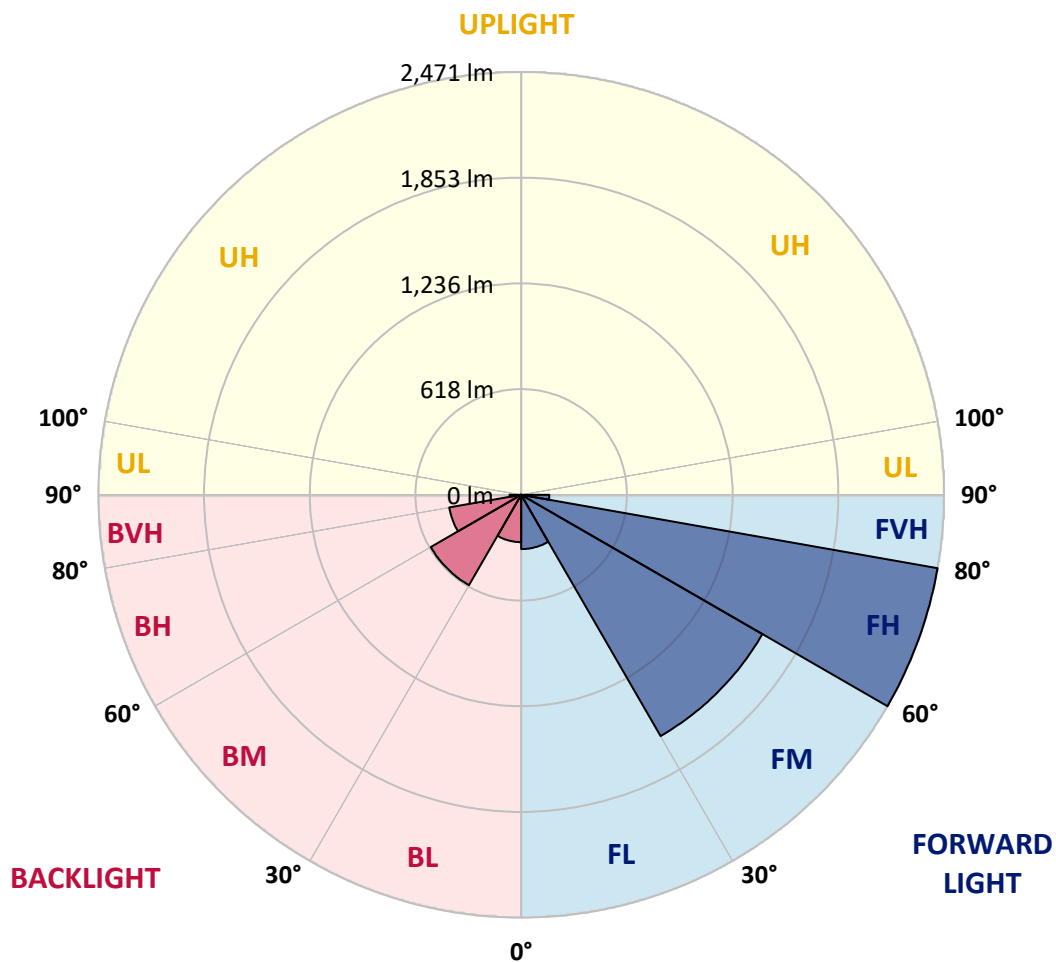
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	317.0	5.3			
FM (30°-60°)	1628.1	27.3			
FH (60°-80°)	2471.3	41.5			G2/5000
FVH (80°-90°)	164.4	2.8			G2/225
BL (0°-30°)	276.6	4.6	B1/500		
BM (30°-60°)	610.4	10.2	B1/1000		
BH (60°-80°)	426.8	7.2	B1/500		G1/500
BVH (80°-90°)	67.3	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°	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2
2.5°	641.3	636.7	636.7	633.2	633.2	627.4	625.1	623.9	618.1	614.7	611.2
5°	678.5	672.7	671.5	663.4	659.9	647.1	646.0	637.9	627.4	617.0	608.9
7.5°	712.1	708.6	702.8	694.7	684.3	668.0	666.9	654.1	636.7	622.8	611.2
10°	736.4	734.1	726.0	715.6	704.0	687.7	686.6	672.7	651.8	635.5	619.3
12.5°	765.4	762.0	751.5	737.6	724.8	709.8	708.6	697.0	673.8	652.9	632.1
15°	793.3	788.6	775.9	762.0	748.0	735.3	735.3	722.5	698.2	673.8	649.5
17.5°	807.2	804.9	792.1	777.0	765.4	756.2	755.0	743.4	719.0	693.5	666.9
20°	811.8	813.0	801.4	785.2	777.0	772.4	771.2	763.1	736.4	712.1	686.6
22.5°	810.7	814.1	804.9	787.5	785.2	785.2	785.2	775.9	755.0	730.6	705.1
25°	815.3	819.9	813.0	792.1	792.1	796.8	796.8	792.1	773.6	752.7	727.2
27.5°	831.5	835.0	829.2	800.2	801.4	808.3	807.2	808.3	796.8	777.0	751.5
30°	851.3	855.9	848.9	813.0	811.8	818.8	818.8	824.6	816.5	795.6	774.7
32.5°	904.6	903.4	881.4	826.9	823.4	830.4	830.4	836.2	831.5	815.3	795.6
35°	1063.5	1046.1	997.4	872.1	837.3	840.8	840.8	851.3	853.6	840.8	823.4
37.5°	1225.9	1220.1	1182.9	992.7	888.4	862.9	861.7	876.8	887.2	876.8	865.2
40°	1389.4	1384.7	1376.6	1154.0	995.1	902.3	898.8	911.6	930.1	923.2	916.2
42.5°	1541.3	1539.0	1547.1	1312.8	1130.8	986.9	976.5	961.4	988.1	985.8	985.8
45°	1660.8	1666.6	1671.2	1461.3	1278.0	1096.0	1083.2	1032.2	1068.1	1077.4	1084.4
47.5°	1728.0	1732.7	1748.9	1606.3	1425.3	1222.4	1213.1	1129.6	1177.1	1205.0	1224.7
50°	1824.3	1811.5	1825.5	1747.7	1602.8	1387.1	1361.5	1260.7	1321.0	1369.7	1416.1
52.5°	1917.1	1896.2	1907.8	1911.3	1804.6	1548.3	1521.6	1414.9	1490.3	1566.8	1649.2
55°	2000.6	1999.4	2011.0	2070.2	1999.4	1721.1	1690.9	1585.4	1694.4	1776.7	1915.9
57.5°	2067.8	2079.4	2130.5	2254.6	2224.4	1909.0	1875.3	1783.7	1912.4	1994.8	2225.6
60°	2146.7	2165.3	2249.9	2411.1	2429.7	2106.1	2071.3	2005.2	2136.3	2219.8	2583.9
62.5°	2173.4	2200.1	2374.0	2575.8	2644.2	2321.8	2290.5	2246.4	2371.7	2447.1	2941.1
65°	1995.9	2047.0	2442.4	2660.5	2875.0	2581.6	2554.9	2516.7	2606.0	2655.8	3183.5
67.5°	1947.2	1970.4	2309.1	2782.2	3091.9	2915.6	2888.9	2822.8	2825.2	2804.3	3262.4
70°	1878.8	1904.3	2172.2	2873.9	3402.7	3372.6	3340.1	3145.2	3025.8	2899.4	3107.0
72.5°	1600.5	1592.3	1871.8	2626.8	3552.3	3938.5	3900.2	3492.0	3174.2	2817.0	2622.2
75°	898.8	875.6	1135.4	1817.3	3243.8	4163.5	4162.4	3667.1	3069.9	2454.0	1784.9
77.5°	260.9	254.0	374.6	762.0	2183.8	3617.3	3661.3	3307.6	2561.9	1762.8	980.0
80°	122.9	125.3	161.2	251.7	932.4	2334.6	2461.0	2178.0	1530.9	813.0	404.8
82.5°	77.7	78.9	110.2	162.4	394.3	1060.0	1164.4	980.0	606.6	351.4	178.6
85°	48.7	48.7	73.1	106.7	235.4	338.6	367.6	334.0	259.8	191.4	97.4
87.5°	26.7	26.7	44.1	61.5	128.7	109.0	112.5	133.4	162.4	117.1	48.7
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°	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2	611.2
2.5°	610.0	607.7	604.2	603.1	601.9	600.8	601.9	604.2	601.9	601.9	603.1
5°	606.6	604.2	599.6	599.6	600.8	601.9	607.7	611.2	612.3	612.3	612.3
7.5°	606.6	603.1	599.6	600.8	603.1	607.7	617.0	622.8	627.4	628.6	628.6
10°	612.3	607.7	605.4	607.7	614.7	618.1	627.4	636.7	642.5	644.8	644.8
12.5°	622.8	618.1	618.1	622.8	632.1	636.7	644.8	651.8	658.7	662.2	662.2
15°	640.2	634.4	635.5	643.7	654.1	658.7	664.5	666.9	672.7	677.3	677.3
17.5°	656.4	650.6	652.9	662.2	669.2	671.5	675.0	673.8	676.1	679.6	680.8
20°	675.0	669.2	670.3	676.1	677.3	675.0	675.0	671.5	670.3	676.1	678.5
22.5°	693.5	687.7	686.6	683.1	677.3	671.5	668.0	664.5	662.2	668.0	670.3
25°	715.6	707.4	701.7	686.6	671.5	661.1	656.4	654.1	652.9	658.7	661.1
27.5°	739.9	731.8	714.4	681.9	657.6	640.2	636.7	636.7	639.0	642.5	644.8
30°	763.1	755.0	723.7	671.5	633.2	607.7	604.2	607.7	613.5	617.0	620.5
32.5°	786.3	778.2	729.5	655.3	597.3	564.8	562.5	568.3	577.6	579.9	582.2
35°	817.6	809.5	736.4	632.1	552.0	517.2	514.9	518.4	526.5	530.0	533.5
37.5°	861.7	857.1	746.9	606.6	510.3	472.0	465.1	462.7	467.4	466.2	470.9
40°	919.7	923.2	765.4	572.9	469.7	430.3	415.2	408.2	403.6	394.3	399.0
42.5°	1004.3	1006.7	786.3	534.6	434.9	390.8	371.1	358.4	349.1	334.0	336.3
45°	1128.4	1108.7	810.7	494.1	403.6	359.5	336.3	321.3	308.5	295.7	296.9
47.5°	1293.1	1232.8	837.3	460.4	372.3	334.0	313.1	295.7	280.7	270.2	271.4
50°	1496.1	1387.1	864.0	429.1	341.0	314.3	295.7	277.2	262.1	251.7	250.5
52.5°	1764.0	1572.6	881.4	394.3	309.7	296.9	280.7	263.3	244.7	232.0	230.8
55°	2042.3	1788.3	896.5	352.6	279.5	277.2	269.1	249.3	227.3	211.1	208.8
57.5°	2348.5	2019.1	908.1	312.0	256.3	260.9	258.6	235.4	211.1	196.0	194.8
60°	2626.8	2258.0	871.0	276.0	235.4	244.7	247.0	227.3	214.6	218.0	219.2
62.5°	2907.5	2442.4	729.5	249.3	221.5	234.3	254.0	252.8	247.0	252.8	254.0
65°	3008.4	2480.7	517.2	227.3	207.6	238.9	276.0	273.7	247.0	236.6	234.3
67.5°	2951.6	2367.1	347.9	209.9	197.2	244.7	299.2	273.7	237.7	223.8	219.2
70°	2681.3	2087.6	255.1	192.5	187.9	243.5	312.0	272.5	233.1	218.0	212.2
72.5°	2138.6	1610.9	205.3	176.3	174.0	237.7	318.9	270.2	228.5	212.2	205.3
75°	1384.7	1002.0	172.8	160.0	153.1	228.5	315.5	263.3	222.7	201.8	197.2
77.5°	642.5	431.4	147.3	141.5	133.4	214.6	305.0	249.3	209.9	190.2	184.4
80°	299.2	204.1	124.1	122.9	119.5	203.0	291.1	233.1	194.8	178.6	169.3
82.5°	160.0	122.9	100.9	100.9	104.4	189.0	273.7	213.4	175.1	167.0	142.6
85°	84.7	70.7	73.1	78.9	89.3	167.0	250.5	192.5	153.1	127.6	124.1
87.5°	42.9	45.2	45.2	53.3	68.4	135.7	206.4	158.9	129.9	104.4	102.1
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)