

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: P214869

Luminaire Tested: **ARCH-AF24-40-D-U-T4W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214869  
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-AF24-40-D-U-T4W  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5219.1 lumens  
Efficiency: N/A  
Efficacy: 130.5 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): 40  
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

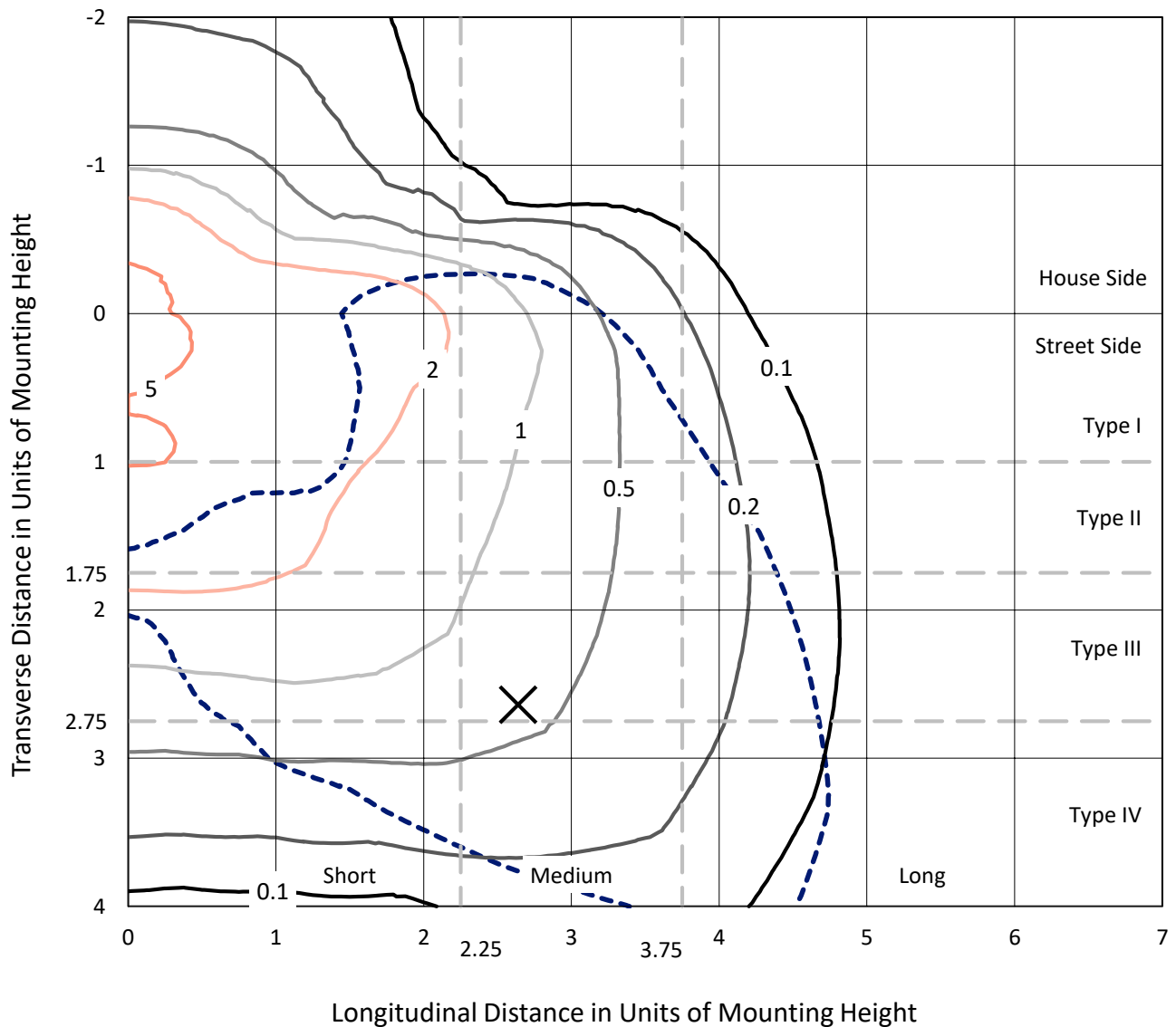


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

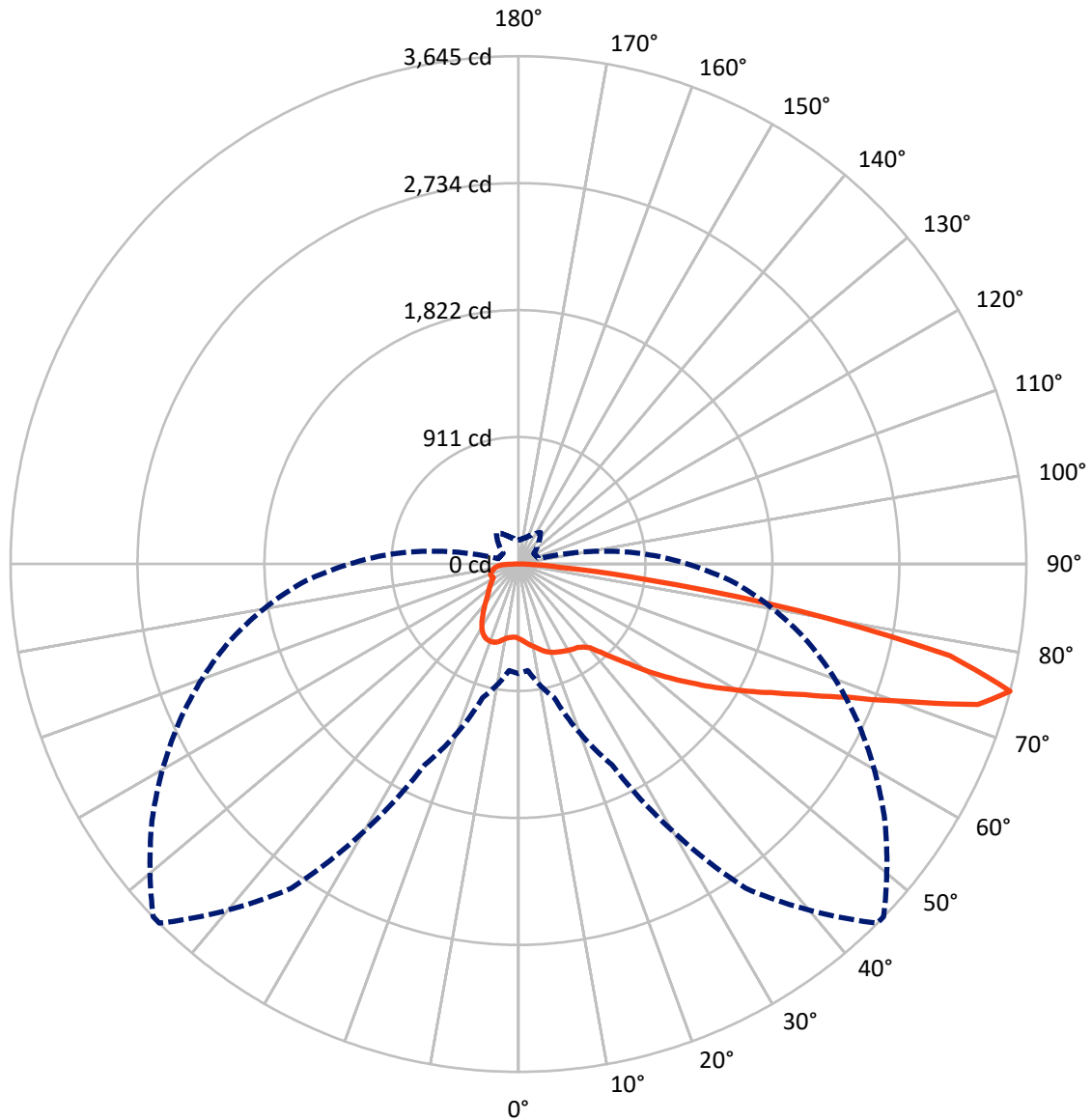


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Medium - Non-Cutoff

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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	1209.0	0.0	1209.0
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	4010.0	0.0	4010.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	5219.1	0.0	5219.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	1.0
10°-20°	171.8	3.3
20°-30°	294.8	5.6
30°-40°	412.4	7.9
40°-50°	604.9	11.6
50°-60°	942.3	18.1
60°-70°	1355.9	26.0
70°-80°	1181.1	22.6
80°-90°	202.8	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°	5219.1	100.0
0°-180°	5219.1	100.0

**Coefficient of Utilization**



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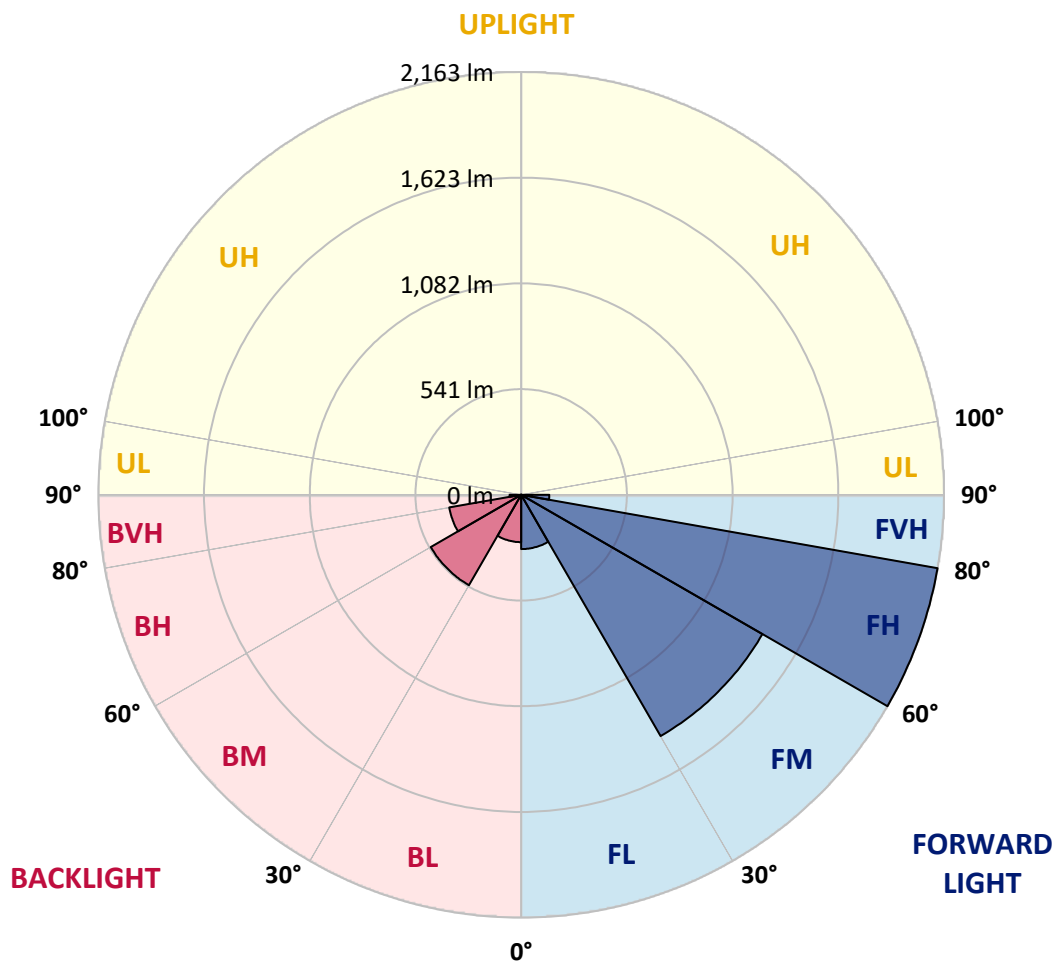
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	277.5	5.3			
FM (30°-60°)	1425.2	27.3			
FH (60°-80°)	2163.4	41.5			G2/5000
FVH (80°-90°)	143.9	2.8			G2/225
BL (0°-30°)	242.2	4.6	B1/500		
BM (30°-60°)	534.3	10.2	B1/1000		
BH (60°-80°)	373.6	7.2	B1/500		G1/500
BVH (80°-90°)	58.9	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°	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
2.5°	561.4	557.4	557.4	554.3	554.3	549.2	547.2	546.2	541.1	538.1	535.0
5°	593.9	588.8	587.8	580.7	577.7	566.5	565.5	558.4	549.2	540.1	533.0
7.5°	623.4	620.3	615.2	608.1	599.0	584.8	583.8	572.5	557.4	545.2	535.0
10°	644.7	642.6	635.6	626.4	616.2	602.0	601.0	588.8	570.6	556.4	542.2
12.5°	670.0	667.0	657.9	645.7	634.5	621.3	620.3	610.2	589.8	571.6	553.3
15°	694.4	690.4	679.2	667.0	654.8	643.6	643.6	632.5	611.2	589.8	568.6
17.5°	706.7	704.6	693.5	680.2	670.0	662.0	660.9	650.8	629.4	607.1	583.8
20°	710.6	711.7	701.5	687.3	680.2	676.2	675.1	668.0	644.7	623.4	601.0
22.5°	709.6	712.7	704.6	689.4	687.3	687.3	687.3	679.2	660.9	639.7	617.2
25°	713.7	717.8	711.7	693.5	693.5	697.4	697.4	693.5	677.2	658.9	636.6
27.5°	727.9	731.0	725.9	700.5	701.5	707.6	706.7	707.6	697.4	680.2	657.9
30°	745.2	749.2	743.2	711.7	710.6	716.8	716.8	721.8	714.7	696.4	678.2
32.5°	791.9	790.8	771.6	723.8	720.8	726.9	726.9	732.0	727.9	713.7	696.4
35°	931.0	915.7	873.1	763.4	733.0	736.0	736.0	745.2	747.3	736.0	720.8
37.5°	1073.1	1068.1	1035.5	869.0	777.6	755.3	754.3	767.5	776.6	767.5	757.4
40°	1216.3	1212.2	1205.1	1010.2	871.0	789.8	786.9	798.0	814.3	808.1	802.0
42.5°	1349.3	1347.2	1354.3	1149.3	989.9	864.0	854.9	841.7	865.0	863.0	863.0
45°	1453.8	1458.9	1462.9	1279.2	1118.8	959.4	948.3	903.6	935.1	943.2	949.3
47.5°	1512.7	1516.7	1530.9	1406.1	1247.7	1070.1	1061.9	988.9	1030.4	1054.9	1072.1
50°	1596.9	1585.8	1598.0	1529.9	1403.1	1214.2	1191.9	1103.6	1156.3	1199.0	1239.6
52.5°	1678.2	1659.9	1670.1	1673.1	1579.7	1355.3	1332.0	1238.6	1304.6	1371.6	1443.7
55°	1751.3	1750.3	1760.4	1812.2	1750.3	1506.6	1480.2	1387.8	1483.3	1555.4	1677.1
57.5°	1810.2	1820.3	1865.0	1973.6	1947.2	1671.1	1641.6	1561.4	1674.2	1746.2	1948.2
60°	1879.2	1895.4	1969.6	2110.7	2126.9	1843.7	1813.2	1755.4	1870.1	1943.2	2261.9
62.5°	1902.6	1925.9	2078.2	2254.9	2314.7	2032.5	2005.1	1966.5	2076.2	2142.2	2574.7
65°	1747.2	1791.9	2138.1	2329.0	2516.8	2259.9	2236.6	2203.0	2281.3	2324.9	2786.8
67.5°	1704.5	1724.9	2021.4	2435.5	2706.6	2552.3	2528.9	2471.1	2473.1	2454.9	2855.9
70°	1644.7	1667.0	1901.6	2515.7	2978.7	2952.3	2923.9	2753.4	2648.7	2538.1	2719.8
72.5°	1401.0	1394.0	1638.6	2299.5	3109.7	3447.8	3414.2	3056.9	2778.7	2466.0	2295.5
75°	786.9	766.5	993.9	1590.9	2839.6	3644.7	3643.6	3210.2	2687.3	2148.2	1562.5
77.5°	228.4	222.3	328.0	667.0	1911.7	3166.5	3205.1	2895.5	2242.6	1543.1	857.8
80°	107.6	109.7	141.2	220.3	816.2	2043.7	2154.3	1906.6	1340.1	711.7	354.4
82.5°	68.0	69.0	96.5	142.1	345.1	927.9	1019.3	857.8	531.0	307.6	156.3
85°	42.7	42.7	63.9	93.4	206.1	296.5	321.8	292.4	227.4	167.6	85.3
87.5°	23.3	23.3	38.6	53.8	112.7	95.4	98.5	116.7	142.1	102.5	42.7
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°	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
2.5°	534.0	532.0	529.0	527.9	526.9	525.9	526.9	529.0	526.9	526.9	527.9
5°	531.0	529.0	524.9	524.9	525.9	526.9	532.0	535.0	536.0	536.0	536.0
7.5°	531.0	527.9	524.9	525.9	527.9	532.0	540.1	545.2	549.2	550.2	550.2
10°	536.0	532.0	530.0	532.0	538.1	541.1	549.2	557.4	562.4	564.5	564.5
12.5°	545.2	541.1	541.1	545.2	553.3	557.4	564.5	570.6	576.6	579.7	579.7
15°	560.4	555.4	556.4	563.4	572.5	576.6	581.8	583.8	588.8	592.9	592.9
17.5°	574.6	569.6	571.6	579.7	585.8	587.8	590.9	589.8	591.9	594.9	596.0
20°	590.9	585.8	586.8	591.9	592.9	590.9	590.9	587.8	586.8	591.9	593.9
22.5°	607.1	602.0	601.0	598.0	592.9	587.8	584.8	581.8	579.7	584.8	586.8
25°	626.4	619.3	614.2	601.0	587.8	578.7	574.6	572.5	571.6	576.6	578.7
27.5°	647.7	640.6	625.4	597.0	575.6	560.4	557.4	557.4	559.3	562.4	564.5
30°	668.0	660.9	633.5	587.8	554.3	532.0	529.0	532.0	537.0	540.1	543.2
32.5°	688.3	681.2	638.6	573.6	522.8	494.4	492.3	497.5	505.5	507.6	509.6
35°	715.8	708.6	644.7	553.3	483.2	452.8	450.8	453.8	460.9	464.0	467.0
37.5°	754.3	750.2	653.8	531.0	446.7	413.2	407.1	405.1	409.2	408.2	412.1
40°	805.1	808.1	670.0	501.6	411.1	376.7	363.5	357.3	353.3	345.1	349.2
42.5°	879.2	881.3	688.3	468.0	380.7	342.2	324.9	313.7	305.6	292.4	294.4
45°	987.9	970.6	709.6	432.5	353.3	314.8	294.4	281.2	270.1	258.9	259.9
47.5°	1132.0	1079.2	733.0	403.0	325.9	292.4	274.2	258.9	245.7	236.5	237.5
50°	1309.7	1214.2	756.4	375.6	298.5	275.2	258.9	242.6	229.4	220.3	219.3
52.5°	1544.1	1376.7	771.6	345.1	271.1	259.9	245.7	230.5	214.2	203.1	202.0
55°	1787.8	1565.5	784.8	308.6	244.7	242.6	235.6	218.3	199.0	184.7	182.7
57.5°	2055.8	1767.6	794.9	273.1	224.3	228.4	226.4	206.1	184.7	171.5	170.5
60°	2299.5	1976.6	762.4	241.6	206.1	214.2	216.3	199.0	187.8	190.9	191.9
62.5°	2545.2	2138.1	638.6	218.3	194.0	205.1	222.3	221.4	216.3	221.4	222.3
65°	2633.5	2171.6	452.8	199.0	181.8	209.1	241.6	239.6	216.3	207.1	205.1
67.5°	2583.8	2072.1	304.5	183.7	172.6	214.2	262.0	239.6	208.2	195.9	191.9
70°	2347.3	1827.4	223.3	168.5	164.5	213.2	273.1	238.6	204.1	190.9	185.8
72.5°	1872.1	1410.1	179.7	154.4	152.3	208.2	279.2	236.5	200.0	185.8	179.7
75°	1212.2	877.2	151.3	140.1	134.0	200.0	276.1	230.5	195.0	176.7	172.6
77.5°	562.4	377.7	128.9	123.9	116.7	187.8	267.0	218.3	183.7	166.5	161.4
80°	262.0	178.7	108.6	107.6	104.5	177.7	254.8	204.1	170.5	156.3	148.2
82.5°	140.1	107.6	88.3	88.3	91.3	165.5	239.6	186.8	153.3	146.2	124.9
85°	74.1	61.9	63.9	69.0	78.2	146.2	219.3	168.5	134.0	111.7	108.6
87.5°	37.5	39.6	39.6	46.7	59.9	118.8	180.8	139.1	113.8	91.3	89.3
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)