

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: P234748

Luminaire Tested: **ARCH-AF24-70-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234748  
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-AF24-70-D-U-T4W-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6543 lumens  
Efficiency: N/A  
Efficacy: 88.4 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): 74  
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

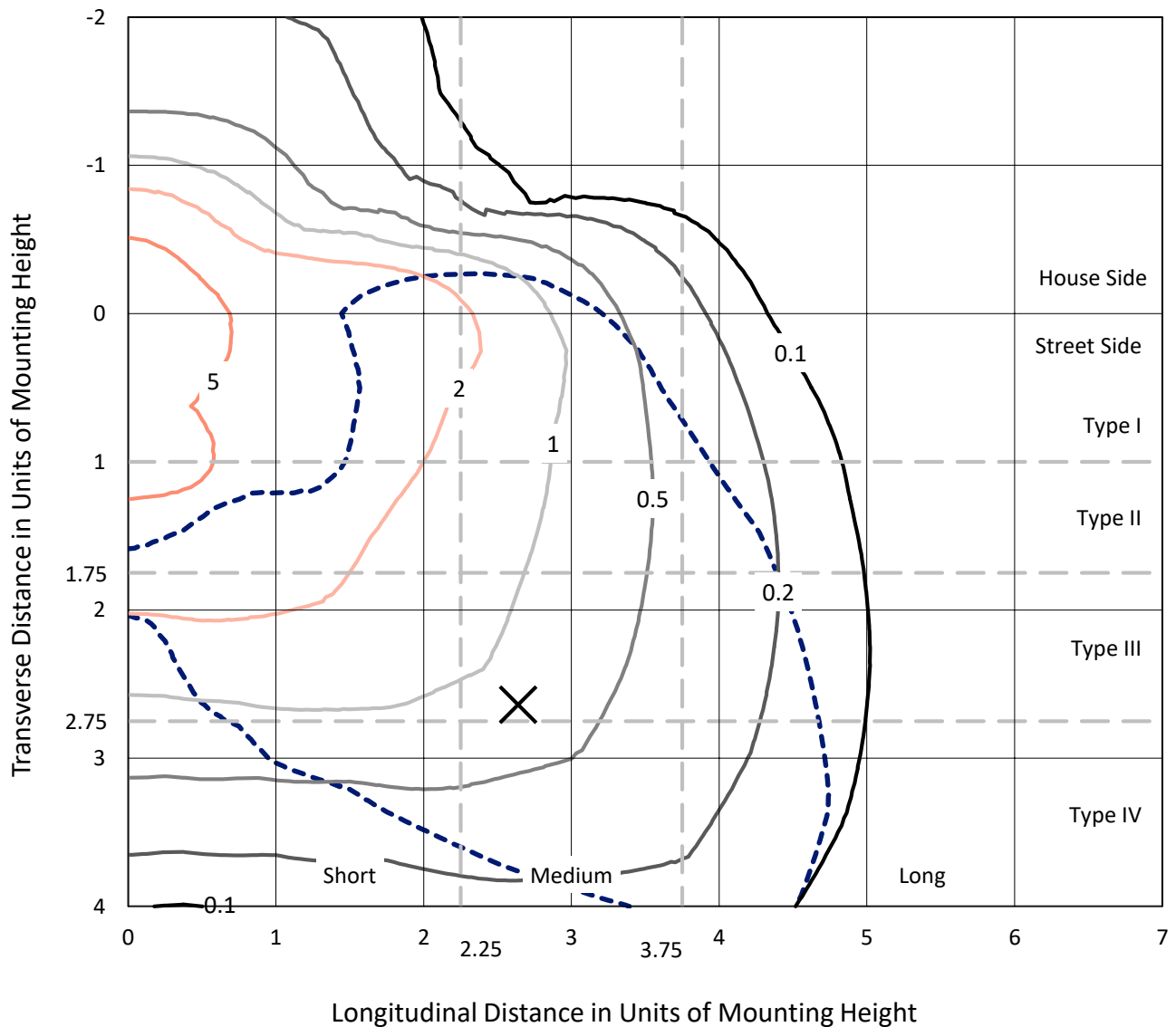


REPORT NUMBER: P234748

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

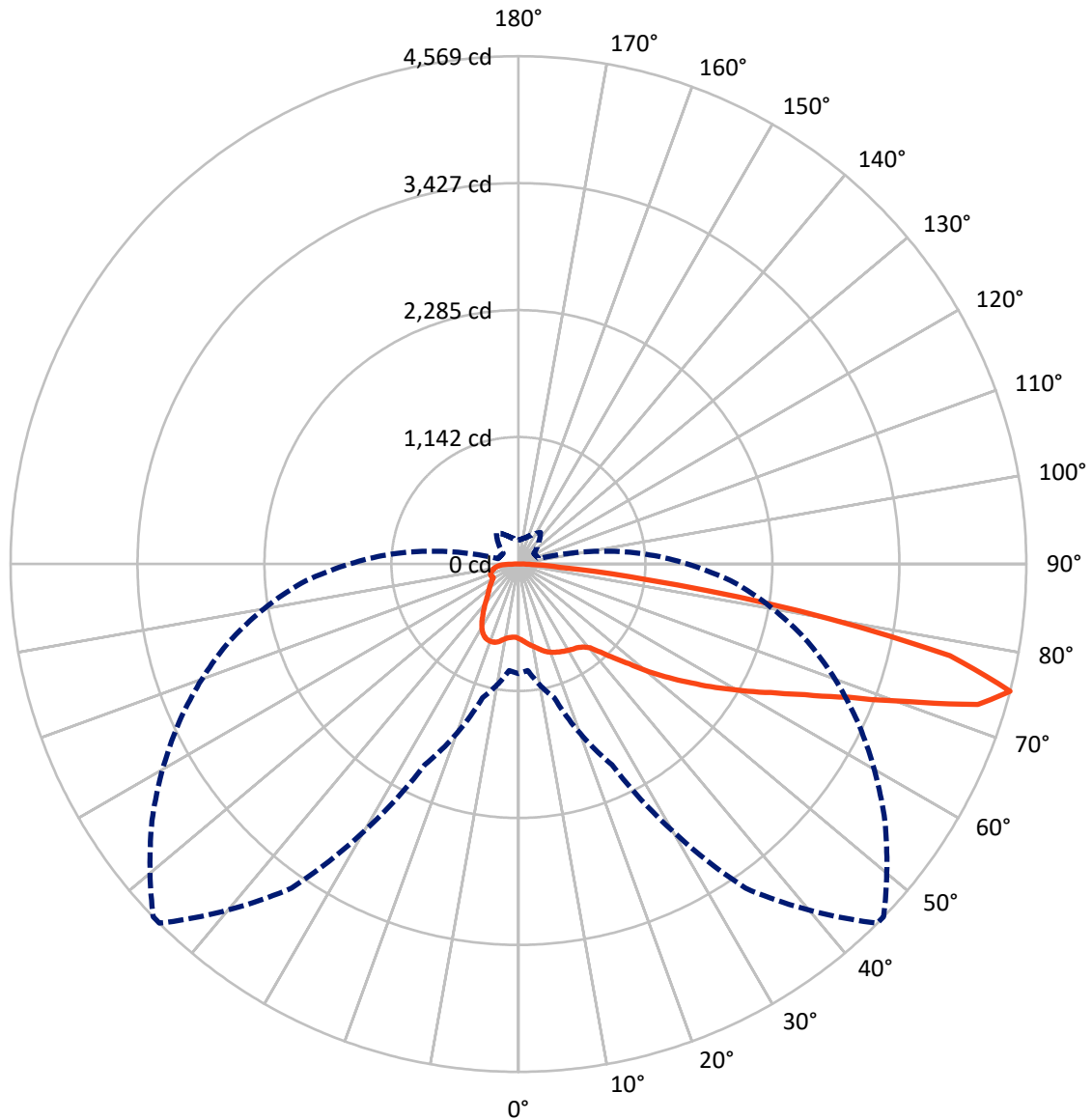


Based on 10 foot mounting height. Maximum calculated value = 7.8 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234748

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P234748

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1515.7	0.0	1515.7
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	5027.3	0.0	5027.3
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	6543.0	0.0	6543.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.5	1.0
10°-20°	215.4	3.3
20°-30°	369.6	5.6
30°-40°	517.0	7.9
40°-50°	758.4	11.6
50°-60°	1181.3	18.1
60°-70°	1699.8	26.0
70°-80°	1480.7	22.6
80°-90°	254.3	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°	6543.0	100.0
0°-180°	6543.0	100.0



REPORT NUMBER: P234748

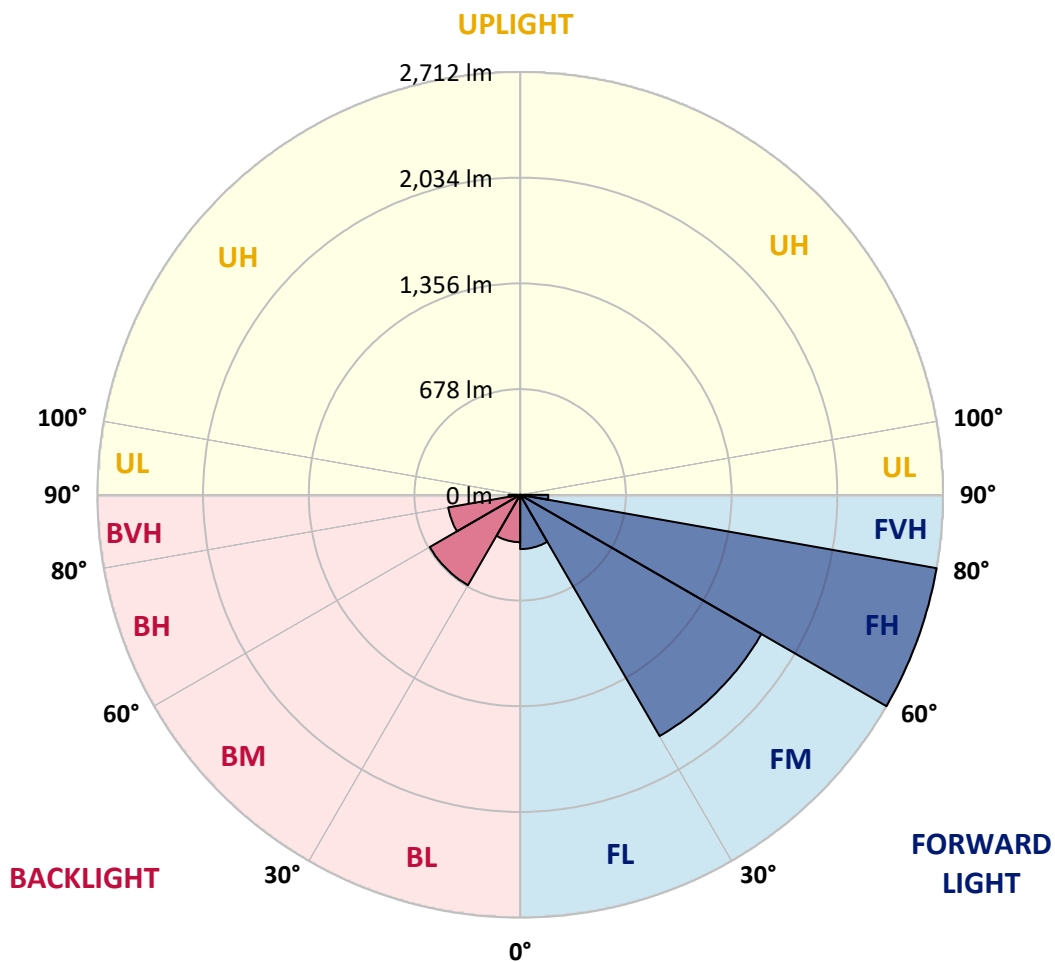
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	347.9	5.3			
FM (30°-60°)	1786.8	27.3			
FH (60°-80°)	2712.1	41.5			G2/5000
FVH (80°-90°)	180.4	2.8			G2/225
BL (0°-30°)	303.6	4.6	B1/500		
BM (30°-60°)	669.9	10.2	B1/1000		
BH (60°-80°)	468.4	7.2	B1/500		G1/500
BVH (80°-90°)	73.9	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





REPORT NUMBER: P234748

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8
2.5°	703.8	698.8	698.8	694.9	694.9	688.6	686.0	684.8	678.4	674.6	670.8
5°	744.6	738.2	736.9	728.0	724.2	710.2	708.9	700.0	688.6	677.1	668.2
7.5°	781.5	777.7	771.3	762.4	750.9	733.1	731.8	717.8	698.8	683.5	670.8
10°	808.2	805.7	796.8	785.3	772.6	754.8	753.5	738.2	715.3	697.5	679.7
12.5°	840.0	836.2	824.8	809.5	795.5	778.9	777.7	764.9	739.5	716.6	693.7
15°	870.6	865.5	851.5	836.2	820.9	806.9	806.9	792.9	766.2	739.5	712.8
17.5°	885.8	883.3	869.3	852.8	840.0	829.8	828.6	815.8	789.1	761.1	731.8
20°	890.9	892.2	879.5	861.7	852.8	847.7	846.4	837.5	808.2	781.5	753.5
22.5°	889.7	893.5	883.3	864.2	861.7	861.7	861.7	851.5	828.6	801.8	773.8
25°	894.8	899.8	892.2	869.3	869.3	874.4	874.4	869.3	848.9	826.0	798.0
27.5°	912.6	916.4	910.0	878.2	879.5	887.1	885.8	887.1	874.4	852.8	824.8
30°	934.2	939.3	931.7	892.2	890.9	898.6	898.6	904.9	896.0	873.1	850.2
32.5°	992.8	991.5	967.3	907.5	903.7	911.3	911.3	917.7	912.6	894.8	873.1
35°	1167.1	1148.0	1094.6	957.1	918.9	922.8	922.8	934.2	936.8	922.8	903.7
37.5°	1345.3	1339.0	1298.2	1089.5	974.9	946.9	945.7	962.2	973.7	962.2	949.5
40°	1524.8	1519.7	1510.8	1266.4	1092.0	990.2	986.4	1000.4	1020.8	1013.1	1005.5
42.5°	1691.5	1689.0	1697.9	1440.8	1241.0	1083.1	1071.7	1055.1	1084.4	1081.9	1081.9
45°	1822.6	1829.0	1834.1	1603.7	1402.6	1202.8	1188.8	1132.8	1172.2	1182.4	1190.0
47.5°	1896.4	1901.5	1919.3	1762.8	1564.2	1341.5	1331.3	1239.7	1291.9	1322.4	1344.0
50°	2002.1	1988.1	2003.3	1918.1	1759.0	1522.2	1494.2	1383.5	1449.7	1503.1	1554.1
52.5°	2103.9	2081.0	2093.7	2097.5	1980.4	1699.1	1669.9	1552.8	1635.5	1719.5	1809.9
55°	2195.5	2194.3	2207.0	2271.9	2194.3	1888.8	1855.7	1739.9	1859.5	1949.9	2102.6
57.5°	2269.4	2282.1	2338.1	2474.3	2441.2	2095.0	2058.1	1957.5	2098.8	2189.2	2442.4
60°	2355.9	2376.3	2469.2	2646.1	2666.5	2311.4	2273.2	2200.6	2344.4	2436.1	2835.7
62.5°	2385.2	2414.4	2605.4	2826.8	2901.9	2548.1	2513.7	2465.4	2602.8	2685.5	3227.7
65°	2190.4	2246.4	2680.5	2919.7	3155.2	2833.2	2803.9	2761.9	2859.9	2914.6	3493.8
67.5°	2137.0	2162.4	2534.1	3053.4	3393.2	3199.7	3170.5	3097.9	3100.5	3077.6	3580.3
70°	2061.9	2089.9	2383.9	3153.9	3734.3	3701.2	3665.6	3451.8	3320.7	3181.9	3409.8
72.5°	1756.4	1747.5	2054.3	2882.8	3898.5	4322.3	4280.3	3832.3	3483.6	3091.6	2877.7
75°	986.4	960.9	1246.0	1994.4	3559.9	4569.2	4568.0	4024.5	3369.0	2693.2	1958.8
77.5°	286.4	278.7	411.1	836.2	2396.6	3969.8	4018.1	3629.9	2811.6	1934.6	1075.5
80°	134.9	137.5	176.9	276.2	1023.3	2562.1	2700.8	2390.3	1680.1	892.2	444.2
82.5°	85.3	86.5	120.9	178.2	432.7	1163.3	1277.9	1075.5	665.7	385.6	196.0
85°	53.5	53.5	80.2	117.1	258.4	371.6	403.5	366.6	285.1	210.0	106.9
87.5°	29.3	29.3	48.4	67.5	141.3	119.6	123.5	146.4	178.2	128.5	53.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234748

CATALOG NUMBER: ARCH-AF24-70-D-U-T4W-8027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8	670.8
2.5°	669.5	666.9	663.1	661.8	660.6	659.3	660.6	663.1	660.6	660.6	661.8
5°	665.7	663.1	658.0	658.0	659.3	660.6	666.9	670.8	672.0	672.0	672.0
7.5°	665.7	661.8	658.0	659.3	661.8	666.9	677.1	683.5	688.6	689.8	689.8
10°	672.0	666.9	664.4	666.9	674.6	678.4	688.6	698.8	705.1	707.7	707.7
12.5°	683.5	678.4	678.4	683.5	693.7	698.8	707.7	715.3	722.9	726.8	726.8
15°	702.6	696.2	697.5	706.4	717.8	722.9	729.3	731.8	738.2	743.3	743.3
17.5°	720.4	714.0	716.6	726.8	734.4	736.9	740.8	739.5	742.0	745.8	747.1
20°	740.8	734.4	735.7	742.0	743.3	740.8	740.8	736.9	735.7	742.0	744.6
22.5°	761.1	754.8	753.5	749.7	743.3	736.9	733.1	729.3	726.8	733.1	735.7
25°	785.3	776.4	770.0	753.5	736.9	725.5	720.4	717.8	716.6	722.9	725.5
27.5°	812.0	803.1	784.0	748.4	721.7	702.6	698.8	698.8	701.3	705.1	707.7
30°	837.5	828.6	794.2	736.9	694.9	666.9	663.1	666.9	673.3	677.1	680.9
32.5°	862.9	854.0	800.6	719.1	655.5	619.8	617.3	623.7	633.8	636.4	638.9
35°	897.3	888.4	808.2	693.7	605.8	567.7	565.1	568.9	577.8	581.7	585.5
37.5°	945.7	940.6	819.7	665.7	560.0	518.0	510.4	507.8	512.9	511.7	516.7
40°	1009.3	1013.1	840.0	628.7	515.5	472.2	455.7	448.0	442.9	432.7	437.8
42.5°	1102.2	1104.8	862.9	586.7	477.3	428.9	407.3	393.3	383.1	366.6	369.1
45°	1238.4	1216.8	889.7	542.2	442.9	394.6	369.1	352.6	338.6	324.6	325.8
47.5°	1419.1	1353.0	918.9	505.3	408.6	366.6	343.6	324.6	308.0	296.6	297.8
50°	1641.9	1522.2	948.2	470.9	374.2	344.9	324.6	304.2	287.6	276.2	274.9
52.5°	1935.9	1725.9	967.3	432.7	339.8	325.8	308.0	288.9	268.6	254.6	253.3
55°	2241.3	1962.6	983.9	386.9	306.7	304.2	295.3	273.6	249.5	231.6	229.1
57.5°	2577.4	2215.9	996.6	342.4	281.3	286.4	283.8	258.4	231.6	215.1	213.8
60°	2882.8	2478.1	955.9	302.9	258.4	268.6	271.1	249.5	235.5	239.3	240.6
62.5°	3190.8	2680.5	800.6	273.6	243.1	257.1	278.7	277.5	271.1	277.5	278.7
65°	3301.6	2722.5	567.7	249.5	227.8	262.2	302.9	300.4	271.1	259.6	257.1
67.5°	3239.2	2597.7	381.8	230.4	216.4	268.6	328.4	300.4	260.9	245.6	240.6
70°	2942.6	2291.0	280.0	211.3	206.2	267.3	342.4	299.1	255.8	239.3	232.9
72.5°	2347.0	1767.9	225.3	193.5	190.9	260.9	350.0	296.6	250.7	232.9	225.3
75°	1519.7	1099.7	189.6	175.6	168.0	250.7	346.2	288.9	244.4	221.5	216.4
77.5°	705.1	473.5	161.6	155.3	146.4	235.5	334.7	273.6	230.4	208.7	202.4
80°	328.4	224.0	136.2	134.9	131.1	222.7	319.5	255.8	213.8	196.0	185.8
82.5°	175.6	134.9	110.7	110.7	114.5	207.5	300.4	234.2	192.2	183.3	156.6
85°	92.9	77.6	80.2	86.5	98.0	183.3	274.9	211.3	168.0	140.0	136.2
87.5°	47.1	49.6	49.6	58.5	75.1	148.9	226.6	174.4	142.6	114.5	112.0
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)