

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: P265896

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265896  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
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-T2R-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5221.4 lumens  
Efficiency: N/A  
Efficacy: 98.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

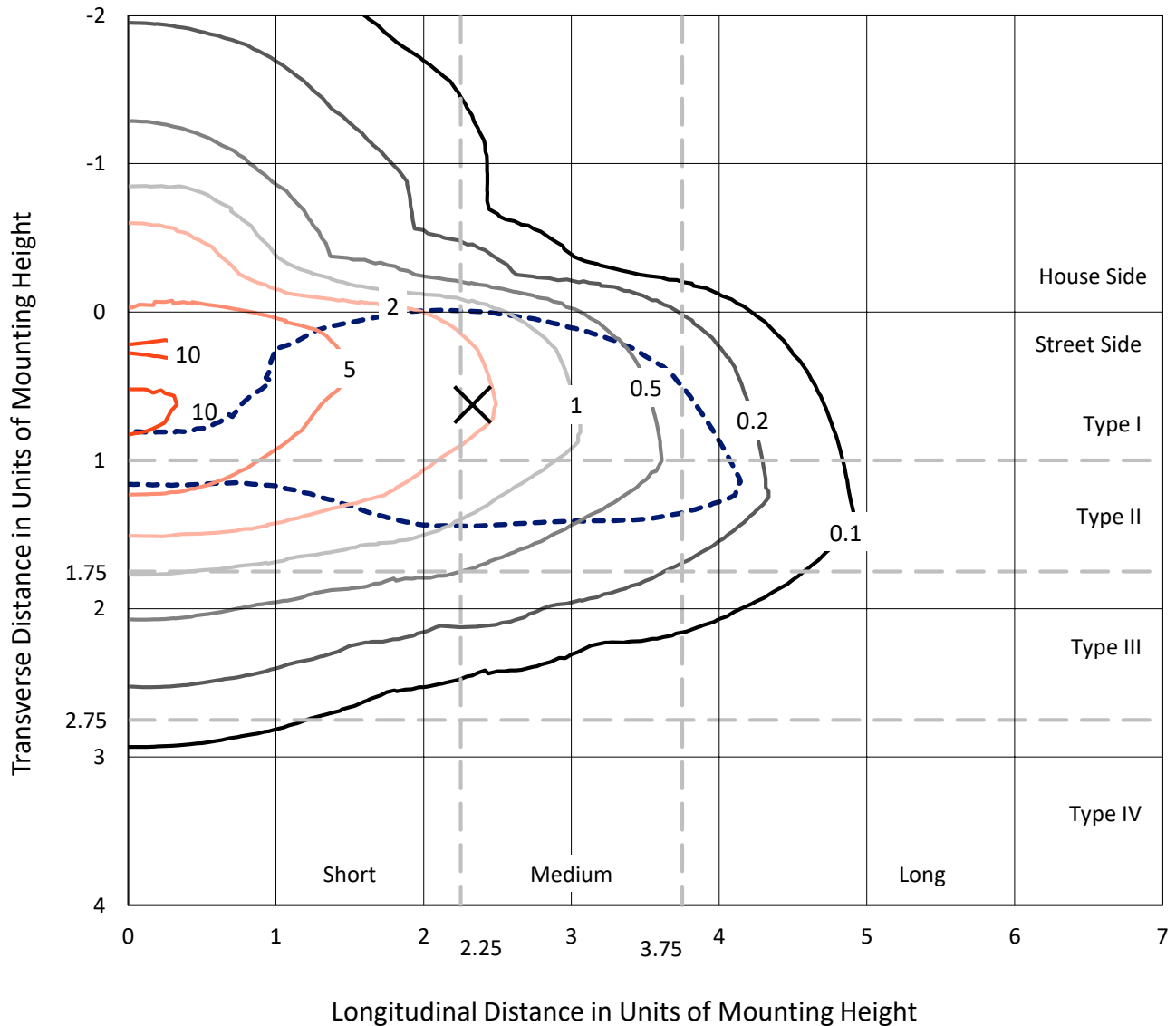
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

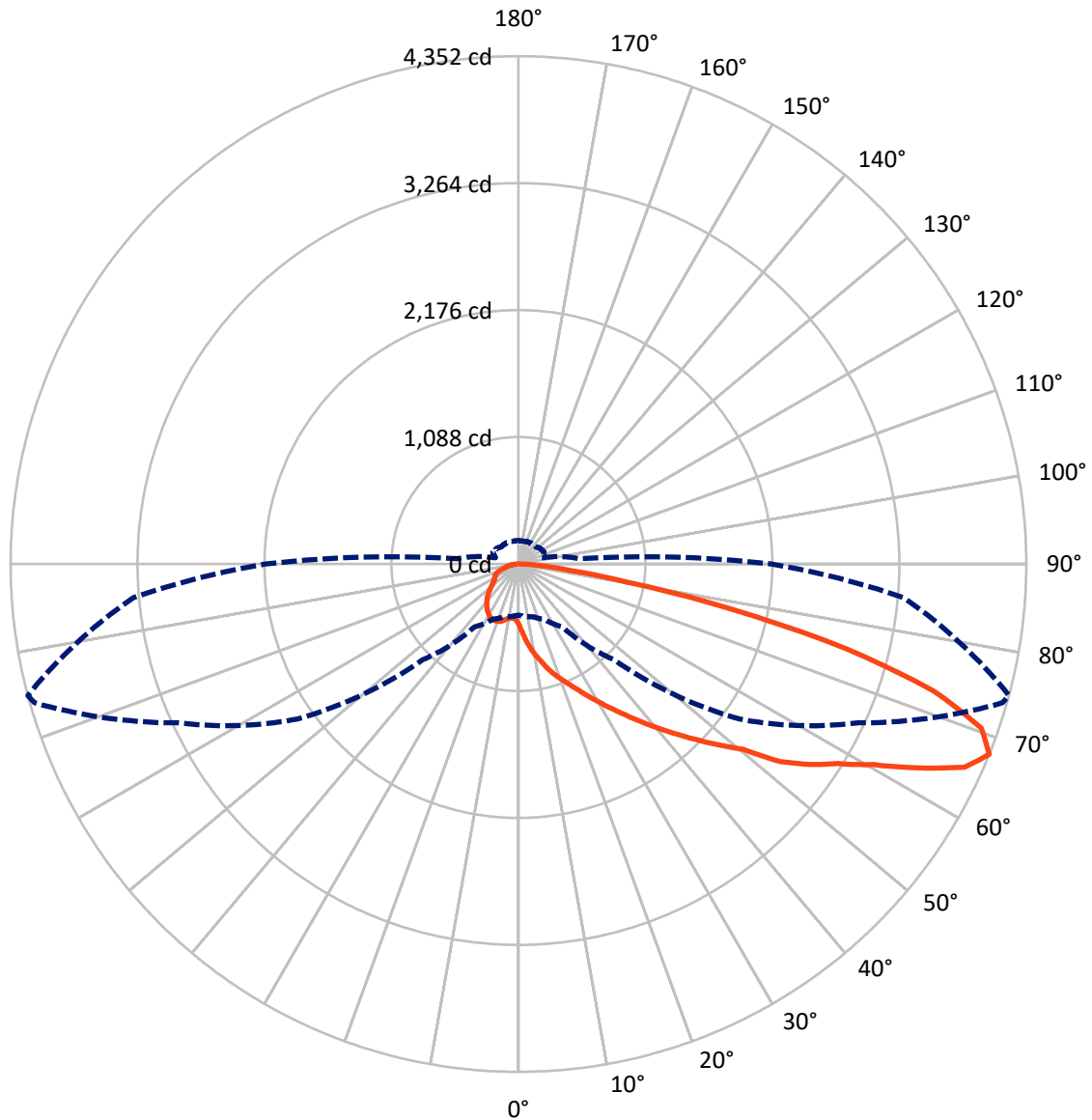
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	891.6	0.0	891.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4329.8	0.0	4329.8
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	5221.4	0.0	5221.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	1.2
10°-20°	219.7	4.2
20°-30°	400.6	7.7
30°-40°	657.6	12.6
40°-50°	951.0	18.2
50°-60°	1120.8	21.5
60°-70°	1089.1	20.9
70°-80°	605.4	11.6
80°-90°	116.4	2.2
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°	5221.4	100.0
0°-180°	5221.4	100.0



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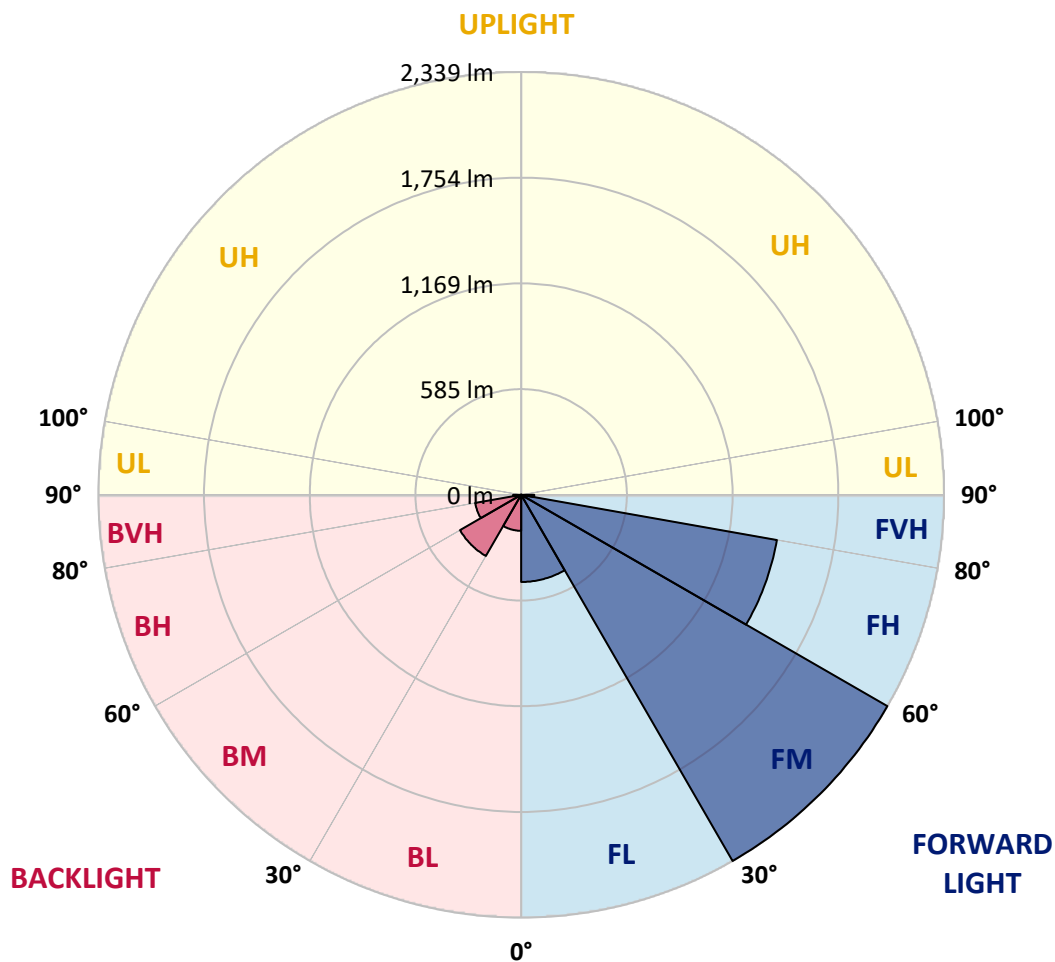
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	482.1	9.2			
FM	(30°-60°)	2338.9	44.8			
FH	(60°-80°)	1436.4	27.5			G1/1800
FVH	(80°-90°)	72.4	1.4			G1/100
BL	(0°-30°)	199.0	3.8	B1/500		
BM	(30°-60°)	390.5	7.5	B1/1000		
BH	(60°-80°)	258.2	4.9	B1/500		G1/500
BVH	(80°-90°)	44.0	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5
2.5°	733.6	735.7	731.3	721.5	707.3	681.2	658.2	617.9	581.8	577.4	539.3
5°	862.4	864.4	859.0	847.0	831.8	803.4	771.7	719.4	661.5	650.6	569.7
7.5°	950.8	951.8	945.2	933.2	921.3	892.8	861.2	802.2	731.3	722.5	609.1
10°	1026.0	1028.2	1019.4	1011.9	998.7	970.3	937.7	875.4	802.2	790.2	649.5
12.5°	1095.9	1098.1	1092.7	1086.1	1081.6	1055.6	1019.4	945.2	866.7	853.6	697.5
15°	1142.9	1145.0	1146.1	1155.0	1160.3	1141.7	1105.8	1025.0	936.6	924.5	754.2
17.5°	1129.8	1135.2	1151.5	1183.2	1217.1	1218.2	1188.6	1103.6	1005.4	992.2	812.1
20°	1091.6	1095.9	1115.5	1163.7	1230.1	1268.3	1266.3	1183.2	1069.7	1055.6	865.5
22.5°	1123.2	1128.7	1128.7	1158.2	1223.6	1294.5	1322.9	1261.8	1134.1	1121.1	919.1
25°	1258.5	1261.8	1238.9	1226.9	1250.9	1316.5	1369.9	1347.0	1212.7	1197.4	976.9
27.5°	1447.3	1442.0	1413.6	1365.6	1339.4	1356.8	1411.3	1427.8	1303.4	1284.8	1037.0
30°	1635.2	1632.0	1599.2	1534.8	1475.7	1438.6	1457.2	1499.8	1401.5	1379.7	1094.9
32.5°	1811.0	1805.5	1769.4	1694.2	1627.5	1558.7	1522.7	1565.2	1506.4	1481.2	1159.3
35°	1972.5	1958.2	1922.3	1843.6	1775.0	1709.4	1620.9	1627.5	1619.9	1593.7	1230.1
37.5°	2103.4	2092.5	2053.3	1980.0	1906.9	1844.7	1752.0	1698.4	1742.2	1717.0	1312.1
40°	2219.2	2207.1	2166.7	2093.6	2025.9	1967.0	1893.8	1784.8	1879.7	1851.2	1403.7
42.5°	2306.5	2297.8	2264.9	2192.9	2127.5	2073.9	2038.0	1893.8	2022.7	1995.3	1504.1
45°	2353.4	2344.7	2327.1	2269.4	2209.3	2167.8	2171.2	2023.7	2172.2	2149.3	1623.1
47.5°	2295.6	2302.0	2317.4	2306.5	2269.4	2249.6	2290.0	2158.0	2339.1	2317.4	1752.0
50°	2140.5	2147.0	2208.3	2283.5	2296.6	2320.6	2397.0	2313.0	2516.1	2498.5	1911.4
52.5°	1759.6	1795.6	1964.9	2145.0	2268.3	2367.7	2516.1	2543.3	2814.0	2814.0	2192.9
55°	1329.5	1361.2	1554.3	1868.7	2158.0	2372.0	2603.4	2699.4	3029.1	3033.4	2340.4
57.5°	1077.3	1097.0	1192.1	1514.1	1926.5	2317.4	2707.0	2833.7	3208.0	3227.7	2530.3
60°	874.3	885.3	947.4	1171.2	1606.8	2170.0	2781.3	3025.9	3463.5	3490.9	2772.6
62.5°	703.0	713.9	755.4	889.6	1260.7	1893.8	2768.1	3225.5	3804.1	3848.8	3090.2
65°	561.0	573.1	600.3	683.3	934.3	1551.2	2633.9	3328.2	4156.6	4200.4	3300.8
67.5°	437.7	448.7	467.2	521.7	658.2	1160.3	2316.3	3220.1	4314.9	4352.0	3311.8
70°	330.8	336.1	351.4	386.5	470.4	770.7	1813.0	2857.7	4173.0	4206.9	3093.5
72.5°	256.6	255.4	264.1	281.6	328.6	530.4	1201.8	2323.9	3689.5	3724.5	2639.4
75°	209.6	208.4	213.9	219.4	238.0	355.9	709.5	1749.8	2977.7	2911.1	1980.0
77.5°	176.8	175.8	181.2	182.3	189.9	245.5	403.9	1151.5	1986.6	1872.0	1115.5
80°	149.6	148.5	155.0	157.2	162.7	180.1	232.5	623.2	997.7	945.2	532.6
82.5°	112.5	116.8	128.7	134.2	140.9	133.2	144.1	275.2	462.8	442.1	231.5
85°	54.5	64.4	97.1	108.1	115.7	84.0	98.3	129.8	208.4	198.6	93.9
87.5°	18.5	16.3	57.9	68.8	75.3	38.2	54.5	72.0	86.2	78.6	29.5
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°	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5	517.5
2.5°	522.9	506.5	482.5	464.0	451.8	442.1	437.7	436.7	434.4	433.3	433.3
5°	533.8	504.3	467.2	447.5	442.1	437.7	439.9	441.0	441.0	441.0	441.0
7.5°	550.1	508.7	464.0	450.8	449.7	449.7	456.2	459.6	461.6	461.6	461.6
10°	572.0	516.3	469.4	458.5	461.6	464.0	471.5	475.9	478.1	479.2	480.2
12.5°	601.4	532.6	480.2	471.5	475.9	477.0	482.5	484.6	486.8	487.9	487.9
15°	640.8	556.7	497.8	486.8	487.9	486.8	486.8	484.6	483.6	483.6	485.8
17.5°	681.2	579.6	513.0	497.8	493.3	484.6	478.1	472.7	469.4	467.2	468.2
20°	721.5	600.3	521.7	499.9	487.9	473.8	461.6	454.2	449.7	445.4	447.5
22.5°	761.9	620.0	525.0	493.3	475.9	455.3	442.1	430.1	420.2	413.7	414.7
25°	806.7	641.7	525.0	485.8	459.6	437.7	421.3	401.7	387.4	382.0	384.2
27.5°	851.5	660.4	519.6	471.5	441.0	419.1	395.2	372.2	363.5	360.2	361.3
30°	896.1	674.5	507.6	454.2	421.3	397.3	365.7	350.3	339.5	330.8	331.8
32.5°	941.0	684.4	491.3	432.3	400.6	370.0	343.8	326.4	306.7	295.8	296.9
35°	992.2	692.1	471.5	410.4	377.6	346.0	326.4	298.0	277.2	268.6	266.3
37.5°	1045.6	697.5	450.8	386.5	354.7	328.6	308.8	274.1	254.3	242.4	241.3
40°	1103.6	699.7	425.6	361.3	332.9	317.6	286.0	259.8	226.0	218.3	218.3
42.5°	1172.4	698.6	400.6	336.1	308.8	292.6	269.6	257.6	228.1	220.5	216.1
45°	1250.9	698.6	373.3	306.7	284.9	260.9	251.0	243.4	223.8	227.0	229.2
47.5°	1340.5	696.5	340.5	282.6	265.3	244.5	239.0	222.7	215.1	217.2	219.4
50°	1463.8	699.7	311.2	263.1	251.0	233.6	227.0	218.3	215.1	216.1	215.1
52.5°	1635.2	688.8	282.6	251.0	240.1	217.2	217.2	216.1	217.2	216.1	216.1
55°	1729.0	664.7	261.9	244.5	232.5	209.6	213.9	216.1	218.3	217.2	217.2
57.5°	1862.1	648.3	245.5	240.1	228.1	207.4	211.8	216.1	217.2	216.1	216.1
60°	2019.4	637.4	234.6	241.3	224.8	207.4	212.9	216.1	215.1	213.9	213.9
62.5°	2201.7	633.0	227.0	244.5	221.6	208.4	212.9	216.1	211.8	210.7	210.7
65°	2270.5	593.8	217.2	246.7	223.8	208.4	211.8	212.9	207.4	206.3	205.3
67.5°	2164.6	526.1	203.0	242.4	230.3	208.4	208.4	207.4	200.9	199.8	197.5
70°	1927.8	436.7	181.2	228.1	234.6	209.6	204.2	198.6	192.1	192.1	187.7
72.5°	1578.4	343.8	152.8	203.0	231.5	212.9	195.4	187.7	180.1	180.1	175.8
75°	1137.4	256.6	122.3	169.2	217.2	211.8	184.5	174.6	165.8	164.7	159.4
77.5°	648.3	180.1	99.4	132.1	193.2	206.3	174.6	159.4	149.6	146.2	143.0
80°	332.9	121.1	80.8	103.8	160.4	191.0	167.1	141.9	131.1	125.6	120.1
82.5°	158.3	80.8	62.3	76.4	121.1	167.1	157.2	122.3	110.2	103.8	97.1
85°	71.0	48.0	41.5	49.0	86.2	129.8	138.6	100.4	86.2	108.1	79.7
87.5°	22.9	21.7	21.7	22.9	41.5	56.8	101.5	74.2	68.8	56.8	48.0
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)