

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: P234741

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234741  
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-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 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: 4632 lumens  
Efficiency: N/A  
Efficacy: 87.4 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): 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

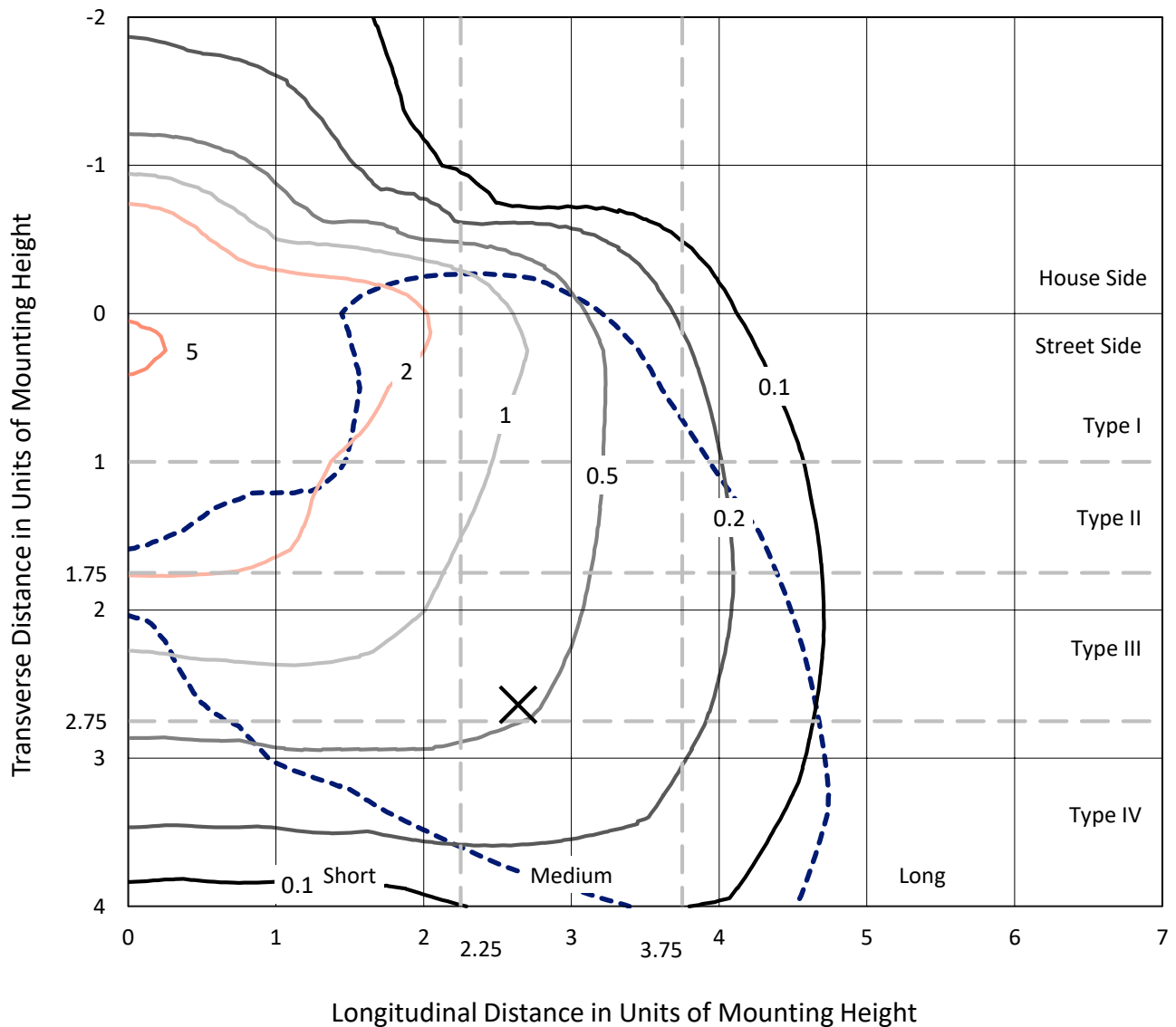


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

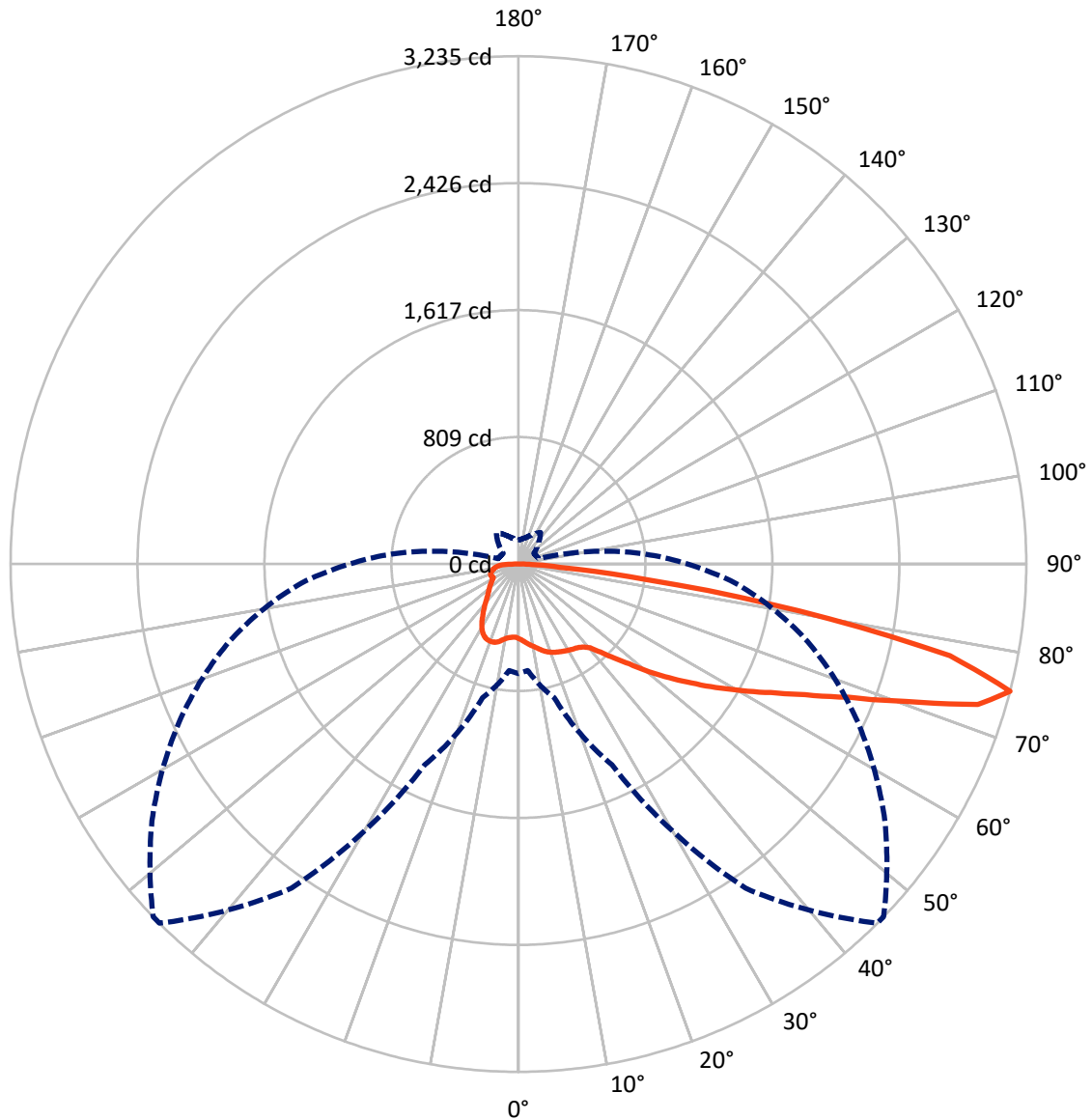


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Medium - Non-Cutoff

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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	1073.0	0.0	1073.0
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	3559.0	0.0	3559.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	4632.0	0.0	4632.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.1	1.0
10°-20°	152.5	3.3
20°-30°	261.7	5.6
30°-40°	366.0	7.9
40°-50°	536.9	11.6
50°-60°	836.3	18.1
60°-70°	1203.4	26.0
70°-80°	1048.3	22.6
80°-90°	180.0	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°	4632.0	100.0
0°-180°	4632.0	100.0

**Coefficient of Utilization**



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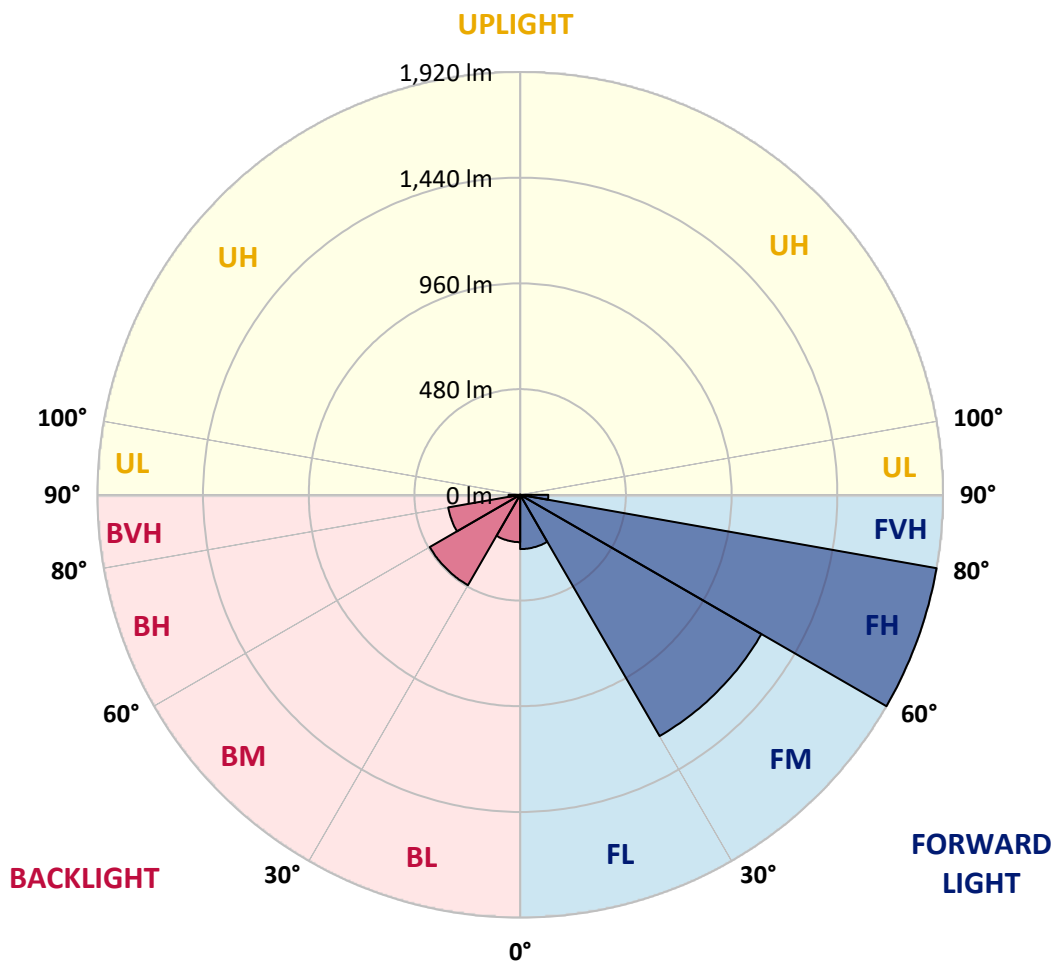
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	246.3	5.3			
FM	(30°-60°)	1264.9	27.3			
FH	(60°-80°)	1920.0	41.5			G2/5000
FVH	(80°-90°)	127.7	2.8			G2/225
BL	(0°-30°)	214.9	4.6	B1/500		
BM	(30°-60°)	474.2	10.2	B1/1000		
BH	(60°-80°)	331.6	7.2	B1/500		G1/500
BVH	(80°-90°)	52.3	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°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	498.3	494.7	494.7	492.0	492.0	487.5	485.7	484.8	480.3	477.5	474.8
5°	527.1	522.6	521.7	515.4	512.7	502.8	501.9	495.6	487.5	479.4	473.0
7.5°	553.2	550.5	546.0	539.7	531.6	519.0	518.1	508.2	494.7	483.9	474.8
10°	572.2	570.4	564.0	555.9	546.9	534.3	533.4	522.6	506.4	493.8	481.2
12.5°	594.7	592.0	583.9	573.1	563.1	551.4	550.5	541.5	523.5	507.3	491.1
15°	616.3	612.7	602.8	592.0	581.2	571.3	571.3	561.3	542.4	523.5	504.6
17.5°	627.1	625.3	615.4	603.7	594.7	587.5	586.6	577.6	558.6	538.8	518.1
20°	630.7	631.6	622.6	610.0	603.7	600.1	599.2	592.9	572.2	553.2	533.4
22.5°	629.8	632.5	625.3	611.8	610.0	610.0	610.0	602.8	586.6	567.7	547.8
25°	633.4	637.0	631.6	615.4	615.4	619.0	619.0	615.4	601.0	584.8	564.9
27.5°	646.0	648.7	644.2	621.7	622.6	628.0	627.1	628.0	619.0	603.7	583.9
30°	661.4	665.0	659.6	631.6	630.7	636.1	636.1	640.6	634.3	618.1	601.9
32.5°	702.8	701.9	684.8	642.4	639.7	645.1	645.1	649.6	646.0	633.4	618.1
35°	826.2	812.7	774.9	677.6	650.5	653.3	653.3	661.4	663.2	653.3	639.7
37.5°	952.4	947.9	919.1	771.3	690.2	670.4	669.5	681.2	689.3	681.2	672.2
40°	1079.4	1075.8	1069.5	896.5	773.1	701.0	698.3	708.2	722.6	717.2	711.8
42.5°	1197.5	1195.7	1202.0	1020.0	878.5	766.8	758.7	747.0	767.7	765.9	765.9
45°	1290.3	1294.8	1298.4	1135.3	992.9	851.5	841.6	801.9	829.9	837.1	842.5
47.5°	1342.5	1346.1	1358.8	1247.9	1107.4	949.7	942.5	877.6	914.6	936.2	951.5
50°	1417.3	1407.4	1418.2	1357.9	1245.2	1077.6	1057.8	979.4	1026.3	1064.1	1100.2
52.5°	1489.4	1473.2	1482.2	1484.9	1402.0	1202.9	1182.2	1099.3	1157.8	1217.3	1281.3
55°	1554.3	1553.4	1562.4	1608.3	1553.4	1337.1	1313.7	1231.7	1316.4	1380.4	1488.5
57.5°	1606.5	1615.6	1655.2	1751.6	1728.2	1483.1	1457.0	1385.8	1485.8	1549.8	1729.1
60°	1667.8	1682.2	1748.0	1873.3	1887.7	1636.3	1609.2	1557.9	1659.7	1724.6	2007.5
62.5°	1688.5	1709.3	1844.4	2001.2	2054.4	1803.9	1779.5	1745.3	1842.6	1901.2	2285.0
65°	1550.7	1590.3	1897.6	2067.0	2233.7	2005.7	1985.0	1955.2	2024.6	2063.4	2473.3
67.5°	1512.8	1530.9	1794.0	2161.6	2402.2	2265.2	2244.5	2193.1	2194.9	2178.7	2534.6
70°	1459.7	1479.5	1687.6	2232.8	2643.6	2620.2	2595.0	2443.6	2350.8	2252.6	2413.9
72.5°	1243.4	1237.1	1454.3	2040.8	2759.9	3059.9	3030.2	2713.0	2466.1	2188.6	2037.2
75°	698.3	680.3	882.1	1411.9	2520.2	3234.7	3233.8	2849.1	2385.0	1906.6	1386.7
77.5°	202.7	197.3	291.0	592.0	1696.6	2810.3	2844.6	2569.8	1990.4	1369.6	761.4
80°	95.5	97.3	125.2	195.5	724.4	1813.8	1912.0	1692.1	1189.4	631.6	314.5
82.5°	60.4	61.3	85.6	126.1	306.4	823.5	904.6	761.4	471.2	273.0	138.8
85°	37.8	37.8	56.8	82.9	182.9	263.1	285.6	259.5	201.8	148.7	75.7
87.5°	20.7	20.7	34.2	47.8	100.0	84.7	87.4	103.6	126.1	91.0	37.8
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°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	473.9	472.1	469.4	468.5	467.6	466.7	467.6	469.4	467.6	467.6	468.5
5°	471.2	469.4	465.8	465.8	466.7	467.6	472.1	474.8	475.7	475.7	475.7
7.5°	471.2	468.5	465.8	466.7	468.5	472.1	479.4	483.9	487.5	488.4	488.4
10°	475.7	472.1	470.3	472.1	477.5	480.3	487.5	494.7	499.2	501.0	501.0
12.5°	483.9	480.3	480.3	483.9	491.1	494.7	501.0	506.4	511.8	514.5	514.5
15°	497.4	492.9	493.8	500.1	508.2	511.8	516.3	518.1	522.6	526.2	526.2
17.5°	510.0	505.5	507.3	514.5	519.9	521.7	524.4	523.5	525.3	528.0	528.9
20°	524.4	519.9	520.8	525.3	526.2	524.4	524.4	521.7	520.8	525.3	527.1
22.5°	538.8	534.3	533.4	530.7	526.2	521.7	519.0	516.3	514.5	519.0	520.8
25°	555.9	549.6	545.1	533.4	521.7	513.6	510.0	508.2	507.3	511.8	513.6
27.5°	574.9	568.6	555.0	529.8	510.9	497.4	494.7	494.7	496.5	499.2	501.0
30°	592.9	586.6	562.2	521.7	492.0	472.1	469.4	472.1	476.6	479.4	482.1
32.5°	610.9	604.6	566.8	509.1	464.0	438.8	437.0	441.5	448.7	450.5	452.3
35°	635.2	628.9	572.2	491.1	428.9	401.9	400.1	402.8	409.1	411.8	414.5
37.5°	669.5	665.9	580.3	471.2	396.5	366.7	361.3	359.5	363.1	362.2	365.8
40°	714.5	717.2	594.7	445.1	364.9	334.3	322.6	317.2	313.6	306.4	310.0
42.5°	780.3	782.1	610.9	415.4	337.9	303.6	288.3	278.4	271.2	259.5	261.3
45°	876.7	861.4	629.8	383.8	313.6	279.3	261.3	249.6	239.7	229.8	230.7
47.5°	1004.7	957.8	650.5	357.7	289.2	259.5	243.3	229.8	218.1	209.9	210.8
50°	1162.3	1077.6	671.3	333.4	264.9	244.2	229.8	215.3	203.6	195.5	194.6
52.5°	1370.5	1221.8	684.8	306.4	240.6	230.7	218.1	204.5	190.1	180.2	179.3
55°	1586.7	1389.4	696.5	273.9	217.1	215.3	209.0	193.7	176.6	164.0	162.2
57.5°	1824.6	1568.7	705.5	242.4	199.1	202.7	200.9	182.9	164.0	152.3	151.4
60°	2040.8	1754.3	676.7	214.4	182.9	190.1	191.9	176.6	166.7	169.4	170.3
62.5°	2258.9	1897.6	566.8	193.7	172.1	182.0	197.3	196.4	191.9	196.4	197.3
65°	2337.3	1927.3	401.9	176.6	161.3	185.6	214.4	212.6	191.9	183.8	182.0
67.5°	2293.1	1839.0	270.3	163.1	153.2	190.1	232.5	212.6	184.7	173.9	170.3
70°	2083.2	1621.9	198.2	149.6	146.0	189.2	242.4	211.7	181.1	169.4	164.9
72.5°	1661.5	1251.5	159.5	137.0	135.2	184.7	247.8	209.9	177.5	164.9	159.5
75°	1075.8	778.5	134.3	124.3	118.9	177.5	245.1	204.5	173.0	156.8	153.2
77.5°	499.2	335.2	114.4	109.9	103.6	166.7	237.0	193.7	163.1	147.8	143.3
80°	232.5	158.6	96.4	95.5	92.8	157.7	226.2	181.1	151.4	138.8	131.6
82.5°	124.3	95.5	78.4	78.4	81.1	146.9	212.6	165.8	136.1	129.7	110.8
85°	65.8	55.0	56.8	61.3	69.4	129.7	194.6	149.6	118.9	99.1	96.4
87.5°	33.3	35.1	35.1	41.4	53.2	105.4	160.4	123.4	100.9	81.1	79.3
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)