

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: P214584

Luminaire Tested: **ARCH-AF16-40-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214584  
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-AF16-40-D-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4893.7 lumens  
Efficiency: N/A  
Efficacy: 116.5 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): 42  
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

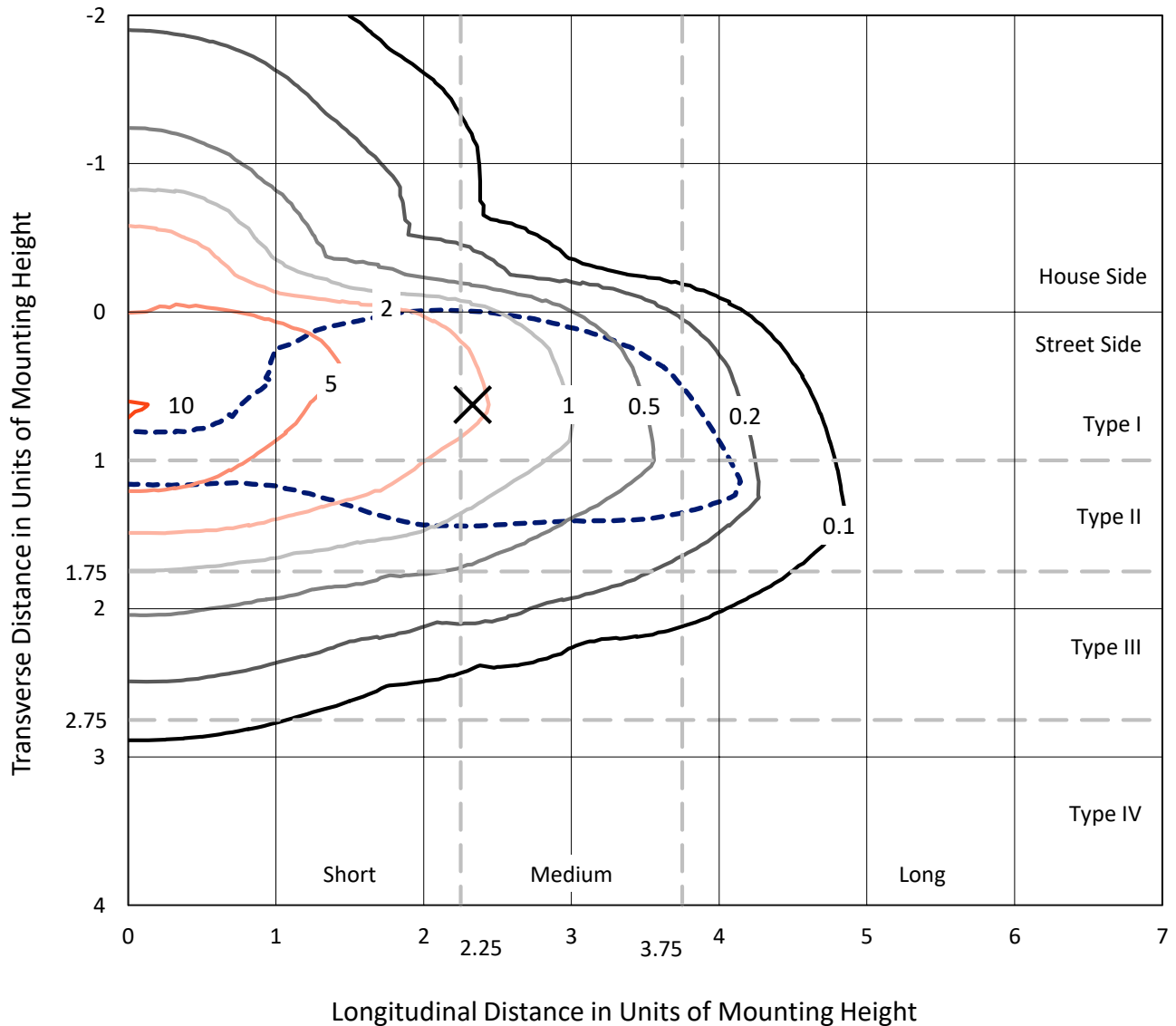


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

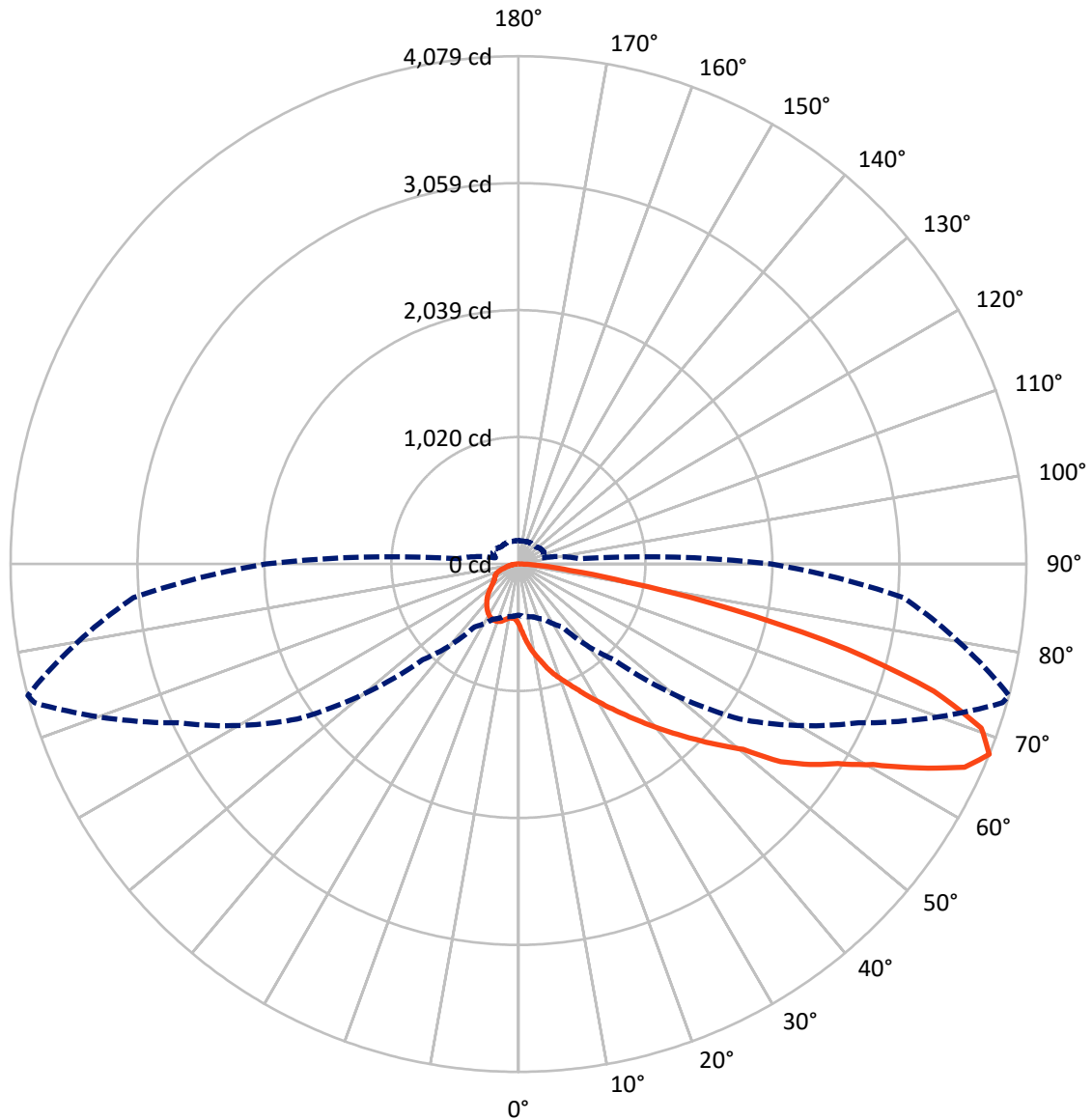


Based on 10 foot mounting height. Maximum calculated value = 10.2 fc  
 Type II - Medium - Semi-Cutoff

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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	835.6	0.0	835.6
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4058.1	0.0	4058.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	4893.7	0.0	4893.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.0	1.2
10°-20°	205.9	4.2
20°-30°	375.5	7.7
30°-40°	616.4	12.6
40°-50°	891.3	18.2
50°-60°	1050.4	21.5
60°-70°	1020.8	20.9
70°-80°	567.4	11.6
80°-90°	109.1	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°	4893.7	100.0
0°-180°	4893.7	100.0

**Coefficient of Utilization**



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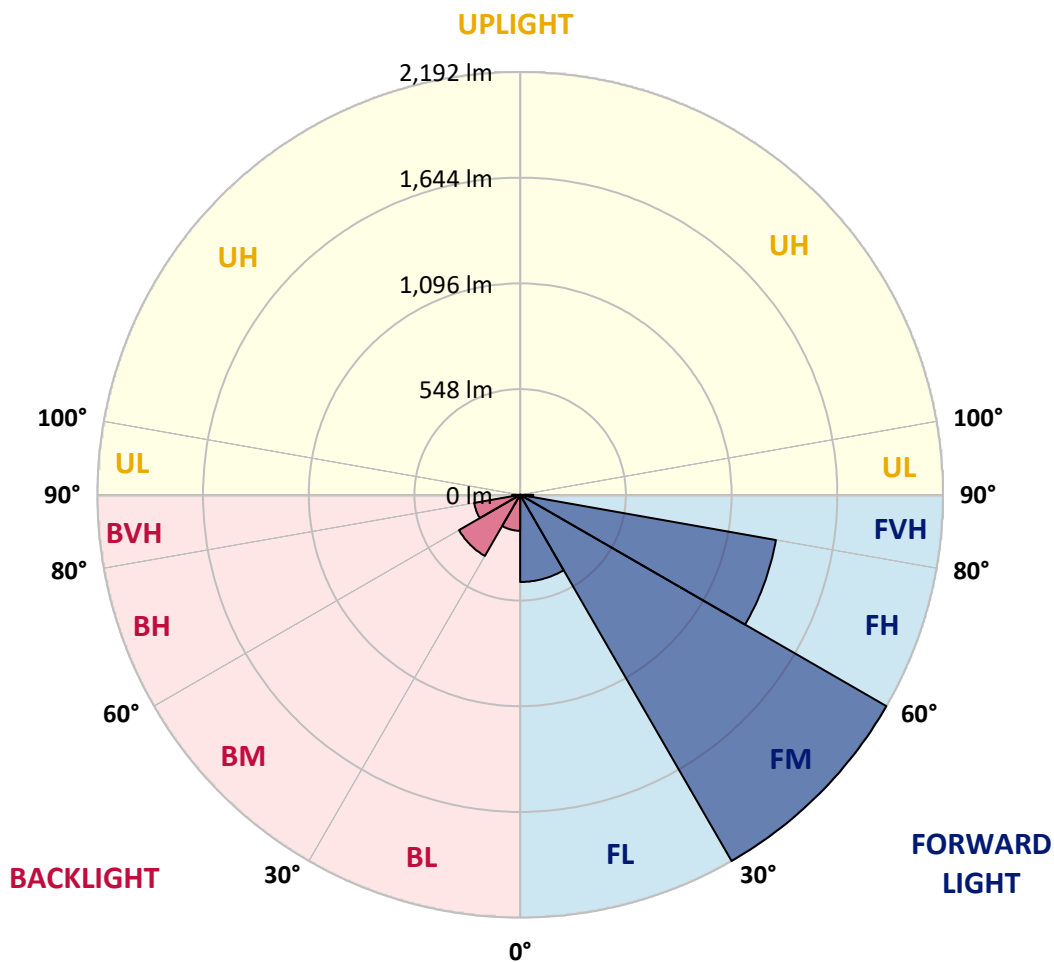
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	451.8	9.2			
FM (30°-60°)	2192.2	44.8			
FH (60°-80°)	1346.2	27.5			G1/1800
FVH (80°-90°)	67.9	1.4			G1/100
BL (0°-30°)	186.5	3.8	B1/500		
BM (30°-60°)	366.0	7.5	B1/1000		
BH (60°-80°)	242.0	4.9	B1/500		G1/500
BVH (80°-90°)	41.2	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°	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9
2.5°	687.5	689.6	685.5	676.3	663.0	638.4	616.9	579.1	545.3	541.2	505.3
5°	808.2	810.3	805.2	793.9	779.6	753.0	723.3	674.2	620.0	609.8	534.1
7.5°	891.1	892.1	886.0	874.7	863.5	836.9	807.2	752.0	685.5	677.3	570.9
10°	961.7	963.7	955.5	948.4	936.1	909.5	878.8	820.5	752.0	740.7	608.8
12.5°	1027.1	1029.2	1024.1	1017.9	1013.8	989.3	955.5	886.0	812.3	800.0	653.8
15°	1071.1	1073.2	1074.2	1082.4	1087.5	1070.1	1036.4	960.7	877.8	866.5	707.0
17.5°	1058.9	1064.0	1079.3	1109.0	1140.7	1141.7	1114.1	1034.3	942.2	930.0	761.2
20°	1023.1	1027.1	1045.6	1090.6	1153.0	1188.8	1186.7	1109.0	1002.6	989.3	811.3
22.5°	1052.7	1057.8	1057.8	1085.5	1146.8	1213.3	1239.9	1182.6	1062.9	1050.7	861.4
25°	1179.6	1182.6	1161.2	1149.9	1172.4	1233.8	1283.9	1262.4	1136.6	1122.3	915.6
27.5°	1356.5	1351.4	1324.8	1279.8	1255.3	1271.6	1322.8	1338.1	1221.5	1204.1	971.9
30°	1532.6	1529.4	1498.7	1438.4	1383.1	1348.4	1365.7	1405.6	1313.6	1293.1	1026.1
32.5°	1697.3	1692.2	1658.4	1587.8	1525.3	1460.9	1427.1	1467.0	1411.8	1388.2	1086.5
35°	1848.7	1835.4	1801.6	1728.0	1663.5	1602.1	1519.2	1525.3	1518.2	1493.6	1153.0
37.5°	1971.4	1961.2	1924.4	1855.8	1787.3	1729.0	1642.0	1591.9	1632.8	1609.3	1229.7
40°	2079.9	2068.6	2030.8	1962.2	1898.8	1843.6	1775.0	1672.7	1761.7	1735.1	1315.6
42.5°	2161.7	2153.5	2122.8	2055.3	1993.9	1943.8	1910.1	1775.0	1895.7	1870.2	1409.7
45°	2205.7	2197.5	2181.1	2126.9	2070.7	2031.8	2034.9	1896.8	2035.9	2014.4	1521.2
47.5°	2151.5	2157.6	2171.9	2161.7	2126.9	2108.5	2146.4	2022.6	2192.4	2171.9	1642.0
50°	2006.2	2012.3	2069.6	2140.2	2152.5	2175.0	2246.6	2167.8	2358.1	2341.7	1791.4
52.5°	1649.2	1683.0	1841.5	2010.3	2125.9	2219.0	2358.1	2383.7	2637.5	2637.5	2055.3
55°	1246.1	1275.7	1456.8	1751.5	2022.6	2223.1	2439.9	2530.0	2839.0	2843.1	2193.4
57.5°	1009.8	1028.2	1117.2	1418.9	1805.7	2171.9	2537.1	2655.9	3006.8	3025.2	2371.4
60°	819.5	829.7	888.0	1097.7	1505.9	2033.8	2606.8	2835.9	3246.1	3271.7	2598.6
62.5°	658.9	669.1	708.0	833.8	1181.6	1775.0	2594.5	3023.1	3565.3	3607.3	2896.3
65°	525.9	537.2	562.7	640.5	875.7	1453.7	2468.6	3119.3	3895.8	3936.7	3093.7
67.5°	410.2	420.4	437.8	489.0	616.9	1087.5	2170.9	3018.0	4044.1	4078.9	3103.9
70°	310.0	315.1	329.4	362.1	440.9	722.3	1699.3	2678.4	3911.2	3942.9	2899.3
72.5°	240.4	239.4	247.6	263.9	307.9	497.2	1126.4	2178.1	3457.9	3490.6	2473.7
75°	196.4	195.4	200.5	205.6	223.0	333.5	665.0	1640.0	2790.9	2728.5	1855.8
77.5°	165.7	164.7	169.8	170.8	178.0	230.2	378.5	1079.3	1862.0	1754.6	1045.6
80°	140.1	139.1	145.3	147.3	152.4	168.8	217.9	584.2	935.1	886.0	499.2
82.5°	105.4	109.5	120.7	125.8	132.0	124.8	135.0	257.8	433.7	414.3	216.9
85°	51.1	60.4	91.0	101.3	108.4	78.8	92.1	121.7	195.4	186.2	88.0
87.5°	17.4	15.3	54.2	64.4	70.6	35.8	51.1	67.5	80.8	73.7	27.6
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°	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9
2.5°	490.0	474.6	452.1	434.8	423.5	414.3	410.2	409.2	407.1	406.1	406.1
5°	500.2	472.6	437.8	419.4	414.3	410.2	412.2	413.3	413.3	413.3	413.3
7.5°	515.7	476.7	434.8	422.5	421.5	421.5	427.6	430.7	432.7	432.7	432.7
10°	536.1	483.9	439.9	429.6	432.7	434.8	441.9	446.0	448.1	449.1	450.1
12.5°	563.7	499.2	450.1	441.9	446.0	447.0	452.1	454.2	456.2	457.3	457.3
15°	600.6	521.8	466.5	456.2	457.3	456.2	456.2	454.2	453.2	453.2	455.2
17.5°	638.4	543.3	480.8	466.5	462.4	454.2	448.1	442.9	439.9	437.8	438.8
20°	676.3	562.7	489.0	468.5	457.3	444.0	432.7	425.5	421.5	417.4	419.4
22.5°	714.1	581.1	492.0	462.4	446.0	426.6	414.3	403.0	393.8	387.7	388.7
25°	756.1	601.6	492.0	455.2	430.7	410.2	394.9	376.4	363.1	358.0	360.1
27.5°	798.0	619.0	486.9	441.9	413.3	392.8	370.3	348.8	340.6	337.6	338.6
30°	839.9	632.3	475.7	425.5	394.9	372.4	342.7	328.4	318.1	310.0	311.0
32.5°	881.9	641.5	460.3	405.1	375.4	346.8	322.2	305.9	287.4	277.2	278.2
35°	930.0	648.7	441.9	384.6	353.9	324.3	305.9	279.3	259.8	251.6	249.6
37.5°	980.1	653.8	422.5	362.1	332.5	307.9	289.5	256.8	238.3	227.1	226.1
40°	1034.3	655.8	399.0	338.6	312.0	297.7	268.0	243.5	211.8	204.6	204.6
42.5°	1098.8	654.8	375.4	315.1	289.5	274.2	252.7	241.4	213.8	206.6	202.5
45°	1172.4	654.8	349.8	287.4	267.0	244.5	235.3	228.1	209.7	212.8	214.8
47.5°	1256.3	652.7	319.2	264.9	248.6	229.1	224.0	208.7	201.5	203.6	205.6
50°	1371.9	655.8	291.5	246.5	235.3	218.9	212.8	204.6	201.5	202.5	201.5
52.5°	1532.6	645.6	264.9	235.3	225.0	203.6	203.6	202.5	203.6	202.5	202.5
55°	1620.6	623.1	245.5	229.1	217.9	196.4	200.5	202.5	204.6	203.6	203.6
57.5°	1745.4	607.7	230.2	225.0	213.8	194.4	198.5	202.5	203.6	202.5	202.5
60°	1892.7	597.5	219.9	226.1	210.7	194.4	199.5	202.5	201.5	200.5	200.5
62.5°	2063.5	593.4	212.8	229.1	207.7	195.4	199.5	202.5	198.5	197.4	197.4
65°	2127.9	556.6	203.6	231.2	209.7	195.4	198.5	199.5	194.4	193.3	192.3
67.5°	2028.7	493.1	190.3	227.1	215.8	195.4	195.4	194.4	188.2	187.2	185.2
70°	1806.7	409.2	169.8	213.8	219.9	196.4	191.3	186.2	180.0	180.0	175.9
72.5°	1479.3	322.2	143.2	190.3	216.9	199.5	183.1	175.9	168.8	168.8	164.7
75°	1066.0	240.4	114.6	158.6	203.6	198.5	172.9	163.7	155.5	154.5	149.4
77.5°	607.7	168.8	93.1	123.8	181.1	193.3	163.7	149.4	140.1	137.1	134.0
80°	312.0	113.5	75.7	97.2	150.4	179.0	156.5	133.0	122.8	117.6	112.5
82.5°	148.3	75.7	58.3	71.6	113.5	156.5	147.3	114.6	103.3	97.2	91.0
85°	66.5	45.0	38.9	46.0	80.8	121.7	129.9	94.1	80.8	101.3	74.7
87.5°	21.5	20.5	20.5	21.5	38.9	53.2	95.1	69.6	64.4	53.2	45.0
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)