

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: P397807

Luminaire Tested: **ARCH-S-PA1-40-830-U-T2R**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397807  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-40-830-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4877 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

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

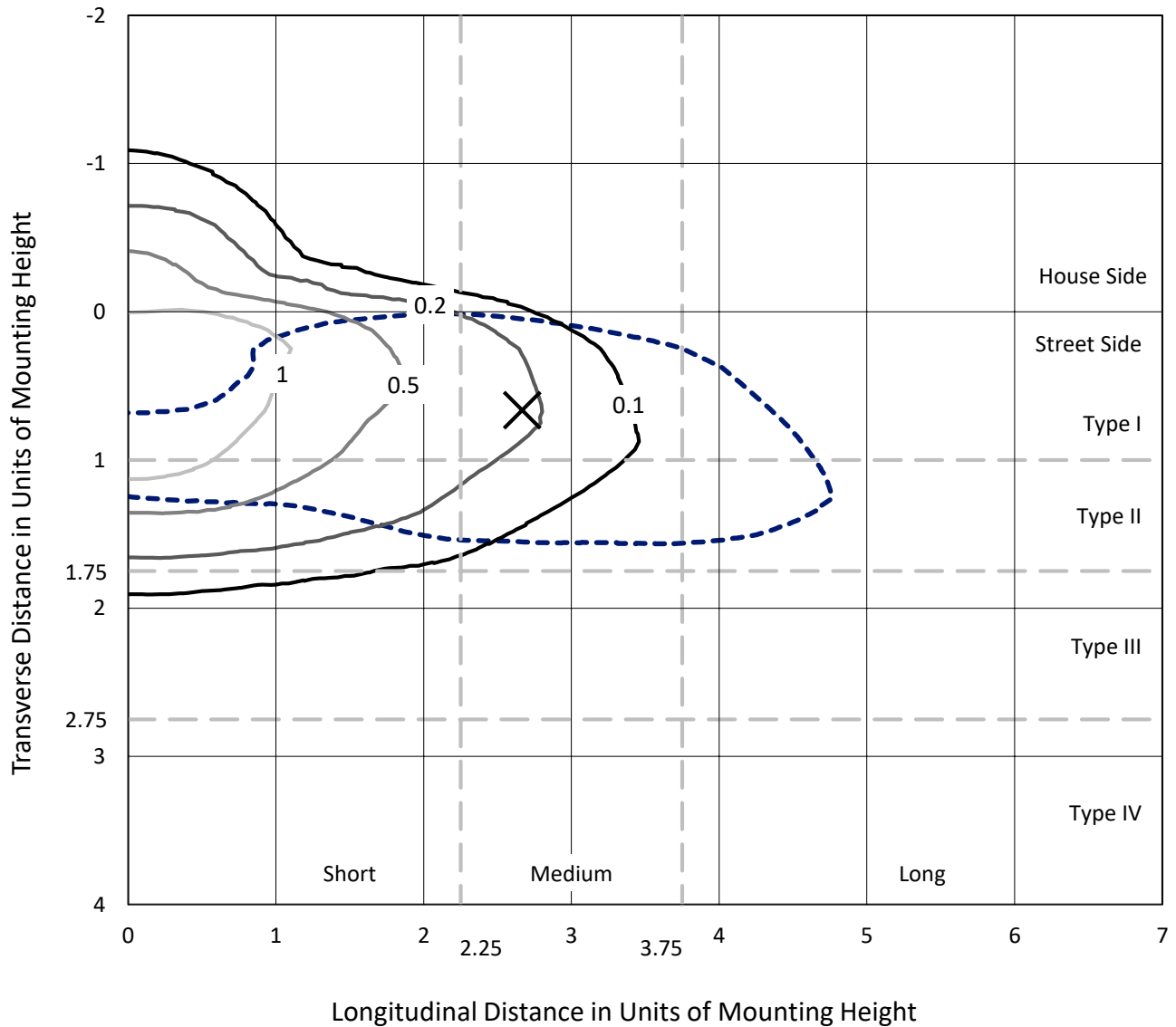


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

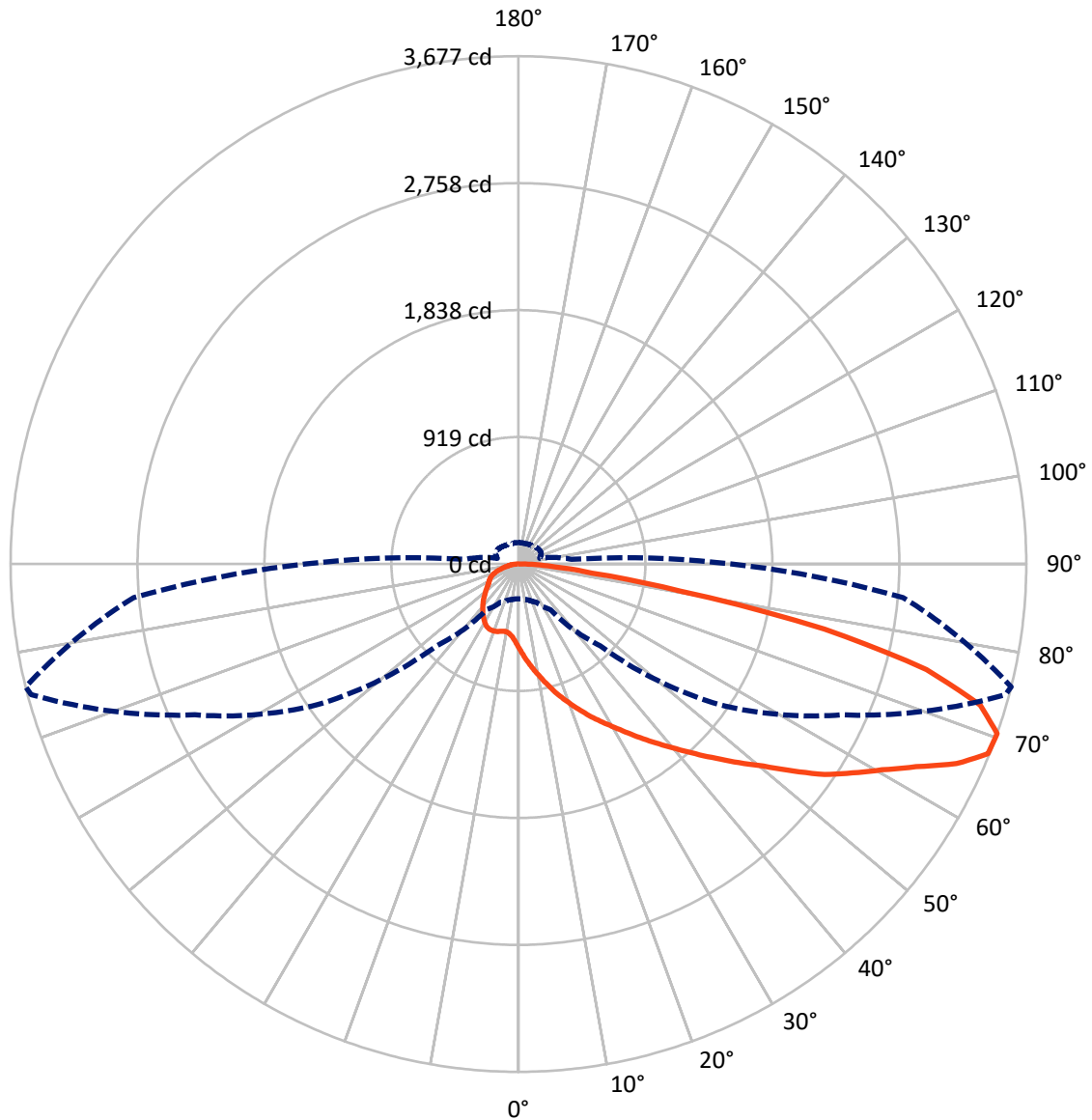


Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type II - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	796.2	0.0	796.2
	% Fixture	16.3	0.0	16.3
<b>Street Side</b>	Lumens	4080.8	0.0	4080.8
	% Fixture	83.7	0.0	83.7
<b>Total</b>	Lumens	4877.0	0.0	4877.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.4	1.3
10°-20°	215.4	4.4
20°-30°	385.3	7.9
30°-40°	623.3	12.8
40°-50°	901.7	18.5
50°-60°	1032.1	21.2
60°-70°	949.4	19.5
70°-80°	587.1	12.0
80°-90°	119.2	2.4
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°	4877.0	100.0
0°-180°	4877.0	100.0

**Coefficient of Utilization**



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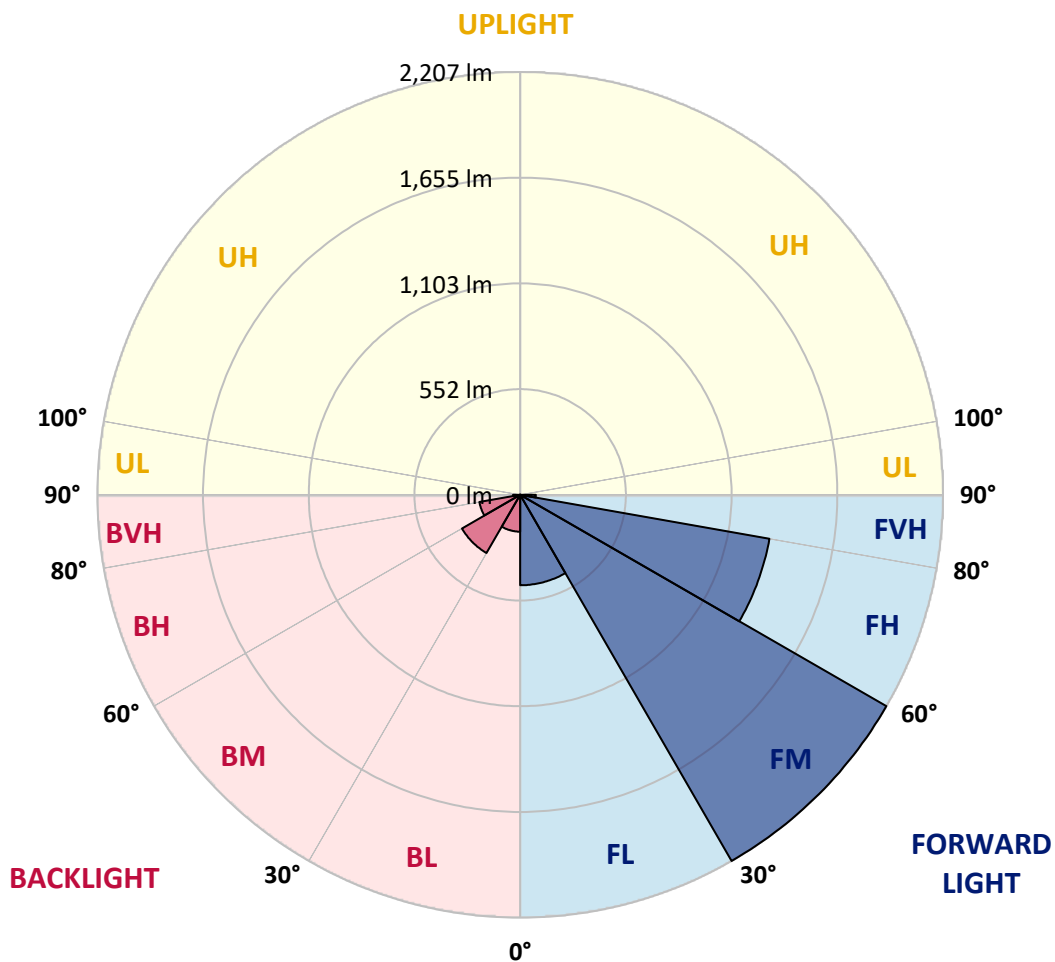
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	471.8	9.7			
FM (30°-60°)	2206.6	45.2			
FH (60°-80°)	1320.6	27.1			G1/1800
FVH (80°-90°)	81.8	1.7			G1/100
BL (0°-30°)	192.3	3.9	B1/500		
BM (30°-60°)	350.6	7.2	B1/1000		
BH (60°-80°)	216.0	4.4	B1/500		G1/500
BVH (80°-90°)	37.4	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°	75°	76°	85°
0°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	777.3	771.5	770.9	761.9	753.5	731.1	715.1	686.8	658.6	658.0	629.8
5°	898.5	892.7	889.5	878.6	864.5	835.0	806.1	762.5	714.4	711.2	658.0
7.5°	980.6	975.4	969.0	964.5	951.1	924.8	889.5	837.6	771.5	765.1	690.7
10°	1035.7	1032.5	1031.2	1028.0	1019.7	998.5	964.5	909.4	828.6	821.5	725.3
12.5°	1059.5	1058.2	1063.9	1072.9	1076.1	1067.8	1035.1	983.1	891.4	883.7	767.0
15°	1031.9	1033.2	1047.9	1078.7	1111.4	1129.4	1110.1	1059.5	962.6	951.7	815.8
17.5°	1019.0	1021.0	1031.2	1060.7	1106.9	1162.7	1171.7	1131.9	1031.2	1015.8	867.1
20°	1041.5	1044.1	1051.8	1074.8	1106.9	1166.6	1213.4	1201.2	1098.6	1082.5	916.4
22.5°	1098.6	1101.8	1101.1	1115.9	1137.7	1178.7	1236.5	1266.6	1169.1	1151.2	967.7
25°	1220.4	1217.9	1196.1	1189.0	1194.8	1221.1	1267.2	1329.4	1242.9	1224.9	1021.6
27.5°	1385.9	1382.7	1342.9	1307.0	1274.9	1286.5	1310.8	1380.1	1317.9	1297.4	1072.9
30°	1562.9	1559.0	1512.9	1454.5	1383.3	1366.6	1363.4	1424.4	1393.6	1371.8	1127.4
32.5°	1735.4	1732.2	1682.8	1614.8	1516.7	1466.7	1435.9	1473.7	1479.5	1458.3	1187.1
35°	1892.5	1892.5	1850.2	1769.4	1658.4	1582.8	1532.1	1534.7	1578.3	1553.9	1255.1
37.5°	2032.3	2031.7	1985.5	1906.0	1799.5	1712.9	1650.1	1608.4	1672.5	1651.4	1326.2
40°	2143.3	2138.8	2104.8	2035.5	1928.4	1842.5	1779.0	1695.0	1777.7	1758.5	1401.9
42.5°	2224.1	2221.5	2198.4	2138.1	2036.2	1955.4	1911.8	1804.0	1897.0	1877.8	1490.4
45°	2255.5	2260.6	2260.6	2203.6	2122.7	2049.0	2029.8	1923.9	2025.9	2006.7	1585.3
47.5°	2204.8	2218.3	2245.9	2249.7	2178.5	2128.5	2134.9	2044.5	2158.7	2148.4	1689.2
50°	2046.4	2071.4	2131.7	2240.8	2201.0	2189.4	2224.7	2167.6	2301.0	2297.8	1815.6
52.5°	1637.9	1698.8	1886.7	2082.3	2185.6	2217.7	2313.9	2306.2	2484.5	2489.6	1980.4
55°	1256.3	1279.4	1496.8	1829.7	2091.3	2208.7	2373.5	2441.5	2683.3	2689.7	2131.7
57.5°	1015.8	1031.2	1149.9	1496.8	1876.5	2159.9	2420.3	2520.4	2835.9	2852.6	2266.4
60°	804.8	827.3	906.8	1145.4	1575.7	2042.6	2453.0	2608.2	3000.1	3025.1	2427.4
62.5°	598.3	609.2	684.3	848.5	1247.4	1831.6	2435.7	2703.8	3201.4	3231.6	2621.1
65°	425.8	435.5	488.7	603.5	922.2	1546.2	2335.0	2775.0	3454.1	3484.9	2816.0
67.5°	318.7	322.6	352.7	422.0	621.4	1201.2	2131.1	2762.8	3638.8	3666.4	2894.3
70°	252.0	253.3	268.1	305.3	404.0	836.3	1773.9	2583.9	3652.3	3676.7	2795.5
72.5°	209.1	208.4	216.8	234.7	281.5	529.1	1314.1	2251.7	3479.1	3495.8	2519.7
75°	172.5	173.8	179.6	189.8	214.8	348.9	851.7	1796.3	3069.3	3051.4	2114.4
77.5°	144.9	144.3	146.9	155.8	173.8	250.8	498.9	1298.0	2274.7	2265.8	1387.8
80°	116.7	118.0	121.8	129.5	146.2	191.1	295.0	810.0	1220.4	1187.7	663.1
82.5°	78.2	90.4	98.1	107.1	126.3	141.1	187.3	411.7	545.8	537.4	300.8
85°	37.2	49.4	73.1	83.4	102.6	88.5	127.0	196.2	273.2	270.0	108.4
87.5°	7.7	7.7	39.1	46.8	63.5	37.8	70.5	85.3	132.1	123.8	44.3
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°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	613.1	595.8	561.1	533.6	505.4	489.3	469.4	459.8	457.9	452.8	456.6
5°	624.0	590.0	524.6	481.6	452.8	438.7	431.6	429.0	428.4	427.1	427.1
7.5°	638.7	586.8	501.5	457.9	439.3	434.8	436.7	440.6	441.2	442.5	441.9
10°	656.7	587.4	488.7	452.1	443.1	443.8	450.2	455.3	457.9	459.8	459.2
12.5°	681.7	595.1	486.8	456.0	452.1	454.7	461.1	466.2	468.8	469.4	469.4
15°	714.4	611.2	491.2	464.3	461.1	463.0	466.9	468.8	469.4	468.8	468.8
17.5°	750.3	630.4	497.7	469.4	464.3	462.4	461.1	459.2	455.3	452.8	452.8
20°	785.0	647.7	500.9	468.8	459.8	452.1	444.4	434.8	428.4	423.3	423.3
22.5°	819.6	663.8	500.9	461.7	447.6	432.9	416.9	401.5	391.8	385.4	385.4
25°	856.2	679.2	497.0	449.6	428.4	407.2	385.4	366.2	356.6	350.2	348.9
27.5°	886.9	688.1	486.8	432.2	404.7	377.7	352.7	332.8	325.8	320.0	320.0
30°	919.6	693.9	467.5	409.8	377.7	347.0	321.3	305.3	297.6	289.2	288.6
32.5°	956.2	697.7	445.7	386.1	350.2	317.5	295.6	282.8	266.1	257.2	255.9
35°	998.5	702.9	422.6	359.1	322.6	293.1	280.3	259.1	243.1	235.4	234.7
37.5°	1043.4	706.7	397.6	335.4	297.6	277.0	264.2	239.2	225.1	213.6	212.3
40°	1090.9	706.7	372.0	312.3	277.7	270.0	245.6	223.2	199.4	193.7	192.4
42.5°	1143.5	705.4	346.3	289.9	259.1	254.0	234.7	211.0	198.8	193.7	192.4
45°	1199.3	701.0	321.9	264.2	239.9	229.6	214.8	208.4	203.3	203.3	203.3
47.5°	1262.7	697.1	294.4	241.1	225.7	214.2	203.3	199.4	198.8	200.7	202.7
50°	1344.2	695.8	271.3	224.5	214.8	201.4	200.1	196.9	197.5	197.5	197.5
52.5°	1443.0	684.3	249.5	212.3	203.9	187.9	191.8	195.0	196.2	195.6	195.0
55°	1515.4	663.8	230.9	203.9	196.2	182.8	187.9	193.0	194.3	192.4	192.4
57.5°	1580.8	634.9	216.1	197.5	191.1	179.6	185.3	190.5	189.2	188.5	187.9
60°	1655.9	607.3	204.6	194.3	186.0	178.3	183.4	186.6	184.7	183.4	182.8
62.5°	1737.3	580.4	196.2	194.3	182.1	177.6	181.5	182.8	178.9	177.6	177.6
65°	1775.2	538.1	187.3	194.3	180.2	176.4	177.6	176.4	172.5	172.5	171.9
67.5°	1712.9	468.2	175.7	191.8	182.8	174.4	171.9	169.9	165.5	165.5	164.2
70°	1541.1	384.8	159.0	183.4	183.4	173.8	164.2	159.7	154.6	156.5	153.9
72.5°	1316.6	305.3	138.5	169.3	179.6	173.2	155.8	148.8	144.3	146.2	142.4
75°	1066.5	236.6	114.2	146.9	169.9	169.9	147.5	137.9	132.8	132.8	128.3
77.5°	679.8	175.1	93.0	121.8	152.6	165.5	140.4	125.7	118.0	116.1	112.9
80°	336.7	123.1	76.3	96.8	130.2	155.2	135.3	111.6	100.7	96.8	91.1
82.5°	178.9	85.3	60.9	75.7	103.9	139.8	128.9	96.2	82.7	77.0	70.5
85°	80.2	52.6	48.7	57.7	78.9	114.8	116.1	78.9	63.5	75.7	55.8
87.5°	29.5	23.7	23.7	29.5	45.5	48.1	82.1	50.7	40.4	27.6	21.8
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)