

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: P214582

Luminaire Tested: **ARCH-AF16-20-D-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214582  
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-AF16-20-D-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3064.7 lumens  
Efficiency: N/A  
Efficacy: 127.7 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): 24  
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

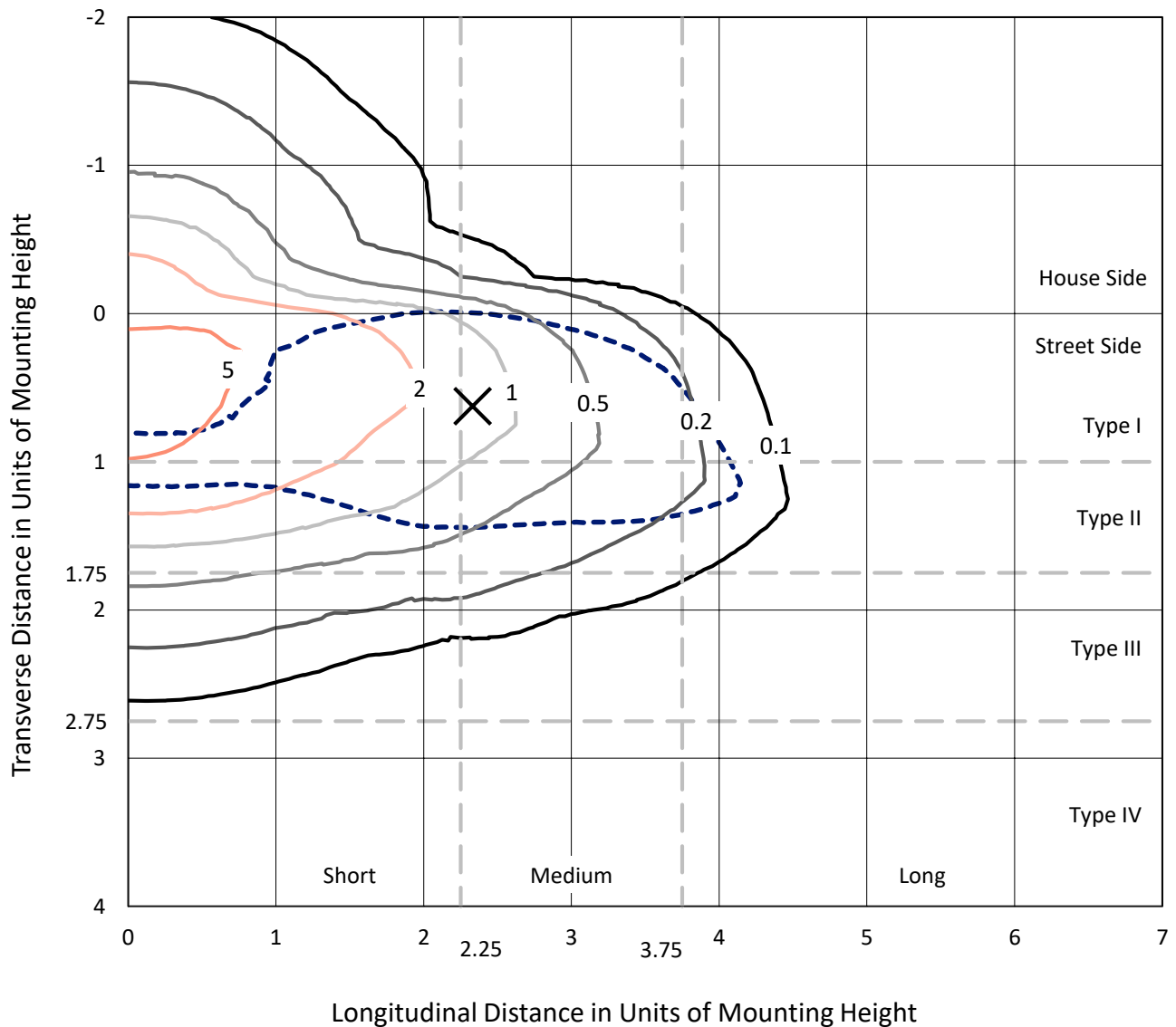


REPORT NUMBER: P214582

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

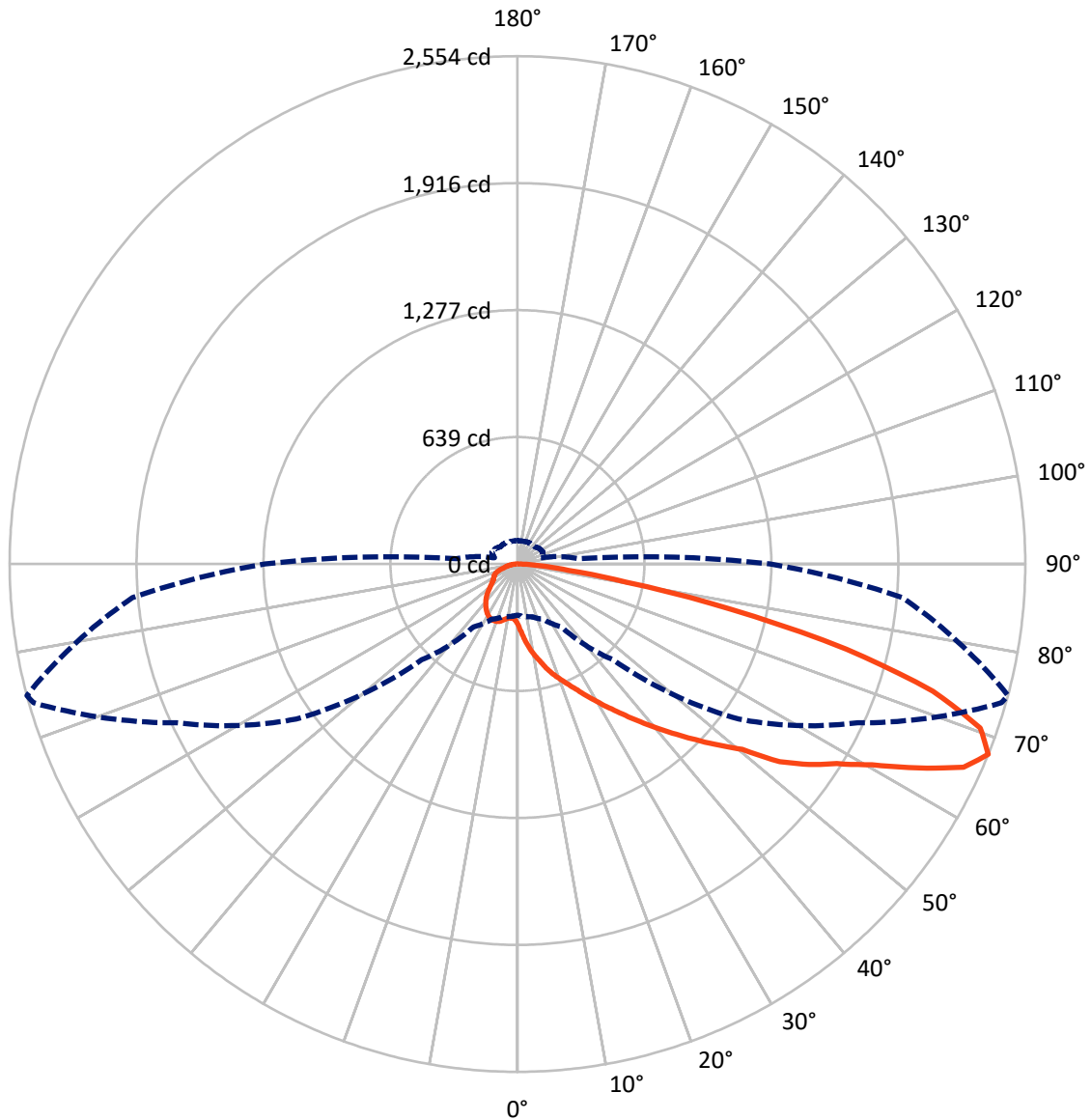


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P214582

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214582

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	523.3	0.0	523.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	2541.4	0.0	2541.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	3064.7	0.0	3064.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.7	1.2
10°-20°	128.9	4.2
20°-30°	235.2	7.7
30°-40°	386.0	12.6
40°-50°	558.2	18.2
50°-60°	657.8	21.5
60°-70°	639.3	20.9
70°-80°	355.3	11.6
80°-90°	68.3	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°	3064.7	100.0
0°-180°	3064.7	100.0



REPORT NUMBER: P214582

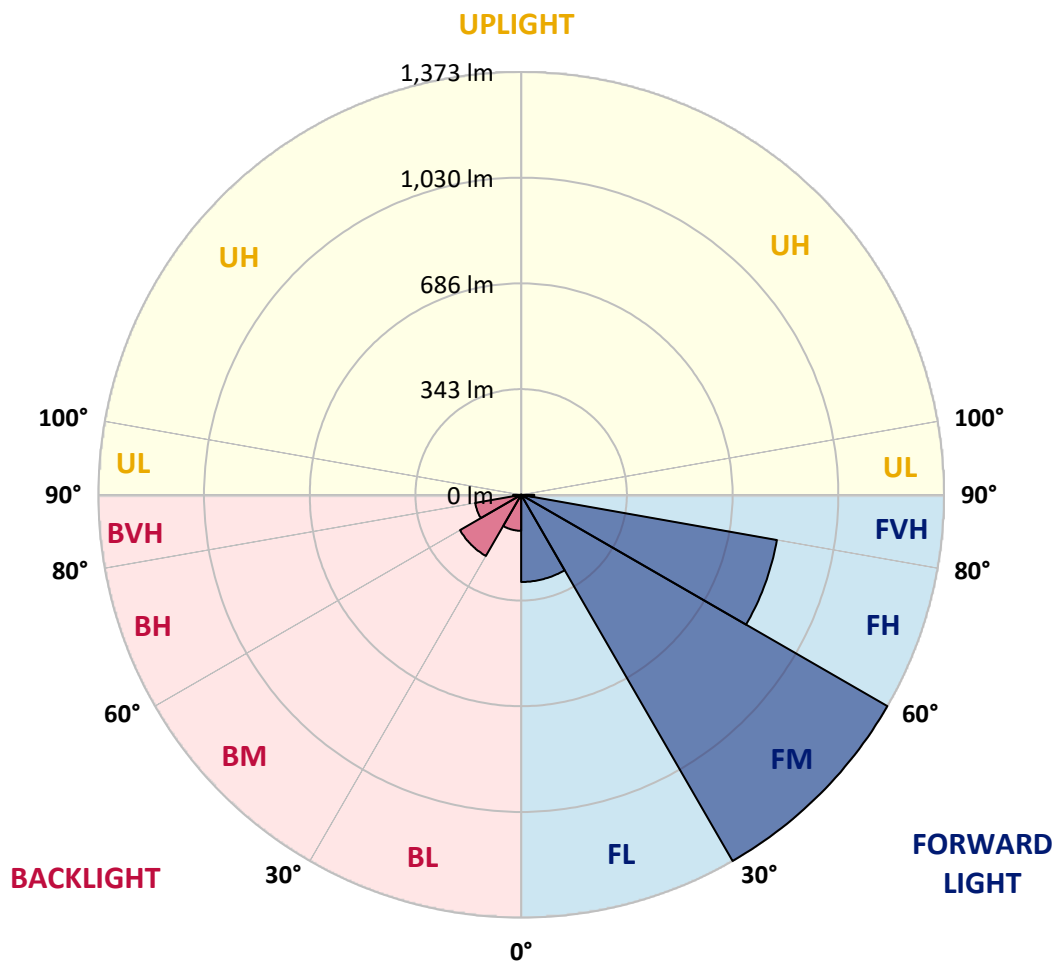
CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	283.0	9.2			
FM (30°-60°)	1372.8	44.8			
FH (60°-80°)	843.1	27.5			G1/1800
FVH (80°-90°)	42.5	1.4			G1/100
BL (0°-30°)	116.8	3.8	B1/500		
BM (30°-60°)	229.2	7.5	B1/1000		
BH (60°-80°)	151.5	4.9	B1/500		G1/500
BVH (80°-90°)	25.8	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





REPORT NUMBER: P214582

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7
2.5°	430.6	431.8	429.2	423.5	415.2	399.8	386.4	362.6	341.5	338.9	316.5
5°	506.2	507.4	504.2	497.2	488.3	471.6	453.0	422.2	388.2	381.9	334.4
7.5°	558.0	558.6	554.8	547.8	540.7	524.1	505.5	470.9	429.2	424.1	357.5
10°	602.2	603.5	598.4	593.9	586.3	569.6	550.3	513.8	470.9	463.9	381.3
12.5°	643.2	644.6	641.3	637.5	634.9	619.5	598.4	554.8	508.7	501.0	409.4
15°	670.9	672.1	672.7	677.8	681.1	670.1	649.1	601.6	549.7	542.7	442.7
17.5°	663.1	666.4	676.0	694.5	714.3	715.0	697.8	647.7	590.0	582.4	476.7
20°	640.7	643.2	654.8	683.0	722.1	744.5	743.2	694.5	627.9	619.5	508.1
22.5°	659.3	662.5	662.5	679.8	718.2	759.8	776.5	740.6	665.6	658.0	539.5
25°	738.7	740.6	727.2	720.2	734.3	772.6	804.0	790.6	711.8	702.9	573.5
27.5°	849.6	846.4	829.7	801.5	786.1	796.4	828.4	838.0	765.0	754.1	608.7
30°	959.7	957.8	938.7	900.8	866.2	844.4	855.3	880.4	822.7	809.9	642.6
32.5°	1062.9	1059.7	1038.6	994.3	955.2	914.9	893.8	918.7	884.1	869.4	680.4
35°	1157.8	1149.4	1128.2	1082.1	1041.8	1003.3	951.4	955.2	950.8	935.4	722.1
37.5°	1234.6	1228.2	1205.1	1162.2	1119.3	1082.8	1028.3	996.9	1022.5	1007.8	770.1
40°	1302.5	1295.5	1271.7	1228.9	1189.1	1154.5	1111.6	1047.5	1103.3	1086.6	823.9
42.5°	1353.8	1348.7	1329.4	1287.2	1248.7	1217.3	1196.1	1111.6	1187.2	1171.2	882.9
45°	1381.3	1376.2	1365.9	1332.0	1296.8	1272.4	1274.3	1187.9	1275.0	1261.5	952.7
47.5°	1347.3	1351.2	1360.2	1353.8	1332.0	1320.4	1344.2	1266.6	1373.0	1360.2	1028.3
50°	1256.4	1260.3	1296.1	1340.4	1348.0	1362.1	1407.0	1357.7	1476.8	1466.5	1121.9
52.5°	1032.8	1053.9	1153.3	1258.9	1331.4	1389.7	1476.8	1492.8	1651.7	1651.7	1287.2
55°	780.4	798.9	912.4	1096.9	1266.6	1392.2	1528.1	1584.4	1777.9	1780.4	1373.6
57.5°	632.4	643.8	699.6	888.6	1130.8	1360.2	1588.9	1663.2	1882.9	1894.5	1485.1
60°	513.2	519.6	556.1	687.4	943.1	1273.7	1632.5	1776.0	2032.9	2049.0	1627.3
62.5°	412.6	419.0	443.3	522.1	740.0	1111.6	1624.8	1893.3	2232.8	2259.1	1813.8
65°	329.3	336.3	352.4	401.1	548.4	910.4	1546.0	1953.4	2439.7	2465.4	1937.5
67.5°	257.0	263.3	274.3	306.3	386.4	681.1	1359.5	1890.0	2532.6	2554.4	1943.8
70°	194.2	197.3	206.3	226.8	276.1	452.3	1064.2	1677.3	2449.4	2469.2	1815.7
72.5°	150.6	150.0	155.1	165.3	192.8	311.4	705.4	1364.0	2165.6	2186.0	1549.2
75°	123.1	122.3	125.6	128.8	139.6	208.9	416.4	1027.0	1747.8	1708.7	1162.2
77.5°	103.8	103.1	106.4	107.0	111.5	144.1	237.0	676.0	1166.1	1098.8	654.8
80°	87.8	87.2	90.9	92.3	95.4	105.7	136.5	365.8	585.6	554.8	312.6
82.5°	66.0	68.5	75.6	78.8	82.7	78.2	84.6	161.4	271.7	259.5	135.8
85°	32.0	37.8	57.0	63.4	67.9	49.3	57.7	76.2	122.3	116.6	55.1
87.5°	10.8	9.6	34.0	40.4	44.2	22.4	32.0	42.2	50.6	46.1	17.3
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: P214582

CATALOG NUMBER: ARCH-AF16-20-D-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7
2.5°	306.9	297.3	283.2	272.3	265.3	259.5	257.0	256.2	255.0	254.3	254.3
5°	313.3	296.0	274.3	262.7	259.5	257.0	258.2	258.8	258.8	258.8	258.8
7.5°	322.9	298.6	272.3	264.6	263.9	263.9	267.8	269.8	271.0	271.0	271.0
10°	335.7	303.0	275.5	269.1	271.0	272.3	276.8	279.4	280.6	281.3	281.9
12.5°	353.0	312.6	281.9	276.8	279.4	280.0	283.2	284.5	285.7	286.4	286.4
15°	376.0	326.7	292.2	285.7	286.4	285.7	285.7	284.5	283.9	283.9	285.1
17.5°	399.8	340.2	301.2	292.2	289.6	284.5	280.6	277.4	275.5	274.3	274.9
20°	423.5	352.4	306.3	293.5	286.4	278.0	271.0	266.5	263.9	261.4	262.7
22.5°	447.2	363.9	308.2	289.6	279.4	267.2	259.5	252.5	246.6	242.8	243.5
25°	473.4	376.8	308.2	285.1	269.8	257.0	247.3	235.8	227.4	224.2	225.6
27.5°	499.7	387.6	304.9	276.8	258.8	246.0	231.9	218.5	213.4	211.4	212.1
30°	526.0	396.0	297.9	266.5	247.3	233.2	214.6	205.6	199.3	194.2	194.8
32.5°	552.3	401.7	288.3	253.7	235.2	217.2	201.8	191.6	180.0	173.6	174.3
35°	582.4	406.2	276.8	240.9	221.7	203.1	191.6	174.9	162.8	157.6	156.3
37.5°	613.8	409.4	264.6	226.8	208.3	192.8	181.3	160.8	149.2	142.2	141.6
40°	647.7	410.7	249.9	212.1	195.4	186.5	167.9	152.5	132.6	128.2	128.2
42.5°	688.1	410.0	235.2	197.3	181.3	171.8	158.3	151.2	133.9	129.4	126.8
45°	734.3	410.0	219.1	180.0	167.3	153.1	147.4	142.9	131.3	133.3	134.5
47.5°	786.8	408.8	199.9	165.9	155.7	143.5	140.3	130.7	126.2	127.5	128.8
50°	859.2	410.7	182.6	154.4	147.4	137.1	133.3	128.2	126.2	126.8	126.2
52.5°	959.7	404.3	165.9	147.4	141.0	127.5	127.5	126.8	127.5	126.8	126.8
55°	1014.9	390.2	153.7	143.5	136.5	123.1	125.6	126.8	128.2	127.5	127.5
57.5°	1093.0	380.5	144.1	141.0	133.9	121.7	124.3	126.8	127.5	126.8	126.8
60°	1185.3	374.2	137.8	141.6	132.0	121.7	124.9	126.8	126.2	125.6	125.6
62.5°	1292.3	371.6	133.3	143.5	130.0	122.3	124.9	126.8	124.3	123.7	123.7
65°	1332.6	348.5	127.5	144.7	131.3	122.3	124.3	124.9	121.7	121.1	120.4
67.5°	1270.5	308.8	119.2	142.2	135.2	122.3	122.3	121.7	117.8	117.2	116.0
70°	1131.5	256.2	106.4	133.9	137.8	123.1	119.8	116.6	112.7	112.7	110.2
72.5°	926.5	201.8	89.7	119.2	135.8	124.9	114.7	110.2	105.7	105.7	103.1
75°	667.6	150.6	71.7	99.3	127.5	124.3	108.2	102.5	97.4	96.8	93.5
77.5°	380.5	105.7	58.3	77.5	113.4	121.1	102.5	93.5	87.8	85.8	83.9
80°	195.4	71.1	47.4	60.9	94.2	112.1	98.0	83.3	76.9	73.7	70.5
82.5°	92.9	47.4	36.5	44.8	71.1	98.0	92.3	71.7	64.8	60.9	57.0
85°	41.6	28.2	24.3	28.8	50.6	76.2	81.3	58.9	50.6	63.4	46.7
87.5°	13.5	12.8	12.8	13.5	24.3	33.3	59.5	43.6	40.4	33.3	28.2
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)