

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: P234745

Luminaire Tested: **ARCH-AF24-40-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234745  
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-AF24-40-D-U-T4W-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3964 lumens  
Efficiency: N/A  
Efficacy: 99.1 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): 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

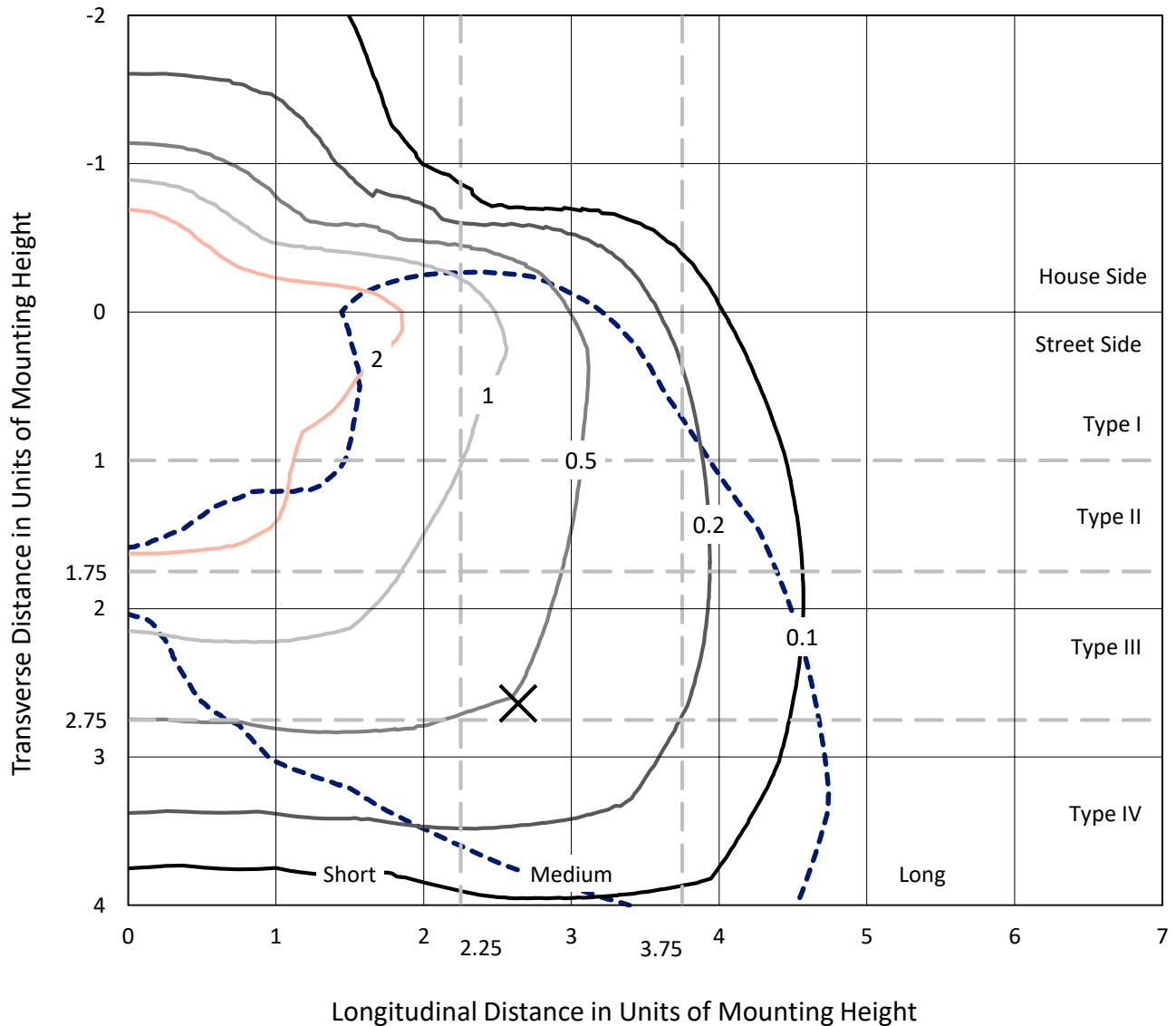


REPORT NUMBER: P234745

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

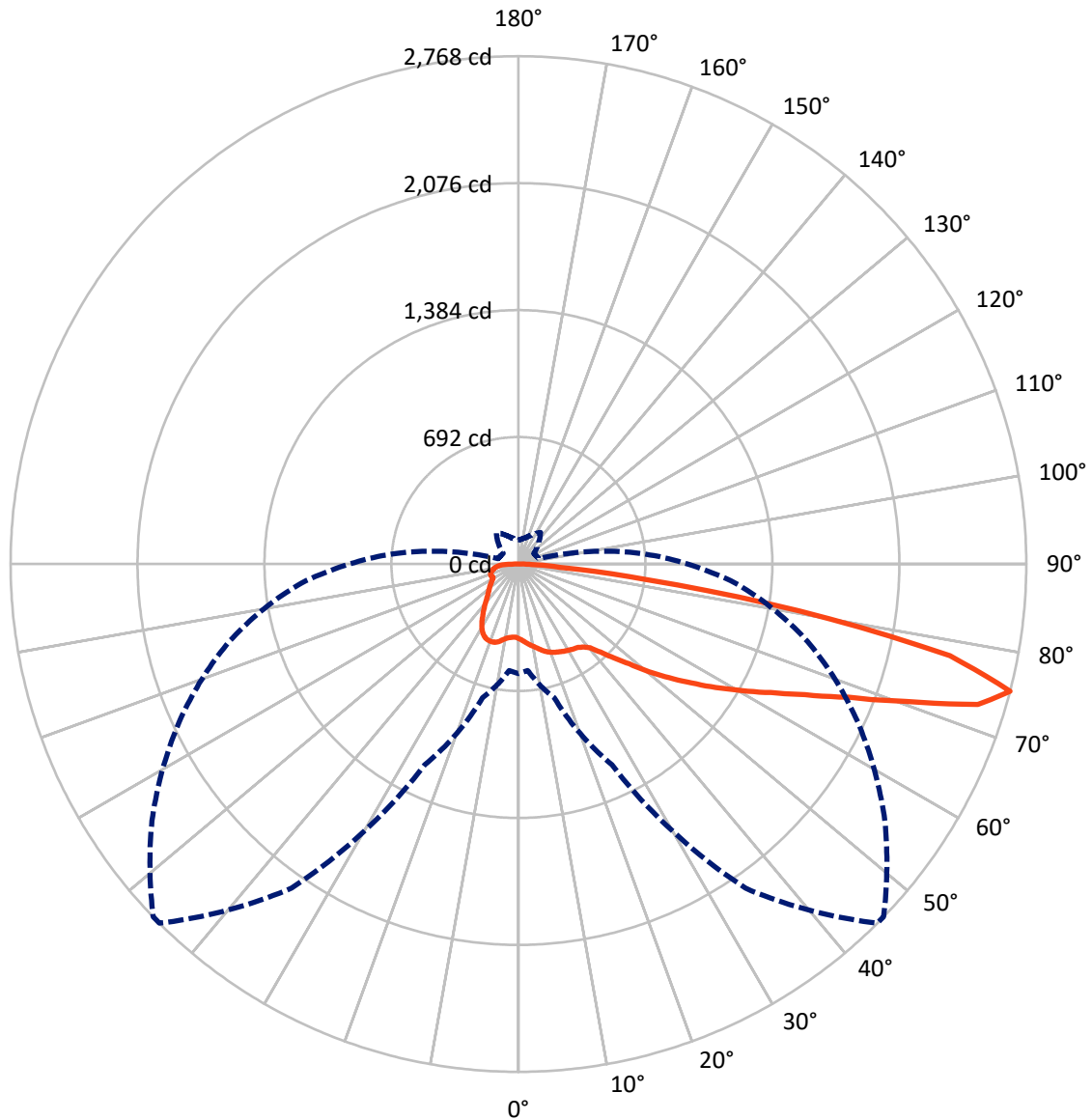


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234745

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P234745

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	918.3	0.0	918.3
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	3045.7	0.0	3045.7
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	3964.0	0.0	3964.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	1.0
10°-20°	130.5	3.3
20°-30°	223.9	5.6
30°-40°	313.2	7.9
40°-50°	459.4	11.6
50°-60°	715.7	18.1
60°-70°	1029.8	26.0
70°-80°	897.1	22.6
80°-90°	154.1	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°	3964.0	100.0
0°-180°	3964.0	100.0



REPORT NUMBER: P234745

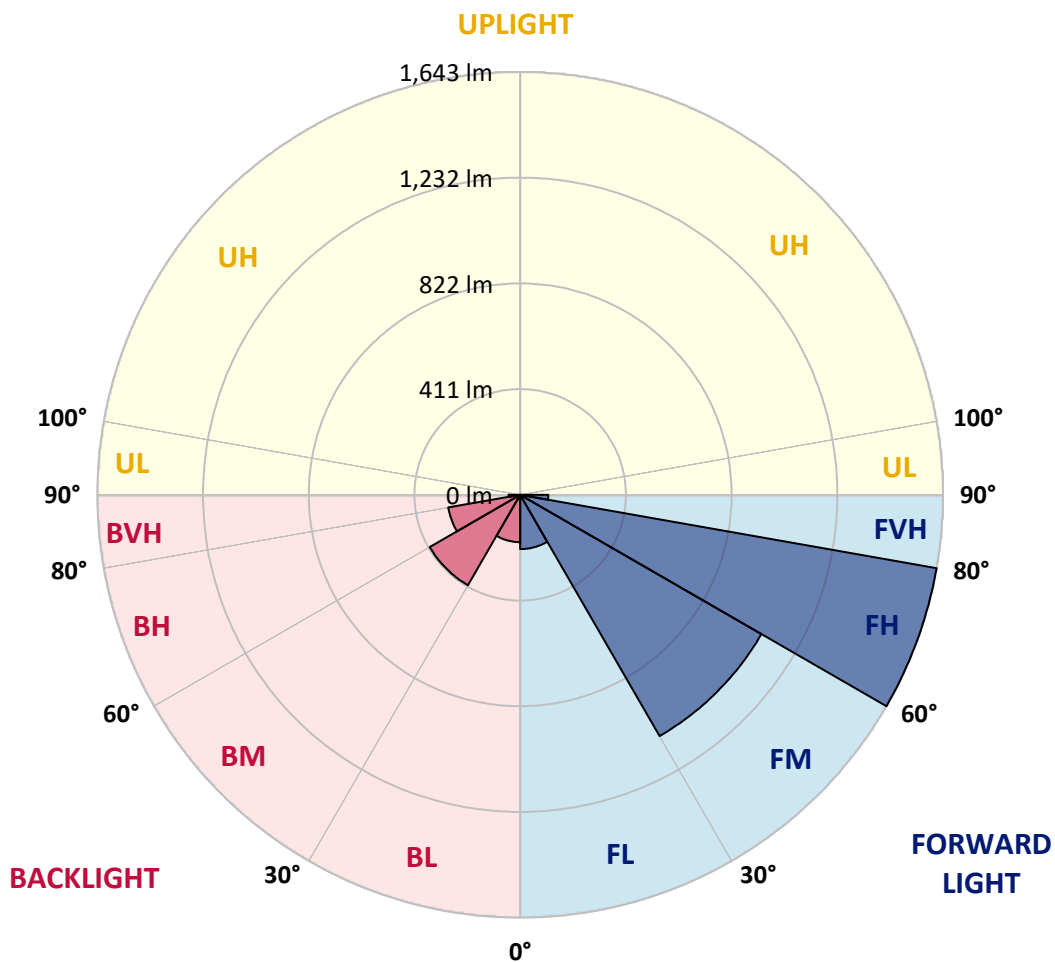
CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	210.8	5.3			
FM (30°-60°)	1082.5	27.3			
FH (60°-80°)	1643.1	41.5			G1/1800
FVH (80°-90°)	109.3	2.8			G2/225
BL (0°-30°)	183.9	4.6	B1/500		
BM (30°-60°)	405.8	10.2	B1/1000		
BH (60°-80°)	283.8	7.2	B1/500		G1/500
BVH (80°-90°)	44.8	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





REPORT NUMBER: P234745

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4
2.5°	426.4	423.3	423.3	421.0	421.0	417.2	415.6	414.8	411.0	408.7	406.4
5°	451.1	447.2	446.5	441.1	438.8	430.3	429.5	424.1	417.2	410.2	404.8
7.5°	473.5	471.1	467.3	461.9	454.9	444.1	443.4	434.9	423.3	414.1	406.4
10°	489.6	488.1	482.7	475.8	468.1	457.3	456.5	447.2	433.4	422.6	411.8
12.5°	508.9	506.6	499.7	490.4	481.9	471.9	471.1	463.4	448.0	434.1	420.2
15°	527.4	524.3	515.9	506.6	497.4	488.9	488.9	480.4	464.2	448.0	431.8
17.5°	536.7	535.1	526.7	516.6	508.9	502.8	502.0	494.3	478.1	461.1	443.4
20°	539.8	540.5	532.8	522.0	516.6	513.5	512.8	507.4	489.6	473.5	456.5
22.5°	539.0	541.3	535.1	523.6	522.0	522.0	522.0	515.9	502.0	485.8	468.8
25°	542.1	545.2	540.5	526.7	526.7	529.7	529.7	526.7	514.3	500.4	483.5
27.5°	552.9	555.2	551.3	532.1	532.8	537.5	536.7	537.5	529.7	516.6	499.7
30°	566.0	569.1	564.4	540.5	539.8	544.4	544.4	548.2	542.8	529.0	515.1
32.5°	601.5	600.7	586.0	549.8	547.5	552.1	552.1	556.0	552.9	542.1	529.0
35°	707.1	695.5	663.1	579.9	556.7	559.0	559.0	566.0	567.5	559.0	547.5
37.5°	815.0	811.2	786.5	660.1	590.7	573.7	572.9	582.9	589.9	582.9	575.2
40°	923.8	920.7	915.3	767.2	661.6	599.9	597.6	606.1	618.4	613.8	609.2
42.5°	1024.8	1023.2	1028.6	872.9	751.8	656.2	649.3	639.2	657.0	655.4	655.4
45°	1104.2	1108.1	1111.1	971.6	849.7	728.7	720.2	686.3	710.2	716.3	721.0
47.5°	1148.9	1152.0	1162.8	1068.0	947.7	812.7	806.6	751.0	782.7	801.2	814.3
50°	1212.9	1204.4	1213.7	1162.0	1065.7	922.2	905.3	838.2	878.3	910.7	941.5
52.5°	1274.6	1260.7	1268.4	1270.8	1199.8	1029.4	1011.7	940.7	990.9	1041.7	1096.5
55°	1330.1	1329.4	1337.1	1376.4	1329.4	1144.3	1124.3	1054.1	1126.6	1181.3	1273.8
57.5°	1374.9	1382.6	1416.5	1499.0	1479.0	1269.2	1246.9	1185.9	1271.5	1326.3	1479.7
60°	1427.3	1439.6	1495.9	1603.1	1615.4	1400.3	1377.2	1333.2	1420.4	1475.9	1718.0
62.5°	1445.0	1462.8	1578.4	1712.6	1758.1	1543.7	1522.9	1493.6	1576.9	1627.0	1955.5
65°	1327.1	1361.0	1623.9	1768.9	1911.5	1716.5	1698.7	1673.3	1732.6	1765.8	2116.7
67.5°	1294.7	1310.1	1535.2	1849.9	2055.7	1938.5	1920.8	1876.8	1878.4	1864.5	2169.1
70°	1249.2	1266.1	1444.3	1910.8	2262.4	2242.3	2220.7	2091.2	2011.8	1927.7	2065.8
72.5°	1064.1	1058.7	1244.5	1746.5	2361.9	2618.6	2593.2	2321.8	2110.5	1873.0	1743.4
75°	597.6	582.2	754.9	1208.3	2156.7	2768.2	2767.5	2438.2	2041.1	1631.6	1186.7
77.5°	173.5	168.9	249.1	506.6	1452.0	2405.0	2434.3	2199.2	1703.3	1172.1	651.6
80°	81.7	83.3	107.2	167.3	620.0	1552.2	1636.3	1448.1	1017.8	540.5	269.1
82.5°	51.7	52.4	73.3	108.0	262.2	704.8	774.2	651.6	403.3	233.6	118.7
85°	32.4	32.4	48.6	70.9	156.5	225.2	244.4	222.1	172.7	127.2	64.8
87.5°	17.7	17.7	29.3	40.9	85.6	72.5	74.8	88.7	108.0	77.9	32.4
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: P234745

CATALOG NUMBER: ARCH-AF24-40-D-U-T4W-8027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4	406.4
2.5°	405.6	404.1	401.7	401.0	400.2	399.4	400.2	401.7	400.2	400.2	401.0
5°	403.3	401.7	398.7	398.7	399.4	400.2	404.1	406.4	407.1	407.1	407.1
7.5°	403.3	401.0	398.7	399.4	401.0	404.1	410.2	414.1	417.2	417.9	417.9
10°	407.1	404.1	402.5	404.1	408.7	411.0	417.2	423.3	427.2	428.7	428.7
12.5°	414.1	411.0	411.0	414.1	420.2	423.3	428.7	433.4	438.0	440.3	440.3
15°	425.6	421.8	422.6	428.0	434.9	438.0	441.8	443.4	447.2	450.3	450.3
17.5°	436.4	432.6	434.1	440.3	444.9	446.5	448.8	448.0	449.5	451.9	452.6
20°	448.8	444.9	445.7	449.5	450.3	448.8	448.8	446.5	445.7	449.5	451.1
22.5°	461.1	457.3	456.5	454.2	450.3	446.5	444.1	441.8	440.3	444.1	445.7
25°	475.8	470.4	466.5	456.5	446.5	439.5	436.4	434.9	434.1	438.0	439.5
27.5°	492.0	486.6	475.0	453.4	437.2	425.6	423.3	423.3	424.9	427.2	428.7
30°	507.4	502.0	481.2	446.5	421.0	404.1	401.7	404.1	407.9	410.2	412.5
32.5°	522.8	517.4	485.0	435.7	397.1	375.5	374.0	377.8	384.0	385.5	387.1
35°	543.6	538.2	489.6	420.2	367.0	343.9	342.4	344.7	350.1	352.4	354.7
37.5°	572.9	569.8	496.6	403.3	339.3	313.8	309.2	307.7	310.8	310.0	313.1
40°	611.5	613.8	508.9	380.9	312.3	286.1	276.1	271.4	268.3	262.2	265.3
42.5°	667.8	669.3	522.8	355.5	289.2	259.9	246.7	238.3	232.1	222.1	223.6
45°	750.3	737.2	539.0	328.5	268.3	239.0	223.6	213.6	205.1	196.6	197.4
47.5°	859.8	819.7	556.7	306.1	247.5	222.1	208.2	196.6	186.6	179.7	180.4
50°	994.7	922.2	574.5	285.3	226.7	209.0	196.6	184.3	174.3	167.3	166.6
52.5°	1172.8	1045.6	586.0	262.2	205.9	197.4	186.6	175.0	162.7	154.2	153.4
55°	1357.9	1189.0	596.1	234.4	185.8	184.3	178.9	165.8	151.1	140.3	138.8
57.5°	1561.5	1342.5	603.8	207.4	170.4	173.5	172.0	156.5	140.3	130.3	129.5
60°	1746.5	1501.3	579.1	183.5	156.5	162.7	164.2	151.1	142.7	145.0	145.7
62.5°	1933.1	1623.9	485.0	165.8	147.3	155.8	168.9	168.1	164.2	168.1	168.9
65°	2000.2	1649.4	343.9	151.1	138.0	158.8	183.5	182.0	164.2	157.3	155.8
67.5°	1962.4	1573.8	231.3	139.6	131.1	162.7	198.9	182.0	158.1	148.8	145.7
70°	1782.8	1388.0	169.6	128.0	124.9	161.9	207.4	181.2	155.0	145.0	141.1
72.5°	1421.9	1071.0	136.5	117.2	115.7	158.1	212.1	179.7	151.9	141.1	136.5
75°	920.7	666.2	114.9	106.4	101.8	151.9	209.7	175.0	148.0	134.2	131.1
77.5°	427.2	286.8	97.9	94.1	88.7	142.7	202.8	165.8	139.6	126.5	122.6
80°	198.9	135.7	82.5	81.7	79.4	134.9	193.5	155.0	129.5	118.7	112.6
82.5°	106.4	81.7	67.1	67.1	69.4	125.7	182.0	141.9	116.4	111.0	94.8
85°	56.3	47.0	48.6	52.4	59.4	111.0	166.6	128.0	101.8	84.8	82.5
87.5°	28.5	30.1	30.1	35.5	45.5	90.2	137.3	105.6	86.4	69.4	67.9
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)