

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: P214863

Luminaire Tested: **ARCH-AF16-30-D-U-T4W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214863  
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-AF16-30-D-U-T4W  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3859.6 lumens  
Efficiency: N/A  
Efficacy: 120.6 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): 32  
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

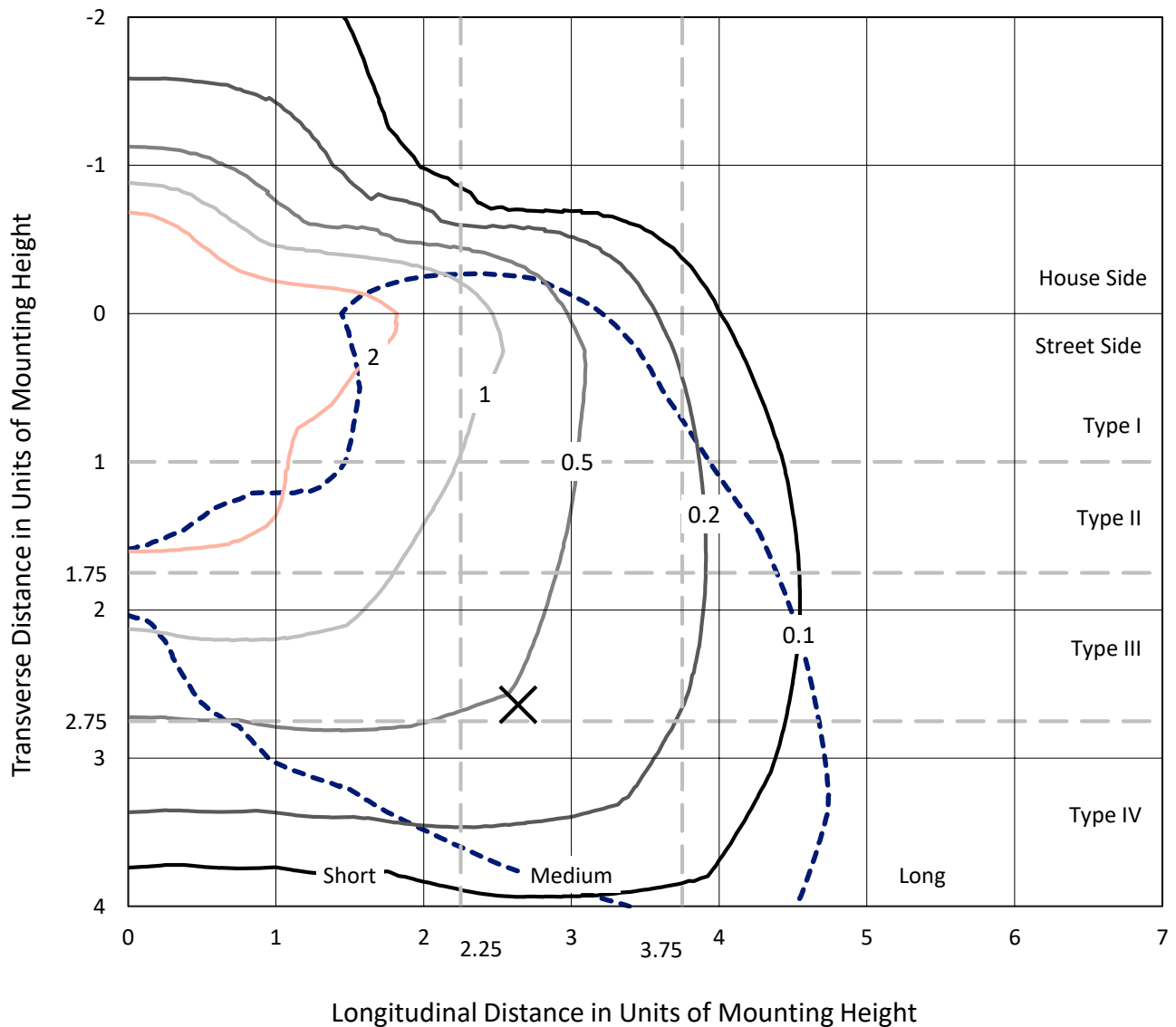


REPORT NUMBER: P214863

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

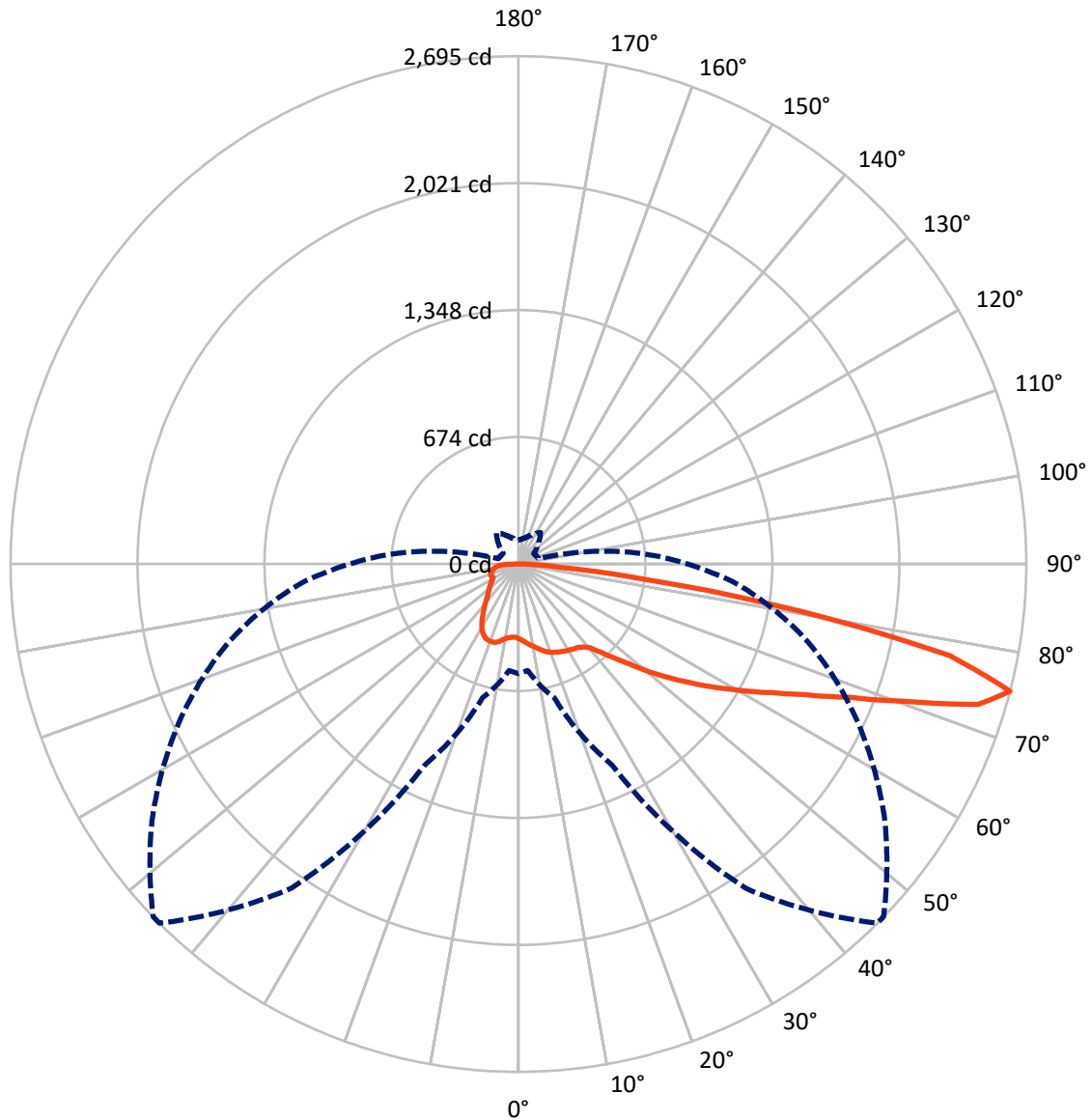


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214863

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214863

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	894.1	0.0	894.1
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	2965.5	0.0	2965.5
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	3859.6	0.0	3859.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.2	1.0
10°-20°	127.1	3.3
20°-30°	218.0	5.6
30°-40°	305.0	7.9
40°-50°	447.3	11.6
50°-60°	696.8	18.1
60°-70°	1002.7	26.0
70°-80°	873.4	22.6
80°-90°	150.0	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°	3859.6	100.0
0°-180°	3859.6	100.0

**Coefficient of Utilization**



REPORT NUMBER: P214863

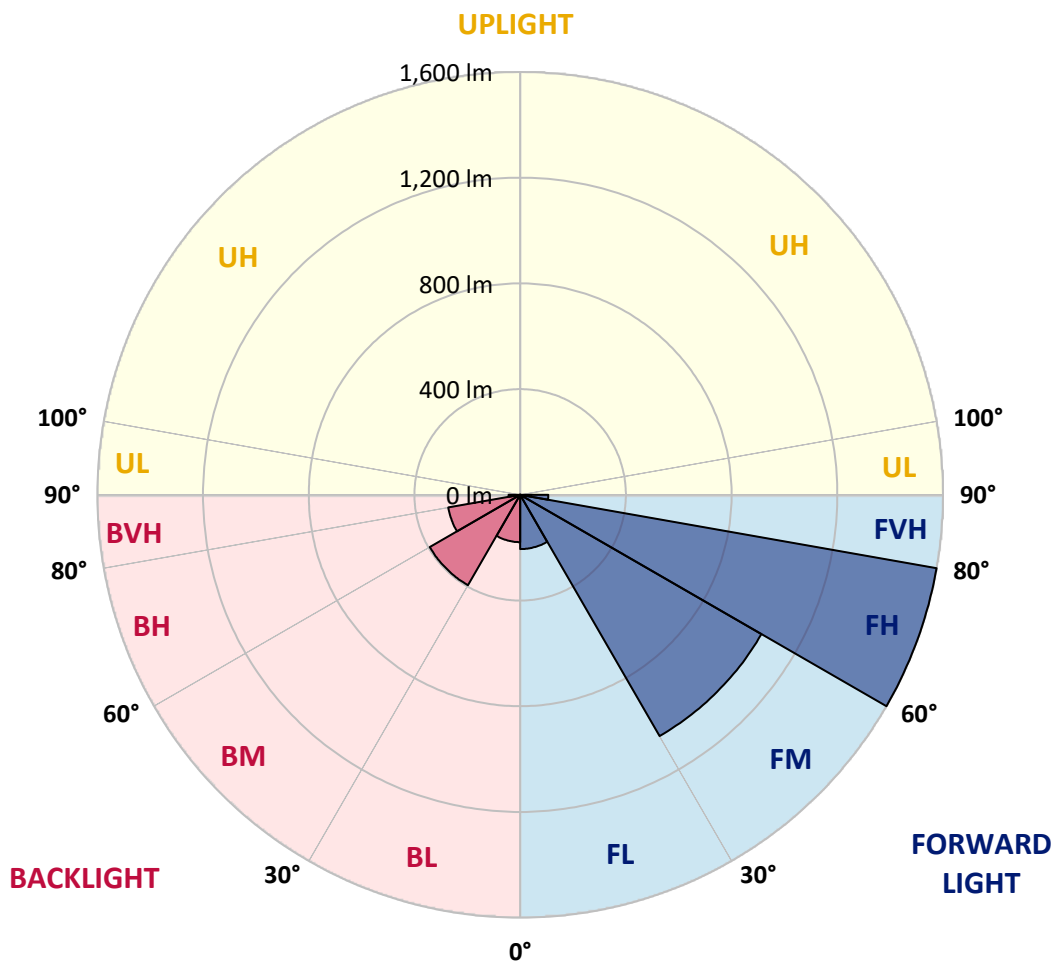
CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	205.2	5.3			
FM	(30°-60°)	1054.0	27.3			
FH	(60°-80°)	1599.8	41.5			G1/1800
FVH	(80°-90°)	106.4	2.8			G2/225
BL	(0°-30°)	179.1	4.6	B1/500		
BM	(30°-60°)	395.2	10.2	B1/1000		
BH	(60°-80°)	276.3	7.2	B1/500		G1/500
BVH	(80°-90°)	43.6	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: P214863

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7
2.5°	415.2	412.1	412.1	409.9	409.9	406.2	404.7	404.0	400.2	397.9	395.7
5°	439.3	435.5	434.8	429.4	427.2	418.9	418.2	413.0	406.2	399.5	394.1
7.5°	460.9	458.7	455.0	449.7	442.9	432.4	431.7	423.4	412.1	403.1	395.7
10°	476.8	475.3	469.9	463.2	455.7	445.2	444.5	435.5	422.0	411.4	400.9
12.5°	495.5	493.3	486.5	477.5	469.2	459.5	458.7	451.2	436.2	422.7	409.2
15°	513.5	510.6	502.3	493.3	484.3	476.0	476.0	467.7	451.9	436.2	420.4
17.5°	522.5	521.1	512.8	503.0	495.5	489.5	488.8	481.3	465.4	449.0	431.7
20°	525.6	526.3	518.8	508.3	503.0	500.0	499.3	494.0	476.8	460.9	444.5
22.5°	524.8	527.0	521.1	509.7	508.3	508.3	508.3	502.3	488.8	473.0	456.4
25°	527.8	530.8	526.3	512.8	512.8	515.8	515.8	512.8	500.7	487.2	470.8
27.5°	538.3	540.5	536.8	518.0	518.8	523.3	522.5	523.3	515.8	503.0	486.5
30°	551.1	554.0	549.5	526.3	525.6	530.1	530.1	533.8	528.6	515.1	501.6
32.5°	585.6	584.8	570.6	535.3	533.1	537.6	537.6	541.3	538.3	527.8	515.1
35°	688.4	677.2	645.7	564.6	542.1	544.3	544.3	551.1	552.6	544.3	533.1
37.5°	793.6	789.8	765.8	642.7	575.1	558.6	557.8	567.6	574.4	567.6	560.1
40°	899.5	896.4	891.2	747.1	644.2	584.1	581.9	590.1	602.1	597.6	593.1
42.5°	997.8	996.3	1001.6	849.9	732.0	638.9	632.2	622.4	639.7	638.1	638.1
45°	1075.1	1078.9	1081.9	946.0	827.4	709.5	701.2	668.2	691.5	697.4	701.9
47.5°	1118.7	1121.7	1132.2	1039.8	922.7	791.4	785.3	731.3	762.0	780.1	792.8
50°	1181.0	1172.7	1181.7	1131.4	1037.6	897.9	881.4	816.1	855.2	886.7	916.7
52.5°	1241.0	1227.5	1235.0	1237.3	1168.2	1002.3	985.0	916.0	964.7	1014.4	1067.7
55°	1295.1	1294.3	1301.9	1340.2	1294.3	1114.2	1094.7	1026.3	1096.9	1150.2	1240.3
57.5°	1338.6	1346.2	1379.1	1459.5	1440.0	1235.8	1214.0	1154.7	1238.1	1291.4	1440.7
60°	1389.7	1401.7	1456.5	1560.9	1572.9	1363.4	1340.9	1298.1	1382.9	1437.0	1672.7
62.5°	1407.0	1424.3	1536.9	1667.5	1711.8	1503.0	1482.8	1454.2	1535.3	1584.1	1904.0
65°	1292.1	1325.1	1581.2	1722.3	1861.2	1671.2	1654.0	1629.2	1687.1	1719.3	2060.9
67.5°	1260.6	1275.6	1494.8	1801.1	2001.6	1887.4	1870.2	1827.4	1828.9	1815.4	2112.0
70°	1216.3	1232.8	1406.3	1860.4	2202.8	2183.3	2162.2	2036.1	1958.7	1876.9	2011.3
72.5°	1036.0	1030.8	1211.8	1700.6	2299.7	2549.7	2524.8	2260.6	2054.9	1823.6	1697.5
75°	581.9	566.8	735.0	1176.5	2099.9	2695.3	2694.6	2374.0	1987.3	1588.6	1155.4
77.5°	168.9	164.4	242.5	493.3	1413.7	2341.7	2370.2	2141.2	1658.5	1141.2	634.4
80°	79.6	81.1	104.3	163.0	603.6	1511.3	1593.1	1409.9	991.0	526.3	262.0
82.5°	50.3	51.0	71.3	105.2	255.2	686.2	753.8	634.4	392.7	227.5	115.6
85°	31.5	31.5	47.3	69.0	152.4	219.2	238.0	216.3	168.2	123.9	63.1
87.5°	17.3	17.3	28.5	39.8	83.4	70.6	72.8	86.3	105.2	75.8	31.5
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: P214863

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7	395.7
2.5°	395.0	393.4	391.2	390.4	389.6	388.9	389.6	391.2	389.6	389.6	390.4
5°	392.7	391.2	388.1	388.1	388.9	389.6	393.4	395.7	396.4	396.4	396.4
7.5°	392.7	390.4	388.1	388.9	390.4	393.4	399.5	403.1	406.2	406.9	406.9
10°	396.4	393.4	391.9	393.4	397.9	400.2	406.2	412.1	415.9	417.5	417.5
12.5°	403.1	400.2	400.2	403.1	409.2	412.1	417.5	422.0	426.5	428.7	428.7
15°	414.4	410.7	411.4	416.6	423.4	426.5	430.2	431.7	435.5	438.4	438.4
17.5°	424.9	421.1	422.7	428.7	433.2	434.8	437.0	436.2	437.7	440.0	440.7
20°	437.0	433.2	433.9	437.7	438.4	437.0	437.0	434.8	433.9	437.7	439.3
22.5°	449.0	445.2	444.5	442.2	438.4	434.8	432.4	430.2	428.7	432.4	433.9
25°	463.2	458.0	454.2	444.5	434.8	427.9	424.9	423.4	422.7	426.5	427.9
27.5°	479.0	473.7	462.5	441.5	425.6	414.4	412.1	412.1	413.7	415.9	417.5
30°	494.0	488.8	468.5	434.8	409.9	393.4	391.2	393.4	397.2	399.5	401.7
32.5°	509.0	503.8	472.2	424.2	386.7	365.6	364.2	367.9	373.9	375.4	376.9
35°	529.3	524.1	476.8	409.2	357.4	334.8	333.4	335.6	340.8	343.1	345.3
37.5°	557.8	554.8	483.5	392.7	330.3	305.6	301.1	299.5	302.6	301.8	304.8
40°	595.4	597.6	495.5	370.9	304.0	278.5	268.8	264.2	261.3	255.2	258.3
42.5°	650.2	651.7	509.0	346.1	281.5	253.0	240.3	232.0	226.0	216.3	217.7
45°	730.5	717.7	524.8	319.9	261.3	232.7	217.7	208.0	199.7	191.5	192.2
47.5°	837.1	798.1	542.1	298.1	241.0	216.3	202.7	191.5	181.7	174.9	175.6
50°	968.5	897.9	559.3	277.8	220.8	203.5	191.5	179.4	169.7	163.0	162.1
52.5°	1141.9	1018.0	570.6	255.2	200.5	192.2	181.7	170.4	158.5	150.2	149.5
55°	1322.2	1157.7	580.3	228.2	181.0	179.4	174.2	161.4	147.2	136.7	135.1
57.5°	1520.3	1307.1	587.9	201.9	165.9	168.9	167.5	152.4	136.7	126.8	126.1
60°	1700.6	1461.8	563.9	178.7	152.4	158.5	159.9	147.2	138.9	141.2	141.9
62.5°	1882.2	1581.2	472.2	161.4	143.4	151.7	164.4	163.7	159.9	163.7	164.4
65°	1947.5	1605.9	334.8	147.2	134.4	154.7	178.7	177.2	159.9	153.1	151.7
67.5°	1910.8	1532.4	225.3	135.8	127.7	158.5	193.7	177.2	154.0	145.0	141.9
70°	1735.8	1351.4	165.2	124.6	121.6	157.6	201.9	176.5	150.9	141.2	137.4
72.5°	1384.5	1042.8	132.9	114.2	112.6	154.0	206.4	174.9	147.9	137.4	132.9
75°	896.4	648.7	111.9	103.6	99.1	147.9	204.2	170.4	144.1	130.6	127.7
77.5°	415.9	279.3	95.3	91.6	86.3	138.9	197.4	161.4	135.8	123.2	119.4
80°	193.7	132.2	80.3	79.6	77.3	131.3	188.4	150.9	126.1	115.6	109.7
82.5°	103.6	79.6	65.4	65.4	67.6	122.3	177.2	138.1	113.3	108.1	92.4
85°	54.8	45.8	47.3	51.0	57.8	108.1	162.1	124.6	99.1	82.6	80.3
87.5°	27.8	29.3	29.3	34.6	44.3	87.9	133.6	102.8	84.1	67.6	66.1
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)