

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: P214877

Luminaire Tested: **ARCH-AF16-30-D-U-T4W-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214877  
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-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 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: 3773 lumens  
Efficiency: N/A  
Efficacy: 117.9 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

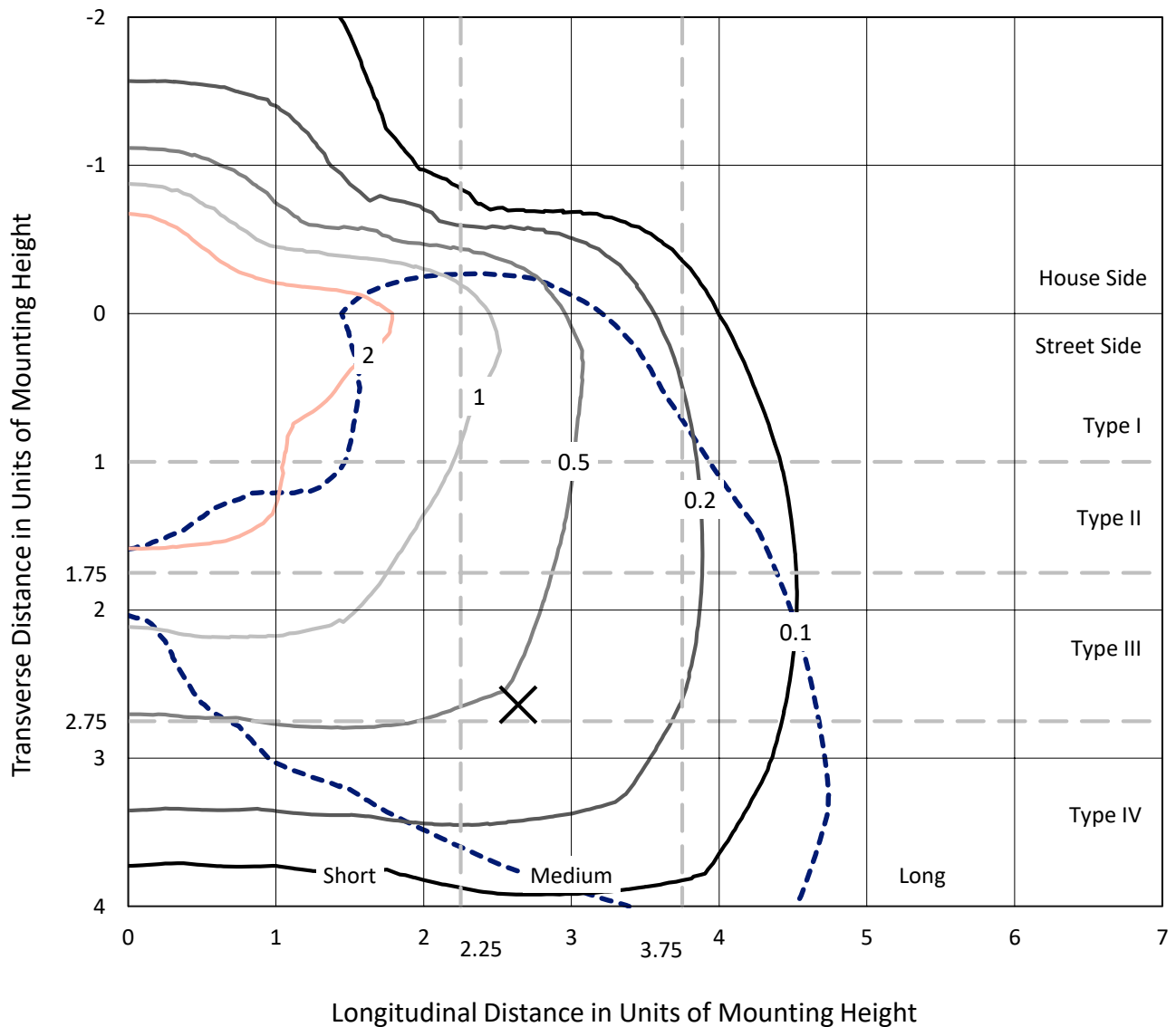


REPORT NUMBER: P214877

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

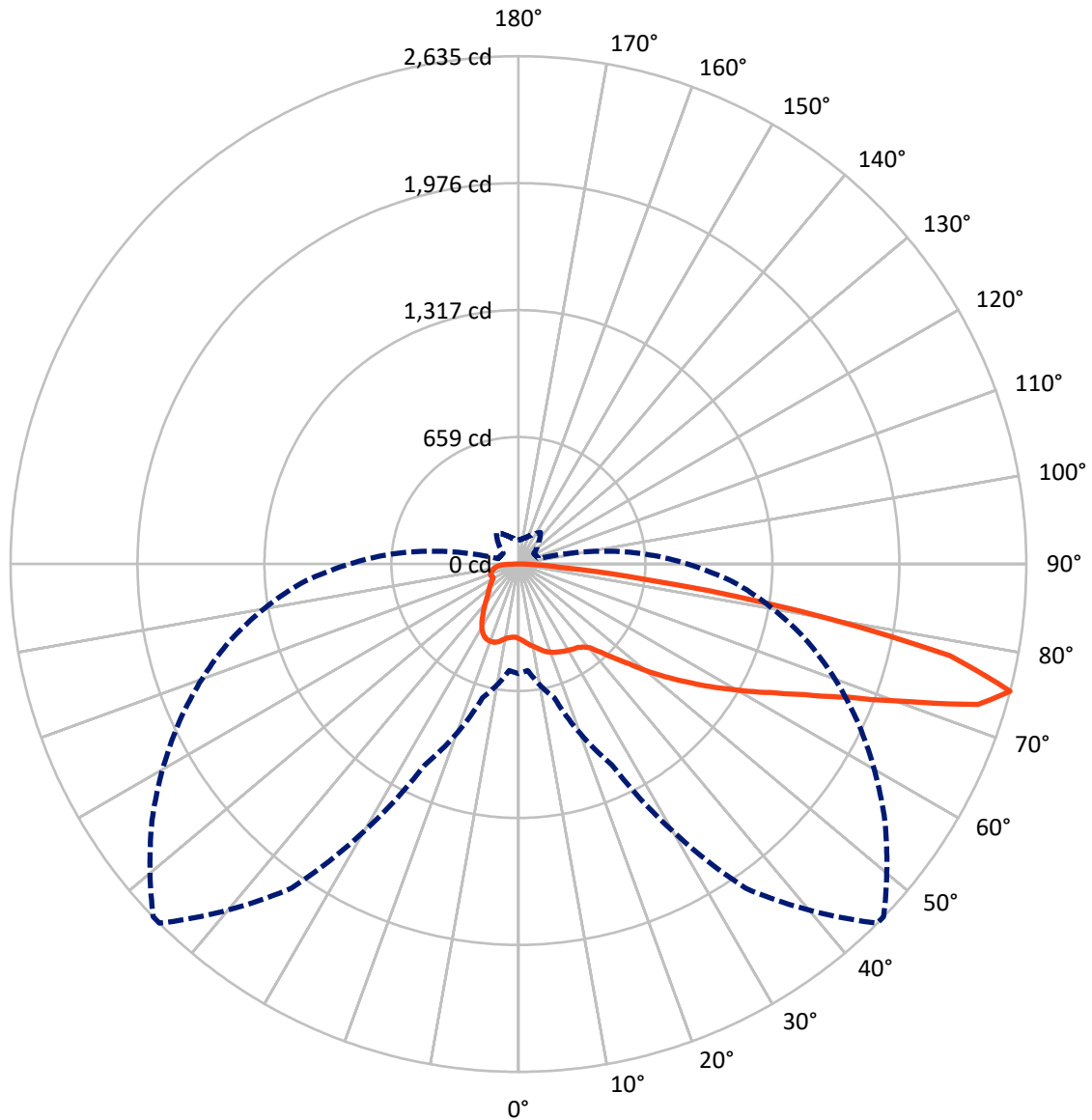


Based on 10 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214877

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214877

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	874.1	0.0	874.1
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	2899.0	0.0	2899.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	3773.0	0.0	3773.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.3	1.0
10°-20°	124.2	3.3
20°-30°	213.2	5.6
30°-40°	298.1	7.9
40°-50°	437.3	11.6
50°-60°	681.2	18.1
60°-70°	980.2	26.0
70°-80°	853.9	22.6
80°-90°	146.6	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°	3773.0	100.0
0°-180°	3773.0	100.0



REPORT NUMBER: P214877

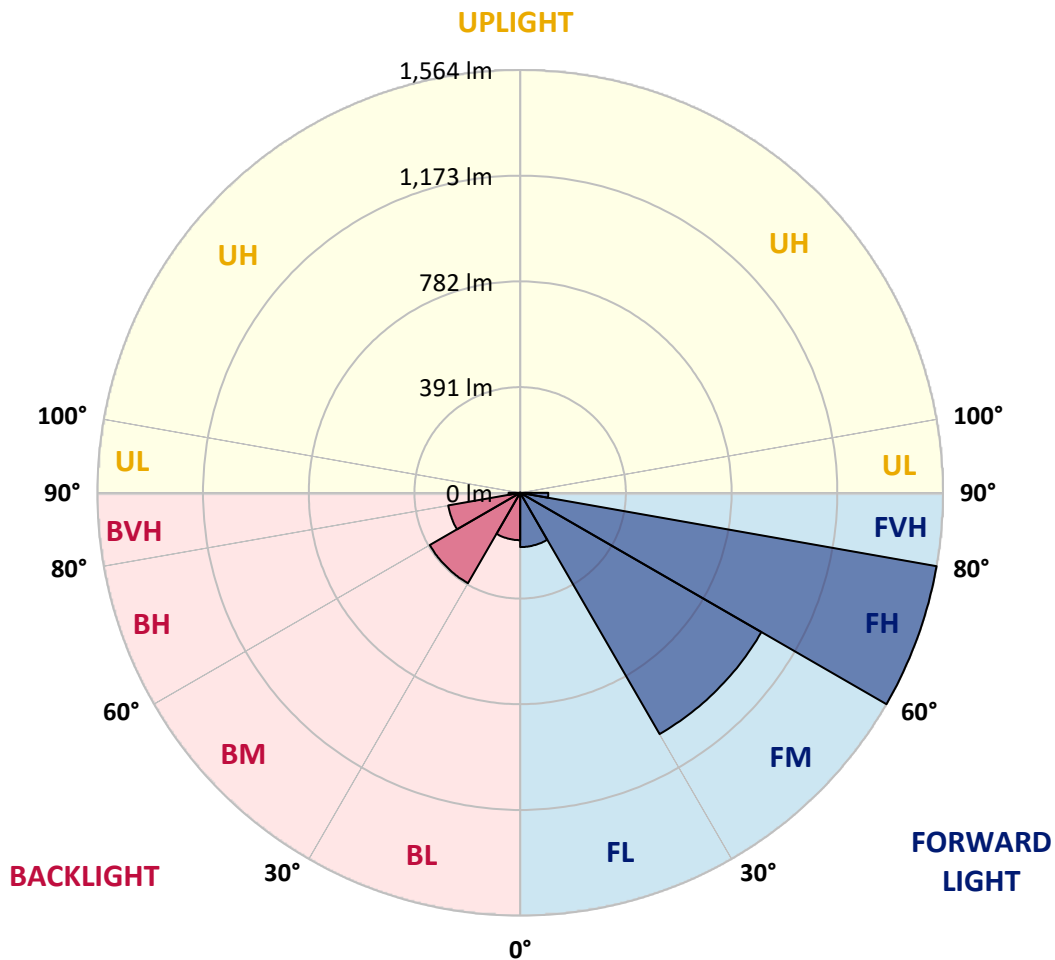
CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	200.6	5.3			
FM (30°-60°)	1030.3	27.3			
FH (60°-80°)	1563.9	41.5			G1/1800
FVH (80°-90°)	104.0	2.8			G2/225
BL (0°-30°)	175.1	4.6	B1/500		
BM (30°-60°)	386.3	10.2	B1/1000		
BH (60°-80°)	270.1	7.2	B1/500		G1/500
BVH (80°-90°)	42.6	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: P214877

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8
2.5°	405.9	402.9	402.9	400.7	400.7	397.1	395.6	394.9	391.2	389.0	386.8
5°	429.4	425.7	425.0	419.8	417.6	409.5	408.8	403.7	397.1	390.5	385.3
7.5°	450.6	448.4	444.8	439.6	433.0	422.7	422.0	413.9	402.9	394.1	386.8
10°	466.1	464.6	459.4	452.8	445.5	435.2	434.5	425.7	412.5	402.2	391.9
12.5°	484.4	482.2	475.6	466.8	458.7	449.2	448.4	441.1	426.4	413.2	400.0
15°	502.0	499.1	491.0	482.2	473.4	465.3	465.3	457.2	441.8	426.4	411.0
17.5°	510.8	509.4	501.3	491.7	484.4	478.5	477.8	470.5	455.0	438.9	422.0
20°	513.8	514.5	507.2	496.9	491.7	488.8	488.1	482.9	466.1	450.6	434.5
22.5°	513.0	515.2	509.4	498.3	496.9	496.9	496.9	491.0	477.8	462.4	446.2
25°	516.0	518.9	514.5	501.3	501.3	504.2	504.2	501.3	489.5	476.3	460.2
27.5°	526.2	528.4	524.8	506.4	507.2	511.6	510.8	511.6	504.2	491.7	475.6
30°	538.7	541.6	537.2	514.5	513.8	518.2	518.2	521.8	516.7	503.5	490.3
32.5°	572.5	571.7	557.8	523.3	521.1	525.5	525.5	529.2	526.2	516.0	503.5
35°	673.0	662.0	631.2	551.9	529.9	532.1	532.1	538.7	540.2	532.1	521.1
37.5°	775.8	772.1	748.6	628.3	562.2	546.1	545.3	554.9	561.5	554.9	547.5
40°	879.3	876.3	871.2	730.3	629.7	571.0	568.8	576.9	588.6	584.2	579.8
42.5°	975.4	973.9	979.1	830.8	715.6	624.6	618.0	608.4	625.3	623.8	623.8
45°	1051.0	1054.7	1057.6	924.8	808.8	693.6	685.5	653.2	676.0	681.8	686.2
47.5°	1093.6	1096.5	1106.8	1016.5	902.0	773.6	767.7	714.9	744.9	762.6	775.0
50°	1154.5	1146.4	1155.2	1106.0	1014.3	877.8	861.6	797.8	836.0	866.8	896.1
52.5°	1213.2	1200.0	1207.3	1209.5	1142.0	979.8	962.9	895.4	943.1	991.6	1043.7
55°	1266.0	1265.3	1272.7	1310.1	1265.3	1089.2	1070.1	1003.3	1072.3	1124.4	1212.5
57.5°	1308.6	1316.0	1348.2	1426.8	1407.7	1208.1	1186.8	1128.8	1210.3	1262.4	1408.4
60°	1358.5	1370.3	1423.8	1525.9	1537.6	1332.8	1310.8	1269.0	1351.9	1404.8	1635.2
62.5°	1375.4	1392.3	1502.4	1630.1	1673.4	1469.3	1449.5	1421.6	1500.9	1548.6	1861.3
65°	1263.1	1295.4	1545.7	1683.7	1819.4	1633.7	1616.9	1592.6	1649.2	1680.7	2014.7
67.5°	1232.3	1247.0	1461.3	1760.7	1956.7	1845.1	1828.2	1786.4	1787.9	1774.7	2064.6
70°	1189.0	1205.1	1374.7	1818.7	2153.4	2134.3	2113.7	1990.4	1914.8	1834.8	1966.2
72.5°	1012.8	1007.7	1184.6	1662.4	2248.1	2492.5	2468.2	2209.9	2008.8	1782.7	1659.4
75°	568.8	554.1	718.5	1150.1	2052.8	2634.8	2634.1	2320.7	1942.7	1553.0	1129.5
77.5°	165.1	160.7	237.1	482.2	1382.0	2289.2	2317.0	2093.2	1621.3	1115.6	620.2
80°	77.8	79.3	102.0	159.3	590.1	1477.4	1557.4	1378.3	968.8	514.5	256.1
82.5°	49.2	49.9	69.7	102.8	249.5	670.8	736.9	620.2	383.9	222.4	113.0
85°	30.8	30.8	46.2	67.5	149.0	214.3	232.7	211.4	164.4	121.1	61.7
87.5°	16.9	16.9	27.9	38.9	81.5	69.0	71.2	84.4	102.8	74.1	30.8
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: P214877

CATALOG NUMBER: ARCH-AF16-30-D-U-T4W-7050

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8	386.8
2.5°	386.1	384.6	382.4	381.6	380.9	380.2	380.9	382.4	380.9	380.9	381.6
5°	383.9	382.4	379.4	379.4	380.2	380.9	384.6	386.8	387.5	387.5	387.5
7.5°	383.9	381.6	379.4	380.2	381.6	384.6	390.5	394.1	397.1	397.8	397.8
10°	387.5	384.6	383.1	384.6	389.0	391.2	397.1	402.9	406.6	408.1	408.1
12.5°	394.1	391.2	391.2	394.1	400.0	402.9	408.1	412.5	416.9	419.1	419.1
15°	405.1	401.5	402.2	407.3	413.9	416.9	420.5	422.0	425.7	428.6	428.6
17.5°	415.4	411.7	413.2	419.1	423.5	425.0	427.2	426.4	427.9	430.1	430.8
20°	427.2	423.5	424.2	427.9	428.6	427.2	427.2	425.0	424.2	427.9	429.4
22.5°	438.9	435.2	434.5	432.3	428.6	425.0	422.7	420.5	419.1	422.7	424.2
25°	452.8	447.7	444.0	434.5	425.0	418.3	415.4	413.9	413.2	416.9	418.3
27.5°	468.3	463.1	452.1	431.6	416.1	405.1	402.9	402.9	404.4	406.6	408.1
30°	482.9	477.8	458.0	425.0	400.7	384.6	382.4	384.6	388.3	390.5	392.7
32.5°	497.6	492.5	461.6	414.7	378.0	357.4	356.0	359.6	365.5	367.0	368.4
35°	517.4	512.3	466.1	400.0	349.4	327.3	325.9	328.1	333.2	335.4	337.6
37.5°	545.3	542.4	472.7	383.9	322.9	298.7	294.3	292.8	295.8	295.0	298.0
40°	582.0	584.2	484.4	362.6	297.2	272.3	262.8	258.3	255.4	249.5	252.5
42.5°	635.6	637.1	497.6	338.3	275.2	247.3	234.9	226.8	220.9	211.4	212.8
45°	714.1	701.6	513.0	312.7	255.4	227.5	212.8	203.3	195.2	187.2	187.9
47.5°	818.3	780.2	529.9	291.4	235.6	211.4	198.2	187.2	177.6	171.0	171.7
50°	946.8	877.8	546.8	271.6	215.8	198.9	187.2	175.4	165.9	159.3	158.5
52.5°	1116.3	995.2	557.8	249.5	196.0	187.9	177.6	166.6	154.9	146.8	146.1
55°	1292.5	1131.7	567.3	223.1	176.9	175.4	170.3	157.8	143.9	133.6	132.1
57.5°	1486.2	1277.8	574.7	197.4	162.2	165.1	163.7	149.0	133.6	124.0	123.3
60°	1662.4	1429.0	551.2	174.7	149.0	154.9	156.3	143.9	135.8	138.0	138.7
62.5°	1840.0	1545.7	461.6	157.8	140.2	148.3	160.7	160.0	156.3	160.0	160.7
65°	1903.8	1569.9	327.3	143.9	131.4	151.2	174.7	173.2	156.3	149.7	148.3
67.5°	1867.9	1498.0	220.2	132.8	124.8	154.9	189.4	173.2	150.5	141.7	138.7
70°	1696.9	1321.1	161.5	121.8	118.9	154.1	197.4	172.5	147.5	138.0	134.3
72.5°	1353.4	1019.4	129.9	111.6	110.1	150.5	201.8	171.0	144.6	134.3	129.9
75°	876.3	634.1	109.4	101.3	96.9	144.6	199.6	166.6	140.9	127.7	124.8
77.5°	406.6	273.0	93.2	89.5	84.4	135.8	193.0	157.8	132.8	120.4	116.7
80°	189.4	129.2	78.5	77.8	75.6	128.4	184.2	147.5	123.3	113.0	107.2
82.5°	101.3	77.8	63.9	63.9	66.1	119.6	173.2	135.0	110.8	105.7	90.3
85°	53.6	44.8	46.2	49.9	56.5	105.7	158.5	121.8	96.9	80.7	78.5
87.5°	27.2	28.6	28.6	33.8	43.3	85.9	130.6	100.5	82.2	66.1	64.6
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)