

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: P214736

Luminaire Tested: **ARCH-AF16-20-D-U-T3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214736  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
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-T3-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2982 lumens  
Efficiency: N/A  
Efficacy: 124.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

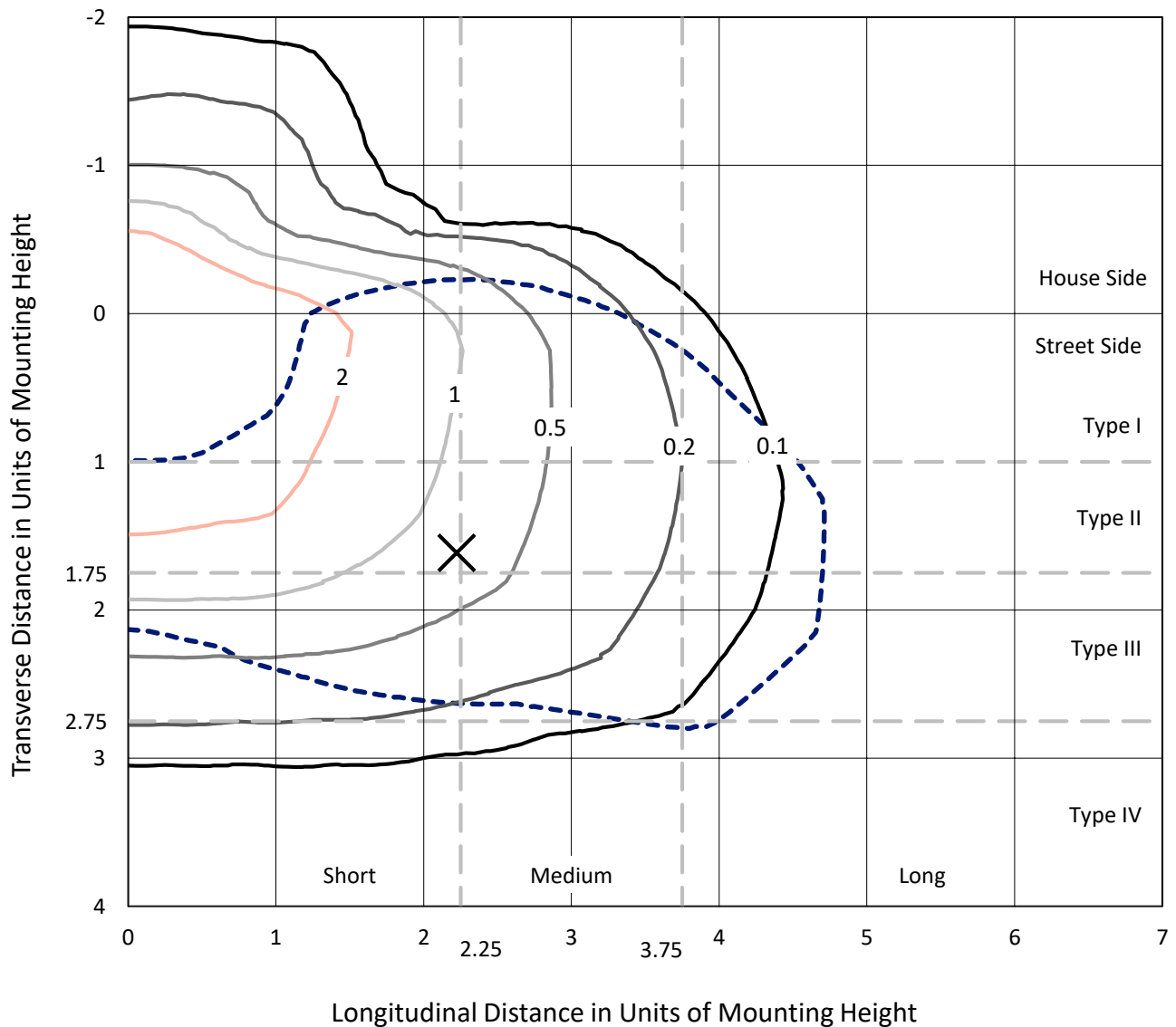
Input Watts (W): 24  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

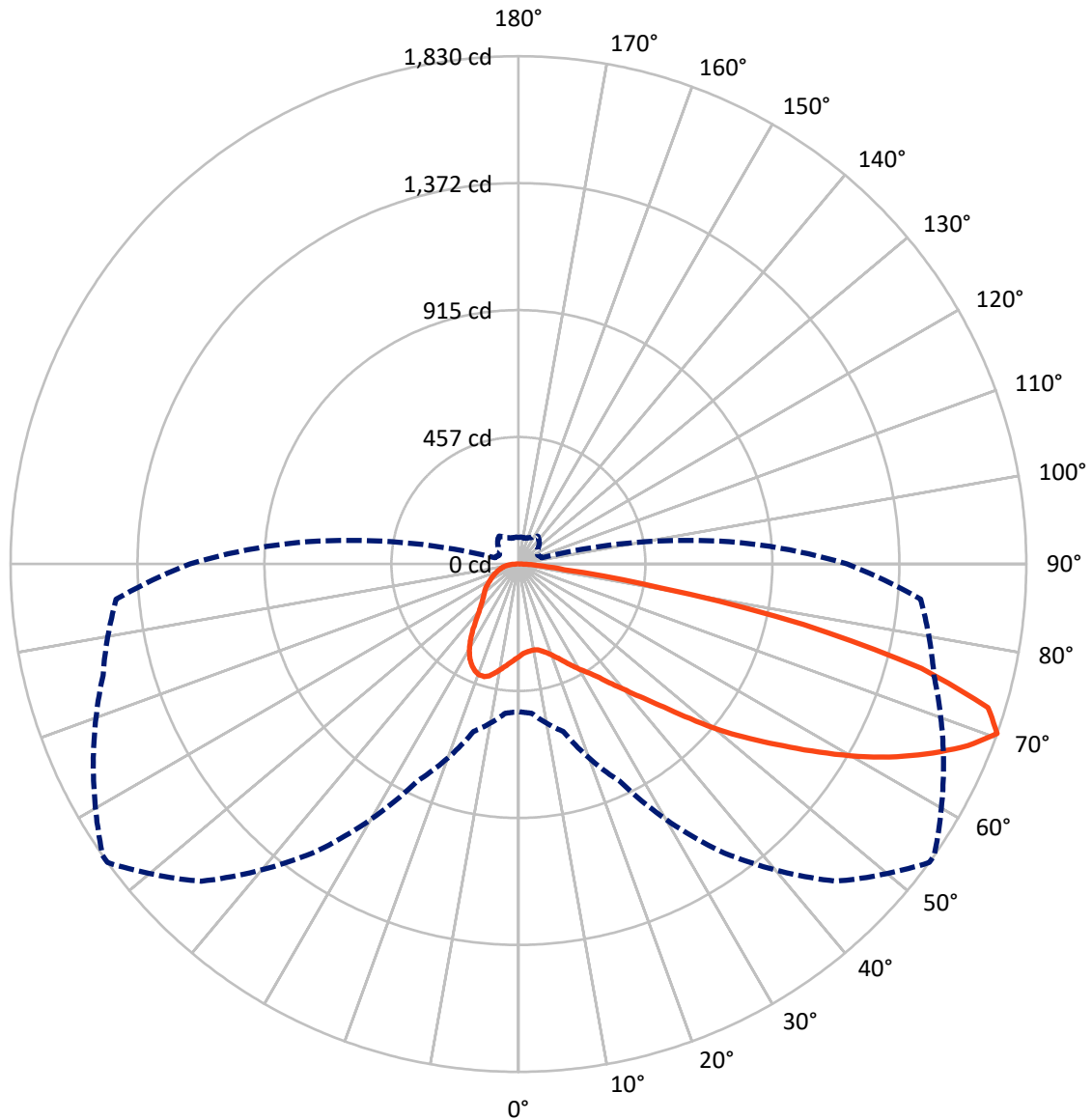
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical



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CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7050

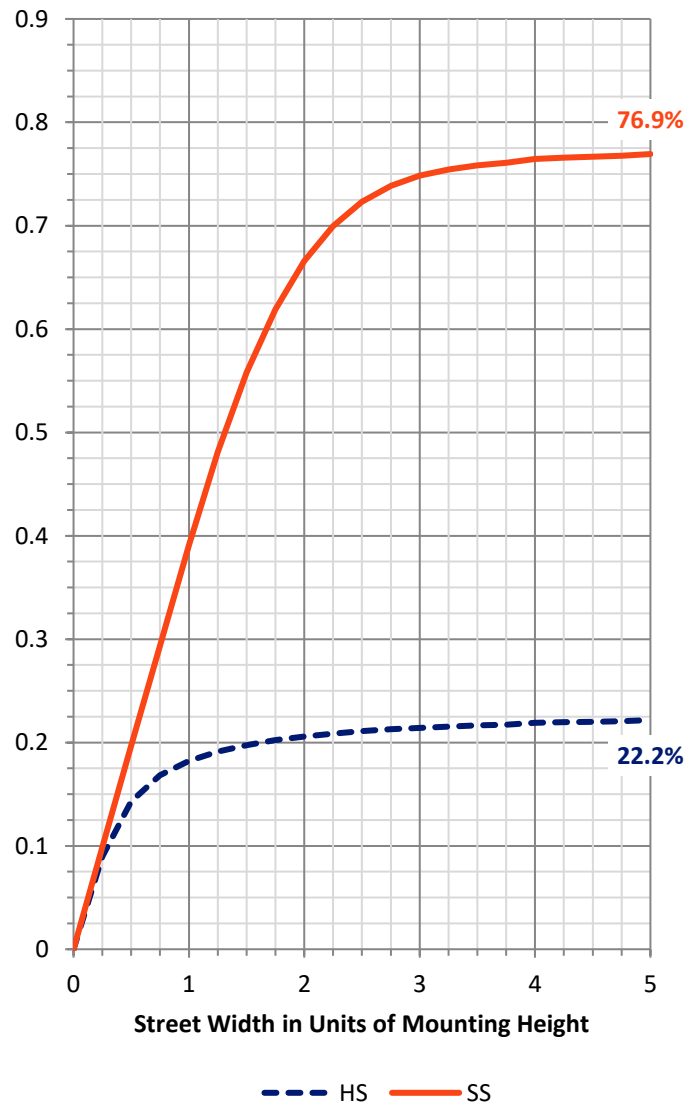
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	676.3	0.0	676.3
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	2305.7	0.0	2305.7
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	2982.0	0.0	2982.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.7	1.1
10°-20°	104.6	3.5
20°-30°	181.8	6.1
30°-40°	265.6	8.9
40°-50°	416.9	14.0
50°-60°	641.1	21.5
60°-70°	783.2	26.3
70°-80°	485.6	16.3
80°-90°	70.5	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°	2982.0	100.0
0°-180°	2982.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P214736

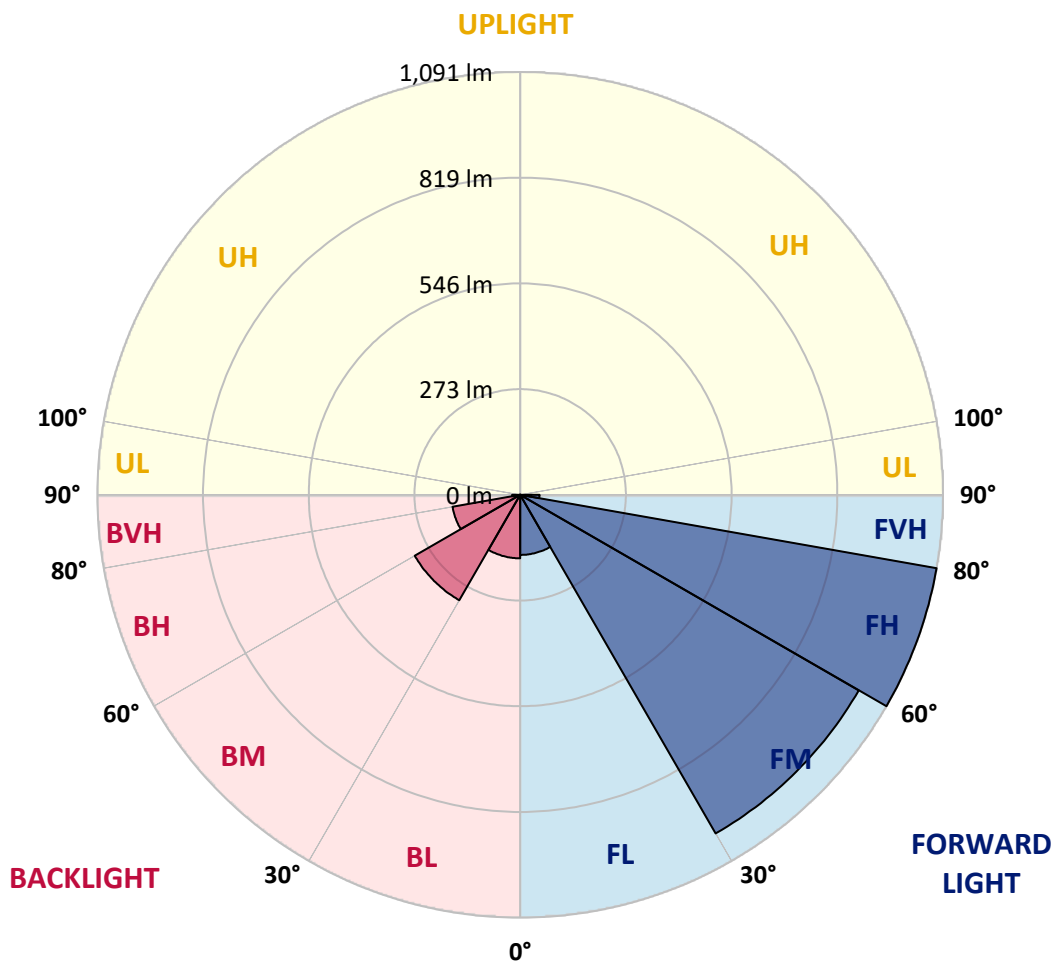
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	155.2	5.2			
FM	(30°-60°)	1009.3	33.8			
FH	(60°-80°)	1091.5	36.6			G1/1800
FVH	(80°-90°)	49.8	1.7			G1/100
BL	(0°-30°)	164.0	5.5	B1/500		
BM	(30°-60°)	314.3	10.5	B1/1000		
BH	(60°-80°)	177.3	5.9	B1/500		G1/500
BVH	(80°-90°)	20.7	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6
2.5°	320.5	319.4	319.4	321.1	321.6	323.3	323.3	323.8	325.4	328.2	331.4
5°	310.7	310.1	310.7	312.9	314.0	317.2	318.3	318.9	322.2	326.5	331.4
7.5°	300.9	300.3	301.4	304.7	308.0	312.9	315.6	316.2	321.1	327.1	333.6
10°	297.6	297.0	298.7	301.4	304.7	310.1	314.5	315.1	322.2	329.3	338.5
12.5°	302.0	301.4	303.0	305.8	309.1	312.9	317.8	318.3	327.6	336.9	346.7
15°	312.9	312.9	313.4	315.1	318.3	321.6	326.0	326.5	336.4	347.3	357.1
17.5°	329.8	328.7	328.7	328.2	330.3	332.0	337.4	338.0	348.4	358.2	368.0
20°	350.6	350.0	347.8	345.1	344.5	345.6	351.1	351.6	362.0	370.2	379.5
22.5°	375.7	376.2	371.3	365.3	362.6	364.2	369.1	369.7	377.3	384.4	392.6
25°	409.0	407.3	400.2	391.5	386.0	386.0	391.0	391.0	398.1	402.4	407.9
27.5°	440.6	437.4	430.8	418.3	409.5	411.2	416.1	416.1	422.6	424.3	427.0
30°	475.0	471.8	463.6	447.7	436.3	435.2	441.2	440.6	449.4	448.8	446.7
32.5°	517.1	515.5	501.8	481.6	466.3	462.5	467.9	468.5	474.0	472.3	465.2
35°	576.1	575.5	563.0	527.5	507.3	500.2	503.4	503.4	507.3	502.9	490.9
37.5°	650.3	651.4	640.5	588.1	559.7	547.7	548.2	547.7	548.8	543.8	531.3
40°	724.6	727.3	726.8	663.4	627.4	606.6	599.0	597.9	600.6	598.5	586.4
42.5°	822.3	828.9	813.6	756.3	715.8	680.9	660.2	657.4	663.4	666.2	654.7
45°	923.9	921.7	897.7	856.2	819.6	774.8	735.5	731.1	735.5	743.7	731.7
47.5°	976.9	975.2	969.2	948.5	943.0	891.7	832.2	828.3	820.1	831.6	817.4
50°	1064.2	1065.9	1041.3	1039.1	1062.0	1033.6	941.4	932.6	917.9	927.2	915.1
52.5°	1127.6	1120.5	1105.2	1124.3	1195.8	1180.5	1044.0	1040.2	1026.5	1024.4	1018.9
55°	1153.2	1153.2	1155.9	1200.2	1302.3	1282.1	1155.4	1159.2	1140.7	1125.4	1132.5
57.5°	1160.9	1164.1	1187.6	1260.8	1427.3	1361.3	1278.3	1283.7	1257.0	1226.4	1248.8
60°	1123.2	1133.0	1189.3	1295.2	1497.8	1445.3	1407.7	1409.3	1370.5	1325.8	1365.1
62.5°	1026.5	1038.6	1139.0	1309.4	1486.3	1531.6	1530.0	1533.8	1480.8	1425.1	1474.3
65°	908.1	920.1	1027.1	1269.5	1477.6	1593.3	1641.9	1652.3	1584.0	1509.2	1542.5
67.5°	733.9	749.7	851.3	1135.2	1435.0	1644.1	1746.8	1757.7	1663.8	1552.9	1536.5
70°	531.8	539.5	624.7	862.7	1261.3	1616.3	1829.8	1829.2	1690.0	1549.6	1454.6
72.5°	256.1	262.1	335.8	535.7	902.0	1371.6	1769.7	1780.1	1653.9	1502.1	1267.3
75°	105.4	111.4	136.0	226.1	473.4	906.4	1499.9	1524.5	1502.1	1348.2	991.6
77.5°	65.5	67.7	79.7	116.9	216.2	423.2	1050.0	1083.3	1190.3	1080.1	654.7
80°	49.1	50.8	59.5	81.9	136.5	156.2	521.5	563.5	721.3	619.7	296.5
82.5°	41.0	41.5	47.5	59.5	92.8	89.5	167.1	186.2	336.4	236.4	102.1
85°	38.2	39.3	42.6	42.6	59.0	56.2	69.3	72.6	97.7	80.8	35.5
87.5°	19.7	18.6	37.7	33.3	30.6	27.3	29.5	31.7	36.6	38.8	15.8
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: P214736

CATALOG NUMBER: ARCH-AF16-20-D-U-T3-7050

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6	333.6
2.5°	332.5	334.2	336.9	339.6	342.9	346.7	348.9	351.6	353.8	352.7	352.2
5°	334.2	336.9	342.9	348.4	354.9	362.6	367.5	372.9	377.3	378.4	376.8
7.5°	336.9	341.8	350.0	359.8	368.6	378.4	386.0	393.7	399.1	400.2	400.2
10°	343.5	348.9	359.8	372.9	383.3	393.7	402.4	408.4	413.3	415.5	415.5
12.5°	352.7	359.3	372.4	388.2	399.7	409.5	414.4	417.2	419.4	421.5	422.1
15°	363.7	370.8	386.6	403.5	415.5	420.4	420.4	419.9	419.9	421.0	422.1
17.5°	374.6	382.2	398.6	416.6	424.3	421.5	417.7	416.1	415.0	414.4	416.1
20°	386.0	393.7	410.1	427.0	424.8	413.3	407.9	404.1	400.8	399.1	401.3
22.5°	398.6	405.7	422.6	434.1	417.7	400.2	389.9	383.9	378.4	375.1	377.3
25°	413.3	420.4	436.8	436.3	405.2	380.6	364.2	354.4	348.4	345.1	345.1
27.5°	430.8	436.8	452.7	430.8	387.7	354.4	330.3	321.1	319.4	316.7	316.7
30°	448.8	453.8	467.4	418.3	363.7	320.0	293.8	289.4	289.9	287.2	287.8
32.5°	467.4	472.3	476.1	399.7	332.5	281.2	263.7	260.5	259.9	257.7	255.5
35°	493.6	500.7	477.2	374.6	294.9	249.0	236.4	233.2	229.9	222.2	222.2
37.5°	533.5	541.1	474.5	343.5	256.1	223.9	212.4	208.0	202.6	194.9	192.2
40°	588.1	588.1	468.5	308.5	225.0	203.7	192.7	187.3	181.3	173.6	172.0
42.5°	652.5	637.2	459.2	273.0	202.0	190.0	180.2	174.2	167.1	158.3	157.3
45°	727.9	686.4	446.1	241.3	185.1	181.8	175.8	165.4	153.4	144.2	142.5
47.5°	801.0	730.6	433.5	219.0	170.9	178.6	173.6	156.2	139.8	126.7	125.0
50°	881.3	769.9	418.8	200.4	160.0	176.4	170.9	142.5	124.5	115.2	114.1
52.5°	961.6	809.8	403.0	180.7	150.7	172.0	164.4	132.7	123.9	111.4	109.8
55°	1046.2	856.2	384.4	158.9	139.8	163.3	155.6	132.1	127.8	111.4	107.6
57.5°	1128.6	907.5	354.4	137.6	127.8	150.2	152.3	128.9	119.6	110.3	105.9
60°	1219.8	962.1	304.7	119.6	117.4	139.2	148.0	121.8	110.3	107.0	104.8
62.5°	1293.0	1011.3	238.1	107.0	108.7	130.5	142.5	117.4	106.5	103.7	103.2
65°	1324.7	1012.3	170.9	96.1	99.9	122.3	137.1	113.6	103.2	102.1	101.6
67.5°	1291.4	956.6	120.1	85.7	90.6	114.7	130.0	109.8	99.9	100.5	99.4
70°	1183.8	839.3	87.9	75.9	81.9	106.5	122.3	104.8	96.1	97.2	95.6
72.5°	990.5	654.1	70.4	67.7	74.8	97.7	114.7	99.4	90.1	90.6	87.4
75°	731.7	433.5	59.0	60.6	66.6	89.5	104.8	92.3	83.5	81.4	79.2
77.5°	435.2	222.8	48.6	53.0	59.5	79.7	93.9	83.5	76.4	72.6	71.0
80°	179.6	90.1	39.9	44.8	51.9	71.0	83.0	73.2	68.3	64.4	62.2
82.5°	71.5	44.2	31.7	36.6	43.7	61.7	72.6	64.4	59.5	56.8	50.8
85°	27.3	21.8	21.3	25.7	32.8	47.5	60.1	54.1	50.2	43.1	41.5
87.5°	10.9	9.8	9.8	12.6	18.6	30.0	43.1	37.7	39.3	31.1	31.7
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)