

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: P214722

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214722  
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  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3050.4 lumens  
Efficiency: N/A  
Efficacy: 127.1 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

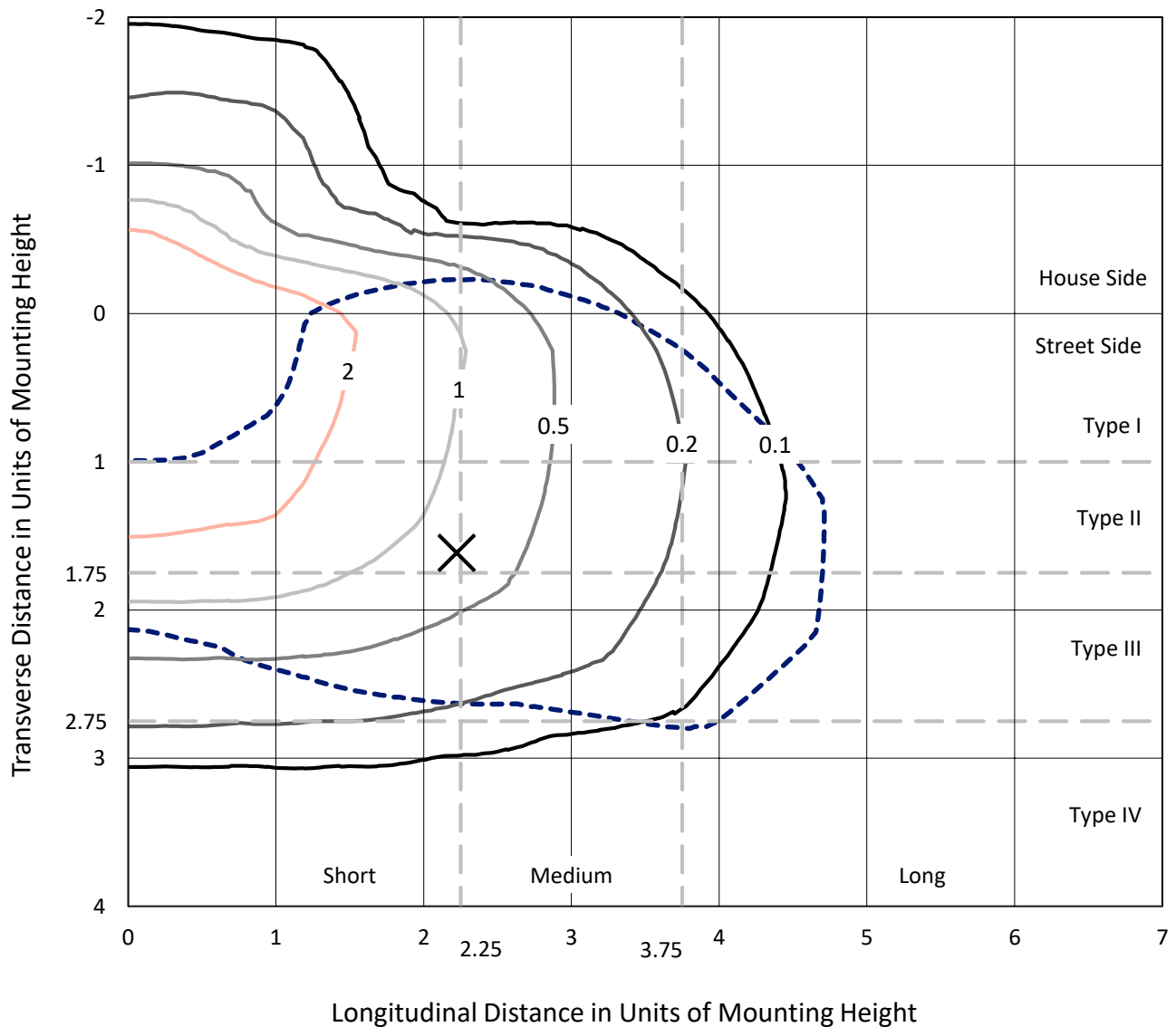
Input Watts (W): 24  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

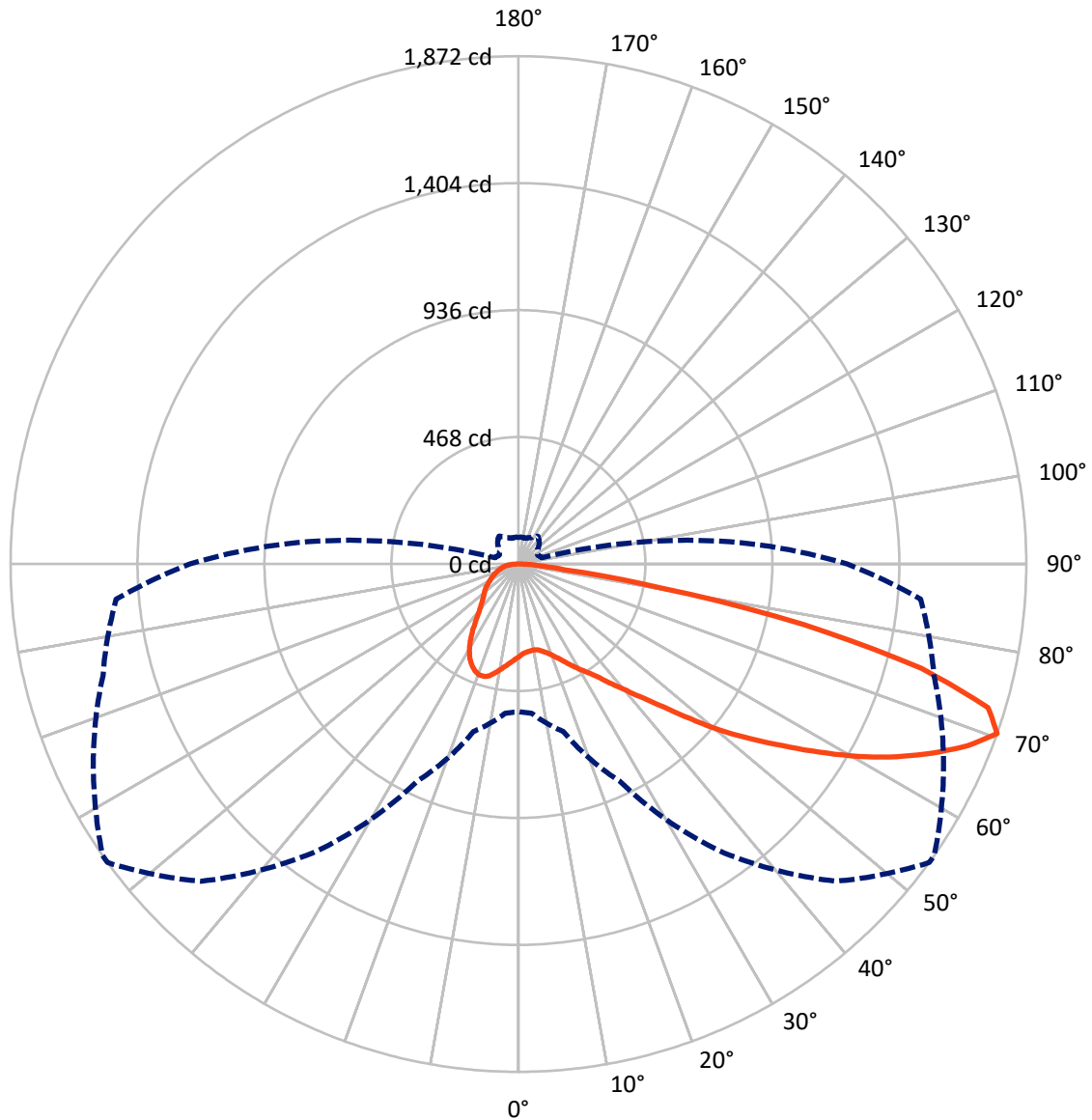


Based on 10 foot mounting height. Maximum calculated value = 4 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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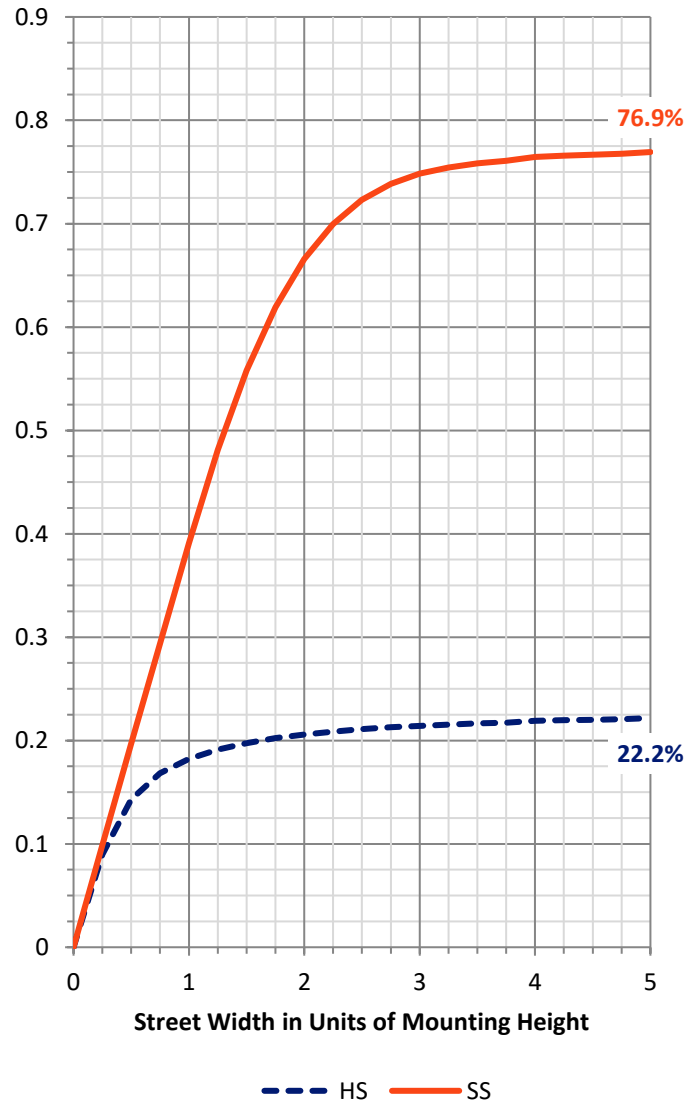
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	691.8	0.0	691.8
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	2358.6	0.0	2358.6
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	3050.4	0.0	3050.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.5	1.1
10°-20°	107.0	3.5
20°-30°	185.9	6.1
30°-40°	271.7	8.9
40°-50°	426.4	14.0
50°-60°	655.8	21.5
60°-70°	801.2	26.3
70°-80°	496.7	16.3
80°-90°	72.2	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°	3050.4	100.0
0°-180°	3050.4	100.0

**Coefficient of Utilization**



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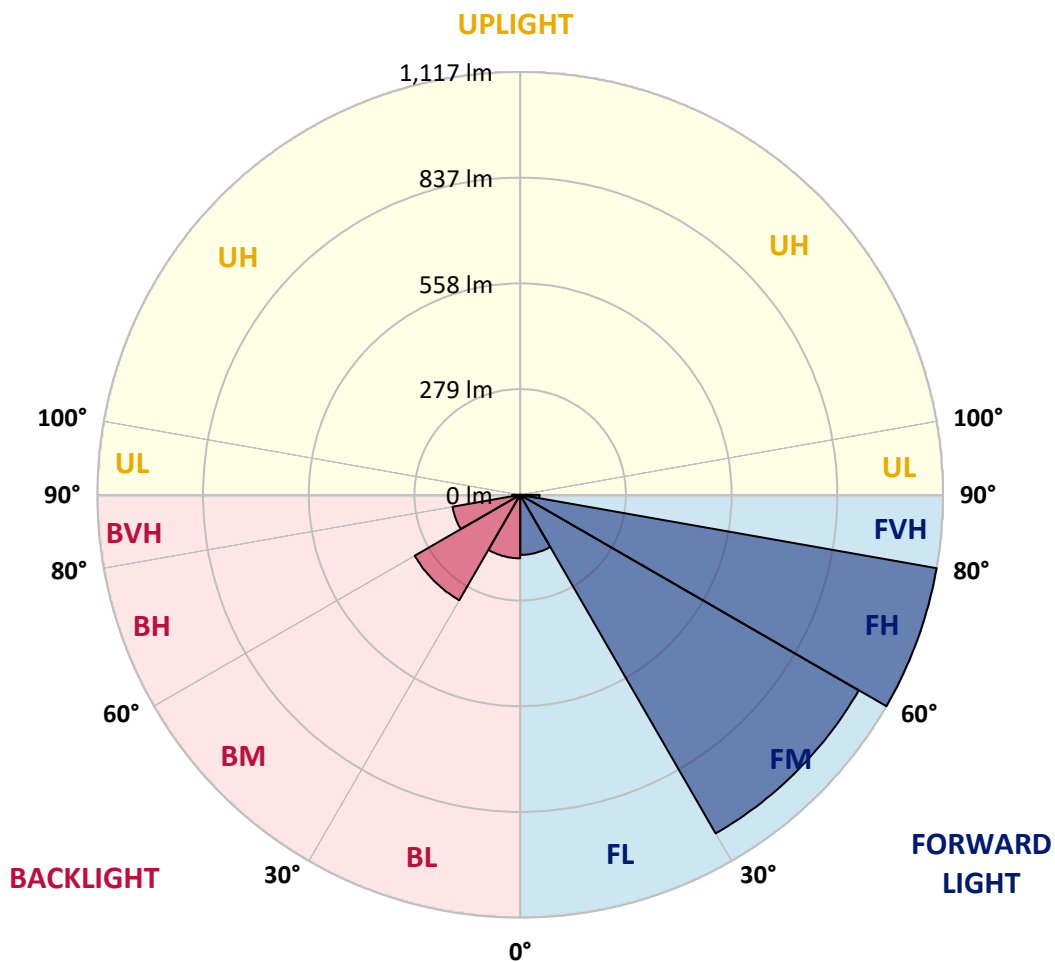
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	158.7	5.2			
FM	(30°-60°)	1032.4	33.8			
FH	(60°-80°)	1116.5	36.6			G1/1800
FVH	(80°-90°)	51.0	1.7			G1/100
BL	(0°-30°)	167.7	5.5	B1/500		
BM	(30°-60°)	321.5	10.5	B1/1000		
BH	(60°-80°)	181.4	5.9	B1/500		G1/500
BVH	(80°-90°)	21.2	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°	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3
2.5°	327.9	326.7	326.7	328.5	329.0	330.7	330.7	331.2	332.9	335.7	339.0
5°	317.8	317.2	317.8	320.1	321.2	324.5	325.6	326.2	329.6	334.0	339.0
7.5°	307.8	307.2	308.3	311.7	315.1	320.1	322.8	323.5	328.5	334.6	341.3
10°	304.4	303.8	305.6	308.3	311.7	317.2	321.7	322.3	329.6	336.9	346.3
12.5°	308.9	308.3	310.0	312.8	316.2	320.1	325.1	325.6	335.1	344.6	354.7
15°	320.1	320.1	320.6	322.3	325.6	329.0	333.5	334.0	344.1	355.3	365.3
17.5°	337.4	336.2	336.2	335.7	337.9	339.6	345.1	345.8	356.4	366.4	376.4
20°	358.6	358.0	355.8	353.0	352.4	353.5	359.2	359.7	370.3	378.7	388.2
22.5°	384.3	384.8	379.8	373.7	370.9	372.6	377.6	378.2	386.0	393.2	401.6
25°	418.4	416.6	409.4	400.5	394.9	394.9	400.0	400.0	407.2	411.6	417.3
27.5°	450.7	447.4	440.7	427.9	418.9	420.6	425.6	425.6	432.3	434.0	436.8
30°	485.9	482.6	474.2	458.0	446.3	445.2	451.3	450.7	459.7	459.1	457.0
32.5°	529.0	527.3	513.3	492.7	477.0	473.1	478.6	479.3	484.9	483.1	475.9
35°	589.3	588.7	575.9	539.6	518.9	511.7	515.0	515.0	518.9	514.4	502.2
37.5°	665.2	666.4	655.2	601.6	572.5	560.3	560.8	560.3	561.4	556.3	543.5
40°	741.2	744.0	743.5	678.6	641.8	620.5	612.7	611.6	614.4	612.2	599.9
42.5°	841.2	847.9	832.3	773.7	732.2	696.5	675.4	672.5	678.6	681.5	669.7
45°	945.1	942.9	918.3	875.9	838.4	792.6	752.4	747.9	752.4	760.8	748.5
47.5°	999.3	997.6	991.4	970.3	964.6	912.2	851.3	847.3	838.9	850.7	836.2
50°	1088.6	1090.4	1065.2	1062.9	1086.4	1057.3	963.0	954.0	939.0	948.5	936.1
52.5°	1153.5	1146.2	1130.6	1150.1	1223.2	1207.6	1068.0	1064.1	1050.1	1047.9	1042.3
55°	1179.7	1179.7	1182.4	1227.7	1332.2	1311.5	1181.9	1185.8	1166.9	1151.2	1158.5
57.5°	1187.5	1190.8	1214.9	1289.7	1460.1	1392.5	1307.6	1313.2	1285.8	1254.5	1277.5
60°	1149.0	1159.0	1216.6	1324.9	1532.2	1478.5	1440.0	1441.6	1402.0	1356.2	1396.4
62.5°	1050.1	1062.4	1165.1	1339.5	1520.4	1566.8	1565.1	1569.0	1514.8	1457.8	1508.1
65°	928.9	941.2	1050.7	1298.6	1511.5	1629.9	1679.6	1690.2	1620.4	1543.8	1577.9
67.5°	750.7	766.9	870.8	1161.3	1467.9	1681.8	1786.9	1798.0	1702.0	1588.5	1571.8
70°	544.0	551.9	639.0	882.5	1290.2	1653.4	1871.8	1871.2	1728.8	1585.2	1488.0
72.5°	262.0	268.1	343.5	548.0	922.7	1403.1	1810.3	1821.0	1691.9	1536.6	1296.4
75°	107.8	114.0	139.1	231.3	484.3	927.2	1534.3	1559.5	1536.6	1379.1	1014.4
77.5°	67.0	69.3	81.5	119.6	221.2	432.9	1074.1	1108.2	1217.6	1104.9	669.7
80°	50.2	52.0	60.9	83.8	139.6	159.8	533.5	576.4	737.9	633.9	303.3
82.5°	41.9	42.5	48.6	60.9	94.9	91.6	170.9	190.5	344.1	241.8	104.4
85°	39.1	40.2	43.6	43.6	60.4	57.5	70.9	74.3	99.9	82.7	36.3
87.5°	20.2	19.0	38.6	34.1	31.3	27.9	30.2	32.4	37.4	39.7	16.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3	341.3
2.5°	340.1	341.9	344.6	347.4	350.8	354.7	356.9	359.7	361.9	360.8	360.3
5°	341.9	344.6	350.8	356.4	363.0	370.9	375.9	381.5	386.0	387.1	385.4
7.5°	344.6	349.6	358.0	368.1	377.1	387.1	394.9	402.7	408.3	409.4	409.4
10°	351.4	356.9	368.1	381.5	392.1	402.7	411.6	417.8	422.8	425.0	425.0
12.5°	360.8	367.5	380.9	397.1	408.9	418.9	423.9	426.8	429.0	431.2	431.8
15°	372.0	379.3	395.5	412.8	425.0	430.0	430.0	429.5	429.5	430.7	431.8
17.5°	383.2	391.0	407.7	426.2	434.0	431.2	427.3	425.6	424.5	423.9	425.6
20°	394.9	402.7	419.5	436.8	434.5	422.8	417.3	413.4	410.0	408.3	410.5
22.5°	407.7	415.0	432.3	444.1	427.3	409.4	398.8	392.7	387.1	383.7	386.0
25°	422.8	430.0	446.8	446.3	414.5	389.3	372.6	362.5	356.4	353.0	353.0
27.5°	440.7	446.8	463.1	440.7	396.6	362.5	337.9	328.5	326.7	324.0	324.0
30°	459.1	464.2	478.1	427.9	372.0	327.3	300.5	296.0	296.6	293.8	294.4
32.5°	478.1	483.1	487.0	408.9	340.1	287.7	269.8	266.5	265.9	263.6	261.4
35°	504.9	512.2	488.2	383.2	301.7	254.7	241.8	238.6	235.2	227.3	227.3
37.5°	545.7	553.5	485.4	351.4	262.0	229.0	217.3	212.8	207.2	199.4	196.6
40°	601.6	601.6	479.3	315.6	230.2	208.4	197.1	191.6	185.5	177.6	175.9
42.5°	667.5	651.8	469.7	279.3	206.6	194.4	184.3	178.2	170.9	161.9	160.9
45°	744.6	702.2	456.3	246.8	189.3	186.0	179.8	169.2	156.9	147.5	145.8
47.5°	819.4	747.4	443.4	224.0	174.8	182.7	177.6	159.8	143.0	129.6	127.9
50°	901.5	787.6	428.4	205.0	163.7	180.4	174.8	145.8	127.4	117.8	116.7
52.5°	983.7	828.4	412.2	184.8	154.2	175.9	168.2	135.7	126.7	114.0	112.3
55°	1070.2	875.9	393.2	162.5	143.0	167.0	159.2	135.1	130.7	114.0	110.1
57.5°	1154.5	928.3	362.5	140.8	130.7	153.6	155.8	131.9	122.3	112.8	108.3
60°	1247.8	984.2	311.7	122.3	120.1	142.4	151.4	124.6	112.8	109.5	107.2
62.5°	1322.7	1034.5	243.6	109.5	111.2	133.5	145.8	120.1	108.9	106.1	105.6
65°	1355.1	1035.5	174.8	98.3	102.2	125.1	140.2	116.2	105.6	104.4	103.9
67.5°	1321.0	978.6	122.9	87.7	92.7	117.3	133.0	112.3	102.2	102.8	101.7
70°	1211.0	858.6	89.9	77.6	83.8	108.9	125.1	107.2	98.3	99.4	97.8
72.5°	1013.2	669.1	72.0	69.3	76.5	99.9	117.3	101.7	92.2	92.7	89.4
75°	748.5	443.4	60.4	62.0	68.1	91.6	107.2	94.4	85.4	83.3	81.0
77.5°	445.2	227.9	49.7	54.2	60.9	81.5	96.1	85.4	78.2	74.3	72.6
80°	183.7	92.2	40.8	45.8	53.1	72.6	84.9	74.9	69.9	65.9	63.6
82.5°	73.1	45.2	32.4	37.4	44.7	63.1	74.3	65.9	60.9	58.1	52.0
85°	27.9	22.3	21.8	26.3	33.6	48.6	61.5	55.3	51.4	44.1	42.5
87.5°	11.2	10.0	10.0	12.9	19.0	30.7	44.1	38.6	40.2	31.8	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

(END OF REPORT)