

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: P234715

Luminaire Tested: **ARCH-AF24-20-D-U-T3-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234715  
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-AF24-20-D-U-T3-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2209 lumens  
Efficiency: N/A  
Efficacy: 105.2 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

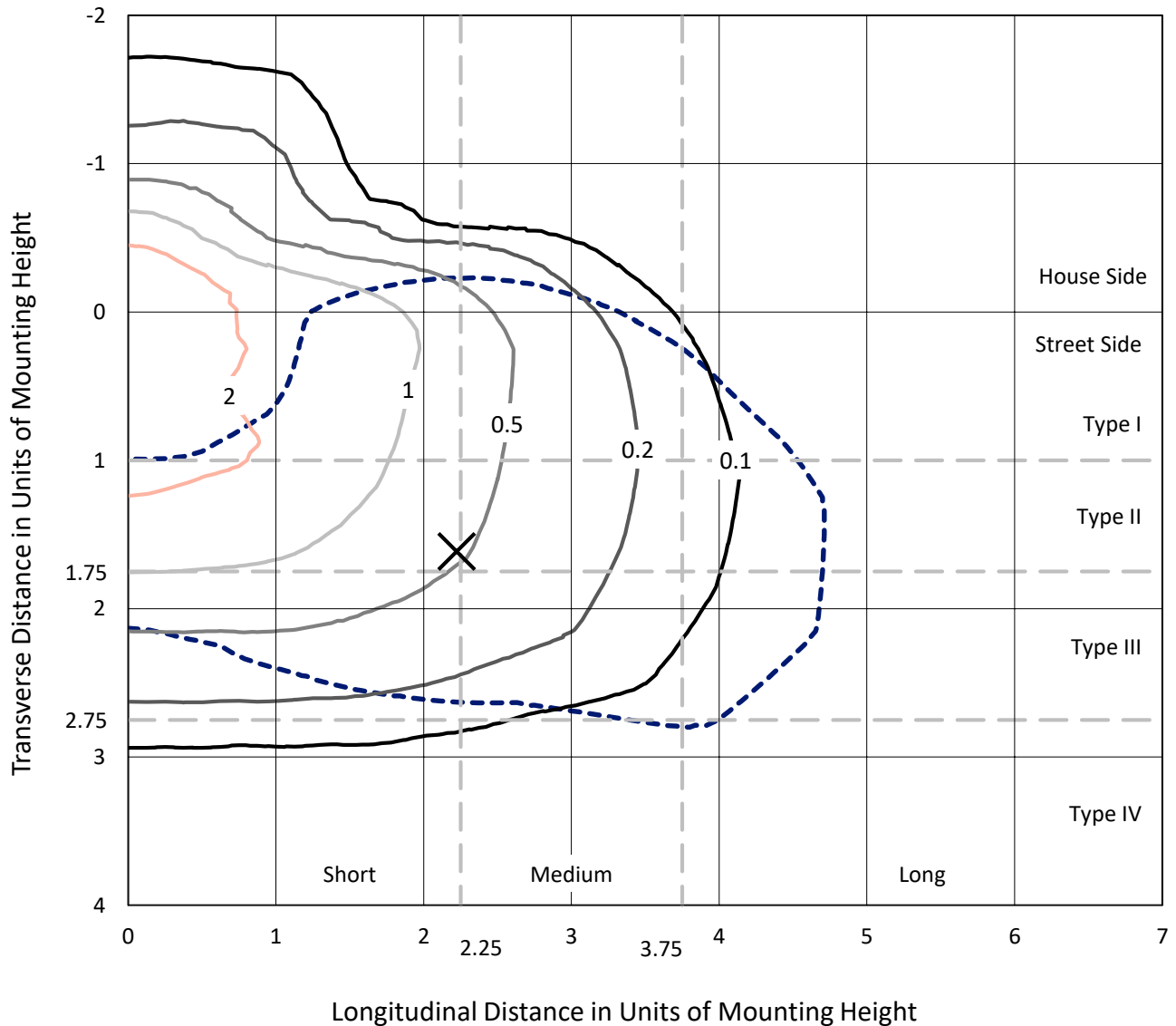
Input Watts (W): 21  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

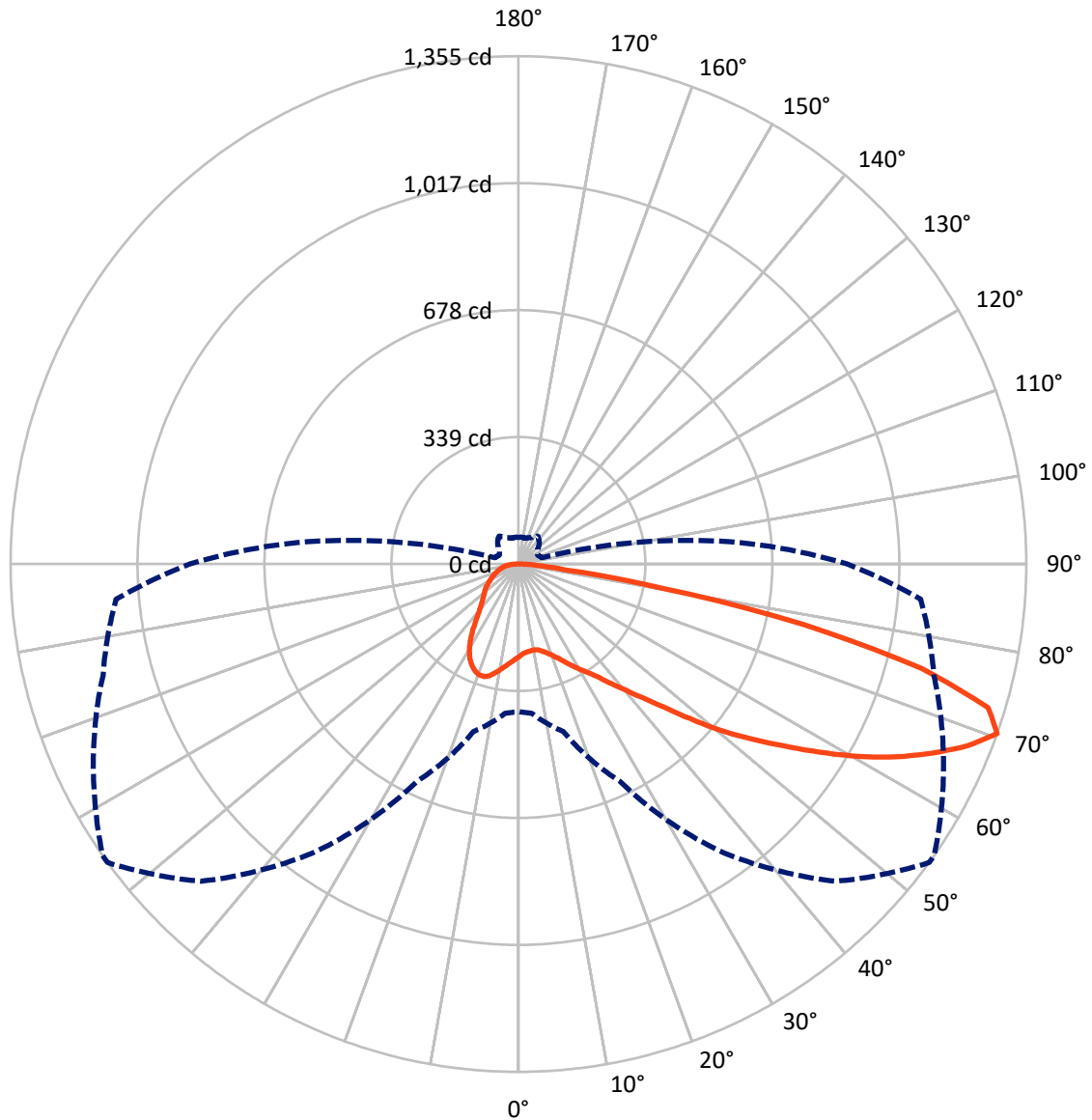
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.9 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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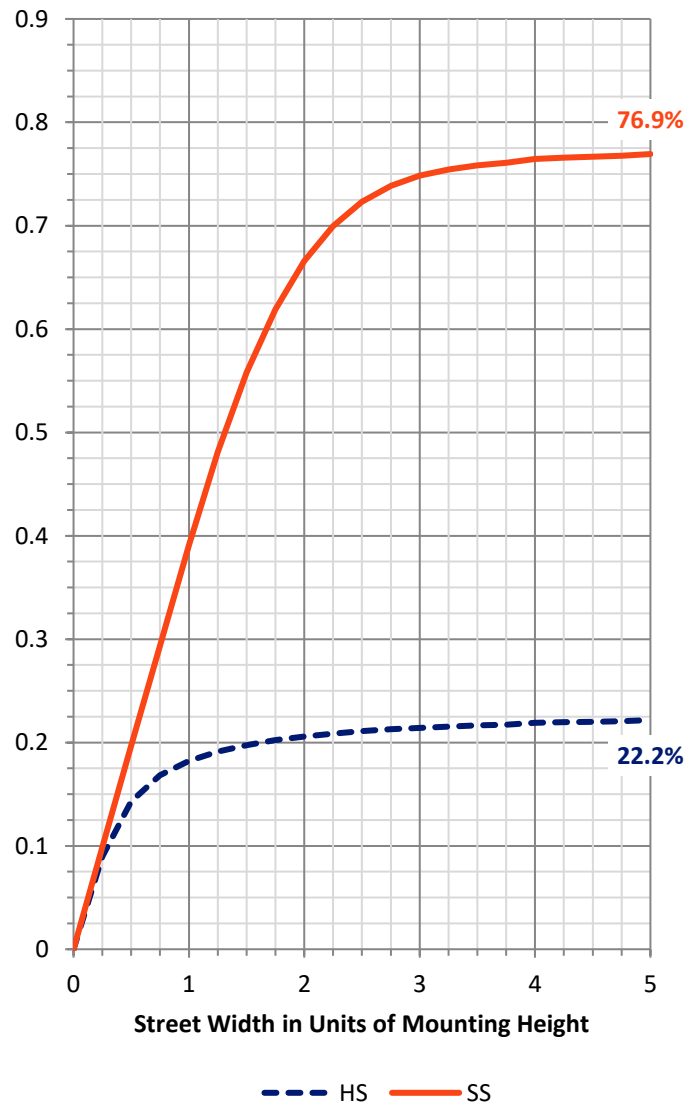
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	501.0	0.0	501.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	1708.0	0.0	1708.0
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	2209.0	0.0	2209.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.3	1.1
10°-20°	77.5	3.5
20°-30°	134.6	6.1
30°-40°	196.8	8.9
40°-50°	308.8	14.0
50°-60°	474.9	21.5
60°-70°	580.2	26.3
70°-80°	359.7	16.3
80°-90°	52.3	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°	2209.0	100.0
0°-180°	2209.0	100.0

**Coefficient of Utilization**



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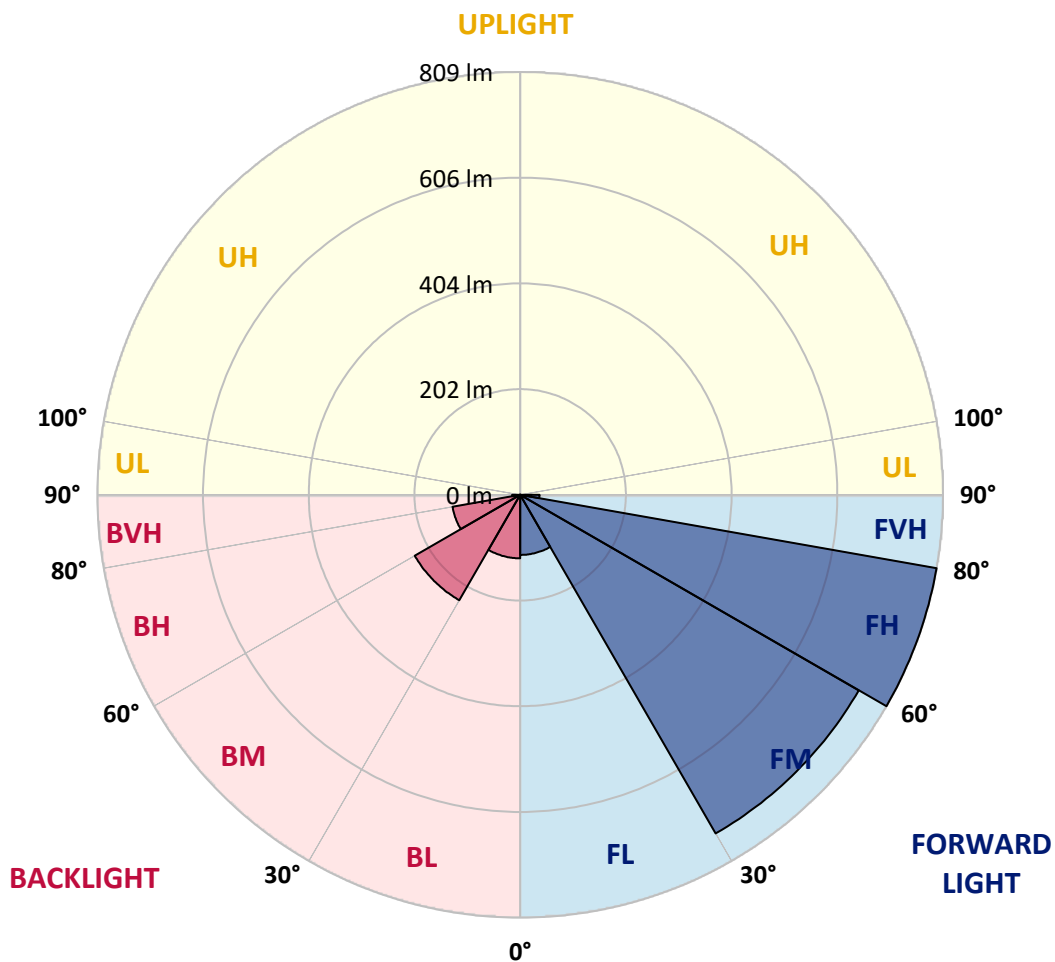
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	114.9	5.2			
FM	(30°-60°)	747.6	33.8			
FH	(60°-80°)	808.5	36.6			G1/1800
FVH	(80°-90°)	36.9	1.7			G1/100
BL	(0°-30°)	121.5	5.5	B1/500		
BM	(30°-60°)	232.8	10.5	B1/1000		
BH	(60°-80°)	131.4	5.9	B1/500		G1/500
BVH	(80°-90°)	15.4	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°	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1
2.5°	237.4	236.6	236.6	237.8	238.2	239.5	239.5	239.9	241.1	243.1	245.5
5°	230.2	229.7	230.2	231.8	232.6	235.0	235.8	236.2	238.6	241.9	245.5
7.5°	222.9	222.5	223.3	225.7	228.1	231.8	233.8	234.2	237.8	242.3	247.1
10°	220.4	220.0	221.3	223.3	225.7	229.7	233.0	233.4	238.6	243.9	250.8
12.5°	223.7	223.3	224.5	226.5	228.9	231.8	235.4	235.8	242.7	249.6	256.9
15°	231.8	231.8	232.2	233.4	235.8	238.2	241.5	241.9	249.2	257.3	264.5
17.5°	244.3	243.5	243.5	243.1	244.7	245.9	250.0	250.4	258.1	265.3	272.6
20°	259.7	259.3	257.7	255.6	255.2	256.0	260.1	260.5	268.2	274.2	281.1
22.5°	278.3	278.7	275.1	270.6	268.6	269.8	273.4	273.8	279.5	284.8	290.8
25°	303.0	301.7	296.5	290.0	286.0	286.0	289.6	289.6	294.9	298.1	302.2
27.5°	326.4	324.0	319.1	309.8	303.4	304.6	308.2	308.2	313.1	314.3	316.3
30°	351.9	349.5	343.4	331.7	323.2	322.4	326.8	326.4	332.9	332.5	330.9
32.5°	383.1	381.8	371.7	356.8	345.4	342.6	346.6	347.1	351.1	349.9	344.6
35°	426.7	426.3	417.0	390.7	375.8	370.5	372.9	372.9	375.8	372.5	363.6
37.5°	481.7	482.6	474.5	435.6	414.6	405.7	406.1	405.7	406.5	402.9	393.6
40°	536.8	538.8	538.4	491.5	464.8	449.4	443.7	442.9	444.9	443.3	434.4
42.5°	609.2	614.0	602.7	560.2	530.3	504.4	489.0	487.0	491.5	493.5	485.0
45°	684.4	682.8	665.0	634.2	607.1	574.0	544.8	541.6	544.8	550.9	542.0
47.5°	723.6	722.4	718.0	702.6	698.6	660.5	616.4	613.6	607.5	616.0	605.5
50°	788.3	789.6	771.4	769.7	786.7	765.7	697.3	690.9	679.9	686.8	677.9
52.5°	835.3	830.0	818.7	832.8	885.8	874.5	773.4	770.6	760.4	758.8	754.8
55°	854.3	854.3	856.3	889.1	964.7	949.7	855.9	858.7	845.0	833.7	838.9
57.5°	859.9	862.4	879.8	934.0	1057.3	1008.4	946.9	951.0	931.1	908.5	925.1
60°	832.0	839.3	881.0	959.4	1109.5	1070.7	1042.8	1044.0	1015.3	982.1	1011.2
62.5°	760.4	769.3	843.8	970.0	1101.0	1134.6	1133.4	1136.2	1097.0	1055.7	1092.1
65°	672.7	681.6	760.8	940.4	1094.5	1180.3	1216.3	1224.0	1173.4	1118.0	1142.7
67.5°	543.6	555.4	630.6	840.9	1063.0	1217.9	1294.0	1302.0	1232.5	1150.4	1138.2
70°	394.0	399.6	462.7	639.1	934.4	1197.3	1355.4	1355.0	1251.9	1147.9	1077.6
72.5°	189.7	194.2	248.8	396.8	668.2	1016.1	1310.9	1318.6	1225.2	1112.7	938.8
75°	78.1	82.5	100.7	167.5	350.7	671.5	1111.1	1129.3	1112.7	998.7	734.6
77.5°	48.5	50.2	59.1	86.6	160.2	313.5	777.8	802.5	881.8	800.1	485.0
80°	36.4	37.6	44.1	60.7	101.1	115.7	386.3	417.4	534.3	459.1	219.6
82.5°	30.3	30.7	35.2	44.1	68.8	66.3	123.8	137.9	249.2	175.1	75.6
85°	28.3	29.1	31.6	31.6	43.7	41.7	51.4	53.8	72.4	59.9	26.3
87.5°	14.6	13.8	27.9	24.7	22.7	20.2	21.8	23.5	27.1	28.7	11.7
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°	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1	247.1
2.5°	246.3	247.5	249.6	251.6	254.0	256.9	258.5	260.5	262.1	261.3	260.9
5°	247.5	249.6	254.0	258.1	262.9	268.6	272.2	276.3	279.5	280.3	279.1
7.5°	249.6	253.2	259.3	266.6	273.0	280.3	286.0	291.6	295.7	296.5	296.5
10°	254.4	258.5	266.6	276.3	284.0	291.6	298.1	302.6	306.2	307.8	307.8
12.5°	261.3	266.2	275.9	287.6	296.1	303.4	307.0	309.0	310.6	312.3	312.7
15°	269.4	274.6	286.4	298.9	307.8	311.5	311.5	311.1	311.1	311.9	312.7
17.5°	277.5	283.1	295.3	308.6	314.3	312.3	309.4	308.2	307.4	307.0	308.2
20°	286.0	291.6	303.8	316.3	314.7	306.2	302.2	299.3	296.9	295.7	297.3
22.5°	295.3	300.5	313.1	321.6	309.4	296.5	288.8	284.4	280.3	277.9	279.5
25°	306.2	311.5	323.6	323.2	300.1	281.9	269.8	262.5	258.1	255.6	255.6
27.5°	319.1	323.6	335.3	319.1	287.2	262.5	244.7	237.8	236.6	234.6	234.6
30°	332.5	336.1	346.2	309.8	269.4	237.0	217.6	214.4	214.8	212.8	213.2
32.5°	346.2	349.9	352.7	296.1	246.3	208.3	195.4	192.9	192.5	190.9	189.3
35°	365.7	370.9	353.5	277.5	218.4	184.4	175.1	172.7	170.3	164.6	164.6
37.5°	395.2	400.8	351.5	254.4	189.7	165.8	157.3	154.1	150.1	144.4	142.4
40°	435.6	435.6	347.1	228.5	166.6	150.9	142.8	138.7	134.3	128.6	127.4
42.5°	483.4	472.0	340.2	202.2	149.7	140.8	133.5	129.0	123.8	117.3	116.5
45°	539.2	508.4	330.5	178.8	137.1	134.7	130.2	122.6	113.7	106.8	105.6
47.5°	593.4	541.2	321.2	162.2	126.6	132.3	128.6	115.7	103.5	93.8	92.6
50°	652.8	570.3	310.2	148.4	118.5	130.6	126.6	105.6	92.2	85.3	84.5
52.5°	712.3	599.9	298.5	133.9	111.6	127.4	121.8	98.3	91.8	82.5	81.3
55°	775.0	634.2	284.8	117.7	103.5	120.9	115.3	97.9	94.7	82.5	79.7
57.5°	836.1	672.3	262.5	101.9	94.7	111.2	112.9	95.5	88.6	81.7	78.5
60°	903.6	712.7	225.7	88.6	87.0	103.1	109.6	90.2	81.7	79.3	77.7
62.5°	957.8	749.1	176.4	79.3	80.5	96.7	105.6	87.0	78.9	76.9	76.4
65°	981.3	749.9	126.6	71.2	74.0	90.6	101.5	84.1	76.4	75.6	75.2
67.5°	956.6	708.7	89.0	63.5	67.1	84.9	96.3	81.3	74.0	74.4	73.6
70°	876.9	621.7	65.1	56.2	60.7	78.9	90.6	77.7	71.2	72.0	70.8
72.5°	733.7	484.6	52.2	50.2	55.4	72.4	84.9	73.6	66.7	67.1	64.7
75°	542.0	321.2	43.7	44.9	49.3	66.3	77.7	68.4	61.9	60.3	58.7
77.5°	322.4	165.0	36.0	39.2	44.1	59.1	69.6	61.9	56.6	53.8	52.6
80°	133.1	66.7	29.5	33.2	38.4	52.6	61.5	54.2	50.6	47.7	46.1
82.5°	53.0	32.8	23.5	27.1	32.4	45.7	53.8	47.7	44.1	42.1	37.6
85°	20.2	16.2	15.8	19.0	24.3	35.2	44.5	40.0	37.2	32.0	30.7
87.5°	8.1	7.3	7.3	9.3	13.8	22.2	32.0	27.9	29.1	23.1	23.5
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)