

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: P265920

Luminaire Tested: **ARCH-AF24-20-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265920  
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-AF24-20-D-U-T4W-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2454.7 lumens  
Efficiency: N/A  
Efficacy: 116.9 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 - 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

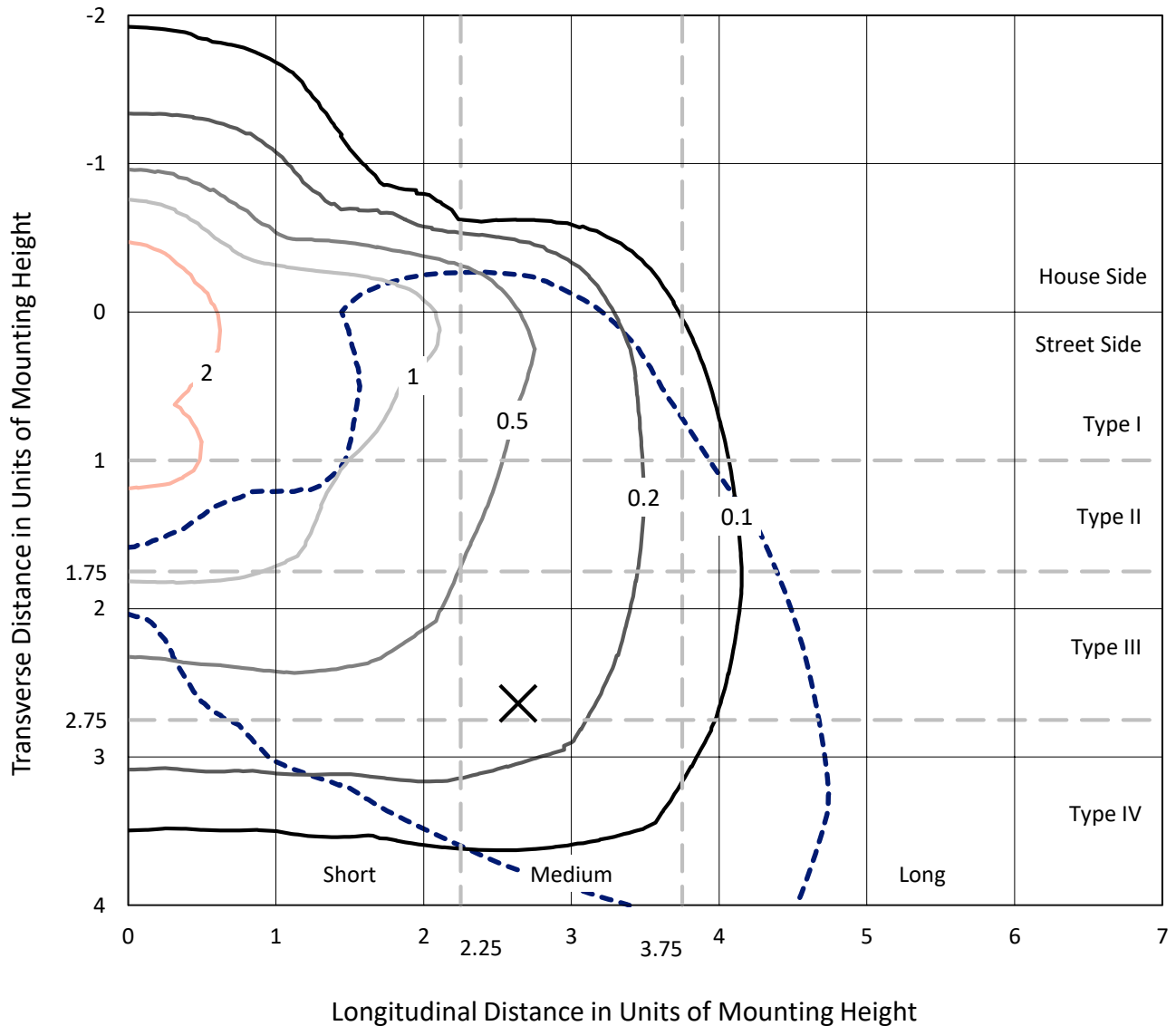


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

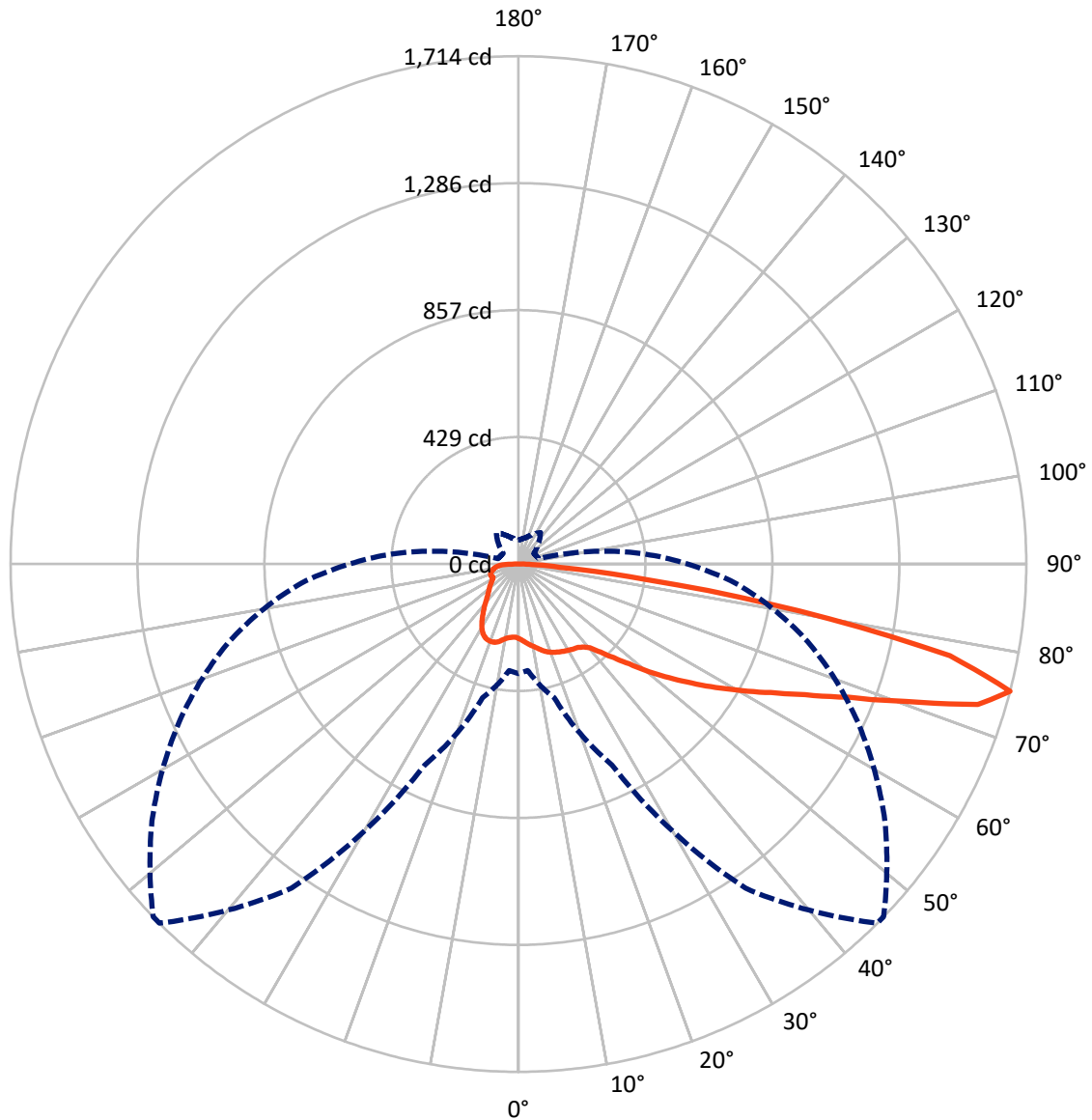


Based on 10 foot mounting height. Maximum calculated value = 2.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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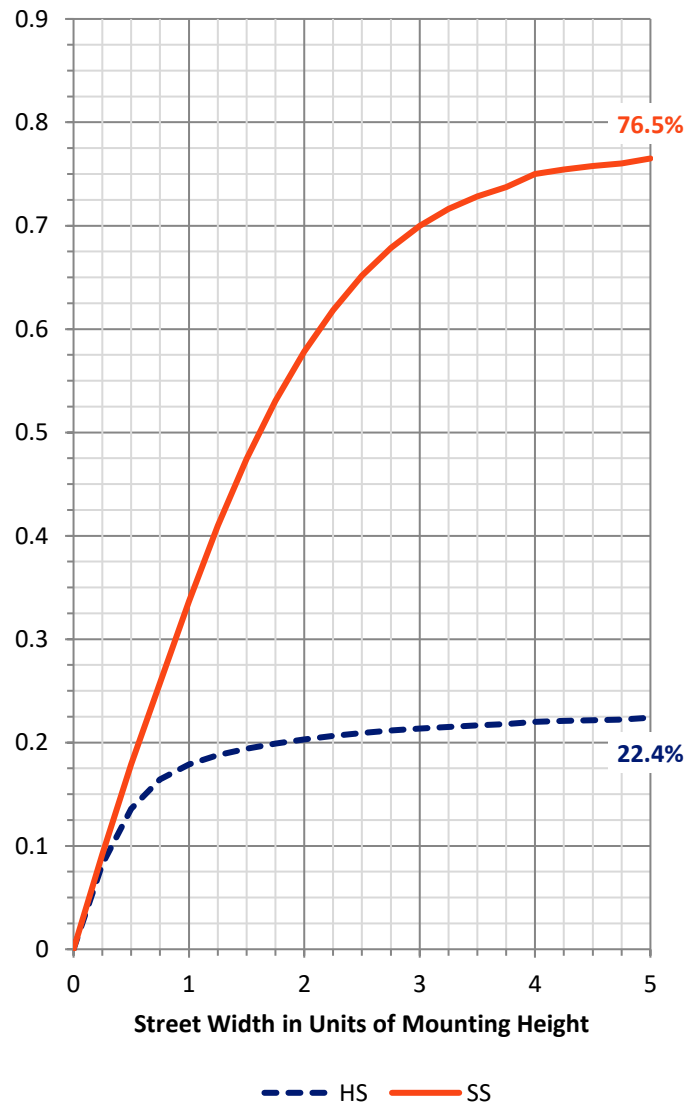
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	568.7	0.0	568.7
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	1886.0	0.0	1886.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	2454.7	0.0	2454.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.9	1.0
10°-20°	80.8	3.3
20°-30°	138.7	5.6
30°-40°	193.9	7.9
40°-50°	284.5	11.6
50°-60°	443.2	18.1
60°-70°	637.7	26.0
70°-80°	555.5	22.6
80°-90°	95.4	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°	2454.7	100.0
0°-180°	2454.7	100.0



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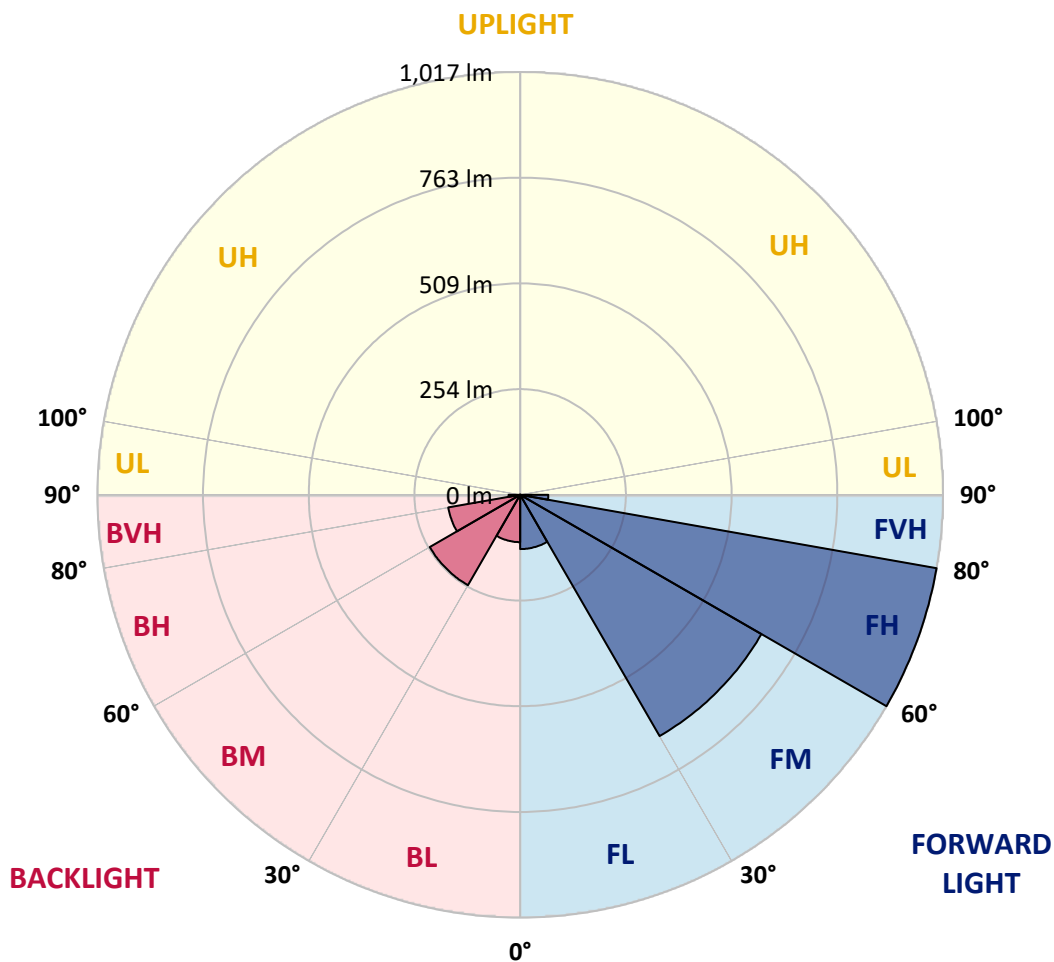
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	130.5	5.3			
FM	(30°-60°)	670.3	27.3			
FH	(60°-80°)	1017.5	41.5			G1/1800
FVH	(80°-90°)	67.7	2.8			G1/100
BL	(0°-30°)	113.9	4.6	B1/500		
BM	(30°-60°)	251.3	10.2	B1/1000		
BH	(60°-80°)	175.7	7.2	B1/500		G1/500
BVH	(80°-90°)	27.7	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-G1**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6
2.5°	264.0	262.1	262.1	260.7	260.7	258.4	257.4	256.8	254.5	253.1	251.6
5°	279.4	276.9	276.5	273.2	271.6	266.4	266.0	262.7	258.4	254.0	250.6
7.5°	293.1	291.8	289.3	286.0	281.7	275.1	274.5	269.3	262.1	256.5	251.6
10°	303.2	302.3	299.0	294.6	289.9	283.1	282.6	276.9	268.4	261.6	254.9
12.5°	315.1	313.7	309.5	303.6	298.4	292.2	291.8	287.0	277.4	268.9	260.1
15°	326.7	324.6	319.4	313.7	307.9	302.6	302.6	297.5	287.5	277.4	267.3
17.5°	332.4	331.4	326.2	319.9	315.1	311.4	310.9	306.1	296.0	285.5	274.5
20°	334.3	334.7	329.9	323.3	319.9	318.0	317.6	314.1	303.2	293.1	282.6
22.5°	333.8	335.2	331.4	324.2	323.3	323.3	323.3	319.4	310.9	300.8	290.3
25°	335.6	337.7	334.7	326.2	326.2	328.1	328.1	326.2	318.4	309.8	299.3
27.5°	342.3	343.8	341.4	329.5	329.9	332.8	332.4	332.8	328.1	319.9	309.5
30°	350.5	352.3	349.5	334.7	334.3	337.1	337.1	339.5	336.1	327.5	319.0
32.5°	372.4	372.0	362.8	340.5	339.0	341.9	341.9	344.3	342.3	335.6	327.5
35°	437.8	430.6	410.6	359.1	344.8	346.1	346.1	350.5	351.4	346.1	339.0
37.5°	504.7	502.3	487.1	408.6	365.8	355.3	354.8	360.9	365.3	360.9	356.2
40°	572.0	570.2	566.8	475.2	409.6	371.4	370.0	375.3	382.9	380.2	377.2
42.5°	634.7	633.7	637.0	540.5	465.5	406.4	402.0	395.9	406.8	405.9	405.9
45°	683.8	686.1	688.1	601.7	526.1	451.2	446.0	425.0	439.8	443.7	446.5
47.5°	711.5	713.3	720.0	661.3	586.9	503.3	499.5	465.1	484.6	496.1	504.2
50°	751.2	745.9	751.6	719.6	659.9	571.1	560.6	519.0	543.8	564.0	583.0
52.5°	789.3	780.6	785.5	786.9	743.0	637.4	626.5	582.6	613.6	645.2	678.9
55°	823.7	823.1	828.0	852.3	823.1	708.7	696.1	652.8	697.7	731.5	788.8
57.5°	851.4	856.2	877.1	928.3	915.8	785.9	772.2	734.4	787.4	821.3	916.4
60°	883.8	891.5	926.3	992.6	1000.4	867.1	852.9	825.6	879.5	913.9	1063.9
62.5°	894.8	905.9	977.4	1060.4	1088.7	955.9	943.0	925.0	976.5	1007.4	1210.9
65°	821.8	842.8	1005.7	1095.4	1183.6	1063.0	1051.9	1036.1	1072.9	1093.4	1310.7
67.5°	801.6	811.3	950.6	1145.5	1273.0	1200.5	1189.4	1162.2	1163.1	1154.6	1343.1
70°	773.5	784.0	894.4	1183.2	1400.9	1388.6	1375.1	1294.9	1245.8	1193.8	1279.1
72.5°	658.9	655.7	770.7	1081.5	1462.6	1621.6	1605.8	1437.7	1306.9	1159.8	1079.7
75°	370.0	360.5	467.5	748.3	1335.6	1714.2	1713.7	1509.8	1263.9	1010.4	734.9
77.5°	107.4	104.6	154.1	313.7	899.2	1489.3	1507.4	1361.8	1054.8	725.8	403.5
80°	50.7	51.6	66.4	103.7	383.8	961.1	1013.3	896.8	630.3	334.7	166.6
82.5°	32.0	32.5	45.4	66.8	162.4	436.4	479.4	403.5	249.6	144.6	73.5
85°	20.0	20.0	30.1	43.9	96.9	139.4	151.4	137.5	107.0	78.8	40.2
87.5°	11.0	11.0	18.1	25.3	53.0	44.8	46.4	54.8	66.8	48.1	20.0
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°	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6	251.6
2.5°	251.2	250.2	248.8	248.3	247.8	247.4	247.8	248.8	247.8	247.8	248.3
5°	249.6	248.8	246.9	246.9	247.4	247.8	250.2	251.6	252.2	252.2	252.2
7.5°	249.6	248.3	246.9	247.4	248.3	250.2	254.0	256.5	258.4	258.8	258.8
10°	252.2	250.2	249.3	250.2	253.1	254.5	258.4	262.1	264.6	265.4	265.4
12.5°	256.5	254.5	254.5	256.5	260.1	262.1	265.4	268.4	271.2	272.6	272.6
15°	263.7	261.1	261.6	265.0	269.3	271.2	273.7	274.5	276.9	278.8	278.8
17.5°	270.3	267.9	268.9	272.6	275.5	276.5	277.8	277.4	278.4	279.8	280.4
20°	277.8	275.5	276.0	278.4	278.8	277.8	277.8	276.5	276.0	278.4	279.4
22.5°	285.5	283.1	282.6	281.3	278.8	276.5	275.1	273.7	272.6	275.1	276.0
25°	294.6	291.3	288.9	282.6	276.5	272.1	270.3	269.3	268.9	271.2	272.1
27.5°	304.6	301.3	294.1	280.8	270.7	263.7	262.1	262.1	263.2	264.6	265.4
30°	314.1	310.9	298.0	276.5	260.7	250.2	248.8	250.2	252.7	254.0	255.5
32.5°	323.7	320.3	300.4	269.9	245.9	232.5	231.7	234.0	237.8	238.8	239.7
35°	336.7	333.4	303.2	260.1	227.4	213.0	212.0	213.4	216.9	218.2	219.6
37.5°	354.8	352.9	307.5	249.6	210.2	194.4	191.5	190.5	192.4	192.0	193.9
40°	378.6	380.2	315.1	235.9	193.3	177.1	170.9	168.1	166.1	162.4	164.3
42.5°	413.5	414.5	323.7	220.2	179.0	160.9	152.8	147.5	143.6	137.5	138.5
45°	464.7	456.5	333.8	203.5	166.1	148.0	138.5	132.3	127.0	121.8	122.2
47.5°	532.4	507.6	344.8	189.5	153.3	137.5	128.9	121.8	115.5	111.3	111.7
50°	616.0	571.1	355.6	176.6	140.3	129.4	121.8	114.2	107.9	103.7	103.1
52.5°	726.3	647.5	362.8	162.4	127.5	122.2	115.5	108.3	100.8	95.5	95.0
55°	840.9	736.3	369.2	145.2	115.1	114.2	110.9	102.6	93.7	86.9	86.0
57.5°	966.9	831.3	373.9	128.5	105.6	107.4	106.4	96.9	86.9	80.7	80.2
60°	1081.5	929.7	358.7	113.6	96.9	100.8	101.7	93.7	88.4	89.8	90.2
62.5°	1197.1	1005.7	300.4	102.6	91.2	96.5	104.6	104.2	101.7	104.2	104.6
65°	1238.7	1021.4	213.0	93.7	85.5	98.4	113.6	112.6	101.7	97.3	96.5
67.5°	1215.2	974.7	143.3	86.4	81.1	100.8	123.2	112.6	97.8	92.2	90.2
70°	1103.9	859.5	105.0	79.3	77.3	100.3	128.5	112.2	95.9	89.8	87.3
72.5°	880.5	663.3	84.5	72.6	71.7	97.8	131.3	111.3	94.1	87.3	84.5
75°	570.2	412.5	71.1	65.8	63.1	94.1	129.8	108.3	91.6	83.2	81.1
77.5°	264.6	177.7	60.6	58.3	54.8	88.4	125.7	102.6	86.4	78.3	75.9
80°	123.2	84.0	51.2	50.7	49.1	83.5	119.8	95.9	80.2	73.5	69.7
82.5°	65.8	50.7	41.5	41.5	42.9	77.9	112.6	87.9	72.1	68.8	58.7
85°	34.9	29.1	30.1	32.5	36.8	68.8	103.1	79.3	63.1	52.6	51.2
87.5°	17.6	18.7	18.7	22.0	28.1	55.9	85.0	65.4	53.4	42.9	42.0
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)