

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: P214807

Luminaire Tested: **ARCH-AF16-30-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214807  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
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-T3-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2715 lumens  
Efficiency: N/A  
Efficacy: 84.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

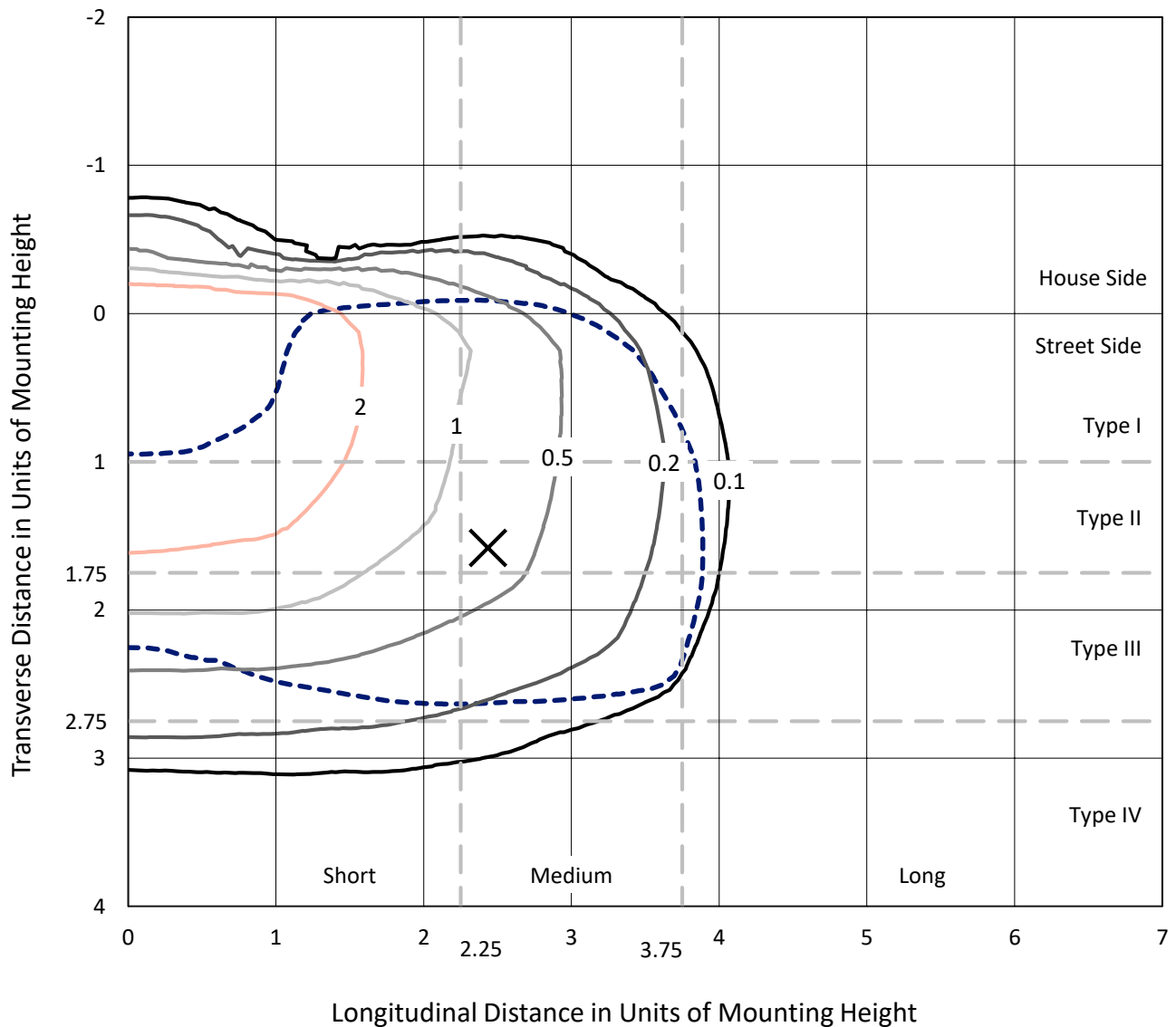
Input Watts (W): 32  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

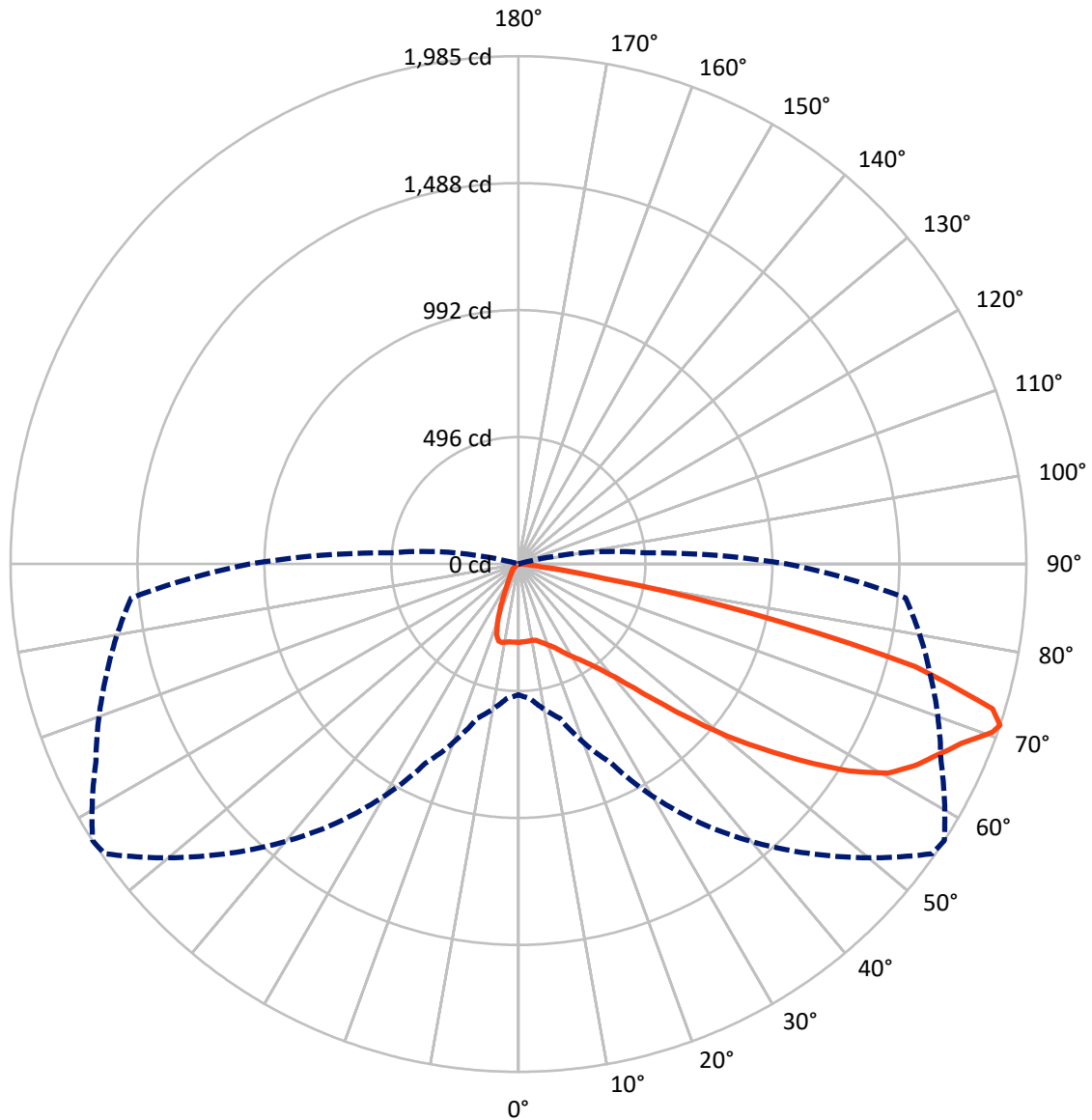


Based on 10 foot mounting height. Maximum calculated value = 3.8 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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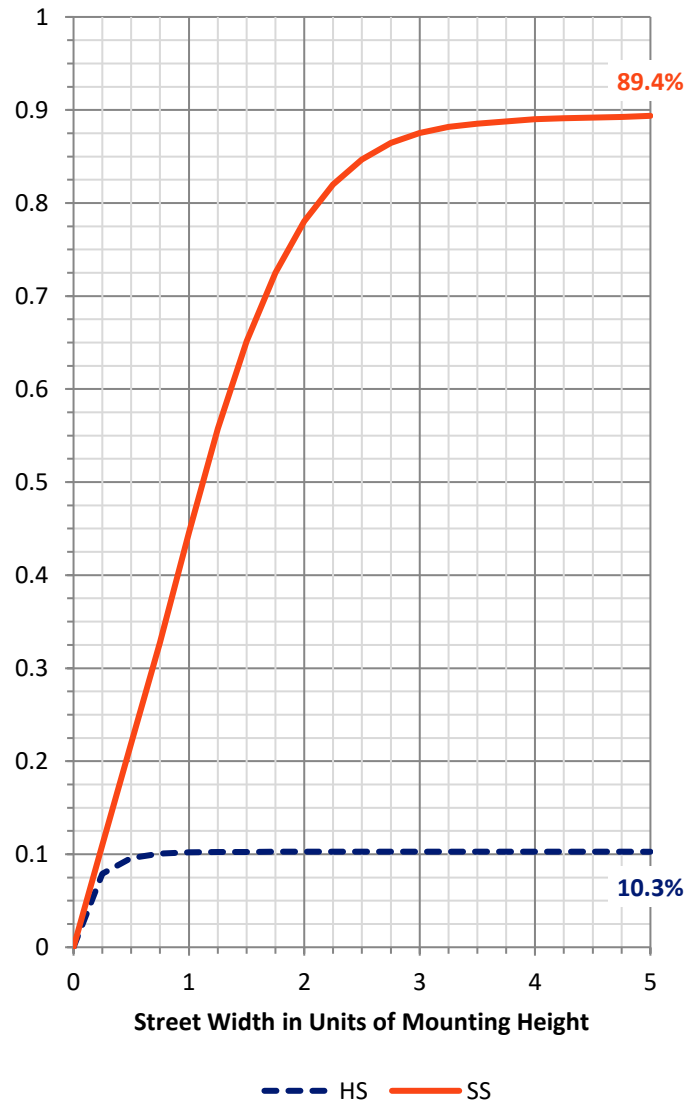
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	281.4	0.0	281.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2433.6	0.0	2433.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2715.0	0.0	2715.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.8	1.1
10°-20°	77.0	2.8
20°-30°	120.2	4.4
30°-40°	203.1	7.5
40°-50°	394.6	14.5
50°-60°	662.6	24.4
60°-70°	790.7	29.1
70°-80°	416.7	15.3
80°-90°	21.2	0.8
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°	2715.0	100.0
0°-180°	2715.0	100.0



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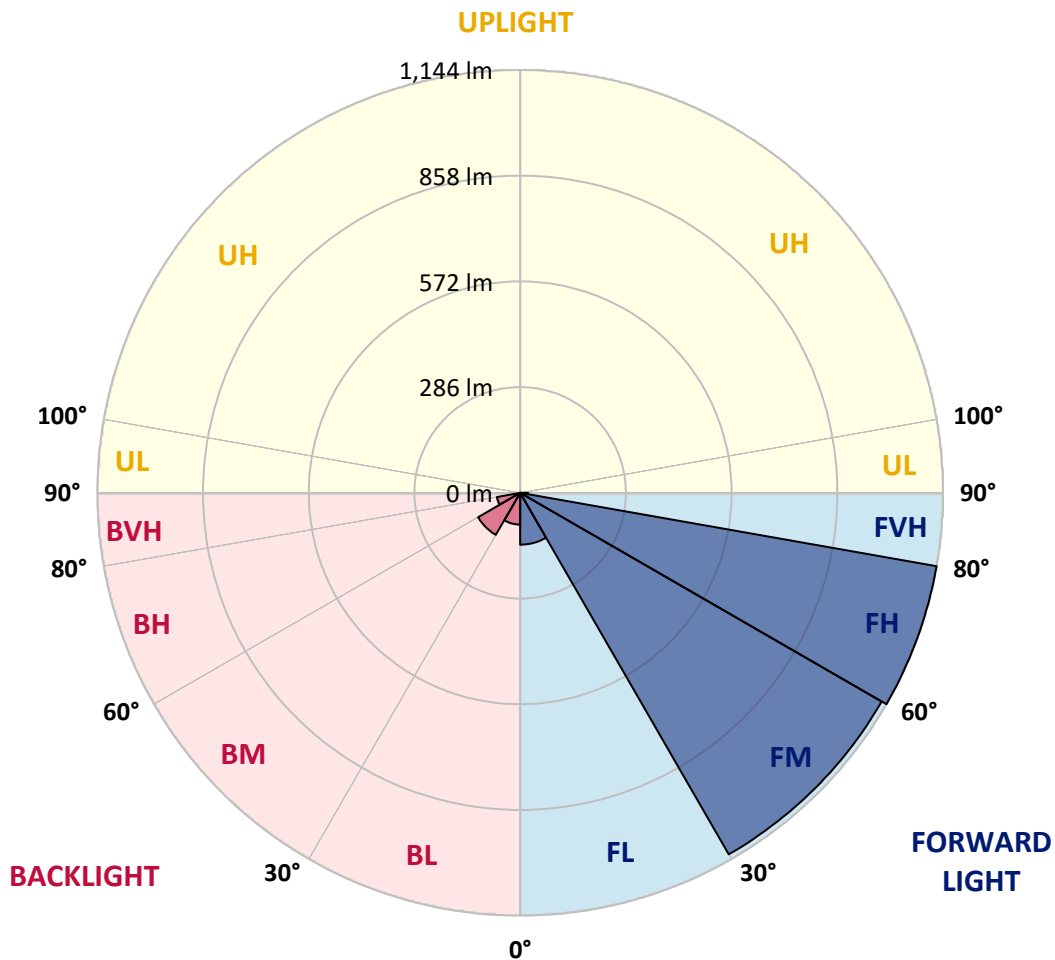
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	140.2	5.2			
FM	(30°-60°)	1128.9	41.6			
FH	(60°-80°)	1143.6	42.1			G1/1800
FVH	(80°-90°)	21.0	0.8			G1/100
BL	(0°-30°)	85.9	3.2	B0/110		
BM	(30°-60°)	131.4	4.8	B0/220		
BH	(60°-80°)	63.9	2.4	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8
2.5°	302.4	302.4	302.4	303.0	303.7	303.7	304.9	304.3	304.3	304.3	305.6
5°	294.2	294.8	295.4	296.7	299.2	301.1	304.3	304.3	304.9	306.2	306.8
7.5°	282.8	283.4	285.3	287.9	292.9	297.3	302.4	303.7	305.6	308.7	310.0
10°	275.8	277.1	279.6	282.8	288.5	294.2	300.5	302.4	308.1	313.8	317.0
12.5°	273.9	274.6	277.1	282.2	289.1	296.1	304.3	306.2	314.4	323.3	328.3
15°	277.1	277.7	279.0	284.7	292.9	301.8	312.5	315.1	325.2	335.3	341.6
17.5°	282.8	282.8	284.1	289.1	298.0	308.1	322.0	325.8	337.2	348.6	355.6
20°	286.6	286.6	288.5	293.6	303.7	317.0	333.4	338.5	351.1	363.8	370.1
22.5°	290.4	291.0	292.9	298.6	310.0	328.3	347.3	352.4	366.9	380.2	386.6
25°	301.1	300.5	301.1	306.2	319.5	342.3	366.3	372.6	387.8	402.4	405.5
27.5°	330.9	329.6	321.4	318.2	328.3	356.8	390.3	396.7	414.4	428.9	428.9
30°	399.2	396.7	376.4	350.5	342.3	370.1	413.1	422.0	444.8	457.4	453.6
32.5°	485.9	480.2	454.2	410.0	377.1	387.8	437.2	447.3	476.4	487.1	478.9
35°	580.8	580.1	547.9	490.9	444.1	424.5	468.2	480.2	516.9	526.4	513.1
37.5°	681.4	683.9	662.4	583.9	528.9	484.6	509.3	523.2	568.1	579.5	566.9
40°	793.3	792.7	784.5	691.5	630.8	570.0	568.8	581.4	635.8	653.5	635.8
42.5°	935.1	933.8	904.1	820.5	754.1	681.4	655.4	659.9	720.6	749.7	723.8
45°	1079.3	1070.4	1036.3	964.2	905.3	819.3	769.9	769.9	821.8	861.7	821.2
47.5°	1159.7	1150.8	1136.9	1097.0	1079.3	983.1	910.4	901.5	942.0	982.5	925.6
50°	1265.3	1265.3	1230.5	1215.3	1245.7	1178.0	1065.4	1056.5	1076.1	1108.4	1033.8
52.5°	1348.8	1333.6	1309.0	1322.2	1408.9	1377.9	1220.4	1203.3	1218.5	1226.7	1128.0
55°	1383.6	1369.1	1367.2	1415.9	1550.0	1507.0	1379.2	1364.0	1362.7	1322.2	1210.3
57.5°	1390.6	1377.9	1402.0	1487.4	1687.3	1612.6	1537.3	1526.0	1490.5	1389.3	1294.4
60°	1331.7	1338.1	1396.3	1526.6	1768.3	1704.4	1670.8	1658.8	1577.2	1446.2	1388.0
62.5°	1210.9	1226.1	1334.9	1530.4	1738.5	1741.7	1744.9	1736.6	1644.3	1498.1	1482.3
65°	1067.9	1072.3	1203.3	1477.9	1686.6	1730.3	1799.3	1798.6	1695.5	1556.3	1588.6
67.5°	880.0	887.6	1000.9	1300.7	1582.9	1725.2	1870.8	1868.9	1753.7	1622.8	1651.9
70°	654.8	664.3	756.0	1011.6	1351.3	1662.0	1964.4	1965.6	1815.1	1673.4	1608.2
71°	510.6	527.6	623.8	859.1	1233.0	1598.1	1973.2	1984.6	1822.0	1666.4	1518.4
72.5°	250.5	270.8	391.6	604.8	1014.8	1455.1	1915.0	1937.2	1778.4	1579.7	1298.2
75°	65.2	69.0	117.0	247.4	544.1	964.2	1544.3	1600.6	1453.8	1202.7	793.3
77.5°	41.1	42.4	55.0	96.2	203.7	366.3	907.2	935.1	830.7	609.2	279.6
80°	29.1	29.7	34.8	62.0	118.9	106.9	326.4	338.5	300.5	161.3	50.0
82.5°	17.7	17.7	25.3	39.9	73.4	58.2	86.0	91.7	81.0	44.9	16.4
85°	10.1	10.8	15.8	27.2	34.8	28.5	32.3	34.2	34.8	29.7	7.0
87.5°	8.2	8.9	13.9	22.8	19.0	13.9	13.9	14.6	15.2	17.7	3.2
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°	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8	306.8
2.5°	305.6	305.6	306.2	305.6	305.6	305.6	306.2	306.2	306.2	307.5	308.1
5°	306.8	306.8	306.8	306.2	305.6	305.6	306.8	307.5	307.5	309.4	309.4
7.5°	310.0	310.0	308.7	307.5	306.2	304.3	304.9	305.6	304.9	305.6	305.6
10°	317.0	317.0	315.1	312.5	308.7	303.0	295.4	286.0	277.1	273.9	272.7
12.5°	328.3	327.7	323.9	319.5	311.3	291.7	263.2	229.7	201.8	194.2	191.7
15°	341.0	339.7	335.3	327.7	305.6	253.7	194.2	151.2	124.6	118.3	117.0
17.5°	354.3	352.4	346.1	330.9	279.6	188.5	125.3	94.9	80.3	79.1	79.7
20°	368.2	365.7	356.8	324.6	225.9	125.9	81.0	73.4	72.1	72.1	72.8
22.5°	384.0	380.9	368.8	301.8	164.5	83.5	69.6	69.0	68.3	67.7	67.7
25°	402.4	398.6	380.2	260.7	113.2	68.3	66.4	64.5	63.3	62.0	61.4
27.5°	424.5	419.4	389.1	210.0	77.8	63.9	62.6	59.5	56.9	54.4	54.4
30°	446.7	440.3	386.6	158.2	63.3	59.5	56.9	53.1	49.3	46.8	46.2
32.5°	470.1	463.7	370.1	106.3	57.6	54.4	51.2	45.6	41.1	38.0	37.3
35°	504.9	499.8	337.8	70.2	51.9	48.1	43.7	38.0	32.3	29.1	28.5
37.5°	556.7	550.4	298.0	53.8	45.6	39.9	36.1	29.7	24.0	20.9	20.2
40°	626.3	607.3	250.5	47.4	39.9	32.9	27.8	21.5	17.1	15.2	15.2
42.5°	707.3	662.4	199.3	43.0	35.4	27.2	20.2	14.6	12.0	11.4	11.4
45°	793.3	713.6	148.0	39.9	31.0	21.5	14.6	10.1	8.9	8.2	8.2
47.5°	881.9	755.4	103.1	36.1	25.9	16.4	10.1	7.6	6.3	5.7	5.7
50°	964.8	782.6	72.8	32.3	22.1	12.0	7.6	5.7	4.4	4.4	4.4
52.5°	1022.4	780.1	52.5	27.8	17.1	8.2	5.1	3.8	3.8	3.8	3.8
55°	1073.0	770.6	41.1	24.0	13.3	5.7	3.8	3.2	3.2	2.5	2.5
57.5°	1116.0	755.4	34.8	19.6	9.5	4.4	2.5	2.5	1.9	1.9	1.9
60°	1152.7	736.4	29.1	16.4	6.3	3.2	1.9	1.3	1.3	0.6	1.3
62.5°	1202.7	724.4	25.3	12.7	4.4	1.9	1.3	0.6	0.6	0.0	0.0
65°	1239.4	701.6	21.5	8.9	2.5	1.3	0.6	0.6	0.0	0.0	0.0
67.5°	1240.6	660.5	15.8	5.1	1.9	1.3	0.6	0.0	0.0	0.0	0.0
70°	1140.7	563.1	10.1	2.5	1.3	0.6	0.6	0.0	0.0	0.0	0.0
71°	1048.9	498.5	8.2	1.9	1.3	0.6	0.0	0.0	0.0	0.0	0.0
72.5°	864.2	366.3	6.3	1.9	0.6	0.6	0.0	0.0	0.0	0.0	0.0
75°	476.4	132.9	3.2	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	152.5	40.5	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.9	6.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.9	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)