

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: P231348

Luminaire Tested: **ARCH-M-AF48-40-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-40-D-U-T4W-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4030 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G2

Input Watts (W): 38  
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

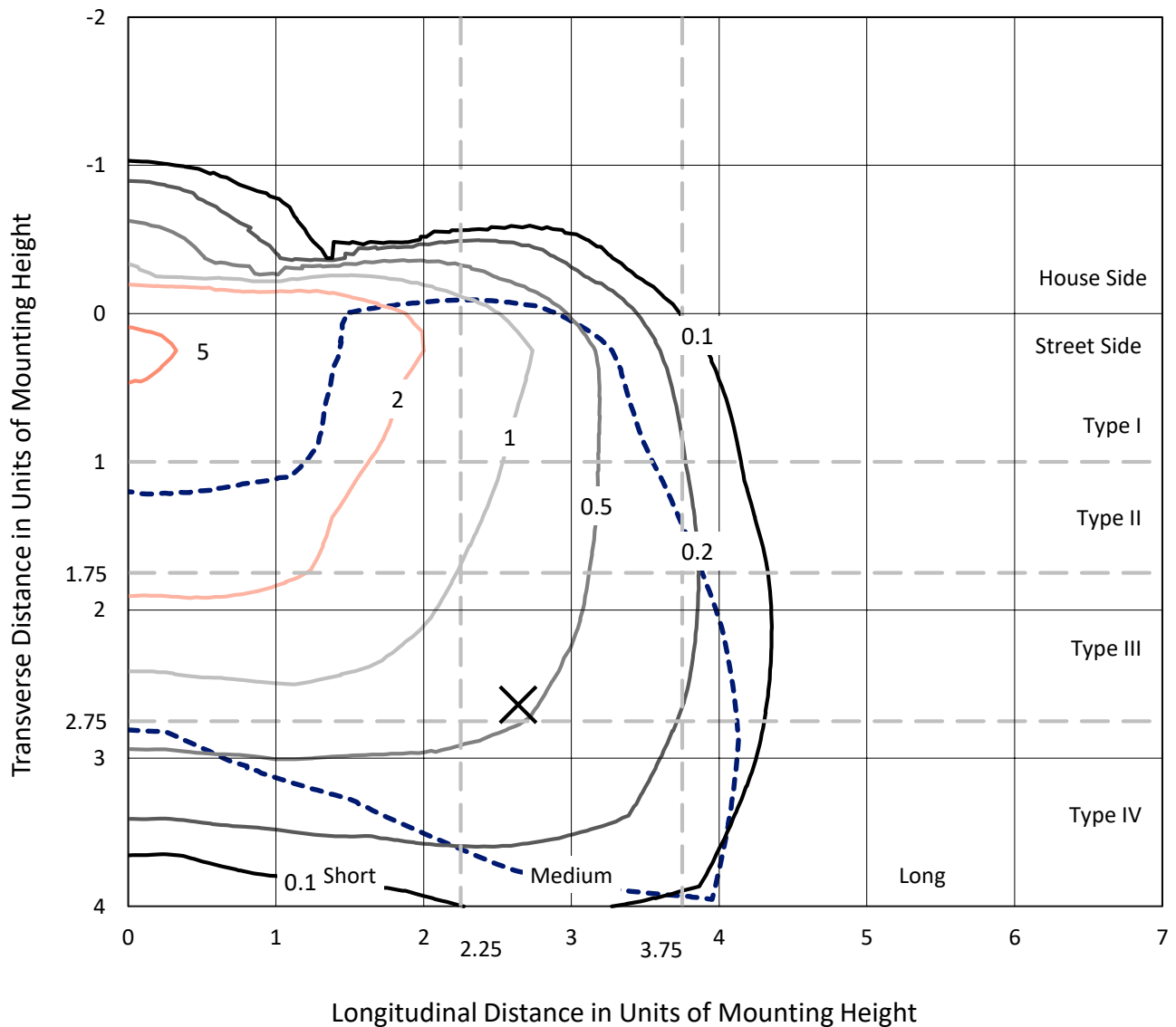


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

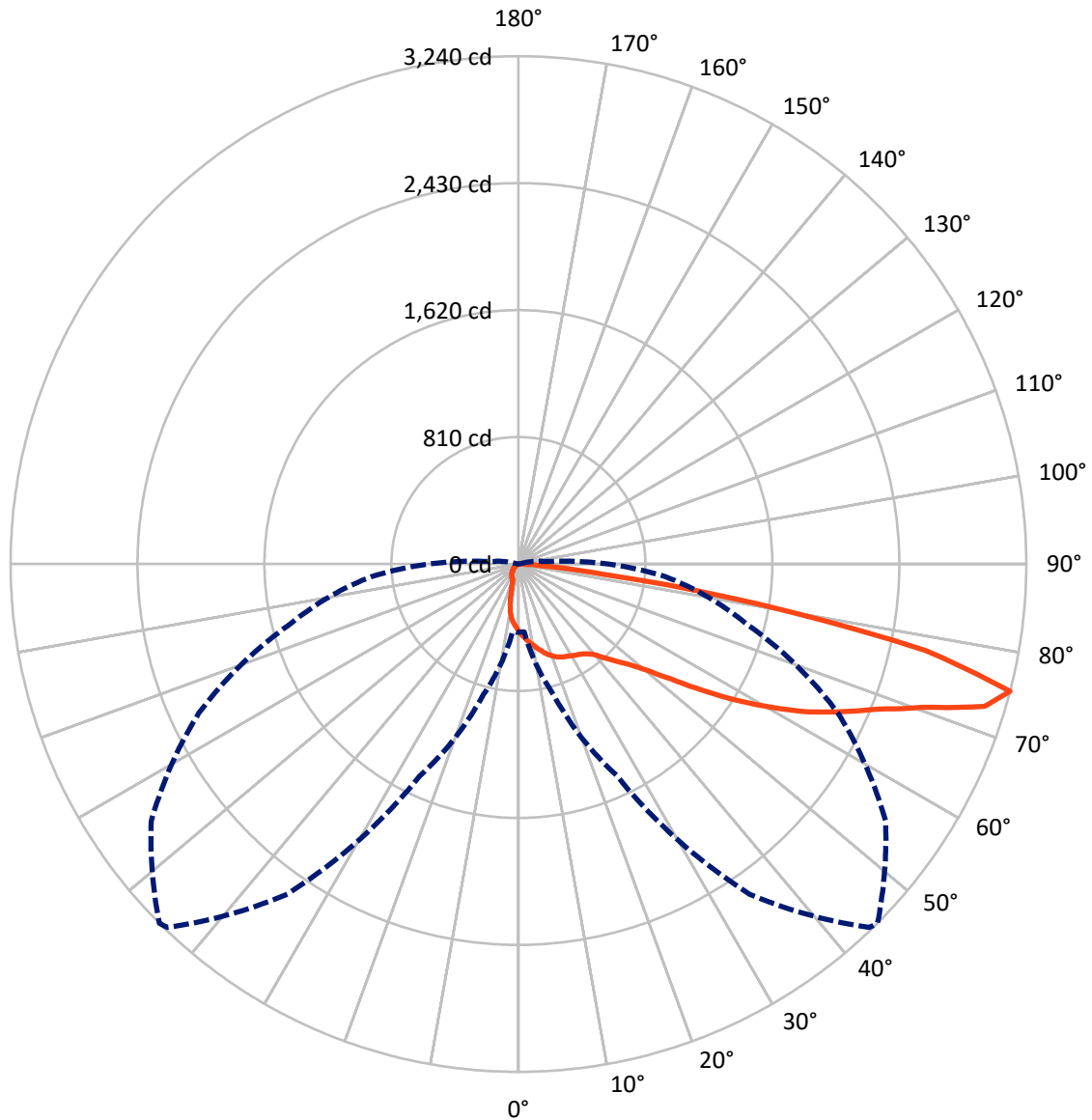


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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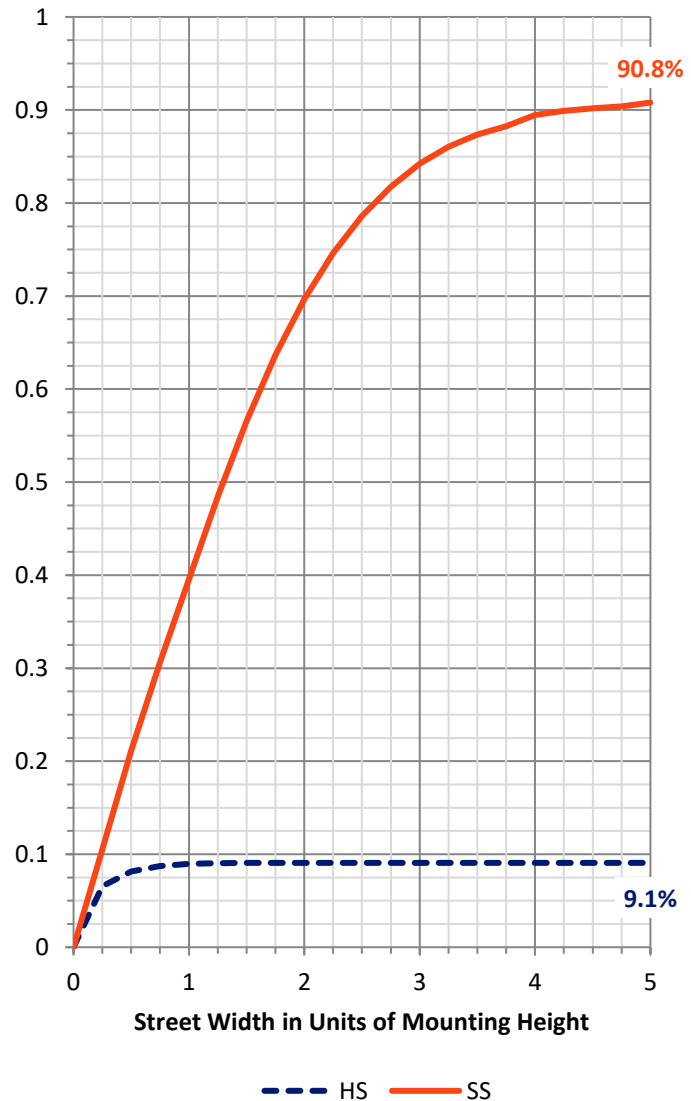
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	368.6	0.0	368.6
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	3661.4	0.0	3661.4
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	4030.0	0.0	4030.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.7	1.0
10°-20°	115.2	2.9
20°-30°	190.9	4.7
30°-40°	276.2	6.9
40°-50°	452.3	11.2
50°-60°	805.9	20.0
60°-70°	1184.8	29.4
70°-80°	893.8	22.2
80°-90°	70.1	1.7
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°	4030.0	100.0
0°-180°	4030.0	100.0



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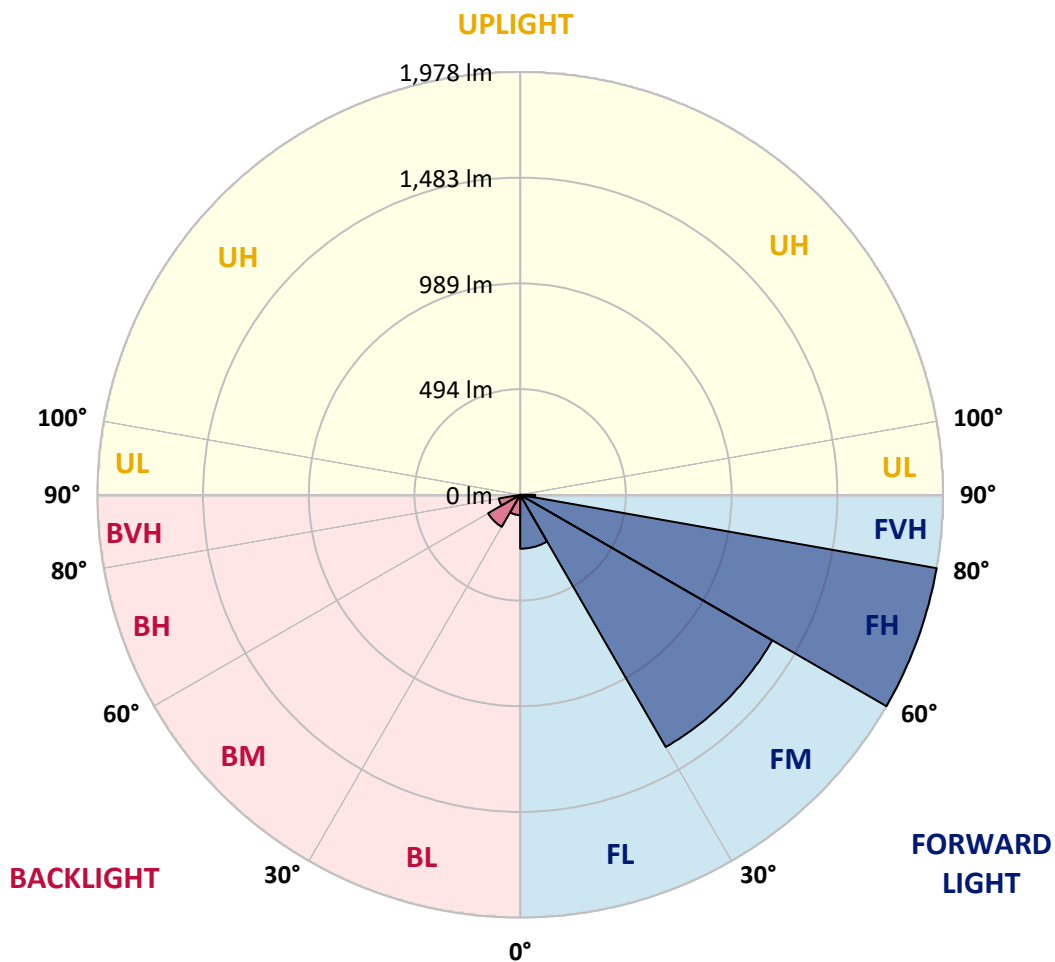
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	252.1	6.3			
FM	(30°-60°)	1361.7	33.8			
FH	(60°-80°)	1977.7	49.1			G2/5000
FVH	(80°-90°)	69.9	1.7			G1/100
BL	(0°-30°)	94.7	2.4	B0/110		
BM	(30°-60°)	172.7	4.3	B0/220		
BH	(60°-80°)	101.0	2.5	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-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0
2.5°	468.2	468.2	467.3	466.3	461.5	456.8	455.8	453.0	444.4	438.7	432.9
5°	507.3	508.3	506.4	501.6	491.1	480.6	479.7	472.0	455.8	444.4	432.0
7.5°	544.5	546.4	541.6	533.1	520.7	505.4	504.5	490.2	469.2	453.0	434.8
10°	576.0	576.0	569.3	558.8	545.5	529.3	527.3	511.1	487.3	467.3	443.4
12.5°	610.3	609.4	599.8	585.5	570.3	555.0	554.0	534.0	511.1	485.4	455.8
15°	641.8	639.9	627.5	614.1	597.9	581.7	580.7	560.7	536.9	506.4	473.9
17.5°	658.9	658.0	646.5	633.2	619.8	607.4	606.5	585.5	559.8	528.3	492.1
20°	661.8	662.8	653.2	641.8	634.1	627.5	627.5	608.4	580.7	547.4	511.1
22.5°	662.8	665.6	658.9	643.7	641.8	642.7	644.6	629.4	600.8	569.3	531.2
25°	669.4	673.2	668.5	650.4	648.5	655.1	657.0	650.4	624.6	593.1	554.0
27.5°	682.8	686.6	682.8	659.9	657.0	663.7	665.6	669.4	650.4	616.0	577.9
30°	709.5	710.4	701.9	673.2	667.5	676.1	679.0	689.5	674.2	638.0	600.8
32.5°	756.2	746.7	720.9	682.8	678.0	687.6	690.4	701.9	696.1	658.9	624.6
35°	851.6	802.0	742.9	696.1	691.4	700.9	704.7	720.9	723.8	688.5	654.2
37.5°	850.6	805.8	794.4	721.9	715.2	721.9	726.6	746.7	758.1	727.6	697.1
40°	910.7	891.6	891.6	770.5	748.6	758.1	762.9	782.9	802.9	779.1	747.6
42.5°	1099.5	1087.1	1073.8	864.0	795.3	822.0	824.9	837.3	861.1	853.5	816.3
45°	1310.3	1298.8	1247.3	1022.3	875.4	880.2	886.9	906.9	941.2	955.5	911.6
47.5°	1475.2	1463.8	1419.9	1213.0	1000.3	958.4	958.4	997.5	1050.9	1087.1	1045.2
50°	1607.8	1594.4	1567.7	1416.1	1205.4	1070.9	1065.2	1111.0	1190.1	1246.4	1217.8
52.5°	1736.5	1697.4	1681.2	1625.9	1437.1	1234.0	1218.7	1251.1	1360.8	1430.4	1406.6
55°	1822.3	1816.6	1799.5	1818.5	1680.3	1432.3	1419.0	1425.6	1563.0	1609.7	1580.1
57.5°	1902.4	1901.5	1939.6	2028.3	1945.4	1659.3	1638.3	1627.8	1758.5	1747.0	1772.8
60°	2001.6	1984.5	2073.1	2200.0	2188.5	1880.5	1856.7	1835.7	1908.2	1875.7	2003.5
62.5°	2006.4	2001.6	2181.9	2364.0	2429.8	2105.6	2077.9	2002.6	2038.8	2001.6	2223.8
65°	1824.3	1848.1	2227.6	2450.8	2632.0	2303.0	2269.6	2152.3	2155.2	2130.4	2483.2
67.5°	1783.2	1795.6	2101.7	2544.2	2777.9	2502.3	2470.8	2324.9	2290.6	2292.5	2636.7
70°	1681.2	1700.3	1945.4	2537.5	2893.2	2768.3	2736.9	2578.6	2495.6	2403.1	2518.5
72.5°	1284.5	1316.9	1639.3	2224.8	2861.8	3116.4	3107.8	2899.9	2577.6	2206.6	1905.3
75°	434.8	433.9	861.1	1494.3	2570.9	3223.2	3240.4	2859.9	2248.6	1522.0	946.0
77.5°	93.5	94.4	177.4	605.5	1707.9	2588.1	2653.9	2157.1	1450.4	678.0	216.5
80°	45.8	46.7	73.4	160.2	682.8	1451.4	1554.4	1109.0	535.9	135.4	36.2
82.5°	22.9	23.8	38.1	84.9	252.7	515.9	551.2	408.1	153.5	76.3	18.1
85°	8.6	8.6	19.1	50.5	115.4	121.1	148.8	118.2	92.5	62.0	4.8
87.5°	1.9	1.9	10.5	24.8	51.5	38.1	38.1	36.2	56.3	42.0	1.9
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°	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0
2.5°	430.1	426.3	419.6	412.9	408.1	402.4	399.6	396.7	395.7	394.8	396.7
5°	425.3	419.6	407.2	396.7	387.2	379.5	373.8	368.1	365.2	363.3	364.3
7.5°	425.3	416.7	398.6	382.4	367.1	350.9	334.7	322.3	312.8	307.1	308.0
10°	430.1	418.6	394.8	372.9	344.3	309.9	274.6	247.9	229.8	219.3	219.3
12.5°	440.6	425.3	395.7	361.4	312.8	252.7	199.3	166.9	153.5	145.9	146.9
15°	454.9	436.8	400.5	346.2	268.9	187.9	139.2	118.2	118.2	120.2	121.1
17.5°	471.1	451.1	404.3	323.3	212.7	134.5	109.7	107.8	110.6	115.4	115.4
20°	487.3	465.4	406.2	287.0	159.3	106.8	103.9	103.9	105.9	110.6	111.6
22.5°	507.3	483.5	404.3	242.2	119.2	101.1	100.1	100.1	100.1	105.9	105.9
25°	528.3	504.5	396.7	194.5	101.1	97.3	96.3	95.4	95.4	100.1	101.1
27.5°	552.1	526.4	378.6	148.8	95.4	93.5	92.5	90.6	90.6	94.4	94.4
30°	576.0	551.2	350.9	112.5	90.6	89.6	87.7	85.8	83.9	87.7	87.7
32.5°	601.7	576.9	314.7	89.6	83.9	83.9	83.0	80.1	78.2	80.1	81.1
35°	636.1	606.5	273.7	78.2	75.3	75.3	75.3	74.4	70.6	72.5	72.5
37.5°	681.8	647.5	226.0	72.5	68.7	66.8	66.8	66.8	63.9	64.8	64.8
40°	740.0	695.2	180.2	67.7	63.9	59.1	57.2	58.2	56.3	56.3	55.3
42.5°	819.1	746.7	135.4	63.9	60.1	53.4	49.6	48.6	46.7	45.8	45.8
45°	932.6	809.6	97.3	60.1	57.2	46.7	42.9	40.1	35.3	32.4	32.4
47.5°	1079.5	881.1	72.5	56.3	54.4	41.0	36.2	30.5	23.8	21.9	21.9
50°	1258.8	961.2	61.0	50.5	49.6	36.2	28.6	20.0	13.4	11.4	12.4
52.5°	1433.3	1036.6	54.4	44.8	43.9	31.5	21.0	10.5	5.7	5.7	5.7
55°	1580.1	1090.0	49.6	40.1	38.1	24.8	11.4	4.8	2.9	2.9	2.9
57.5°	1712.7	1120.5	44.8	35.3	30.5	17.2	4.8	1.9	1.9	1.0	1.0
60°	1833.8	1138.6	39.1	30.5	23.8	9.5	1.9	1.0	1.0	0.0	0.0
62.5°	1953.0	1152.0	33.4	24.8	18.1	3.8	1.0	1.0	0.0	0.0	0.0
65°	2043.6	1147.2	26.7	20.0	11.4	1.9	1.0	0.0	0.0	0.0	0.0
67.5°	2040.7	1082.3	20.0	15.3	5.7	1.0	0.0	0.0	0.0	0.0	0.0
70°	1825.2	911.6	13.4	9.5	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1295.0	584.6	8.6	5.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	570.3	177.4	4.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	111.6	41.0	2.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	26.7	4.8	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.4	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)