

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: P258177

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258177  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-40-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3654.7 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

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

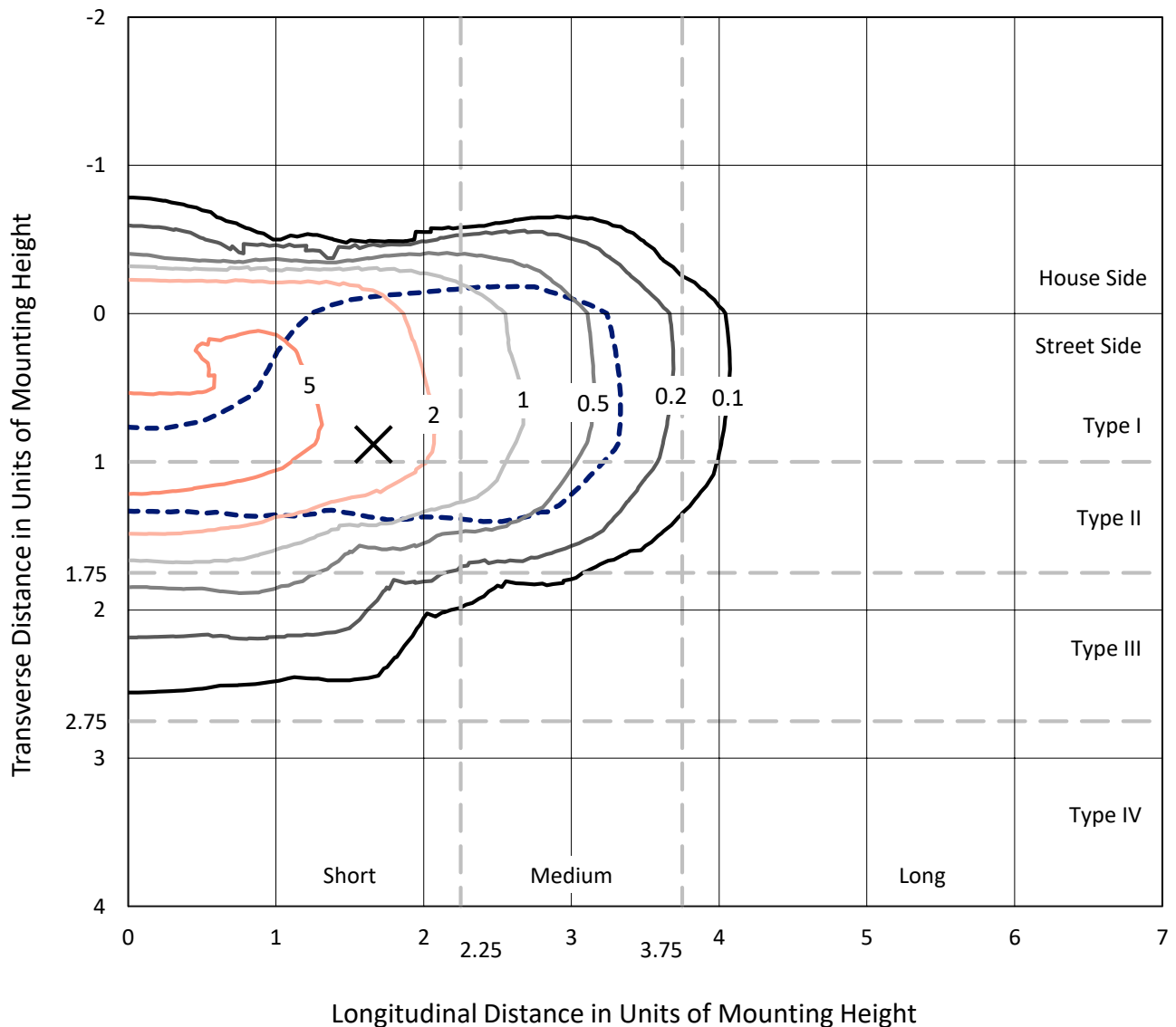


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

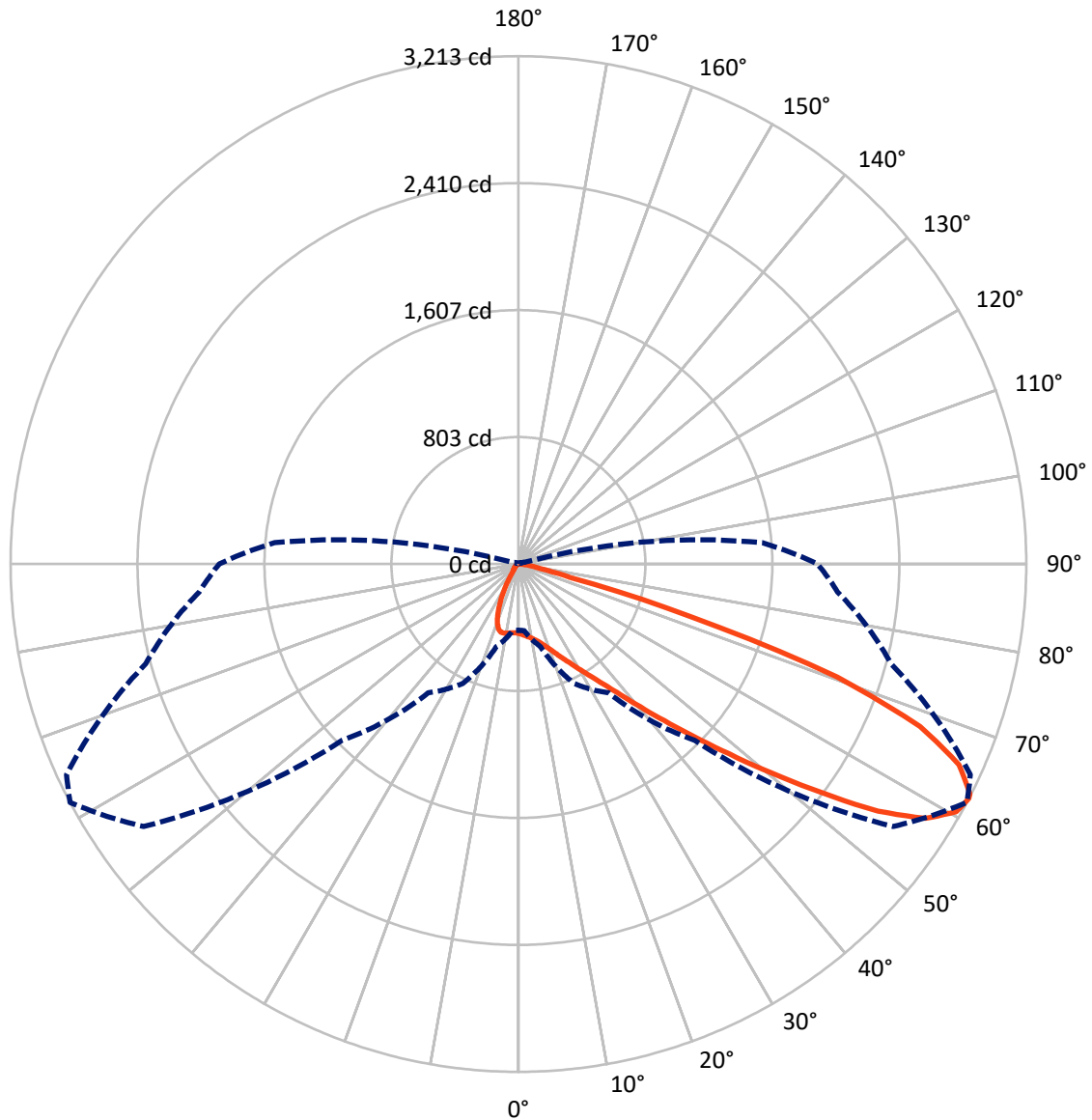


Based on 10 foot mounting height. Maximum calculated value = 8.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

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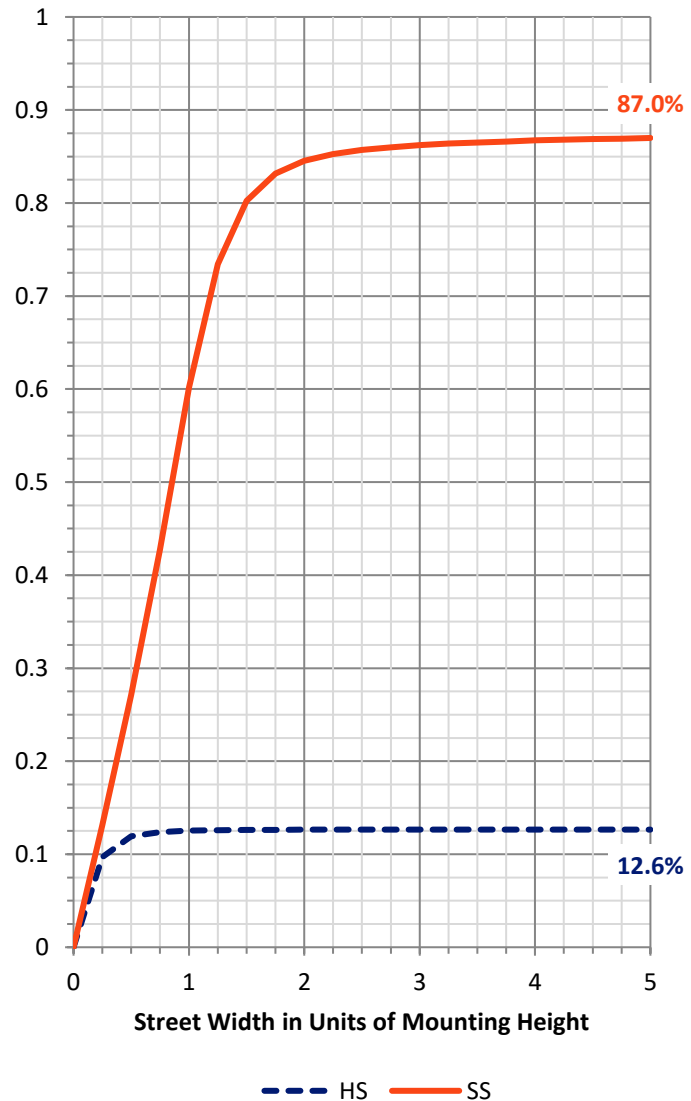
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	467.3	0.0	467.3
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	3187.4	0.0	3187.4
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	3654.7	0.0	3654.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.4	1.2
10°-20°	118.3	3.2
20°-30°	198.7	5.4
30°-40°	380.9	10.4
40°-50°	778.0	21.3
50°-60°	1029.6	28.2
60°-70°	799.8	21.9
70°-80°	288.7	7.9
80°-90°	18.4	0.5
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°	3654.7	100.0
0°-180°	3654.7	100.0



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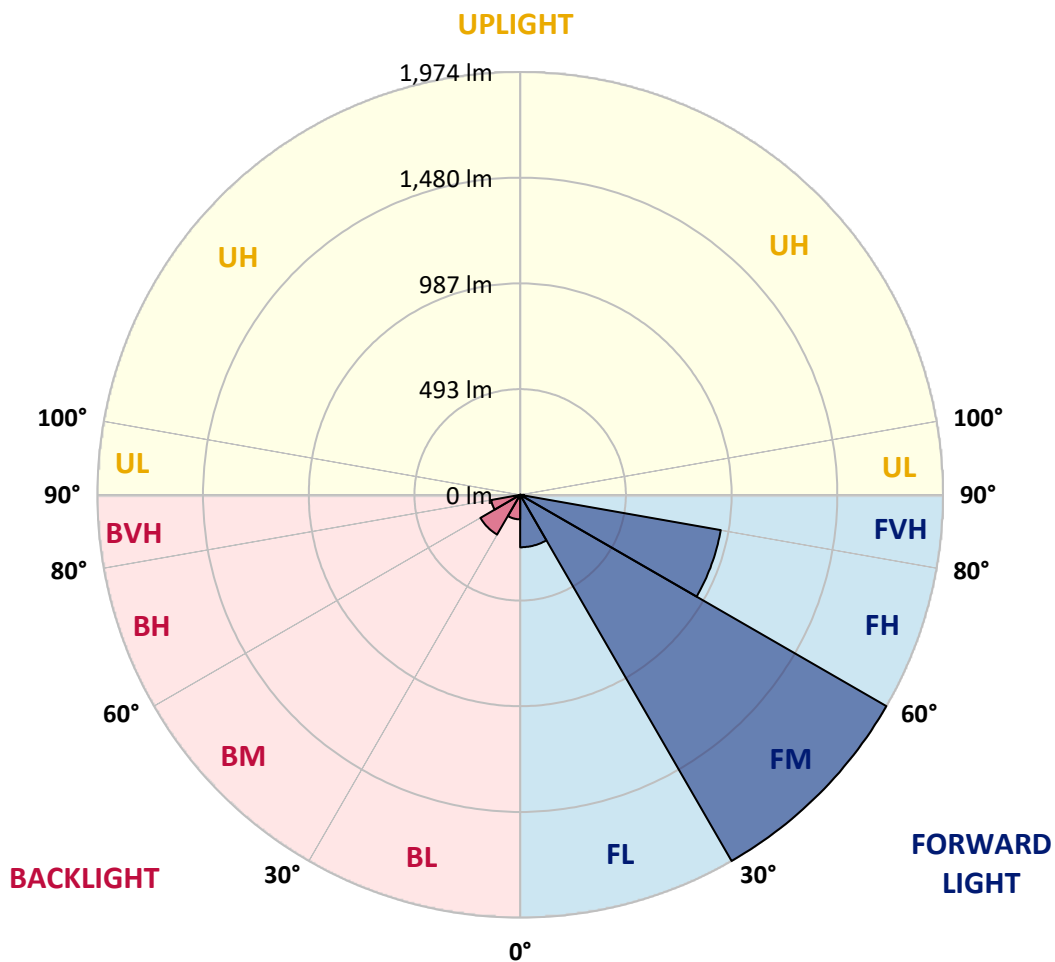
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	245.0	6.7			
FM	(30°-60°)	1973.9	54.0			
FH	(60°-80°)	950.9	26.0			G1/1800
FVH	(80°-90°)	17.6	0.5			G1/100
BL	(0°-30°)	114.4	3.1	B1/500		
BM	(30°-60°)	214.5	5.9	B0/220		
BH	(60°-80°)	137.6	3.8	B1/500		G1/500
BVH	(80°-90°)	0.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2
2.5°	451.9	451.0	450.1	449.3	449.3	448.3	447.4	445.7	443.8	442.1	441.2
5°	460.0	459.1	458.3	459.1	458.3	458.3	457.4	455.5	453.8	451.0	448.3
7.5°	466.3	465.5	464.6	465.5	466.3	467.2	468.0	466.3	465.5	461.8	459.1
10°	474.4	473.5	472.6	474.4	474.4	478.9	479.7	478.9	478.0	475.3	470.8
12.5°	486.1	487.0	487.0	488.8	490.6	495.9	497.7	495.1	495.1	491.4	486.1
15°	507.6	507.6	507.6	509.4	510.4	517.6	519.3	516.6	518.4	512.1	506.8
17.5°	528.3	529.3	531.0	534.6	534.6	541.0	544.4	544.4	548.1	540.0	532.8
20°	549.0	549.9	552.6	560.6	560.6	568.7	575.0	577.8	581.4	573.3	560.6
22.5°	571.4	571.4	575.9	588.5	585.8	602.0	613.7	618.2	621.8	611.0	591.2
25°	605.7	602.0	605.7	617.4	615.4	638.0	659.5	664.0	668.4	655.9	626.3
27.5°	670.3	664.9	652.3	653.2	653.2	679.3	709.8	716.0	718.8	708.0	671.2
30°	799.7	799.7	752.9	721.4	700.8	724.2	767.3	778.2	781.6	765.5	717.0
32.5°	1025.2	1025.2	939.0	859.0	780.7	780.7	830.2	849.9	853.6	834.7	778.2
35°	1312.6	1310.9	1181.5	1072.0	919.2	861.6	903.9	937.1	948.0	922.7	857.1
37.5°	1618.1	1606.5	1467.3	1341.4	1132.2	991.0	1003.6	1047.7	1057.5	1036.9	959.7
40°	1866.1	1852.7	1740.4	1635.3	1407.0	1197.7	1147.3	1187.7	1199.4	1170.7	1081.7
42.5°	2090.7	2057.6	1980.3	1904.8	1723.3	1555.3	1338.8	1355.0	1367.5	1336.9	1219.3
45°	2253.4	2202.2	2162.7	2139.3	2043.1	1947.9	1586.8	1554.4	1558.9	1521.1	1369.3
47.5°	2258.0	2222.0	2225.5	2286.7	2326.2	2322.7	1909.3	1794.2	1777.2	1714.3	1529.2
50°	2042.3	2063.0	2128.5	2302.8	2516.7	2646.0	2293.0	2078.2	2027.0	1913.7	1688.3
52.5°	1682.9	1715.3	1838.3	2132.0	2544.5	2859.0	2690.9	2402.5	2311.0	2111.4	1810.4
55°	1318.1	1319.9	1449.3	1748.4	2358.6	2897.7	3009.0	2759.3	2619.1	2261.4	1891.3
57.5°	906.6	956.0	1120.5	1321.7	1939.0	2705.4	3128.5	3036.0	2855.4	2354.0	1947.9
60°	594.0	596.5	788.0	1020.7	1319.9	2201.2	3055.8	3182.4	3046.8	2408.8	1986.6
62°	418.7	423.2	541.8	833.7	994.6	1577.7	2895.0	3213.0	3154.7	2441.2	2027.0
62.5°	388.2	391.7	491.4	787.1	934.3	1415.1	2837.5	3205.7	3170.8	2452.0	2041.4
65°	284.8	284.8	321.7	541.0	684.6	764.6	2404.4	3063.0	3149.2	2538.2	2095.3
67.5°	220.1	221.9	234.5	333.3	516.6	463.6	1534.6	2741.4	2924.6	2665.8	2125.8
70°	189.6	188.7	197.6	221.0	372.9	308.2	675.7	2139.3	2449.3	2633.4	2098.0
72.5°	140.2	141.1	161.7	194.1	259.7	200.4	305.5	1135.6	1588.5	2061.1	1797.9
75°	89.8	90.8	114.0	152.8	186.9	131.2	176.1	338.7	650.5	1142.9	1099.7
77.5°	60.2	62.0	74.7	107.0	163.6	81.7	110.5	141.9	195.9	428.7	394.4
80°	40.4	40.4	47.6	71.9	103.4	68.3	59.3	94.3	101.5	133.0	66.5
82.5°	27.0	27.0	31.4	47.6	67.4	61.0	35.9	51.3	59.3	66.5	23.4
85°	16.2	16.2	21.6	29.6	44.0	34.1	23.4	28.7	30.6	42.3	12.6
87.5°	9.9	9.0	14.4	20.6	23.4	20.6	15.3	15.3	16.2	23.4	6.3
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°	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2	440.2
2.5°	439.3	438.4	437.6	435.7	433.1	431.2	429.5	427.6	425.9	425.9	428.7
5°	447.4	444.8	441.2	437.6	432.1	428.7	425.9	422.3	420.5	420.5	421.4
7.5°	457.4	454.6	448.3	442.1	434.0	427.6	421.4	413.3	407.0	404.4	407.0
10°	468.0	464.6	455.5	445.7	436.7	420.5	399.8	374.6	353.1	343.2	347.7
12.5°	481.7	477.1	466.3	452.9	432.1	392.7	341.4	283.0	246.2	229.1	232.7
15°	501.4	495.1	479.7	459.1	413.3	328.0	244.4	177.0	142.9	128.5	130.2
17.5°	524.7	516.6	495.9	457.4	364.8	236.3	145.6	103.4	88.9	85.3	85.3
20°	549.9	539.0	512.1	443.8	291.0	148.3	90.8	79.1	73.6	71.0	71.0
22.5°	575.9	561.6	525.6	412.5	207.6	92.6	74.7	66.5	60.2	57.5	57.5
25°	607.4	588.5	539.0	357.6	132.1	74.7	63.8	55.7	49.3	45.8	46.8
27.5°	644.2	619.9	550.7	289.3	85.3	64.7	53.0	44.9	39.6	37.7	37.7
30°	682.9	654.1	553.5	216.6	69.2	55.7	44.0	36.8	33.3	31.4	31.4
32.5°	735.9	698.1	545.4	143.7	58.5	46.8	36.8	30.6	27.9	27.0	27.0
35°	805.9	755.6	526.5	88.9	49.3	38.7	30.6	27.0	24.2	23.4	23.4
37.5°	895.0	835.7	493.3	61.0	42.3	31.4	26.0	23.4	21.6	20.6	20.6
40°	1013.5	932.6	450.1	53.0	35.9	27.0	22.5	20.6	18.9	18.9	18.9
42.5°	1139.2	1050.3	394.4	46.8	30.6	23.4	19.7	17.9	17.1	16.2	16.2
45°	1276.8	1170.7	325.3	41.3	26.0	20.6	17.9	15.3	14.4	14.4	14.4
47.5°	1413.3	1294.7	249.7	35.9	22.5	17.9	15.3	13.4	12.6	11.7	11.7
50°	1553.4	1407.0	183.3	31.4	19.7	16.2	13.4	11.7	9.9	9.0	9.0
52.5°	1655.1	1474.5	133.9	27.0	17.1	13.4	10.8	9.0	7.2	6.3	6.3
55°	1729.6	1515.8	97.9	22.5	15.3	11.7	9.0	7.2	5.4	5.4	4.5
57.5°	1788.0	1535.5	73.6	19.7	13.4	9.9	7.2	5.4	4.5	3.6	3.6
60°	1833.0	1536.4	54.8	16.2	11.7	8.0	5.4	3.6	2.7	2.7	2.7
62°	1892.3	1548.1	44.9	13.4	10.8	7.2	4.5	2.7	1.7	0.9	0.9
62.5°	1909.3	1552.6	43.1	13.4	9.9	6.3	3.6	2.7	1.7	0.9	0.9
65°	1988.3	1560.7	33.3	10.8	8.0	5.4	2.7	1.7	0.0	0.0	0.0
67.5°	2060.2	1548.1	24.2	8.0	6.3	3.6	2.7	0.9	0.0	0.0	0.0
70°	2053.1	1461.9	17.1	5.4	4.5	2.7	1.7	0.0	0.0	0.0	0.0
72.5°	1691.9	1094.3	11.7	4.5	2.7	1.7	0.9	0.0	0.0	0.0	0.0
75°	1021.6	478.9	8.0	2.7	2.7	1.7	0.9	0.0	0.0	0.0	0.0
77.5°	335.1	173.4	5.4	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0
80°	54.8	28.7	2.7	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0
82.5°	17.1	7.2	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0
85°	6.3	2.7	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	1.7	1.7	1.7	0.9	0.9	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)