

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: P231338

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231338  
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-AF48-70-D-U-T4W-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 470mA 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: 6537 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 73  
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

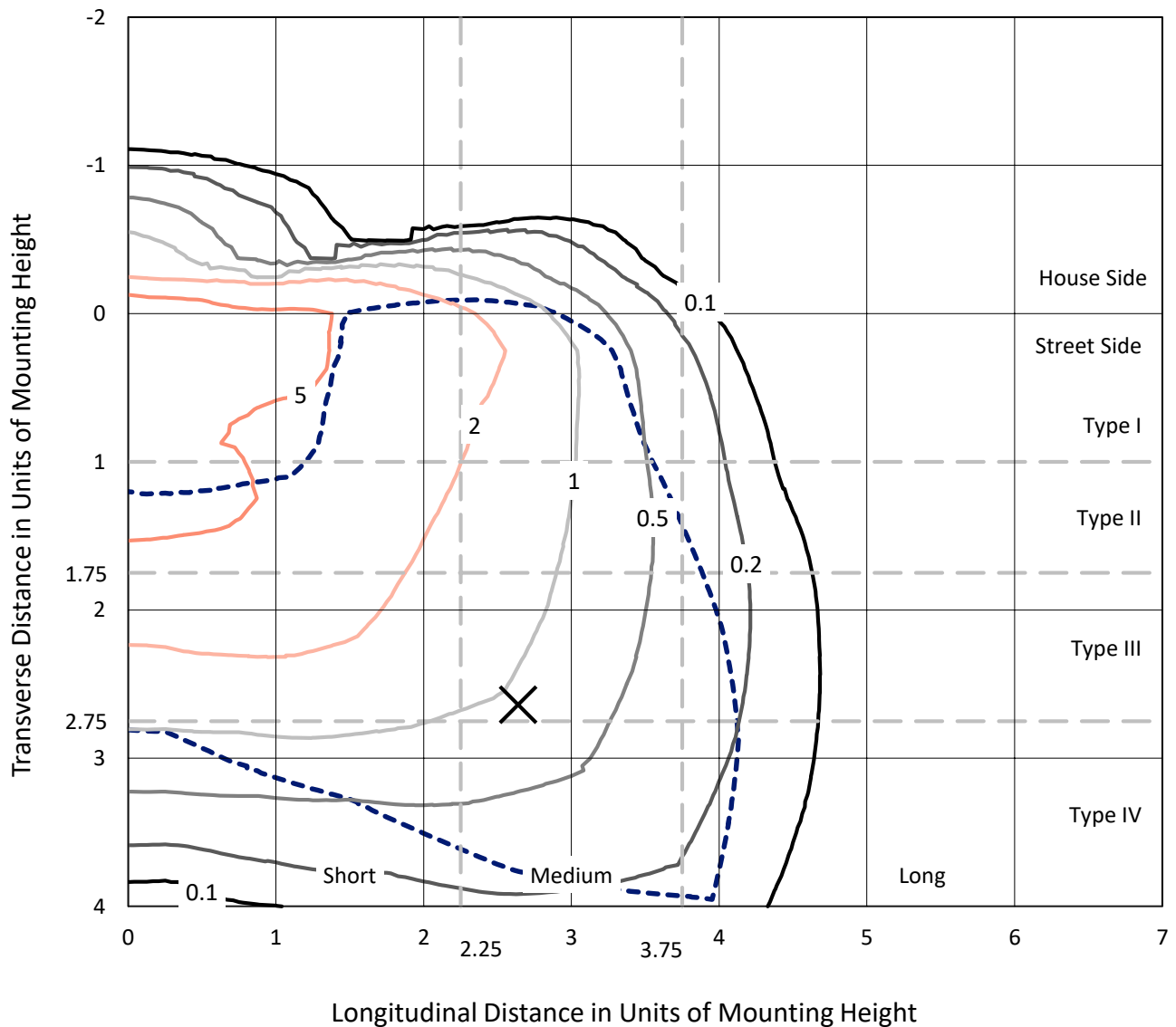


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

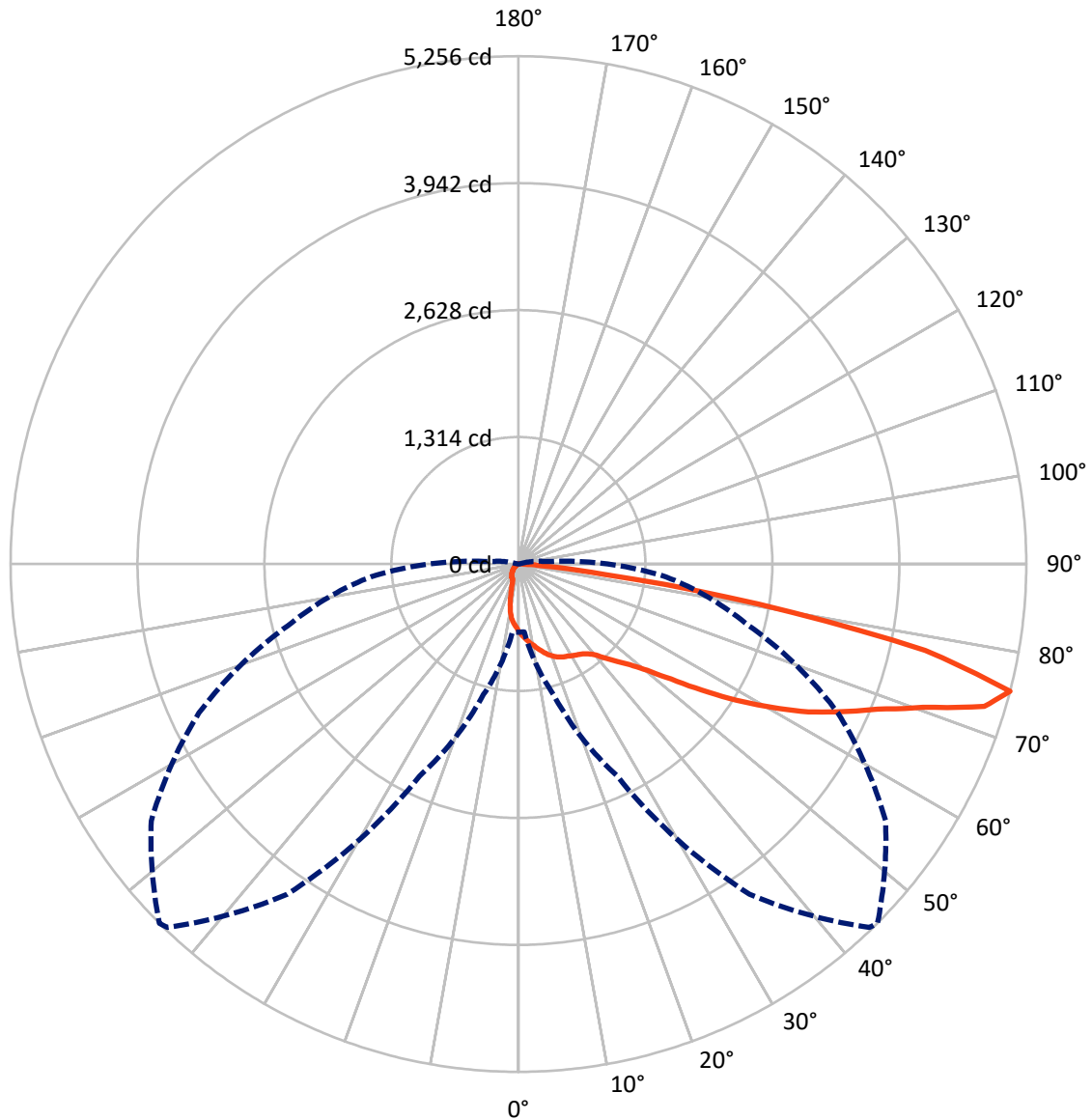


Based on 10 foot mounting height. Maximum calculated value = 9.3 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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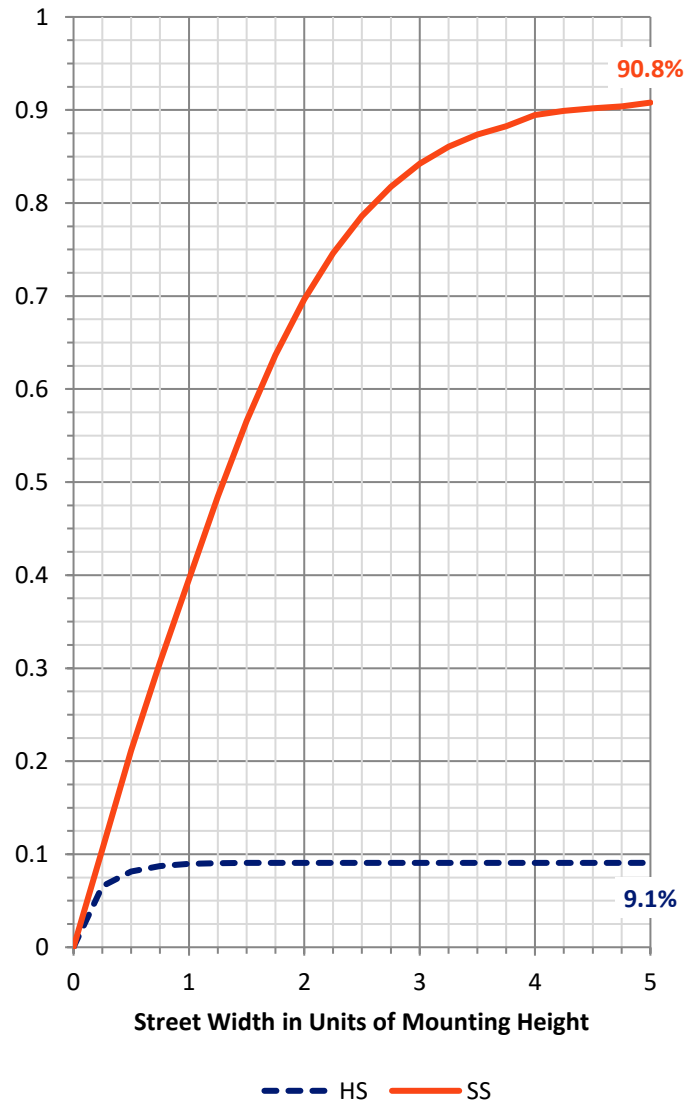
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	597.9	0.0	597.9
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	5939.1	0.0	5939.1
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	6537.0	0.0	6537.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.0	1.0
10°-20°	186.9	2.9
20°-30°	309.6	4.7
30°-40°	448.1	6.9
40°-50°	733.7	11.2
50°-60°	1307.3	20.0
60°-70°	1921.8	29.4
70°-80°	1449.9	22.2
80°-90°	113.7	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°	6537.0	100.0
0°-180°	6537.0	100.0



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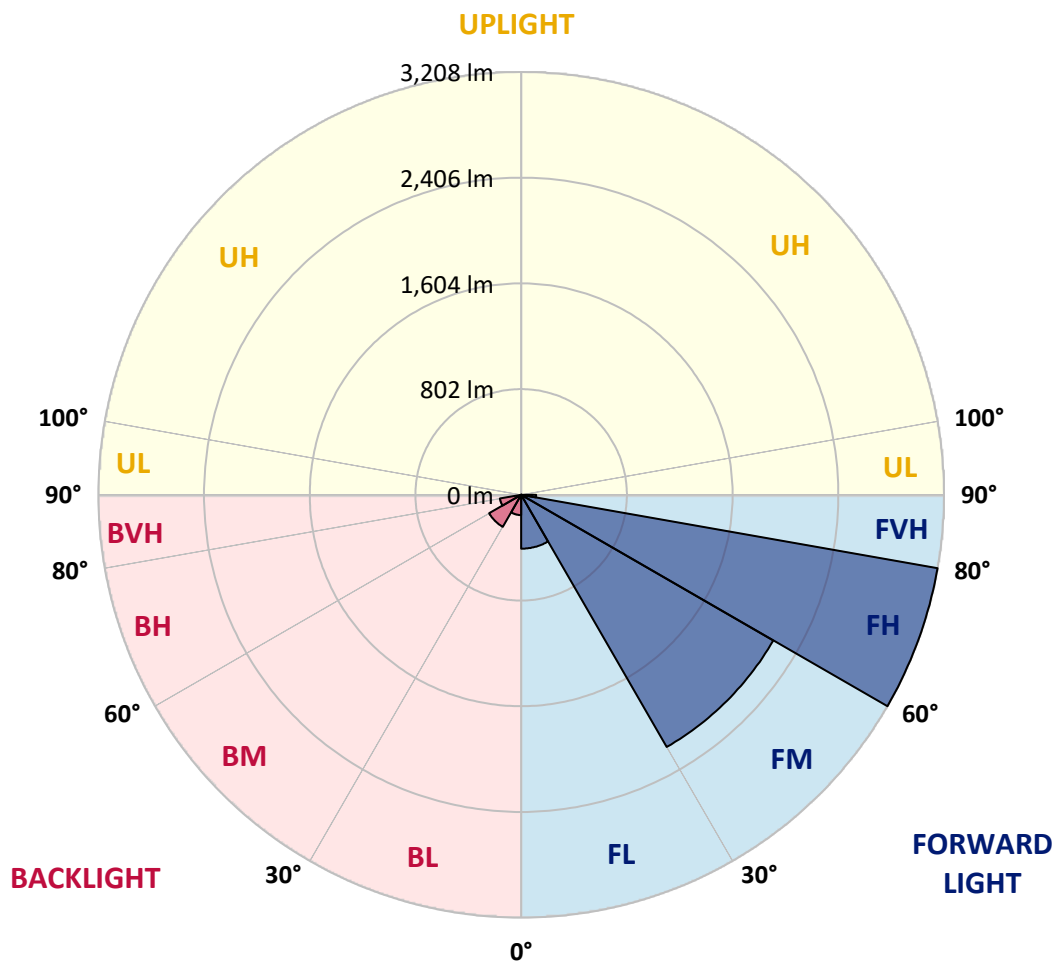
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	408.9	6.3			
FM (30°-60°)	2208.8	33.8			
FH (60°-80°)	3207.9	49.1			G2/5000
FVH (80°-90°)	113.4	1.7			G2/225
BL (0°-30°)	153.6	2.4	B1/500		
BM (30°-60°)	280.2	4.3	B1/1000		
BH (60°-80°)	163.8	2.5	B1/500		G1/500
BVH (80°-90°)	0.3	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-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2
2.5°	759.5	759.5	757.9	756.4	748.7	740.9	739.4	734.7	720.8	711.5	702.3
5°	822.9	824.5	821.4	813.6	796.6	779.6	778.1	765.7	739.4	720.8	700.7
7.5°	883.2	886.3	878.6	864.7	844.6	819.8	818.3	795.1	761.0	734.7	705.4
10°	934.3	934.3	923.5	906.4	884.8	858.5	855.4	829.1	790.4	757.9	719.3
12.5°	990.0	988.4	973.0	949.8	925.0	900.3	898.7	866.2	829.1	787.3	739.4
15°	1041.0	1037.9	1017.8	996.2	969.9	943.6	942.0	909.5	870.9	821.4	768.8
17.5°	1068.9	1067.3	1048.8	1027.1	1005.4	985.3	983.8	949.8	908.0	856.9	798.2
20°	1073.5	1075.0	1059.6	1041.0	1028.6	1017.8	1017.8	986.9	942.0	887.9	829.1
22.5°	1075.0	1079.7	1068.9	1044.1	1041.0	1042.6	1045.7	1020.9	974.5	923.5	861.6
25°	1085.9	1092.1	1084.3	1054.9	1051.8	1062.7	1065.8	1054.9	1013.2	962.1	898.7
27.5°	1107.5	1113.7	1107.5	1070.4	1065.8	1076.6	1079.7	1085.9	1054.9	999.3	937.4
30°	1150.8	1152.4	1138.5	1092.1	1082.8	1096.7	1101.3	1118.4	1093.6	1034.8	974.5
32.5°	1226.6	1211.2	1169.4	1107.5	1099.8	1115.3	1119.9	1138.5	1129.2	1068.9	1013.2
35°	1381.3	1300.9	1205.0	1129.2	1121.5	1136.9	1143.1	1169.4	1174.0	1116.8	1061.1
37.5°	1379.8	1307.1	1288.5	1171.0	1160.1	1171.0	1178.7	1211.2	1229.7	1180.2	1130.7
40°	1477.2	1446.3	1446.3	1249.8	1214.3	1229.7	1237.5	1269.9	1302.4	1263.8	1212.7
42.5°	1783.5	1763.4	1741.7	1401.4	1290.1	1333.4	1338.0	1358.1	1396.8	1384.4	1324.1
45°	2125.3	2106.8	2023.3	1658.2	1420.0	1427.7	1438.6	1471.0	1526.7	1549.9	1478.8
47.5°	2392.9	2374.4	2303.2	1967.6	1622.6	1554.6	1554.6	1618.0	1704.6	1763.4	1695.3
50°	2608.0	2586.3	2543.0	2297.0	1955.2	1737.1	1727.8	1802.1	1930.4	2021.7	1975.3
52.5°	2816.8	2753.4	2727.1	2637.3	2331.1	2001.6	1976.8	2029.4	2207.3	2320.2	2281.6
55°	2956.0	2946.7	2918.9	2949.8	2725.5	2323.3	2301.7	2312.5	2535.3	2611.1	2563.1
57.5°	3085.9	3084.4	3146.3	3290.1	3155.5	2691.5	2657.5	2640.4	2852.4	2833.8	2875.6
60°	3246.8	3219.0	3362.8	3568.5	3550.0	3050.4	3011.7	2977.6	3095.2	3042.6	3249.9
62.5°	3254.5	3246.8	3539.1	3834.6	3941.3	3415.4	3370.5	3248.3	3307.1	3246.8	3607.2
65°	2959.1	2997.8	3613.4	3975.4	4269.3	3735.6	3681.5	3491.2	3495.8	3455.6	4027.9
67.5°	2892.6	2912.7	3409.2	4126.9	4505.9	4058.9	4007.8	3771.2	3715.5	3718.6	4277.0
70°	2727.1	2758.0	3155.5	4116.1	4693.1	4490.5	4439.4	4182.6	4048.1	3898.0	4085.2
72.5°	2083.6	2136.2	2659.0	3608.8	4642.0	5055.0	5041.1	4703.9	4181.1	3579.4	3090.6
75°	705.4	703.8	1396.8	2423.9	4170.3	5228.3	5256.1	4638.9	3647.4	2468.7	1534.5
77.5°	151.6	153.1	287.7	982.2	2770.4	4198.1	4304.8	3498.9	2352.7	1099.8	351.1
80°	74.2	75.8	119.1	259.9	1107.5	2354.3	2521.3	1799.0	869.3	219.6	58.8
82.5°	37.1	38.7	61.9	137.7	409.9	836.8	894.1	662.0	249.0	123.7	29.4
85°	13.9	13.9	30.9	82.0	187.2	196.4	241.3	191.8	150.0	100.5	7.7
87.5°	3.1	3.1	17.0	40.2	83.5	61.9	61.9	58.8	91.3	68.1	3.1
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°	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2	699.2
2.5°	697.6	691.4	680.6	669.8	662.0	652.8	648.1	643.5	641.9	640.4	643.5
5°	689.9	680.6	660.5	643.5	628.0	615.6	606.4	597.1	592.4	589.3	590.9
7.5°	689.9	676.0	646.6	620.3	595.5	569.2	542.9	522.8	507.4	498.1	499.6
10°	697.6	679.1	640.4	604.8	558.4	502.7	445.5	402.2	372.8	355.8	355.8
12.5°	714.6	689.9	641.9	586.2	507.4	409.9	323.3	270.7	249.0	236.7	238.2
15°	737.8	708.4	649.7	561.5	436.2	304.7	225.8	191.8	191.8	194.9	196.4
17.5°	764.1	731.7	655.9	524.4	344.9	218.1	177.9	174.8	179.4	187.2	187.2
20°	790.4	754.9	658.9	465.6	258.3	173.2	168.6	168.6	171.7	179.4	181.0
22.5°	822.9	784.2	655.9	392.9	193.4	164.0	162.4	162.4	162.4	171.7	171.7
25°	856.9	818.3	643.5	315.6	164.0	157.8	156.2	154.7	154.7	162.4	164.0
27.5°	895.6	853.9	614.1	241.3	154.7	151.6	150.0	146.9	146.9	153.1	153.1
30°	934.3	894.1	569.2	182.5	146.9	145.4	142.3	139.2	136.1	142.3	142.3
32.5°	976.1	935.8	510.5	145.4	136.1	136.1	134.6	129.9	126.8	129.9	131.5
35°	1031.7	983.8	443.9	126.8	122.2	122.2	122.2	120.7	114.5	117.6	117.6
37.5°	1106.0	1050.3	366.6	117.6	111.4	108.3	108.3	108.3	103.6	105.2	105.2
40°	1200.3	1127.6	292.4	109.8	103.6	95.9	92.8	94.4	91.3	91.3	89.7
42.5°	1328.7	1211.2	219.6	103.6	97.5	86.6	80.4	78.9	75.8	74.2	74.2
45°	1512.8	1313.3	157.8	97.5	92.8	75.8	69.6	65.0	57.2	52.6	52.6
47.5°	1751.0	1429.3	117.6	91.3	88.2	66.5	58.8	49.5	38.7	35.6	35.6
50°	2041.8	1559.2	99.0	82.0	80.4	58.8	46.4	32.5	21.7	18.6	20.1
52.5°	2324.9	1681.4	88.2	72.7	71.2	51.0	34.0	17.0	9.3	9.3	9.3
55°	2563.1	1768.0	80.4	65.0	61.9	40.2	18.6	7.7	4.6	4.6	4.6
57.5°	2778.1	1817.5	72.7	57.2	49.5	27.8	7.7	3.1	3.1	1.5	1.5
60°	2974.6	1846.9	63.4	49.5	38.7	15.5	3.1	1.5	1.5	0.0	0.0
62.5°	3167.9	1868.6	54.1	40.2	29.4	6.2	1.5	1.5	0.0	0.0	0.0
65°	3314.9	1860.8	43.3	32.5	18.6	3.1	1.5	0.0	0.0	0.0	0.0
67.5°	3310.2	1755.7	32.5	24.7	9.3	1.5	0.0	0.0	0.0	0.0	0.0
70°	2960.6	1478.8	21.7	15.5	3.1	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2100.6	948.2	13.9	9.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	925.0	287.7	7.7	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	181.0	66.5	4.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.3	7.7	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.5	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)