

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: P231106

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231106
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10033 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 92
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

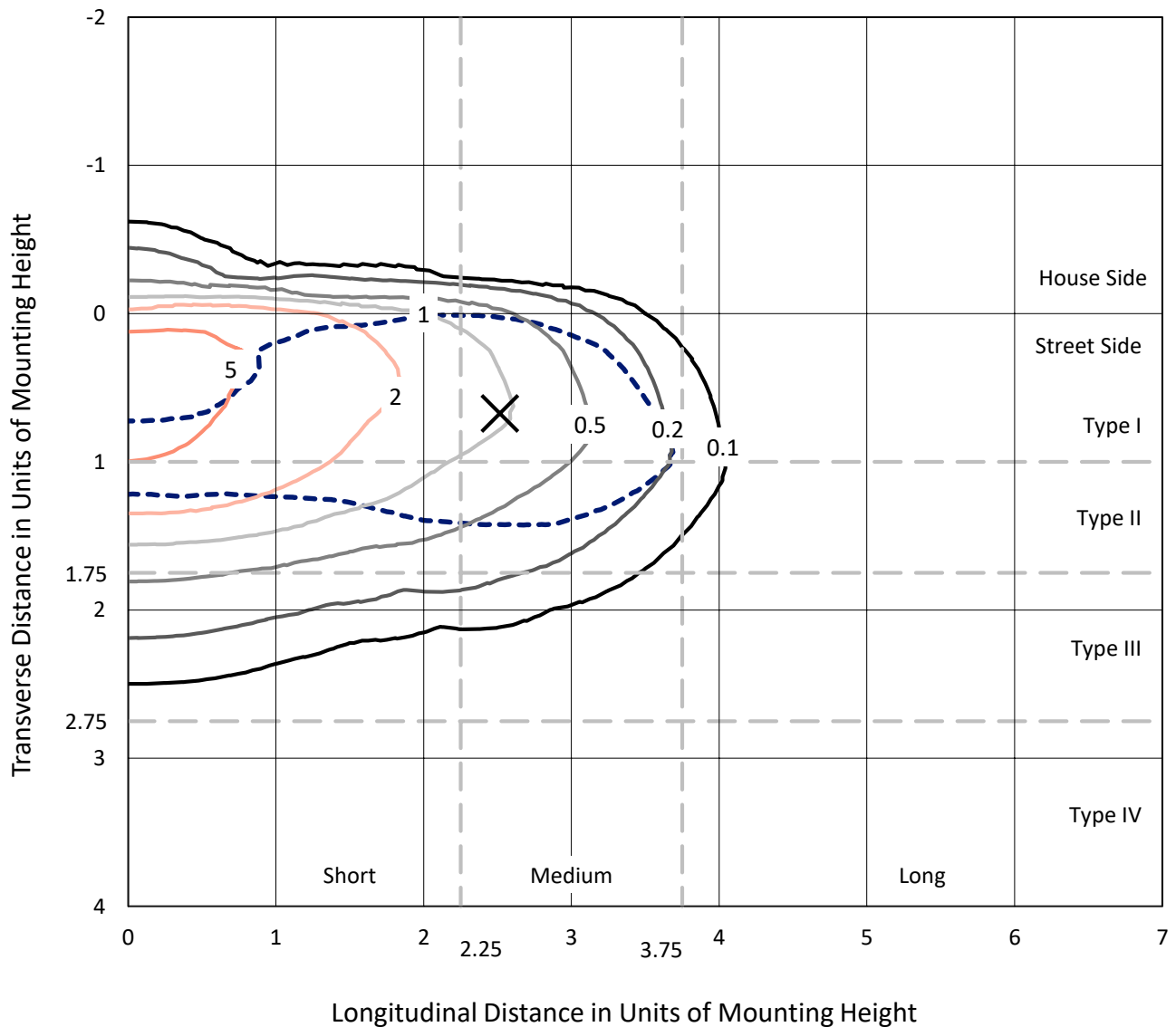


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

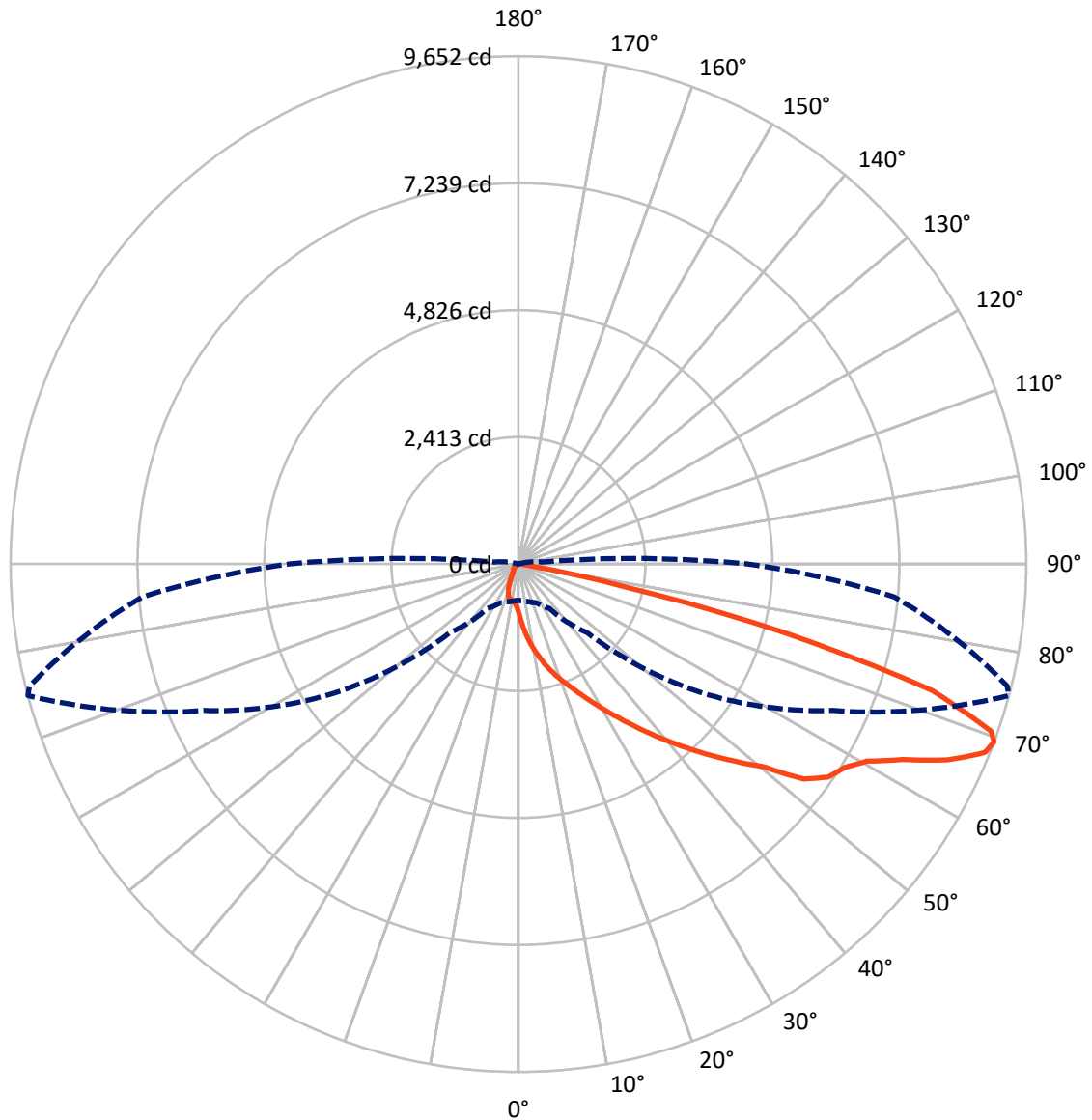


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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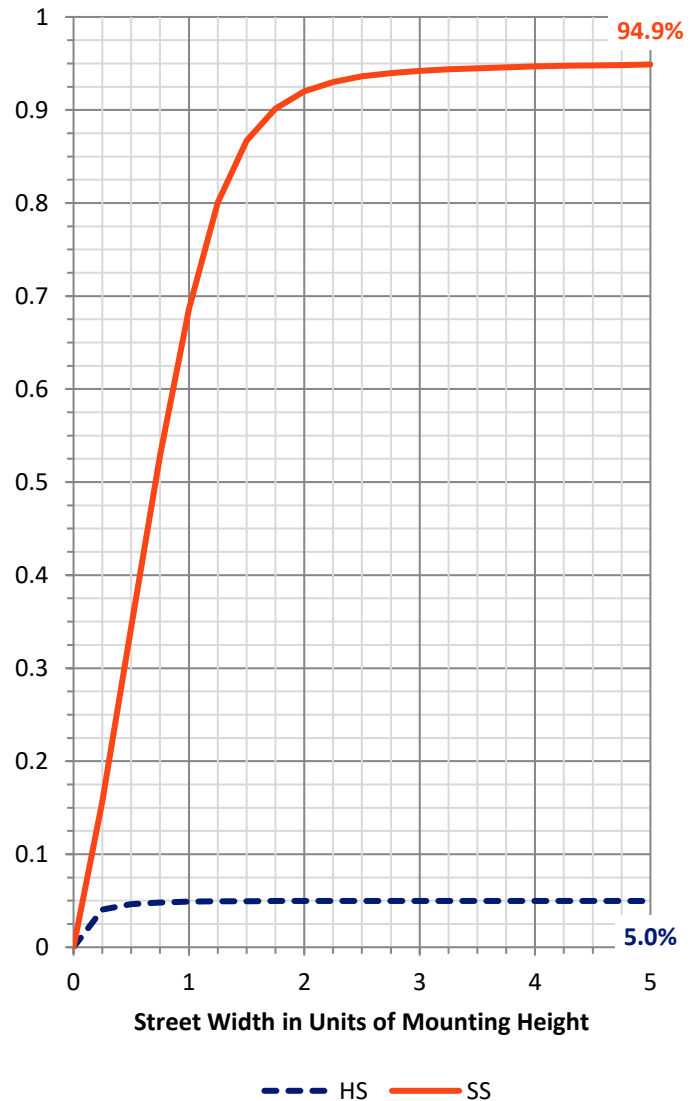
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	500.6	0.0	500.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	9532.4	0.0	9532.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	10033.0	0.0	10033.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	1.1
10°-20°	389.2	3.9
20°-30°	743.0	7.4
30°-40°	1332.7	13.3
40°-50°	2041.9	20.4
50°-60°	2373.2	23.7
60°-70°	2101.5	20.9
70°-80°	906.4	9.0
80°-90°	36.3	0.4
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°	10033.0	100.0
0°-180°	10033.0	100.0



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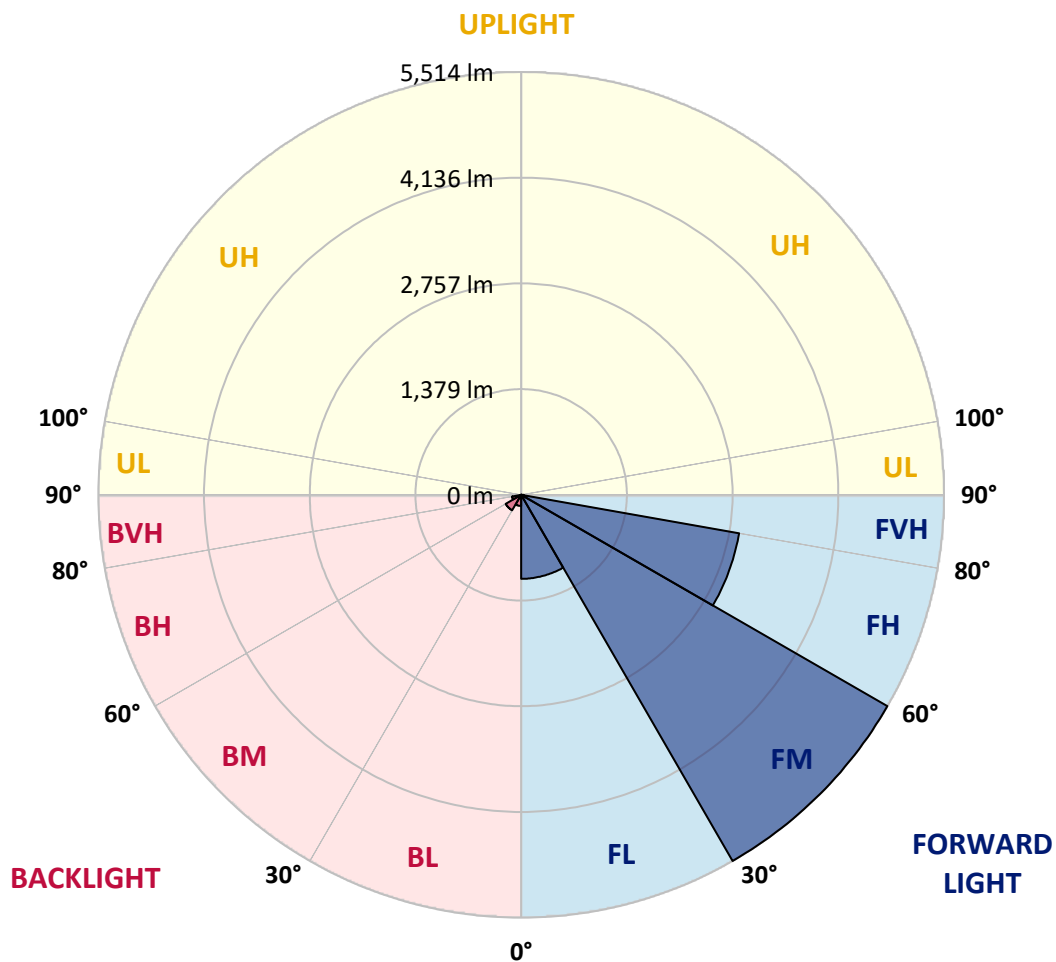
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.6	10.9			
FM	(30°-60°)	5514.4	55.0			
FH	(60°-80°)	2886.6	28.8			G2/5000
FVH	(80°-90°)	35.8	0.4			G1/100
BL	(0°-30°)	145.4	1.4	B1/500		
BM	(30°-60°)	233.4	2.3	B1/1000		
BH	(60°-80°)	121.3	1.2	B1/500		G1/500
BVH	(80°-90°)	0.5	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6
2.5°	1537.9	1522.7	1507.6	1490.2	1451.3	1384.1	1299.6	1208.7	1096.0	1076.5	985.6
5°	1867.1	1860.6	1845.5	1821.6	1778.3	1704.7	1609.4	1475.1	1286.6	1254.1	1061.4
7.5°	2098.9	2094.6	2081.6	2053.4	2014.4	1940.8	1841.1	1696.0	1477.2	1440.4	1156.7
10°	2306.8	2304.7	2293.8	2267.9	2228.9	2148.7	2042.6	1891.0	1659.2	1618.0	1267.1
12.5°	2495.3	2497.5	2493.1	2480.1	2452.0	2376.2	2254.9	2090.2	1834.6	1789.2	1399.3
15°	2605.8	2612.3	2629.6	2655.6	2664.2	2603.6	2478.0	2296.0	2014.4	1975.4	1550.9
17.5°	2568.9	2575.4	2629.6	2718.4	2802.9	2811.5	2698.9	2491.0	2192.0	2153.1	1700.3
20°	2480.1	2488.8	2545.1	2666.4	2831.0	2945.8	2900.3	2703.2	2361.0	2313.3	1843.3
22.5°	2579.8	2579.8	2597.1	2670.7	2820.2	3000.0	3060.6	2915.5	2534.3	2475.8	1986.3
25°	2922.0	2915.5	2878.7	2848.4	2896.0	3056.3	3181.9	3132.1	2737.9	2670.7	2137.9
27.5°	3355.2	3385.5	3316.2	3205.8	3097.4	3166.8	3290.2	3346.5	2963.2	2893.8	2293.8
30°	3840.4	3853.4	3771.1	3623.8	3433.2	3366.0	3418.0	3530.7	3207.9	3132.1	2456.3
32.5°	4277.9	4267.1	4197.8	4044.0	3807.9	3662.8	3582.6	3678.0	3474.3	3387.7	2623.1
35°	4665.7	4674.3	4589.9	4412.2	4180.5	4026.7	3836.1	3844.7	3773.3	3673.6	2815.9
37.5°	5014.4	4999.2	4919.1	4741.5	4531.4	4364.6	4163.1	4018.0	4100.3	3996.4	3032.5
40°	5298.2	5283.0	5198.5	5025.2	4828.1	4691.7	4533.5	4249.8	4444.7	4325.6	3264.2
42.5°	5523.4	5506.1	5434.6	5267.8	5077.2	4955.9	4880.1	4535.7	4813.0	4693.8	3524.2
45°	5633.9	5618.7	5575.4	5449.8	5283.0	5176.9	5213.7	4864.9	5207.2	5107.5	3810.1
47.5°	5503.9	5497.4	5547.3	5525.6	5430.3	5374.0	5501.8	5224.5	5620.9	5523.4	4139.3
50°	5109.7	5120.5	5265.7	5445.4	5490.9	5558.1	5737.9	5603.6	6064.9	5961.0	4518.4
52.5°	4137.2	4210.8	4648.3	5081.5	5417.3	5670.7	6015.1	6145.1	6788.4	6686.6	5109.7
55°	3088.8	3119.1	3595.6	4336.4	5120.5	5662.1	6220.9	6463.5	7145.8	7041.8	5265.7
57.5°	2449.8	2460.6	2696.7	3452.7	4509.7	5467.1	6329.2	6578.3	7301.7	7215.1	5497.4
60°	1923.5	1936.4	2107.6	2627.4	3649.8	4940.8	6173.2	6677.9	7607.2	7537.8	5902.5
62.5°	1496.7	1509.7	1613.7	1919.1	2737.9	4130.7	5859.2	6838.2	8187.7	8155.2	6565.3
65°	1158.8	1163.2	1234.6	1377.6	1934.3	3253.4	5475.8	6987.7	8971.8	8943.6	7102.5
67.5°	855.6	862.1	911.9	1000.7	1306.1	2337.2	4847.6	6872.9	9563.1	9480.8	7297.4
69°	691.0	697.5	740.8	812.3	1031.0	1841.1	4273.6	6589.1	9651.9	9573.9	7174.0
70°	591.3	595.7	639.0	699.6	879.4	1563.9	3818.7	6344.4	9534.9	9459.1	6892.4
72.5°	379.1	400.7	444.0	483.0	582.7	1035.4	2577.6	5261.3	8226.7	8096.7	5397.8
75°	210.1	216.6	294.6	342.2	387.7	673.6	1433.9	3281.6	5233.2	5142.2	2887.3
77.5°	173.3	177.6	207.9	259.9	259.9	376.9	541.5	1293.1	1990.6	1795.7	781.9
80°	121.3	125.6	158.1	171.1	186.3	212.3	175.4	283.8	307.6	272.9	117.0
82.5°	84.5	88.8	108.3	140.8	149.5	99.6	65.0	84.5	88.8	88.8	45.5
85°	15.2	21.7	80.1	117.0	88.8	30.3	36.8	30.3	28.2	30.3	10.8
87.5°	0.0	0.0	49.8	56.3	47.7	13.0	15.2	10.8	6.5	8.7	4.3
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°	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6
2.5°	940.1	894.6	816.6	760.3	712.6	675.8	660.6	636.8	619.5	628.2	617.3
5°	966.1	885.9	760.3	680.1	623.8	576.2	537.2	506.9	483.0	478.7	474.4
7.5°	1007.2	892.4	727.8	628.2	543.7	470.0	409.4	363.9	329.2	329.2	316.2
10°	1063.5	909.7	708.3	576.2	450.5	350.9	290.3	246.9	229.6	227.4	223.1
12.5°	1141.5	942.2	693.1	509.0	350.9	255.6	218.8	203.6	197.1	194.9	192.8
15°	1247.6	989.9	675.8	426.7	266.4	210.1	194.9	181.9	175.4	173.3	171.1
17.5°	1349.4	1033.2	639.0	342.2	216.6	190.6	173.3	162.5	153.8	151.6	151.6
20°	1444.8	1070.0	576.2	266.4	194.9	171.1	153.8	140.8	132.1	130.0	130.0
22.5°	1544.4	1100.4	498.2	216.6	177.6	151.6	134.3	121.3	112.6	110.5	108.3
25°	1650.5	1122.0	409.4	192.8	160.3	134.3	114.8	104.0	97.5	95.3	93.1
27.5°	1765.3	1130.7	324.9	175.4	140.8	117.0	99.6	88.8	84.5	82.3	82.3
30°	1869.3	1122.0	251.3	156.0	123.5	101.8	86.6	78.0	73.6	71.5	71.5
32.5°	1977.6	1100.4	201.4	138.6	108.3	86.6	73.6	67.1	65.0	62.8	62.8
35°	2092.4	1072.2	173.3	123.5	93.1	75.8	65.0	60.6	58.5	56.3	56.3
37.5°	2226.7	1037.5	158.1	110.5	82.3	67.1	56.3	54.2	52.0	52.0	52.0
40°	2378.3	994.2	147.3	99.6	73.6	58.5	49.8	47.7	45.5	45.5	45.5
42.5°	2538.6	944.4	136.5	88.8	65.0	49.8	43.3	43.3	41.2	41.2	39.0
45°	2718.4	894.6	125.6	78.0	56.3	43.3	36.8	34.7	34.7	32.5	32.5
47.5°	2930.7	849.1	114.8	69.3	49.8	36.8	32.5	30.3	28.2	26.0	26.0
50°	3229.6	844.8	101.8	60.6	45.5	30.3	26.0	23.8	21.7	19.5	19.5
52.5°	3526.3	805.8	86.6	49.8	36.8	26.0	19.5	17.3	15.2	15.2	13.0
55°	3593.5	740.8	75.8	43.3	28.2	19.5	15.2	10.8	10.8	8.7	8.7
57.5°	3740.8	710.5	65.0	34.7	21.7	15.2	8.7	6.5	6.5	6.5	6.5
60°	4031.0	701.8	56.3	30.3	15.2	10.8	6.5	4.3	4.3	2.2	2.2
62.5°	4431.7	693.1	47.7	26.0	10.8	6.5	4.3	2.2	0.0	0.0	0.0
65°	4652.7	634.7	39.0	19.5	8.7	6.5	2.2	0.0	0.0	0.0	0.0
67.5°	4594.2	524.2	34.7	13.0	6.5	4.3	2.2	0.0	0.0	0.0	0.0
69°	4349.4	441.9	28.2	10.8	6.5	4.3	2.2	0.0	0.0	0.0	0.0
70°	4054.8	381.2	26.0	8.7	4.3	2.2	2.2	0.0	0.0	0.0	0.0
72.5°	2878.7	199.3	17.3	6.5	4.3	2.2	0.0	0.0	0.0	0.0	0.0
75°	1345.1	88.8	10.8	4.3	2.2	2.2	0.0	0.0	0.0	0.0	0.0
77.5°	296.7	41.2	6.5	4.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	56.3	15.2	4.3	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.5	6.5	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	0.0	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)