

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: P231083

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231083
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-AF48-120-D-U-T2R-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA 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: 11033 lumens
Efficiency: N/A
Efficacy: 90.4 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): 122
Input Voltage (V): NR
Input Current (A_{in}): 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

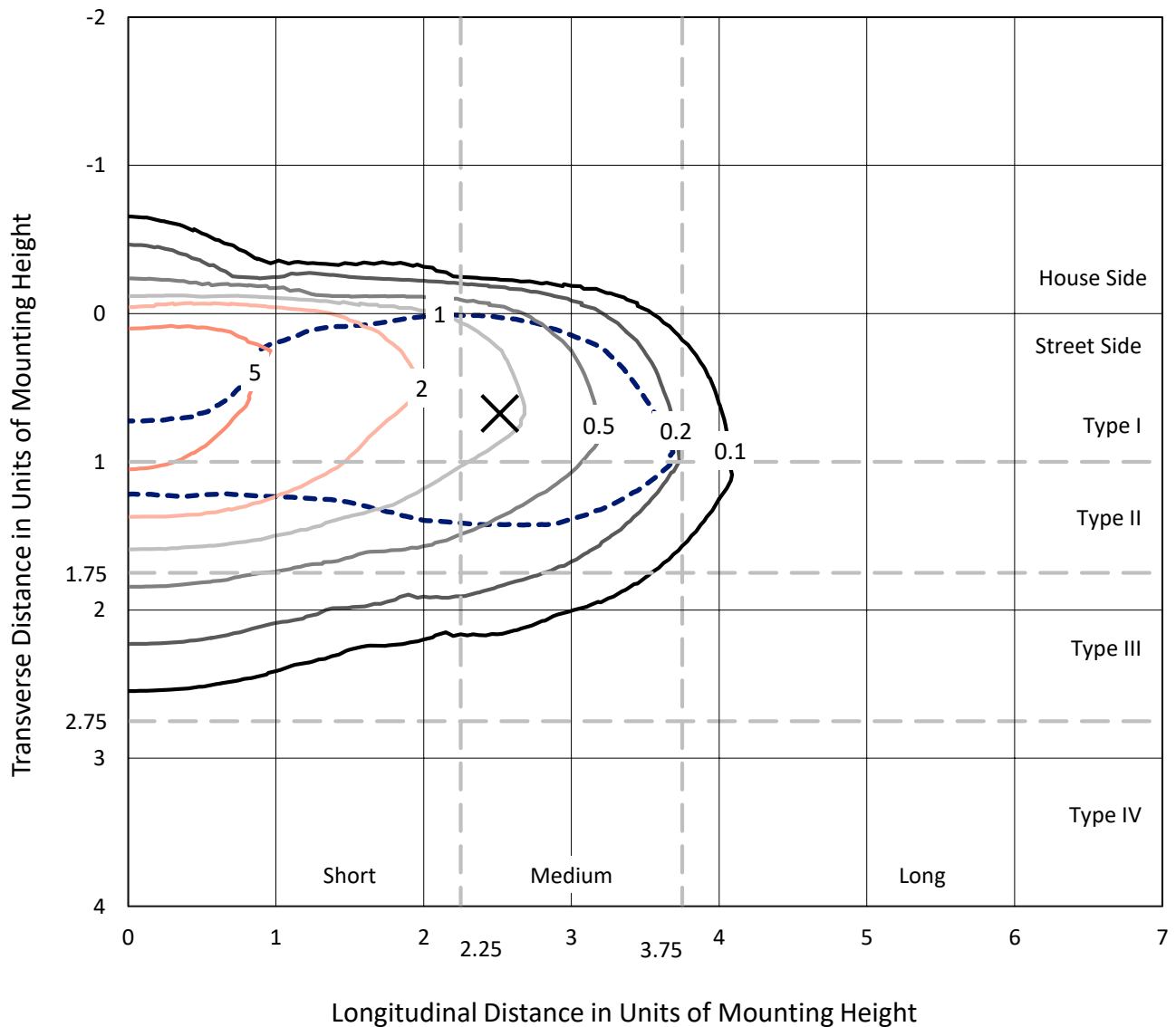


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

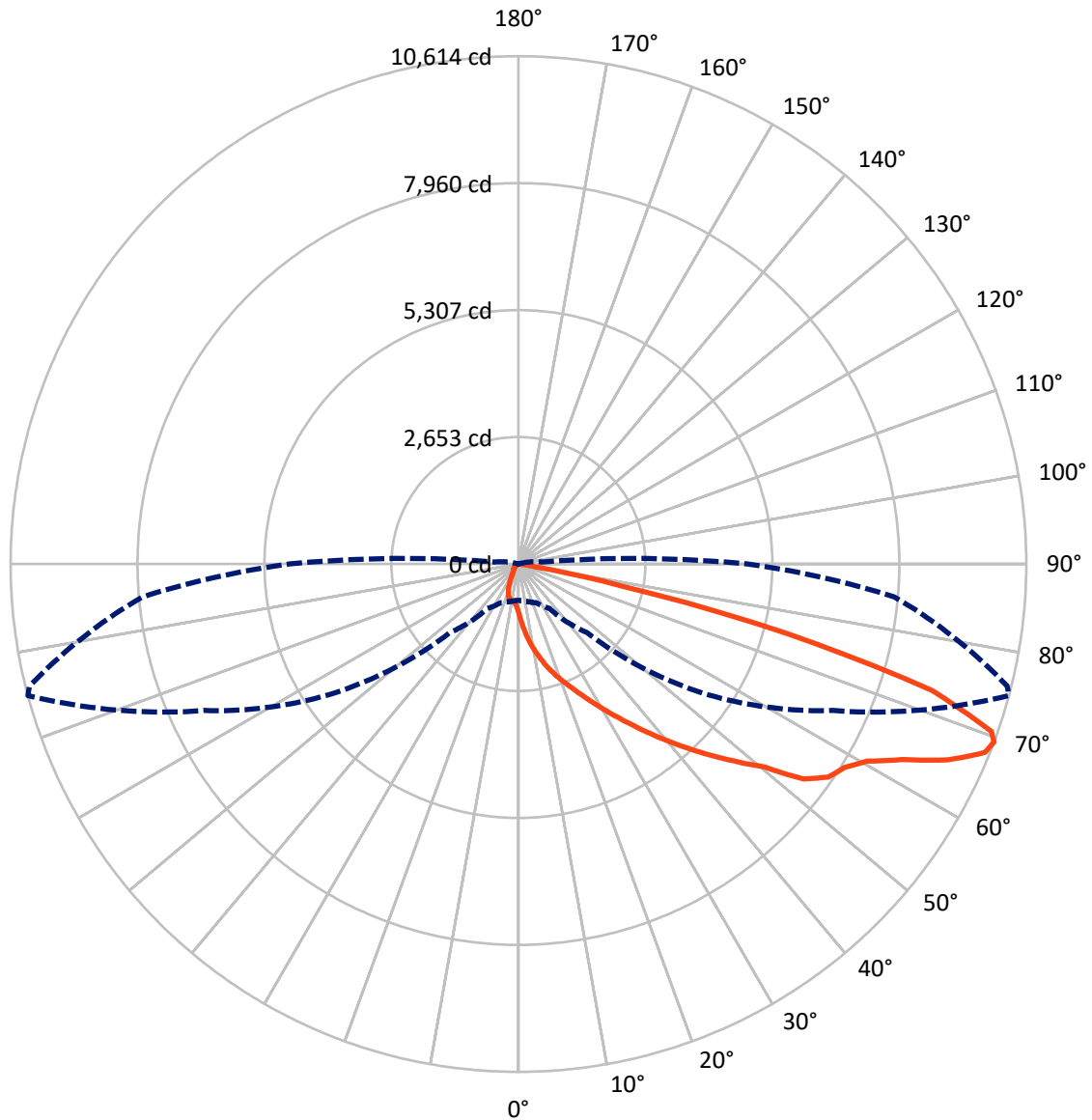


Based on 20 foot mounting height. Maximum calculated value = 7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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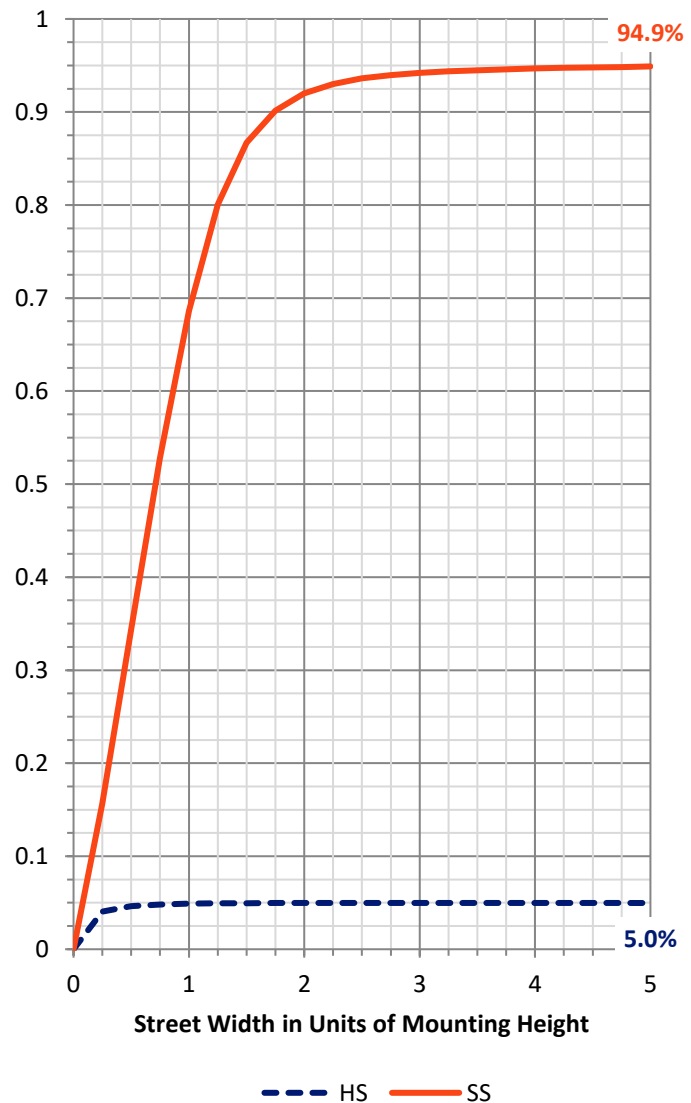
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	550.5	0.0	550.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	10482.5	0.0	10482.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	11033.0	0.0	11033.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.7	1.1
10°-20°	428.0	3.9
20°-30°	817.0	7.4
30°-40°	1465.6	13.3
40°-50°	2245.4	20.4
50°-60°	2609.7	23.7
60°-70°	2310.9	20.9
70°-80°	996.8	9.0
80°-90°	39.9	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°	11033.0	100.0
0°-180°	11033.0	100.0

Coefficient of Utilization



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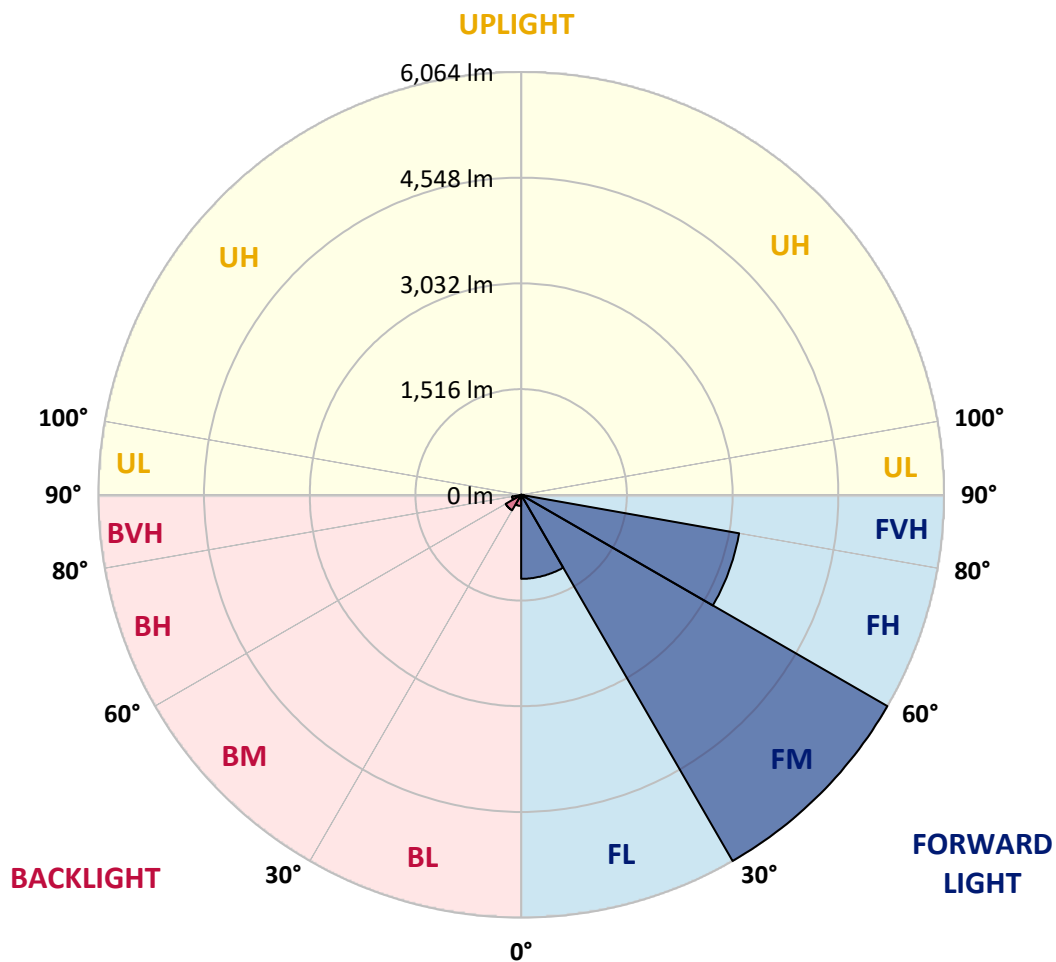
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1204.8	10.9			
FM	(30°-60°)	6064.0	55.0			
FH	(60°-80°)	3174.3	28.8			G2/5000
FVH	(80°-90°)	39.4	0.4			G1/100
BL	(0°-30°)	159.9	1.4	B1/500		
BM	(30°-60°)	256.6	2.3	B1/1000		
BH	(60°-80°)	133.4	1.2	B1/500		G1/500
BVH	(80°-90°)	0.6	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°	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6
2.5°	1691.2	1674.5	1657.8	1638.8	1595.9	1522.1	1429.2	1329.1	1205.3	1183.8	1083.8
5°	2053.2	2046.1	2029.4	2003.2	1955.6	1874.6	1769.8	1622.1	1414.9	1379.1	1167.2
7.5°	2308.1	2303.3	2289.0	2258.1	2215.2	2134.2	2024.6	1865.1	1624.5	1584.0	1272.0
10°	2536.8	2534.4	2522.5	2493.9	2451.0	2362.9	2246.2	2079.4	1824.6	1779.3	1393.4
12.5°	2744.0	2746.4	2741.6	2727.3	2696.4	2613.0	2479.6	2298.6	2017.5	1967.5	1538.7
15°	2865.5	2872.6	2891.7	2920.3	2929.8	2863.1	2724.9	2524.9	2215.2	2172.3	1705.5
17.5°	2825.0	2832.1	2891.7	2989.3	3082.2	3091.8	2967.9	2739.2	2410.5	2367.6	1869.8
20°	2727.3	2736.9	2798.8	2932.2	3113.2	3239.4	3189.4	2972.7	2596.3	2543.9	2027.0
22.5°	2836.9	2836.9	2855.9	2936.9	3101.3	3299.0	3365.7	3206.1	2786.9	2722.6	2184.2
25°	3213.2	3206.1	3165.6	3132.3	3184.7	3360.9	3499.1	3444.3	3010.8	2936.9	2351.0
27.5°	3689.6	3723.0	3646.8	3525.3	3406.2	3482.4	3618.2	3680.1	3258.5	3182.3	2522.5
30°	4223.2	4237.5	4147.0	3985.0	3775.4	3701.5	3758.7	3882.6	3527.7	3444.3	2701.1
32.5°	4704.3	4692.4	4616.2	4447.1	4187.5	4027.9	3939.7	4044.5	3820.6	3725.4	2884.5
35°	5130.7	5140.2	5047.3	4852.0	4597.1	4428.0	4218.4	4227.9	4149.3	4039.8	3096.5
37.5°	5514.2	5497.5	5409.4	5214.1	4983.0	4799.6	4578.1	4418.5	4509.0	4394.7	3334.7
40°	5826.2	5809.6	5716.7	5526.1	5309.3	5159.3	4985.4	4673.4	4887.7	4756.7	3589.6
42.5°	6073.9	6054.9	5976.3	5792.9	5583.3	5449.9	5366.5	4987.8	5292.7	5161.7	3875.4
45°	6195.4	6178.8	6131.1	5993.0	5809.6	5692.8	5733.3	5349.8	5726.2	5616.6	4189.8
47.5°	6052.5	6045.4	6100.2	6076.3	5971.5	5909.6	6050.1	5745.2	6181.1	6073.9	4551.9
50°	5619.0	5630.9	5790.5	5988.2	6038.2	6112.1	6309.8	6162.1	6669.4	6555.1	4968.7
52.5°	4549.5	4630.5	5111.6	5588.0	5957.2	6235.9	6614.6	6757.6	7465.0	7353.1	5619.0
55°	3396.6	3430.0	3954.0	4768.6	5630.9	6226.4	6840.9	7107.7	7858.0	7743.7	5790.5
57.5°	2694.0	2705.9	2965.5	3796.8	4959.2	6012.0	6960.0	7234.0	8029.5	7934.2	6045.4
60°	2115.2	2129.5	2317.6	2889.3	4013.6	5433.2	6788.5	7343.5	8365.4	8289.2	6490.8
62.5°	1645.9	1660.2	1774.5	2110.4	3010.8	4542.4	6443.2	7519.8	9003.7	8968.0	7219.7
65°	1274.3	1279.1	1357.7	1514.9	2127.1	3577.7	6021.5	7684.1	9866.0	9835.0	7810.4
67.5°	940.9	948.0	1002.8	1100.5	1436.3	2570.1	5330.8	7557.9	10516.3	10425.8	8024.8
69°	759.8	767.0	814.6	893.2	1133.8	2024.6	4699.6	7245.9	10613.9	10528.2	7889.0
70°	650.3	655.0	702.7	769.4	967.1	1719.8	4199.4	6976.7	10485.3	10401.9	7579.3
72.5°	416.8	440.7	488.3	531.2	640.7	1138.6	2834.5	5785.7	9046.6	8903.7	5935.8
75°	231.0	238.2	323.9	376.3	426.4	740.8	1576.8	3608.6	5754.8	5654.7	3175.1
77.5°	190.6	195.3	228.7	285.8	285.8	414.5	595.5	1422.0	2189.0	1974.6	859.9
80°	133.4	138.2	173.9	188.2	204.8	233.4	192.9	312.0	338.2	300.1	128.6
82.5°	92.9	97.7	119.1	154.8	164.4	109.6	71.5	92.9	97.7	97.7	50.0
85°	16.7	23.8	88.1	128.6	97.7	33.3	40.5	33.3	31.0	33.3	11.9
87.5°	0.0	0.0	54.8	61.9	52.4	14.3	16.7	11.9	7.1	9.5	4.8
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°	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6	1026.6
2.5°	1033.8	983.7	898.0	836.1	783.7	743.2	726.5	700.3	681.2	690.8	678.9
5°	1062.3	974.2	836.1	747.9	686.0	633.6	590.7	557.4	531.2	526.4	521.6
7.5°	1107.6	981.4	800.3	690.8	597.9	516.9	450.2	400.2	362.1	362.1	347.8
10°	1169.5	1000.4	778.9	633.6	495.4	385.9	319.2	271.5	252.5	250.1	245.3
12.5°	1255.3	1036.1	762.2	559.8	385.9	281.1	240.6	223.9	216.8	214.4	212.0
15°	1372.0	1088.5	743.2	469.2	293.0	231.0	214.4	200.1	192.9	190.6	188.2
17.5°	1483.9	1136.2	702.7	376.3	238.2	209.6	190.6	178.6	169.1	166.7	166.7
20°	1588.8	1176.7	633.6	293.0	214.4	188.2	169.1	154.8	145.3	142.9	142.9
22.5°	1698.3	1210.0	547.8	238.2	195.3	166.7	147.7	133.4	123.9	121.5	119.1
25°	1815.0	1233.8	450.2	212.0	176.3	147.7	126.2	114.3	107.2	104.8	102.4
27.5°	1941.3	1243.4	357.3	192.9	154.8	128.6	109.6	97.7	92.9	90.5	90.5
30°	2055.6	1233.8	276.3	171.5	135.8	112.0	95.3	85.7	81.0	78.6	78.6
32.5°	2174.7	1210.0	221.5	152.4	119.1	95.3	81.0	73.8	71.5	69.1	69.1
35°	2301.0	1179.1	190.6	135.8	102.4	83.4	71.5	66.7	64.3	61.9	61.9
37.5°	2448.6	1140.9	173.9	121.5	90.5	73.8	61.9	59.5	57.2	57.2	57.2
40°	2615.4	1093.3	162.0	109.6	81.0	64.3	54.8	52.4	50.0	50.0	50.0
42.5°	2791.6	1038.5	150.1	97.7	71.5	54.8	47.6	47.6	45.3	45.3	42.9
45°	2989.3	983.7	138.2	85.7	61.9	47.6	40.5	38.1	38.1	35.7	35.7
47.5°	3222.8	933.7	126.2	76.2	54.8	40.5	35.7	33.3	31.0	28.6	28.6
50°	3551.5	929.0	112.0	66.7	50.0	33.3	28.6	26.2	23.8	21.4	21.4
52.5°	3877.8	886.1	95.3	54.8	40.5	28.6	21.4	19.1	16.7	16.7	14.3
55°	3951.6	814.6	83.4	47.6	31.0	21.4	16.7	11.9	11.9	9.5	9.5
57.5°	4113.6	781.3	71.5	38.1	23.8	16.7	9.5	7.1	7.1	7.1	7.1
60°	4432.8	771.7	61.9	33.3	16.7	11.9	7.1	4.8	4.8	2.4	2.4
62.5°	4873.5	762.2	52.4	28.6	11.9	7.1	4.8	2.4	0.0	0.0	0.0
65°	5116.4	697.9	42.9	21.4	9.5	7.1	2.4	0.0	0.0	0.0	0.0
67.5°	5052.1	576.4	38.1	14.3	7.1	4.8	2.4	0.0	0.0	0.0	0.0
69°	4782.9	485.9	31.0	11.9	7.1	4.8	2.4	0.0	0.0	0.0	0.0
70°	4459.0	419.2	28.6	9.5	4.8	2.4	2.4	0.0	0.0	0.0	0.0
72.5°	3165.6	219.1	19.1	7.1	4.8	2.4	0.0	0.0	0.0	0.0	0.0
75°	1479.2	97.7	11.9	4.8	2.4	2.4	0.0	0.0	0.0	0.0	0.0
77.5°	326.3	45.3	7.1	4.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	61.9	16.7	4.8	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.4	7.1	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	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)