

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: P265807

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265807
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-AF48-100-D-U-T2R-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 660mA 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: 9434.1 lumens
Efficiency: N/A
Efficacy: 93.4 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): 101
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

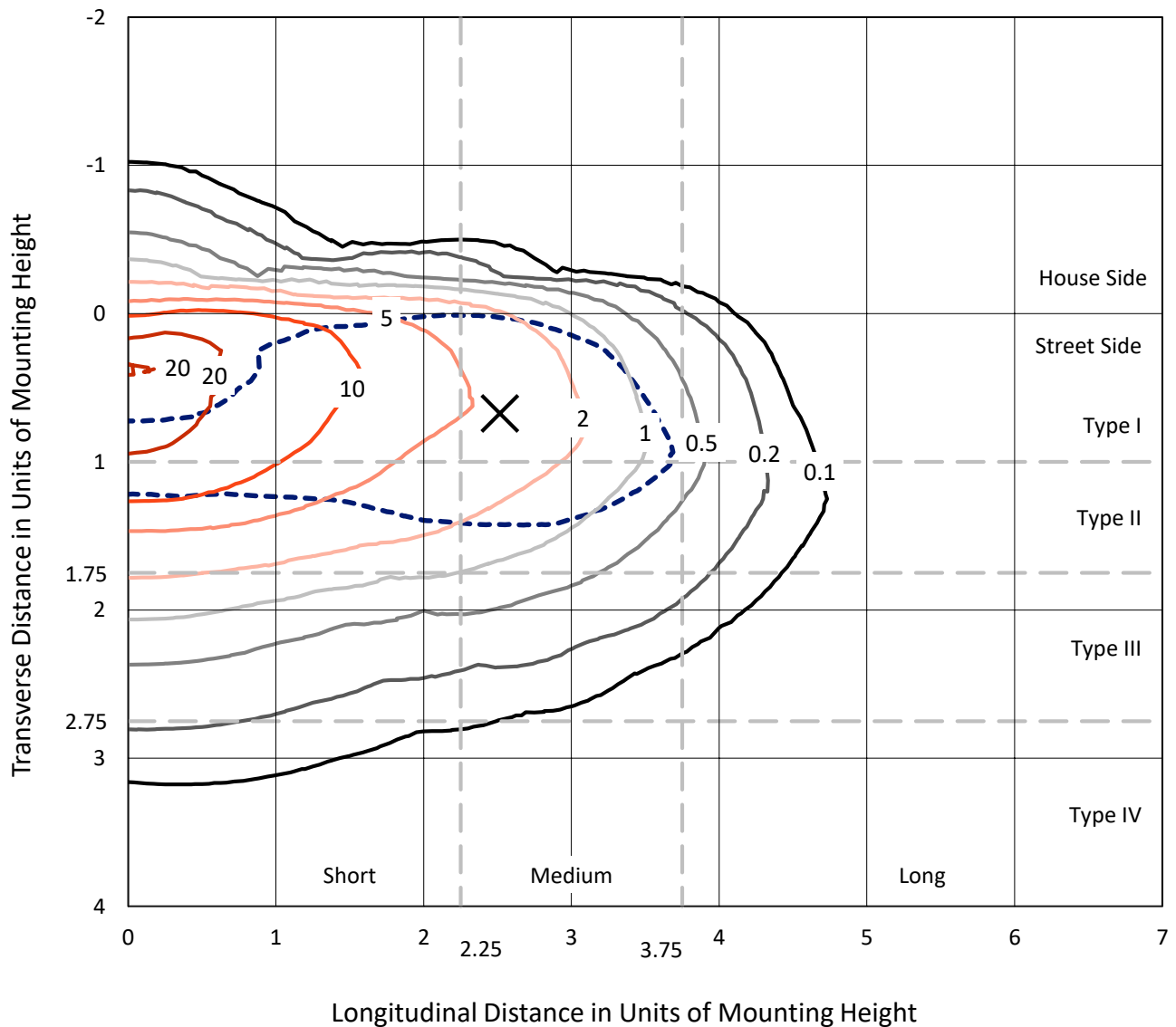


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

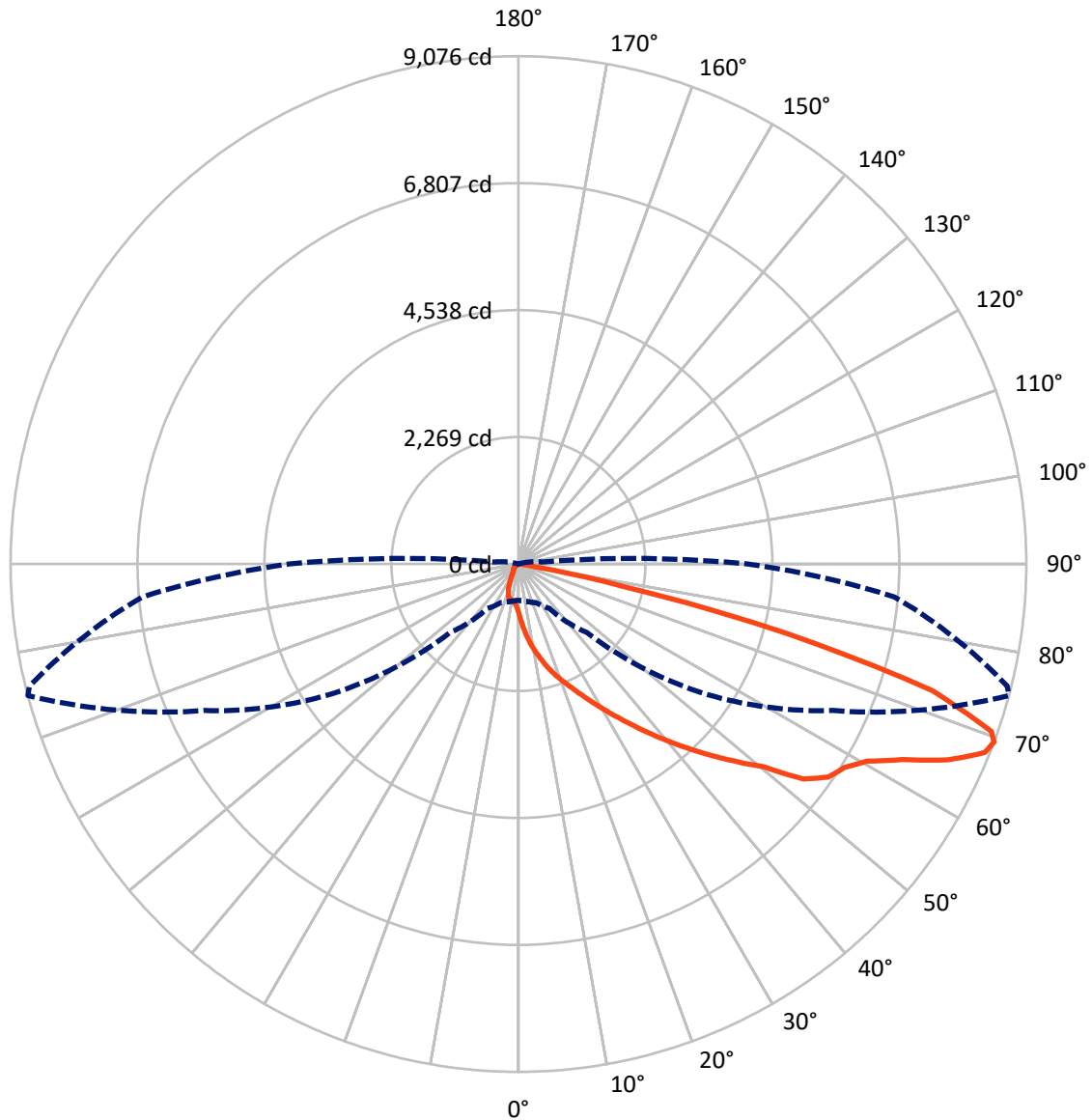


Based on 10 foot mounting height. Maximum calculated value = 24 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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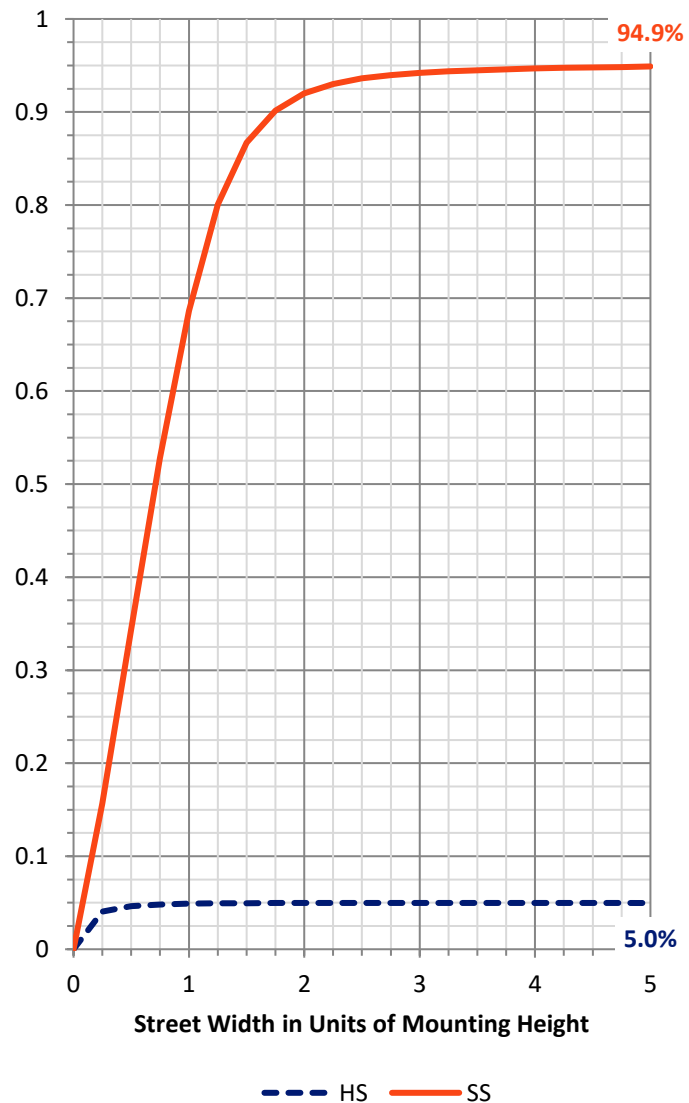
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	470.7	0.0	470.7
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	8963.3	0.0	8963.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	9434.1	0.0	9434.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	1.1
10°-20°	365.9	3.9
20°-30°	698.6	7.4
30°-40°	1253.2	13.3
40°-50°	1920.0	20.4
50°-60°	2231.5	23.7
60°-70°	1976.0	20.9
70°-80°	852.3	9.0
80°-90°	34.2	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°	9434.1	100.0
0°-180°	9434.1	100.0

Coefficient of Utilization



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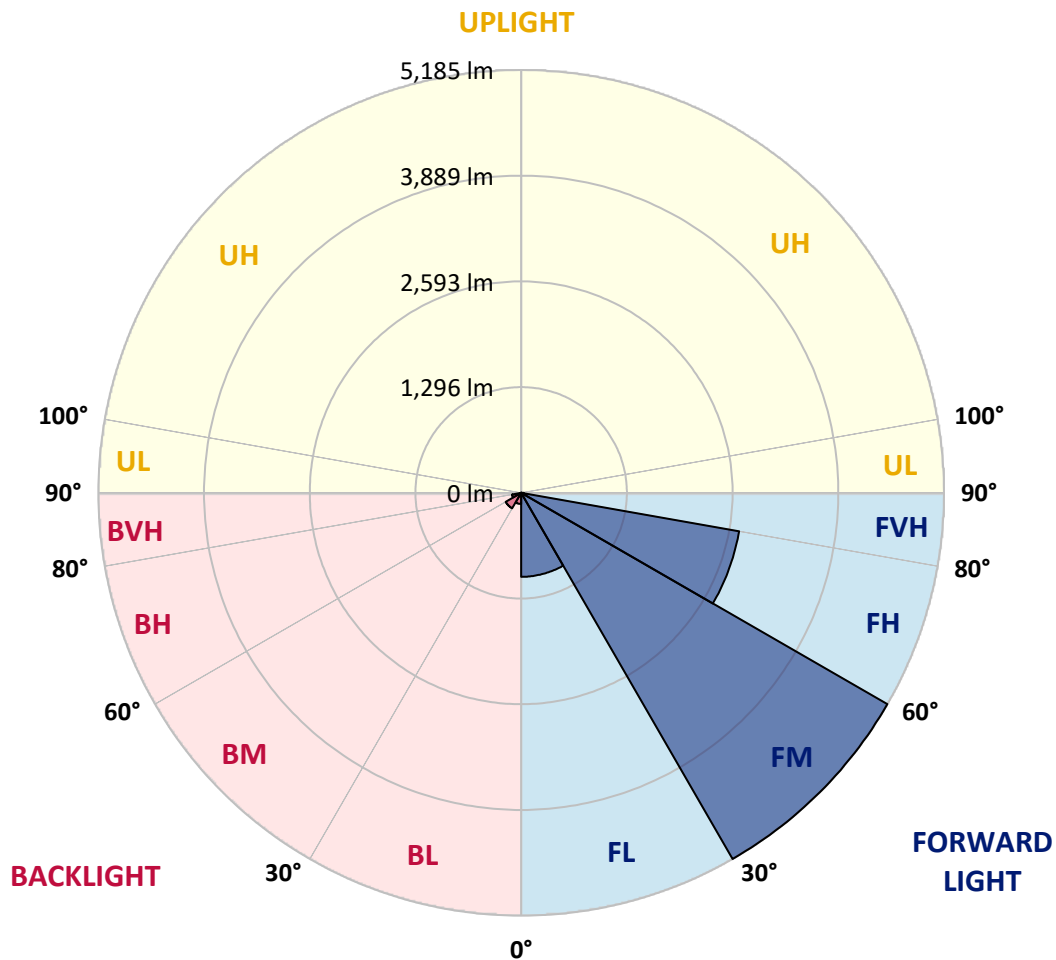
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1030.2	10.9			
FM	(30°-60°)	5185.2	55.0			
FH	(60°-80°)	2714.3	28.8			G2/5000
FVH	(80°-90°)	33.7	0.4			G1/100
BL	(0°-30°)	136.7	1.4	B1/500		
BM	(30°-60°)	219.5	2.3	B0/220		
BH	(60°-80°)	114.1	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°	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9
2.5°	1446.1	1431.8	1417.5	1401.3	1364.6	1301.5	1222.1	1136.4	1030.5	1012.3	926.7
5°	1755.6	1749.5	1735.3	1712.9	1672.1	1602.8	1513.3	1387.1	1209.7	1179.3	997.9
7.5°	1973.5	1969.5	1957.2	1930.7	1894.2	1824.8	1731.3	1594.8	1389.0	1354.5	1087.6
10°	2169.0	2167.2	2156.9	2132.4	2095.7	2020.5	1920.7	1778.0	1560.1	1521.4	1191.5
12.5°	2346.4	2348.3	2344.2	2332.1	2305.6	2234.3	2120.2	1965.4	1725.1	1682.3	1315.7
15°	2450.1	2456.2	2472.6	2497.0	2505.2	2448.2	2330.1	2158.9	1894.2	1857.4	1458.3
17.5°	2415.5	2421.7	2472.6	2556.0	2635.5	2643.7	2537.7	2342.2	2061.3	2024.5	1598.9
20°	2332.1	2340.3	2393.2	2507.2	2661.9	2770.0	2727.2	2541.8	2220.0	2175.2	1733.3
22.5°	2425.8	2425.8	2442.0	2511.3	2651.8	2820.9	2877.9	2741.4	2382.9	2328.0	1867.7
25°	2747.6	2741.4	2706.9	2678.2	2723.1	2873.8	2992.0	2945.2	2574.5	2511.3	2010.2
27.5°	3154.8	3183.5	3118.2	3014.4	2912.6	2977.7	3093.9	3146.8	2786.3	2721.1	2156.9
30°	3611.1	3623.4	3545.9	3407.5	3228.1	3165.1	3214.0	3319.9	3016.4	2945.2	2309.6
32.5°	4022.5	4012.4	3947.2	3802.5	3580.6	3444.1	3368.7	3458.4	3267.0	3185.4	2466.4
35°	4387.1	4395.2	4315.8	4148.8	3931.0	3786.3	3607.1	3615.1	3547.9	3454.3	2647.8
37.5°	4715.1	4700.8	4625.5	4458.4	4260.8	4103.9	3914.6	3778.1	3855.5	3757.8	2851.4
40°	4981.8	4967.5	4888.1	4725.3	4539.9	4411.5	4262.8	3996.1	4179.4	4067.3	3069.4
42.5°	5193.7	5177.4	5110.2	4953.3	4774.1	4660.0	4588.7	4265.0	4525.7	4413.6	3313.8
45°	5297.6	5283.3	5242.6	5124.4	4967.5	4867.7	4902.4	4574.4	4896.3	4802.6	3582.6
47.5°	5175.3	5169.2	5216.1	5195.6	5106.1	5053.1	5173.2	4912.7	5285.3	5193.7	3892.1
50°	4804.7	4814.8	4951.3	5120.2	5163.1	5226.2	5395.3	5269.0	5702.8	5605.1	4248.7
52.5°	3890.2	3959.4	4370.9	4778.2	5093.8	5332.2	5656.0	5778.2	6383.0	6287.3	4804.7
55°	2904.4	2932.8	3381.0	4077.5	4814.8	5324.1	5849.6	6077.7	6719.1	6621.3	4951.3
57.5°	2303.6	2313.8	2535.7	3246.6	4240.4	5140.7	5951.4	6185.5	6865.8	6784.4	5169.2
60°	1808.6	1820.9	1981.8	2470.6	3431.9	4645.8	5804.7	6279.2	7153.1	7087.7	5550.1
62.5°	1407.4	1419.6	1517.3	1804.5	2574.5	3884.0	5509.3	6430.0	7698.8	7668.3	6173.3
65°	1089.6	1093.7	1160.9	1295.4	1818.8	3059.2	5148.8	6570.6	8436.2	8409.7	6678.4
67.5°	804.5	810.6	857.4	941.0	1228.2	2197.7	4558.2	6462.5	8992.2	8914.8	6861.8
69°	649.7	655.9	696.5	763.7	969.5	1731.3	4018.5	6195.7	9075.7	9002.4	6745.6
70°	556.1	560.2	600.8	657.9	826.9	1470.5	3590.7	5965.6	8965.7	8894.4	6480.9
72.5°	356.4	376.7	417.5	454.3	547.8	973.6	2423.6	4947.2	7735.5	7613.2	5075.6
75°	197.5	203.6	276.9	321.9	364.6	633.5	1348.4	3085.7	4920.7	4835.1	2714.9
77.5°	163.0	167.1	195.6	244.3	244.3	354.4	509.2	1215.9	1871.8	1688.5	735.3
80°	114.1	118.1	148.7	160.8	175.2	199.7	165.0	266.7	289.3	256.6	110.0
82.5°	79.4	83.5	101.9	132.4	140.6	93.8	61.2	79.4	83.5	83.5	42.8
85°	14.3	20.4	75.4	110.0	83.5	28.6	34.7	28.6	26.5	28.6	10.2
87.5°	0.0	0.0	46.8	53.0	44.8	12.2	14.3	10.2	6.1	8.2	4.1
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°	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9	877.9
2.5°	883.9	841.2	767.8	715.0	670.0	635.5	621.2	598.8	582.6	590.6	580.5
5°	908.4	833.0	715.0	639.6	586.6	541.8	505.0	476.6	454.3	450.1	446.1
7.5°	947.1	839.1	684.4	590.6	511.2	442.0	385.0	342.2	309.6	309.6	297.3
10°	1000.1	855.5	666.1	541.8	423.6	329.9	272.9	232.2	216.0	213.8	209.8
12.5°	1073.4	886.0	651.8	478.6	329.9	240.3	205.7	191.5	185.3	183.3	181.3
15°	1173.1	930.7	635.5	401.3	250.4	197.5	183.3	171.0	165.0	163.0	160.8
17.5°	1268.9	971.5	600.8	321.9	203.6	179.2	163.0	152.7	144.5	142.7	142.7
20°	1358.4	1006.1	541.8	250.4	183.3	160.8	144.5	132.4	124.2	122.2	122.2
22.5°	1452.2	1034.7	468.5	203.6	167.1	142.7	126.3	114.1	105.9	103.8	101.9
25°	1552.0	1055.0	385.0	181.3	150.7	126.3	107.9	97.7	91.6	89.7	87.6
27.5°	1660.0	1063.1	305.6	165.0	132.4	110.0	93.8	83.5	79.4	77.4	77.4
30°	1757.8	1055.0	236.3	146.7	116.2	95.7	81.4	73.3	69.3	67.3	67.3
32.5°	1859.5	1034.7	189.5	130.3	101.9	81.4	69.3	63.2	61.2	59.1	59.1
35°	1967.5	1008.2	163.0	116.2	87.6	71.2	61.2	57.0	54.9	53.0	53.0
37.5°	2093.8	975.6	148.7	103.8	77.4	63.2	53.0	50.9	48.9	48.9	48.9
40°	2236.3	934.9	138.5	93.8	69.3	54.9	46.8	44.8	42.8	42.8	42.8
42.5°	2387.1	888.1	128.3	83.5	61.2	46.8	40.8	40.8	38.6	38.6	36.7
45°	2556.0	841.2	118.1	73.3	53.0	40.8	34.7	32.6	32.6	30.5	30.5
47.5°	2755.7	798.5	107.9	65.1	46.8	34.7	30.5	28.6	26.5	24.4	24.4
50°	3036.8	794.3	95.7	57.0	42.8	28.6	24.4	22.4	20.4	18.3	18.3
52.5°	3315.9	757.7	81.4	46.8	34.7	24.4	18.3	16.3	14.3	14.3	12.2
55°	3379.0	696.5	71.2	40.8	26.5	18.3	14.3	10.2	10.2	8.2	8.2
57.5°	3517.5	668.1	61.2	32.6	20.4	14.3	8.2	6.1	6.1	6.1	6.1
60°	3790.4	660.0	53.0	28.6	14.3	10.2	6.1	4.1	4.1	2.1	2.1
62.5°	4167.1	651.8	44.8	24.4	10.2	6.1	4.1	2.1	0.0	0.0	0.0
65°	4374.8	596.7	36.7	18.3	8.2	6.1	2.1	0.0	0.0	0.0	0.0
67.5°	4319.9	492.9	32.6	12.2	6.1	4.1	2.1	0.0	0.0	0.0	0.0
69°	4089.8	415.5	26.5	10.2	6.1	4.1	2.1	0.0	0.0	0.0	0.0
70°	3812.8	358.5	24.4	8.2	4.1	2.1	2.1	0.0	0.0	0.0	0.0
72.5°	2706.9	187.3	16.3	6.1	4.1	2.1	0.0	0.0	0.0	0.0	0.0
75°	1264.9	83.5	10.2	4.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
77.5°	279.1	38.6	6.1	4.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	53.0	14.3	4.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.3	6.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	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)