

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: P231081

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231081
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-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 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: 9612 lumens
Efficiency: N/A
Efficacy: 95.2 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 (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

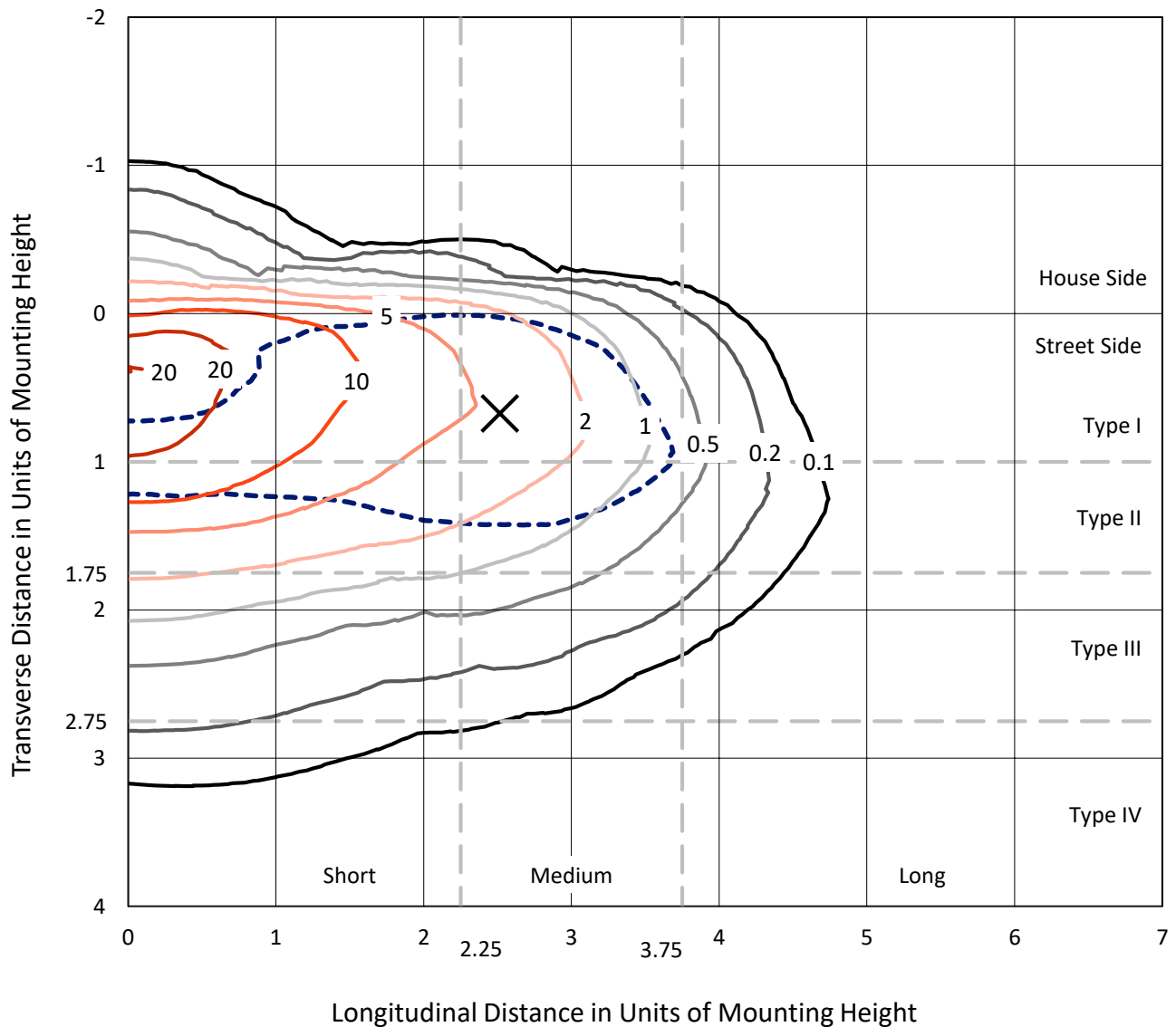


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

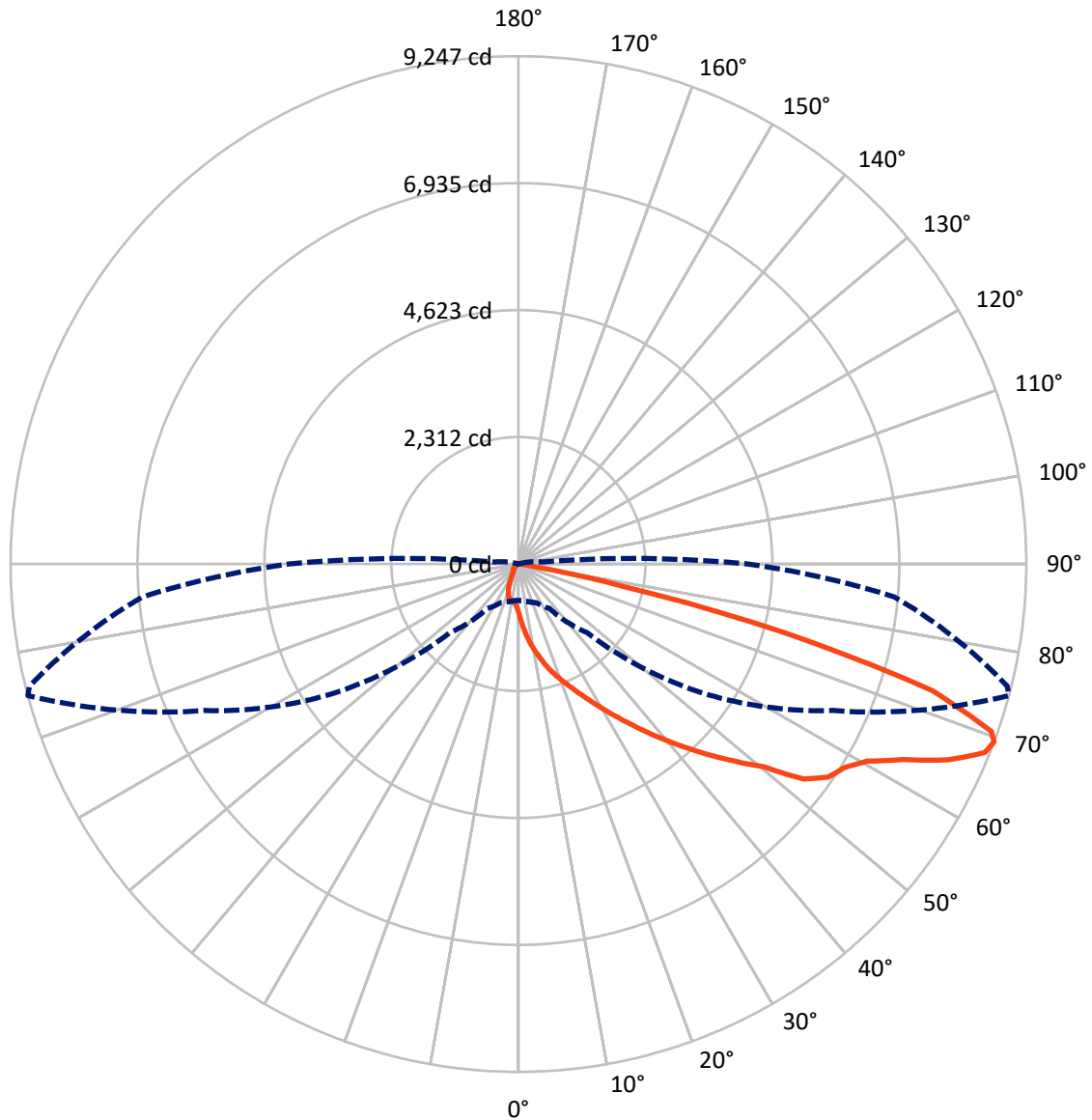


Based on 10 foot mounting height. Maximum calculated value = 24.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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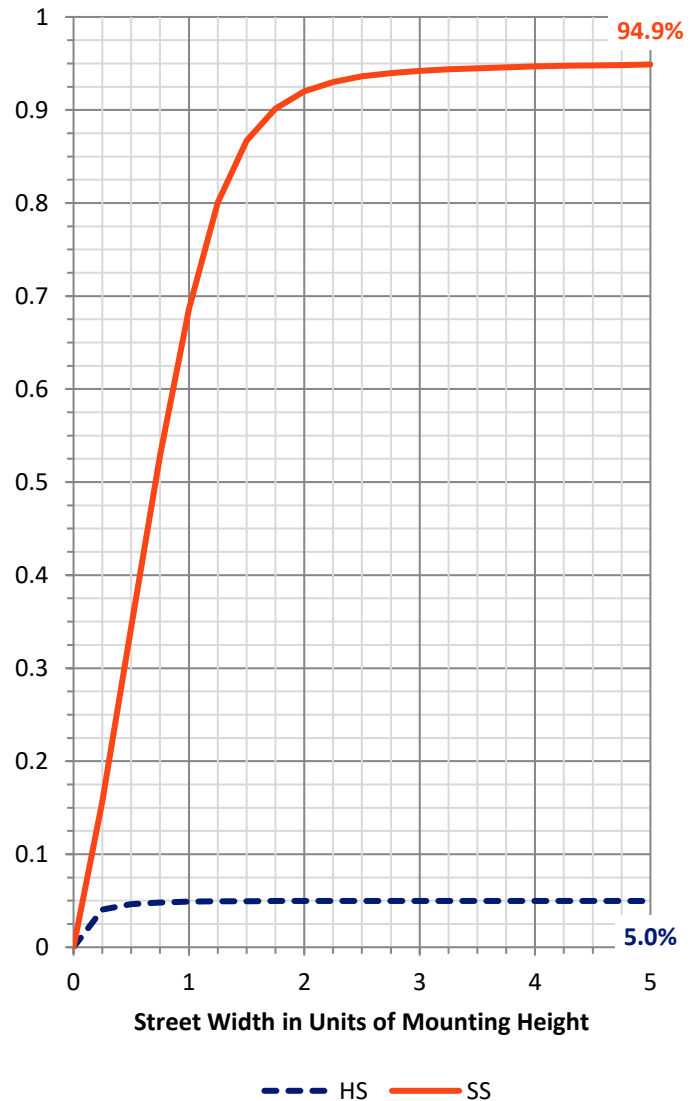
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	479.6	0.0	479.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	9132.4	0.0	9132.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	9612.0	0.0	9612.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	1.1
10°-20°	372.8	3.9
20°-30°	711.8	7.4
30°-40°	1276.8	13.3
40°-50°	1956.2	20.4
50°-60°	2273.6	23.7
60°-70°	2013.3	20.9
70°-80°	868.4	9.0
80°-90°	34.8	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°	9612.0	100.0
0°-180°	9612.0	100.0



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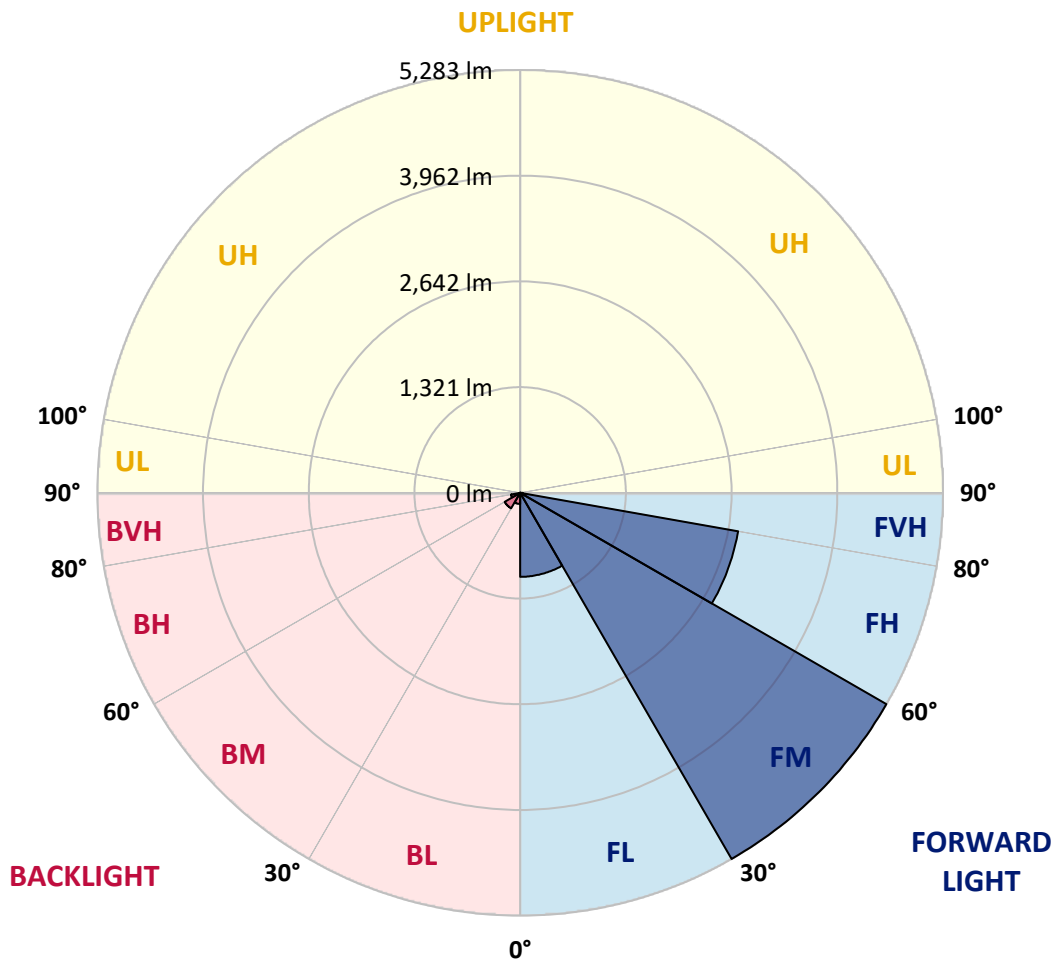
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1049.6	10.9			
FM	(30°-60°)	5283.0	55.0			
FH	(60°-80°)	2765.5	28.8			G2/5000
FVH	(80°-90°)	34.3	0.4			G1/100
BL	(0°-30°)	139.3	1.4	B1/500		
BM	(30°-60°)	223.6	2.3	B1/1000		
BH	(60°-80°)	116.2	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°	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4
2.5°	1473.4	1458.8	1444.3	1427.7	1390.4	1326.0	1245.1	1157.9	1050.0	1031.4	944.2
5°	1788.8	1782.6	1768.0	1745.2	1703.7	1633.1	1541.8	1413.2	1232.6	1201.5	1016.8
7.5°	2010.8	2006.7	1994.2	1967.2	1929.9	1859.3	1763.9	1624.8	1415.3	1380.0	1108.1
10°	2210.0	2208.0	2197.6	2172.7	2135.3	2058.6	1956.9	1811.6	1589.6	1550.1	1214.0
12.5°	2390.6	2392.7	2388.5	2376.1	2349.1	2276.4	2160.2	2002.5	1757.7	1714.1	1340.6
15°	2496.4	2502.6	2519.2	2544.1	2552.4	2494.3	2374.0	2199.7	1929.9	1892.5	1485.8
17.5°	2461.1	2467.4	2519.2	2604.3	2685.3	2693.6	2585.6	2386.4	2100.1	2062.7	1629.0
20°	2376.1	2384.4	2438.3	2554.5	2712.2	2822.2	2778.6	2589.8	2261.9	2216.3	1766.0
22.5°	2471.5	2471.5	2488.1	2558.7	2701.9	2874.1	2932.2	2793.2	2427.9	2371.9	1902.9
25°	2799.4	2793.2	2757.9	2728.8	2774.5	2928.0	3048.4	3000.7	2623.0	2558.7	2048.2
27.5°	3214.4	3243.5	3177.1	3071.2	2967.5	3033.9	3152.2	3206.1	2838.8	2772.4	2197.6
30°	3679.3	3691.7	3612.8	3471.7	3289.1	3224.8	3274.6	3382.5	3073.3	3000.7	2353.2
32.5°	4098.4	4088.1	4021.7	3874.3	3648.1	3509.1	3432.3	3523.6	3328.6	3245.5	2513.0
35°	4469.9	4478.2	4397.3	4227.1	4005.1	3857.7	3675.1	3683.4	3614.9	3519.5	2697.7
37.5°	4804.0	4789.5	4712.7	4542.5	4341.2	4181.4	3988.5	3849.4	3928.3	3828.7	2905.2
40°	5075.8	5061.3	4980.4	4814.4	4625.5	4494.8	4343.3	4071.5	4258.2	4144.1	3127.3
42.5°	5291.7	5275.1	5206.6	5046.8	4864.2	4748.0	4675.3	4345.4	4611.0	4496.9	3376.3
45°	5397.5	5383.0	5341.5	5221.1	5061.3	4959.6	4994.9	4660.8	4988.7	4893.2	3650.2
47.5°	5273.0	5266.8	5314.5	5293.7	5202.4	5148.5	5270.9	5005.3	5385.0	5291.7	3965.6
50°	4895.3	4905.7	5044.7	5216.9	5260.5	5324.9	5497.1	5368.4	5810.4	5710.8	4328.8
52.5°	3963.6	4034.1	4453.3	4868.3	5190.0	5432.8	5762.7	5887.2	6503.5	6406.0	4895.3
55°	2959.2	2988.2	3444.8	4154.5	4905.7	5424.5	5959.9	6192.3	6845.9	6746.3	5044.7
57.5°	2347.0	2357.4	2583.6	3307.8	4320.5	5237.7	6063.6	6302.3	6995.4	6912.4	5266.8
60°	1842.7	1855.2	2019.1	2517.2	3496.6	4733.4	5914.2	6397.7	7288.0	7221.5	5654.8
62.5°	1433.9	1446.4	1546.0	1838.6	2623.0	3957.3	5613.3	6551.3	7844.1	7813.0	6289.8
65°	1110.2	1114.4	1182.8	1319.8	1853.1	3116.9	5246.0	6694.5	8595.3	8568.3	6804.4
67.5°	819.7	825.9	873.6	958.7	1251.3	2239.1	4644.2	6584.5	9161.8	9083.0	6991.2
69°	662.0	668.2	709.7	778.2	987.8	1763.9	4094.3	6312.6	9246.9	9172.2	6872.9
70°	566.5	570.7	612.2	670.3	842.5	1498.3	3658.5	6078.1	9134.8	9062.2	6603.2
72.5°	363.2	383.9	425.4	462.8	558.2	991.9	2469.4	5040.6	7881.4	7756.9	5171.3
75°	201.3	207.5	282.2	327.9	371.5	645.4	1373.8	3143.9	5013.6	4926.4	2766.2
77.5°	166.0	170.2	199.2	249.0	249.0	361.1	518.8	1238.9	1907.1	1720.3	749.1
80°	116.2	120.4	151.5	163.9	178.5	203.4	168.1	271.8	294.7	261.5	112.1
82.5°	80.9	85.1	103.8	134.9	143.2	95.5	62.3	80.9	85.1	85.1	43.6
85°	14.5	20.8	76.8	112.1	85.1	29.1	35.3	29.1	27.0	29.1	10.4
87.5°	0.0	0.0	47.7	54.0	45.7	12.5	14.5	10.4	6.2	8.3	4.2
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°	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4	894.4
2.5°	900.6	857.0	782.3	728.4	682.7	647.4	632.9	610.1	593.5	601.8	591.4
5°	925.5	848.7	728.4	651.6	597.6	552.0	514.6	485.6	462.8	458.6	454.5
7.5°	964.9	855.0	697.3	601.8	520.9	450.3	392.2	348.6	315.4	315.4	303.0
10°	1018.9	871.6	678.6	552.0	431.6	336.2	278.1	236.6	220.0	217.9	213.7
12.5°	1093.6	902.7	664.1	487.7	336.2	244.9	209.6	195.1	188.8	186.8	184.7
15°	1195.3	948.3	647.4	408.8	255.2	201.3	186.8	174.3	168.1	166.0	163.9
17.5°	1292.8	989.9	612.2	327.9	207.5	182.6	166.0	155.6	147.3	145.3	145.3
20°	1384.1	1025.1	552.0	255.2	186.8	163.9	147.3	134.9	126.6	124.5	124.5
22.5°	1479.6	1054.2	477.3	207.5	170.2	145.3	128.7	116.2	107.9	105.8	103.8
25°	1581.3	1074.9	392.2	184.7	153.6	128.7	110.0	99.6	93.4	91.3	89.2
27.5°	1691.3	1083.2	311.3	168.1	134.9	112.1	95.5	85.1	80.9	78.9	78.9
30°	1790.9	1074.9	240.7	149.4	118.3	97.5	83.0	74.7	70.6	68.5	68.5
32.5°	1894.6	1054.2	193.0	132.8	103.8	83.0	70.6	64.3	62.3	60.2	60.2
35°	2004.6	1027.2	166.0	118.3	89.2	72.6	62.3	58.1	56.0	54.0	54.0
37.5°	2133.3	994.0	151.5	105.8	78.9	64.3	54.0	51.9	49.8	49.8	49.8
40°	2278.5	952.5	141.1	95.5	70.6	56.0	47.7	45.7	43.6	43.6	43.6
42.5°	2432.1	904.8	130.7	85.1	62.3	47.7	41.5	41.5	39.4	39.4	37.4
45°	2604.3	857.0	120.4	74.7	54.0	41.5	35.3	33.2	33.2	31.1	31.1
47.5°	2807.7	813.5	110.0	66.4	47.7	35.3	31.1	29.1	27.0	24.9	24.9
50°	3094.1	809.3	97.5	58.1	43.6	29.1	24.9	22.8	20.8	18.7	18.7
52.5°	3378.4	772.0	83.0	47.7	35.3	24.9	18.7	16.6	14.5	14.5	12.5
55°	3442.7	709.7	72.6	41.5	27.0	18.7	14.5	10.4	10.4	8.3	8.3
57.5°	3583.8	680.7	62.3	33.2	20.8	14.5	8.3	6.2	6.2	6.2	6.2
60°	3861.9	672.4	54.0	29.1	14.5	10.4	6.2	4.2	4.2	2.1	2.1
62.5°	4245.8	664.1	45.7	24.9	10.4	6.2	4.2	2.1	0.0	0.0	0.0
65°	4457.4	608.0	37.4	18.7	8.3	6.2	2.1	0.0	0.0	0.0	0.0
67.5°	4401.4	502.2	33.2	12.5	6.2	4.2	2.1	0.0	0.0	0.0	0.0
69°	4166.9	423.3	27.0	10.4	6.2	4.2	2.1	0.0	0.0	0.0	0.0
70°	3884.7	365.2	24.9	8.3	4.2	2.1	2.1	0.0	0.0	0.0	0.0
72.5°	2757.9	190.9	16.6	6.2	4.2	2.1	0.0	0.0	0.0	0.0	0.0
75°	1288.7	85.1	10.4	4.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0
77.5°	284.3	39.4	6.2	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	54.0	14.5	4.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.7	6.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.2	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)