

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: P231082

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231082
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-AF48-110-D-U-T2R-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 720mA 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: 10281 lumens
Efficiency: N/A
Efficacy: 92.6 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): 111
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

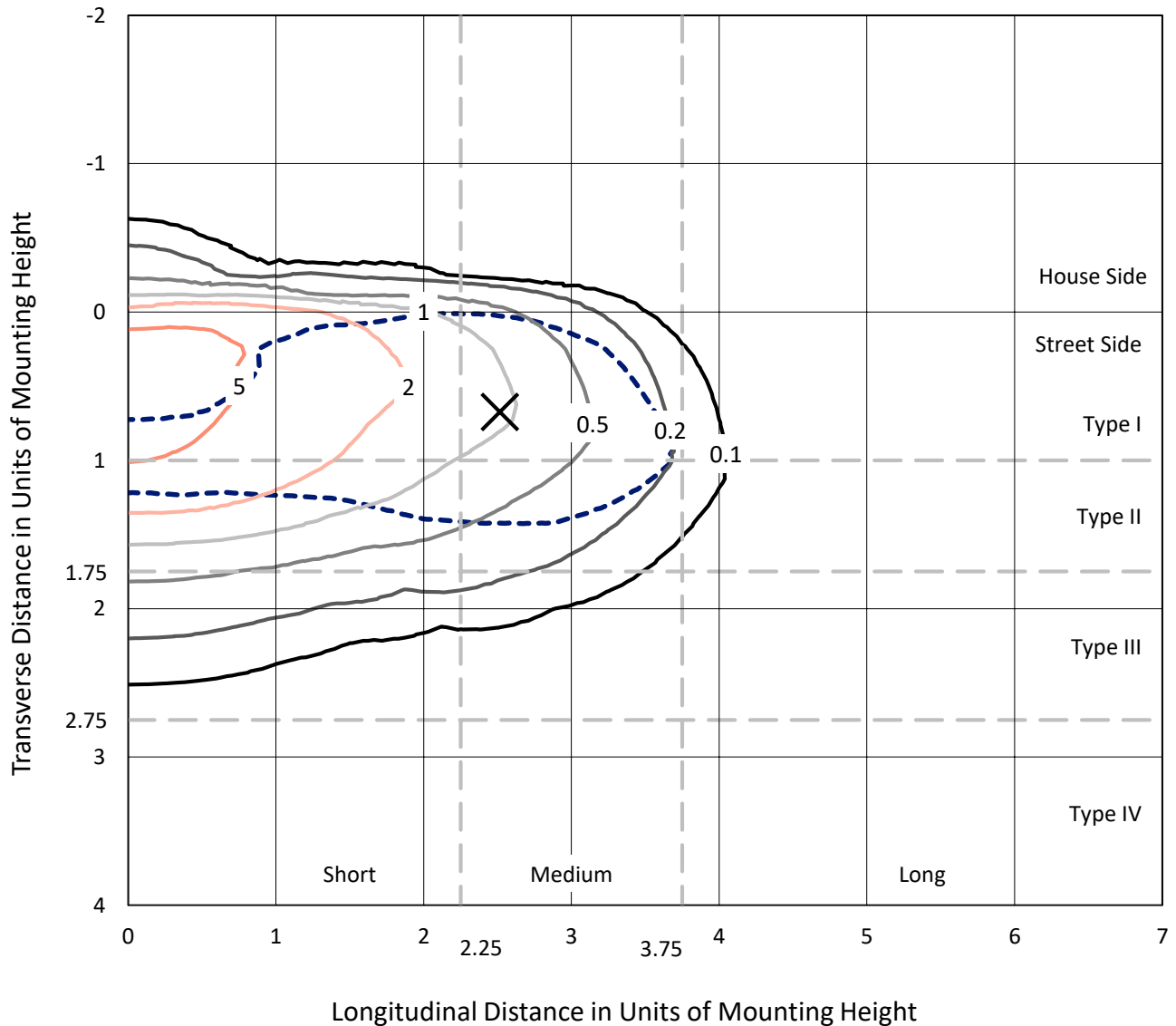


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

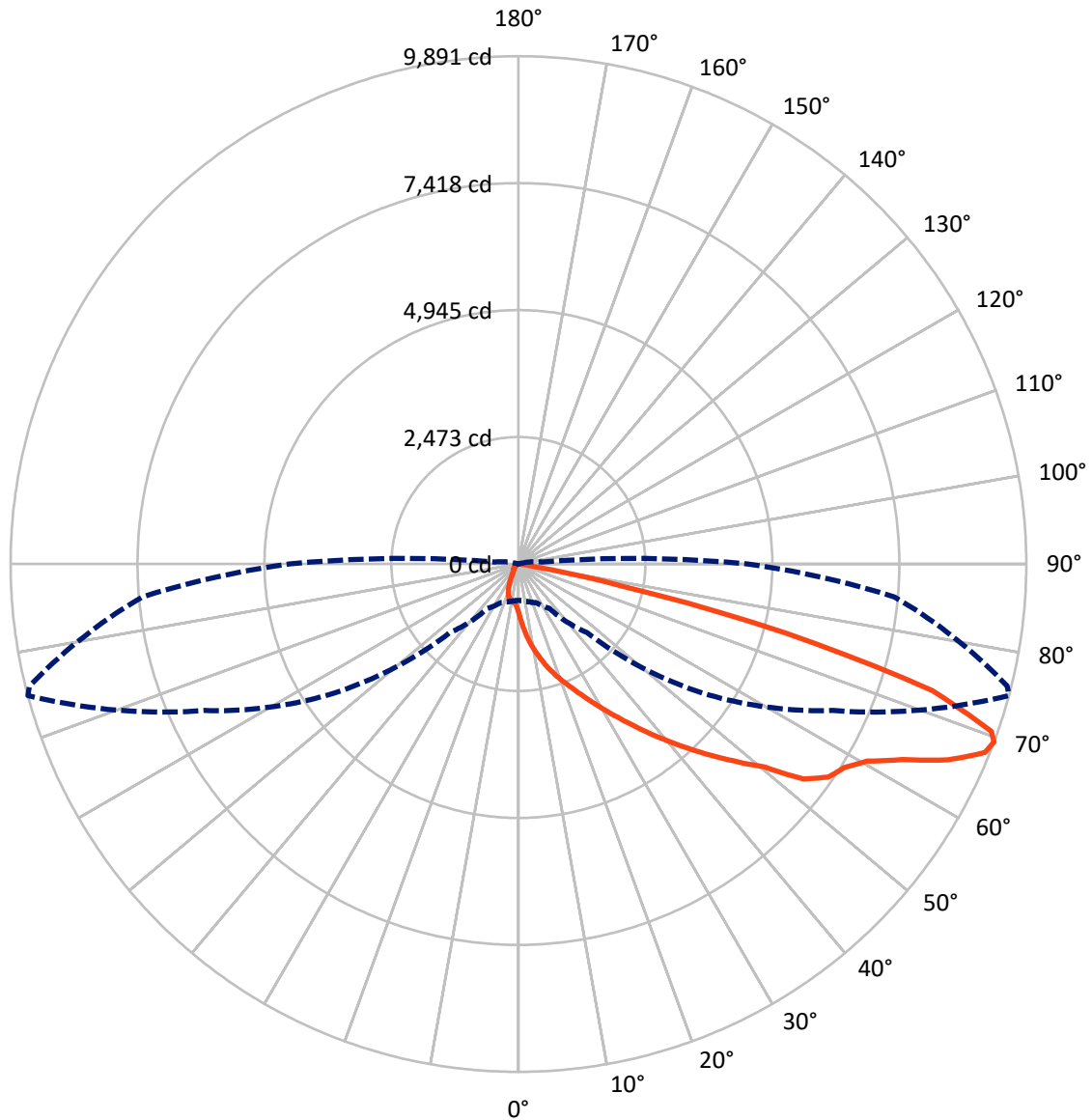


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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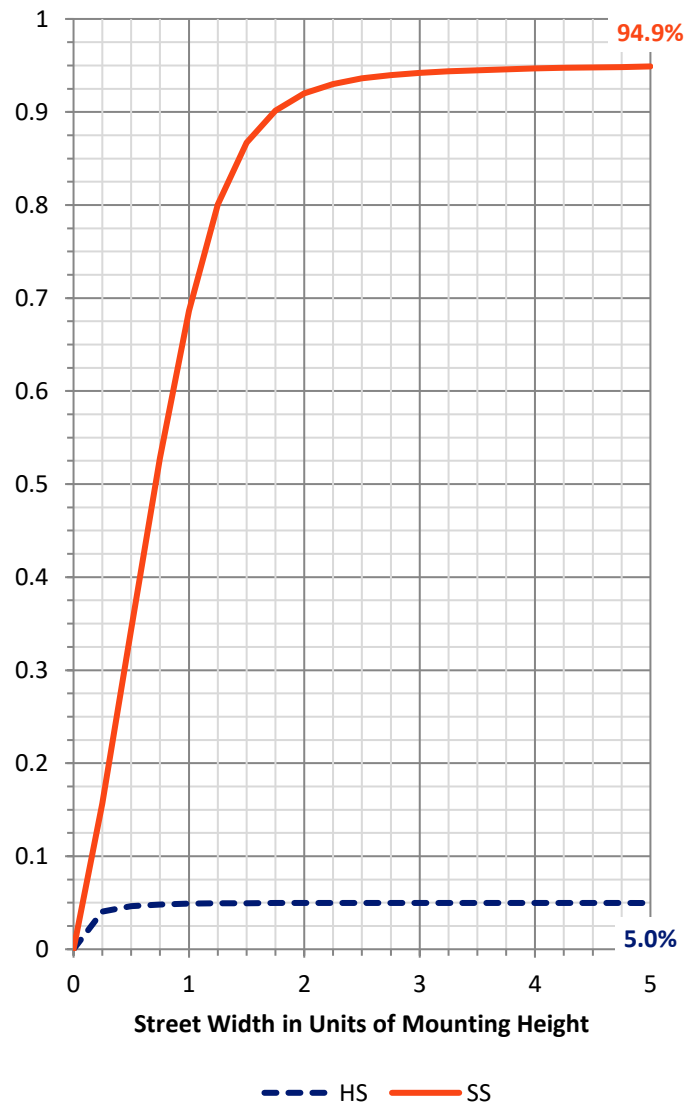
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	512.9	0.0	512.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	9768.1	0.0	9768.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	10281.0	0.0	10281.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	1.1
10°-20°	398.8	3.9
20°-30°	761.3	7.4
30°-40°	1365.7	13.3
40°-50°	2092.3	20.4
50°-60°	2431.8	23.7
60°-70°	2153.4	20.9
70°-80°	928.8	9.0
80°-90°	37.2	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°	10281.0	100.0
0°-180°	10281.0	100.0

Coefficient of Utilization



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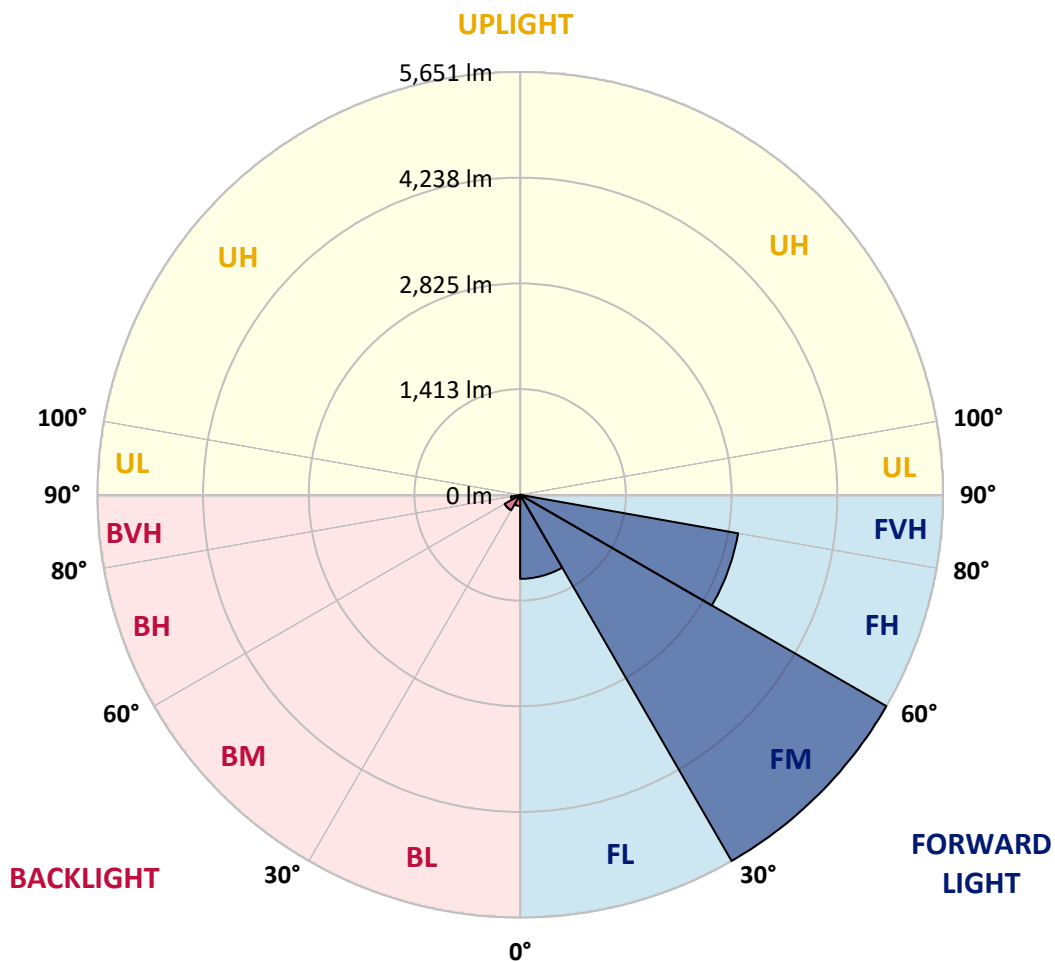
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1122.7	10.9			
FM (30°-60°)	5650.7	55.0			
FH (60°-80°)	2958.0	28.8			G2/5000
FVH (80°-90°)	36.7	0.4			G1/100
BL (0°-30°)	149.0	1.4	B1/500		
BM (30°-60°)	239.2	2.3	B1/1000		
BH (60°-80°)	124.3	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°	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6
2.5°	1575.9	1560.4	1544.8	1527.1	1487.1	1418.3	1331.8	1238.5	1123.1	1103.1	1009.9
5°	1913.3	1906.6	1891.1	1866.7	1822.3	1746.8	1649.2	1511.5	1318.4	1285.1	1087.6
7.5°	2150.8	2146.3	2133.0	2104.2	2064.2	1988.8	1886.7	1737.9	1513.8	1476.0	1185.3
10°	2363.9	2361.6	2350.5	2323.9	2284.0	2201.8	2093.1	1937.7	1700.2	1658.0	1298.5
12.5°	2557.0	2559.2	2554.7	2541.4	2512.6	2434.9	2310.6	2141.9	1880.0	1833.4	1433.9
15°	2670.2	2676.8	2694.6	2721.2	2730.1	2667.9	2539.2	2352.8	2064.2	2024.3	1589.2
17.5°	2632.4	2639.1	2694.6	2785.6	2872.1	2881.0	2765.6	2552.5	2246.2	2206.3	1742.4
20°	2541.4	2550.3	2608.0	2732.3	2901.0	3018.6	2972.0	2770.0	2419.4	2370.5	1888.9
22.5°	2643.5	2643.5	2661.3	2736.8	2889.9	3074.1	3136.3	2987.6	2596.9	2537.0	2035.4
25°	2994.2	2987.6	2949.8	2918.8	2967.6	3131.8	3260.6	3209.5	2805.6	2736.8	2190.7
27.5°	3438.1	3469.2	3398.2	3285.0	3174.0	3245.0	3371.6	3429.3	3036.4	2965.4	2350.5
30°	3935.3	3948.7	3864.3	3713.4	3518.0	3449.2	3502.5	3617.9	3287.2	3209.5	2517.0
32.5°	4383.7	4372.6	4301.6	4144.0	3902.0	3753.3	3671.2	3768.9	3560.2	3471.4	2687.9
35°	4781.0	4789.9	4703.3	4521.3	4283.8	4126.2	3930.9	3939.8	3866.5	3764.4	2885.5
37.5°	5138.4	5122.8	5040.7	4858.7	4643.4	4472.5	4266.1	4117.3	4201.7	4095.1	3107.4
40°	5429.1	5413.6	5327.0	5149.4	4947.5	4807.6	4645.6	4354.8	4554.6	4432.5	3344.9
42.5°	5660.0	5642.2	5569.0	5398.0	5202.7	5078.4	5000.7	4647.8	4931.9	4809.9	3611.3
45°	5773.2	5757.6	5713.2	5584.5	5413.6	5304.8	5342.6	4985.2	5335.9	5233.8	3904.3
47.5°	5640.0	5633.3	5684.4	5662.2	5564.5	5506.8	5637.8	5353.7	5759.8	5660.0	4241.6
50°	5236.0	5247.1	5395.8	5580.0	5626.7	5695.5	5879.7	5742.1	6214.9	6108.3	4630.1
52.5°	4239.4	4314.9	4763.2	5207.2	5551.2	5810.9	6163.8	6297.0	6956.2	6851.9	5236.0
55°	3165.1	3196.2	3684.5	4443.6	5247.1	5802.0	6374.7	6623.3	7322.4	7215.9	5395.8
57.5°	2510.4	2521.5	2763.4	3538.0	4621.2	5602.2	6485.6	6740.9	7482.2	7393.5	5633.3
60°	1971.0	1984.3	2159.7	2692.4	3740.0	5062.9	6325.8	6843.0	7795.2	7724.2	6048.4
62.5°	1533.7	1547.1	1653.6	1966.6	2805.6	4232.8	6004.0	7007.2	8390.0	8356.8	6727.6
65°	1187.5	1191.9	1265.2	1411.7	1982.1	3333.8	5611.1	7160.4	9193.5	9164.7	7278.0
67.5°	876.7	883.4	934.4	1025.5	1338.4	2394.9	4967.4	7042.8	9799.5	9715.1	7477.8
69°	708.0	714.7	759.1	832.3	1056.5	1886.7	4379.3	6752.0	9890.5	9810.6	7351.3
70°	605.9	610.4	654.8	716.9	901.2	1602.5	3913.1	6501.2	9770.6	9692.9	7062.7
72.5°	388.4	410.6	455.0	495.0	597.1	1061.0	2641.3	5391.4	8430.0	8296.8	5531.2
75°	215.3	222.0	301.9	350.7	397.3	690.3	1469.4	3362.7	5362.5	5269.3	2958.7
77.5°	177.6	182.0	213.1	266.4	266.4	386.2	554.9	1325.1	2039.8	1840.0	801.3
80°	124.3	128.7	162.0	175.3	190.9	217.5	179.8	290.8	315.2	279.7	119.9
82.5°	86.6	91.0	111.0	144.3	153.2	102.1	66.6	86.6	91.0	91.0	46.6
85°	15.5	22.2	82.1	119.9	91.0	31.1	37.7	31.1	28.9	31.1	11.1
87.5°	0.0	0.0	51.1	57.7	48.8	13.3	15.5	11.1	6.7	8.9	4.4
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°	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6	956.6
2.5°	963.3	916.7	836.8	779.1	730.2	692.5	677.0	652.6	634.8	643.7	632.6
5°	989.9	907.8	779.1	697.0	639.2	590.4	550.5	519.4	495.0	490.5	486.1
7.5°	1032.1	914.5	745.8	643.7	557.1	481.7	419.5	372.9	337.4	337.4	324.1
10°	1089.8	932.2	725.8	590.4	461.7	359.6	297.4	253.0	235.3	233.1	228.6
12.5°	1169.7	965.5	710.3	521.6	359.6	261.9	224.2	208.6	202.0	199.8	197.5
15°	1278.5	1014.4	692.5	437.3	273.0	215.3	199.8	186.4	179.8	177.6	175.3
17.5°	1382.8	1058.7	654.8	350.7	222.0	195.3	177.6	166.5	157.6	155.4	155.4
20°	1480.5	1096.5	590.4	273.0	199.8	175.3	157.6	144.3	135.4	133.2	133.2
22.5°	1582.6	1127.6	510.5	222.0	182.0	155.4	137.6	124.3	115.4	113.2	111.0
25°	1691.3	1149.7	419.5	197.5	164.2	137.6	117.6	106.5	99.9	97.7	95.4
27.5°	1809.0	1158.6	332.9	179.8	144.3	119.9	102.1	91.0	86.6	84.3	84.3
30°	1915.5	1149.7	257.5	159.8	126.5	104.3	88.8	79.9	75.5	73.2	73.2
32.5°	2026.5	1127.6	206.4	142.1	111.0	88.8	75.5	68.8	66.6	64.4	64.4
35°	2144.1	1098.7	177.6	126.5	95.4	77.7	66.6	62.1	59.9	57.7	57.7
37.5°	2281.7	1063.2	162.0	113.2	84.3	68.8	57.7	55.5	53.3	53.3	53.3
40°	2437.1	1018.8	150.9	102.1	75.5	59.9	51.1	48.8	46.6	46.6	46.6
42.5°	2601.4	967.7	139.8	91.0	66.6	51.1	44.4	44.4	42.2	42.2	40.0
45°	2785.6	916.7	128.7	79.9	57.7	44.4	37.7	35.5	35.5	33.3	33.3
47.5°	3003.1	870.1	117.6	71.0	51.1	37.7	33.3	31.1	28.9	26.6	26.6
50°	3309.4	865.6	104.3	62.1	46.6	31.1	26.6	24.4	22.2	20.0	20.0
52.5°	3613.5	825.7	88.8	51.1	37.7	26.6	20.0	17.8	15.5	15.5	13.3
55°	3682.3	759.1	77.7	44.4	28.9	20.0	15.5	11.1	11.1	8.9	8.9
57.5°	3833.2	728.0	66.6	35.5	22.2	15.5	8.9	6.7	6.7	6.7	6.7
60°	4130.7	719.1	57.7	31.1	15.5	11.1	6.7	4.4	4.4	2.2	2.2
62.5°	4541.3	710.3	48.8	26.6	11.1	6.7	4.4	2.2	0.0	0.0	0.0
65°	4767.7	650.3	40.0	20.0	8.9	6.7	2.2	0.0	0.0	0.0	0.0
67.5°	4707.8	537.1	35.5	13.3	6.7	4.4	2.2	0.0	0.0	0.0	0.0
69°	4456.9	452.8	28.9	11.1	6.7	4.4	2.2	0.0	0.0	0.0	0.0
70°	4155.1	390.6	26.6	8.9	4.4	2.2	2.2	0.0	0.0	0.0	0.0
72.5°	2949.8	204.2	17.8	6.7	4.4	2.2	0.0	0.0	0.0	0.0	0.0
75°	1378.4	91.0	11.1	4.4	2.2	2.2	0.0	0.0	0.0	0.0	0.0
77.5°	304.1	42.2	6.7	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	57.7	15.5	4.4	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.0	6.7	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.7	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)