

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: P237456

Luminaire Tested: **ARCH-L-AF72-230-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-230-D-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 980mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19691.8 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G4

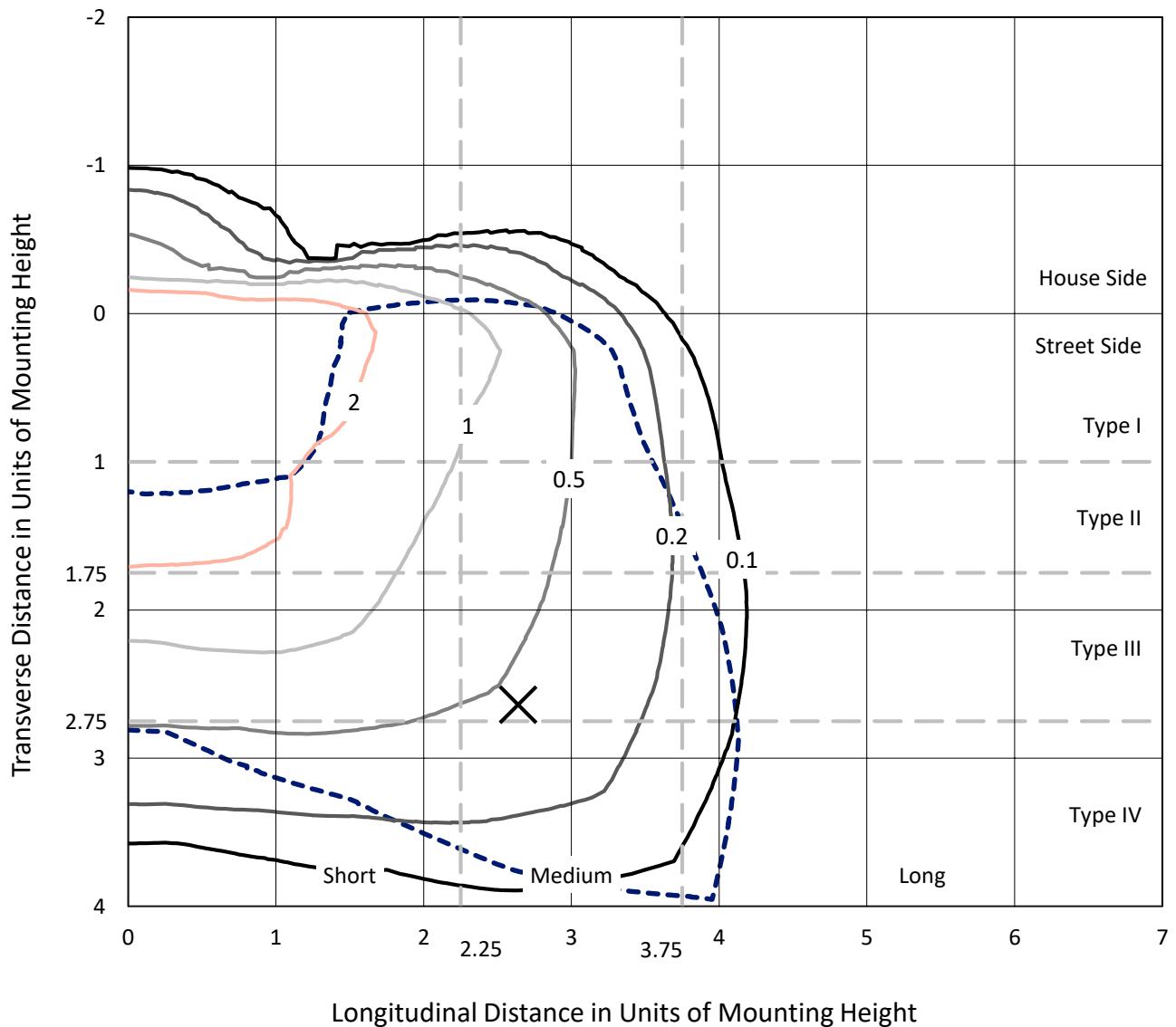
Input Watts (W): 229
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

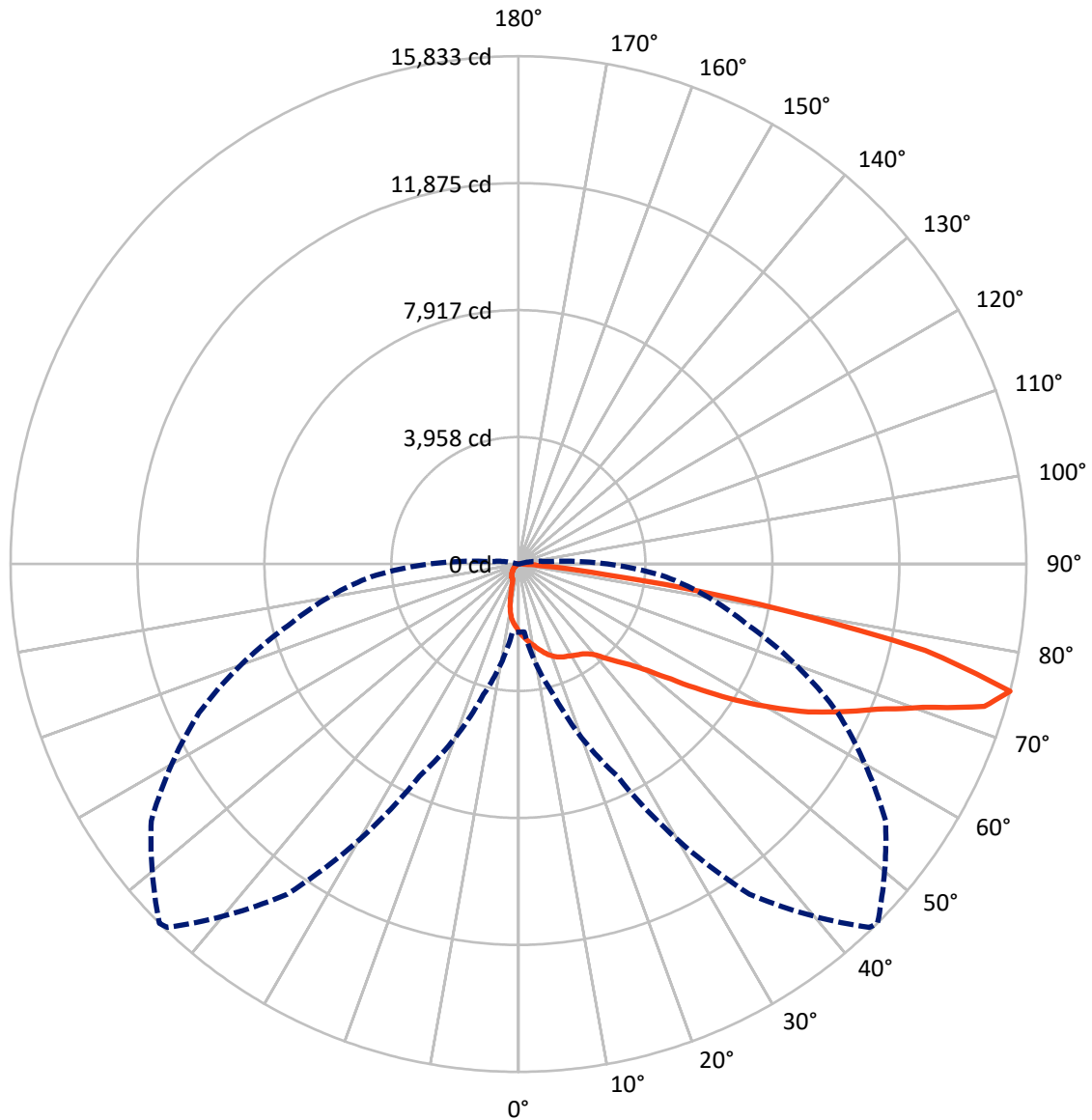
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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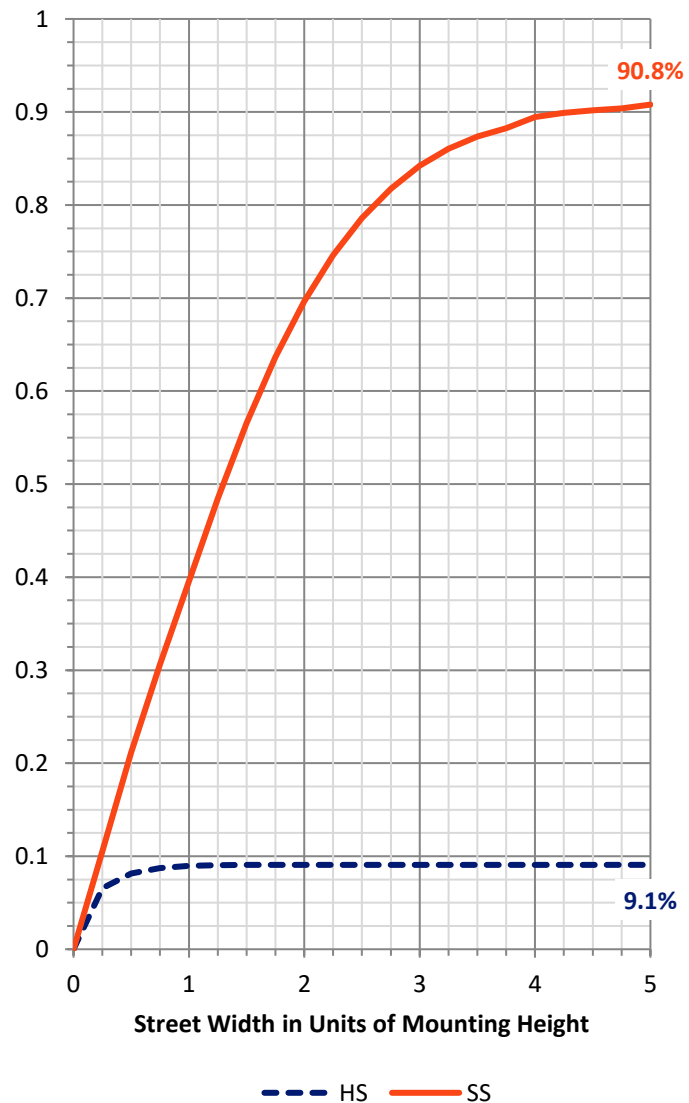
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1801.2	0.0	1801.2
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	17890.6	0.0	17890.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	19691.8	0.0	19691.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.8	1.0
10°-20°	563.1	2.9
20°-30°	932.6	4.7
30°-40°	1349.7	6.9
40°-50°	2210.1	11.2
50°-60°	3938.0	20.0
60°-70°	5789.3	29.4
70°-80°	4367.5	22.2
80°-90°	342.7	1.7
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°	19691.8	100.0
0°-180°	19691.8	100.0



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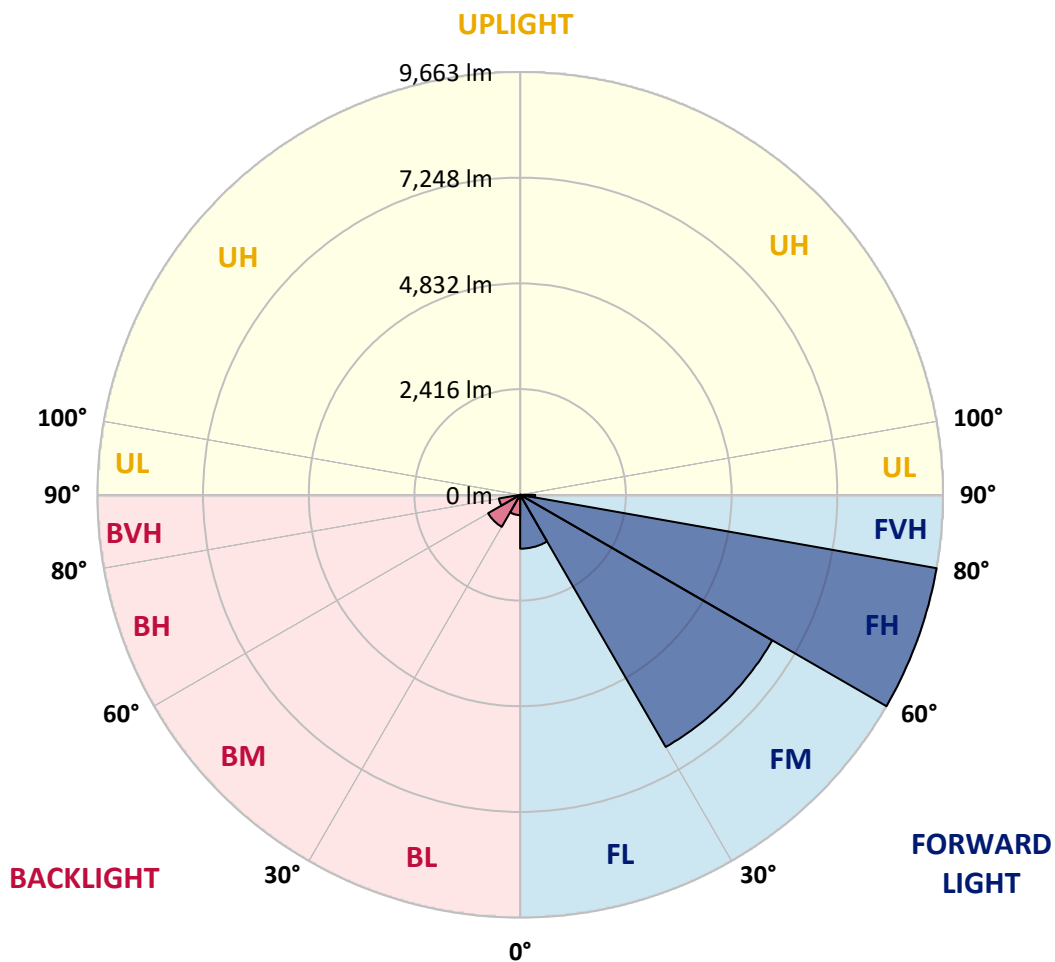
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1231.7	6.3			
FM	(30°-60°)	6653.7	33.8			
FH	(60°-80°)	9663.5	49.1			G4/12000
FVH	(80°-90°)	341.7	1.7			G3/500
BL	(0°-30°)	462.8	2.4	B1/500		
BM	(30°-60°)	844.1	4.3	B1/1000		
BH	(60°-80°)	493.3	2.5	B1/500		G1/500
BVH	(80°-90°)	1.0	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-G4

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2287.8	2287.8	2283.2	2278.5	2255.3	2232.0	2227.3	2213.4	2171.4	2143.4	2115.5
5°	2478.9	2483.6	2474.2	2451.0	2399.7	2348.5	2343.8	2306.5	2227.3	2171.4	2110.8
7.5°	2660.6	2670.0	2646.7	2604.7	2544.2	2469.6	2464.9	2395.0	2292.5	2213.4	2124.8
10°	2814.4	2814.4	2781.8	2730.6	2665.3	2586.1	2576.8	2497.5	2381.0	2283.2	2166.7
12.5°	2982.1	2977.5	2930.9	2861.0	2786.4	2711.9	2707.2	2609.3	2497.5	2371.7	2227.3
15°	3136.0	3126.6	3066.0	3000.8	2921.5	2842.4	2837.7	2739.9	2623.4	2474.2	2315.9
17.5°	3219.8	3215.1	3159.2	3094.0	3028.8	2968.2	2963.5	2861.0	2735.2	2581.4	2404.3
20°	3233.8	3238.5	3191.8	3136.0	3098.6	3066.0	3066.0	2972.8	2837.7	2674.6	2497.5
22.5°	3238.5	3252.4	3219.8	3145.3	3136.0	3140.6	3149.9	3075.3	2935.6	2781.8	2595.4
25°	3271.1	3289.7	3266.4	3177.9	3168.5	3201.1	3210.4	3177.9	3052.1	2898.3	2707.2
27.5°	3336.3	3355.0	3336.3	3224.4	3210.4	3243.1	3252.4	3271.1	3177.9	3010.1	2823.8
30°	3466.8	3471.4	3429.4	3289.7	3261.7	3303.6	3317.6	3368.9	3294.3	3117.2	2935.6
32.5°	3695.1	3648.5	3522.6	3336.3	3313.0	3359.6	3373.6	3429.4	3401.5	3219.8	3052.1
35°	4161.1	3918.7	3629.8	3401.5	3378.2	3424.8	3443.5	3522.6	3536.6	3364.3	3196.5
37.5°	4156.4	3937.3	3881.5	3527.3	3494.7	3527.3	3550.7	3648.5	3704.4	3555.3	3406.2
40°	4449.9	4356.7	4356.7	3765.0	3657.8	3704.4	3727.7	3825.5	3923.4	3806.9	3653.2
42.5°	5372.5	5312.0	5246.7	4221.6	3886.1	4016.6	4030.5	4091.2	4207.6	4170.4	3988.6
45°	6402.3	6346.4	6094.7	4995.1	4277.6	4300.8	4333.4	4431.3	4599.1	4669.0	4454.5
47.5°	7208.4	7152.5	6938.2	5927.0	4888.0	4682.9	4682.9	4874.0	5134.9	5312.0	5107.0
50°	7856.1	7790.9	7660.4	6919.5	5889.7	5232.7	5204.8	5428.5	5815.2	6090.1	5950.3
52.5°	8485.2	8294.1	8214.9	7944.6	7022.0	6029.6	5955.0	6113.5	6649.3	6989.4	6872.9
55°	8904.5	8876.6	8792.7	8885.9	8210.2	6998.7	6933.5	6966.1	7637.1	7865.5	7721.0
57.5°	9296.0	9291.3	9477.6	9911.0	9505.6	8107.7	8005.2	7954.0	8592.3	8536.4	8662.2
60°	9780.5	9696.7	10130.0	10749.7	10693.8	9188.8	9072.2	8969.7	9323.9	9165.4	9789.8
62.5°	9803.9	9780.5	10661.2	11551.2	11872.7	10288.4	10153.3	9785.1	9962.2	9780.5	10866.2
65°	8913.8	9030.3	10884.8	11975.2	12860.5	11253.0	11089.9	10516.8	10530.8	10409.5	12133.6
67.5°	8713.5	8774.1	10269.8	12431.8	13573.4	12226.8	12073.1	11360.2	11192.4	11201.7	12883.9
70°	8214.9	8308.1	9505.6	12399.2	14137.3	13526.9	13373.1	12599.6	12194.2	11742.2	12306.0
72.5°	6276.5	6435.0	8009.9	10870.9	13983.5	15227.6	15185.7	14169.9	12595.0	10782.3	9309.9
75°	2124.8	2120.2	4207.6	7301.6	12562.3	15749.5	15833.3	13974.2	10987.4	7436.8	4622.3
77.5°	456.6	461.4	866.6	2958.9	8345.3	12646.2	12967.7	10540.1	7087.3	3313.0	1057.7
80°	223.6	228.3	358.7	782.9	3336.3	7091.9	7595.2	5419.1	2618.7	661.6	177.1
82.5°	111.8	116.5	186.4	414.7	1234.8	2520.9	2693.2	1994.3	750.2	372.8	88.5
85°	41.9	41.9	93.2	246.9	563.9	591.8	726.9	577.8	451.9	302.9	23.3
87.5°	9.3	9.3	51.2	121.1	251.6	186.4	186.4	177.1	274.9	205.0	9.3
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°	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2101.4	2082.8	2050.2	2017.6	1994.3	1966.3	1952.4	1938.4	1933.8	1929.1	1938.4
5°	2078.2	2050.2	1989.6	1938.4	1891.8	1854.5	1826.6	1798.7	1784.6	1775.3	1779.9
7.5°	2078.2	2036.3	1947.7	1868.5	1793.9	1714.8	1635.5	1574.9	1528.4	1500.4	1505.1
10°	2101.4	2045.6	1929.1	1821.9	1682.1	1514.4	1342.0	1211.5	1123.0	1071.7	1071.7
12.5°	2152.7	2078.2	1933.8	1766.0	1528.4	1234.8	973.8	815.4	750.2	712.9	717.6
15°	2222.7	2134.1	1957.0	1691.4	1314.0	917.9	680.3	577.8	577.8	587.1	591.8
17.5°	2301.8	2203.9	1975.6	1579.6	1039.1	657.0	535.8	526.5	540.5	563.9	563.9
20°	2381.0	2273.9	1985.0	1402.6	778.2	521.9	507.9	507.9	517.2	540.5	545.1
22.5°	2478.9	2362.4	1975.6	1183.6	582.5	493.9	489.3	489.3	489.3	517.2	517.2
25°	2581.4	2464.9	1938.4	950.5	493.9	475.3	470.7	466.0	466.0	489.3	493.9
27.5°	2697.9	2572.1	1849.9	726.9	466.0	456.6	451.9	442.6	442.6	461.4	461.4
30°	2814.4	2693.2	1714.8	549.8	442.6	438.0	428.7	419.4	410.0	428.7	428.7
32.5°	2940.2	2819.0	1537.7	438.0	410.0	410.0	405.4	391.4	382.1	391.4	396.1
35°	3107.9	2963.5	1337.3	382.1	368.2	368.2	368.2	363.5	344.8	354.1	354.1
37.5°	3331.6	3163.9	1104.4	354.1	335.5	326.2	326.2	326.2	312.2	316.8	316.8
40°	3615.8	3396.8	880.7	330.8	312.2	288.9	279.6	284.3	274.9	274.9	270.3
42.5°	4002.6	3648.5	661.6	312.2	293.6	261.0	242.3	237.6	228.3	223.6	223.6
45°	4557.1	3956.1	475.3	293.6	279.6	228.3	209.7	195.7	172.4	158.5	158.5
47.5°	5274.6	4305.5	354.1	274.9	265.6	200.4	177.1	149.1	116.5	107.2	107.2
50°	6150.7	4696.9	298.2	246.9	242.3	177.1	139.8	97.9	65.3	56.0	60.6
52.5°	7003.4	5065.0	265.6	219.0	214.3	153.7	102.5	51.2	27.9	27.9	27.9
55°	7721.0	5325.9	242.3	195.7	186.4	121.1	56.0	23.3	14.0	14.0	14.0
57.5°	8368.7	5475.0	219.0	172.4	149.1	83.9	23.3	9.3	9.3	4.7	4.7
60°	8960.4	5563.6	191.1	149.1	116.5	46.6	9.3	4.7	4.7	0.0	0.0
62.5°	9542.9	5628.8	163.1	121.1	88.5	18.6	4.7	4.7	0.0	0.0	0.0
65°	9985.5	5605.5	130.4	97.9	56.0	9.3	4.7	0.0	0.0	0.0	0.0
67.5°	9971.6	5288.7	97.9	74.6	27.9	4.7	0.0	0.0	0.0	0.0	0.0
70°	8918.5	4454.5	65.3	46.6	9.3	4.7	0.0	0.0	0.0	0.0	0.0
72.5°	6327.8	2856.4	41.9	27.9	4.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	2786.4	866.6	23.3	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	545.1	200.4	14.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	130.4	23.3	4.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	56.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.3	4.7	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)