

QC MANUFACTURING INC.

TEST REPORT

SCOPE OF WORK

MODIFIED AAMA 501.1 TESTING ON AFR SLR-40 AND AFR SMT PRO-1.3, ROOF ATTIC VENT
WITH FAN

REPORT NUMBER

R9741.01-109-18

TEST DATE

01/14/25

ISSUE DATE

03/20/25

RECORD RETENTION END DATE

01/14/29

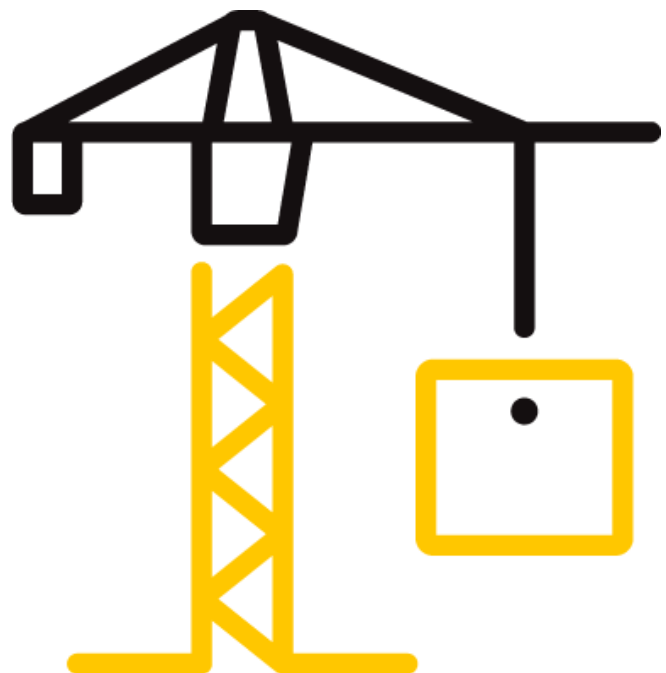
PAGES

20

DOCUMENT CONTROL NUMBER

RT-R-AMER-Test-2805 (09/23/24)

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TEST REPORT FOR QC MANUFACTURING INC.

Report No.: R9741.01-109-18

Date: 03/20/25

REPORT ISSUED TO

QC MANUFACTURING INC.

26040 Ynez Road

Temecula, California 92591

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by QC Manufacturing Inc. to perform testing in accordance with a modified AAMA 501.1 (wind only), on AFR SLR-40 and AFR SMT PRO-1.3, Roof Attic Vent with Fan. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

For INTERTEK B&C:

COMPLETED BY:	Christopher E. Sartalis
TITLE:	Technician – Product Testing
SIGNATURE:	
DATE:	03/20/25

CES:mas

REVIEWED BY:	Tanya A. Dolby, P.E.
TITLE:	Engineering Manager – Engineering Services
SIGNATURE:	
DATE:	03/20/25

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SECTION 2**TEST METHOD**

The specimen was evaluated in accordance with the following:

Modified AAMA 501.1, *Standard Test Method for Water Penetration of Windows, Curtain Walls and Doors using Dynamic Pressure*

Testing was performed with wind only per client request.

SECTION 3**MATERIAL SOURCE/INSTALLATION**

Test specimen(s) was provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

Installation of the tested product was performed by Intertek B&C.

SECTION 4**EQUIPMENT****Wolf:** INT00003**Stopwatch:** INT00974**Weather Station:** 63316**Tape Measure Verification:** 63788**SECTION 5****LIST OF OFFICIAL OBSERVERS**

NAME	COMPANY
Larry D. Testerman II	Intertek B&C
Tyler J. Holland	Intertek B&C
Timothy J. McGill	Intertek B&C
Christopher E. Sartalis	Intertek B&C

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SECTION 6

TEST SPECIMEN DESCRIPTION

Series/Model: AFR SLR-40 and AFR SMT PRO-1.3

Product Type: Roof Attic Vent with Fan

Product Sizes:

AFR SLR-40:

OVERALL AREA:	WIDTH		LENGTH		HEIGHT	
0.4 m ² (4.0 ft ²)	millimeters	inches	millimeters	inches	millimeters	inches
Overall size	610	24	610	24	267	10-1/2

AFR SMT PRO-1.3:

OVERALL AREA:	WIDTH		LENGTH		HEIGHT	
0.5 m ² (5.4 ft ²)	millimeters	inches	millimeters	inches	millimeters	inches
Overall size	711	28	711	28	260	10-1/4

The roof deck description applies to both units tested.

Roof Deck Description: An 8' 0" wide by 6' 0" long roof deck was constructed of #2 Spruce-Pine-Fir nominal 2x6 intermediate supports sheathed with APA 32/16 span rated 15/32" plywood sheathing. The intermediate supports were spaced 24" on center. The plywood was secured to the rafters with 8d common nails spaced 6" on center around the perimeter and 12" on center at the intermediate supports. The plywood sheathing was covered with 30# felt underlayment and architectural shingles.

AFR SLR-40 Description:

The primary flashing was constructed from 20-gauge aluminum measuring 24" x 24" with a 14-7/8" diameter opening in the center. A 20-gauge cylindrical steel housing with a diameter of 14-3/4", was attached to the collar of the flashing with four 3/4" panhead screws. A single piece 20-gauge steel cover measuring 21" wide by 21" long by 5" high, was fastened to the top of the housing cylinder with 3/4" panhead screws. A 20" x 20" solar panel was centered and mounted to the top of cover.

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AFR SLR-40 Installation:

In the center of the rafters a 14" diameter hole was cut in the sheathing. Sealant was applied to the underside of the flashing and around cut out in the roof. The unit's flashing base was slid under the shingles and lined up with hole in the roof. Eight #10 x 1-1/2" self-tapping screws, one fastener at each corner and one fastener at the midpoint of each side down through the flashing and into the roof deck.

AFR SMT PRO-1.3 Description:

The primary flashing was constructed from 22-gauge aluminum measuring 26" x 26" with a 16-3/4" diameter opening in the center. A 20-gauge cylindrical stamped steel housing with a diameter of 16-3/4", was attached to the collar of the flashing with four 3/4" panhead screws. A single piece 22 gauge stamped steel cover measuring 28" wide by 28" long by 5-3/4" high, was fastened to the top of the housing cylinder with 3/4" panhead screws.

AFR SMT PRO-1.3 Installation:

In the center of the rafters a 17-1/4" diameter hole was cut in the sheathing. Sealant was applied to the underside of the flashing and around cut out in the roof. The unit's flashing base was slid under the shingles and lined up with the hole in the roof. Eight #10 x 1-1/2" self-tapping screws, one fastener at each corner and one fastener at the midpoint of each side down through the flashing and into the roof deck.

SECTION 7

TEST RESULTS

The temperature during testing was -3°C (26°F). The results are tabulated as follows:

AFR SLR-40

Roof Pitch	Observations
2:12	No damage
12:12	No damage

AFR SMT PRO-1.3

Roof Pitch	Observations
2:12	No damage
12:12	No damage

General Note: All testing was performed in general accordance with the referenced standard.

Note: Wind Speed was held at 80 mph for 60 seconds.

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SECTION 8

PHOTOGRAPHS



Photo No. 1
AFR SLR-40 at 2:12 pitch

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Photo No. 2
AFR SLR-40 at 12:12 pitch

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Photo No. 3
AFR SMT PRO-1.3 at 2:12 pitch

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Photo No. 4
AFR SMT PRO-1.3 at 12:12 pitch



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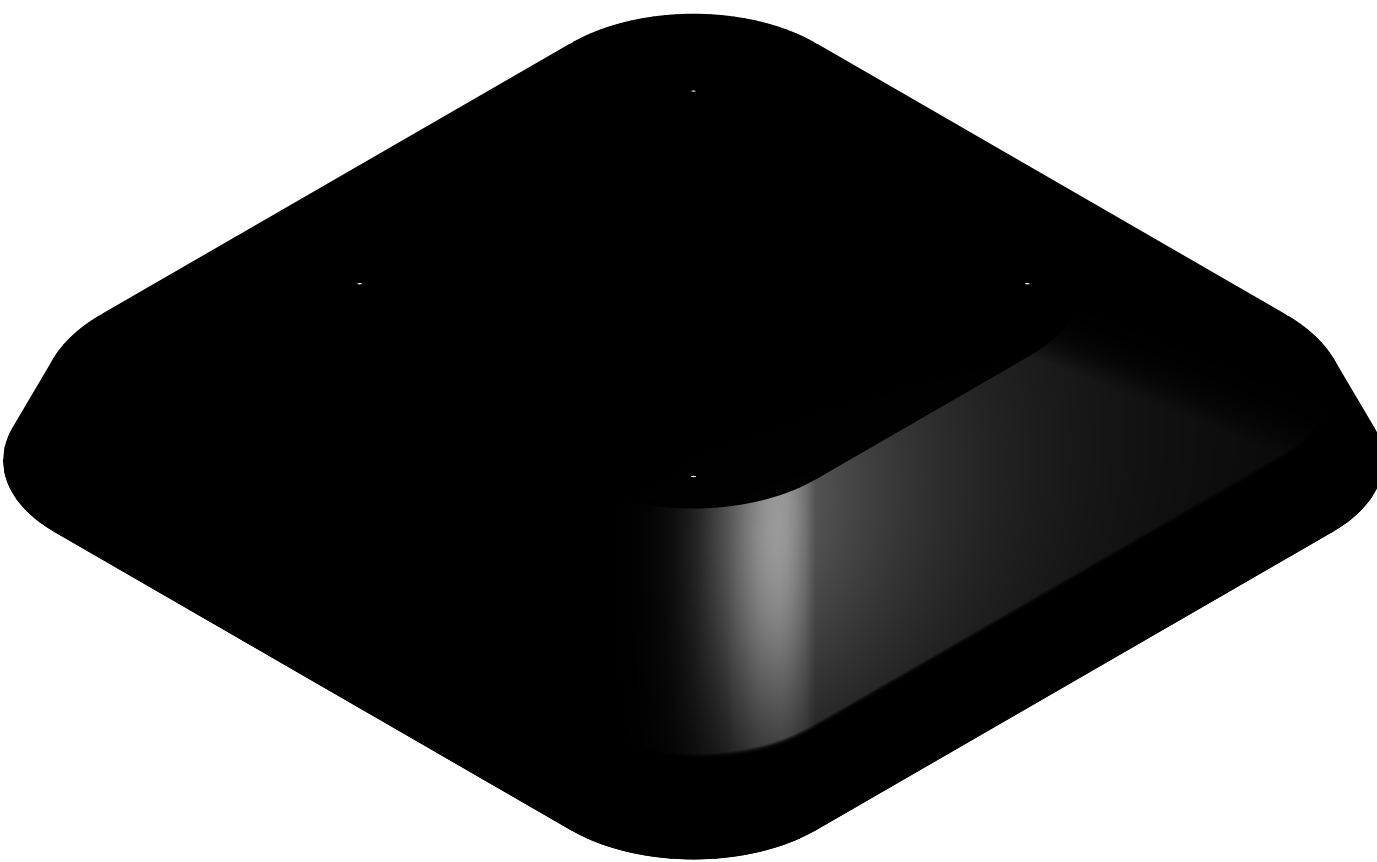
SECTION 9

DRAWINGS

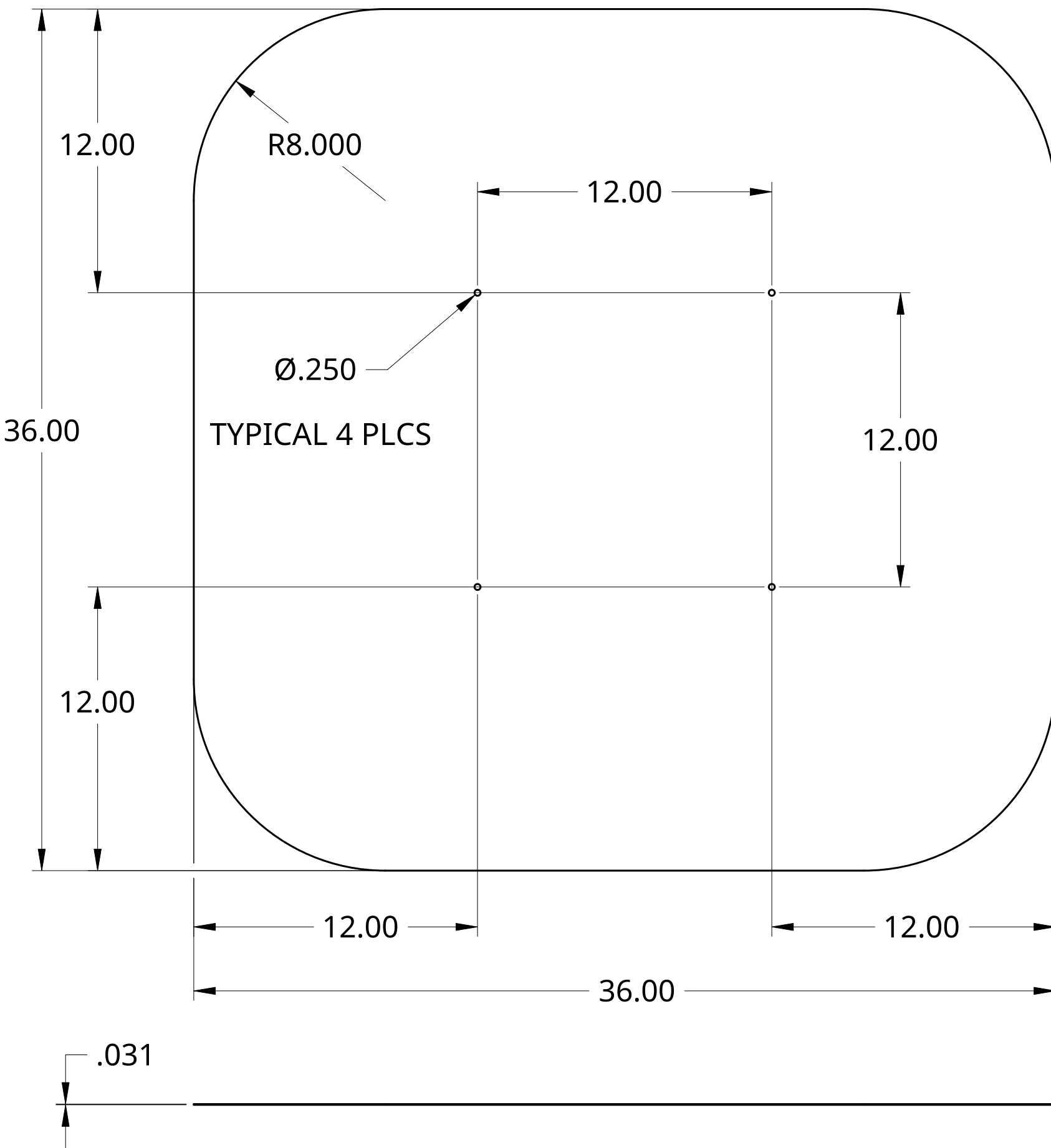
The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

NOTE: MATERIAL - G90 , 22 GA, PPG APTB7541

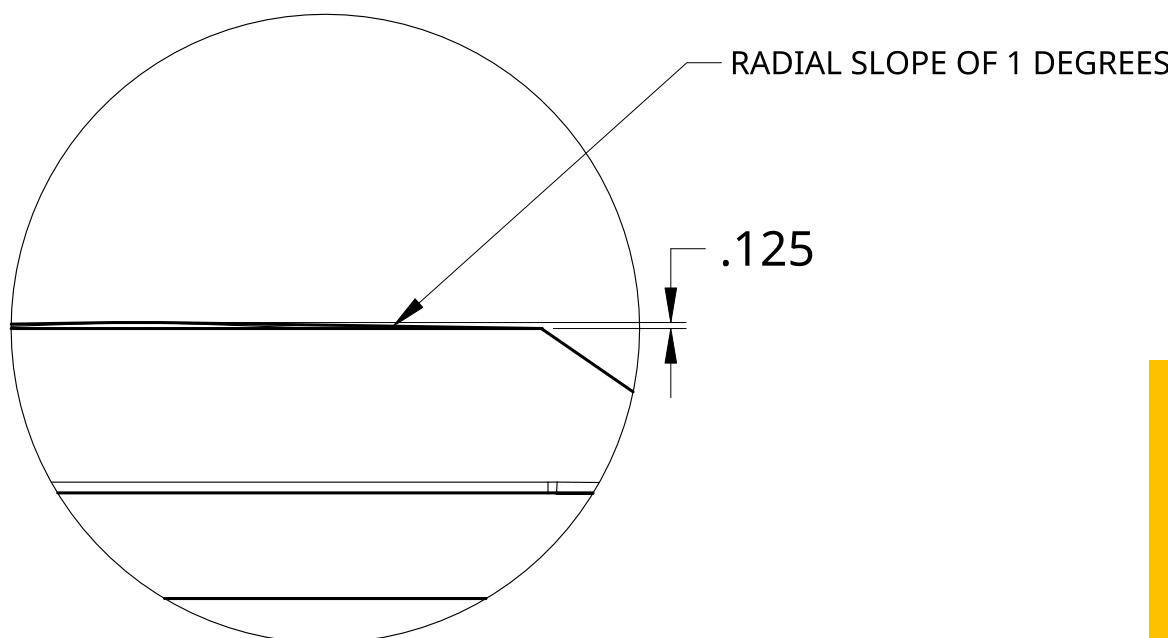
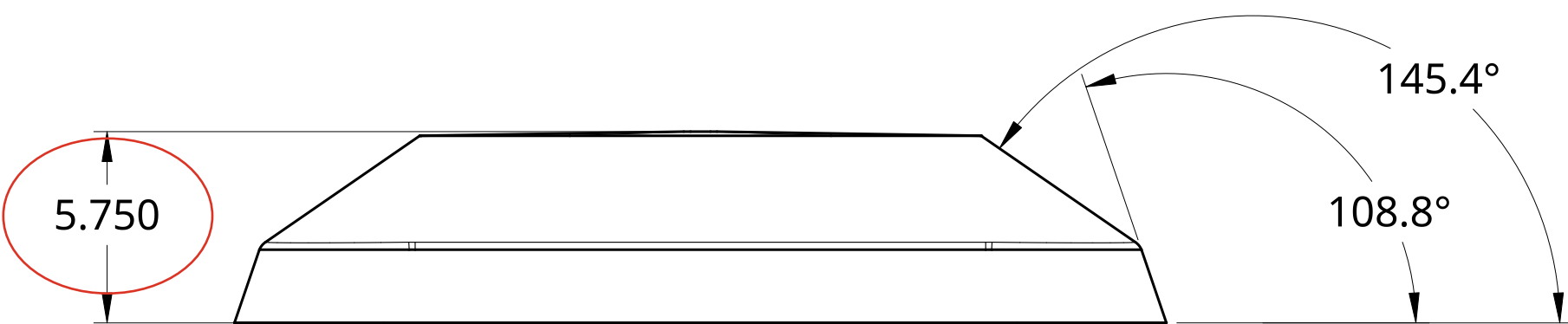
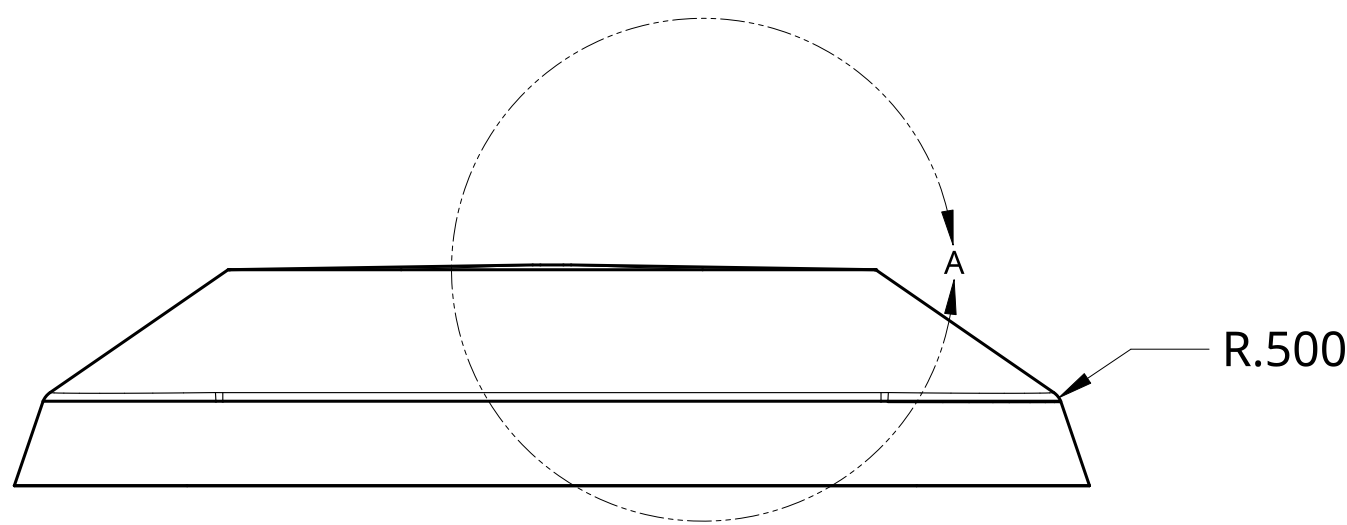
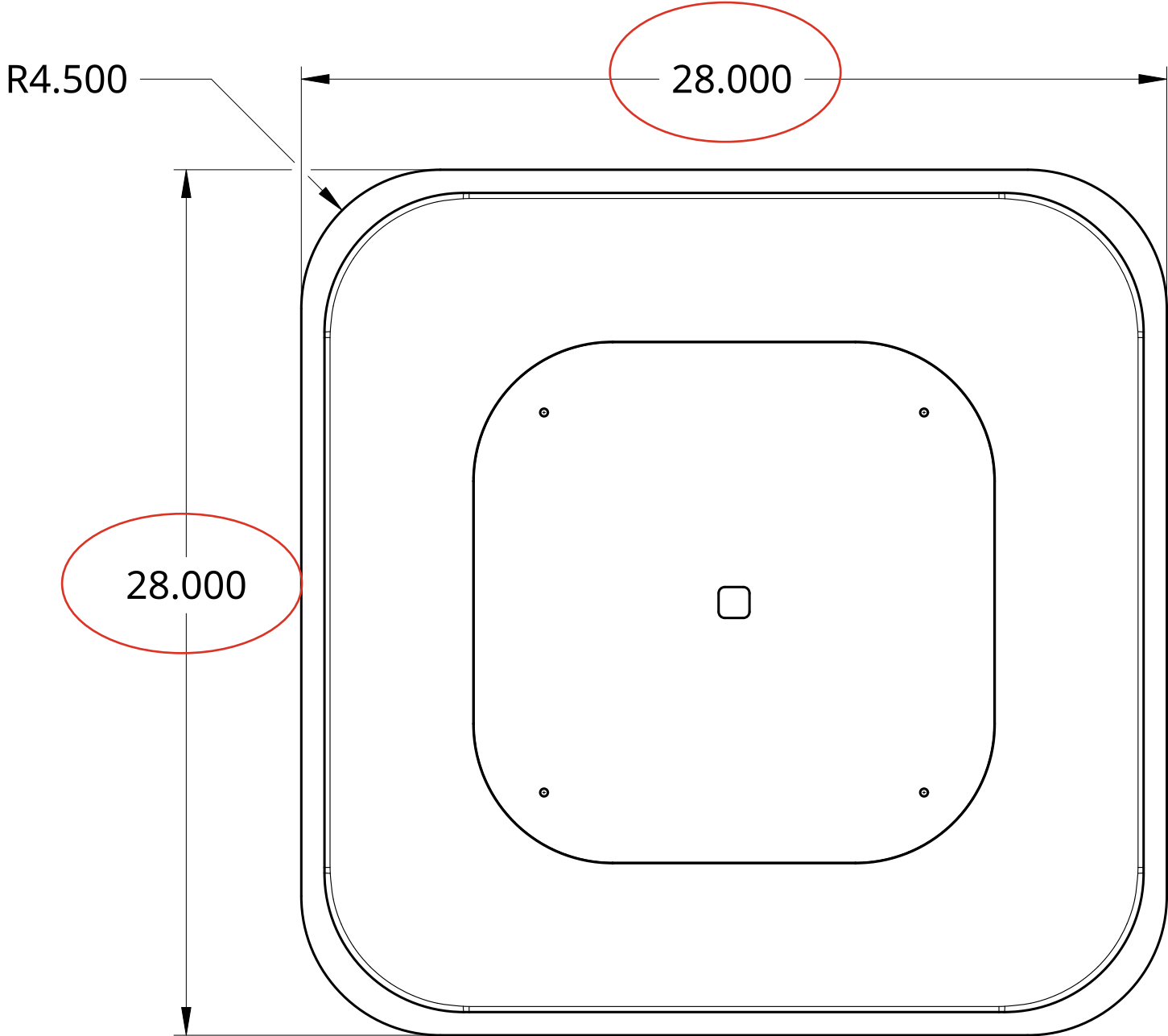
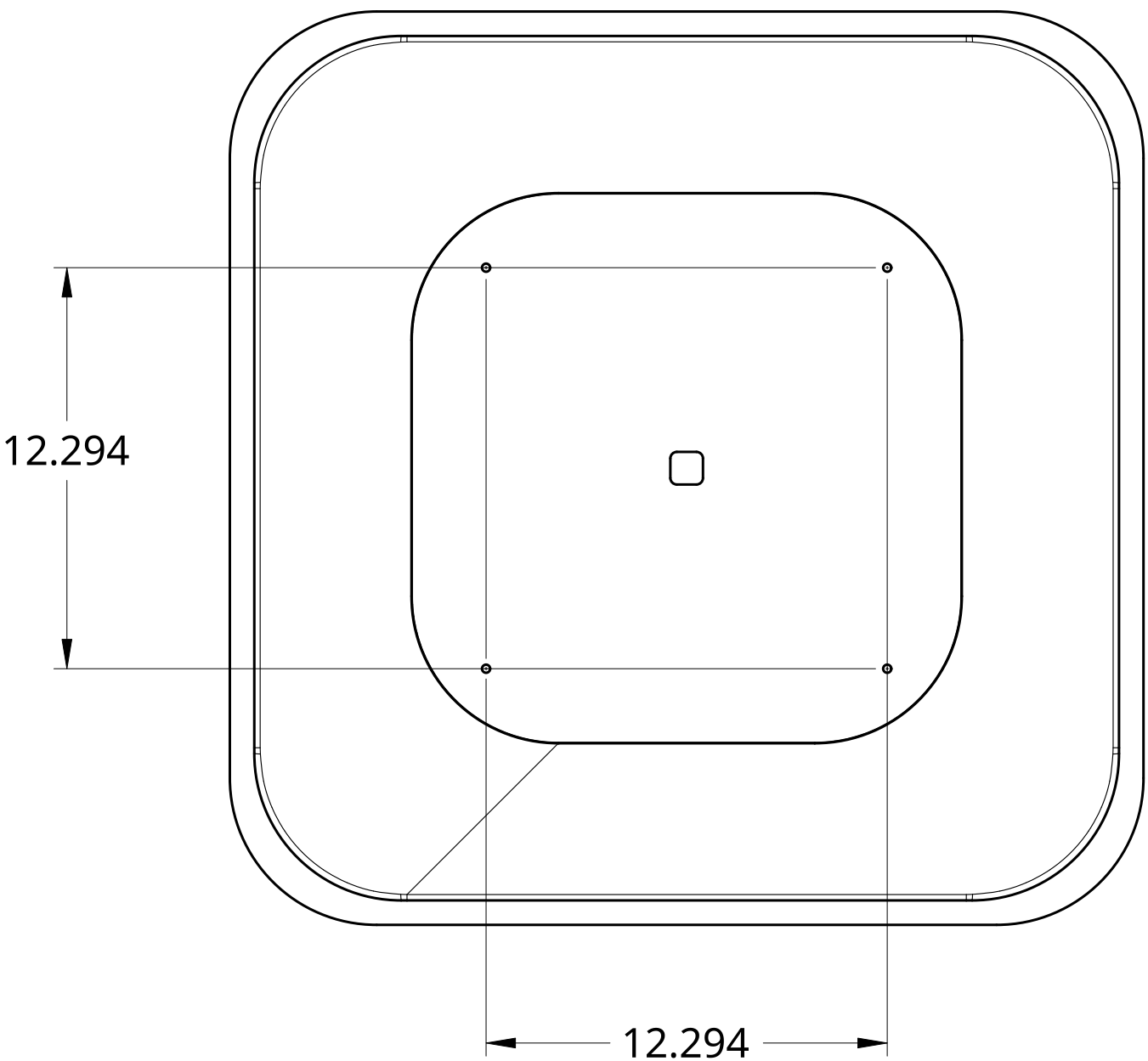
FSA-CVR-AFR-2828-BLK



FLAT PATTERN BLANK
SA-BLNK-CVR-2828-BLK



REFERENCE DIMENSION ONLY





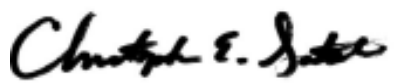
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01/24/25

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		1 PLACE	±.1
		2 PLACE	±.03
		3 PLACE	±.010
		ANGLE ±1°	
		FRACTIONS ±1/16	
		FILLET RADII .010-.032	
		CONCENTRICITY .010 TIR	
		PERPENDICULARITY .005/INCH	
		EDGE BREAK .002-.015	
		REMOVE ALL BURRS	
		SURFACE FINISH 125/	
		THREADS PER FED STD H-28	
		INTERPRET DRAWING PER STANDARDS	
		PRESCRIBED IN: ASME Y14.100-2000	
		ASME Y14.5M 1994	
		ALL DIMENSIONS APPLY TO FINISHED PART AFTER ALL PROCESSING	
		DO NOT SCALE DRAWING	

SIZE		DWG. NO.			REV	
D		FSA-CVR-AFR-2828-BLK			A	
FORM NO. ENG-0001-05		REV A		SCALE:		CALC. WT.:
				SHEET		2 OF 8

REFERENCE DIMENSION ONLY



DETAIL D
SCALE 1:2

DETAIL A
SCALE 1:2



Date: 01/24/25

Verified by: *Christopher E. Suter*

— 54.250

.040

Ø.250 TYP

10.250

9.900	10.500
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— Ø.265 3 PLCS

9.585

— 44.665

– 7.392 –

— 20.547

— 33.703

— 46.858

SA-BLNK-CYL-AFR-16-BLK

1.000 Ø.300 4 PLCS

.10

 $\sqrt{1}$

R 050 —

DETAIL C
SCALE 1:1

SIZE
D

DWG. NO.
FSA-CYL-AFR-16-BLK

REV	
A	

1000

A	SCALE:
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CALC WT:

SHEET	3 OF 8
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1 PLACE	ANGLE	±1°
2 PLACE		
3 PLACE		±1/16
4 PLACE		
5 PLACE		

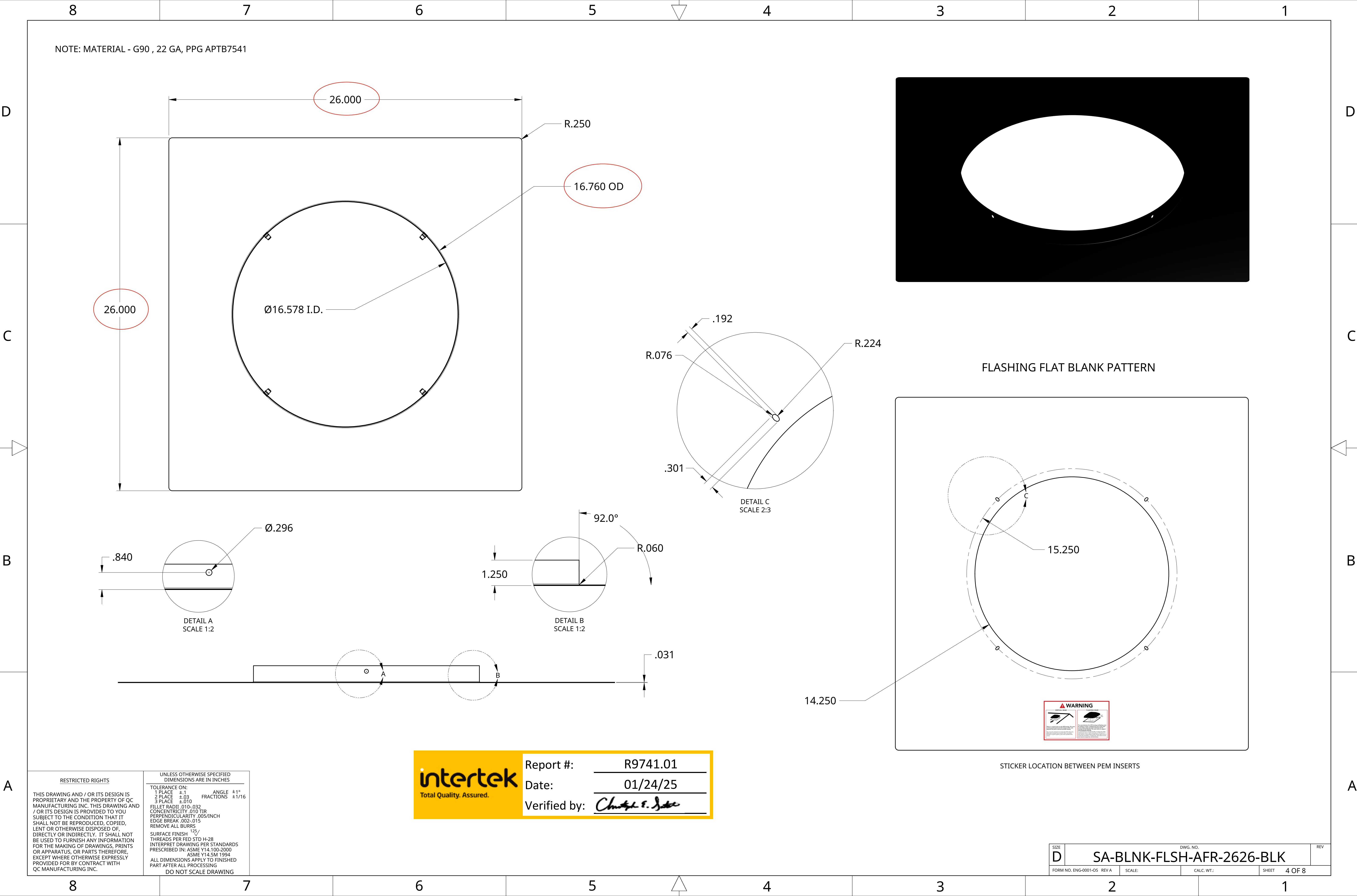
FILLET RADI .010-.032
CONCENTRICITY .010 TIR
PERPENDICULARITY .005/INCH
EDGE BREAK .002-.015
REMOVE ALL BURRS
SURFACE FINISH $\sqrt{125}$
THREADS PER FED STD H-8
INTERPRET DRAWING PER STANDARDS
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ASME Y14.5M 1994
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PART AFTER ALL PROCESSING
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Technical drawing of a part with a hole. The drawing shows a circular cross-section with a hole. The diameter of the hole is dimensioned as .100. The distance from the center of the hole to the outer edge of the part is dimensioned as .230.

DETAIL B
SCALE 1:1

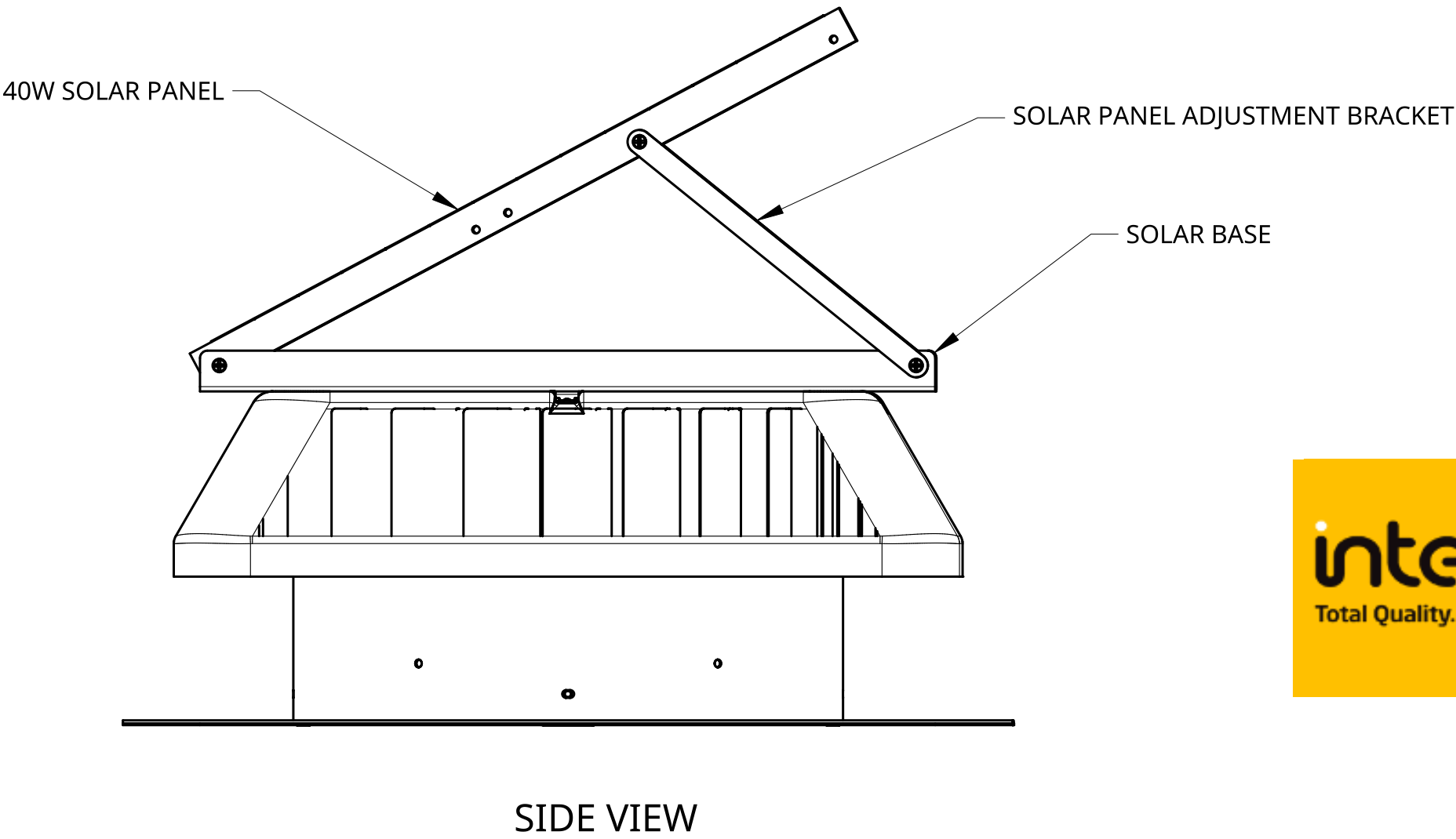
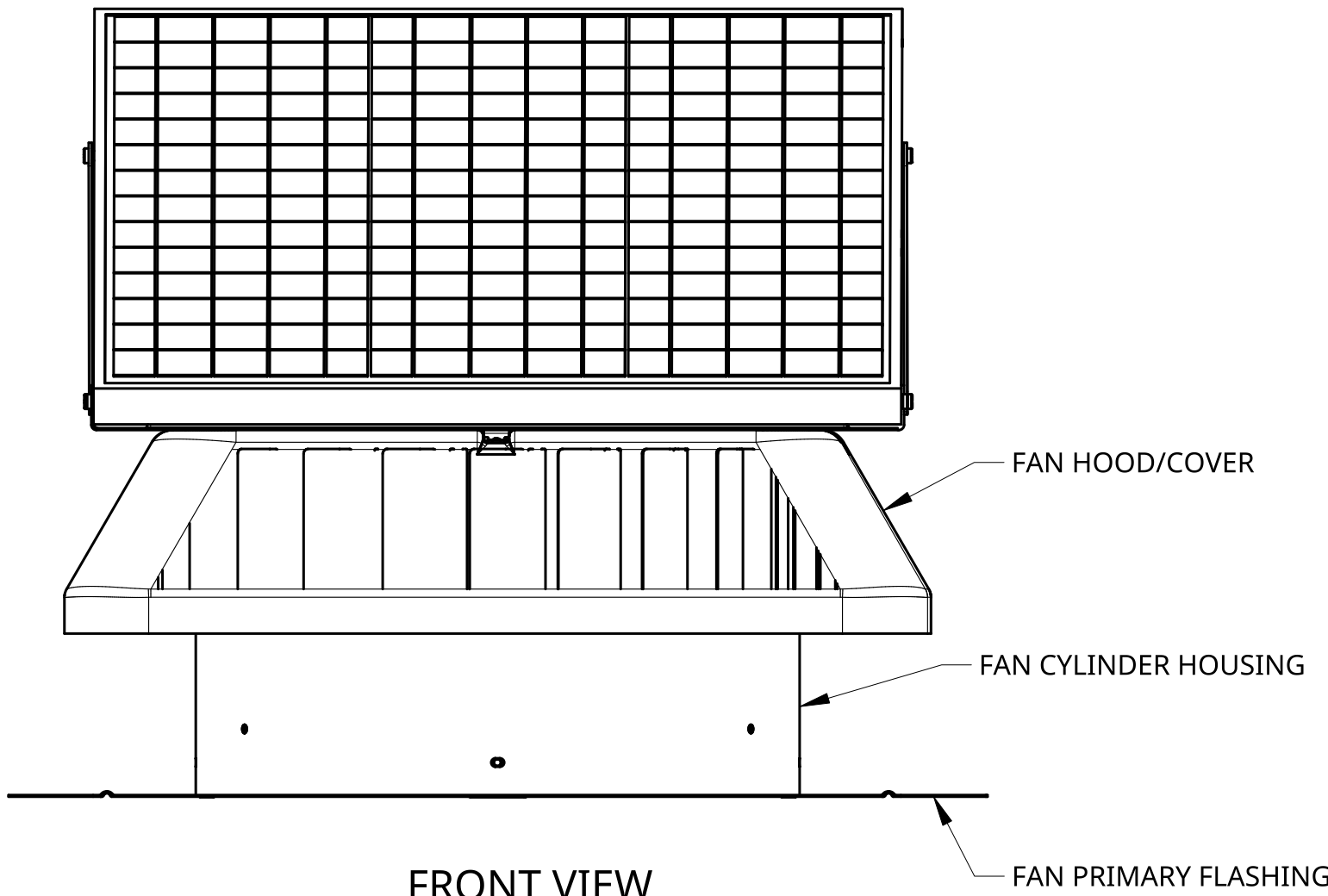
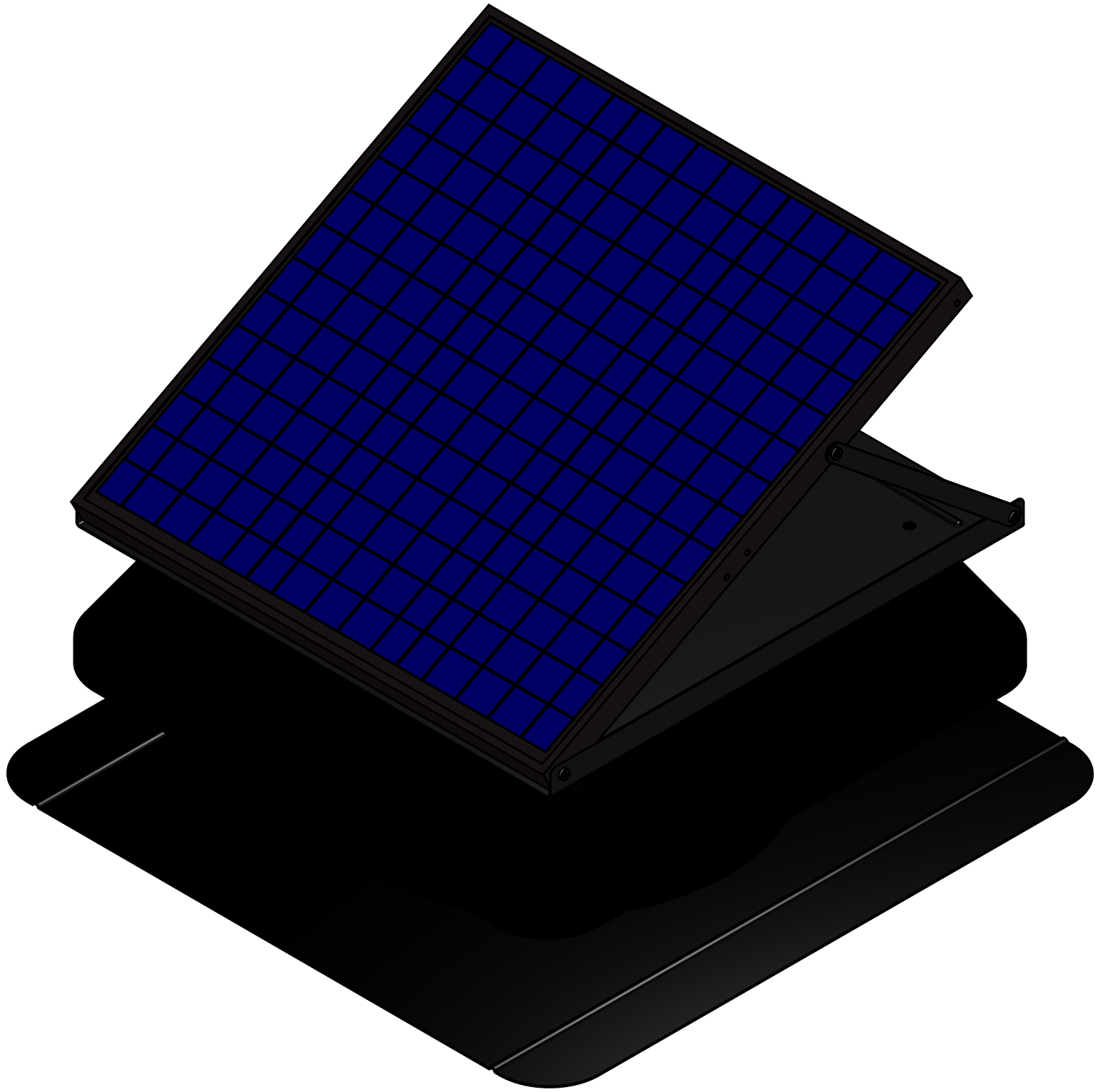
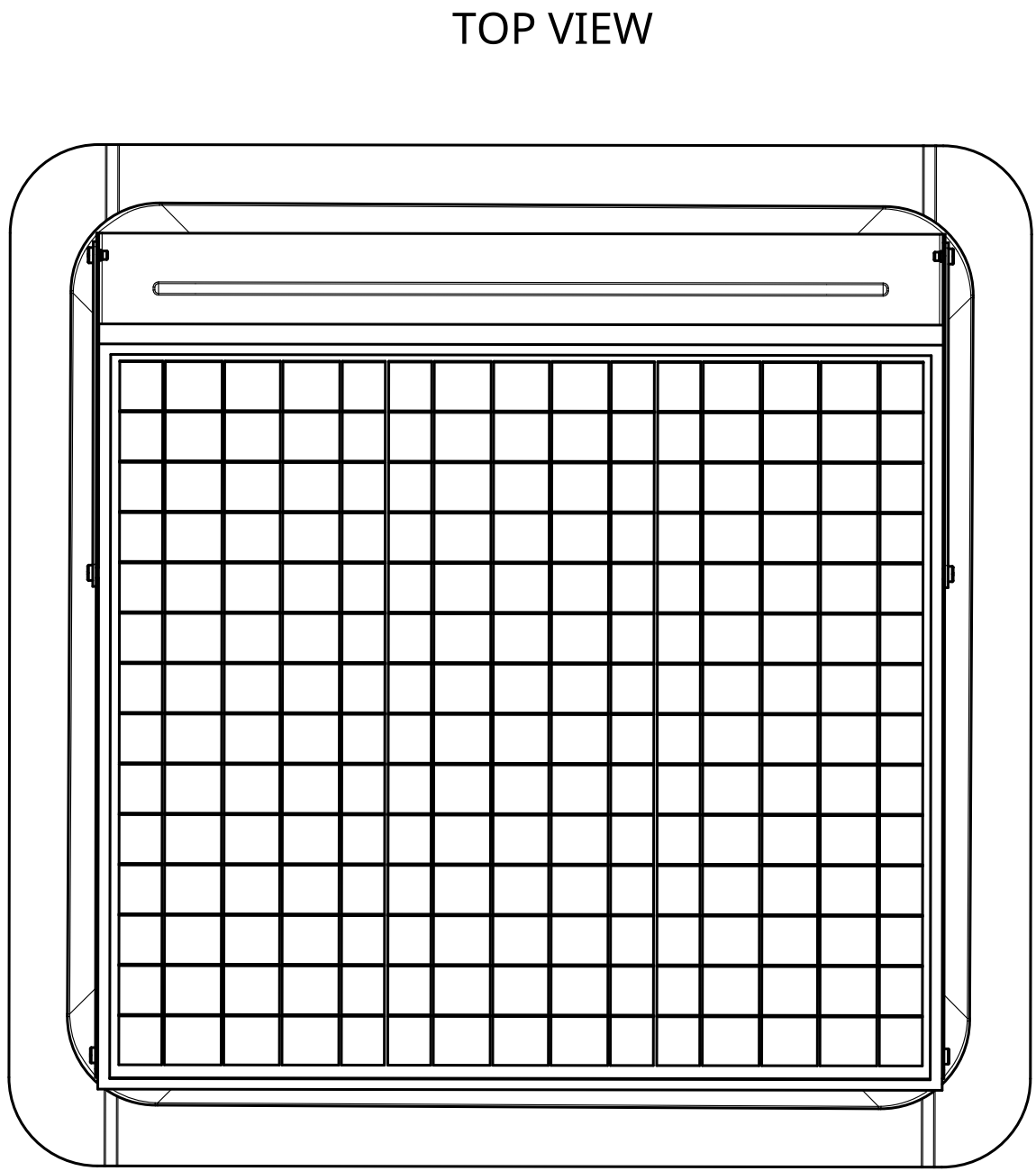
R.115



NOTES: UNLESS OTHERWISE SPECIFIED

- 1 MATERIAL: G90, 20 GA STEEL (0.039")
- 2 FINISH: HIGH-QUALITY, UV RESISTANT BLACK POWDER COATING
- 3 REMOVE ALL BURRS AND SHARP EDGES.

REVISIONS				
ECO	REV	DESCRIPTION	DATE	APPROVED



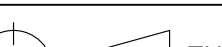


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				DRAWN	DEREK CONRAD	10/03/2024	
				CHECKED			
				ENGINEER			
				MFG ENG			
				MAT'L MGMT			
				QUALITY ENG			
				APPROVED			

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL	CAGE
PARTS LIST					
 MAKERS OF THE QUIETCOOL ADVANCED WHOLE HOUSE FAN			QC MANUFACTURING INC. 26040 YNEZ RD. TEMECULA, CA 92591		
			DRAWING. NO. AFR SLR-40		
SIZE D	AFR SLR-40 ASSEMBLY				REV A
FORM NO. ENG-0001-SW REV B		SCALE:		CALC. WT.:	SHEET 1 OF 4

D

C

B

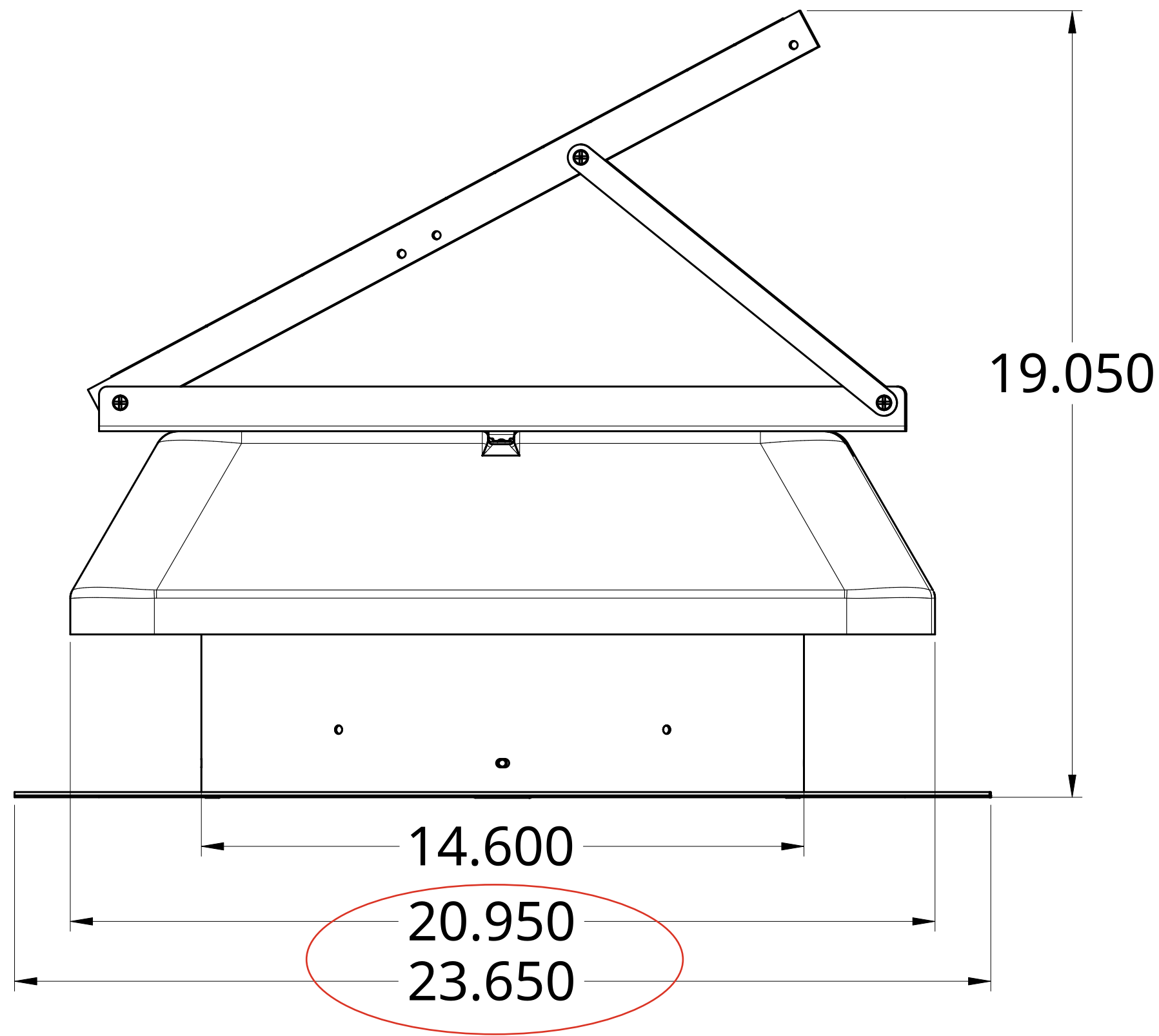
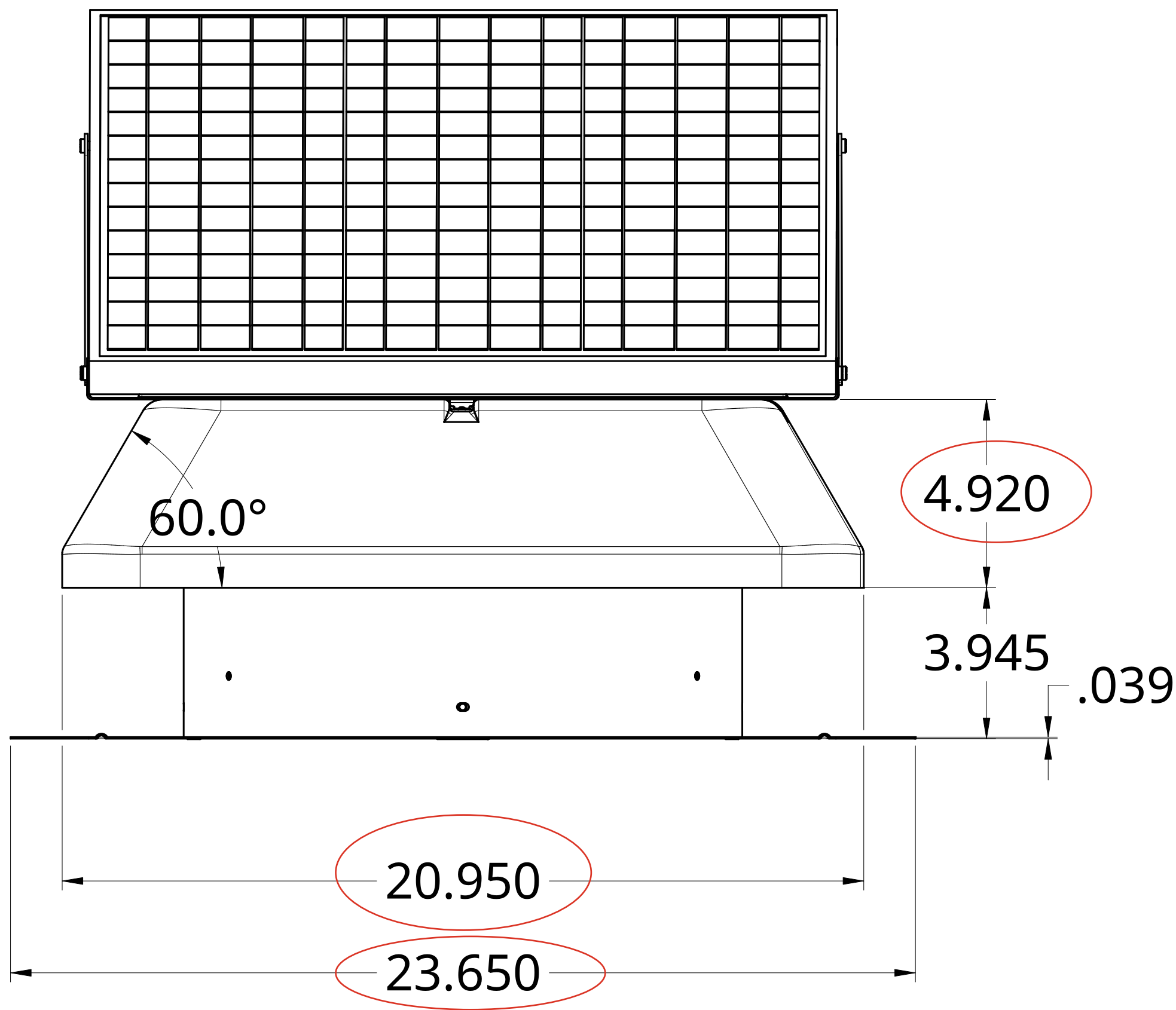
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B

A





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SIZE	DWG. NO.	REV
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FORM NO. ENG-0001-05 REV A	SCALE:	CALC. WT.:
SHEET	2 OF 4	

D

C

B

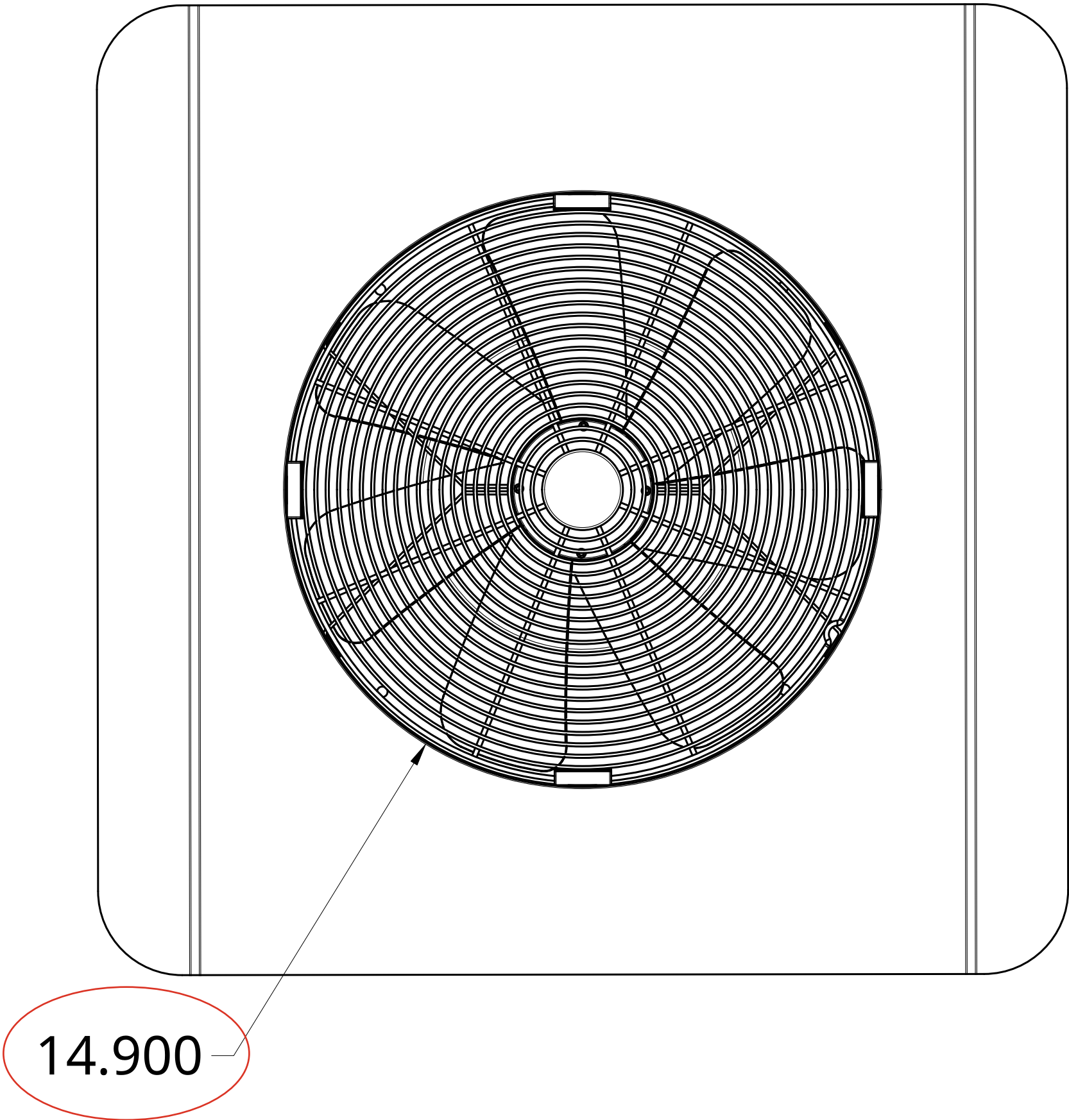
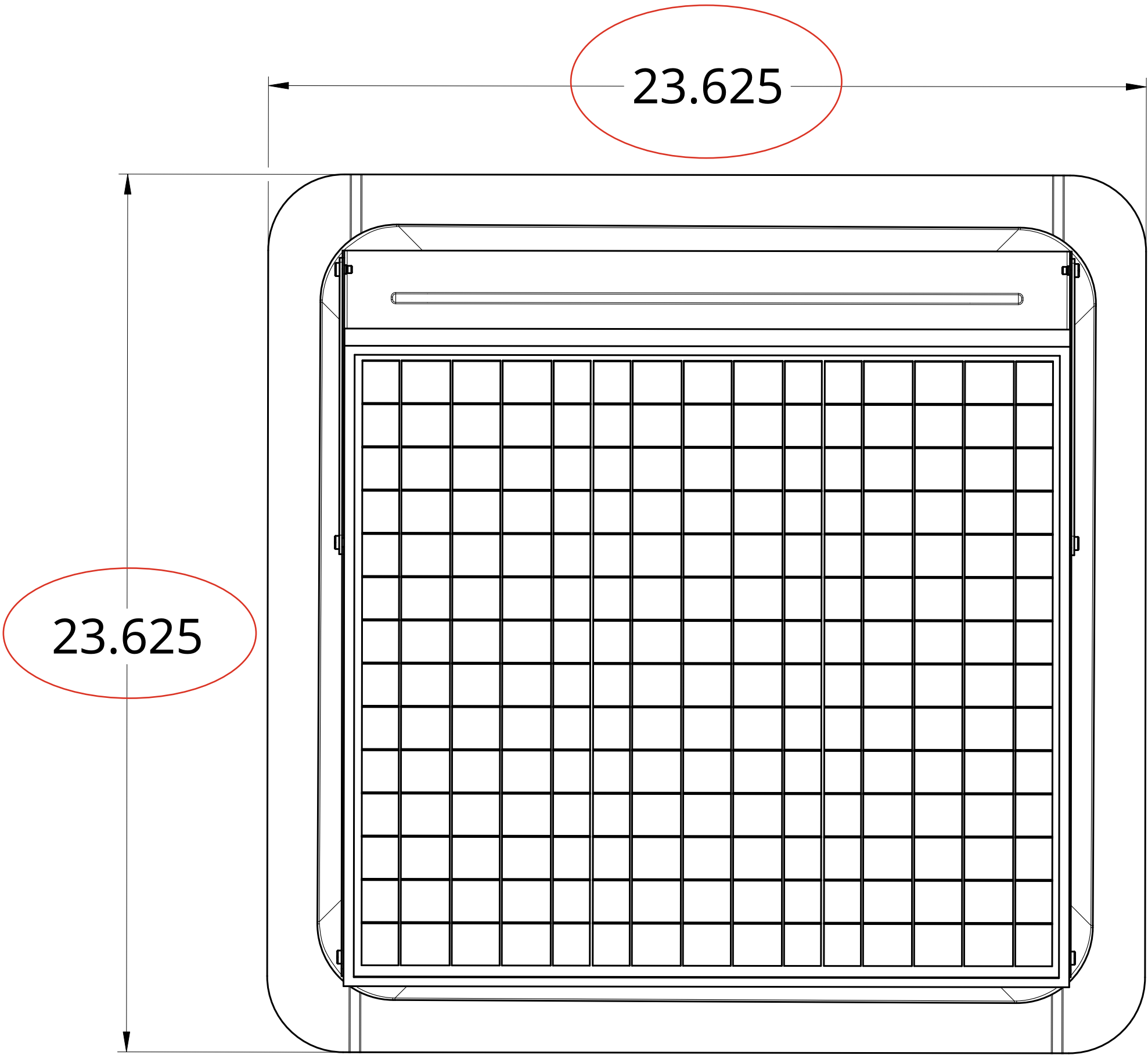
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TOLERANCE ON:
1 PLACE ±.1 ANGLE ±1°
2 PLACE ±.03 FRACTIONS ±1/16
3 PLACE ±.010
FILLET RADII .010-.032
CONCENTRICITY .010 TIR
PERPENDICULARITY .005/INCH
EDGE BREAK .002-.015
REMOVE ALL BURRS
SURFACE FINISH 125/
THREADS PER FED STD H-28
INTERPRET DRAWING PER STANDARDS
PRESCRIBED IN: ASME Y14.100-2000
ASME Y14.5M 1994
ALL DIMENSIONS APPLY TO FINISHED
PART AFTER ALL PROCESSING
DO NOT SCALE DRAWING

SIZE	DWG. NO.			REV
D	TOP & BOTTOM			A
FORM NO. ENG-0001-05 REV A		SCALE:	CALC. WT.:	SHEET 3 OF 4

D

C

B

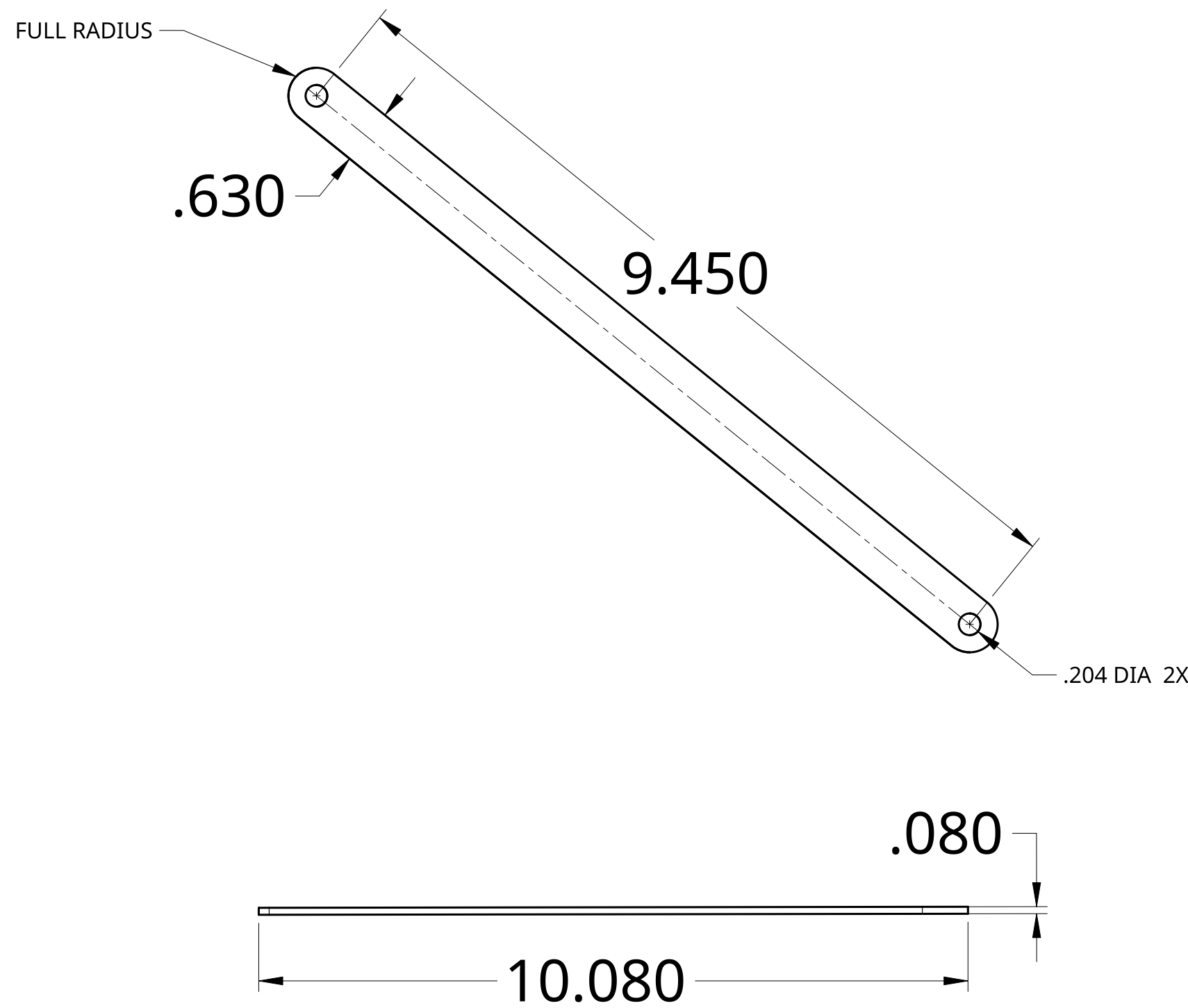
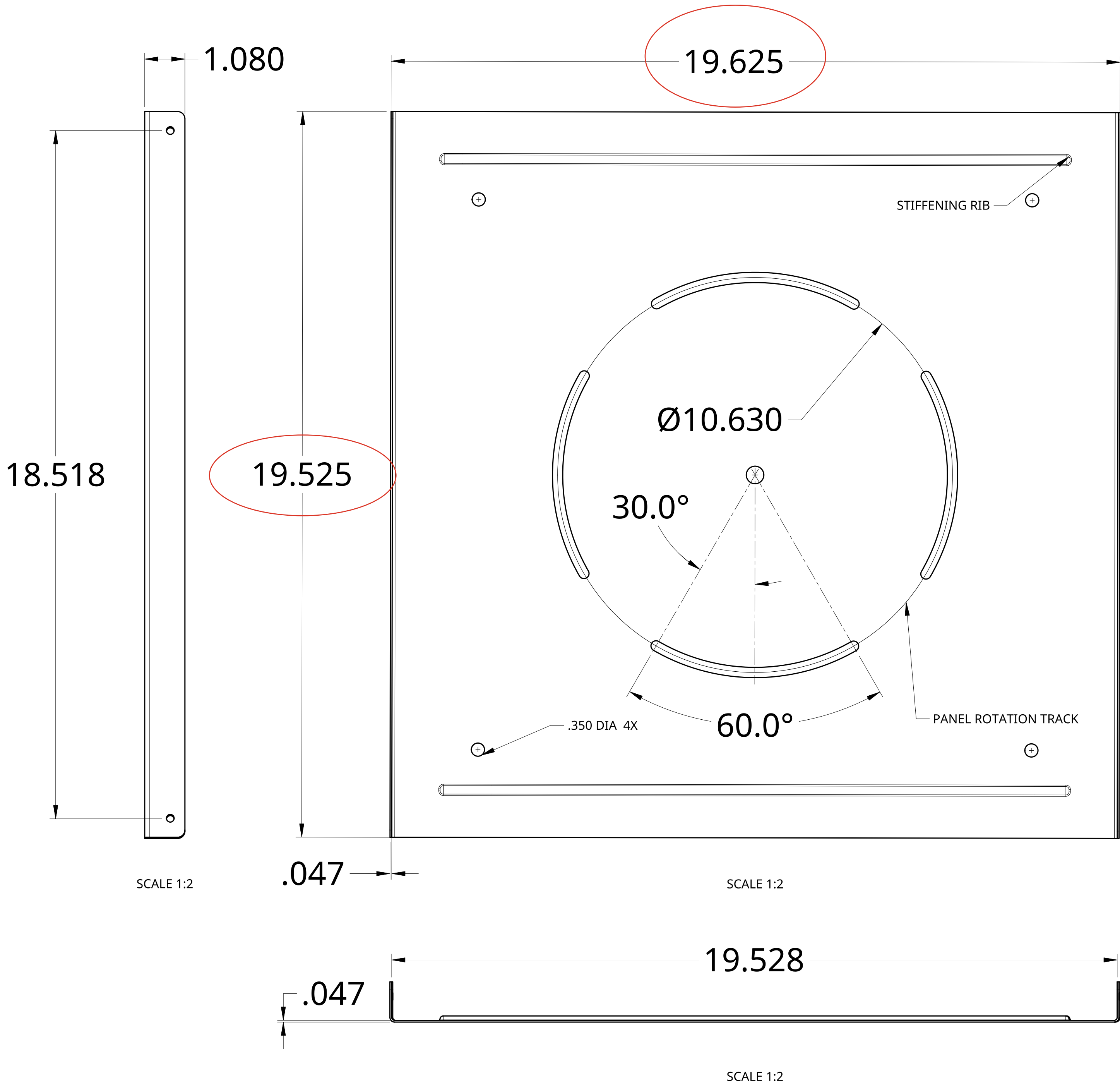
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SIZE	DWG. NO.	REV
D	PANEL BASE & BRACKET	A
FORM NO. ENG-0001-05 REV A	SCALE:	CALC. WT.:
SHEET	4 OF 4	



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SECTION 10

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	03/20/25	N/A	Original Report Issue