

**Report By:**

National TAB  
1329 E. KEMPER ROAD  
SUITE 4210  
CINCINNATI, OH 45246



**Report: TAB Report**  
**Function: Test, Adjust, & Balance**  
**Date: 02/09/2026**  
**Completed By: National TAB**

**PROJECT**  
**02-09-26 QT #1425 PEORIA, AZ**

7455 W. PEORIA AVE

PEORIA, AZ

**Client**

QUIKTRIP  
4705 SOUTH 129TH EAST AVENUE  
TULSA, OK 74134

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

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GRD	30



# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ  
Function: Test, Adjust, & Balance

## Project Summary

### Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

### RTU's (Roof Top Units) w/ Diffusers

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted for comfort and hood performance. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

### Kitchen Exhaust Hood & Associated Fans

Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. Any EF's that fell outside of this tolerance is noted throughout the report.

### Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

## Issue List

- Wrong Kitchen Line Diffusers



02-09-26 QT #1425 PEORIA, AZ

Project Issue Information

**Issue Name :** Wrong Kitchen Line Diffusers  
**Description :** The Kitchen Line diffusers installed are not the correct diffusers. The Titus diffusers should be installed. This is also causing small, about 5%, smoke loss on the perimeter of the hood.  
**Created By :** National TAB                      **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Priority :** Medium                                      **Asset Tag :** RT-3  
**Originated Date :** 02/09/2026 - Ethan Van Orden - National TAB

Project Issue File Details



### AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HOOD ON OA		HOOD OFF OA		HOOD ON EXHAUST		HOOD OFF EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU 1	SALES	800	799	350	347				
RTU-2	SALES	800	806	350	375				
RTU-3	BOH/KITCHEN	800	813	350	368				
EF-1	RR/JANITOR					750	779	750	779
EF-3	HOOD					1350	1372	0	0
<b>TOTALS</b>		<b>2400</b>	<b>2418</b>	<b>1050</b>	<b>1090</b>	<b>2100</b>	<b>2151</b>	<b>750</b>	<b>779</b>

#### HOODS ON

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2418
TOTAL EXHAUST	2100	2151
<b>NET AIRFLOW</b>	<b>300</b>	<b>267</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0049
SIDE	0.0033
REAR	0.0017
<b>AVERAGE</b>	<b>0.0033</b>

#### HOODS OFF

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1090
TOTAL EXHAUST	750	779
<b>NET AIRFLOW</b>	<b>300</b>	<b>311</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.011
SIDE	0.0053
REAR	0.0048
<b>AVERAGE</b>	<b>0.007</b>

NOTES:

## CheckList List

- 01: RTU's/AHU's
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests
- 05: Smoke Detector



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CheckList Information

**Name :** 01: RTU's/AHU's **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 09/30/2025 - Trinity Dodds - National TAB

**Completed Date :** 02/09/2026 - Ethan Van Orden - National TAB

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean?	Pass
-----------------------------	------

Comment:

Condenser coils are clean?	Pass
----------------------------	------

Comment:

Gas piping is installed and valves are turned on?	Pass
---	------

Comment:

Unit free of noticeable noise and vibration	Pass
---	------

Comment:



02-09-26 QT #1425 PEORIA, AZ

**CheckList Information**

**Name :** 02: Exhaust Fans **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 09/30/2025 - Trinity Dodds - National TAB

**Completed Date :** 02/09/2026 - Ethan Van Orden - National TAB

**CheckList Item Details**

EF's

Hinge kit installed installed on hood fan?	Pass
--	------

Comment:

Flex conduit is long enough so that fan can be completely tilted back?	Pass
--	------

Comment:

No major leakage around the fan base	Pass
--------------------------------------	------

Comment:

Unit is free of noise and vibration	Pass
-------------------------------------	------

Comment:



**02-09-26 QT #1425 PEORIA, AZ**

**CheckList Information**

**Name :** 03: Hoods **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 09/30/2025 - Trinity Dodds - National TAB  
**Completed Date :** 02/09/2026 - Ethan Van Orden - National TAB

**CheckList Item Details**

**HOODS**

---

**Hood is free of alarms?** Pass

**Comment:**

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**Hood is free of damage?** Pass

**Comment:**

---

**End panels are installed per prototype?** Pass

**Comment:**

---



02-09-26 QT #1425 PEORIA, AZ

**CheckList Information**

**Name :** 04: Final Tests **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 09/30/2025 - Trinity Dodds - National TAB  
**Completed Date :** 02/09/2026 - Ethan Van Orden - National TAB

**CheckList Item Details**

**FINAL CHECKS**

**HOOD CAPTURE TEST**

**List kitchen equipment turned on for testing**

**Comment:**

NA

**List smoke candle type used**

**Comment:**

SMOKE BOMB

**Smoke test capture % - Perimeter of hood**

**Comment:**

95%

**Smoke test capture % - Top of cooking surface**

**Comment:**

100%

**WITNESS**

**Date test was completed**

02/09/2026

**Comment:**

---

**TAB tech name / Firm**

**Comment:**

Ethan V/NTI

---

**Site super name / Firm**

**Comment:**

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**Owner representative name / Firm (if Applicable)**

**Comment:**

QT

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**BUILDING PRESSURE**

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**Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)**

Pass

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**Comment:**

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02-09-26 QT #1425 PEORIA, AZ

CheckList Information

**Name :** 05: Smoke Detector **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 02/06/2026 - Trinity Dodds - National TAB

**Completed Date :** 02/09/2026 - Ethan Van Orden - National TAB

CheckList Item Details

**Smoke Detector Manufacturer:**

**Comment:**

SYSTEM SENSOR

**Smoke Detector Model:**

**Comment:**

AD4P120

**Accpetable Pressure Range Rating:**

**Comment:**

0.01-1.11

**Actual Measured Pressure Range:**

**Comment:**

RTU 1: 0.078" RTU 2: 0.112" RTU 3: 0.068"

**Smoke Detector Shutdown?**

Pass

**Comment:**

RTU 1: pass RTU 2: pass RTU 3: pass

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU



Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21531
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4115
SF RPM	-	1337
OA CFM (Hoods On)	800	799
OA CFM (Hoods Off)	350	347
RL Voltage	-	155@VFD
RL Amperage	-	7.4@VFD
VFD Max SetPt	-	45.6HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	19%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.53"
Fan Suction SP	-	-0.78"
Fan Discharge SP	-	0.16"
Total ESP	-	0.69"
Fan Total SP	-	0.94"

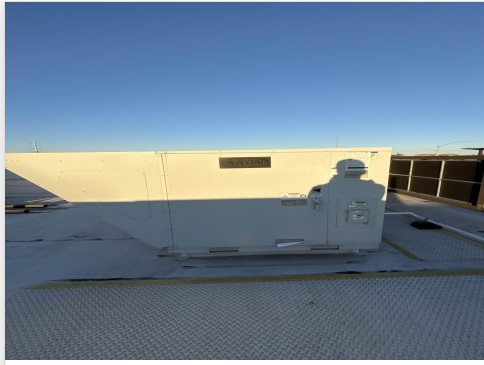
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Ethan Van Orden on 02/09/2026

## Unit Data - PHOTO LOG



02/09/2026



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**National TAB**  
 Project:02-09-26 QT #1425 PEORIA, AZ  
**AHU/RTU**



**Diffuser Supply (GRD)**

**RT-1/SALES FLOOR**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
SGRD1	ENTRANCE	ES	10"	300	1	374	374	374	124.7
SGRD2	SALES	ES	10"	400	1	351	351	351	87.8
SGRD3	SALES	ES	10"	450	1	343	343	343	76.2
SGRD4	SALES	ES	12"	400	1	405	405	405	101.3
SGRD5	SALES	ES	12"	400	1	360	360	360	90.0
SGRD6	SALES	ES	10"	450	1	438	438	438	97.3
SGRD7	SALES	ES	12"	550	1	395	395	395	71.8
SGRD8	SALES	ES	12"	525	1	349	349	349	66.5
SGRD9	WOMEN'S RR	ES	10"	175	1	210	210	210	120.0
SGRD10	SIDE ENTRANCE	ES	12"	300	1	577	577	577	192.3
SGRD11	MEN'S RR	ES	8"	250	1	313	313	313	125.2
<b>Total</b>				<b>4200</b>		<b>4115</b>	<b>4115</b>	<b>4115</b>	<b>97.98%</b>

Completed By: Ethan Van Orden on 02/09/2026

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU



Asset: RT-2

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21532
Model Num	RN-013-8-0-EA0A
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4314
SF RPM	-	1320
OA CFM (Hoods On)	800	806
OA CFM (Hoods Off)	350	375
RL Voltage	-	151@VFD
RL Amperage	-	7.7@VFD
VFD Max SetPt	-	45HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	21%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.50"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.23"
Total ESP	-	0.73"
Fan Total SP	-	0.99"

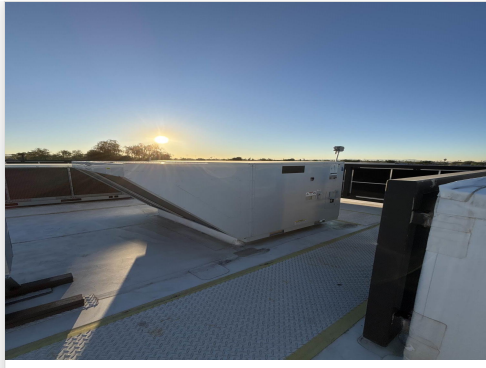
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Ethan Van Orden on 02/09/2026

**Unit Data - PHOTO LOG**



**02/09/2026**



**02/09/2026**

**National TAB**  
 Project:02-09-26 QT #1425 PEORIA, AZ  
**AHU/RTU**



**Diffuser Supply (GRD)**

**RT-2/SALES FLOOR**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
SGRD1	ENTRANCE	ES	10"	300	1	375	375	375	125.0
SGRD2	SALES	ES	10"	400	1	441	441	441	110.3
SGRD3	SALES	ES	12"	525	1	536	536	536	102.1
SGRD4	SALES	ES	12"	525	1	521	521	521	99.2
SGRD5	SALES	ES	8"	200	1	182	182	182	91.0
SGRD6	SALES	ES	12"	525	1	510	510	510	97.1
SGRD7	SIDE ENTRANCE	ES	10"	300	1	269	269	269	89.7
SGRD8	SALES	ES	12"	525	1	542	542	542	103.2
SGRD9	SERVICE COUNTER	ES	10"	450	1	447	447	447	99.3
SGRD10	SERVICE COUNTER	ES	10"	450	1	491	491	491	109.1
Total				4200		4314	4314	4314	102.71%

Completed By: Ethan Van Orden on 02/09/2026

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

System/Unit: AHU/RTU



Asset: RT-3

AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202012-ANEK21533
Model Num	RN-013-8-0EA0A-152
Num OA Filters 1	1
OA Filter Size 1	44.5X22.5
Num Final Filter 1	2
Final Filter Size 1	44X20

Motor Data	
	Actual
Motor MFG	NL
Frame	NL
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

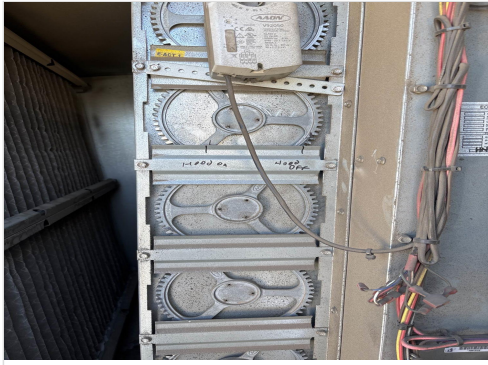
Test Data		
	Design	Actual
SF CFM	4200	4263
SF RPM	-	1584
OA CFM (Hoods On)	800	813
OA CFM (Hoods Off)	350	368
RL Voltage	-	208@VFD
RL Amperage	-	9.7@VFD
VFD Max SetPt	-	54HZ
VFD Min SetPt	-	24HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	24%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.94"
Fan Suction SP	-	-1.28"
Fan Discharge SP	-	0.39"
Total ESP	-	1.33"
Fan Total SP	-	1.67"

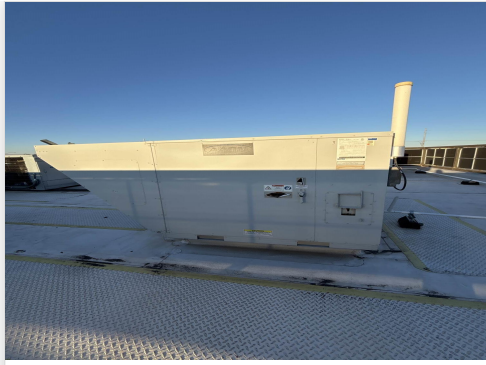
General	
	Actual
Fan Rotation Correct	
Unit Filters Clean	
Condensate Drain Installed	

Completed By: Ethan Van Orden on 02/09/2026

**Unit Data - PHOTO LOG**



**02/09/2026**



**02/09/2026**

**National TAB**  
 Project:02-09-26 QT #1425 PEORIA, AZ  
**AHU/RTU**



**Diffuser Supply (GRD)**

**RT-3/BOH/KITCHEN**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
SGRD1	SUPPORT SERVICE	SI	12"	800	1	457	536	752	94.0
SGRD2	SUPPORT SERVICE	SI	12"	800	1	685	723	823	102.9
SGRD3	SUPPORT SERVICE	SI	12"	800	1	709	742	831	103.9
SGRD4	SUPPORT SERVICE	SI	12"	800	1	728	815	853	106.6
SGRD5	WORKROOM	ES	10"	500	1	634	681	489	97.8
SGRD6	WORKROOM	ES	10"	500	1	676	730	515	103.0
<b>Total</b>				<b>4200</b>		<b>3889</b>	<b>4227</b>	<b>4263</b>	<b>101.5%</b>

Completed By: Ethan Van Orden on 02/09/2026

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

## System/Unit: FAN - Exhaust



Asset: EF1

AREA:RR/JANITOR

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	4683904
Type	-	DOWNBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	NEMA
Frame	-	NL
Horsepower	-	0.500
Motor Rpm	-	2000
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.4
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	750	779
Fan RPM	-	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	LOW
RL Voltage	-	NA
RL Amperage	-	4.3
Total ESP	-	0.31"
Fan Inlet SP	-	-0.31"
Fan Discharge SP	-	ATMS

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## Unit Data - PHOTO LOG



02/09/2026

**National TAB**  
 Project:02-09-26 QT #1425 PEORIA, AZ  
**FAN - Exhaust**



**Diffuser Ret/Exh (GRD)**

**EF1/RR/JANITOR**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
EGRD1	MEN'S RR	EE	12"	300	1	321	321	321	107.0
EGRD2	JANITOR'S CLOSET	EE	6"	100	1	97	97	97	97.0
EGRD3	WOMEN'S RR	EE	10"	200	1	203	203	203	101.5
EGRD4	SUPPORT SERVICE	RI	8"	150	1	158	158	158	105.3
Total				750		779	779	779	103.87%

Completed By: Ethan Van Orden on 02/09/2026

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

## System/Unit: FAN - Exhaust



Asset: EF3

AREA:KITCHEN HD

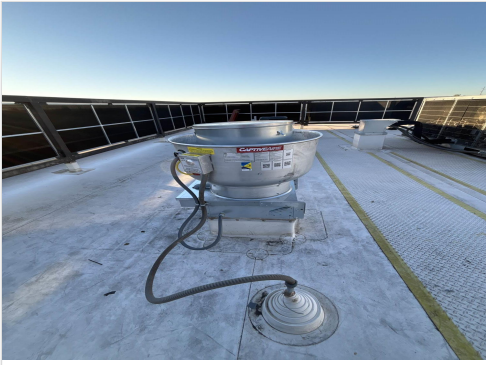
Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8384994
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	NEMA
Frame	-	NL
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	1350	1372
Fan RPM	-	1249
Fan Rotation	-	CCW
Motor RPM	-	1249
System SetPt	-	55.8HZ
RL Voltage	-	210
RL Amperage	-	2.8
Total ESP	-	0.64"
Fan Inlet SP	-	-0.64"
Fan Discharge SP	-	ATMS

Completed By: Ethan Van Orden on 02/09/2026

## Unit Data - PHOTO LOG



02/09/2026

# National TAB

Project: 02-09-26 QT #1425 PEORIA, AZ

## System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8384994
Type	-	TYPE I CANOPY
Hood length	-	108"
Hood Width	-	60"

Test Data Exhaust		
	Design	Actual
Filter Type	-	BAFFLE
Filter Size 1	-	20X16
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	105
Filter2 FPM	-	119
Filter3 FPM	-	113
Filter4 FPM	-	117
Filter5 FPM	-	114
Filter6 FPM	-	96
Filter Ave FPM(corr)	-	110
CFM	1350	1372

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

Completed By: Ethan Van Orden on 02/09/2026

## Unit Data - PHOTO LOG



02/09/2026

