Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 01/02/2026

Completed By: National TAB

PROJECT

01-12-26 QT #0823 LITHONIA, GA

2841 TURNER HILL RD

LITHONIA, GA

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

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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)
Each of the RTU's was measured with a flow hood to establish total flow. The total flow was then adjusted via the VFD so that airflow fell within design tolerances. All diffusers on the kitchen RTU were balanced to the engineer's design flow. The diffusers on the sales floor were only adjusted when there were noticeable issues present like drafting or dampers that were found completely closed. The Hoods On outside air rate was set by first establishing the typical QT set point at the Emerson controller and then making manually adjustments on the roof. The hoods off airflow setpoint was found by adjusting the damper position at the Emerson controller until the design airflow was achieved. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. After completion of TAB all overrides were released.

Kitchen Exhaust Hood & Associated Fans
The 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.

Restroom Exhaust Fans
The restroom exhaust fans were measured with a flow hood. The total flow was balanced for the fan with the exception of the new grille over the combi-oven, which was balanced to the listed design.

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

- Dirty final filters
- Final diffusers not installed

01-12-26 QT #0823 LITHONIA, GA

Project Issue Information

Issue Name : Dirty final filters

Description : All RTU's have dirty final filters. These should be replaced soon.

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

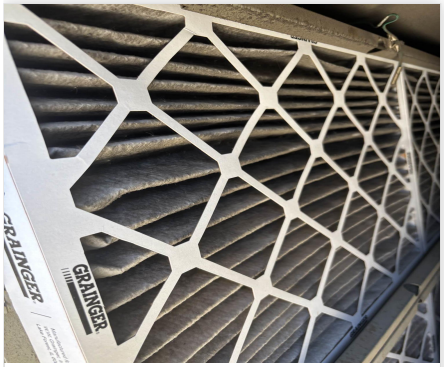
Status : Open

Priority : High

Asset Tag :

Originated Date : 01/13/2026 - Christian Moller - National TAB

Project Issue File Details



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01-12-26 QT #0823 LITHONIA, GA

Project Issue Information

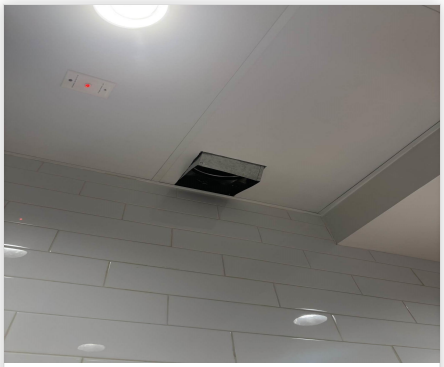
Issue Name : Final diffusers not installed

Description : The final diffusers for the combi oven as well as the cook line diffusers have not been installed. The GC does not know when they will be installed.

Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	01/13/2026 - Christian Moller - National TAB		

Project Issue File Details

01/13/2026



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NATIONAL TAB

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	723	350	367				
RTU-2	SALES	800	808	350	333				
RTU-3	BOH/KITCHEN	800	759	350	361				
EF-1	RR/JANITOR					750	689	750	689
EF-3	HOOD					1350	1346	0	0
TOTALS		2400	2290	1050	1061	2100	2035	750	689

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2290
TOTAL EXHAUST	2100	2035
NET AIRFLOW	300	255

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0013
SIDE	
REAR	
AVERAGE	**0.0013**

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1061
TOTAL EXHAUST	750	689
NET AIRFLOW	300	372

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0021
SIDE	
REAR	
AVERAGE	**0.0021**

NOTES:

CheckList List

- 01: RTU’s/AHU’s
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests

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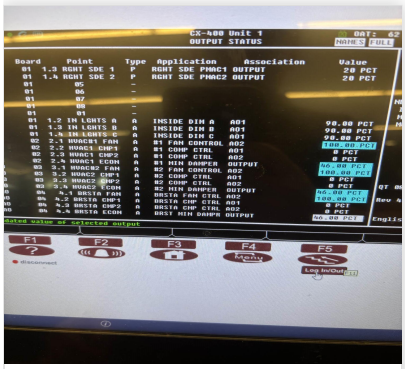
CheckList Information

Name :	01: RTU's/AHU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/14/2026 - Christian Moller - National TAB		

CheckList Item Details

RTU's/AHU's



01/14/2026

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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:

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CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christian Moller - 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:	

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CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christian Moller - National TAB		

CheckList Item Details

HOODS

Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
End panels are installed per prototype?	Pass
Comment:	

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CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/02/2026 - Trinity Dodds - National TAB		
Completed Date :	01/13/2026 - Christian Moller - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

None

List smoke candle type used

Comment:

S102 - 45 second candles

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	01/13/2026

Comment:

TAB tech name / Firm

Comment:

Christian Moller / NTAB

Site super name / Firm

Comment:

Jon Boyd / QT

Owner representative name / Firm (if Applicable)

Comment:

N/A

BUILDING PRESSURE

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

Comment:

hoods on: Front: 0.0013 hoods off: front: 0.0021

National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201904-ANEK18798
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X24
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	**Actual**
SF CFM	4200	4162
SF RPM	-	DD
OA CFM (Hoods On)	800	723
OA CFM (Hoods Off)	350	367
RL Voltage	-	213/214/215
RL Amperage	-	2.9/3.5/3.6
VFD Max SetPt	-	31Hz
VFD Min SetPt	-	24Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.23"
Fan Suction SP	-0.36"
Fan Discharge SP	0.32"
Total ESP	0.59"
Fan Total SP	0.68"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christian Moller on 01/14/2026

Unit Data - PHOTO LOG

01/13/2026

National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201904-ANEK18796
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X24
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	**Actual**
SF CFM	4200	4380
SF RPM	-	DD
OA CFM (Hoods On)	800	808
OA CFM (Hoods Off)	350	333
RL Voltage	-	214/212/215
RL Amperage	-	3.9/4.1/3.8
VFD Max SetPt	-	32Hz
VFD Min SetPt	-	24Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.25"
Fan Suction SP	-0.38"
Fan Discharge SP	0.26"
Total ESP	0.63"
Fan Total SP	0.64"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christian Moller on 01/14/2026

Unit Data - PHOTO LOG

01/13/2026

National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201904-ANEK18797
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X24
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	**Actual**
SF CFM	4200	4260
SF RPM	-	DD
OA CFM (Hoods On)	800	759
OA CFM (Hoods Off)	350	361
RL Voltage	-	213/214/215
RL Amperage	-	4.4/4.3/4.9
VFD Max SetPt	-	33Hz
VFD Min SetPt	-	24Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	21%

Performance Data	
	Actual
MA Plenum SP	-0.22"
Fan Suction SP	-0.33"
Fan Discharge SP	0.38"
Total ESP	0.55"
Fan Total SP	0.71"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	NO
Condensate Drain Installed	YES

Completed By: Christian Moller on 01/14/2026

Unit Data - PHOTO LOG

01/13/2026

National TAB

Project:01-12-26 QT #0823 LITHONIA, GA

AHU/RTU

Diffuser Supply (GRD)

RT-3/BOH/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUPPORT SERVICE	SI	12"	800	1	627	799	799	99.9
SGRD2	SUPPORT SERVICE	SI	12"	800	1	437	841	841	105.1
SGRD3	SUPPORT SERVICE	SI	12"	800	1	528	820	820	102.5
SGRD4	SUPPORT SERVICE	SI	12"	800	1	324	756	756	94.5
SGRD5	DOCK	ES	10"	500	1	377	549	523	104.6
SGRD6	WORKROOM	ES	8"	250	1	311	222	249	99.6
SGRD7	WORKROOM	ES	8"	250	1	169	273	273	109.2
Total				4200		2773	4260	4261	101.45%

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Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RR/JANITOR'S

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	DR50HFA
Serial Num	3849185
Type	UPBLAST
Configuration	VERTICAL

Motor Data	
	Actual
Motor MFG	CAPTIVEAIRE
Frame	NL
Horsepower	0.5
Motor Rpm	2000
Phase	1
Voltage (rated)	115
Amperage (rated)	8.4
Service Factor	NL

Test Data		
	Design	**Actual**
CFM	750	689
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MEDIUM SPEED
RL Voltage	-	112
RL Amperage	-	3.7
Total ESP	-	0.24”
Fan Inlet SP	-	-0.24”
Fan Discharge SP	-	ATM

Completed By: Christian Moller on 01/13/2026

Unit Data - PHOTO LOG

01/13/2026

National TAB

Project:01-12-26 QT #0823 LITHONIA, GA

Diffuser Ret/Exh (GRD)

EF1/RR/JANITOR'S

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD4	SUPPORT SERVICE	RI	8"	150	1	101	137	137	91.3
Total				150		101	137	137	91.33%

National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	7632006
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	CAPTIVEAIRE
Frame	-	NL
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	1350	1346
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	HMI/56.8Hz
RL Voltage	-	212
RL Amperage	-	2.1
Total ESP	-	0.31”
Fan Inlet SP	-	-0.31”
Fan Discharge SP	-	ATM

Completed By: Christian Moller on 01/13/2026

Unit Data - PHOTO LOG

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National TAB

Project: 01-12-26 QT #0823 LITHONIA, GA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2
Job / Serial Num	-	7632006
Type	-	TYPE I CANOPY
Hood length	-	122”
Hood Width	-	60”

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLE FILTERS
Filter Size 1	-	16X20
Filter Size 2	-	
Filter Qty 1	-	6
Filter Qty 2	-	
Filter AK factor size 1	-	2.08
Filters AK factor size 2	-	
Filter Total AK Area	-	12.48
Filter1 FPM	-	107
Filter2 FPM	-	115
Filter3 FPM	-	111
Filter4 FPM	-	112
Filter5 FPM	-	104
Filter6 FPM	-	98
Filter7 FPM	-	
Filter8 FPM	-	
Filter9 FPM	-	
Filter10 FPM	-	
Filter11 FPM	-	
Filter12 FPM	-	
Filter Ave FPM(corr)	-	108
CFM	1350	1346

Cooking Equipment	
	Actual
Item 1	
Item 2	

Completed By: Christian Moller on 01/13/2026

Unit Data - PHOTO LOG

01/13/2026