

Report By:

National TAB



Report: TAB

Function: Test, Adjust, & Balance

Date: 08/06/2025

Completed By: National TAB

PROJECT

**08-04-25 CHIPOTLE #5495 GLOUCESTER,
MA**

370 GLOUCESTER CROSSING RD

GLOUCESTER, MA 01936

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

Table Of Contents

Section	Page #
SUMMARY	3
REMARKS	4
BALANCE SCHEDULE	9
Checklist Data	10
AHU/RTU	19
FAN - Exhaust	25
FAN - Supply	28
Kitchen Hood Type I	29
GRD	31

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.

FCU's w/ Diffusers

Each of the FCU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each FCU was then adjusted to within tolerance of the specified design. Each terminal diffuser was balanced to within tolerance of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this 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.

MUA (Make Up Air Unit) w/ PSP

Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this tolerance is noted throughout the report.

Ceiling Exhaust Fans

The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. Any equipment 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 of $-0.02''$ wc to $+0.02''$ wc 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

- Balance schedule
- Miss damper in office
- RTU 1 dirty final filters
- RTU labeled incorrectly

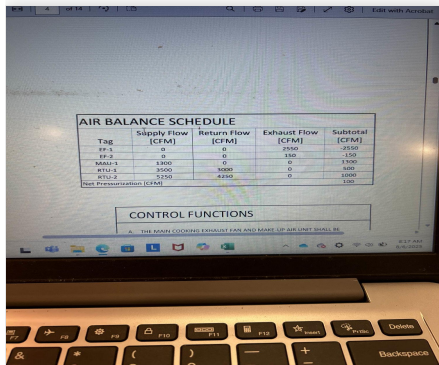


08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

Project Issue Information

Issue Name : Balance schedule
Description : Balance schedule doesn't not reflect the drawings. RTU 1 adds up to 100 CFM less. Change was made on the report.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :** HVAC EQUIPMENT 1
Originated Date : 08/06/2025 - Jearod Ferrette - National TAB

Project Issue File Details



08/06/2025



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

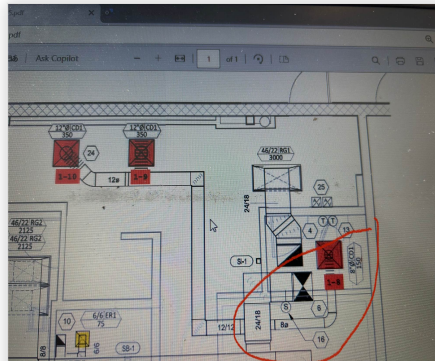
Project Issue Information

Issue Name : Miss damper in office
Description : Missing damper on manager office. (SGRD 1-8) Currently at 231% of design 150 CFM., which is stealing air from the last 2 diffusers. Unit is at total flow.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :** SGRD8
Originated Date : 08/06/2025 - Jearod Ferrette - National TAB

Project Issue File Details



08/06/2025



08/06/2025



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

Project Issue Information

Issue Name : RTU 1 dirty final filters
Description : Dirty final filters
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Low **Asset Tag :** RTU1
Originated Date : 08/06/2025 - Jearod Ferrette - National TAB

Project Issue File Details



08/06/2025



08/06/2025



08/06/2025



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

Project Issue Information

Issue Name : RTU labeled incorrectly
Description : RTUs are labeled incorrectly, RTU 1 and RTU 2 numbers need to switch.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :**
Originated Date : 08/06/2025 - Jearod Ferrette - National TAB

Project Issue File Details



08/06/2025



08/06/2025

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	KITCHEN	3400	3269	2900	2743	500	526	14.7%	16.1%						
RTU-2	DINING	5250	5492	4250	4450	1000	1042	19.0%	19.0%						
MUA-1	HOOD MUA									1300	1244				
EF-1	HOOD FAN											2550	2522		
EF-2	RESTROOMS													150	149
TOTALS		8650	8761	7150	7193	1500	1568			1300	1244	2550	2522	150	149

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2812
TOTAL EXHAUST	2700	2671
NET AIRFLOW	100	141

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.005
SIDE	NA
REAR	-0.003
AVERAGE	0.001

FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

CheckList List

- 03: MUA
- 01: RTU'S/AHU'S
- 02: EF'S
- 04: HOODS
- 05: FINAL TESTS



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

CheckList Information

Name : 03: MUA **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/05/2025 - Tara Metcalf - National TAB

Completed Date : 08/06/2025 - Jearod Ferrette - National TAB

CheckList Item Details

MUA

Rotation is correct? Yes

Comment:

Gas piping is installed and valves are in on position? Yes

Comment:

Internal motorized damper is fully opening? Yes

Comment:

Motor is operating below the FLA rating? Yes

Comment:

Unit free of noticeable noise and vibration? Yes

Comment:



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/05/2025 - Tara Metcalf - National TAB

Completed Date : 08/06/2025 - Jearod Ferrette - National TAB

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	Yes
---------------------------------------	-----

Comment:

All diffusers and grilles are installed and match design?	Yes
---	-----

Comment:

Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	Yes
--	-----

Comment:

Economizer blank plate is installed below the outside air intake (Trane only) (N/A = not applicable)	N/A
--	-----

Comment:

Economizers are assembled and functional?	Yes
---	-----

Comment:

DCV Max damper opening position is set to minimum?	Yes
--	-----

Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D")

Yes

Comment:

Motors are all operating below the FLA rating?

Yes

Comment:

Are belts tight?

N/A

Comment:

If direct drive unit is the speed controller working?

Yes

Comment:

Is gas piping installed and valves turned on?

Yes

Comment:

Unit free of noticeable noise and vibration

Yes

Comment:

Final outside air damper position is marked with permanent marker?

Yes

Comment:



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

CheckList Information

Name : 02: EF'S **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 06/05/2025 - Tara Metcalf - National TAB
Completed Date : 08/06/2025 - Jearod Ferrette - National TAB

CheckList Item Details

EF's

Rotation is correct? Yes

Comment:

Belts are tight? N/A

Comment:

Viroguard installed on hood fan(s)? Yes

Comment:

Hinge kit installed installed on hood fan? Yes

Comment:

Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan? Yes

Comment:

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

Comment:

There is no major leakage around base of fan?

Yes

Comment:

Is the motor operating below the motor FLA rating?

Yes

Comment:

For restroom fan(s) is the back draft damper installed and can it fully open?

Yes

Comment:

Unit free of noticeable noise and vibration?

Yes

Comment:



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

CheckList Information

Name : 04: HOODS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/05/2025 - Tara Metcalf - National TAB

Completed Date : 08/06/2025 - Jearod Ferrette - National TAB

CheckList Item Details

HOODS

All hood filters installed and accounted for? Yes

Comment:

Hoods are wired and have power? Yes

Comment:

Hood is free of alarms? Yes

Comment:

Hood is free of damage? Yes

Comment:

Quarter or full vertical end panels are installed if specified? Yes

Comment:



08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

CheckList Information

Name : 05: FINAL TESTS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 06/05/2025 - Tara Metcalf - National TAB

Completed Date : 08/06/2025 - Jearod Ferrette - National TAB

CheckList Item Details

FINAL CHECKS

Is space free of drafting? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

List kitchen equipment turned on for testing No

Comment:

Equipment not installed yet

List smoke candle type used

Comment:

smoke emitter

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

08/06/2025

Comment:

TAB tech name / Firm

Comment:

JEAROD FERRETTE/ NTAB

Site super name / Firm

Comment:

ROBERT RAIMONDO

Owner representative name / Firm (if Applicable)

Comment:

NA

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:

FRONT 0.005, REAR -0.003 BUILDING IS ATTACHED TO STRIP MALL

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: AHU/RTU



Asset: RTU1

AREA: KITCHEN

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	0225P70263
Model Num	48FE_M12	48FE_M12
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	NA

Drive Data		Actual
Motor Sheave Size		DD
Motor Bore Size		DD
Motor Sheave SetPt		DD
Fan Sheave Size		DD
Fan Sheave Bore		DD
Belt CL Distance		DD
Num of Belts		DD
Belt Size		DD
Belt Alignment		DD

Test Data		
	Design	Actual
SF CFM	3400	3269
SF RPM	-	1854
RA CFM	3000	2743
OA CFM	500	526
RL Voltage	-	205/205/205
RL Amperage	-	5.0/4.9/5.0
SF Rotation	-	CCW
SF System SetPt	-	OPT C/ 52%
RA Damper Position	-	6.9
Min OA Damper Position	-	3.1
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.97"
Fan Suction SP	-	-1.43"
Fan Discharge SP	-	0.62"
Total ESP	.60"	1.59"
Fan Total SP	-	2.05

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

Completed By: Jearod Ferrette on 08/06/2025

Unit Data - PHOTO LOG



08/06/2025

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Project:08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

AHU/RTU



Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	KITCHEN	CD1	12"	425	1	506	397	417	98.1
SGRD2	KITCHEN	CD1	12"	425	1	449	399	406	95.5
SGRD3	HOOD AC	ACPSP	165X6	700	5.36	536	736	725	103.6
SGRD4	KITCHEN	CD2	8"	250	1	181	185	225	90.0
SGRD5	KITCHEN	CD2	8"	250	1	300	244	255	102.0
SGRD6	KITCHEN	CD2	8"	250	1	242	243	254	101.6
SGRD7	KITCHEN	CD2	8"	250	1	260	257	266	106.4
SGRD8	KITCHEN	CD1	8"	150	1	346	346	347	231.3
SGRD9	KITCHEN	CD1	12"	350	1	162	164	173	49.4
SGRD10	KITCHEN	CD1	12"	350	1	191	199	201	57.4
Total				3400		3173	3170	3269	96.15%

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: AHU/RTU



Asset: RTU2

AREA:DINING

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	0425P02365
Model Num	48FE_M09	48FE_M09
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	22.5X25.5
Num Final Filter 1	-	6
Final Filter Size 1	-	18X24X2

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	NA

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD
Belt Alignment	DD

Test Data		
	Design	Actual
SF CFM	5250	5492
SF RPM	-	1201
RA CFM	4250	4450
OA CFM	1000	1042
RL Voltage	-	206/206/206
RL Amperage	-	2.1/2.1/2.2
SF Rotation	-	CCW
SF System SetPt	-	OPT A/ 45%
RA Damper Position	-	5.7
Min OA Damper Position	-	4.3
Min OA Damper Type	-	ECON

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.33"
Fan Suction SP	-	-0.46"
Fan Discharge SP	-	0.28"
Total ESP	.60"	0.61"
Fan Total SP	-	0.74"

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

Completed By: Jearod Ferrette on 08/06/2025

Unit Data - PHOTO LOG



08/06/2025

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Project:08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

AHU/RTU



Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	DINING	SR2	16.5 X 7.5	500	0.86	992	640	544	108.8
SGRD2	DINING	SR2	16.5 X 7.5	600	0.86	916	671	641	106.8
SGRD3	DINING	SR2	16.5 X 7.5	650	0.86	901	662	662	101.8
SGRD4	DINING	SR1	14"	900	1.07	1267	943	923	102.6
SGRD5	DINING	SR1	14"	800	1.07	1247	876	846	105.8
SGRD6	DINING	SR1	14"	700	1.07	1116	770	715	102.1
SGRD7	DINING	SR1	14"	600	1.07	1002	709	639	106.5
SGRD8	DINING	SR1	14"	500	1.07	872	594	522	104.4
Total				5250		8313	5865	5492	104.61%

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: FAN - Exhaust



Asset: EF1

AREA:HOOD FAN

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	731003
Type	UPBLAST/CEILING	UPBLAST/CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	2550	2522
Fan RPM	-	DD/ 61.7
Fan Rotation	-	CCW
Motor RPM	-	DD/ 61.7
System SetPt	-	61.7HZ
RL Voltage	-	148 VFD
RL Amperage	-	6.1 VFD
Total ESP	1.450"	1.4"
Fan Inlet SP	-	-1.4"
Fan Discharge SP	-	ATMO

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	184T
Horsepower	2	2
Motor Rpm	1221	1165
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	6.56
Service Factor	-	1.15

Completed By: Jearod Ferrette on 08/06/2025

Unit Data - PHOTO LOG



08/05/2025

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: FAN - Exhaust



Asset: EF2

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	7310033
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	.250	.250
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NA
Service Factor	-	1

Test Data		
	Design	Actual
CFM	150	149
Fan RPM	-	1082
Fan Rotation	-	CCW
Motor RPM	-	1082
System SetPt	-	57P
RL Voltage	-	114
RL Amperage	-	0.78
Total ESP	.60"	0.26"
Fan Inlet SP	-	-0.26"
Fan Discharge SP	-	ATMO

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Unit Data - PHOTO LOG



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Project:08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF2/RESTROOMS

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	RESTROOM	ER1	6"	75	1	112	91	72	96.0
EGRD2	RESTROOM	ER1	6"	75	1	117	110	77	102.7
Total				150		229	201	149	99.33%

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: FAN - Supply



Asset: MUA1

AREA:HOOD MUA

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1--D250-15D	A1--D250-15D
Serial Num	-	7310033
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TECO
Frame	-	143T
Horsepower	1	1
Motor Rpm	1548	1425
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	2.90
Service Factor	-	1.15

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	Y
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	-	60
Discharge Air Temp SetPt	-	70
Air Flow Switch SP Actual	-	0.34"

Test Data		
	Design	Actual
CFM	1300	1244
SF RPM	-	DD/ 44HZ
Motor RPM	-	DD/ 44HZ
SF System SetPt	-	44HZ
RL Voltage	-	102 VFD
RL Amperage	-	2.1 VFD
Total ESP	-	0.34"
Fan Discharge SP	-	ATMO

General	
	Actual
Fan Rotation Correct	YES

Completed By: Jearod Ferrette on 08/06/2025

Unit Data - PHOTO LOG



08/05/2025

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Project: 08-04-25 CHIPOTLE #5495 GLOUCESTER, MA

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA: KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2-ACPSP-F	5424 ND-2-ACPSP-F
Job / Serial Num	-	7310033
Type	TYPE I - CANOPY	TYPE I - CANOPY
Hood length	165"	165"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	9"	9"
Supply Plenum Length	165"	165"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16X16
Filter Qty 1	9	9
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	14.58	14.58
Filter1 FPM	-	157
Filter2 FPM	-	175
Filter3 FPM	-	177
Filter4 FPM	-	188
Filter5 FPM	-	194
Filter6 FPM	-	195
Filter7 FPM	-	167
Filter8 FPM	-	159
Filter9 FPM	-	143
Filter Ave FPM(corr)	-	173
CFM	2550	2522

Cooking Equipment	
	Actual
Item 1	STOVE
Item 2	GRILL
Item 3	RICE COOKER

Test Data Supply		
	Design	Actual
Total Area	10.31	10.31
Kv factor (Vel)	0.81	0.81
Num of Readings	-	9
Reading1 FPM	-	152
Reading2 FPM	-	136
Reading3 FPM	-	112
Reading4 FPM	-	126
Reading5 FPM	-	137
Reading6 FPM	-	156
Reading7 FPM	-	149
Reading8 FPM	-	167
Reading9 FPM	-	203
Ave FPM(corr)	-	149
CFM	1300	1244

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Unit Data - PHOTO LOG



08/05/2025

