Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 01/12/2024

PROJECT

01-08-23 FREDDYS - EAST DAVENPORT, IA

4521 East 53rd Street

EAST DAVENPORT, IA 52807

Client

BUILD TO SUIT

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail 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 to within tolerance of the design flow. 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.

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.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. 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

- DEF-1
- EF-4/EF-5 low on flow
- RTU-1/2/3 final filters

01-08-23 FREDDYS - EAST DAVENPORT, IA

Project Issue Information

Issue Name : DEF-1

Description : Dishwasher Exhaust fan/Hood not operational on arrival, on at breaker. Fan Controller doesn't light up or have any function.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

Status : Closed

Priority : Urgent

Asset Tag :

Originated Date : 01/08/2024 - Dylan Crisman - National TAB

Project Issue File Details

HD-3
01/08/2024

DEF-1
01/08/2024

Project Issue Response Details

- **01/09/2024 National TAB - Dylan Crisman**
  - Electrician arrived on site and corrected issues, fan and hood have been balanced to design. 01/09/2024

01-08-23 FREDDYS - EAST DAVENPORT, IA

Project Issue Information

Issue Name :	EF-4/EF-5 low on flow		
Description :	Design flow is 170CFM. I was unable to get either fan up to design flow after setting the speed dial as well as potentiometer to max setpoints. EF-4: 113/170CFM EF-5: 100/170CFM		
Created By :	National TAB	**Assigned To :**	National TAB - Dylan Crisman
Status :	Open		
Priority :		**Asset Tag :**	
Originated Date :	01/09/2024 - Dylan Crisman - National TAB		

01-08-23 FREDDYS - EAST DAVENPORT, IA

Project Issue Information

Issue Name :	RTU-1/2/3 final filters		
Description :	Construction filters are still installed on Roof Top units. Recommend replacing with correct size 20x24x2 pleaded filters.		
Created By :	National TAB	**Assigned To :**	National TAB - Dylan Crisman
Status :	Open		
Priority :		**Asset Tag :**	
Originated Date :	01/08/2024 - Dylan Crisman - National TAB		

NATIONAL TAB

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		3000	3034	2400	2446	600	588	20.0%	19.4%						
RTU-2		3000	3021	2400	2452	600	569	20.0%	18.8%						
RTU-3		3000	3053	2400	2469	600	584	20.0%	19.1%						
MUA-1										1900	2006				
EF-1												1600	1595		
EF-2												775	744		
EF-3												525	535		
EF-2														170	113
EF-3														170	100
TOTALS		9000	9108	7200	7367	1800	1741			1900	2006	2900	2874	340	213

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3700	3747
TOTAL EXHAUST	3240	3087
NET AIRFLOW	460	660

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0108
SIDE	0.0065
REAR	0.0097
AVERAGE	**0.009**

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

- TECH - SITE PICTURES
- TECH - STEP 1: INITIAL SITE WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS

01-08-23 FREDDYS - EAST DAVENPORT, IA

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/15/2023 - Brian Turnbough - National TAB		

CheckList Item Details

STORE FRONT

Comment:

RTU-1

Comment:

RTU-1(1)
01/09/2024

RTU-2

Comment:

RTU-2(2)
01/09/2024

RTU-3

Comment:

RTU-3(3)
01/09/2024

RTU-4

Comment:

RTU-5

Comment:

RTU-6

Comment:

RTU-7

Comment:

RTU-8

Comment:

RTU-9

Comment:

RTU-10

Comment:

RTU-11

Comment:

RTU-12

Comment:

RTU-13

Comment:

RTU-14

Comment:

RTU-15

Comment:

RTU-16

Comment:

RTU-17

Comment:

RTU-18

Comment:

RTU-19

Comment:

RTU-20

Comment:

MAU-1

Comment:

MUA-1
01/09/2024

MAU-2

Comment:

EF-1

Comment:

EF-1
01/09/2024

EF-2

Comment:

EF-2
01/09/2024

EF-3

Comment:

EF-3
01/09/2024

EF-4

Comment:

EF-4
01/09/2024

EF-5

Comment:

EF-5
01/09/2024

EF-6

Comment:

EF-7

Comment:

EF-8

Comment:

EF-9

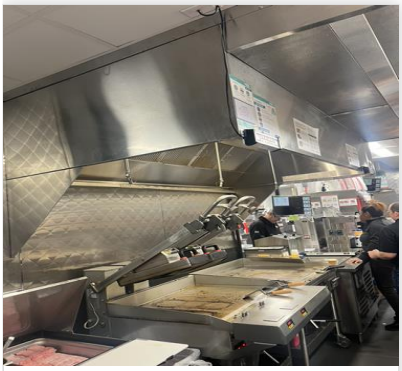
Comment:

EF-10

Comment:

HOOD-1

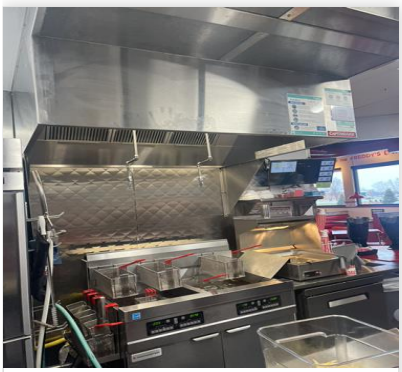
Comment:



HD-1
01/09/2024

HOOD-2

Comment:



HD-2
01/09/2024

HOOD-3

Comment:

HD-3
01/09/2024

HOOD-4

Comment:

HOOD-5

Comment:

01-08-23 FREDDYS - EAST DAVENPORT, IA

CheckList Information

Name :	TECH - STEP 1: INITIAL SITE WALKTHROUGH	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/15/2023 - Brian Turnbough - National TAB		
Completed Date :			

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
Comment:	
All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Hood is free of alarms?	Yes
Comment:	
Thermostats have power?	Yes
Comment:	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	

Comment:

Yes

01-08-23 FREDDYS - EAST DAVENPORT, IA

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/15/2023 - Brian Turnbough - National TAB		
Completed Date :			

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's

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?	
Comment:	
Yes	
If direct drive unit is the speed controller working.	

Comment:

Yes

Is gas piping installed and valves turned on?	Yes

Comment:

Unit free of noticeable noise and vibration	Yes

Comment:

EF's

Rotation is correct?	Yes

Comment:

Belts are tight?	

Comment:

NA/DD

Grease cup installed on hood fan?	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?	No

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:

MUA

Rotation is correct?	Yes

Comment:

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

Comment:

Heater tested and is functional?	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:

HOODS

Kitchen equipment installed in proper places?	Yes

Comment:

Can kitchen equipment be turned on for final smoke test?	Yes

Comment:

DOCUMENTATION

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes

Comment:

01-08-23 FREDDYS - EAST DAVENPORT, IA

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/15/2023 - Brian Turnbough - National TAB		
Completed Date :			

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
Comment:	
Is space comfortable in all areas?	Yes
Comment:	
Is the space free of ventilation noise?	Yes
Comment:	

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Comment:

NA

01-08-23 FREDDYS - EAST DAVENPORT, IA

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	09/15/2023 - Brian Turnbough - National TAB		
Completed Date :			

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

Griddle/Fryer

List smoke candle type used

Comment:

CE1063 45 second 150 CF

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	01/09/2024

Comment:

TAB tech name / Firm

Comment:

Dylan Crisman / National TAB Intelligence

Site super name / Firm

Comment:

Owner representative name / Firm (if Applicable)

Comment:

Building pressure at front & back doors (All Systems On)

Comment:

Front door 0.0108 Back door 0.0097

ADDITIONAL

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

Comment:

Yes

Thermostats are programmed?	Yes

Comment:

National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2A3361853
Model Num	ZR090N18R2B5EAA1A1	ZR090N18R2B5EAA1A1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X21
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	3000	3034
SF RPM	-	809
RA CFM	2400	2446
OA CFM	600	588
RL Voltage	-	208/209/209
RL Amperage	-	6.1/6.0/6.0
SF Rotation	-	CW
RA Damper Position	-	79%
Min OA Damper Position	-	21%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	27B

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56Hz
Horsepower	3	3.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.74"
Fan Suction SP	-	-0.92"
Fan Discharge SP	-	0.40"
Total ESP	1.25"	1.14"
Fan Total SP	-	1.32"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VM50
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OPEN/88% MAX SPEED
Fan Sheave Size	-	6.5"
Fan Sheave Bore	-	1"
Belt CL Distance	-	19.5"
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	VERIFIED

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

Completed By: Dylan Crisman on 01/09/2024

Notes:
NO DAMPERS AT FACE OF DIFFUSER OR TAKEOFFS.

Written By: on

National TAB

Project:01-08-23 FREDDYS - EAST DAVENPORT, IA

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU1-SGRD1	KITCHEN	S-4	10"	345	1.0	345	360	349	101.2
RTU1-SGRD2	HD1	ACPSP	8"	505	4.5	1169	660	527	104.4
RTU1-SGRD3	KITCHEN	S-4	10"	350	1.0	413	385	353	100.9
RTU1-SGRD4	HD2	ACPSP	8"	309	2.5	326	270	312	101.0
RTU1-SGRD5	KITCHEN	S-4	10"	300	1.0	362	334	309	103.0
RTU1-SGRD6	KITCHEN	S-4	10"	350	1.0	423	390	370	105.7
RTU1-SGRD7	KITCHEN	S-4	10"	350	1.0	375	340	329	94.0
RTU1-SGRD8	KITCHEN	S-2	8"	150	1.0	180	168	157	104.7
RTU1-SGRD9	KITCHEN	S-4	10"	340	1.0	371	336	328	96.5
Total				2999		3964	3243	3034	101.17%

National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: AHU/RTU

Asset: RTU2 AREA:Kitchen

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2A3361851
Model Num	ZR090N18R2B5EAA1A1	ZR090N18R2B5EAA1A1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X21
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	3000	3021
SF RPM	-	756
RA CFM	2400	2452
OA CFM	600	569
RL Voltage	-	208/210/209
RL Amperage	-	5.9/5.8/5.8
SF Rotation	-	CW
RA Damper Position	-	78%
Min OA Damper Position	-	22%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	27B

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56Hz
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.69"
Fan Suction SP	-	-0.83"
Fan Discharge SP	-	0.38"
Total ESP	1.25"	1.07"
Fan Total SP	-	1.21"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VM50
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OPEN/80% MAX SPEED
Fan Sheave Size	-	6.5"
Fan Sheave Bore	-	1"
Belt CL Distance	-	20"
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	VERIFIED

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

Completed By: Dylan Crisman on 01/09/2024

National TAB

Project:01-08-23 FREDDYS - EAST DAVENPORT, IA

AHU/RTU

Diffuser Supply (GRD)

RTU2/Kitchen

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU2-SGRD1	DINING	S-2		150	1.0	283	158	158	105.3
RTU2-SGRD2	DINING	S-1		430	1.0	431	452	452	105.1
RTU2-SGRD3	DINING	S-1		430	1.0	450	450	450	104.7
RTU2-SGRD4	DINING	S-1	10"	430	1.0	419	440	440	102.3
RTU2-SGRD5	DINING	S-1	16"	430	1.0	397	418	418	97.2
RTU2-SGRD6	DINING	S-1	16"	430	1.0	427	427	427	99.3
RTU2-SGRD7	VESTIBULE	S-3	8"	250	1.0	213	241	241	96.4
RTU2-SGRD8	WOMENS RR	S-2	6"	100	1.0	132	98	98	98.0
RTU2-SGRD9	MENS RR	S-2	6"	100	1.0	86	101	101	101.0
RTU2-SGRD10	HALL	S-4	8"	250	1.0	232	236	236	94.4
Total				3000		3070	3021	3021	100.7%

National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: AHU/RTU

Asset: RTU3 AREA:

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2A3361850
Model Num	ZR090N18R2B5EAA1A1	ZR090N18R2B5EAA1A1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X21
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Test Data		
	Design	**Actual**
SF CFM	3000	3053
SF RPM	-	717
RA CFM	2400	2469
OA CFM	600	584
RL Voltage	-	208/210/210
RL Amperage	-	6.3/6.2/6.5
SF Rotation	-	CW
RA Damper Position	-	81%
Min OA Damper Position	-	19%
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	27B

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56Hz
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.3

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.64
Fan Suction SP	-	-0.85"
Fan Discharge SP	-	0.41"
Total ESP	1.25"	1.10"
Fan Total SP	-	1.26"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VM50
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OPEN/77% MAX SPEED
Fan Sheave Size	-	6.5"
Fan Sheave Bore	-	1"
Belt CL Distance	-	19.5"
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	VERIFIED

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

Completed By: Dylan Crisman on 01/09/2024

National TAB

Project:01-08-23 FREDDYS - EAST DAVENPORT, IA

AHU/RTU

Diffuser Supply (GRD)

RTU3/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU3-SGRD1	DINING	S-1	10"	430	1.0	622	439	439	102.1
RTU3-SGRD2	DINING	S-1	14"	430	1.0	606	451	451	104.9
RTU3-SGRD3	DINING	S-1	10"	430	1.0	502	420	420	97.7
RTU3-SGRD4	DINING	S-1	10"	425	1.0	495	426	424	99.8
RTU3-SGRD5	DINING	S-1	10"	430	1.0	530	426	430	100.0
RTU3-SGRD6	DINING	S-1	10"	425	1.0	599	423	434	102.1
RTU3-SGRD7	DINING	S-1	10"	430	1.0	660	473	455	105.8
Total				3000		4014	3058	3053	101.77%

National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:Men's RR

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-186	GC-186
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.0
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	170	113
Fan RPM	1100	1350
Fan Rotation	-	CCW
Motor RPM	-	1350
System SetPt	-	100% ON SPEED DIAL
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.75	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

Completed By: Dylan Crisman on 01/08/2024

National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:Women's RR

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-186	GC-186
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.0
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	170	100
Fan RPM	1100	1350
Fan Rotation	-	CCW
Motor RPM	-	1350
System SetPt	-	MAX SPEED @DIAL AND POTENTIOMETER
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.75	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:Kitchen

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	GC-186	CASRE18DD
Serial Num	-	5699581
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO-WESTINGHOUSE
Frame	-	145T
Horsepower	1.000	1.0
Motor Rpm	-	1150
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	3.44
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	1600	1595
Fan RPM	-	1012
Fan Rotation	-	CCW
Motor RPM	-	1012
System SetPt	-	52.8Hz
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	1.500	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	ATM

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:Kitchen

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	GC-186	DU50HFA
Serial Num	-	5699581
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO-GREEN
Frame	-	NL
Horsepower	0.500	0.500
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	775	744
Fan RPM	-	990
Fan Rotation	-	CCW
Motor RPM	-	990
System SetPt	-	55%
RL Voltage	-	122
RL Amperage	-	2.0/2.1
Total ESP	1.250	0.78"
Fan Inlet SP	-	-0.78"
Fan Discharge SP	-	ATM

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Exhaust

Asset: KEF3 AREA:Kitchen

Unit Data		
	Design	**Actual**
MFG	COOK	CAPTIVEAIRE
Model Num	GC-186	DU33HFA
Serial Num	-	5699581
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO-GREEN
Frame	-	NL
Horsepower	0.333	0.333
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	525	535
Fan RPM	-	841
Fan Rotation	-	CCW
Motor RPM	-	841
System SetPt	-	44P
RL Voltage	-	120
RL Amperage	-	3.1
Total ESP	0.800	0.32"
Fan Inlet SP	-	-0.32"
Fan Discharge SP	-	ATM

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: FAN - Supply

Asset: MUA1 AREA:MUA

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D-MPU	A1-D.250-15D-MPU
Serial Num	-	5699581
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO-WESTINGHOUSE
Frame	-	145T
Horsepower	2.000	2.0
Motor Rpm	-	1710
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	5.48
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	Y
Flame Status (pass/fail)	-	PASS
Air Flow Switch SP Actual	-	0.39"

Test Data		
	Design	**Actual**
CFM	1900	2006
SF RPM	-	1540
Motor RPM	-	1540
SF System SetPt	-	52.8Hz
RL Voltage	-	212/211/212
RL Amperage	-	3.4/3.5/3.3
Fan Discharge SP	-	ATM

General		
	Design	**Actual**
Fan Rotation Correct	-	YES

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424ND-2-ACPSP-F	5424ND-2-ACPSP-F
Job / Serial Num	-	5699581
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	96"	96"
Hood Width	60"	60"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	108"	108"

Test Data Exhaust		
	Design	**Actual**
Filter Type	Captrate Solo	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	8.1	8.1
Filter1 FPM	-	178
Filter2 FPM	-	208
Filter3 FPM	-	211
Filter4 FPM	-	199
Filter5 FPM	-	192
Filter Ave FPM(corr)	-	197
CFM	1600	1595

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRIDDLE

Test Data Supply		
	Design	**Actual**
Total AK Area	10.5	10.5
Kv factor (Vel)	0.89	0.89
Num of Readings	-	10
Reading1 FPM	-	171
Reading2 FPM	-	165
Reading3 FPM	-	154
Reading4 FPM	-	146
Reading5 FPM	-	143
Reading6 FPM	-	129
Reading7 FPM	-	128
Reading8 FPM	-	126
Reading9 FPM	-	137
Reading10 FPM	-	141
Ave FPM(corr)	-	144
CFM	1280	1345

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424ND-2-ACPSP-F	5424ND-2-ACPSP-2
Job / Serial Num	-	5699581
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	60"	60"
Hood Width	54"	54"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	12"	12"
Supply Plenum Length	60"	60"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	147
Filter2 FPM	-	159
Filter3 FPM	-	153
Filter Ave FPM(corr)	-	153
CFM	775	744

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYER

Test Data Supply		
	Design	**Actual**
Total AK Area	5	5
Kv factor (Vel)	0.87	0.87
Num of Readings	-	6
Reading1 FPM	-	154
Reading2 FPM	-	148
Reading3 FPM	-	152
Reading4 FPM	-	161
Reading5 FPM	-	142
Reading6 FPM	-	159
Ave FPM(corr)	-	152
CFM	620	661

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National TAB

Project: 01-08-23 FREDDYS - EAST DAVENPORT, IA

System/Unit: Kitchen Hood Type II

Asset: HD(Type2)3 AREA:DISHES

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4224 VHB-G	4224 VHB
Serial Num	-	5699581
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42	42"

Test Data		
	Design	**Actual**
Exhaust CFM	525	535

Completed By: Dylan Crisman on 01/09/2024