Report By:

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

Report: Tab Report

Function: Test, Adjust, & Balance

Date: 11/16/2023

PROJECT

11-13-23 CULVERS - SPRING HILL, FL

16300 COUNTY LINE ROAD

SPRING HILL, FL 34610

Client

Accurex

PO Box 410

Schofield, WI 54476

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)
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.

General Exhaust Fans
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.

CheckList List

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

11-13-23 CULVERS - SPRING HILL, FL

CheckList Information

Name :	SITE PICTURES	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/09/2023 - Wale Odofin - National TAB		
Completed Date :	11/16/2023 - Ian Fuller - National TAB		

CheckList Item Details

RTU-1

Comment:

RTU1
11/15/2023

RTU-2

Comment:

RTU2(1)
11/15/2023

PRV-2

Comment:

PRV2
11/15/2023

PRV-3

Comment:

PRV3
11/15/2023

PRV-4

Comment:

PRV4
11/15/2023

EF-1

Comment:

EF1
11/16/2023

EF-2

Comment:

EF2(1)
11/16/2023

EF-A3

Comment:

EFA3
11/16/2023

EF-B3

Comment:

EFB3
11/16/2023

EF-C3

Comment:

EFC3
11/16/2023

HOOD 1

Comment:

Hood1
11/15/2023

HOOD 2

Comment:

Hood2
11/16/2023

HOOD 3

Comment:

Hood3
11/16/2023

11-13-23 CULVERS - SPRING HILL, FL

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/09/2023 - Wale Odofin - National TAB		
Completed Date :	11/16/2023 - Ian Fuller - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
Comment:	
Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)	Yes
Comment:	
All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Thermostats have power?	Yes
Comment:	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	
Comment:	

11-13-23 CULVERS - SPRING HILL, FL

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/09/2023 - Wale Odofin - National TAB		
Completed Date :	11/16/2023 - Ian Fuller - National TAB		

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:	
Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.)	Yes
Comment:	
Motors are all operating below the FLA rating?	Yes
Comment:	
Are belts tight?	
Comment: NA	
If direct drive unit is the speed controller working.	
Comment: YES	

Is gas piping installed and valves turned on?	N/A
Comment:	
ELECTRIC HEATED UNITS	
Unit free of noticeable noise and vibration	Yes
Comment:	
EF's	
Rotation is correct?	Yes
Comment:	
Belts are tight?	
Comment:	
NA	
Grease cup installed on hood fan?	Yes
Comment:	
Hinge kit installed installed on hood fan?	Yes
Comment:	
Lean grease rated fans 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?	N/A
Comment:	
Unit free of noticeable noise and vibration?	Yes
Comment:	
The hood exhaust fans are installed in correct positions and are not switched?	Yes
Comment:	
HOODS	
Kitchen equipment installed in proper places?	Yes
Comment:	
Can kitchen equipment be turned on for final smoke test?	No
Comment: HAS NOT YET HAD STARTUPS	
Second stage Grease Grabber filters are installed on the griddle hood?	Yes
Comment:	
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	
Comment:	

11-13-23 CULVERS - SPRING HILL, FL

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/09/2023 - Wale Odofin - National TAB		
Completed Date :	11/16/2023 - Ian Fuller - National TAB		

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

11-13-23 CULVERS - SPRING HILL, FL

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	11/09/2023 - Wale Odofin - National TAB		
Completed Date :	11/16/2023 - Ian Fuller - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

EQUIPMENT HAS NOT YET HAD STARTUPS

List smoke candle type used

Comment:

45 SECOND SMOKE CANDLE

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	11/16/2023

Comment:

TAB tech name / Firm

Comment:

IAN F / NTAB

Site super name / Firm

Comment:

RUBE / WALLACE BUILT

Owner representative name / Firm (if Applicable)

Comment:

NA

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

Comment:

FRONT: 0.0014" BACK: 0.0088"

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:

PRODIGY SETTINGS FOR RTU'S

Parameter 65 set to 0	N/A

Comment:

CAPTIVEAIRE UNITS

Parameter 78 set to 0	N/A

Comment:

Parameter 105 set to 6

Comment:

Parameter 156 set to 70 (Dining unit only)	N/A

Comment:

Parameter 156 set to 65 (Kitchen Unit Only)	N/A

Comment:

Parameter 170 set to 75 (Dining Unit Only)	N/A

Comment:

Parameter 170 set to 70 (Kitchen Unit Only)	N/A

Comment:

Parameter 131 set to the same % as OA minimum position?	N/A

Comment:

Parameter 117 set to the same % as OA minimum position?	N/A

Comment:

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: AHU/RTU

Asset: RTU1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5666991
Model Num	CASTRU3E4522420T	CASRTU3-E.302-24-20T-DOAS
Type	RTU	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	17
OA Filter Size 1	-	1.5X45.75
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NEMA
Frame	-	215T
Horsepower	-	5
Motor Rpm	-	1165
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	14.3

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

Test Data		
	Design	**Actual**
SF CFM	5200	5090
SF RPM	-	75 HZ
RA CFM	3200	2986
OA CFM	2000	2104
RL Voltage	-	211 VFD
RL Amperage	-	14.2 VFD
SF Rotation	-	CCW
RA Damper Position	-	5.2 V
Min OA Damper Position	-	4.8 V
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	-
Fan Discharge SP	-	-
Total ESP	0.5"	-
Fan Total SP	-	-

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

Completed By: Ian Fuller on 11/16/2023

Notes:
DID NOT TAKE PRESSURES DOAS UNIT

Written By: Ian Fuller on 11/16/2023

National TAB

Project:11-13-23 CULVERS - SPRING HILL, FL

AHU/RTU

Diffuser Supply (GRD)

RTU1/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ENTRY	A4	6"	100	1	120	130	103	103.0
SGRD2	DINING	A4	8"	200	1	197	221	196	98.0
SGRD3	DINING	A4	10"	300	1	317	365	312	104.0
SGRD4	DINING	A4	10"	250	1	209	235	249	99.6
SGRD5	DINING	A4	10"	300	1	192	212	279	93.0
SGRD6	DINING	A4	8"	200	1	128	97	184	92.0
SGRD7	DINING	A3	8"	150	1	153	166	150	100.0
SGRD8	DINING	A4	10"	275	1	304	268	286	104.0
SGRD9	DINING	A4	10"	275	1	205	240	255	92.7
SGRD10	DINING	A4	8"	150	1	127	139	141	94.0
SGRD11	DINING	A4	10"	250	1	296	228	230	92.0
SGRD12	DINING	A3	8"	150	1	132	140	141	94.0
SGRD13	DINING	A3	10"	300	1	217	251	270	90.0
SGRD14	DINING	A3	10"	300	1	297	320	329	109.7
SGRD15	DINING	A4	8"	200	1	177	195	193	96.5
SGRD16	DINING	A4	10"	250	1	282	238	248	99.2
SGRD17	DINING	A4	10"	300	1	299	342	276	92.0
SGRD18	CUSTOMER SER.	A4	8"	200	1	189	209	215	107.5
SGRD19	CUSTOMER SER.	A4	8'	200	1	167	194	209	104.5
SGRD20	CUSTOMER SER.	A4	8"	200	1	163	182	187	93.5
SGRD21	CUSTOMER SER.	A4	8"	200	1	175	215	212	106.0
SGRD22	DINING	A4	10"	300	1	305	342	271	90.3
SGRD23	MEN'S RR	C3	6"	75	1	154	87	72	96.0
SGRD24	WOMEN'S RR.	C3	6"	75	1	123	85	82	109.3
Total				5200		4928	5101	5090	97.88%

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: AHU/RTU

Asset: RTU2 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5666991
Model Num	CASTRU3E4522420T	CASRTU3-E.302-24-20T-DOAS
Type	RTU	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	
OA Filter Size 1	-	
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NEMA
Frame	-	215T
Horsepower	-	5
Motor Rpm	-	1165
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	14.3

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

Test Data		
	Design	**Actual**
SF CFM	5000	4663
SF RPM	-	75 HZ
RA CFM	3000	2593
OA CFM	2000	2070
RL Voltage	-	211 VFD
RL Amperage	-	14.0 VFD
SF Rotation	-	CCW
RA Damper Position	-	5 V
Min OA Damper Position	-	5 V
Min OA Damper Type	-	ECONOIZER
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	NA
Fan Suction SP	-	-
Fan Discharge SP	-	-
Total ESP	0.5"	-
Fan Total SP	-	-

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

Completed By: Ian Fuller on 11/16/2023

Notes:
DID NOT TAKE PRESSURES DOAS UNIT

Written By: Ian Fuller on 11/16/2023

National TAB

Project:11-13-23 CULVERS - SPRING HILL, FL

AHU/RTU

Diffuser Supply (GRD)

RTU2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	A4	12"	500	1	429	473	474	94.8
SGRD2	KITCHEN	A4	9"	275	1	305	262	260	94.5
SGRD3	KITCHEN	E4	10"	300	1	346	291	273	91.0
SGRD4	KITCHEN	E4	10"	350	1	287	293	315	90.0
SGRD5	KITCHEN	E4	10"	300	1	243	255	270	90.0
SGRD6	KITCHEN	E4	10"	300	1	248	261	279	93.0
SGRD7	KITCHEN	E4	10"	350	1	282	293	318	90.9
SGRD8	KITCHEN	E4	10"	300	1	231	286	283	94.3
SGRD9	KITCHEN	A4	10"	300	1	295	312	312	104.0
SGRD10	KITCHEN	A4	10"	350	1	125	374	324	92.6
SGRD11	KITCHEN	A4	9"	300	1	330	307	273	91.0
SGRD12	KITCHEN	E4	12"	550	1	424	431	498	90.5
SGRD13	KITCHEN	D1	9"	300	1	143	305	305	101.7
SGRD14	KITCHEN	D1	7"	150	1	247	162	136	90.7
SGRD15	UTILITY RM.	C1	4"	25	1	98	26	24	96.0
SGRD16	DRY GOODS	A4	8"	150	1	185	148	139	92.7
SGRD17	DRY GOODS	A4	8"	200	1	170	166	180	90.0
Total				5000		4388	4645	4663	93.26%

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: EF1 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-A200	XCR-A200
Serial Num	-	212222082
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	1/40
Motor Rpm	-	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.46
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	220	234
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
RL Voltage	-	121
RL Amperage	-	0.31
Total ESP	0.125"	NA
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Ian Fuller on 11/16/2023

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: EF2 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B50	XCR-B50
Serial Num	-	212222090
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	625
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.13
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	50	53
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	0.07
Total ESP	0.125"	NA
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Ian Fuller on 11/16/2023

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: EF-A3 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCR-B70	XCR-B70
Serial Num	-	212222100
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	70	76
Fan RPM	-	675
Fan Rotation	-	CCW
Motor RPM	-	675
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	0.11
Total ESP	0.100"	NA
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Ian Fuller on 11/16/2023

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Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: EF-B3 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	ACCUREX
Model Num	NA	XCR-B70
Serial Num	-	21222099
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	-	68
Fan RPM	-	675
Fan Rotation	-	CCW
Motor RPM	-	675
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	0.12
Total ESP	-	NA
Fan Inlet SP	-	-
Fan Discharge SP	-	-

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National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: EF-C3 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	ACCUREX
Model Num	NA	XCR-B70
Serial Num	-	21222098
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GRENNHECK
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	675
Phase	-	1
Voltage (rated)	-	114
Amperage (rated)	-	0.15
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	-	71
Fan RPM	-	675
Fan Rotation	-	CCW
Motor RPM	-	675
System SetPt	-	MAX
RL Voltage	-	122
RL Amperage	-	0.10
Total ESP	-	NA
Fan Inlet SP	-	-
Fan Discharge SP	-	-

Completed By: Ian Fuller on 11/16/2023

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: PRV2 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-161XP-15	XCUE-140-10-VG-1-26-G
Serial Num	-	21224353
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	-	1
Motor Rpm	-	1750
Phase	3	1
Voltage (rated)	208	115
Amperage (rated)	-	11.5
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	1500	1468
Fan RPM	2411	1260
Fan Rotation	-	CCW
Motor RPM	-	7.2 V
RL Voltage	-	122
RL Amperage	-	8.1
Suction ESP	-	-0.63"
Discharge ESP	-	ATM
Total ESP	2.337	0.63"

Completed By: Ian Fuller on 11/16/2023

National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: PRV3 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRUB-141-7	XCUE-140-10-VG-1-26-G
Serial Num	-	21224436
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	-	1
Motor Rpm	-	1750
Phase	3	1
Voltage (rated)	208	115
Amperage (rated)	-	11.5
Service Factor	-	N/L

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

Test Data		
	Design	**Actual**
CFM	1500	1553
Fan RPM	1377	997
Fan Rotation	-	CCW
Motor RPM	-	5.7 V
RL Voltage	-	121
RL Amperage	-	6.1
Suction ESP	-	-1.10"
Discharge ESP	-	ATM
Total ESP	1.0"	1.10"

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National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: FAN - Exhaust

Asset: PRV4 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-D	XRED-095-D-8-1-17-X
Serial Num	-	21224455
Type	CENTRIFUGAL	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	MCMILLAN ELECTRIC COMPANY
Frame	-	N/L
Horsepower	-	0.125
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.6
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	350	381
Fan RPM	1532	1150
Fan Rotation	-	CCW
Motor RPM	-	1150
System SetPt	-	B
RL Voltage	-	121
RL Amperage	-	2.1
Total ESP	0.6"	0.30"
Fan Inlet SP	-	-0.30"
Fan Discharge SP	-	ATM

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National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEP-6.92-S	XXEP-83.00-S
Job / Serial Num	-	21215257
Type	TYPE I	TYPE 1 LOW PROXIMITY
Hood length	83"	83"
Hood Width	23"	23"

Test Data Exhaust		
	Design	**Actual**
Filter Type	XTRACTOR	XTRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	7.65	7.65
Filter1 FPM	-	234
Filter2 FPM	-	195
Filter3 FPM	-	187
Filter4 FPM	-	184
Filter5 FPM	-	216
Filter Ave FPM(corr)	-	203
CFM	1500	1552

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

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National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XGEP-5.33-S	XGEP-64.00-S
Job / Serial Num	-	21215259
Type	TYPE I	TYPE 1 LOW PROXIMITY
Hood length	64"	64"
Hood Width	23"	23"

Test Data Exhaust		
	Design	**Actual**
Filter Type	GREASE GRABBER	GREASE GRABBER
Filter Size 1	16x16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	6.12	6.12
Filter1 FPM	-	260
Filter2 FPM	-	230
Filter3 FPM	-	226
Filter4 FPM	-	246
Filter Ave FPM(corr)	-	240
CFM	1500	1468

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

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National TAB

Project: 11-13-23 CULVERS - SPRING HILL, FL

System/Unit: Kitchen Hood Type II

Asset: HD3 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XD3-3.5-S	XD3-42.00-S
Serial Num	-	21215250
Type	TYPE II	TYPE II CANOPY
Hood length	42"	42"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	350	381

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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	DINING	5200	5090	3200	2986	2000	2104	38.5%	41.3%						
RTU-2	KITCHEN	5000	4663	3000	2593	2000	2070	40.0%	44.4%						
PRV-2	HOOD 2											1500	1468		
PRV-3	HOOD1											1500	1553		
PRV-4	HOOD 3											350	381		
EF-1	RESTROOM													220	234
EF-2	MOP ROOM													50	53
EF-3	RESTROOM													210	214
TOTALS		10200	9753	6200	5579	4000	4174			0	0	3350	3402	480	501

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	4000	4174
TOTAL EXHAUST	3830	3903
NET AIRFLOW	170	271

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0014
SIDE	0.0081
REAR	0.0088
AVERAGE	**0.0061**

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: