Report By:

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

Report: INSPECTION REPORT

Function: Test, Adjust, & Balance

Date: 07/10/2025

Completed By: National TAB

PROJECT

07-07-25 CULVERS EVANSVILLE, WI

60 N UNION RD

EVANSVILLE, WI 53536

Client

Accurex

PO Box 410

Schofield, WI 54476

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

Table Of Contents

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.

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	CAPTIVE AIRE
Serial Num	-	7174774
Model Num	ENLIGHT LGT	CAS-HVAC3-I.300-24-20T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16X25X2
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	215T
Horsepower	-	10.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	24.3

Test Data		
	Design	**Actual**
SF CFM	6150	6093
SF RPM	-	1667
RA CFM	4450	4253
OA CFM	1700	1840
RL Voltage	-	188 @ VFD
RL Amperage	-	23.2 @ VFD
SF Rotation	-	CCW, CORRECT
SF System SetPt	-	57.0 HZ
RA Damper Position	-	MECHANICALLY LINKED
Min OA Damper Position	-	4.5 V
Min OA Damper Type	-	ECONOMIZER

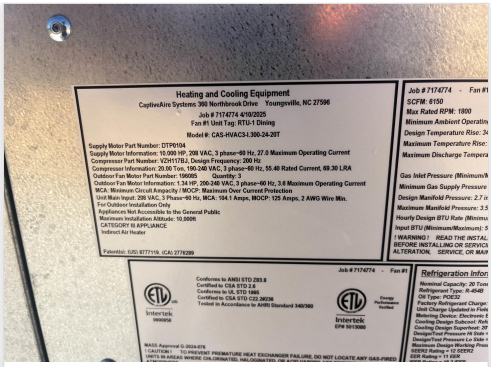
Performance Data		
	Design	**Actual**
Fan Discharge SP	-	1.08"

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

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG

07/09/2025



07/09/2025

National TAB

Project:07-07-25 CULVERS EVANSVILLE, WI

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	OFFICE	SD1	8"	200	1.0	272	206	202	101.0
SGRD2	DRIVE THRU	SD1	12"	500	1.0	516	525	516	103.2
SGRD3	ENTRY	SD1	10"	150	1.0	231	149	146	97.3
SGRD4	DRINKS/CONDIMENTS	SD1	8"	300	1.0	318	318	312	104.0
SGRD5	DRINKS/CONDIMENTS	SD1	8"	150	1.0	95	146	143	95.3
SGRD6	DRINKS/CONDIMENTS	SD1	8"	150	1.0	175	140	140	93.3
SGRD7	DINING	SD1	8"	150	1.0	193	162	137	91.3
SGRD8	DINING	SD1	8"	150	1.0	139	164	161	107.3
SGRD9	DINING	SD1	8"	150	1.0	201	162	159	106.0
SGRD10	DINING	SD1	8"	150	1.0	179	161	158	105.3
SGRD11	DINING	SD1	8"	150	1.0	104	138	135	90.0
SGRD12	DINING	SD1	8"	150	1.0	161	144	141	94.0
SGRD13	DINING	SD1	8"	150	1.0	170	159	156	104.0
SGRD14	DINING	SD1	8"	150	1.0	158	150	147	98.0
SGRD15	DINING	SD1	8"	150	1.0	174	163	160	106.7
SGRD16	DINING	SD1	8"	150	1.0	138	147	144	96.0
SGRD17	DINING	SD1	8"	150	1.0	117	159	156	104.0
SGRD18	DINING	SD1	8"	150	1.0	175	153	150	100.0
SGRD19	ENTRY	SD3	8"	150	1.0	173	147	144	96.0
SGRD20	HALL	SD1	12"	450	1.0	379	474	465	103.3
SGRD21	DINING	SD1	8"	150	1.0	194	165	162	108.0
SGRD22	CUSTOMER ORDER AREA	SD1	12"	450	1.0	387	427	419	93.1
SGRD23	CUSTOMER SERVICE	NL	16x12	350	1.05	318	349	342	97.7
SGRD24	CUSTOMER SERVICE	NL	16x12	350	1.05	278	322	316	90.3
SGRD25	CUSTOMER SERVICE	NL	16x12	350	1.05	437	370	363	103.7
SGRD26	CUSTOMER SERVICE	NL	16x12	350	1.05	341	349	342	97.7
SGRD27	WOMENS RR	SD4	8"	150	1.0	191	144	141	94.0
SGRD28	MENS RR	SD4	8"	150	1.0	211	139	136	90.7
Total				6150		6425	6232	6093	99.07%

Completed By: Michael McDonnell on 07/10/2025

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: AHU/RTU

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	CAPTIVE AIRE
Serial Num	-	7174774
Model Num	ENLIGHT LGT	CAS-HVAC3-I.300-24-20T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16X25X2
Num Final Filter 1	-	8
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	215T
Horsepower	-	10.0
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	24.3

Test Data		
	Design	**Actual**
SF CFM	6150	5830
SF RPM	-	1740
RA CFM	4475	4040
OA CFM	1675	1790
RL Voltage	-	202 @ VFD
RL Amperage	-	24.0 @ VFD
SF Rotation	-	CCW, CORRECT
SF System SetPt	-	59.5 HZ
RA Damper Position	-	MECHANICALLY LINKED
Min OA Damper Position	-	4.3 VDC
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
Fan Discharge SP	-	0.91"

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

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG

07/09/2025

07/09/2025

National TAB

Project:07-07-25 CULVERS EVANSVILLE, WI

AHU/RTU

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUNDAE SERVICE	SD1	12"	600	1.0	354	400	547	91.2
SGRD2	SUNDAE SERVICE	SD1	12"	600	1.0	381	403	548	91.3
SGRD3	ENTRY	SD1	8"	200	1.0	129	140	185	92.5
SGRD4	KITCHEN	SD5	12"	375	1.0	431	448	376	100.3
SGRD5	KITCHEN	SD5	12"	350	1.0	361	376	354	101.1
SGRD6	UTILITY ROOM	SD1	12"	600	1.0	367	391	549	91.5
SGRD7	KITCHEN	SD1	12"	600	1.0	302	322	527	87.8
SGRD8	KITCHEN	SD5	12"	350	1.0	388	392	349	99.7
SGRD9	KITCHEN	SD5	12"	400	1.0	706	742	395	98.8
SGRD10	KITCHEN	SD5	12"	400	1.0	454	510	403	100.8
SGRD11	KITCHEN	SD5	10"	250	1.0	281	313	263	105.2
SGRD12	KITCHEN	SD5	12"	350	1.0	491	544	346	98.9
SGRD13	KITCHEN	SD1	12"	600	1.0	323	376	542	90.3
SGRD14	MOP ROOM	SD5	8"	200	1.0	191	216	182	91.0
SGRD15	KITCHEN	SD5	10"	275	1.0	292	295	264	96.0
Total				6150		5451	5868	5830	94.8%

Completed By: Michael McDonnell on 07/09/2025

Asset	Notes	Date	Written By
SGRD7	[1] RTU AT FLA; UNABLE TO PUSH MORE AIR TO THIS DIFFUSER WITHOUT SACRIFICING OTHERS. NOT ANTICIPATED TO CAUSE ANY ISSUE.	07/09/2025	Michael McDonnell

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: FAN - Exhaust

Asset: PRV1 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XRED-090-VG	XRED-090-VG
Serial Num	-	26473472
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

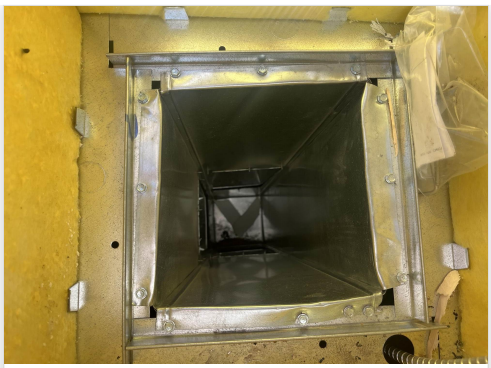
Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Horsepower	0.1	0.10
Motor Rpm	1725	300-1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.38
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	375	380
Fan RPM	1466	DD
Fan Rotation	-	CW, CORRECT
Motor RPM	-	DD
System SetPt	-	5 ON SPEED CONTROLLER
RL Voltage	-	119
RL Amperage	-	0.40
Total ESP	0.50"	0.10"
Fan Inlet SP	-	-0.10"
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG

07/09/2025



07/09/2025

07/09/2025

07/09/2025

National TAB

Project:07-07-25 CULVERS EVANSVILLE, WI

FAN - Exhaust

Diffuser Ret/Exh (GRD)

PRV1/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MENS RR	EG1	8X8	150	1.0	152	122	152	101.3
EGRD2	RESTROOM	EG1	8X8	150	1.0	155	122	154	102.7
EGRD3	MOP ROOM	EG1	8X8	75	1.0	174	143	74	98.7
Total				375		481	387	380	101.33%

Completed By: Michael McDonnell on 07/10/2025

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: FAN - Exhaust

Asset: PRV2 AREA:GRIDDLE FAN

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-140-VG	XCUE-140-VG
Serial Num	-	26473473
Type	UPBLAST	CRE UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NL
Horsepower	1	1.0
Motor Rpm	1725	300-1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.5

Test Data		
	Design	**Actual**
CFM	1500	1622
Fan RPM	-	1242
Fan Rotation	-	CW, CORRECT
Motor RPM	-	1242
System SetPt	-	7.1 VDC
RL Voltage	115	119
RL Amperage	-	4.7
Total ESP	1.801"	1.08"
Fan Inlet SP	-	-1.08"
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG

07/09/2025

07/09/2025

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: FAN - Exhaust

Asset: PRV3 AREA:FRYER FAN

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XCUE-140-VG	XCUE-140-VG
Serial Num	-	26473474
Type	UPBLAST	CRE UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Horsepower	1	1.0
Motor Rpm	1725	300-1750
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.5

Test Data		
	Design	**Actual**
CFM	1500	1593
Fan RPM	-	1155
Fan Rotation	-	CW, CORRECT
Motor RPM	-	1155
System SetPt	-	6.6 VDC
RL Voltage	115	119
RL Amperage	-	3.6
Total ESP	1.00"	0.99"
Fan Inlet SP	-	-0.99"
Fan Discharge SP	-	ATM

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG

07/09/2025

07/09/2025

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE HOOD

Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XGEP-64-S	XGEP-64-S
Job / Serial Num	-	26472258
Type	TYPE - LOW PROXIMITY	TYPE I- LOW PROFILE
Hood length	64"	64"
Hood Width	23"	23"

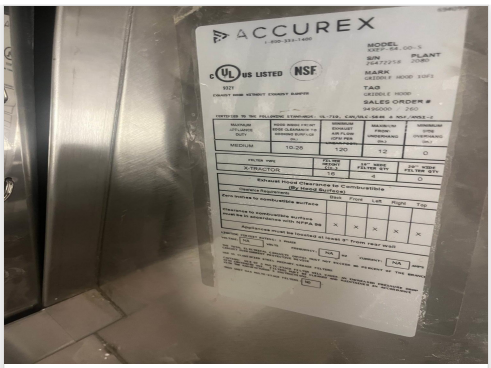
Test Data Exhaust		
	Design	**Actual**
Filter Type	XTRACTOR	XTRACTOR
Filter Size 1	16X16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.53	1.53
Filter Total AK Area	6.12	6.12
Filter1 FPM	-	273
Filter2 FPM	-	253
Filter3 FPM	-	254
Filter4 FPM	-	280
Filter Ave FPM(corr)	-	265
CFM	1500	1622

Cooking Equipment	
	Actual
Item 1	GRIDDLE

Completed By: Michael McDonnell on 07/09/2025

Unit Data - PHOTO LOG

07/09/2025



07/09/2025

National TAB

Project: 07-07-25 CULVERS EVANSVILLE, WI

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:FRYER HOOD

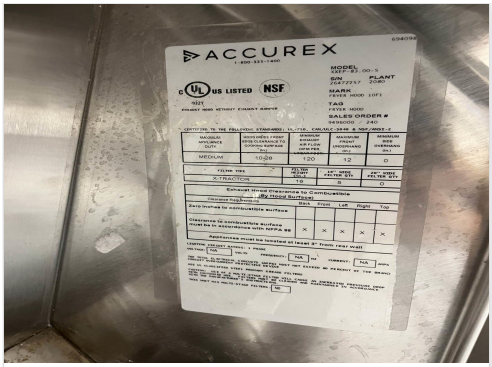
Unit Data		
	Design	**Actual**
MFG	ACCUREX	ACCUREX
Model Num	XXEP-83-S	XXEP-83-S
Job / Serial Num	-	26472257
Type	TYPE - LOW PROXIMITY	TYPE I - LOW PROFILE
Hood length	83"	83"
Hood Width	23"	23"

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	-	215
Filter2 FPM	-	207
Filter3 FPM	-	201
Filter4 FPM	-	197
Filter5 FPM	-	221
Filter Ave FPM(corr)	-	208.20
CFM	1500	1593

Cooking Equipment	
	Actual
Item 1	FRYER

Completed By: Michael McDonnell on 07/10/2025

Unit Data - PHOTO LOG



07/09/2025

07/09/2025