Report By:

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

Report: 6888 Arcade TAB Report

Function: Test, Adjust, & Balance

Date: 02/28/2024

PROJECT

6888 Kitchens-Dayton Arcade #4879395

32 S. Ludlow Street

Dayton, OH 45402

Client

CAPTIVE-AIRE R120

1329 E. Kemper Road

Suite 4210

Cincinnati, OH 45246

National TAB

Project: 6888 Kitchens-Dayton Arcade #4879395

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: AHU/RTU

Asset: DOAS-RTU1 AREA:CT114

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Serial Num	-	
Model Num	NA	CASRTU4-I.600-30-30T
Configuration	VERTICAL	
Num OA Filters 1	-	12
OA Filter Size 1	-	
Num PreFilter 1	-	12
PreFilter Size 1	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	10.0	
Motor Rpm	-	
Phase	3	
Rated Voltage	208	
Rated Amperage	-	
Service Factor	-	

Test Data		
	Design	**Actual**
SF CFM	0	
RA CFM	0	
OA CFM	5700	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Performance Data		
	Design	**Actual**
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	1.20	
Fan Total SP	-	

Diffuser Supply (GRD)

DOAS-RTU1/CT114

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
1-1	CT107	A1	12	650			-
1-2	CT105	A4	6	100			-
1-3	CT104	A4	6	100			-
1-4	HALL	A1	10	350			-
1-5	CT103	A1	10	350			-
1-6	CT107						
1-7	CT116	A1	12	500			-
1-8	CT115	A1	12	400			-
1-9	HALL	C1	16X10	300			-
1-10	HALL	A1	14	700			-
Total				3450	0	0	0%

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: AHU/RTU

Asset: DOAS-RTU2 AREA:SHIPPING

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Serial Num	-	
Model Num	NA	CASRTU4-I.600-30-30T
Configuration	VERTICAL	
Num OA Filters 1	-	12
OA Filter Size 1	-	
Num PreFilter 1	-	12
PreFilter Size 1	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	10.0	
Motor Rpm	-	
Phase	3	
Rated Voltage	208	
Rated Amperage	-	
Service Factor	-	

Test Data		
	Design	**Actual**
SF CFM	0	
RA CFM	0	
OA CFM	5700	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Performance Data		
	Design	**Actual**
MA Plenum SP	-	
Fan Suction SP	-	
Fan Discharge SP	-	
Total ESP	0.80	
Fan Total SP	-	

Diffuser Supply (GRD)

DOAS-RTU2/SHIPPING

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	HALL	A1	14	700	944-811	811	115.9
2-2	CT114	A1	14	715	690-798	798	111.6
2-3	CT114	A1	14	715	636-788	788	110.2
2-4	CT114	A1	14	715	758-765	765	107.0
2-5	CT114	A1	14	715	704-788	788	110.2
2-6	CT114	A1	14	715	861-790	790	110.5
2-7	CT114	A1	14	715	867-783	783	109.5
2-8	SHIPPING	A1	14	710	819-760	760	107.0
Total				5700	0	6283	110.23%

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: FAN - Exhaust

Asset: EF5 AREA:

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-A250	SP-A250
Serial Num	-	

Motor Data		
	Design	**Actual**
Horsepower	-	0.25
Phase	-	1
Voltage (rated)	-	115

Test Data		
	Design	**Actual**
CFM	190	286

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Project:6888 Kitchens-Dayton Arcade #4879395

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF5/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EF5-EGRD1	JANITOR	GRILL	12X12	70	1	96	75	75	107.1
EF5-EGRD2	RR	GRILL	12X12	70	1	102	106	106	151.4
EF5-EGRD3	RR	GRILL	12X12	70	1	98	105	105	150.0
Total				210		296	286	286	136.19%

Asset	Notes	Date	Written By
EF5-EGRD2	DAMPER IS NOT ACCESSIBLE. LOCATED ABOVE HARD CEILING	02/26/2024	Austin McFall
EF5-EGRD3	DAMPER IS NOT ACCESSIBLE. LOCATED ABOVE HARD CEILING	02/26/2024	Austin McFall

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: FAN - Exhaust

Asset: KEF-2 AREA:POD A

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	USBI24DD-RM
Serial Num	-	
Type	CRE UPBLAST	

Test Data		
	Design	**Actual**
CFM	1800	
RL Voltage	-	208
RL Amperage	-	15.8
Total ESP	2.50	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	2.0	
Motor Rpm	585	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	15.8
Service Factor	-	

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: FAN - Exhaust

Asset: KEF-3 AREA:COOKLINE

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU240HFA
Serial Num	-	
Type	CRE UPBLAST	

Test Data		
	Design	**Actual**
CFM	5514	6272
RL Voltage	-	208
RL Amperage	-	15.5
Total ESP	1.60	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	5.0	
Motor Rpm	1012	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	15.5
Service Factor	-	

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: FAN - Exhaust

Asset: KEF-4 AREA:COOKLINE

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU240HFA
Serial Num	-	
Type	CRE UPBLAST	

Test Data		
	Design	**Actual**
CFM	5514	6520
RL Voltage	-	208
RL Amperage	-	15.5
Total ESP	1.65	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	5.0	
Motor Rpm	1022	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	15.5
Service Factor	-	

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Project: 6888 Kitchens-Dayton Arcade #4879395

System/Unit: FAN - Supply

Asset: MAU-1 AREA:COOKLINE 2

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	A2-D.500-20D-MPU
Serial Num	-	
Type	GAS FIRED	
Configuration	HORIZONTAL	
Num Filters Size 1	-	
Filter Size 1	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	
Frame	-	
Horsepower	5.00	
Motor Rpm	1729	
Phase	3	
Voltage (rated)	208	
Amperage (rated)	-	15.0
Service Factor	-	

Test Data		
	Design	**Actual**
CFM	4300	
SF RPM	1729	
RL Voltage	-	208
RL Amperage	-	15.0
Suction ESP	-	
Discharge ESP	-	
Total ESP	0.55	
Brake Horse Power	-	2.899

SDV Job #: 5650223 - 6888 KITCHENS Fans-Arcade

Service Region:	361 - Cincinnati OH Service		
Service Person:	Dave King		
Customer Number:	866644	**Customer Name:**	NATIONAL TAB
Address:	Dayton Arcade 32 South Ludlow Street Dayton, OH 45402		
Region Job #:	5639932		
Region Job Name:	6888 KITCHENS Fans-Arcade		
Sales Region:	120 - Air Solutions		
Sales Person:	Joe Hertenstein		
Created By:	Dave King	**Creation Date:**	2/21/2024 11:21 AM
Last Modified By:	Travis Huff	**Last Modified Date:**	2/26/2024 9:17 AM
Dining Room Pressure:	0	**Kitchen Pressure:**	0
Hours On Job:	0	**Extra Hours:**	0
Completed:	No	**Completed By:**	N/A
Completion Date:	N/A		

Job Site Meeting

NONE

Fans

Fan 1 - USBI30DD-RM (KEF 1) (KEF 1)

Model: USBI30DD-RM

Exhaust

Exhaust CFM: Design = 4812 Actual = 0 (0% of design)

VOLTS	Design:	**208**	Actual:	**N/A**
HP	Design:	**7.5**	Actual:	**N/A**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**N/A**
FAN LEVEL	Design:	**Yes**	Actual:	**N/A**
ROTATION	Design:	**Correct**	Actual:	**N/A**
FAN VIBRATION	Design:	**Good**	Actual:	**N/A**
RPM - DESIGN	Design:	**944**	Actual:	**N/A**
RPM - MAX	Design:	**1250**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**950**	Actual:	**N/A**
FLA	Design:	**22.3**	Actual:	**N/A**
PHASE	Design:	**3**	Actual:	**N/A**
Unit within five miles from the coast?			Actual:	**N/A**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**N/A**
Check Vibration Isolators?	Design:	**Yes**	Actual:	**N/A**

Fan 2 - USBI24DD-RM (KEF 2) (KEF 2)

Model: USBI24DD-RM

Exhaust

Exhaust CFM: Design = 3324 Actual = 1252 (38% of design)

VOLTS	Design:	**208**	Actual:	**209**
HP	Design:	**5**	Actual:	**5**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**1129**	Actual:	**N/A**
RPM - MAX	Design:	**1500**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1250**	Actual:	**N/A**
FLA	Design:	**15.8**	Actual:	**9.1**
PHASE	Design:	**3**	Actual:	**3**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**No**
Check Vibration Isolators?	Design:	**Yes**	Actual:	**Yes**

Fan 3 - DU240HFA (KEF 3) (KEF 3)

Model: DU240HFA

Exhaust

Exhaust CFM: Design = 5514 Actual = 5309 (96% of design)

VOLTS	Design:	**208**	Actual:	**209**
HP	Design:	**5**	Actual:	**5**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**1040**	Actual:	**N/A**
RPM - MAX	Design:	**0**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1150**	Actual:	**N/A**
FLA	Design:	**15.2**	Actual:	**12.4**
PHASE	Design:	**3**	Actual:	**3**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**No**

Fan 4 - DU240HFA (KEF 4) (KEF 4)

Model: DU240HFA

Exhaust

Exhaust CFM: Design = 5514 Actual = 4672 (85% of design)

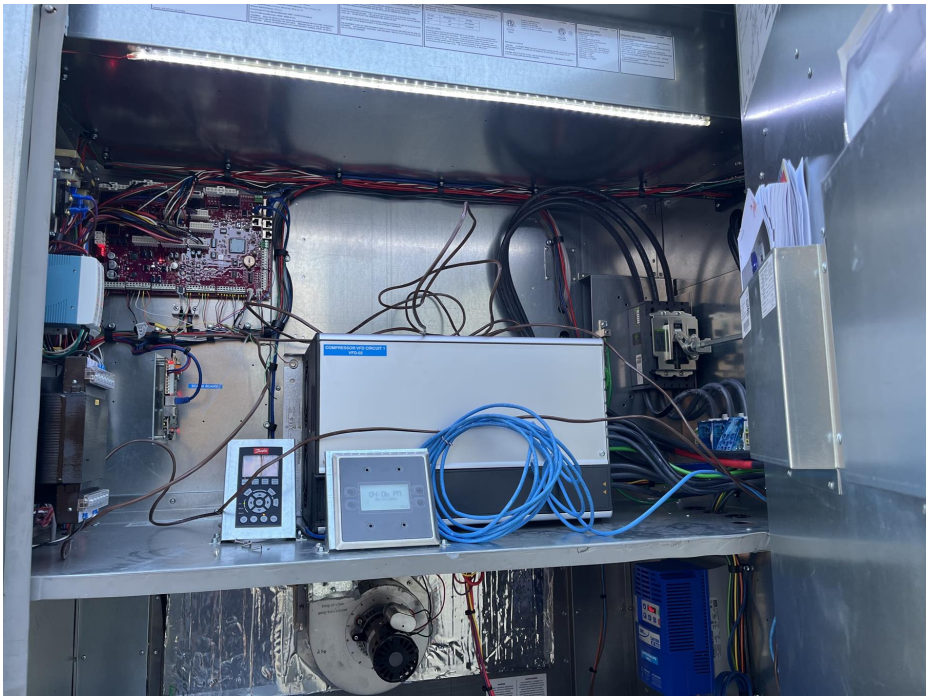
VOLTS	Design:	**208**	Actual:	**209**
HP	Design:	**5**	Actual:	**5**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**1040**	Actual:	**N/A**
RPM - MAX	Design:	**0**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1150**	Actual:	**N/A**
FLA	Design:	**15.2**	Actual:	**13.9**
PHASE	Design:	**3**	Actual:	**3**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**No**

Fan 5 - CASRTU4-I.600-30-30T (DOAS-2) (DOAS-2)

Model: CASRTU4-I.600-30-30T

Other Notes:

N/A



Supply

Supply CFM: Design = 5700 Actual = 5463 (96% of design)

VOLTS	Design:	**208**	Actual:	**209**
Is the main transformer (TR-01) tapped for the correct voltage?			Actual:	**Yes**
HP	Design:	**10**	Actual:	**10**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**811**	Actual:	**1207**
RPM - MAX	Design:	**1600**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1300**	Actual:	**N/A**
Is blower door tamper switch operational? Does blower shut down when the door is opened?	Design:	**Yes**	Actual:	**Yes**
Record the VFD HZ	Design:	**42.3 Hz**	Actual:	**63**
How was supply airflow measured for the T&B?			Actual:	**Flowhood**
MCA	Design:	**154.8 Amps**	Actual:	**157.4**
MOCP	Design:	**175 Amps**	Actual:	**175**
Blower motor actual amperage at design airflow?	Design:	**Less than or equal to 28.4**	Actual:	**23.9**
Record pressure off the sampling tube of the air proving switch. For MUA Board: Note the differential pressure displayed on the HMI.			Actual:	**0.46**
Modulate the blower to the minimum speed that will be required for the application. Modulate the damper to the minimum position required for the application. Calibrate the airflow proving.	Design:	**Complete**	Actual:	**Complete**
With the blower still at minimum speed and damper at minimum position, calibrate the clogged filter switch.	Design:	**Complete**	Actual:	**Complete**
Design OA CFM at Interlock 1	Design:	**3420**	Actual:	**0**
Damper voltage at design Interlock 1			Actual:	**0**
Design OA CFM at Interlock 2	Design:	**3420**	Actual:	**0**
Damper voltage at design Interlock 2			Actual:	**0**
Design OA CFM at Interlock 3	Design:	**5700**	Actual:	**0**
Damper voltage at design Interlock 3			Actual:	**0**
Design OA CFM at Interlock 4	Design:	**5700**	Actual:	**0**
Damper voltage at design Interlock 4			Actual:	**0**
Design OA CFM at Interlock 5	Design:	**5700**	Actual:	**0**
Damper voltage at design Interlock 5			Actual:	**0**
Design OA CFM at Interlock 6	Design:	**5700**	Actual:	**0**
Damper voltage at design Interlock 6			Actual:	**0**
Design OA CFM at Interlock 7	Design:	**5700**	Actual:	**0**
Damper voltage at design Interlock 7			Actual:	**0**

DOAS

Take pictures of all four sides of the unit.

Design: **Complete**

Actual: **Complete**

Other Notes:

N/A

Other Notes:

N/A

Other Notes:

N/A

Duct properly sealed to curb base and not bypassing through openings?	Design:	**Yes**	Actual:	**Yes**
Electrical input properly run through base or side?			Actual:	**Side, Not Gasketed**
Incoming gauge of wire	Design:	**2/0 AWG**	Actual:	**3/0**
Verify breaker size is appropriate for unit. Breaker size should be greater than or equal to MCA and less than or equal to MOCP. Must include picture.			Actual:	**200**

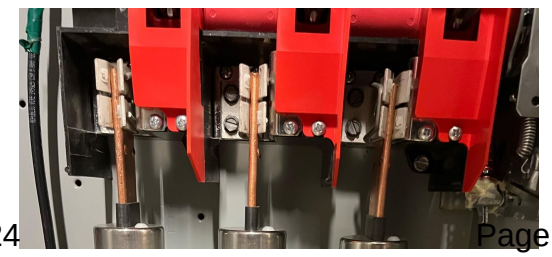
NonCompliance Notes:

Punch Item: Electrician

Fuses are too big for unit. MOCP is 175. Electricians on site advised the fuses would be swapped for correct size.

Other Notes:

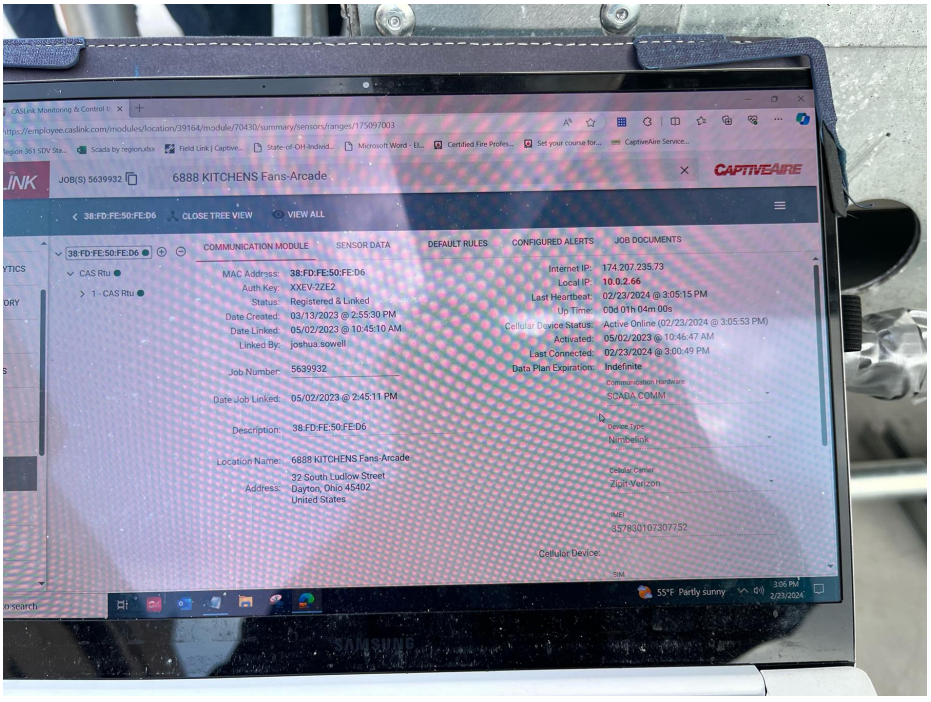
N/A



Unit within five miles from the coast?			Actual:	**No**
Was the CAS supplied condensate drain used in the installation?	Design:	**Yes**	Actual:	**Yes**
Is condensate pan float switch free of debris and able to slide up and down?	Design:	**Yes**	Actual:	**Yes**
Is there any damage to refrigerant piping, distributor lines, or coils?	Design:	**No**	Actual:	**No**
Confirm field wiring shown on wiring diagrams are complete and check for loose connections. Correct as needed.	Design:	**Complete**	Actual:	**Complete**
Program the list of setting changes through the HMI that were obtained from DOAS@captiveaire.com.			Actual:	**Complete**
Has SCADA been registered, activated and obtained a CASLink heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A



Cooling

Check status of Oil Sensor Level in HMI. Is status open or closed? Open means oil level is low. Do not operate compressor if the OLS is open.	Design:	**Closed**	Actual:	**Closed**
Test the OLS with the approved test piece. Does the OLS show Open with the test piece installed and Closed without the test piece installed?	Design:	**Yes**	Actual:	**Yes**
Measure the outside air temp and record the value.			Actual:	**55**
Verify the EEV model in settings matches the model number of the valve installed on the unit.	Design:	**Yes**	Actual:	**Yes**
Verify compressor VFD settings. Do settings match schematic?	Design:	**Yes**	Actual:	**Yes**
Place the system in evacuation mode and record the pressure at the suction service port with a gauge set.			Actual:	**153**
With the unit still in evacuation mode, record the suction pressure reading from HMI.			Actual:	**151**
Difference between the suction service port and suction pressure reading from HMI			Actual:	**2**
With the unit still in evacuation mode, record the discharge pressure reading from HMI.			Actual:	**151**
Difference between the suction service port and discharge pressure reading from HMI?			Actual:	**2**
With the unit still in evacuation mode, record the liquid pressure reading from the HMI			Actual:	**151**
Difference between suction service port and liquid pressure reading from HMI?			Actual:	**2**

Over 50F

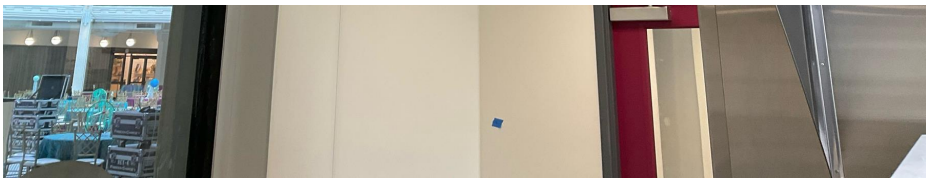
Start a cooling test. Check refrigerant charge in accordance with Refrigerant Charge Check guide. Do the condensing fans turn on and modulate?	Design:	**Yes**	Actual:	**Yes**
Does EEV modulate to maintain 20F superheat?			Actual:	**Yes**
Does the compressor ramp up to max speed (200Hz or 330Hz depending on model) and modulate speed?	Design:	**Yes**	Actual:	**Yes**
Does the reheat valve open and modulate?	Design:	**Yes**	Actual:	**Yes**
Cooling superheat measured? (Target is 20)			Actual:	**19**
Record discharge pressure reading from HMI.			Actual:	**388**
Record liquid line pressure.			Actual:	**373**
Record liquid line temperature.			Actual:	**86**
Record subcool reading. Range should be 10F-20F.			Actual:	**25**
Record a video of the oil level according to the Viewing Oil Level guide. Upload video.			Actual:	**Complete**
Is Oil level out of specs (<75% on the glass)?	Design:	**No**	Actual:	**No**

Temp Verification

Measure intake temp with meter and confirm it is within 10F of HMI readout.	Design:	**True**	Actual:	**True**
Measure evap coil temp with meter and confirm it is within 10F of HMI readout.	Design:	**True**	Actual:	**True**
Review intake humidity on HMI. Does it appear to be reporting correctly?	Design:	**Yes**	Actual:	**Yes**
Review discharge humidity on HMI. Does it appear to be reporting correctly?	Design:	**Yes**	Actual:	**Yes**
Are extra HMIs being used? Do not count the HMI in the unit. Upload picture of space HMI(s) and surrounding area.			Actual:	**Yes**

Other Notes:

N/A



Record number of extra HMI's used.			Actual:	**1**
Is HMI address 56 being used for space temperature and humidity readings?			Actual:	**No**
Is wired space wall temp/humidity sensor (not HMI) being used?			Actual:	**Yes**

Other Notes:

N/A

Record the wired space temp reading from HMI. Make sure the wired space reading is recorded and not the average reading. (Service > Temperatures > Space Stat).			Actual:	**0**

Other Notes:

Space stat not wired correctly.

Record the wired space RH reading from HMI. Make sure the wired space reading is recorded and not the average reading. (Service > RH > Values > Space).			Actual:	**0**
Measure space temp with a meter and confirm it is within 10F of the average space temp readout on the HMI (Service > Temperatures > Space AVG).	Design:	**True**	Actual:	**False**
Measure space RH with a meter and confirm it is within 10% of the average space temp readout on the HMI (Service > RH Values > Space AVG).			Actual:	**30**

Heater Gas

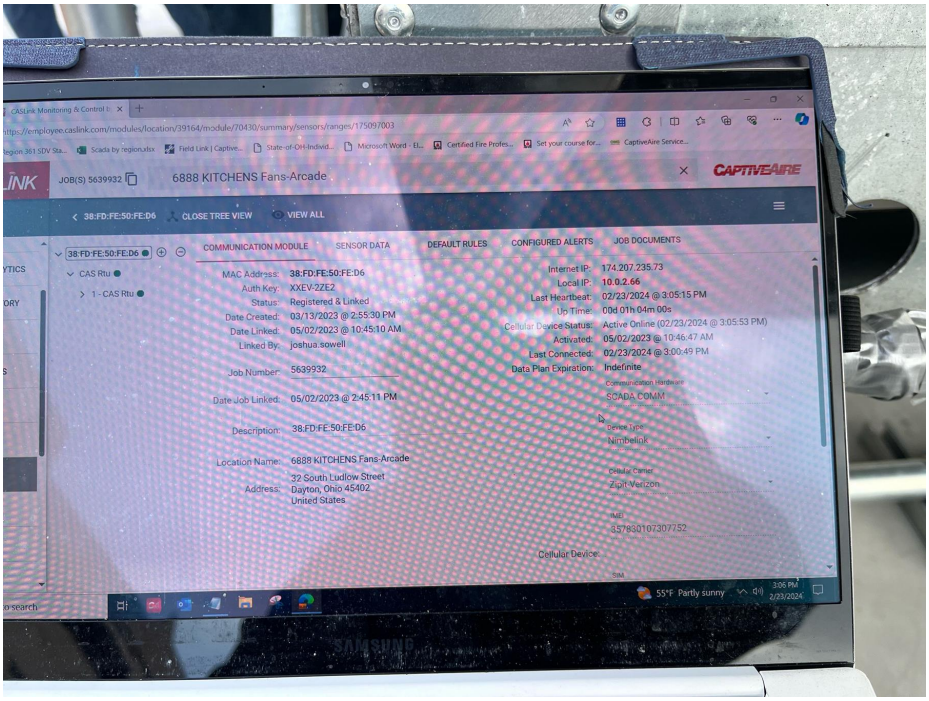
Gas Type	Design:	**Natural**	Actual:	**Natural**
Inlet Gas Pressure			Actual:	**9**
Set mod valve low fire setting using the IOM and STB20-1011. Record manifold gas pressure.	Design:	**0.15**	Actual:	**0.18**
With unit maintaining steady state low fire, record intake temperature.			Actual:	**54**
With the unit maintaining steady state low fire on only the first stage of heat, record the discharge temperature.			Actual:	**68**
This answer should be auto calculated from the previous two questions. The answer will be the discharge temperature - intake temperature.	Design:	**12**	Actual:	**14**
Set high fire pressure using test menu procedure in O&IM and record manifold gas pressure on pressure gauge.			Actual:	**3.5**
Recorded Inlet Gas Pressure With Unit in high fire			Actual:	**7**
Confirm the discharge air temp sensor is reading accurately in high fire. Reference STB20-1007 and modulate the burner to the highest capacity heat that can be achieved. Record the discharge air temp reading on the HMI.			Actual:	**130**
With unit still holding highest capacity heat, go into space and record discharge temp at the supply diffuser closest to unit using a handheld temp probe. Record Temperature.			Actual:	**122**
Difference between measured and actual temperature.			Actual:	**8**
Was discharge sensor relocated? If yes, take a photo of new location.			Actual:	**No**

Final Checks

FINAL STEPS OF SDV. ONLY PERFORM FOLLOWING QUESTIONS IF REST OF SDV HAS BEEN COMPLETED!			Actual:	**Ok**
Is the smoke detector input wired and functional?			Actual:	**No**
Is the fire alarm input (terminal F) wired and functional?			Actual:	**No**
Is either the wired occupied override or unit interlock being utilized and operational?			Actual:	**Occupied Override**
Once all SDV adjustments are complete, update the factory default settings through the service menu.	Design:	**Complete**	Actual:	**Complete**
Once all SDV adjustments are complete, download the CAAL file from the board, label it with the fan number, software revision and upload it to the NOLA job docs.			Actual:	**Complete**
Take picture of CASLink showing last heartbeat.			Actual:	**Complete**

Other Notes:

N/A



DOAS data is visible on CASLink, tagged unique from other equipment and matches field labeling	Actual:	**Yes**
Take picture of CASLink showing DOAS data responding.	Actual:	**Complete**

Other Notes:

N/A

All other equipment on job labeled and can see data on CASLink?	Actual:	**Yes**
Has someone from DOAS_support@captiveaire.com confirmed they are seeing data on this job?	Actual:	**Yes**

Fan 6 - CASRTU4-I.600-30-30T (DOAS-RTU1) (DOAS-RTU1)

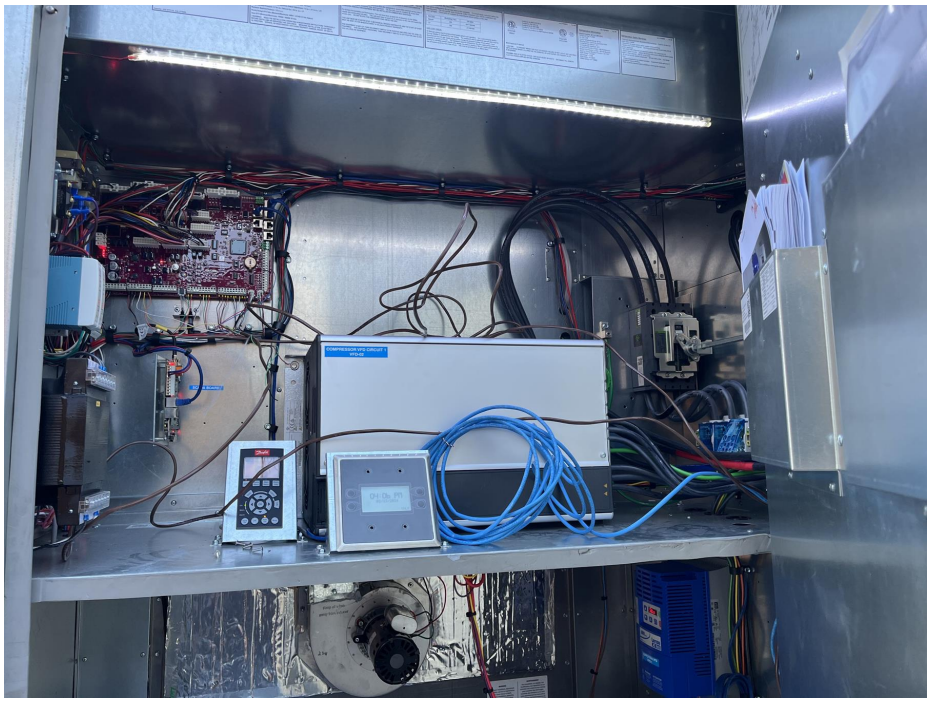
Model: CASRTU4-I.600-30-30T

Supply

Supply CFM: Design = 5700 Actual = 5918 (104% of design)

Other Notes:

N/A



VOLTS	Design:	**208**	Actual:	**209**
Is the main transformer (TR-01) tapped for the correct voltage?			Actual:	**Yes**
HP	Design:	**10**	Actual:	**10**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**907**	Actual:	**1150**
RPM - MAX	Design:	**1600**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1300**	Actual:	**N/A**
Is blower door tamper switch operational? Does blower shut down when the door is opened?	Design:	**Yes**	Actual:	**Yes**
Record the VFD HZ	Design:	**47.3 Hz**	Actual:	**60**
How was supply airflow measured for the T&B?			Actual:	**Flowhood**
MCA	Design:	**154.8 Amps**	Actual:	**157.4**
MOCP	Design:	**175 Amps**	Actual:	**175**
Blower motor actual amperage at design airflow?	Design:	**Less than or equal to 28.4**	Actual:	**25.4**
Record pressure off the sampling tube of the air proving switch. For MUA Board: Note the differential pressure displayed on the HMI.			Actual:	**0.47**
Modulate the blower to the minimum speed that will be required for the application. Modulate the damper to the minimum position required for the application. Calibrate the airflow proving.	Design:	**Complete**	Actual:	**Complete**
With the blower still at minimum speed and damper at minimum position, calibrate the clogged filter switch.	Design:	**Complete**	Actual:	**Complete**

DOAS

Take pictures of all four sides of the unit.

Design: **Complete**

Actual: **Complete**

Other Notes:

N/A

Other Notes:

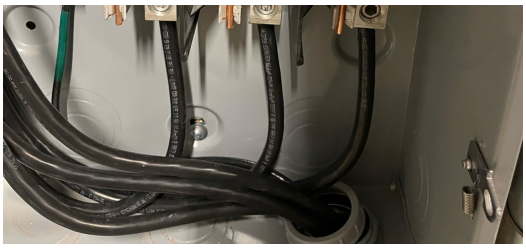
N/A

Duct properly sealed to curb base and not bypassing through openings?	Design:	**Yes**	Actual:	**Yes**
Electrical input properly run through base or side?			Actual:	**Side, Not Gasketed**
Incoming gauge of wire	Design:	**2/0 AWG**	Actual:	**3/0**
Verify breaker size is appropriate for unit. Breaker size should be greater than or equal to MCA and less than or equal to MOCP. Must include picture.			Actual:	**200**

NonCompliance Notes:

Punch Item: Electrician

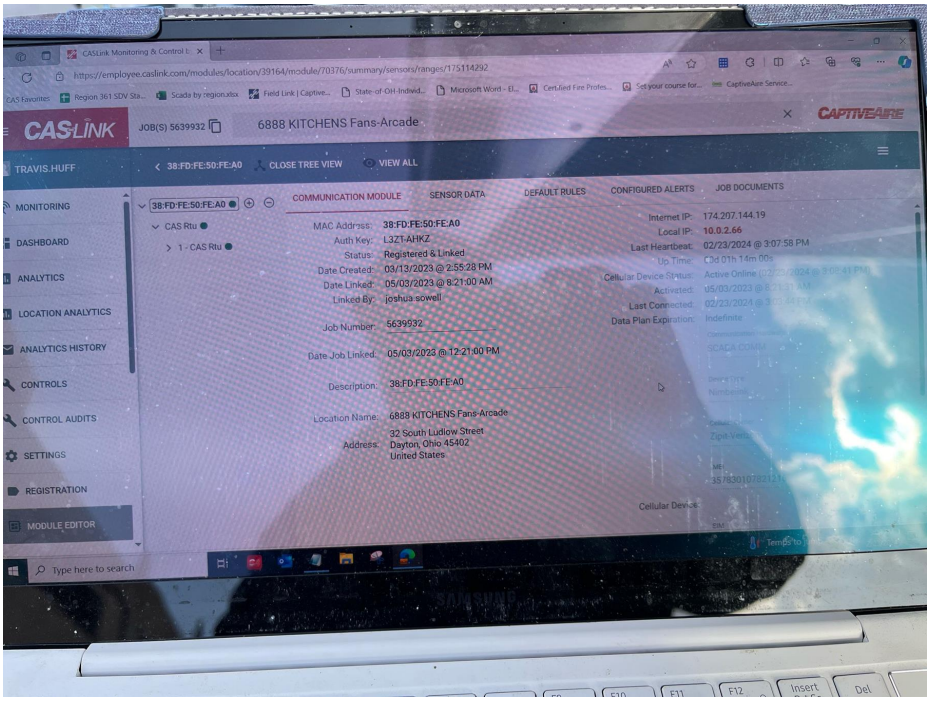
Fuses are too big for unit. MOCP is 175. Electricians on site advised the fuses would be swapped for correct size.



Unit within five miles from the coast?			Actual:	**No**
Was the CAS supplied condensate drain used in the installation?	Design:	**Yes**	Actual:	**Yes**
Is condensate pan float switch free of debris and able to slide up and down?	Design:	**Yes**	Actual:	**Yes**
Is there any damage to refrigerant piping, distributor lines, or coils?	Design:	**No**	Actual:	**No**
Confirm field wiring shown on wiring diagrams are complete and check for loose connections. Correct as needed.	Design:	**Complete**	Actual:	**Complete**
Program the list of setting changes through the HMI that were obtained from DOAS@captiveaire.com.			Actual:	**Complete**
Has SCADA been registered, activated and obtained a CASLink heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A



Cooling

Check status of Oil Sensor Level in HMI. Is status open or closed? Open means oil level is low. Do not operate compressor if the OLS is open.	Design:	**Closed**	Actual:	**Closed**
Test the OLS with the approved test piece. Does the OLS show Open with the test piece installed and Closed without the test piece installed?	Design:	**Yes**	Actual:	**Yes**
Measure the outside air temp and record the value.			Actual:	**55**
Verify the EEV model in settings matches the model number of the valve installed on the unit.	Design:	**Yes**	Actual:	**Yes**
Verify compressor VFD settings. Do settings match schematic?	Design:	**Yes**	Actual:	**Yes**
Place the system in evacuation mode and record the pressure at the suction service port with a gauge set.			Actual:	**169**
With the unit still in evacuation mode, record the suction pressure reading from HMI.			Actual:	**168**
Difference between the suction service port and suction pressure reading from HMI			Actual:	**1**
With the unit still in evacuation mode, record the discharge pressure reading from HMI.			Actual:	**168**
Difference between the suction service port and discharge pressure reading from HMI?			Actual:	**1**
With the unit still in evacuation mode, record the liquid pressure reading from the HMI			Actual:	**168**
Difference between suction service port and liquid pressure reading from HMI?			Actual:	**1**

Over 50F

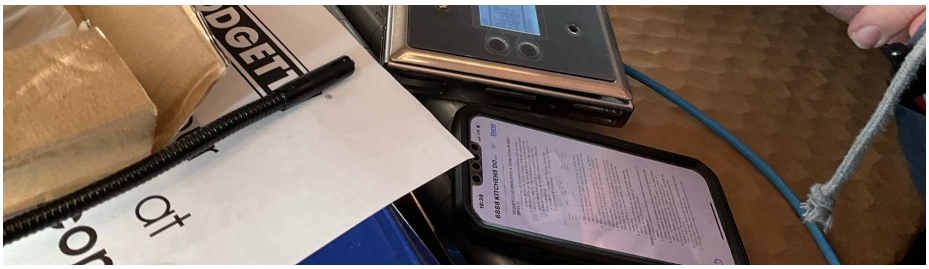
Start a cooling test. Check refrigerant charge in accordance with Refrigerant Charge Check guide. Do the condensing fans turn on and modulate?	Design:	**Yes**	Actual:	**Yes**
Does EEV modulate to maintain 20F superheat?			Actual:	**Yes**
Does the compressor ramp up to max speed (200Hz or 330Hz depending on model) and modulate speed?	Design:	**Yes**	Actual:	**Yes**
Does the reheat valve open and modulate?	Design:	**Yes**	Actual:	**Yes**
Cooling superheat measured? (Target is 20)			Actual:	**20**
Record discharge pressure reading from HMI.			Actual:	**371**
Record liquid line pressure.			Actual:	**361**
Record liquid line temperature.			Actual:	**89**
Record subcool reading. Range should be 10F-20F.			Actual:	**21**
Record a video of the oil level according to the Viewing Oil Level guide. Upload video.			Actual:	**Complete**
Is Oil level out of specs (<75% on the glass)?	Design:	**No**	Actual:	**No**

Temp Verification

Measure intake temp with meter and confirm it is within 10F of HMI readout.	Design:	**True**	Actual:	**True**
Measure return temp with meter and confirm it is within 10F of HMI readout.	Design:	**True**	Actual:	**True**
Measure evap coil temp with meter and confirm it is within 10F of HMI readout.	Design:	**True**	Actual:	**True**
Review intake humidity on HMI. Does it appear to be reporting correctly?	Design:	**Yes**	Actual:	**Yes**
Review discharge humidity on HMI. Does it appear to be reporting correctly?	Design:	**Yes**	Actual:	**Yes**
Are extra HMIs being used? Do not count the HMI in the unit. Upload picture of space HMI(s) and surrounding area.			Actual:	**Yes**

Other Notes:

N/A



Record number of extra HMI's used.			Actual:	**1**
Is HMI address 56 being used for space temperature and humidity readings?			Actual:	**No**
Is wired space wall temp/humidity sensor (not HMI) being used?			Actual:	**Yes**

Other Notes:

N/A

Record the wired space temp reading from HMI. Make sure the wired space reading is recorded and not the average reading. (Service > Temperatures > Space Stat).			Actual:	**0**

Other Notes:

Space stat not wired.

Record the wired space RH reading from HMI. Make sure the wired space reading is recorded and not the average reading. (Service > RH > Values > Space).			Actual:	**0**
Measure space temp with a meter and confirm it is within 10F of the average space temp readout on the HMI (Service > Temperatures > Space AVG).	Design:	**True**	Actual:	**False**
Measure space RH with a meter and confirm it is within 10% of the average space temp readout on the HMI (Service > RH Values > Space AVG).			Actual:	**26**

Heater Gas

Gas Type	Design:	**Natural**	Actual:	**Natural**
Inlet Gas Pressure			Actual:	**8.5**
Set mod valve low fire setting using the IOM and STB20-1011. Record manifold gas pressure.	Design:	**0.15**	Actual:	**0.18**
With unit maintaining steady state low fire, record intake temperature.			Actual:	**54**
With the unit maintaining steady state low fire on only the first stage of heat, record the discharge temperature.			Actual:	**64**
This answer should be auto calculated from the previous two questions. The answer will be the discharge temperature - intake temperature.	Design:	**12**	Actual:	**10**
Set high fire pressure using test menu procedure in O&IM and record manifold gas pressure on pressure gauge.			Actual:	**3.5**
Recorded Inlet Gas Pressure With Unit in high fire			Actual:	**7**
Confirm the discharge air temp sensor is reading accurately in high fire. Reference STB20-1007 and modulate the burner to the highest capacity heat that can be achieved. Record the discharge air temp reading on the HMI.			Actual:	**130**
With unit still holding highest capacity heat, go into space and record discharge temp at the supply diffuser closest to unit using a handheld temp probe. Record Temperature.			Actual:	**122**
Difference between measured and actual temperature.			Actual:	**8**
Was discharge sensor relocated? If yes, take a photo of new location.			Actual:	**No**

Final Checks

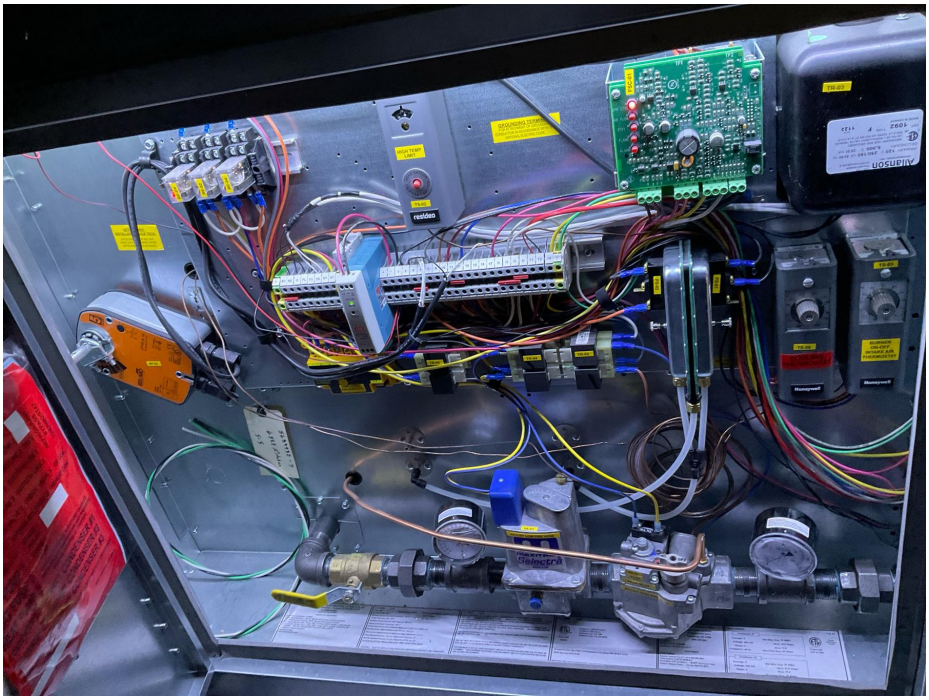
FINAL STEPS OF SDV. ONLY PERFORM FOLLOWING QUESTIONS IF REST OF SDV HAS BEEN COMPLETED!				Actual:	**Ok**
Is the smoke detector input wired and functional?				Actual:	**No**
Is the fire alarm input (terminal F) wired and functional?				Actual:	**No**
Is either the wired occupied override or unit interlock being utilized and operational?				Actual:	**Occupied Override**
Once all SDV adjustments are complete, update the factory default settings through the service menu.	Design:	**Complete**		Actual:	**Complete**
Once all SDV adjustments are complete, download the CAAL file from the board, label it with the fan number, software revision and upload it to the NOLA job docs.				Actual:	**Complete**
Take picture of CASLink showing last heartbeat.				Actual:	**Complete**
Other Notes: *N/A*					
DOAS data is visible on CASLink, tagged unique from other equipment and matches field labeling				Actual:	**Yes**
Take picture of CASLink showing DOAS data responding.				Actual:	**Complete**
Other Notes: *N/A*					
All other equipment on job labeled and can see data on CASLink?				Actual:	**Yes**
Has someone from DOAS_support@captiveaire.com confirmed they are seeing data on this job?				Actual:	**Yes**

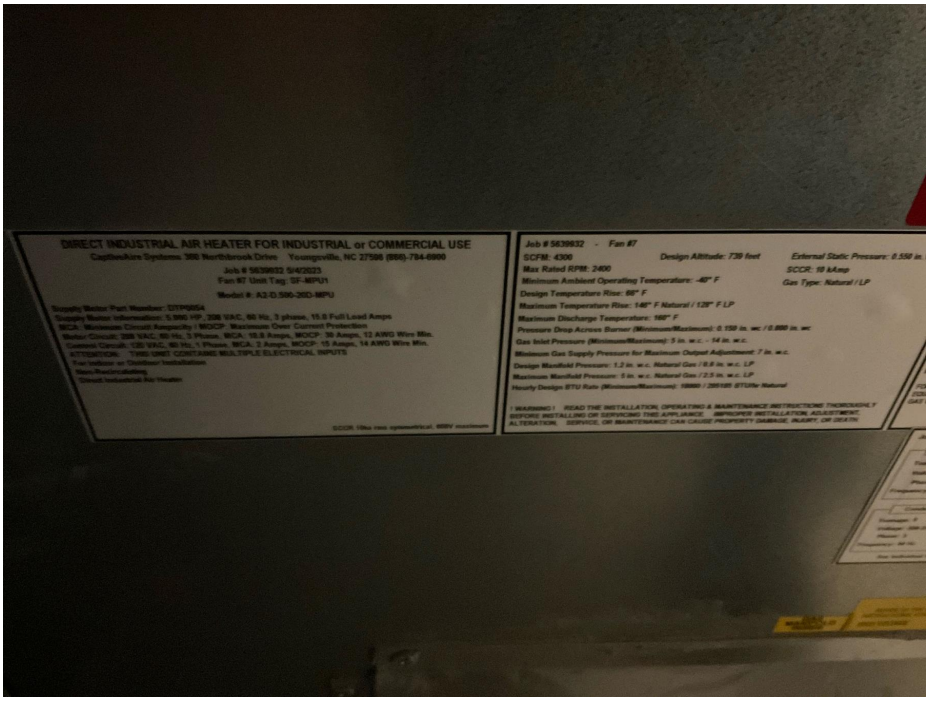
Fan 7 - A2-D.500-20D-MPU (SF-MPU1) (SF-MPU1)

Model: A2-D.500-20D-MPU

Other Notes:

N/A




DIRECT INDUSTRIAL AIR HEATER FOR INDUSTRIAL or COMMERCIAL USE

Supply

Supply CFM: Design = 4300 Actual = 4095 (95% of design)

VOLTS	Design:	**208**	Actual:	**209**
Is the main transformer (TR-01) tapped for the correct voltage?			Actual:	**Yes**
HP	Design:	**5**	Actual:	**N/A**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
FAN VIBRATION	Design:	**Good**	Actual:	**Good**
RPM - DESIGN	Design:	**1729**	Actual:	**N/A**
RPM - MAX	Design:	**2400**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**2000**	Actual:	**N/A**
FLA	Design:	**15**	Actual:	**13.2**
PHASE	Design:	**3**	Actual:	**3**
DAMPER INSTALLED	Design:	**Yes**	Actual:	**Yes**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE			Actual:	**No**
MCA	Design:	**18.8 Amps**	Actual:	**18.8**
MOCP	Design:	**30 Amps**	Actual:	**30**
Is Supply Fan bolted/secured to curb?	Design:	**Yes**	Actual:	**No**

Other Notes:

Unit in ceiling.

Other Notes:

N/A

Heater

Gas Heater - NOT AVAILABLE!

Other Notes:

No gas to unit at time of SDV.

GAS TYPE	**N/A**
INLET GAS PRESSURE	**N/A**
FREEZE STAT TEMPERATURE	**N/A**
FREEZE STAT TIMER	**N/A**
SPACE SET POINT	**N/A**
INTAKE SET POINT	**N/A**
DISCHARGE SET POINT	**N/A**
HIGH LIMIT SET POINT	**N/A**

Direct Fired Heater - NOT AVAILABLE!

Housing Size: 2 **Burner Profile Pressure:** 0"

PILOT FLAME SIGNAL	**N/A**
TEMP RISE	**N/A**
HIGH FIRE MANIFOLD GAS PRESSURE	**N/A**
HIGH FIRE INLET PRESSURE	**N/A**
HIGH FIRE FLAME SIGNAL	**N/A**
BURNER DIFFERENTIAL PRESSURE	**N/A**
LOW MANIFOLD GAS PRESSURE	**N/A**
MODULATION TIME	**N/A**
LOW FIRE FLAME SIGNAL	**N/A**

Cooling

TEMP DROP	Design:	**15**	Actual:	**N/A**

MPU

CONTROL MODE			Actual:	**Auto**
THERMOSTAT SET POINT	Design:	**85**	Actual:	**80**
EACH CONDENSER HAS IT'S OWN BREAKER	Design:	**Yes**	Actual:	**Yes**
CONDENSER-1 VOLTAGE	Design:	**208-230**	Actual:	**N/A**
CONDENSER-2 VOLTAGE	Design:	**208-230**	Actual:	**N/A**

ECPs

NONE

CORE

NONE

AQEs

NONE

NONE

SDV Job #: 6113153 - Part 2 of 2 - 6888 KITCHENS HDS-Arcade

Service Region: 361 - Cincinnati OH Service
Service Person: Dave King

Customer Number: 866644 **Customer Name:** NATIONAL TAB

Address: Dayton Arcade
32 South Ludlow Street
Dayton, OH 45402

Region Job #: 4879395
Region Job Name: 6888 KITCHENS HDS-Arcade

Sales Region: 120 - Air Solutions
Sales Person: Joe Hertenstein

Created By: Dave King **Creation Date:** 2/8/2024 10:33 AM
Last Modified By: Travis Huff **Last Modified Date:** 2/23/2024 12:36 PM

Dining Room Pressure: 0 **Kitchen Pressure:** 0
Hours On Job: 0 **Extra Hours:** 0

Completed: No **Completed By:** N/A
Completion Date: N/A

Hood Group 16

Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)
Supply CFM: Design = 1329 Initial = 1219 Final = 1316 (99% of design)

Hood 12 (PSP (HD 9)) (PSP (HD 9))

Model: 126MISC-PSP **Length:** 10' 6"
Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)

Installation

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**No**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**
Front Lower Edge of Hood is within 6'6' - 7' - 0" (78' - 84") Appliance From Floor (AFF)	Design:	**Yes**	Actual:	**Yes**

Supply

Supply CFM: Design = 1329 Initial = 1219 Actual = 1316 (99% of design) Fan: Other

PSP 1

Orientation: Front **Length:** 10' 6" **Width:** 12" **Banks:** 1 **Blanks:** 1
CFM: Design = 1322 Initial = 1219 Final = 1316 (0% of design)
Velocity: Design = 157 Initial = 0 Final = 0 (0% of design)

Readings:

1: Initial: 180 fpm, Final: 180 fpm 2: Initial: 142 fpm, Final: 146 fpm 3: Initial: 107 fpm, Final: 125 fpm
4: Initial: 153 fpm, Final: 176 fpm 5: Initial: 151 fpm, Final: 167 fpm 6: Initial: 171 fpm, Final: 183 fpm
7: Initial: 113 fpm, Final: 123 fpm 8: Initial: 134 fpm, Final: 147 fpm 9: Initial: 129 fpm, Final: 151 fpm
10: Initial: 127 fpm, Final: 137 fpm 11: Initial: 127 fpm, Final: 131 fpm 12: Initial: 159 fpm, Final: 162 fpm

Hood Group 17

Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)
Supply CFM: Design = 1455 Initial = 1192 Final = 1314 (90.3% of design)

Hood 13 (PSP (HD 10)) (PSP (HD 10))

Model: 126MISC-PSP **Length:** 11' 6"
Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)

Installation

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**No**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**
Front Lower Edge of Hood is within 6'6' - 7' - 0" (78' - 84") Appliance From Floor (AFF)	Design:	**Yes**	Actual:	**Yes**

Supply

Supply CFM: Design = 1455 Initial = 1192 Actual = 1314 (90.3% of design) Fan: Other

PSP 1

Orientation: Front **Length:** 11' 6" **Width:** 12" **Banks:** 1 **Blanks:** 1
CFM: Design = 1455 Initial = 1192 Final = 1314 (0% of design)
Velocity: Design = 157 Initial = 0 Final = 0 (0% of design)

Readings:

1: Initial: 185 fpm, Final: 186 fpm	2: Initial: 128 fpm, Final: 141 fpm	3: Initial: 117 fpm, Final: 135 fpm
4: Initial: 146 fpm, Final: 172 fpm	5: Initial: 114 fpm, Final: 136 fpm	6: Initial: 131 fpm, Final: 164 fpm
7: Initial: 123 fpm, Final: 123 fpm	8: Initial: 116 fpm, Final: 136 fpm	9: Initial: 102 fpm, Final: 113 fpm
10: Initial: 91 fpm, Final: 93 fpm	11: Initial: 127 fpm, Final: 131 fpm	12: Initial: 127 fpm, Final: 131 fpm

Fans

NONE

ECPs

ECP 1 - DCV-1011_MA4 (EP-PHASE2) (EP-PHASE2)

Package #: DCV-1011_MA4

Smart Control

GAS VALVE RESET WORKS	Design:	**Yes**	Actual:	**N/A**
ROOM TEMPERATURE OFFSET	Design:	**22**	Actual:	**N/A**
HOW MANY FAN ZONES ARE THERE	Design:	**1**	Actual:	**N/A**
HYSTERESIS TEMPERATURE			Actual:	**N/A**
Room Sensor Type			Actual:	**N/A**
Is room sensor wireless or wired?			Actual:	**N/A**
Is room sensor operating correctly? Upload Picture of installation			Actual:	**N/A**
Are there Tempering HMI's?	Design:	**Yes**	Actual:	**N/A**
ALL TEMP SENSORS ARE WIRED IN	Design:	**Yes**	Actual:	**N/A**
Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**N/A**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**N/A**
ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**N/A**
ECPM03 HARDWARE REVISION	Design:	**04**	Actual:	**N/A**
ECPM03 PROGRAM VERSION	Design:	**2.16.00**	Actual:	**N/A**
CASHMI HARDWARE REVISION	Design:	**03**	Actual:	**N/A**
CASHMI PROGRAM VERSION	Design:	**2.16.00**	Actual:	**N/A**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**N/A**

DCV

120V Line Ran from SF1 for MUA(s)	Design:	**Yes**	Actual:	**N/A**
Damper interlock wiring ran to MAU?	Design:	**Yes**	Actual:	**N/A**

BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**N/A**

Sensors

T2

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**N/A**
SENSOR LOCATION	Design:	**H1CV1**	Actual:	**N/A**
FAN NUMBER	Design:	**1**	Actual:	**N/A**

T3

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**N/A**
SENSOR LOCATION	Design:	**H2CV1**	Actual:	**N/A**
FAN NUMBER	Design:	**1**	Actual:	**N/A**

T4

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**N/A**
SENSOR LOCATION	Design:	**H3CV1**	Actual:	**N/A**
FAN NUMBER	Design:	**1**	Actual:	**N/A**

VFDs

VFD 1

DESIGN CFM	Design:	**4812**	Actual:	**N/A**
FAN DIRECTION	Design:	**Forward**	Actual:	**N/A**
TEMP SENSOR #s ASSIGNED	Design:	**T2, T3, T4**	Actual:	**N/A**

DCV VFD

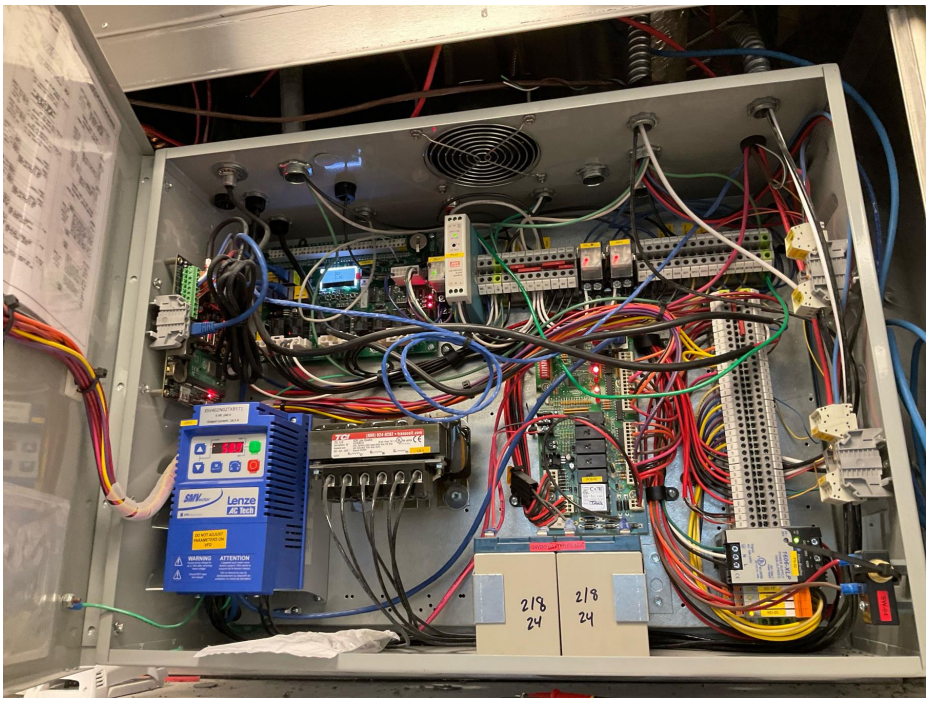
MODULATION RANGE	Design:	**45**	Actual:	**N/A**
OVERLOAD = P108	Design:	**96**	Actual:	**N/A**
MIN HZ	Design:	**39.4**	Actual:	**N/A**
MAX HZ	Design:	**49.3**	Actual:	**N/A**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**N/A**
P508			Actual:	**N/A**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**N/A**

ECP 2 - DCV-1011_MA4 (EP-POD-A_B) (EP-POD-A_B)

Package #: DCV-1011_MA4

Other Notes:

N/A



Smart Control

GAS VALVE RESET WORKS	Design:	**Yes**	Actual:	**Yes**
ROOM TEMPERATURE OFFSET	Design:	**22**	Actual:	**22**
HOW MANY FAN ZONES ARE THERE	Design:	**1**	Actual:	**1**
HYSTERESIS TEMPERATURE			Actual:	**2**
Room Sensor Type			Actual:	**Preset**
What is Preset temperature set to?			Actual:	**75**

ALL TEMP SENSORS ARE WIRED IN	Design:	**Yes**	Actual:	**No**

Other Notes:

Room temp sensor not installed.

Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**No**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**Yes**
ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**Yes**
ECPM03 HARDWARE REVISION	Design:	**04**	Actual:	**04**
ECPM03 PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
CASHMI HARDWARE REVISION	Design:	**03**	Actual:	**03**
CASHMI PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**Yes**

DCV

Other Notes:

No MAU.

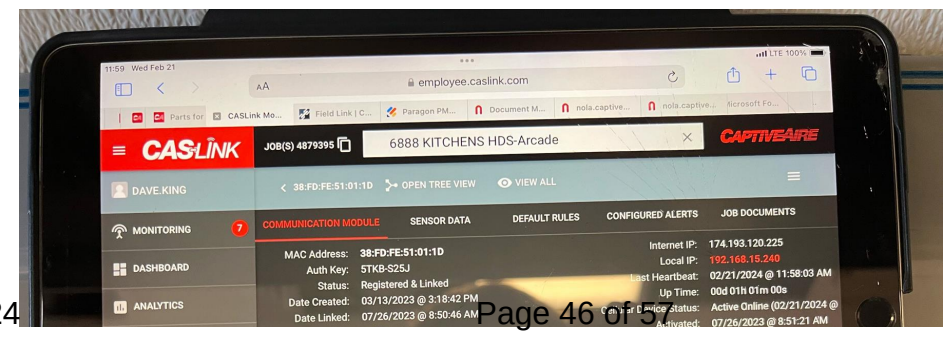
120V Line Ran from SF1 for MUA(s)	Design:	**Yes**	Actual:	**No**
Damper interlock wiring ran to MAU?	Design:	**Yes**	Actual:	**No**

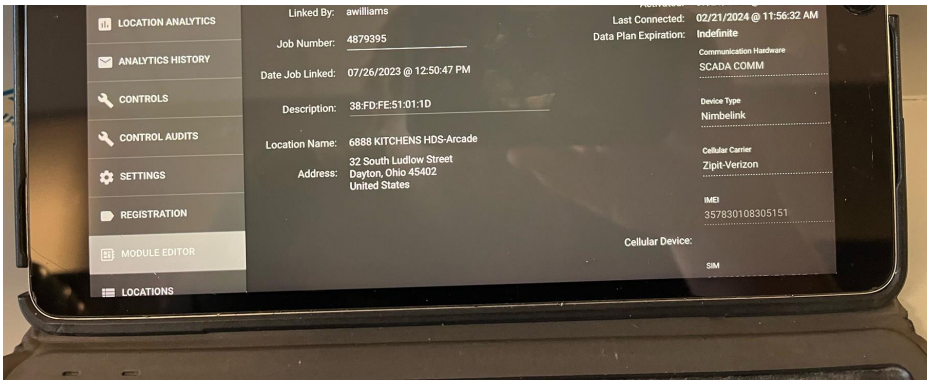
BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**CASLink**
CASLINK COMMUNICATION TYPE	Design:	**Cellular**	Actual:	**Cellular**
Cellular status is Active Online?	Design:	**Yes**	Actual:	**Yes**
CASLink Registration Wizard was completed?	Design:	**Yes**	Actual:	**Yes**
CASLink Module has a current heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

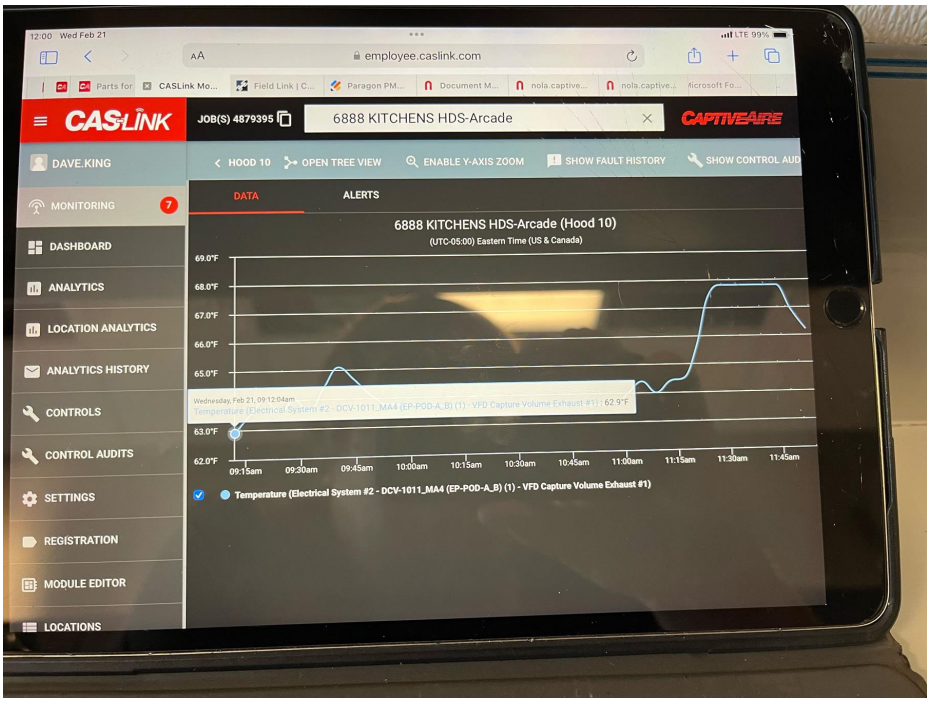




All devices connected to the SCADA are reporting live data? Design: **Yes** Actual: **Yes**

Other Notes:

N/A



Devices were assigned to an area and named appropriately? Design: **Yes** Actual: **Yes**

Sensors

T2

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H10CV1**	Actual:	**H10CV1**
FAN NUMBER	Design:	**2**	Actual:	**2**

VFDs

VFD 1

DESIGN CFM	Design:	**3324**	Actual:	**1252**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**
TEMP SENSOR #s ASSIGNED	Design:	**T2**	Actual:	**T2**

DCV VFD

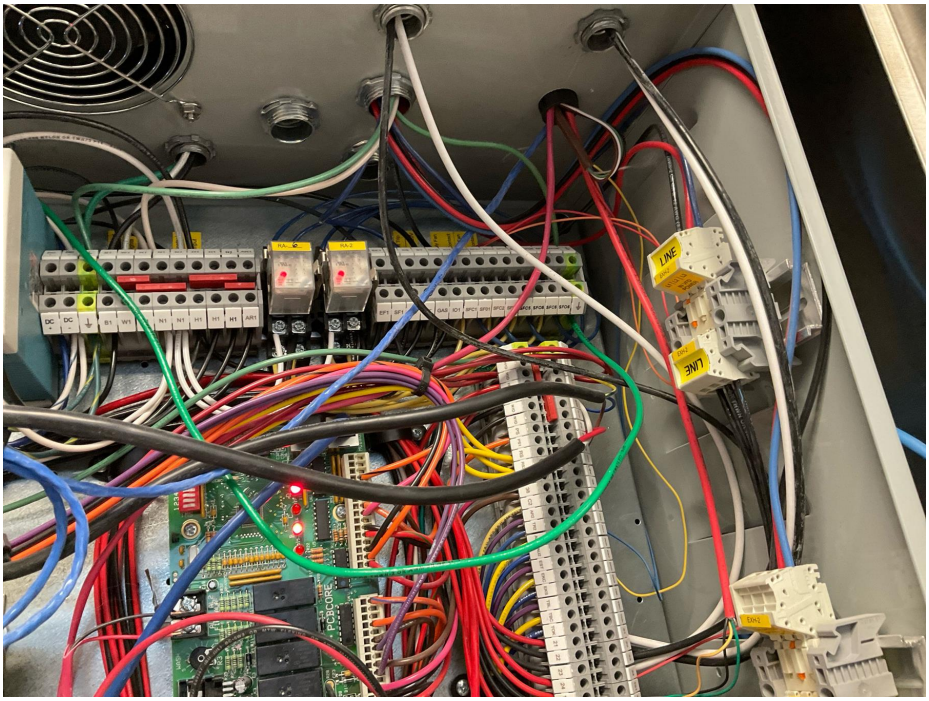
MODULATION RANGE	Design:	**45**	Actual:	**45**
OVERLOAD = P108	Design:	**95**	Actual:	**95**
MIN HZ	Design:	**47.1**	Actual:	**47.1**
MAX HZ	Design:	**58.9**	Actual:	**58.9**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**9.1**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**Yes**

Other Notes:

Line and load share conduit.

Other Notes:

N/A

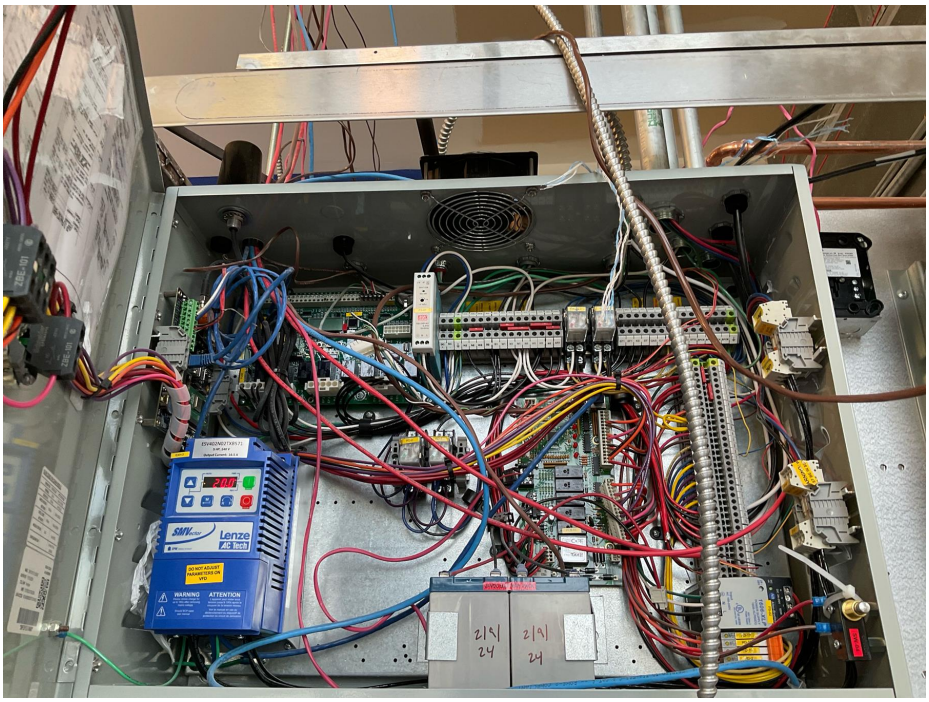


ECP 3 - DCV-1011_MA4 (ECP456) (ECP456)

Package #: DCV-1011_MA4

Other Notes:

N/A



Smart Control

GAS VALVE RESET WORKS	Design:	**Yes**	Actual:	**Yes**
ROOM TEMPERATURE OFFSET	Design:	**21**	Actual:	**21**
HOW MANY FAN ZONES ARE THERE	Design:	**1**	Actual:	**1**
HYSTERESIS TEMPERATURE			Actual:	**2**
Room Sensor Type			Actual:	**Preset**
What is Preset temperature set to?			Actual:	**75**

ALL TEMP SENSORS ARE WIRED IN	Design:	**Yes**	Actual:	**No**

Other Notes:

Room temp sensor not installed.

Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**No**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**Yes**
ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**Yes**
ECPM03 HARDWARE REVISION	Design:	**04**	Actual:	**04**
ECPM03 PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
CASHMI HARDWARE REVISION	Design:	**03**	Actual:	**03**
CASHMI PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**Yes**

DCV

Other Notes:

No MAU.

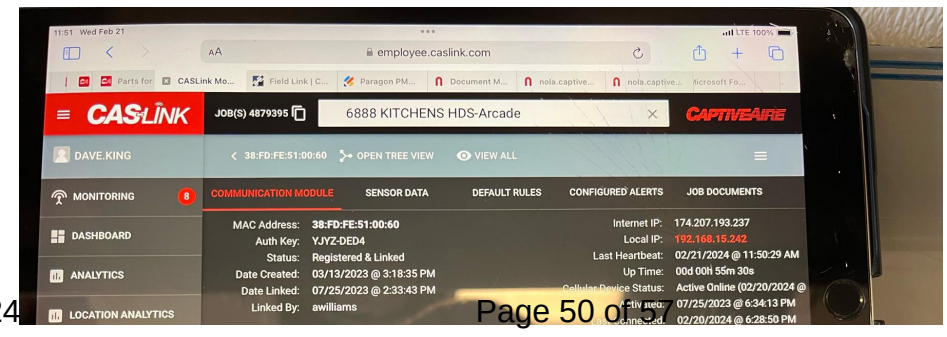
120V Line Ran from SF1 for MUA(s)	Design:	**Yes**	Actual:	**No**
Damper interlock wiring ran to MAU?	Design:	**Yes**	Actual:	**No**

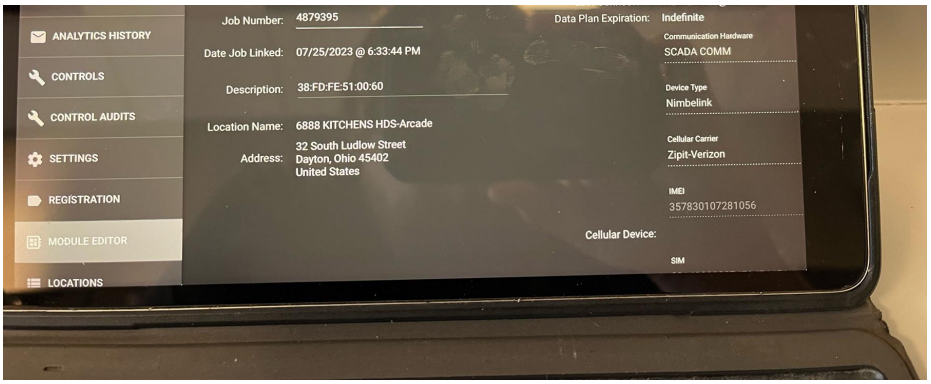
BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**CASLink**
CASLINK COMMUNICATION TYPE	Design:	**Cellular**	Actual:	**Cellular**
Cellular status is Active Online?	Design:	**Yes**	Actual:	**Yes**
CASLink Registration Wizard was completed?	Design:	**Yes**	Actual:	**Yes**
CASLink Module has a current heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

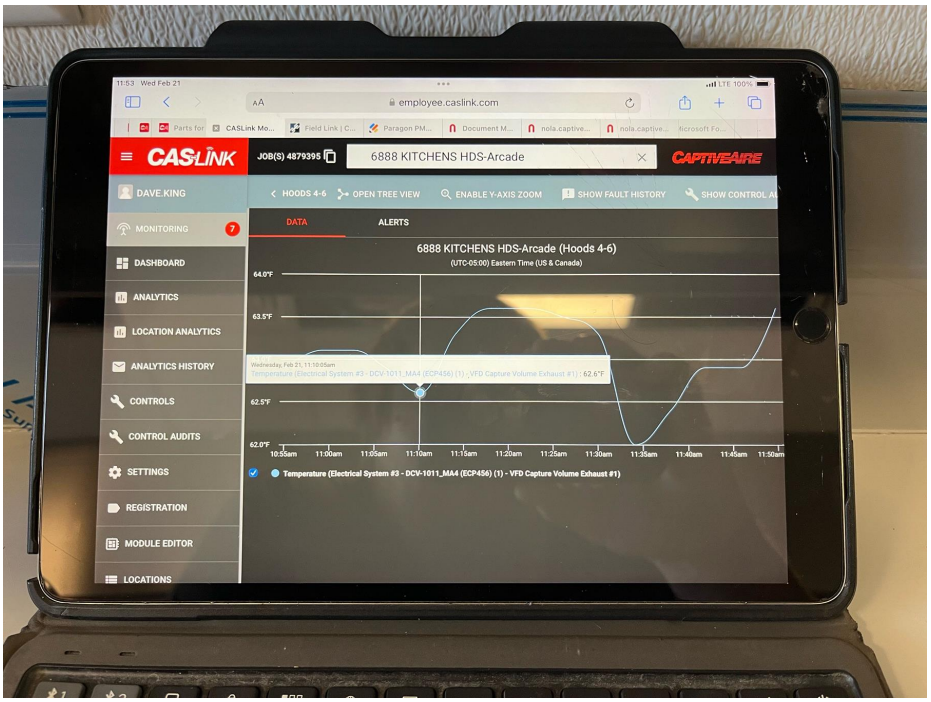




All devices connected to the SCADA are reporting live data? Design: **Yes** Actual: **Yes**

Other Notes:

N/A



Devices were assigned to an area and named appropriately? Design: **Yes** Actual: **Yes**

Sensors

T2

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H4CV1**	Actual:	**H4CV1**
FAN NUMBER	Design:	**3**	Actual:	**3**

T3

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H5CV1**	Actual:	**H5CV1**
FAN NUMBER	Design:	**3**	Actual:	**3**

T4

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H6CV1**	Actual:	**H6CV1**
FAN NUMBER	Design:	**3**	Actual:	**3**

VFDs

VFD 1

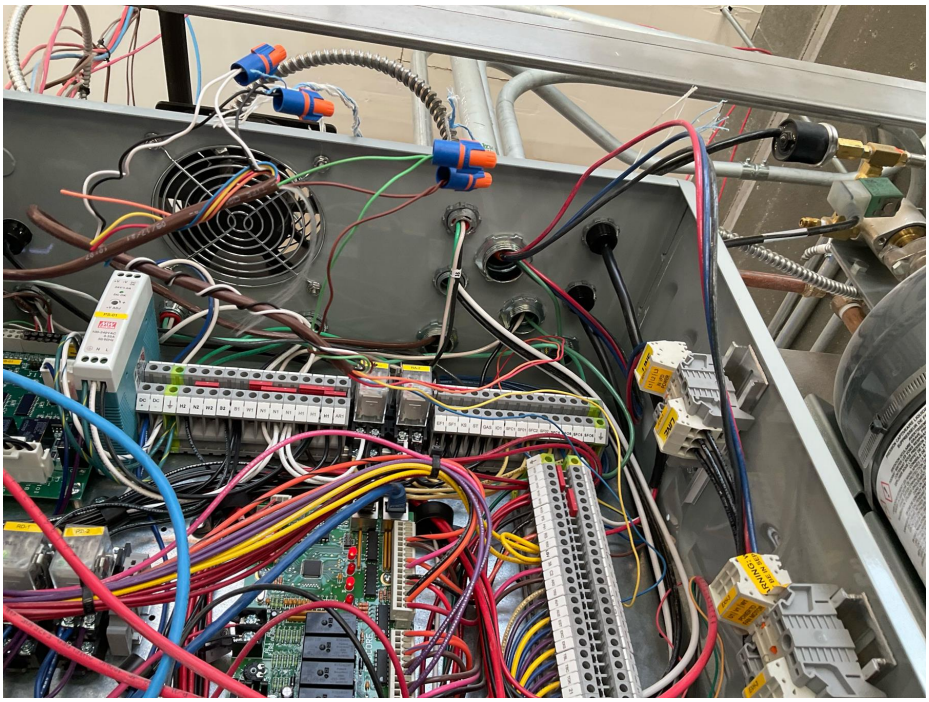
DESIGN CFM	Design:	**5514**	Actual:	**5309**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**
TEMP SENSOR #s ASSIGNED	Design:	**T2, T3, T4**	Actual:	**T2, T3, T4**

DCV VFD

MODULATION RANGE	Design:	**45**	Actual:	**45**
OVERLOAD = P108	Design:	**92**	Actual:	**92**
MIN HZ	Design:	**43.4**	Actual:	**51.4**
MAX HZ	Design:	**54.3**	Actual:	**62.3**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**12.4**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**No**

Other Notes:

Line and load in same conduit.

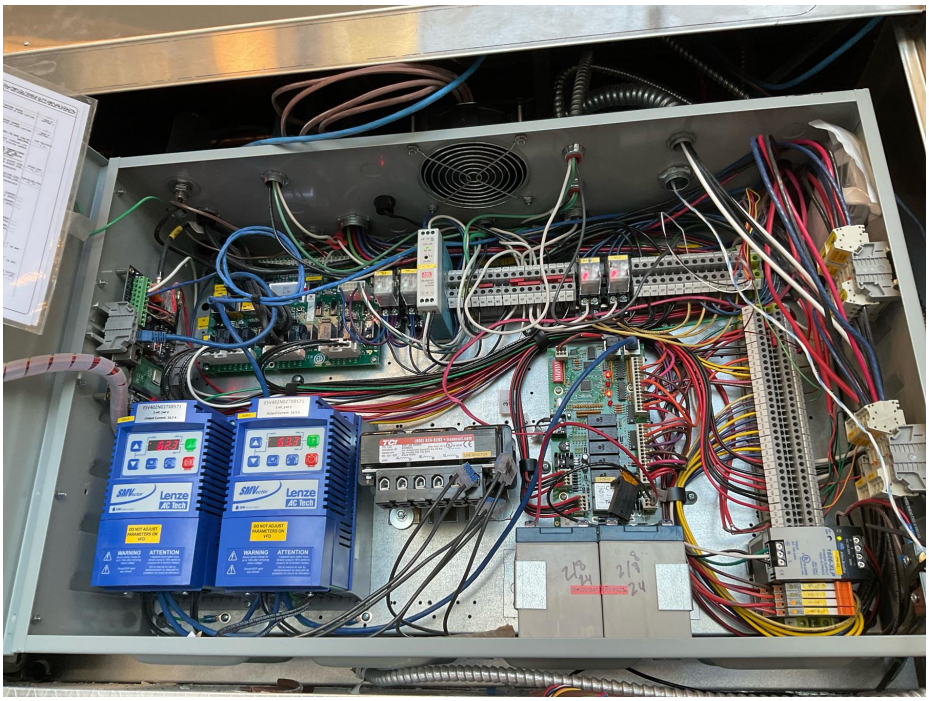


ECP 4 - DCV-1111_MA4 (ECP8910) (ECP8910)

Package #: DCV-1111_MA4

Other Notes:

N/A



Smart Control

GAS VALVE RESET WORKS	Design:	**Yes**	Actual:	**Yes**
ROOM TEMPERATURE OFFSET	Design:	**21**	Actual:	**21**
HOW MANY FAN ZONES ARE THERE	Design:	**1**	Actual:	**1**
HYSTERESIS TEMPERATURE			Actual:	**2**
Room Sensor Type			Actual:	**Preset**
What is Preset temperature set to?			Actual:	**75**
ALL TEMP SENSORS ARE WIRED IN	Design:	**Yes**	Actual:	**No**

Other Notes:

Room temp sensor not installed.

Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**No**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**Yes**
ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**Yes**
ECPM03 HARDWARE REVISION	Design:	**04**	Actual:	**04**
ECPM03 PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
CASHMI HARDWARE REVISION	Design:	**03**	Actual:	**03**
CASHMI PROGRAM VERSION	Design:	**2.16.00**	Actual:	**2.16.01**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**Yes**

DCV

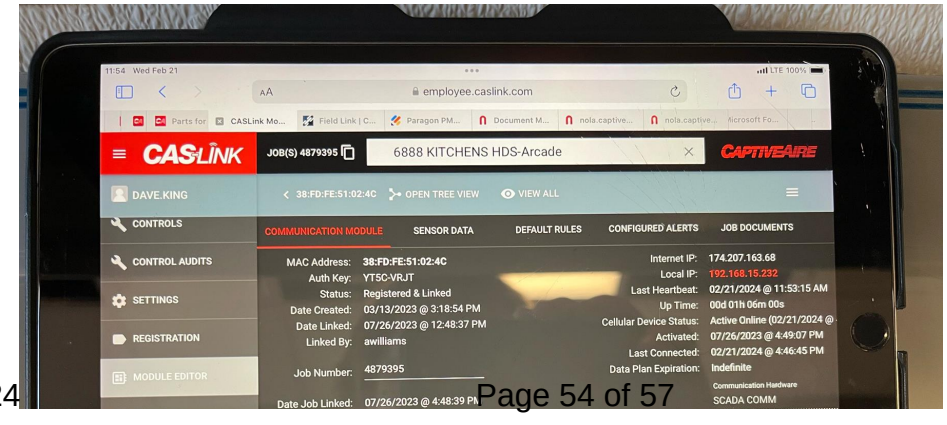
120V Line Ran from SF1 for MUA(s)	Design:	**Yes**	Actual:	**Yes**
Damper interlock wiring ran to MAU?	Design:	**Yes**	Actual:	**Yes**

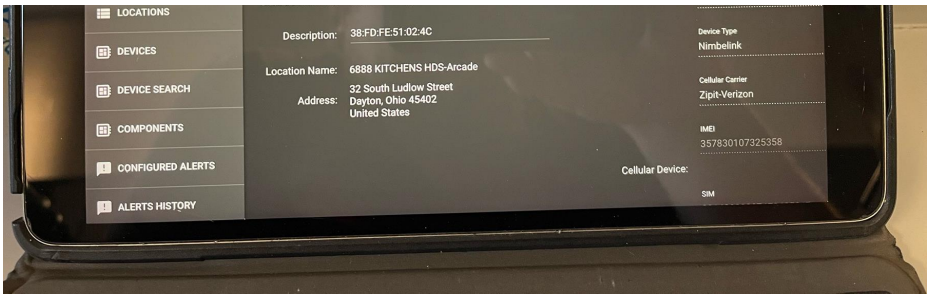
BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**CASLink**
CASLINK COMMUNICATION TYPE	Design:	**Cellular**	Actual:	**Cellular**
Cellular status is Active Online?	Design:	**Yes**	Actual:	**Yes**
CASLink Registration Wizard was completed?	Design:	**Yes**	Actual:	**Yes**
CASLink Module has a current heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

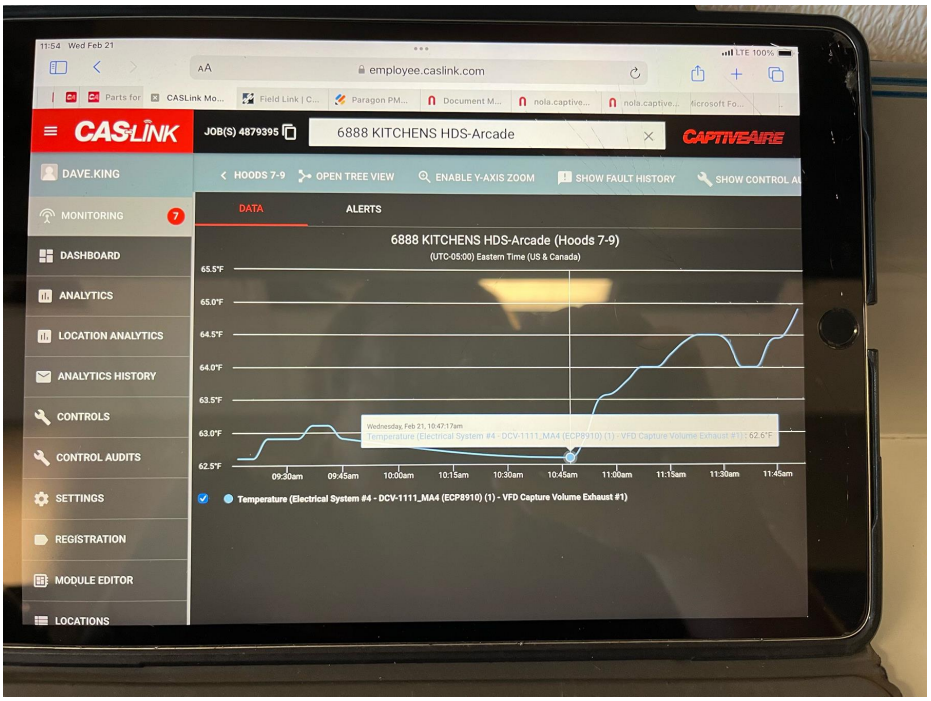




All devices connected to the SCADA are reporting live data? Design: **Yes** Actual: **Yes**

Other Notes:

N/A



Devices were assigned to an area and named appropriately? Design: **Yes** Actual: **Yes**

Sensors

T2

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H7CV1**	Actual:	**H7CV1**
FAN NUMBER	Design:	**4**	Actual:	**4**

T3

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H8CV1**	Actual:	**H8CV1**
FAN NUMBER	Design:	**4**	Actual:	**4**

T4

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H9CV1**	Actual:	**H9CV1**
FAN NUMBER	Design:	**4**	Actual:	**4**

VFDs

VFD 1

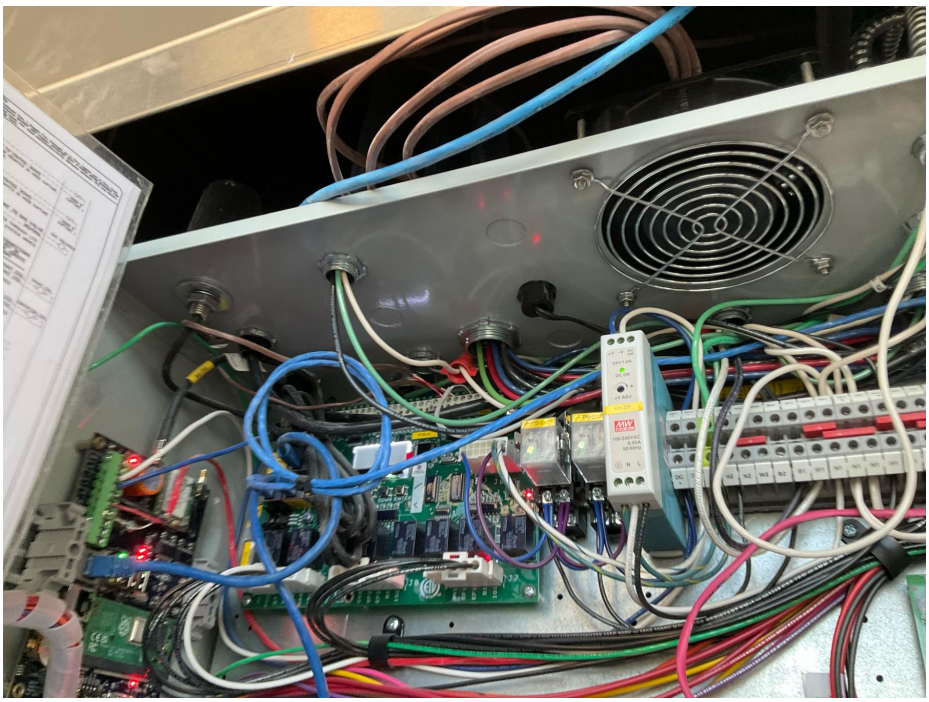
DESIGN CFM	Design:	**5514**	Actual:	**4672**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**
TEMP SENSOR #s ASSIGNED	Design:	**T2, T3, T4**	Actual:	**T2, T3, T4**

DCV VFD

MODULATION RANGE	Design:	**45**	Actual:	**45**
OVERLOAD = P108	Design:	**92**	Actual:	**92**
MIN HZ	Design:	**43.4**	Actual:	**51.4**
MAX HZ	Design:	**54.3**	Actual:	**62.3**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**13.9**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**No**

Other Notes:

Line and load in shared conduit.



VFD 2

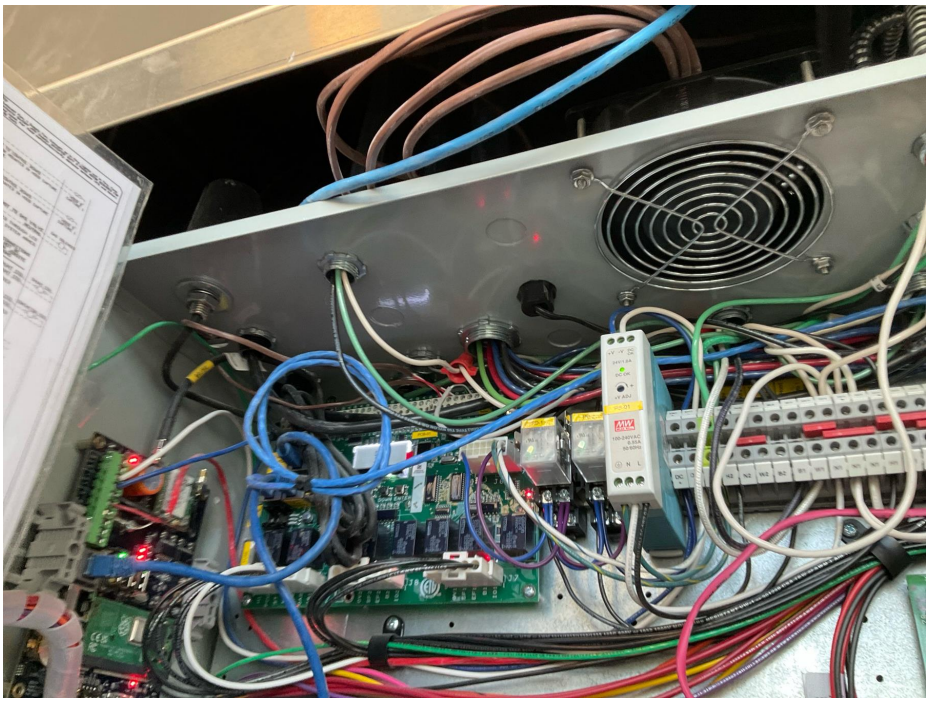
DESIGN CFM	Design:	**4300**	Actual:	**4095**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**

DCV VFD

SUPPLY FAN # ASSIGNED	Design:	**7**	Actual:	**7**
OVERLOAD = P108	Design:	**90**	Actual:	**90**
MAX HZ	Design:	**59.3**	Actual:	**63.3**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**13.3**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**No**

Other Notes:

Line and load in shared conduit.



CORE

NONE