

**Report By:**

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



**Report: Prelim Report**  
**Function: Test, Adjust, & Balance**  
**Date: 11/03/2023**

**PROJECT**  
**Skyline Take Over (Richmond, KY)**

2319 Lantern Ridge Drive

Richmond, KY 40475

**Client**

CAPTIVE-AIRE R120  
1329 E. Kemper Road  
Suite 4210  
Cincinnati, OH 45246

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Project: Skyline Take Over (Richmond, KY)

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# National TAB

Project: Skyline Take Over (Richmond, KY)

## System/Unit: AHU/RTU



Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	3820P84526
Model Num	NA	48TCEM12A2A5
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	36"x21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Test Data		
	Design	Actual
SF CFM	3600	
SF RPM	-	
RA CFM	3200	
OA CFM	400	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NA
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	10.6
Service Factor	-	1.15

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	5"
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	
Fan Sheave Size	-	AFD74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16.5"
Num of Belts	-	1
Belt Size	-	AX49

Notes:

Filters loaded. Recommend replacement.

Written By: Gabe Merk on 10/04/2023

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## AHU/RTU



**Diffuser Supply (GRD)**

**RTU-1/**

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1				550	584	575	104.5
1-2		H	18	550	585	580	105.5
1-3		H	18	350	412	363	103.7
1-4		H	18	550	737	555	100.9
1-5		H	18	550	622	526	95.6
1-6				500	642	506	101.2
1-7		H	18	550	676	542	98.5
Total				3600	4258	3647	101.31%

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## System/Unit: AHU/RTU



Asset: RTU-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	3820P37462
Model Num	NA	48TCED14A2A5
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	36"x21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20" 2"

Test Data		
	Design	Actual
SF CFM	4550	
SF RPM	-	
RA CFM	3850	
OA CFM	700	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	10.6
Service Factor	-	1.15

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VM50
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	
Fan Sheave Size	-	MA78X1 AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16.375"
Num of Belts	-	1
Belt Size	-	AX49

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Project: Skyline Take Over (Richmond, KY)

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU-2/**

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1		C	10	300	164		-
2-2		C	10	300	192		-
2-3		D	12	300	266		-
2-4		D	12	300	298		-
2-5		D	12	300	330		-
2-6		D	12	300	370		-
2-7		C	10	300	244		-
2-8		C	10	300	153		-
2-9				275	216		-
2-10				275	262		-
2-11				275	263		-
2-12				275	272		-
2-13				275	270		-
2-14				275	281		-
2-15		B	8	150	195		-
2-16		C	10	300	290		-
2-17		B	8	150	182		-
Total				4650	4248	0	0%

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Project: Skyline Take Over (Richmond, KY)

## System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	3820P37461
Model Num	NA	48TCED14A2A5
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	36"x21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Test Data		
	Design	Actual
SF CFM	4600	
SF RPM	-	
RA CFM	3900	
OA CFM	700	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	10.6
Service Factor	-	1.15

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	5"
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	
Fan Sheave Size	-	MA73X1 AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16.125"
Num of Belts	-	1
Belt Size	-	AX49

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Project: Skyline Take Over (Richmond, KY)

## AHU/RTU



**Diffuser Supply (GRD)**

**RTU-3/**

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
3-1		C	10	200	193		-
3-2				250	267		-
3-3				250	361		-
3-4		C	10	200	145		-
3-5				250	265		-
3-6				250	368		-
3-7		F	18	500	505		-
3-8		F	18	500	670		-
3-9		F	18	500	400		-
3-10		F	18	500	541		-
3-11		D	12	300	341		-
3-12		D	12	300	263		-
3-13				300	149		-
3-14				300	155		-
Total				4600	4623	0	0%

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Project: Skyline Take Over (Richmond, KY)

## System/Unit: AHU/RTU



Asset: RTU-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	3720P84228
Model Num	NA	48TCEM12A2A5
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	36"x21"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Test Data		
	Design	Actual
SF CFM	3600	
SF RPM	-	
RA CFM	3000	
OA CFM	600	
RL Voltage	208	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	10.6
Service Factor	-	1.15

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

Drive Data		
	Design	Actual
Motor Sheave Size	-	5"
Motor Bore Size	-	0.875"
Motor Sheave SetPt	-	
Fan Sheave Size	-	AFD74
Fan Sheave Bore	-	1"
Belt CL Distance	-	16.875"
Num of Belts	-	1
Belt Size	-	AX49

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Project: Skyline Take Over (Richmond, KY)

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU-4/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
4-1				450	459	459	102.0
4-2				450	442	442	98.2
4-3				450	410	410	91.1
4-4				450	442	442	98.2
4-5				450	466	466	103.6
4-6				450	458	458	101.8
4-7				450	432	432	96.0
4-8				450	384	384	85.3
Total				3600	3493	3493	97.03%

Asset	Notes	Date	Written By
4-8	Damper fully open.	10/06/2023	Mohammed Ouard

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Project: Skyline Take Over (Richmond, KY)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA: COOK LINE HOOD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU180HFA
Serial Num	-	4062092
Type	-	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	1.0	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	2200	
Fan RPM	-	
RL Voltage	-	208
RL Amperage	-	
Suction ESP	-	
Discharge ESP	-	
Total ESP	1.0	
Brake Horse Power	-	

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Project: Skyline Take Over (Richmond, KY)

System/Unit: FAN - Exhaust



Asset: EF-5

AREA:WAREWASHER

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU12HFA
Serial Num	-	4062092
Type	-	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	HSSA
Frame	-	42Y
Horsepower	0.25	0.167
Motor Rpm	-	1625
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.9
Service Factor	-	1.0

Test Data		
	Design	Actual
CFM	500	
Fan RPM	-	
RL Voltage	-	120
RL Amperage	-	
Suction ESP	-	
Discharge ESP	-	
Total ESP	0.4	
Brake Horse Power	-	

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Project: Skyline Take Over (Richmond, KY)

System/Unit: FAN - Exhaust



Asset: EF-6

AREA:RESTROOM

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-090-D-X
Serial Num	-	17326773
Type	CRE	CRE DOWNBLAST

Test Data		
	Design	Actual
CFM	480	
RL Voltage	-	120
RL Amperage	-	
Total ESP	0.25	

Motor Data		
	Design	Actual
Motor MFG	-	MCMILLIAN ELECTRIC
Horsepower	125W	0.067
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.2

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Project: Skyline Take Over (Richmond, KY)

System/Unit: FAN - Exhaust



Asset: KEF 1

AREA:FRYER

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU33HFA
Serial Num	-	6097446
Type	CRE UPBLAST	CRE

Test Data		
	Design	Actual
CFM	600	
RL Voltage	-	208
RL Amperage	-	2.5
Total ESP	1.000	

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	0.333	
Motor Rpm	1600	
Phase	1	
Voltage (rated)	208	
Amperage (rated)	-	
Service Factor	-	

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Project: Skyline Take Over (Richmond, KY)

System/Unit: FAN - Supply



Asset: SF-MPU1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	A2-D.500-20D-MPU
Serial Num	-	4062092
Type	GAS FIRED	GAS FIRED
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1700	
SF RPM	1914	
RL Voltage	-	208
RL Amperage	-	4.4
Suction ESP	-	
Discharge ESP	-	
Total ESP	0.400	
Brake Horse Power	-	1.0650

Motor Data		
	Design	Actual
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	213T
Horsepower	1.500	7.5
Motor Rpm	1914	1755
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	19.1
Service Factor	-	1.15

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Project: Skyline Take Over (Richmond, KY)

## System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:FRYER

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	3650 BD-2
Job / Serial Num	-	6097446
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	42	42"
Hood Width	36	36"

Test Data Exhaust		
	Design	Actual
Filter Type	SOLO CAPTRATE	
Filter Size 1	16X20	20"x16"
Filter Qty 1	2	2
Filter AK factor size 1	2.08	
Filter Total AK Area	4.16	
Filter1 FPM	-	
Filter2 FPM	-	
Filter Ave FPM(corr)	-	
CFM	600	

Cooking Equipment		
	Design	Actual
Item 1	-	
Item 2	-	