

Report By:

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



**Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 03/20/2024**

PROJECT
Kohls Hyde Park (Cincinnati, OH)

3872 B Paxton Ave

Cincinnati, OH 45208

Client

Greater Comfort Heating & Air Conditioning
2001 Monmouth St
Newport, KY 41071

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

Table Of Contents

Section	Page #
Certification	3
Equipment Calibrations	4
Abbreviations	5
GRD	6
AHU/RTU	7
FAN - Exhaust	19



CERTIFICATION



PROJECT: Kohls Hyde Park (Cincinnati, OH)

The data presented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of the NEBB *Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems*. Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test-Adjust-Balance Report Project Summary.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629

CERTIFIED BY: Joe Hertenstein

DATE: 3/20/2024

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM: National TAB

REGISTRATION NO: 3629


CERTIFIED BY: Joe Hertenstein

DATE: _____

Submitted and Certified by:

NEBB TAB FIRM: National TAB

TAB PROFESSIONAL: Joe Hertenstein

SIGNATURE: 

REGISTRATION NO: 3629

CERTIFICATION EXP: 12/31/2024





National TAB



Testing, Adjusting, and Balancing Equipment

INTELLIGENCE

Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Kanomax Micromanometer 6700 S/N 30513	7/23/2023	7/27/2024
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Kanomax Micromanometer 6700 S/N 30513	7/23/2023	7/7/2024
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Kanomax Micromanometer 6700 S/N 30513	7/23/2023	7/7/2024
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	6/6/2023	6/6/2024
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	6/6/2023	6/6/2024
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	6/6/2023	6/6/2024
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	6/1/2023	6/1/2024
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	6/1/2023	6/1/2024
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	6/1/2023	6/1/2024
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Alnor HM675 S/N: 72214041	5/2023	5/2024
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Alnor HM675 S/N: 72214041	5/2023	5/2024

Abbreviation List

A = Area (ft ²)	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A _k = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T _{ma} = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T _{oa} = Outside Air Temperature
CD = Ceiling Diffuser	T _{ra} = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO ₂ = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C _v = Flow Constant	K _v = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T _{ra} = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% _{ra} = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-1

AREA: SALES FLOOR

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3013054
Model Num	ZR102	AV15S3CQ4G1CAQ46F2
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X25"X2"

Test Data		
	Design	Actual
SF CFM	6000	5873
SF RPM	-	856.5
RA CFM	-	4228
OA CFM	1700	1645
RL Voltage	-	494.4/491.6/493.2
RL Amperage	-	4.60/4.63/4.89
OA Damper Position	-	50%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182TZ
Horsepower	-	3.7
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	6.1
Service Factor	-	NA

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	0.75"
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	1B5V74
Fan Sheave Bore	-	1 7/16"
Belt CL Distance	-	14"
Num of Belts	-	1
Belt Size	-	AX41

Completed By: Jordan Best on 04/19/2024

Notes:
VFD % set to 100% at high speed / 60 HZ

Written By: Jordan Best on 02/16/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/SALES FLOOR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-1-SGRD1	SALES FLOOR	LAY-IN	24"X24"	300	165	325	108.3
RTU-1-SGRD2	SALES FLOOR	LAY-IN	24"X24"	300	219		-
RTU-1-SGRD3	SALES FLOOR	LAY-IN	24"X24"	500	527	451	90.2
RTU-1-SGRD4	SALES FLOOR	LAY-IN	24"X24"	500	524	450	90.0
RTU-1-SGRD5	SALES FLOOR	LAY-IN	24"X24"	500	651	507	101.4
RTU-1-SGRD6	SALES FLOOR	LAY-IN	24"X24"	500	373	535	107.0
RTU-1-SGRD7	SALES FLOOR	LAY-IN	24"X24"	500	-63	467	93.4
RTU-1-SGRD8	SALES FLOOR	LAY-IN	24"X24"	500	496	543	108.6
RTU-1-SGRD9	SALES FLOOR	LAY-IN	24"X24"	800	760	635	79.4
RTU-1-SGRD10	SALES FLOOR	LAY-IN	24"X24"	800	868	836	104.5
RTU-1-SGRD11	SALES FLOOR	LAY-IN	24"X24"	800	838	852	106.5
Total				6000	5358	5601	93.35%

Completed By: Jordan Best on 04/19/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-2

AREA: SALES FLOOR

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3013053
Model Num	ZR102	AV15S3CQ4G1CAQ16F2
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	25"X20"X4"

Test Data		
	Design	Actual
SF CFM	6000	5980
SF RPM	-	770.5
RA CFM	-	4238
OA CFM	1700	1742
RL Voltage	-	492.5/491.2/493.7
RL Amperage	-	5.30/5.28/5.33
OA Damper Position	-	50%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182T
Horsepower	-	3.7
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	6.1
Service Factor	-	NA

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	0.75"
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	1B5V74
Fan Sheave Bore	-	1 7/16"
Belt CL Distance	-	14"
Num of Belts	-	1
Belt Size	-	AX41

Completed By: Jordan Best on 04/19/2024

Notes:
VFD % set to 90% at high speed / 54.27 HZ

Written By: Jordan Best on 02/16/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-2/SALES FLOOR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-2-SGRD1	SALES FLOOR	LAY-IN	24"X24"	500	721	467	93.4
RTU-2-SGRD2	SALES FLOOR	LAY-IN	24"X24"	550	643	512	93.1
RTU-2-SGRD3	SALES FLOOR	LAY-IN	24"X24"	550	702	504	91.6
RTU-2-SGRD4	SALES FLOOR	LAY-IN	24"X24"	500	448	468	93.6
RTU-2-SGRD5	SALES FLOOR	LAY-IN	24"X24"	550	785	539	98.0
RTU-2-SGRD6	SALES FLOOR	LAY-IN	24"X24"	550	195	520	94.5
RTU-2-SGRD7	SALES FLOOR	LAY-IN	24"X24"	800	851	843	105.4
RTU-2-SGRD8	SALES FLOOR	LAY-IN	24"X24"	800	881	835	104.4
RTU-2-SGRD9	SALES FLOOR	LAY-IN	24"X24"	800	838	876	109.5
RTU-2-SGRD10	SALES FLOOR	LAY-IN	24"X24"	400	842	416	104.0
Total				6000	6906	5980	99.67%

Completed By: Jordan Best on 04/19/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3013055
Model Num	ZR102	AV15S3CQ4G1CAQ46F2
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	25"X20"X2"

Test Data		
	Design	Actual
SF CFM	6000	6173
SF RPM	-	763
RA CFM	-	4371
OA CFM	1700	1802
RL Voltage	-	494.8/492.2/493.7
RL Amperage	-	5.12/4.83/4.93
OA Damper Position	-	50%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182T
Horsepower	-	3.7
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	6.1
Service Factor	-	NA

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	0.75"
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	1B5V74
Fan Sheave Bore	-	1 7/16"
Belt CL Distance	-	14"
Num of Belts	-	1
Belt Size	-	AX41

Completed By: Jordan Best on 04/19/2024

Notes:
VFD % set to 95%% at high speed / 57 HZ

Written By: Jordan Best on 04/19/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-3-SGRD1	SALES FLOOR	LAY-IN	24"X24"	750	847	736	98.1
RTU-3-SGRD2	SALES FLOOR	LAY-IN	24"X24"	750	854	705	94.0
RTU-3-SGRD3	SALES FLOOR	LAY-IN	24"X24"	750	935	773	103.1
RTU-3-SGRD4	SALES FLOOR	LAY-IN	24"X24"	750	792	797	106.3
RTU-3-SGRD5	SALES FLOOR	LAY-IN	24"X24"	750	865	821	109.5
RTU-3-SGRD6	SALES FLOOR	LAY-IN	24"X24"	750	783	803	107.1
RTU-3-SGRD7	SALES FLOOR	LAY-IN	24"X24"	750	821	801	106.8
RTU-3-SGRD8	SALES FLOOR	LAY-IN	24"X24"	750	736	737	98.3
Total				6000	6633	6173	102.88%

Completed By: Jordan Best on 04/19/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-4

AREA:

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3013052
Model Num	ZR102	AV15S3CQ4G1CAQ16F2
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	31"X14"
Num PreFilter 1	-	4
PreFilter Size 1	-	25"X20"X2"

Test Data		
	Design	Actual
SF CFM	6000	5877
SF RPM	-	760
RA CFM	-	4085
OA CFM	1700	1792
RL Voltage	-	493.2/491.8/494.3
RL Amperage	-	5.01/5.42/5.71
OA Damper Position	-	50%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	182T
Horsepower	-	3.7
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	6.1
Service Factor	-	NA

Drive Data		
	Design	Actual
Motor Sheave Size	-	4"
Motor Bore Size	-	0.75"
Motor Sheave SetPt	-	3 TURNS OUT
Fan Sheave Size	-	1B5V74
Fan Sheave Bore	-	1 7/16"
Belt CL Distance	-	14"
Num of Belts	-	1
Belt Size	-	AX41

Completed By: Jordan Best on 04/19/2024

Notes:

VFD % set to 78% at high speed / 46.95 HZ

Written By: Jordan Best on 02/16/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-4/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-4-SGRD1	SALES FLOOR	LAY-IN	24"X24"	750	932	743	99.1
RTU-4-SGRD2	SALES FLOOR	LAY-IN	24"X24"	750	1011	691	92.1
RTU-4-SGRD3	SALES FLOOR	LAY-IN	24"X24"	750	917	743	99.1
RTU-4-SGRD4	SALES FLOOR	LAY-IN	24"X24"	750	1136	760	101.3
RTU-4-SGRD5	SALES FLOOR	LAY-IN	24"X24"	750	1082	738	98.4
RTU-4-SGRD6	SALES FLOOR	LAY-IN	24"X24"	750	778	777	103.6
RTU-4-SGRD7	SALES FLOOR	LAY-IN	24"X24"	750	788	743	99.1
RTU-4-SGRD8	SALES FLOOR	LAY-IN	24"X24"	750	655	682	90.9
Total				6000	7299	5877	97.95%

Completed By: Jordan Best on 04/19/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-5

AREA:

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3007343
Model Num	ZR102	ZJ102S18R4D5BCAKA3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"X2"

Test Data		
	Design	Actual
SF CFM	3400	3468
SF RPM	-	797.7
RA CFM	3160	3200
OA CFM	240	268
RL Voltage	-	490.9/492.9/493.8
RL Amperage	-	3.04/2.88/2.83
OA Damper Position	-	10%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	1750
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	4.7
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	1V50 7/8
Motor Bore Size	-	1V50 7/8
Motor Sheave SetPt	-	5 TURNS OUT
Fan Sheave Size	-	7"
Fan Sheave Bore	-	0.75"
Belt CL Distance	-	19"
Num of Belts	-	1
Belt Size	-	A54

Completed By: Jordan Best on 04/15/2024

Notes:
VFD % set to 90% at high speed / 54.23 HZ

Written By: Jordan Best on 02/16/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-5/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-5-SGRD1	MDF	LAY-IN	24"X24"	400	370	415	103.8
RTU-5-SGRD2	LP	LAY-IN	24"X24"	400	362	427	106.8
RTU-5-SGRD3	TRAINING	LAY-IN	24"X24"	350	291	330	94.3
RTU-5-SGRD4	OPEN OFFICE	LAY-IN	24"X24"	300	353	328	109.3
RTU-5-SGRD5	MGR	LAY-IN	24"X24"	200	217	219	109.5
RTU-5-SGRD6	OPEN OFFICE	LAY-IN	24"X24"	300	318	318	106.0
RTU-5-SGRD7	CASH	LAY-IN	24"X24"	250	187	271	108.4
RTU-5-SGRD8	ASSOCIATE LOUNGE	LAY-IN	24"X24"	300	409	283	94.3
RTU-5-SGRD9	ASSOCIATE LOUNGE	LAY-IN	24"X24"	200	425	196	98.0
RTU-5-SGRD10	RESTROOM	LAY-IN	24"X24"	200	166	202	101.0
RTU-5-SGRD11	RESTROOM	LAY-IN	24"X24"	200	175	206	103.0
RTU-5-SGRD12	HALL WAY		24"X24"	300	187	273	91.0
Total				3400	3460	3468	102%

Completed By: Jordan Best on 03/20/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: AHU/RTU



Asset: RTU-6

AREA:

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	N2M3007344
Model Num	ZR102	ZJ102S18R4D5BCEKA3
Configuration	-	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	30"X22"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"X2"

Test Data		
	Design	Actual
SF CFM	3400	3528
SF RPM	-	807
RA CFM	2785	2885
OA CFM	615	643
RL Voltage	-	493.5/495.2/495.7
RL Amperage	-	2.78/2.45/2.55
OA Damper Position	-	15%

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	-	3
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	460
Rated Amperage	-	4.1
Service Factor	-	1.15

Drive Data		
	Design	Actual
Motor Sheave Size	-	1V50 7/8
Motor Bore Size	-	1V50 7/8
Motor Sheave SetPt	-	5 TURNS OUT
Fan Sheave Size	-	7"
Fan Sheave Bore	-	0.75"
Belt CL Distance	-	19"
Num of Belts	-	1
Belt Size	-	A54

Completed By: Jordan Best on 02/16/2024

Notes:
VFD % set to 90% at high speed / 54.23 HZ

Written By: Jordan Best on 02/16/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-6/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-6-SGRD1	STOCK ROOM	SURFACE	20"X12"	400	146	409	102.3
RTU-6-SGRD2	STOCK ROOM	SURFACE	20"X12"	400	173	419	104.8
RTU-6-SGRD3	STOCK ROOM	SURFACE	20"X12"	325	183	311	95.7
RTU-6-SGRD4	STOCK ROOM	SURFACE	20"X12"	325	209	348	107.1
RTU-6-SGRD5	STOCK ROOM	SURFACE	20"X12"	325	482	317	97.5
RTU-6-SGRD6	STOCK ROOM	SURFACE	20"X12"	325	509	337	103.7
RTU-6-SGRD7	STOCK ROOM	SURFACE	20"X12"	325	383	332	102.2
RTU-6-SGRD8	STOCK ROOM	SURFACE	20"X12"	325	421	359	110.5
RTU-6-SGRD9	STOCK ROOM	SURFACE	20"X12"	325	389	345	106.2
RTU-6-SGRD10	STOCK ROOM	SURFACE	20"X12"	325	382	351	108.0
Total				3400	3277	3528	103.76%

Completed By: Jordan Best on 02/15/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	LOREN COOK
Model Num	CSP-A 510	100 ACEH 100C15DH
Serial Num	-	108PK59599- 01/0000702
Type	CENTRIFUGAL	CENTRIFUGAL

Test Data		
	Design	Actual
CFM	600	692
RL Voltage	-	NA
RL Amperage	-	1.57/1.52
Total ESP	-	-0.18"

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	48Y
Horsepower	0.1	0.125
Motor Rpm	1620	1550
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.7
Service Factor	-	NA

Completed By: Jordan Best on 02/15/2024

Notes:

Fan exceeds design CFM and is not equipped with a speed controller. Returns do not have dampers to adjust flow.

Written By: Jordan Best on 02/15/2024

National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/

Asset									
Asset Name	Model Num	MFG	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EF1-EGRD1	50F	TITUS	24"X24"	300	1	326	326	326	108.7
EF1-EGRD2	50F	TITUS	24"X24"	300	1	366	366	366	122.0
Total				600		692	692	692	115.33%

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National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	LOREN COOK
Model Num	CSP-A 510	GEMINI 800
Serial Num	-	NA
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	900	873
RL Voltage	-	NA
RL Amperage	-	3.15
Total ESP	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	NA	NA
Motor Rpm	1023	NA
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	4.3
Service Factor	-	NA

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National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF3

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CSP-A 510	NA
Serial Num	-	NA
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	400	403
RL Voltage	-	NA
RL Amperage	-	1.32
Total ESP	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	NA	NA
Motor Rpm	940	NA
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.85
Service Factor	-	NA

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National TAB

Project: Kohls Hyde Park (Cincinnati, OH)

System/Unit: FAN - Exhaust



Asset: EF4

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	LOREN COOK
Model Num	CSP-A 510	GEMINI 800
Serial Num	-	NA
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	900	923
RL Voltage	-	NA
RL Amperage	-	3.78
Total ESP	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NA
Frame	-	NA
Horsepower	NA	NA
Motor Rpm	1023	NA
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	4.3
Service Factor	-	NA

Completed By: Jordan Best on 02/15/2024