Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 02/01/2023

PROJECT

02-06-23 RED ROBIN GLENDALE AZ

ROBIN

GLENDALE , AZ

Client

Red Robin International,Inc.

National TAB

Project: 02-06-23 RED ROBIN GLENDALE AZ

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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) w/ Diffusers

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. . Any EF's that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles

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.

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AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	DINING	4800	4800	2920	2867	1880	1896	39.2%	39.5%						
RTU-2	KITCHEN	2250	2253	1640	1613	610	616	27.1%	27.3%						
DOAS 1	DOAS	4900	4885	0	0	4900	4885	100.0%	100.0%						
EF-1	HOOD 1											3500	3723		
EF-2	HOOD 2											2063	2096		
EF-3	DISH											900	938		
EF-4	RESTROOM													300	313
TOTALS		11950	11938	4560	4480	7390	7397			0	0	6463	6757	300	313

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	7390	7397
TOTAL EXHAUST	6763	7070
NET AIRFLOW	627	327

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.005
SIDE	0.006
REAR	0.005
AVERAGE	**0.0053**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

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CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
All hood filters installed and accounted for?	Yes
Hoods are wired and have power?	Yes
Hood is free of alarms?	Yes
Thermostats have power?	Yes
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	N/A

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's	
Economizers are assembled and functional?	Yes
DCV Max damper opening position is set to minimum?	Yes
Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes
Motors are all operating below the FLA rating?	Yes
Are belts tight?	N/A
If direct drive unit is the speed controller working.	Yes/ VFD controlled
Is gas piping installed and valves turned on?	Yes
Unit free of noticeable noise and vibration	Yes
EF's	
Rotation is correct?	Yes
Belts are tight?	N/A - Direct Drive.
Grease cup installed on hood fan?	No
Hinge kit installed installed on hood fan?	Yes
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes

Flex conduit is long enough so that fan can be completely tilted back?	Yes
There is no major leakage around base of fan?	No
Is the motor operating below the motor FLA rating?	Yes
For restroom fan(s) is the back draft damper installed and can it fully open?	Yes
Unit free of noticeable noise and vibration?	Yes
MUA	
Rotation is correct?	N/A
Gas piping is installed and valves are in on position?	N/A
Heater tested and is functional?	N/A
Internal motorized damper is fully opening?	N/A
Motor is operating below the FLA rating?	N/A
Unit free of noticeable noise and vibration?	N/A
HOODS	
Kitchen equipment installed in proper places?	Yes
Can kitchen equipment be turned on for final smoke test?	No
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	N/A

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
Is space comfortable in all areas?	Yes
Is the space free of ventilation noise?	Yes
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	N/A

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	None
List smoke candle type used	Smoke Emitters
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	02/23/2023
TAB tech name / Firm	JJ Kehoe
Site super name / Firm	Ed Tamargo / Conboy- Mannion
Owner representative name / Firm (if Applicable)	Jeremy Crawford- Red Robin
Building pressure at front & back doors (All Systems On)	Front +0.005, Side +0.006,Back +0.005
ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Yes
Thermostats are programmed?	Yes

Notes/Comments :

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CheckList Information

Name :	TECH - STEP 5: FINAL DOCUMENTATION	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL DOCUMENTATION

- Marked Data capture complete for all assets?
- Picture file sent to processing team or uploaded?
- Balance schedule complete and uploaded?
- Prelim report generated and reviewed?

Notes/Comments :

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: AHU/RTU

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Asset: DOAS1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5293112
Model Num	CASTRU3-I4.400-20T-DOAS	CASTRU3-I4.400-20T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16"X25"X2"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"
Num Final Filter 2	-	4
Final Filter Size 2	-	20"X25"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208	60
Rated Amperage	-	21.10

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

Test Data		
	Design	**Actual**
SF CFM	4900	4885
SF RPM	-	1773
RA CFM	4900	4885
OA CFM	0	0
RL Voltage	-	216
RL Amperage	-	11.07
SF Rotation	-	CCW
RA Damper Position	-	0
Min OA Damper Position	-	100%
Min OA Damper Type	-	BLADE
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0.28
Fan Suction SP	-	1.13
Fan Discharge SP	-	0.39
Total ESP	0.5	0.67
Fan Total SP	-	1.52

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	NO

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Project:02-06-23 RED ROBIN GLENDALE AZ

AHU/RTU

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Diffuser Supply (GRD)

DOAS1/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	TO- GO	CSD2	10"	310	1	319		313	101.0
SGRD2	COOKLINE	CSD3	10"	300	1	313		294	98.0
SGRD3	EXPO	CSD2	12'	470	1	392		466	99.1
SGRD4	EXPO	CSD2	12"	460	1	537		463	100.7
SGRD5	COOKLINE	CSD3	10"	300	1	393		297	99.0
SGRD6	EXPO	CSD2	12"	470	1	508		463	98.5
SGRD7	COOKLINE	CSD3	10"	300	1	305		306	102.0
SGRD8	WASH	CSD3	10"	300	1	412		303	101.0
SGRD9	FOOD PREP	CSD3	12"'	460	1	351		458	99.6
SGRD10	RECEIVING	CSD2	12"	460	1	527		461	100.2
SGRD11	RECEIVING	CSD2	12"	435	1	398		428	98.4
SGRD12	OFFICE	CSD2	12"	435	1	440		433	99.5
SGRD13	FIRE RISER	CSD2	8"	200	1	75		200	100.0

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: AHU/RTU

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Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Serial Num	-	5293112
Model Num	CASTRU-I.300-20-12.5T-DOAS	CASTRU-I.300-20-12.5T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16"X25"X2"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"
Num Final Filter 2	-	4
Final Filter Size 2	-	20"X25"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	213T
Horsepower	-	7.5
Motor Rpm	-	1735
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	21.90

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

Test Data		
	Design	**Actual**
SF CFM	4800	4800
SF RPM	-	1768
RA CFM	2920	2867
OA CFM	1880	1896
RL Voltage	-	216
RL Amperage	-	11.76
SF Rotation	-	CCW
RA Damper Position	-	60%
Min OA Damper Position	-	40%
Min OA Damper Type	-	BLADE
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0.24
Fan Suction SP	-	0.74
Fan Discharge SP	-	0.36
Total ESP	0.5	0.60
Fan Total SP	-	1.10

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	NO

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Project:02-06-23 RED ROBIN GLENDALE AZ

AHU/RTU

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Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	CSD2	12"	425	1	212		421	99.1
SGRD2	DINING	CSD2	12"	425	1	249		433	101.9
SGRD3	DINING	CSD2	12"	425	1	97		426	100.2
SGRD4	DINING	CSD2	12"	425	1	201		420	98.8
SGRD5	DINING	CSD2	12"	425	1	156		427	100.5
SGRD6	DINING	PSD3	8"	165	1	228		163	98.8
SGRD7	DINING	PSD3	8"	165	1	313		166	100.6
SGRD8	DINING	PSD3	8"	165	1	186		163	98.8
SGRD9	DINING	PSD3	8"	165	1	364		171	103.6
SGRD10	DINING	PSD3	8"	165	1	236		160	97.0
SGRD11	DINING	CSD2	12"	425	1	479		422	99.3
SGRD12	DINING	CSD2	12"	425	1	894		418	98.4
SGRD13	DINING	CSD2	12"	425	1	692		430	101.2
SGRD14	DINING	CSD2	12"	425	1	282		433	101.9
SGRD15	HALL	CSD1	6"	75	1	113		73	97.3
SGRD16	RESTROOM	CSD1	6"	75	1	121		74	98.7

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: AHU/RTU

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Asset: RTU2 AREA:KITHCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE `	CAPTIVEAIRE `
Serial Num	-	5293112
Model Num	CASTRU-I-150-15.6T-DOAS	CASTRU-I-150-15.6T-DOAS
Type	DOAS	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	16"X16"X2"
Num Final Filter 1	-	4
Final Filter Size 1	-	16X"16"X2"
Num Final Filter 2	-	4
Final Filter Size 2	-	16"X16"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	145T
Horsepower	-	2
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.06

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

Test Data		
	Design	**Actual**
SF CFM	2250	2253
SF RPM	-	1757
RA CFM	1890	1613
OA CFM	610	616
RL Voltage	-	216
RL Amperage	-	4.71
SF Rotation	-	CCW
RA Damper Position	-	85%
Min OA Damper Position	-	15%
Min OA Damper Type	-	BLADE
OA Enthalpy Setpt	-	D

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0.22
Fan Suction SP	-	0.49
Fan Discharge SP	-	0.39
Total ESP	0.5	0.61
Fan Total SP	-	0.88

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	NO

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Project:02-06-23 RED ROBIN GLENDALE AZ

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/KITHCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	VESTIBLE	CSD1	6"	100	1	149		97	97.0
SGRD2	ENTRY	CSD2	8"	200	1	97		203	101.5
SGRD3	ENTRY	CSD2	8"	200	1	100		202	101.0
SGRD4	LOUNGE	CSD2	8"	200	1	184		197	98.5
SGRD5	LOUNGE	CSD2	8"	200	1	56		211	105.5
SGRD6	LOUNGE	CSD2	8"	200	1	115		206	103.0
SGRD7	LOUNGE	CSD2	8"	200	1	165		189	94.5
SGRD8	LOUNGE	CSD2	8"	150	1	246		146	97.3
SGRD9	LOUNGE	CSD2	8"	200	1	67		202	101.0
SGRD10	BAR	CSD2	8"	200	1	193		194	97.0
SGRD11	BAR	CSD2	8"	200	1	185		200	100.0
SGRD12	BAR	CSD2	8"	200	1	149		206	103.0

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: FAN - Exhaust

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Asset: EF1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CASRE20DD	CASRE20DD
Serial Num	-	5293112
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	184T
Horsepower	-	5
Motor Rpm	-	1750
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	15.00
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	3500	3723
Fan RPM	1449	1456
Fan Rotation	-	CCW
Motor RPM	-	1456
System SetPt	-	49.7
RL Voltage	-	216
RL Amperage	-	7.47
Total ESP	2.0"	1.36
Fan Inlet SP	-	1.36
Fan Discharge SP	-	ATM

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System/Unit: FAN - Exhaust

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Asset: EF2 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	5293112
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	184T
Horsepower	-	2
Motor Rpm	-	1165
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	6.67
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	2063	2096
Fan RPM	1155	883
Fan Rotation	-	CCW
Motor RPM	-	883
System SetPt	-	45.3Hz
RL Voltage	-	216
RL Amperage	-	3.61
Total ESP	1.5"	0.79
Fan Inlet SP	-	0.79
Fan Discharge SP	-	ATM

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: FAN - Exhaust

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Asset: EF3 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR33HFA	DR33HFA
Serial Num	-	5293112
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	HSSA
Frame	-	48Y
Horsepower	-	1/3
Motor Rpm	-	1625
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.80
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	900	938
Fan RPM	1593	VARIABLE
Fan Rotation	-	CCW
Motor RPM	-	VARIABLE
System SetPt	-	N/A
RL Voltage	-	125
RL Amperage	-	1.28
Total ESP	0.4"	0.23
Fan Inlet SP	-	23"
Fan Discharge SP	-	ATM

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: FAN - Exhaust

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Asset: EF4 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	5293112
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO
Frame	-	N/A
Horsepower	-	1/4
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.90
Service Factor	-	1.0

Test Data		
	Design	**Actual**
CFM	300	313
Fan RPM	1415	1852
Fan Rotation	-	CCW
Motor RPM	-	1852
System SetPt	-	100%
RL Voltage	-	125
RL Amperage	-	2.46
Total ESP	0.619"	0.274"
Fan Inlet SP	-	0.274
Fan Discharge SP	-	ATM

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Project:02-06-23 RED ROBIN GLENDALE AZ

FAN - Exhaust

Comfort. Under control.

Diffuser Ret/Exh (GRD)

EF4/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	W. RESTROOM	CEG1	6X6	150	1	62		157	104.7
EGRD2	M. RESTROOM	CEG1	6X6	150	1	61		156	104.0

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Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: Kitchen Hood Type I

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Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5430ND-2	5430ND-2
Job / Serial Num	-	5293112
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	110"	110"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO.	CAPTRATE SOLO.
Filter Size 1	16X20	16"X20"
Filter Qty 1	6	6
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	12.48	12.48
Filter1 FPM	-	163
Filter2 FPM	-	163
Filter3 FPM	-	171
Filter4 FPM	-	179
Filter5 FPM	-	171
Filter6 FPM	-	164
Filter Ave FPM(corr)	-	168
CFM	2063	2096

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYER
Item 2	-	FRYER

Completed By: Wale Odofin

Notes:

National TAB

Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5430ND-2	5430ND-2
Job / Serial Num	-	5293112
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	168"	168"
Hood Width	54"	54"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X20	16"X20"
Filter Qty 1	10	10
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	20.8	20.8
Filter1 FPM	-	168
Filter2 FPM	-	184
Filter3 FPM	-	194
Filter4 FPM	-	193
Filter5 FPM	-	194
Filter6 FPM	-	204
Filter7 FPM	-	157
Filter8 FPM	-	170
Filter9 FPM	-	179
Filter10 FPM	-	146
Filter Ave FPM(corr)	-	179
CFM	3500	3723

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRIDDLES
Item 2	-	PIZZA OVEN

Completed By: Wale Odofin

Notes:

National TAB

Project: 02-06-23 RED ROBIN GLENDALE AZ

System/Unit: Kitchen Hood Type II

Comfort. Under control.

Asset: HD3 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4224 VHB-G	4224 VHB-G
Serial Num	-	5293112
Type	TYPE II CANOPY	TYPE II CANOPY
Hood length	72"	72"
Hood Width	42"	42"

Test Data		
	Design	**Actual**
Exhaust CFM	900	938

Completed By: Wale Odofin

Notes: