



National TAB

Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-1

Area: OFFICE

Unit Data	
Manufacturer	CARRIER
Model Num	50TM-008-P-501---
Serial Num	2403630411
Configuration	VERTICAL
Num OA Filters	-
OA Filter Size	-
Num PreFilter	4
PreFilter Size	20X16X2

Test Data		
	Design	Actual
SF CFM	2875	2312
SF RPM		908
RA CFM	2475	1254
OA CFM	400	-
RL VOLTAGE		206/208.4/208.2
RL AMPERAGE		4.9/4.9/4.9
OA Damper Position		0% OPEN
Brake Horsepower		

Motor Data	
Motor MFG	MARATHON
Frame	56Y
Horsepower	NL
Motor RPM	1725
Phase	3
Rated Voltage	208
Rated Amperage	5.2
Service Factor	1.15

Performance Data		
	Design	Actual
Fan Suction SP		-1.02"
Fan Discharge SP		0.9"
Fan Total SP		1.92"
CX Coil PD *		-
Pre Filter PD *Combined		0.2"
Total ESP		1.78"

Drive Data	
Motor Sheave Size / Bore	1VL44/0.625"
Fan Sheave Size / Bore	AM74/1"
Belt CL Distance	17.75"
No. Belts / Size	1/AX51



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: AHU-1 VAV's

Asset	Area Served		Type	Size	Design Max CFM	Actual Max CFM	Design Min [1] CFM	Actual Min CFM	Ak (max)
VAV-1.1	LOBBY		A	24X12	750	599	150	144	
VAV-1.2	LOBBY		A	24X12	825	650	165	171	
VAV-1.3	OFFICE		A	10	300	247	60	57	
VAV-1.4	OFFICE		A	10	300	239	60	59	
VAV-1.5	OFFICE		A	14X12	450	375	90	96	
VAV-1.6	OFFICE		A	10	250	202	50	51	
					2875	2312			

NOTES: [1] DESIGN MIN CFM IS 20% OF DESIGN MAX CFM



National TAB

Comfort. Under control.

Project: Starr Electric

Address: 1808 Norland Road Charlotte, NC

Asset: AHU-1 SGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
1.1-1	LOBBY	A	10	250	159	202	0.81
1.1-2	LOBBY	A	10	250	0	201	0.80
1.1-3	LOBBY	A	10	250	155	196	0.78
VAV-1.1				750		599	0.80
1.2-1	LOBBY	A	10	300	231	240	0.80
1.2-2	LOBBY	A	10	225	201	174	0.77
1.2-3	LOBBY	A	10	300	188	236	0.79
VAV-1.2				825		650	0.79
1.3-1	OFFICE	A	10	300	315	247	0.82
VAV-1.3				300		247	0.82
1.4-1	OFFICE	A	10	300	366	239	0.80
VAV-1.4				300		239	0.80
1.5-1	DATA ROOM	A	8	150	154	135	0.90
1.5-2	OFFICE	A	10	300	218	240	0.80
VAV-1.5				450		375	0.83
1.6-1	OFFICE	A	10	250	277	202	0.81
VAV-1.6				250		202	0.81

Asset: AHU-1 EGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
R1-1	OFFICE	B	10	300	225	165	0.55
R1-2	LOBBY	B	14	825	325	377	0.46
R1-3	LOBBY	B	14	750	226	278	0.37
R1-4	OFFICE	B	10	300	149	168	0.56
R1-5	OFFICE	B	10	300	138	152	0.51
R1-6	OFFICE	B	10	250	191	190	0.76
RTU-1				2725	1254	1330	0.49



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-2

Area: OFFICE

Unit Data	
Manufacturer	CARRIER
Model Num	50TFF005-A-511--
Serial Num	1903G20127
Configuration	VERTICAL
Num OA Filters	-
OA Filter Size	-
Num PreFilter	2
PreFilter Size	16X25X2

Test Data		
	Design	Actual
SF CFM	1600	1139
SF RPM		1024
RA CFM	1250	1008
OA CFM	350	-
RL VOLTAGE		208.4
RL AMPERAGE		2.4
OA Damper Position		-
Brake Horsepower		0.49

Motor Data	
Motor MFG	GE MOTORS
Frame	NL
Horsepower	1
Motor RPM	1620
Phase	1
Rated Voltage	208
Rated Amperage	4.9
Service Factor	1

Performance Data		
	Design	Actual
Fan Suction SP		-0.5"
Fan Discharge SP		0.25"
Fan Total SP		0.75"
CX Coil PD *		-
Pre Filter PD *Combined		0.15"
Total ESP		0.60"

Drive Data	
Motor Sheave Size / Bore	1VL34/0.5"
Fan Sheave Size / Bore	4.375"/0.625"
Belt CL Distance	13.375"
No. Belts / Size	1/A36



National TAB

Project: Starr Electric

Address: 1808 Norland Road Charlotte, NC

Asset: RTU-2 SGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
2-1	RECEPTION	A	10	225	227	225	1.00
2-2	RECEPTION	A	10	225	214	246	1.09
2-3	OFFICE	A	8	125	201	119	0.95
2-4	OFFICE	A	8	125	206	125	1.00
2-5	OFFICE	A	8	175	170	186	1.06
2-6	OFFICE	A	8	140	118	132	0.94
2-7	OFFICE	A	8	140	96	103	0.74
RTU-2 [1]				1155		1136	0.98

NOTES: [1] SUPPLY DUCT CONTINUES INTO A "NO WORK" AREA. ASSUME ADDITIONAL SGRD's.

Asset: RTU-2 EGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
R2-1	OFFICE	B	8	125	250	110	0.88
R2-2	OFFICE	B	8	175	124	150	0.86
R2-3	OFFICE	B	8	125	167	106	0.85
R2-4	HALLWAY	B	14	700	441	525	0.75
R2-5	OFFICE	B	8	125	78	106	0.85
RTU-2				1250		997	0.80



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-5

Area: OFFICE & CONFERENCE

Unit Data	
Manufacturer	CARRIER
Model Num	50TJ-006--501
Serial Num	3598G21685
Configuration	VERTICAL
Num OA Filters	1
OA Filter Size	25X8X1
Num PreFilter	2
PreFilter Size	15.5X25X2

Test Data		
	Design	Actual
SF CFM	2010	1240
SF RPM		DD
RA CFM	1650	-
OA CFM	360	-
RL VOLTAGE		207.4
RL AMPERAGE		4.2
OA Damper Position		0.625" OPEN
Brake Horsepower		0.71

Motor Data	
Motor MFG	NA
Frame	NL
Horsepower	1
Motor RPM	1040
Phase	1
Rated Voltage	208
Rated Amperage	5.9
Service Factor	1

Performance Data		
	Design	Actual
Fan Suction SP		-0.82"
Fan Discharge SP		0.29"
Fan Total SP		1.11"
CX Coil PD *		-
Pre Filter PD *Combined		0.4"
Total ESP		0.71"



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: AHU-5 VAV's

Asset	Area Served		Type	Size	Design Max CFM	Actual Max CFM	Design Min [1] CFM	Actual Min CFM	Ak (max)
VAV-5.1	OFFICE		A	16	1050	636	210	217	
VAV-5.2	CONF RM		LD	16	960	604	192	187	
					2010				

NOTES: [1] DESIGN MIN CFM IS 20% OF DESIGN MAX CFM



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Project: Starr Electric

Address: 1808 Norland Road Charlotte, NC

Asset: RTU-5 SGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
5.1-1	OFFICE	A	8	200	173	120	0.60
5.1-2	OFFICE	A	8	200	125	123	0.62
5.1-3	OFFICE	A	8	200	179	119	0.60
5.1-4	HALLWAY	A	8	150	161	88	0.59
5.1-5	RECEPTION	A	10	300	185	186	0.62
VAV-5.1				1050		636	0.61
5.2-1		C	10	320	160	215	0.67
5.2-2		C	10	320	130	192	0.60
5.2-3		C	10	320	129	197	0.62
VAV-5.2				960		604	0.63

Asset: RTU-5 EGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
R1-1	OFFICE	B	10	200			0.00
R1-2	OFFICE	B	10	200			0.00
R1-3	OFFICE	B	10	200			0.00
R1-4	OFFICE	B	16	1050			0.00
RTU-5				1650		0	0.00

NOTES: RETURN IS TAKEN FROM PLENUM ABOVE CEILING



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-6

Area: OFFICE

Unit Data	
Manufacturer	CARRIER
Model Num	50GS-024--301
Serial Num	1803011853
Configuration	HORIZONTAL
Num OA Filters	-
OA Filter Size	-
Num PreFilter	NA
PreFilter Size	NA

Test Data		
	Design	Actual
SF CFM	800	688
SF RPM		DD
RA CFM	800	607
OA CFM	0	0
RL VOLTAGE		207.7
RL AMPERAGE		1.8
OA Damper Position		-
Brake Horsepower		-

Motor Data	
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor RPM	NA
Phase	1
Rated Voltage	208
Rated Amperage	2
Service Factor	1

Performance Data		
	Design	Actual
Fan Suction SP		-0.51"
Fan Discharge SP		0.19"
Fan Total SP		0.7"
CX Coil PD *		-
Pre Filter PD *Combined		0.25"
Total ESP		0.45"



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-6 SGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
6-1	OFFICE	A	8	200	165	165	0.83
6-2	OFFICE	A	8	200	171	171	0.86
6-3	OFFICE	A	8	200	179	179	0.90
6-4	OFFICE	A	8	200	173	173	0.87
RTU-6				800		688	0.86

Asset: RTU-6 EGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
R6-1	OFFICE	B	8	200	156	156	0.78
R6-2	OFFICE	B	8	200	138	138	0.69
R6-3	OFFICE	B	8	200	154	154	0.77
R6-4	OFFICE	B	8	200	149	149	0.75
RTU-6				800		597	0.75



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-7

Area: OFFICES

UNIT DATA	
Manufacturer	CARRIER
Model Num	50JS-030--301
Serial Num	3213G11529
Configuration	HORIZONTAL
Num OA Filters	-
OA Filter Size	-
Num PreFilter	2
PreFilter Size	19.5X25X2
PreFilter Size 2	19.5X9.5X2

Test Data		
	Design	Actual
SF CFM	1000	855
SF RPM		-
RA CFM	1000	733
OA CFM	0	-
RL VOLTAGE		207.3
RL AMPERAGE		1.7
OA Damper Position		-
Brake Horsepower		-

Motor Data	
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor RPM	NA
Phase	1
Rated Voltage	208
Rated Amperage	2
Service Factor	1

Performance Data		
	Design	Actual
Fan Suction SP		-0.34
Fan Discharge SP		0.15"
Fan Total SP		0.49"
CX Coil PD *		-
Pre Filter PD *Combined		0.27"
Total ESP		0.22"



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Project: Starr Electric
Address: 1808 Norland Road Charlotte, NC

Asset: RTU-7 SGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
7-1	OFFICE	A	10	300	204	204	0.68
7-2 [1]	RECEPTION	A	8	200	235	235	1.18
7-3	OFFICE	A	8	160	136	136	0.85
7-4	OFFICE	A	8	160	130	130	0.81
7-5	OFFICE	A	8	160	150	150	0.94
RTU-7				980		855	0.87

Asset: RTU-7 EGRD's

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
R7-1	OFFICE	B	10	300	251	251	0.84
R7-2	RECEPTION	B	14	700	482	482	0.69
RTU-7				1000		733	0.73

NOTES: [1] UNABLE TO REACH DAMPER FOR 7-2