AQUA-AIR MANUFACTURING - JAMES D. NALL CO.,INC.
COOLING LOAD CALCULATION FOR QUOTE 02110701
COMPANY:
DATE: 07/08/03

1. COOLING FACTOR
2. TEMPERATURE MULTIPLIER
3. OA OCCUPANCY FACTOR
4. OACFM-OCCUPANCY
5. OACFM-AIR CHANGES
6. ACTUAL OACFM USED

			1	2	3	4	5	6		
0	PILOTHOUSE AFT		20	1	H	120	159	340	63840	AREA LOAD
	...PEOPLE:	8							-6242	OA COOLING, BTUH
	...AREA:	456							57597	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	3192								
1	GALLEY//LOUNGE PORT		18	1	H	450	98	400	35280	AREA LOAD
	...PEOPLE:	30							-7344	OA COOLING, BTUH
	...AREA:	280							27936	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	1960								
2	GALLEY//LOUNGE STBD		18	1		450		0	35280	AREA LOAD
	...PEOPLE:								0	OA COOLING, BTUH
	...AREA:	280							35280	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	1960								
3	PORT H'WAY		18	1	L	80	17	80	9450	AREA LOAD
	...PEOPLE:	4							-1468	OA COOLING, BTUH
	...AREA:	75							7981	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	525								
4	STBD H'WAY		18	1	L	80	17	80	9450	AREA LOAD
	...PEOPLE:	4							-1468	OA COOLING, BTUH
	...AREA:	75							7981	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	525								
5	PORT HEAD		18	1		80		0	5670	AREA LOAD
	...PEOPLE:								0	OA COOLING, BTUH
	...AREA:	45							5670	F/C CAPACITY REQ
	...AREA HT:	7								
	...VOLUME:	315								
6	PORT STRM 1		18	1	L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2							-1101	OA COOLING, BTUH

	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
7	PORT STRM 2		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
8	PORT STRM 3		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
9	MID STRM 1		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
10	MID STRM 2		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
11	STBD HEAD		18	1	40		0	5670	AREA LOAD
	...PEOPLE:							0	OA COOLING, BTUH
	...AREA:	45						5670	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	315							
12	STBD STRM 1		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
13	STBD STRM 2		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							
14	STBD STRM 3		18	1 L	40	11	60	6300	AREA LOAD
	...PEOPLE:	2						-1101	OA COOLING, BTUH
	...AREA:	50						5198	F/C CAPACITY REQ
	...AREA HT:	7							
	...VOLUME:	350							

15	PORT MACHINERY ROOM		15	1	40	0	25200	AREA LOAD
	...PEOPLE:						0	OA COOLING, BTUH
	...AREA:	240					25200	F/C CAPACITY REQ
	...AREA HT:	7						
	...VOLUME:	1680						
16	STBD MACHINERY ROOM		15	1	40	0	25200	AREA LOAD
	...PEOPLE:						0	OA COOLING, BTUH
	...AREA:	240					25200	F/C CAPACITY REQ
	...AREA HT:	7						
	...VOLUME:	1680						

265440	-------- COOLING LOAD, BTU/H
1050	-------- OACFM-OCCUPANCY
379	-------- OACFM-AIR CHANGES
1380	-------- RECOMMENDED OACFM
25336	-------- COOLING CAPACITY OF OUTSIDE AIR, BTU/H
14952	-------- INTERIOR VOLUME, CU.FT.

REQUIRED CHILLER CAPACITY IN TONS, @ 80% DIVERSITY: 16.0

TOTAL CHILLER CAPACITY REQUIRED, TONS: 31.1

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