

NCC 2019 Hours of Operation – TEMPERATURE CHECK AND THERMAL COMFORT REPORT PLUGIN

Please remember that the plugin is only a calculation tool. It is up to you to ensure that you are following all relevant NCC procedures, including setting up your building model correctly and verifying the calculated results produced by the plugin.

The temperature check and thermal comfort report plugin only analyses hours which are included in the annual *hours of operation* for the space.

The definition of *hours of operation* in the NCC is “hours where the occupancy of the space is greater than 20% of the peak occupancy” (p.654 Volume One). Unfortunately, this definition is difficult to interpret when combined with the actual occupancy schedules and hours of operation specified in the tables contained in Specification Jvc. In many cases the occupancy in the tables is equal to 20%, and according to the literal interpretation of the definition, these hours should not be counted as hours of operation, and should be excluded from the analysis. A common-sense reading of the tables indicates that this does not reflect the intention to include hours where the space is occupied by people who expect to be comfortable. Simply including the hours where occupancy is equal to 20% is also not adequate, however, as this would include some hours for which the space is not conditioned.

We have decided to interpret “hours of operation” for the plugin in the following way:

Hours are included in the analysis if (following the tables in Specification Jvc):

- The occupancy is greater than 20%
- OR
- The occupancy is equal to 20% AND the air conditioning schedule is “On”

NCC Building Class	Schedules and Hours of Operation based on NCC Jvc	Text to include in Occupancy Schedule name
Class 2	Table 2a	CLASS2
Class 3	Table 2b	CLASS3
Class 5	Table 2c and 2d	CLASS5
Class 6 (shop)	Table 2e	CLASS6-SHOP
Class 6 (restaurant)	Table 2f	CLASS6-RESTAURANT
Class 7	Table 2c and 2d	CLASS7
Class 8	Table 2c and 2d	CLASS8
Class 9a (clinic)	Table 2c and 2d	CLASS9A-CLINIC
Class 9a (ward)	Table 2g	CLASS9A-WARD
Class 9b (theatre)	Table 2h	CLASS9B-THEATRE
Class 9b (conference)	Table 2i	CLASS9B-CONFERENCE
Class 9b (school)	Table 2j	CLASS9B-SCHOOL
Class 9c	Table 2k	CLASS9C
n/a	n/a	DONOTREPORT

The hours **included** in the temperature range and thermal comfort report analysis for each building class using the plugin are shaded below. Each column represents the hour beginning with the time indicated, for example if column '9' is shaded, the hour from 9am-10am is included.

Class 2 Common Area	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 3 Hotel	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 5, 7, 8, 9a Clinic	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 6 Shop or Centre	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 6 Café / Restaurant	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 9a Ward	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 9b Theatre/ Cinema	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 9b Conference	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 9b School	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									
Class 9c Aged Care	Hour begins	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Mon-Fri																									
	Sat																									
	Sun																									

- Please note these tables are valid for version 0.5.3 forward, for earlier versions additional hours were included in the report analysis for Class 9b School and Class 9c Aged Care.