

**Foam Core Sandwich Panels Spans for the 2018 IBC for Attached Structures
Patio Cover Applications Only**

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 10	0.024	14'	14'	14'	14'	14'	14'	14'	13.5'	13'	12'
	w/ fan beam	13'	13'	13'	13'	13'	13'	13'	12.5'	11.5'	11'
Snow 10	0.024	14'	14'	14'	14'	14'	14'	14'	13.5'	13'	12'
	w/ fan beam	13'	13'	13'	13'	13'	13'	13'	12.5'	11.5'	11'
20	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10'	9.5'	9.5'	9.5'
	w/ fan beam	10'	10'	10'	10'	10'	10'	9.5'	9.5'	9.5'	9.5'
25	0.024	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'
	w/ fan beam	9'	9'	9'	9'	9'	9'	9'	9'	9'	9'
30	0.024	9'	9'	9'	9'	9'	9'	8.5'	8.5'	8'	8'
	w/ fan beam	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'
36	0.024	8'	8'	8'	8'	8'	8'	7.5'	7.5'	7.5'	7.5'
	w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	7.5'	7.5'
42	0.024	7'	7'	7'	7'	7'	7'	6.5'	6.5'	6.5'	6.5'
	w/ fan beam	7'	7'	7'	7'	7'	7'	7'	6.5'	6.5'	6.5'
50	0.024	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'
	w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'

Table 4.38a

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 10	0.024	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	15.5'	15'	14'
	w/ fan beam	14.5'	14.5'	14.5'	14.5'	14.5'	14.5'	14.5'	13.5'	13'	12.5'
Snow 10	0.024	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	15.5'	15'	14'
	w/ fan beam	14.5'	14.5'	14.5'	14.5'	14.5'	14.5'	14.5'	13.5'	13'	12.5'
20	0.024	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12'	12'	11.5'	11.5'
	w/ fan beam	11'	11'	11'	11'	11'	11'	10.5'	10.5'	10'	10'
25	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'
	w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'
30	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10'	10'
	w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9'	9'
36	0.024	9'	9'	9'	9'	9'	9'	9'	9'	9'	9'
	w/ fan beam	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8'	8'
42	0.024	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8'	8'	8'
	w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7'	7'
50	0.024	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
	w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'

Table 4.39a

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 10	0.024	18.5'	18.5'	18.5'	18.5'	18.5'	18.5'	18.5'	18'	17.5'	17'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Snow 10	0.024	18.5'	18.5'	18.5'	18.5'	18.5'	18.5'	18.5'	18'	17.5'	17'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
20	0.024	14'	14'	14'	14'	14'	14'	14'	13.5'	13.5'	13'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
25	0.024	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
30	0.024	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
36	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
42	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
50	0.024	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.40a

Commercial Cover or Carport Applications

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 20	0.024	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9'	9'	9'	9'
	w/ fan beam	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8'	8'	8'
25	0.024	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
	w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
30	0.024	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
	w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
36	0.024	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'
	w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'
42	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
50	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.41a

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 20	0.024	11'	11'	11'	11'	11'	11'	11'	10.5'	10.5'	10.5'
	w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9'	9'	9'
25	0.024	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
	w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
30	0.024	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
	w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
36	0.024	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
	w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
42	0.024	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
	w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
50	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.42a

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
		Allowable Spans (ft)									
Live 20	0.024	12'	12'	12'	12'	12'	12'	12'	12'	12'	11.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
25	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
30	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
36	0.024	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
42	0.024	9'	9'	9'	9'	9'	9'	9'	9'	9'	9'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
50	0.024	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.43a

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- Notes**
1. These tables are for use with the ICC ESR 1398 Detail N1 or O and the 2018 IBC
 2. These panels have an embedded fan beam if indicated
 3. Panels w/o fan beams are as specified in ICC ESR 2488.
Panels w/ fan beams are specified in HCD CMJ-5b5-FBH-1
 4. These panel spans are for unenclosed patio cover, carports or commercial covers.
 5. Attach to header and wall hanger as per Table 4.44a
 6. Wind speeds noted are "Ultimate Design Wind Speeds".

Trib Width (ft)	Required Fastening of Foam Core Panels to Headers									
	Wind Speed (mph) and Exposure									
	B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
O/C Spacing of #14 SM screws										
3	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
4	12"	12"	12"	12"	12"	12"	12"	11"	10"	9"
5	12"	12"	12"	11"	10"	11"	10"	9"	8"	7"
6	12"	11"	10"	9"	8"	9"	8"	7"	7"	6"
7	11"	10"	9"	8"	7"	8"	7"	6"	6"	5"
8	9"	9"	8"	7"	6"	7"	6"	5"	5"	4"
9	8"	8"	7"	6"	6"	6"	5"	5"	4"	4"
10	8"	7"	6"	6"	5"	5"	5"	4"	4"	4"
11	7"	6"	6"	5"	5"	5"	4"	4"	4"	3"
12	6"	6"	5"	5"	4"	4"	4"	4"	3"	3"
13	6"	5"	5"	4"	4"	4"	4"	3"	3"	3"
14	5"	5"	4"	4"	4"	4"	3"	3"	3"	3"
15	5"	5"	4"	4"	3"	4"	3"	3"	3"	2"

Table 4.44a

**Foam Core Sandwich Panels Spans for the 2018 IBC for Freestanding Structures
Patio Cover Applications Only**

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 10	0.024 w/ fan beam	14'	14'	14'	14'	14'	14'	13.5'	13'	13'	12.5'
Snow 10	0.024 w/ fan beam	14'	14'	14'	14'	14'	14'	13.5'	13'	13'	12.5'
20	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10'	10'	9.5'	9.5'	9.5'	9'
25	0.024 w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9'	9'
30	0.024 w/ fan beam	9'	9'	9'	9'	9'	8.5'	8.5'	8'	8'	8'
36	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	7.5'	7.5'	7.5'	7'
42	0.024 w/ fan beam	7'	7'	7'	7'	7'	7'	6.5'	6.5'	6.5'	6'
50	0.024 w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'

Table 4.38b

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 10	0.024 w/ fan beam	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	16'	15.5'	15'	14.5'
Snow 10	0.024 w/ fan beam	16.5'	16.5'	16.5'	16.5'	16.5'	16.5'	16'	15.5'	15'	14.5'
20	0.024 w/ fan beam	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12'	11.5'	11.5'	11'
25	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'
30	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10'	10'	9.5'
36	0.024 w/ fan beam	9'	9'	9'	9'	9'	9'	9'	9'	9'	8.5'
42	0.024 w/ fan beam	8.5'	8.5'	8.5'	8.5'	8.5'	8.5'	8'	8'	8'	7.5'
50	0.024 w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'

Table 4.39b

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 10	0.024 w/ fan beam	18.5'	18.5'	18.5'	18.5'	18.5'	18'	17.5'	17'	16.5'	0'
Snow 10	0.024 w/ fan beam	18.5'	18.5'	18.5'	18.5'	18.5'	18'	17.5'	17'	16.5'	0'
20	0.024 w/ fan beam	14'	14'	14'	14'	14'	14'	13.5'	13.5'	13'	13'
25	0.024 w/ fan beam	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'
30	0.024 w/ fan beam	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12'
36	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
42	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'
50	0.024 w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'

Table 4.40b

Commercial Cover or Carport Applications

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 20	0.024 w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9'	9'	9'	8.5'
25	0.024 w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
30	0.024 w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
36	0.024 w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'
42	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
50	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'

Table 4.41b

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 20	0.024 w/ fan beam	11'	11'	11'	11'	11'	11'	10.5'	10.5'	10.5'	10'
25	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
30	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
36	0.024 w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
42	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
50	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'

Table 4.42b

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
Live 20	0.024 w/ fan beam	12'	12'	12'	12'	12'	12'	12'	11.5'	11.5'	11.5'
25	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
30	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'
36	0.024 w/ fan beam	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
42	0.024 w/ fan beam	9'	9'	9'	9'	9'	9'	9'	9'	9'	9'
50	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'

Table 4.43b

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- Notes**
1. These tables are for use with the ICC ESR 1398 Detail N1 or O and the 2018 IBC
 2. These panels have an embedded fan beam if indicated
 3. Panels w/o fan beams are as specified in ICC ESR 2488.
Panels w/ fan beams are specified in HCD CMJ-5b5-FBH-1
 4. These panel spans are for unenclosed patio cover, carports or commercial covers.
 5. Attach to header and wall hanger as per Table 4.44b
 6. Wind speeds noted are "Ultimate Design Wind Speeds".

Required Fastening of Foam Core Panels to Headers										
Trib Width (ft)	Wind Speed (mph) and Exposure									
	B095	B100	B105	B110	B115	C095	C100	C105	C110	C115
3	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
4	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"
5	12"	12"	12"	12"	12"	12"	12"	12"	12"	11"
6	12"	12"	12"	12"	12"	12"	12"	11"	10"	9"
7	12"	12"	12"	12"	11"	11"	10"	9"	8"	8"
8	11"	11"	11"	11"	10"	10"	9"	8"	7"	7"
9	9"	9"	9"	9"	9"	9"	8"	7"	6"	6"
10	8"	8"	8"	8"	8"	8"	7"	6"	6"	5"
11	8"	8"	8"	8"	7"	7"	6"	6"	5"	5"
12	7"	7"	7"	7"	7"	7"	6"	5"	5"	4"
13	6"	6"	6"	6"	6"	6"	5"	5"	4"	4"
14	6"	6"	6"	6"	6"	6"	5"	5"	4"	4"
15	6"	6"	6"	6"	5"	5"	5"	4"	4"	4"

Table 4.44b

**Foam Core Sandwich Panels Spans for the 2018 IBC for Attached Structures
Patio Cover Applications Only**

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 10	0.024 w/ fan beam	14'	14'	13'	12'	11.5'	10.5'	9'	7.5'	6.5'	6'
Snow 10	0.024 w/ fan beam	14'	14'	13'	12'	11.5'	10.5'	9'	7.5'	6.5'	6'
20	0.024 w/ fan beam	10.5'	10.5'	9.5'	9.5'	9'	8.5'	8'	7.5'	6.5'	6'
25	0.024 w/ fan beam	9.5'	9.5'	9.5'	9.5'	9'	8.5'	8'	7.5'	6.5'	6'
30	0.024 w/ fan beam	9'	9'	8.5'	8'	8'	7.5'	7'	7'	6.5'	6'
36	0.024 w/ fan beam	8'	8'	7.5'	7.5'	7'	7'	6.5'	6'	6'	0'
42	0.024 w/ fan beam	7'	7'	6.5'	6.5'	6.5'	6'	6'	0'	0'	0'
50	0.024 w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6'

Table 4.45a

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 10	0.024 w/ fan beam	16.5'	16.5'	15'	14'	13.5'	12.5'	11'	9.5'	8'	7'
Snow 10	0.024 w/ fan beam	16.5'	16.5'	15'	14'	13.5'	12.5'	11'	9.5'	8'	7'
20	0.024 w/ fan beam	12.5'	12.5'	12'	11.5'	11'	10.5'	10'	9'	8'	7'
25	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10'	9'	8'	7'
30	0.024 w/ fan beam	10.5'	10.5'	10.5'	10'	10'	9.5'	9'	8.5'	8'	7'
36	0.024 w/ fan beam	9'	9'	9'	9'	9'	8.5'	8'	7.5'	7'	6.5'
42	0.024 w/ fan beam	8.5'	8.5'	8'	8'	7.5'	7.5'	7'	6.5'	6.5'	6'
50	0.024 w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7'

Table 4.46a

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 10	0.024 w/ fan beam	18.5'	18.5'	17.5'	17'	16.5'	16'	15'	14.5'	13.5'	13'
Snow 10	0.024 w/ fan beam	18.5'	18.5'	17.5'	17'	16.5'	16'	15'	14.5'	13.5'	13'
20	0.024 w/ fan beam	14'	14'	13.5'	13'	13'	12.5'	12.5'	12'	11.5'	11'
25	0.024 w/ fan beam	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12'	12'	11.5'	11'
30	0.024 w/ fan beam	12.5'	12.5'	12.5'	12.5'	12'	12'	11.5'	11.5'	11'	10.5'
36	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11'	10.5'	10.5'	10'
42	0.024 w/ fan beam	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10'	10'	9.5'
50	0.024 w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'

Table 4.47a

Commercial Cover or Carport Applications

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 20	0.024 w/ fan beam	9.5'	9.5'	9'	9'	8.5'	8.5'	8'	7.5'	6.5'	6'
25	0.024 w/ fan beam	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7'	6.5'	6.5'
30	0.024 w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	6.5'	6.5'
36	0.024 w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6'
42	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	0'
50	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	0'

Table 4.48a

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 20	0.024 w/ fan beam	11'	11'	10.5'	10.5'	10'	10'	9'	8.5'	7.5'	7'
25	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	7.5'	7.5'	7'
30	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	7.5'	7.5'	7'
36	0.024 w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	6.5'
42	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
50	0.024 w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'

Table 4.49a

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
Live 20	0.024 w/ fan beam	12'	12'	12'	11.5'	11.5'	11'	10.5'	9.5'	9'	8.5'
25	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	10.5'	9.5'	9'	8.5'
30	0.024 w/ fan beam	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	10.5'	9.5'	9'	8.5'
36	0.024 w/ fan beam	10'	10'	10'	10'	10'	10'	10'	9.5'	9'	8.5'
42	0.024 w/ fan beam	9'	9'	9'	9'	9'	9'	9'	9'	9'	8.5'
50	0.024 w/ fan beam	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'

Table 4.50a

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- Notes**
1. These tables are for use with the ICC ESR 1398 Detail N1 or O and the 2018 IBC
 2. These panels have an embedded fan beam if indicated
 3. Panels w/o fan beams are as specified in ICC ESR 2488.
Panels w/ fan beams are specified in HCD CMJ-5b5-FBH-1
 4. These panel spans are for unenclosed patio cover, carports or commercial covers.
 5. Attach to header and wall hanger as per Table 4.51a
 6. Wind speeds noted are "Ultimate Design Wind Speeds".

Trib Width (ft)	Required Fastening of Foam Core Panels to Headers									
	Wind Speed (mph) and Exposure									
	B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
3	12"	12"	12"	12"	11"	9"	8"	7"	6"	5"
4	12"	12"	10"	9"	8"	7"	6"	5"	5"	4"
5	11"	10"	8"	7"	7"	6"	5"	4"	4"	3"
6	9"	8"	7"	6"	5"	5"	4"	3"	3"	3"
7	8"	7"	6"	5"	5"	4"	3"	3"	3"	2"
8	7"	6"	5"	4"	4"	3"	3"	3"	2"	2"
9	6"	6"	4"	4"	4"	3"	3"	2"	2"	2"
10	6"	5"	4"	4"	3"	3"	2"	2"	2"	2"
11	5"	5"	4"	3"	3"	3"	2"	2"	2"	1"
12	5"	4"	3"	3"	3"	2"	2"	2"	2"	1"
13	4"	4"	3"	3"	3"	2"	2"	2"	1"	1"
14	4"	4"	3"	3"	2"	2"	2"	1"	1"	1"
15	4"	3"	3"	2"	2"	2"	2"	1"	1"	1"

Table 4.51a

**Foam Core Sandwich Panels Spans for the 2018 IBC for Freestanding Structures
Patio Cover Applications Only**

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 10	0.024	14'	14'	13'	12.5'	12.5'	11.5'	11'	10'	9'	8.5'
	w/ fan beam	13'	13'	12'	11.5'	11'	10.5'	10'	9.5'	9'	8.5'
Snow 10	0.024	14'	14'	13'	12.5'	12.5'	11.5'	11'	10'	9'	8.5'
	w/ fan beam	13'	13'	12'	11.5'	11'	10.5'	10'	9.5'	9'	8.5'
20	0.024	10.5'	10'	9.5'	9'	8.5'	8'	7.5'	7'	6.5'	6'
	w/ fan beam	10'	9.5'	9'	8.5'	8'	7.5'	7'	6.5'	6'	6'
25	0.024	9.5'	9.5'	9'	9'	8.5'	8'	7.5'	7'	6.5'	6'
	w/ fan beam	9'	9'	9'	9'	8.5'	8'	7.5'	7'	6.5'	6'
30	0.024	9'	9'	8'	8'	7.5'	7'	7'	6.5'	6'	0'
	w/ fan beam	8.5'	8.5'	8'	8'	7.5'	7'	6.5'	6'	6'	0'
36	0.024	8'	8'	7.5'	7'	7'	6.5'	6'	6'	0'	0'
	w/ fan beam	8'	8'	7.5'	7'	7'	6.5'	6'	6'	0'	0'
42	0.024	7'	7'	6.5'	6'	6'	6'	0'	0'	0'	0'
	w/ fan beam	7'	7'	6.5'	6.5'	6'	6'	0'	0'	0'	0'
50	0.024	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'
	w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'

Table 4.45b

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 10	0.024	16.5'	16.5'	15'	14.5'	14.5'	13.5'	13'	12.5'	11'	10'
	w/ fan beam	14.5'	14'	13'	13'	12.5'	12'	11'	10.5'	10'	9'
Snow 10	0.024	16.5'	16.5'	15'	14.5'	14.5'	13.5'	13'	12.5'	11'	10'
	w/ fan beam	14.5'	14'	13'	13'	12.5'	12'	11'	10.5'	10'	9'
20	0.024	12.5'	12.5'	11.5'	11'	10.5'	10'	9.5'	8.5'	8'	7.5'
	w/ fan beam	11'	11'	10'	9.5'	9.5'	9'	8'	7.5'	7'	6.5'
25	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10'	9'	8.5'	8'	7.5'
	w/ fan beam	9.5'	9.5'	9.5'	9.5'	9.5'	8.5'	8'	7.5'	7'	6.5'
30	0.024	10.5'	10.5'	10'	9.5'	9.5'	9'	8.5'	8'	7.5'	7'
	w/ fan beam	9.5'	9.5'	9'	8.5'	8.5'	8'	7.5'	7'	6.5'	6'
36	0.024	9'	9'	9'	8.5'	8.5'	8'	7.5'	7'	6.5'	6.5'
	w/ fan beam	8.5'	8.5'	8'	7.5'	7.5'	7'	6.5'	6.5'	6'	0'
42	0.024	8.5'	8.5'	8'	7.5'	7.5'	7'	7'	6.5'	6'	6'
	w/ fan beam	7.5'	7.5'	7'	7'	6.5'	6.5'	6'	0'	0'	0'
50	0.024	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'
	w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'

Table 4.46b

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 10	0.024	18.5'	18.5'	17'	16.5'	16'	15'	14.5'	13.5'	13'	12.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Snow 10	0.024	18.5'	18.5'	17'	16.5'	16'	15'	14.5'	13.5'	13'	12.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
20	0.024	14'	14'	13'	13'	12.5'	12.5'	12'	11.5'	11'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
25	0.024	12.5'	12.5'	12.5'	12.5'	12.5'	12.5'	12'	11.5'	11'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
30	0.024	12.5'	12.5'	12.5'	12'	12'	11.5'	11.5'	11'	10.5'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
36	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11'	11'	10.5'	10'	10'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
42	0.024	10.5'	10.5'	10.5'	10.5'	10.5'	10'	10'	9.5'	9'	9'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
50	0.024	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'	9.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.47b

Commercial Cover or Carport Applications

		3" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 20	0.024	9.5'	9.5'	9'	8.5'	8.5'	8'	8'	7.5'	7.5'	7'
	w/ fan beam	8.5'	8.5'	8'	8'	7.5'	7.5'	7'	7'	6.5'	6.5'
25	0.024	7.5'	7.5'	7.5'	7.5'	7.5'	7.5'	7'	6.5'	6'	6'
	w/ fan beam	7.5'	7.5'	7.5'	7.5'	7'	7'	7'	6.5'	6.5'	6'
30	0.024	7'	7'	7'	7'	7'	7'	7'	6.5'	6'	6'
	w/ fan beam	7.5'	7.5'	7.5'	7.5'	7'	7'	7'	6.5'	6.5'	6'
36	0.024	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6'	0'
	w/ fan beam	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6.5'	6'	6'	0'
42	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	0'	0'
50	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.48b

		4" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 20	0.024	11'	11'	10.5'	10'	10'	9.5'	9'	8.5'	8.5'	8'
	w/ fan beam	9.5'	9.5'	9'	9'	8.5'	8.5'	8'	7.5'	7.5'	7'
25	0.024	8'	8'	8'	8'	8'	8'	8'	8'	8'	7.5'
	w/ fan beam	8'	8'	8'	8'	8'	8'	7.5'	7.5'	7'	6.5'
30	0.024	8'	8'	8'	8'	8'	8'	8'	8'	7.5'	7.5'
	w/ fan beam	8'	8'	8'	8'	8'	8'	7.5'	7'	7'	6.5'
36	0.024	7'	7'	7'	7'	7'	7'	7'	7'	7'	7'
	w/ fan beam	7'	7'	7'	7'	7'	7'	7'	7'	6.5'	6'
42	0.024	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
	w/ fan beam	6'	6'	6'	6'	6'	6'	6'	6'	6'	0'
50	0.024	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.49b

		6" Panel									
Ground Snow Load (psf)	Panel Skin Thickness (in)	Wind Speed (mph) and Exposure									
		B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
		Allowable Spans (ft)									
Live 20	0.024	12'	12'	11.5'	11.5'	11'	10.5'	10'	10'	9.5'	9'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
25	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
30	0.024	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11.5'	11'	10.5'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
36	0.024	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
42	0.024	9'	9'	9'	9'	9'	9'	9'	9'	9'	9'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
50	0.024	8'	8'	8'	8'	8'	8'	8'	8'	8'	8'
	w/ fan beam	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'

Table 4.50b

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- Notes**
1. These tables are for use with the ICC ESR 1398 Detail N1 or O and the 2018 IBC
 2. These panels have an embedded fan beam if indicated
 3. Panels w/o fan beams are as specified in ICC ESR 2488.
Panels w/ fan beams are specified in HCD CMJ-5b5-FBH-1
 4. These panel spans are for unenclosed patio cover, carports or commercial covers.
 5. Attach to header and wall hanger as per Table 4.51b
 6. Wind speeds noted are "Ultimate Design Wind Speeds".

Required Fastening of Foam Core Panels to Headers										
Trib Width (ft)	Wind Speed (mph) and Exposure									
	B110	B115	C110	C115	C120	C130	C140	C150	C160	C170
O/C Spacing of #14 SM screws										
3	12"	12"	12"	12"	12"	12"	12"	10"	9"	8"
4	12"	12"	12"	12"	12"	10"	9"	8"	7"	6"
5	12"	12"	12"	11"	10"	8"	7"	6"	5"	5"
6	12"	12"	10"	9"	8"	7"	6"	5"	4"	4"
7	12"	11"	8"	8"	7"	6"	5"	4"	4"	3"
8	11"	10"	7"	7"	6"	5"	4"	4"	3"	3"
9	9"	9"	6"	6"	5"	5"	4"	3"	3"	3"
10	8"	8"	6"	5"	5"	4"	4"	3"	3"	2"
11	8"	7"	5"	5"	4"	4"	3"	3"	2"	2"
12	7"	7"	5"	4"	4"	3"	3"	3"	2"	2"
13	6"	6"	4"	4"	4"	3"	3"	2"	2"	2"
14	6"	6"	4"	4"	3"	3"	3"	2"	2"	2"
15	6"	5"	4"	4"	3"	3"	2"	2"	2"	2"

Table 4.51b