

# Acoustic Calculator

TOOL FOR CRAFTING THE IDEAL SOLUTION





# Acoustix Collection

Uncompromised illumination with excellent sound absorption

## Linears

[Explore the Acoustix Collection Online](#)



Via 1.5 / Via 2 Acoustix



Via 1.5 / Via 2 Spoke Acoustix



Via Stil Acoustix



Squero Acoustix



Squero Spoke Acoustix



Arro 4 Acoustix

## Curvlinears



Curvia Acoustix



Curvia Acoustix

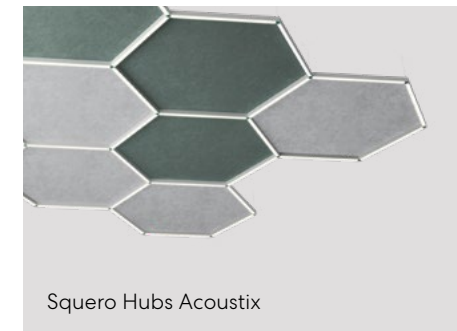
## Vertical Acoustix



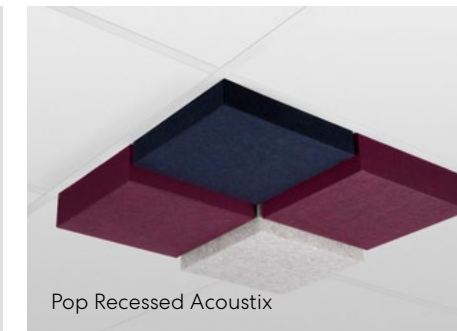
Tab Acoustix



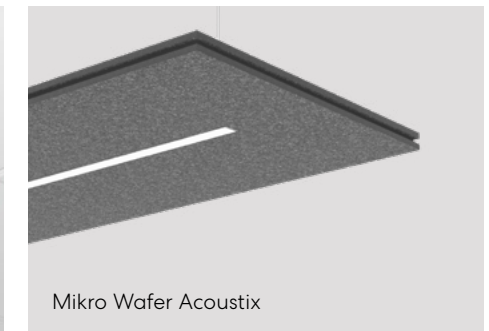
## Horizontal Acoustix



Squero Hubs Acoustix



Pop Recessed Acoustix

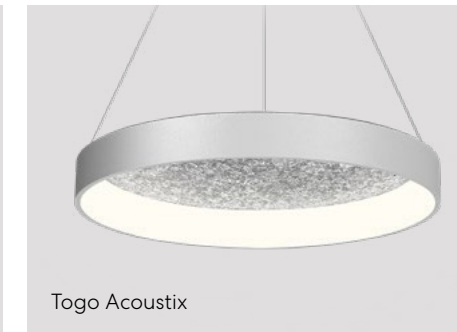


Mikro Wafer Acoustix

## Architectural Decorative



Rim Verso Acoustix



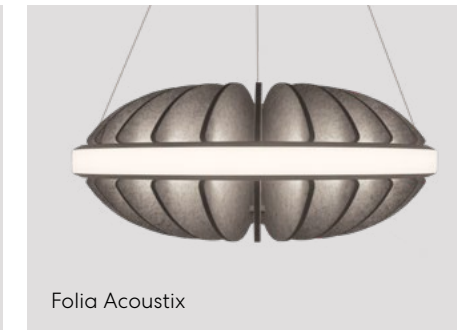
Togo Acoustix



Cluster Acoustix



Arq Acoustix



Folia Acoustix

## EchoCore™

[Explore the EchoCore™ Collection Online](#)



Audia EchoCore™



Aera Round / Square EchoCore™



Pop Round / Square EchoCore™

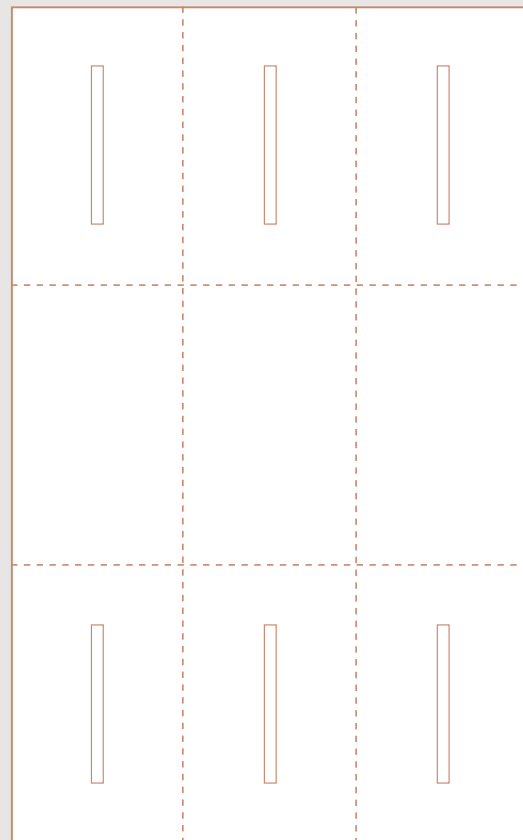


# How to improve acoustics in a room?

We approach acoustic design the same way we approach lighting design—by layering solutions. One system offers improvement, but two or even three acoustic systems will further decrease reverberation time and reduce unwanted noise. Humans can notice an acoustic improvement of 0.2 seconds in reverberation time. We have incorporated this into our Good, Better, and Best acoustic value calculations.

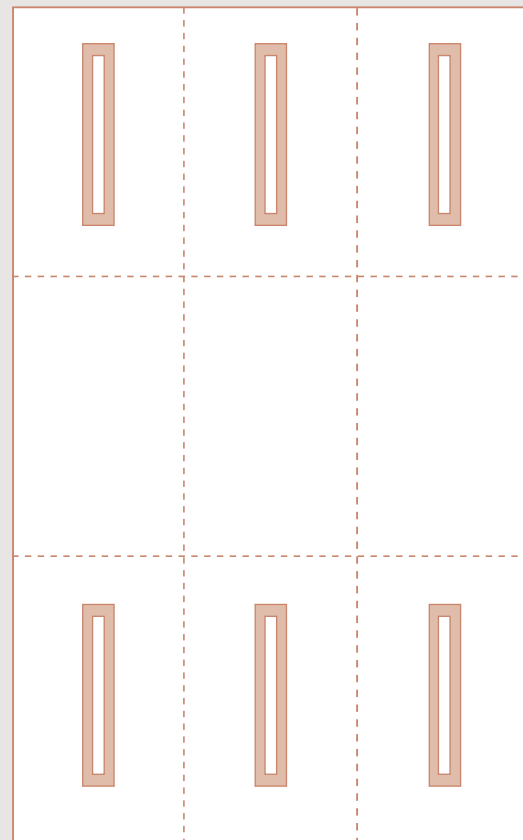
😊 General lighting  
😞 No acoustic

0% 1.3 s Reverberation time



😊 General lighting  
😞 GOOD Acoustic

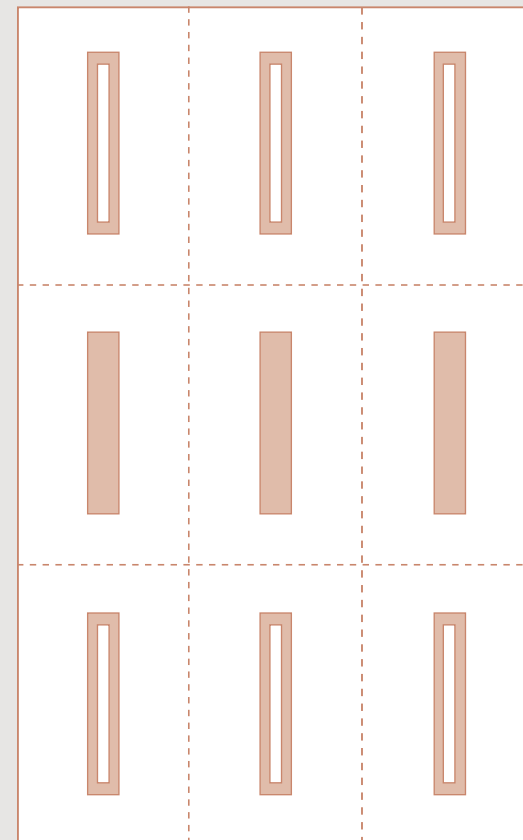
-25% 0.98 s Reverberation time



- 😊 Good: Reverberation time is reduced by 25%
- 😊😊 Better: Reverberation time is reduced by 40%
- 😊😊😊 Best: Reverberation time is reduced by 50%

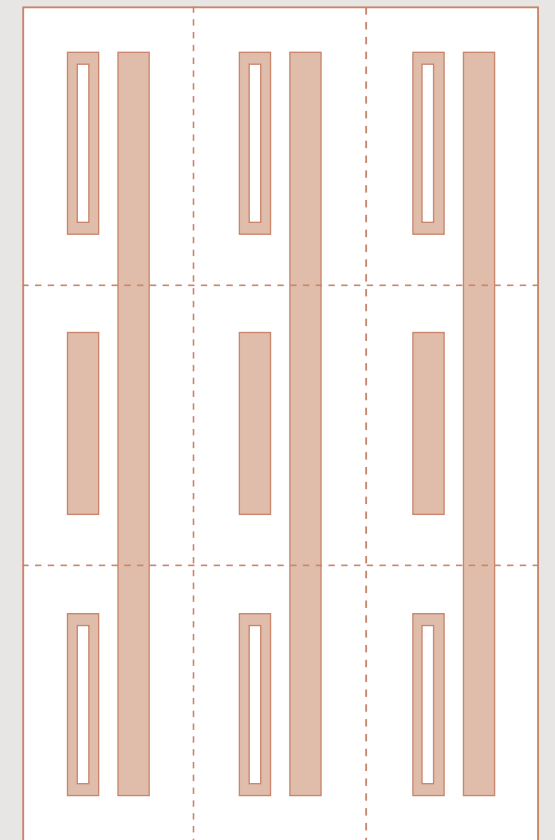
😊 General lighting  
😞😞 BETTER Acoustic

-40% 0.78 s Reverberation time



😊 General lighting  
😞😞😞 BEST Acoustic

-50% 0.65 s Reverberation time





# Easy acoustic calculations?

Developed in conjunction with acousticians, the Lumenwerx Acoustix Value Formula (LAVF) is a simple math equation that uses a ratio to determine acoustic needs. In the LAVF, we assume that one wall is glass, three walls and the ceiling are gypsum board, and the flooring is concrete. The basis of the equation mimics a poorly performing acoustic space. By applying the ratios, we can determine how many luminaires are required for "Good", "Better" or "Best" acoustic performance, using the standard ceiling height of 9 feet and 4 foot luminaires.

For advanced calculations please contact your regional sales manager. We have a team of trained experts that will be happy to assist you.

Good: Reverberation time is reduced by 25%  
Better: Reverberation time is reduced by 40%  
Best: Reverberation time is reduced by 50%



## Lumenwerx Acoustix Value Formula.

1. Calculate the square feet of your room (length x width)
2. Select your luminaire
3. Choose the level of acoustic improvement you are looking for and select the associated Acoustix Value:  
😊 Good 😊😊 Better 😊😊😊 Best
4. Use the Lumenwerx Acoustix Value Formula

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$$\text{Square Feet} \div \text{Value} = \text{Number of luminaires needed in the room}$$

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\* Lumenwerx acoustic calculators were developed to act as a guide.  
For precise acoustic performance in a space, please consult an acoustician.



# Lumenwerx Acoustix Value Tables

## Room dimensions under 300 sq/ft

PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊
<b>Aera EchoCore™</b>	Round	2x2	33	18	14
	Square		33	18	14
<b>Arq Acoustix</b>	24" ∅		25	14	11
<b>Arro 4 Acoustix</b>	Direct	4'	22	10	7
	Direct/Indirect	4'	20	10	6
	Direct	6'	32	15	10
	Direct/Indirect	6'	30	14	10
	Direct	8'	43	20	14
	Direct/Indirect	8'	40	19	13
	Direct	10'	53	25	17
	Direct/Indirect	10'	50	24	16
<b>Audia EchoCore™</b>	Height: 12"	4'	38	19	22
		8'	76	38	24
		12'	114	57	36
	Height: 16"	4'	51	25	17
		8'	102	50	34
		12'	153	75	51
<b>Cluster Acoustix</b>	Round	22"	30	15	10
	Square	22"	38	19	13
<b>Curvia Acoustix</b>	Height: 8"	4'	19	9	6
	Height: 12"	4'	29	14	8
	Height: 16"	4'	38	19	12
<b>Folia Calla Acoustix</b>	24" ∅		35	20	15
	36" ∅		81	46	35
	48" ∅		147	84	63
<b>Folia Calla Shallow Acoustix</b>	24" ∅		25	14	11
	36" ∅		58	32	25
	48" ∅		105	59	46



Using the Lumenwerx Acoustix Value Calculator table, you can determine the number of acoustic lit and blank luminaires required in a space by fixture type. Three levels of recommended sound reduction are available: Good, Better, and Best. Selecting one of these options will reduce sound accordingly, with the Best option providing the greatest acoustic improvement. The ratios are based on a standard ceiling height of 9 feet.

PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊
<b>Folia Bellis Acoustix</b>	24" ∅		40	25	20
	36" ∅		92	58	46
	48" ∅		168	105	84
<b>Folia Dahlia Acoustix</b>	24" ∅		40	25	20
	36" ∅		92	58	46
	48" ∅		168	105	84
<b>Mikro Wafer</b>	Rectangle	20"x24"	39	20	13
		20"x36"	59	30	19
		20"x48"	78	40	25
<b>Pop EchoCore™ Pendant, Surface</b>	Round	24" ∅	19	11	8
		36" ∅	31	18	14
		48" ∅	44	25	19
	Square	2x2	24	14	11
		3x3	41	23	18
<b>Pop EchoCore™ Recessed</b>	Round	2x2	24	14	11
	Square	2x2	24	14	11
<b>Pop Recessed Acoustix</b>	Flush	1x1	3	2	1
	Drop 1"	1x1	4	2	1
	Drop 2"	1x1	6	3	2
	Flush	1x2	7	3	2
	Flush	2x2	14	7	4
	Drop 1"	2x2	16	7	5
	Drop 2"	2x2	18	9	6
	Drop 3"	2x2	20	10	6
Drop 4"	2x2	23	11	7	
<b>Rim Verso Acoustix</b>	24" ∅		18	9	6
	36" ∅		42	20	14
	48" ∅		75	38	25



# Lumenwerx Acoustix Value Tables

## Room dimensions under 300 sq/ft

PRODUCT			GOOD 😊	BETTER 😊😊	BEST 😊😊😊
Squero Acoustix	Height: 8"	4'	19	9	6
	Height: 12"	4'	29	14	8
	Height: 16"	4'	38	19	12
Squero Acoustix Spoke V60, V90, V120	Height: 8"	24"	19	9	6
		36"	29	14	9
		48"	38	19	12
	Height: 12"	24"	29	14	8
		36"	44	21	12
		48"	58	28	16
Squero, Via 1.5 & 2 Acoustix Spoke Y-Shaped	Height: 16"	24"	38	19	12
		36"	57	29	18
	Height: 8"	24"	29	14	9
		36"	43	20	14
Squero, Via 1.5 & 2 Acoustix Spoke X-Shaped	Height: 12"	24"	44	21	12
		36"	65	32	18
	Height: 16"	24"	57	29	18
		36"	86	43	27
Squero Hubs Acoustix	Square	2"x2"	29	14	8
		2"x2"	13	6	4
		2"x2"	7	4	2
	Rectangle	2"x3"	19	9	5
		2"x4"	15	7	4
		2"x5"	12	6	3
		2"x6"	10	5	3
		2"x7"	8	4	2
		2"x8"	7	4	2
		3"x4"	10	5	3



PRODUCT			GOOD 😊	BETTER 😊😊	BEST 😊😊😊	
Squero Hubs Acoustix	Rectangle	3"x5"	8	4	2	
		3"x6"	6	3	2	
		3"x7"	6	3	2	
		3"x8"	5	2	1	
		4"x5"	6	3	2	
		4"x6"	5	2	1	
		4"x7"	4	2	1	
		4"x8"	4	2	1	
	Triangle	2'	67	32	18	
		3'	30	14	8	
4'		17	8	5		
Tab Acoustix	Hexagon	2'	11	5	3	
		Height: 8"	4'	19	9	6
	Height: 8"	6'	29	14	9	
		8'	38	18	12	
		Height: 12"	4'	29	14	8
		6'	44	21	12	
		8'	58	28	16	
		Height: 16"	4'	38	19	12
		6'	57	29	18	
		8'	76	38	24	
Togo Acoustix	24" ∅	18	9	6		
	36" ∅	42	20	14		
	48" ∅	75	38	25		
Via 1.5 & 2 Acoustix	Height: 8"	4'	19	9	6	
		6'	29	14	9	
		8'	38	18	12	
	Height: 12"	4'	29	14	8	
		6'	44	21	12	
		8'	58	28	16	
		Height: 16"	4'	38	19	12
		6'	57	29	18	
		8'	76	38	24	
		Height: 20"	2'	19	10	6
Via Stil	Height: 12"	2'	10	5	3	
		4'	19	9	6	
		6'	29	14	9	
	Height: 16"	2'	15	7	4	
		4'	29	14	8	
		6'	44	21	14	
		Height: 20"	2'	19	10	6
		4'	38	19	12	
		6'	57	29	18	



# Lumenwerx Acoustix Value Tables

## Room dimensions over 300 sq/ft

PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊
<b>Aera EchoCore™</b>	Round	2x2	50	28	22
	Square		50	28	22
<b>Arq Acoustix</b>	24" Ø		39	22	17
<b>Arro 4 Acoustix</b>	Direct	4'	33	17	11
	Direct/Indirect	4'	31	16	11
	Direct	6'	49	26	17
	Direct/Indirect	6'	46	24	16
	Direct	8'	66	34	23
	Direct/Indirect	8'	62	32	21
	Direct	10'	81	42	28
	Direct/Indirect	10'	76	39	26
	Direct	12'	98	51	34
	Direct/Indirect	12'	91	47	32
<b>Audia EchoCore™</b>	Height: 12"	4'	60	29	19
		8'	120	58	38
		12'	180	87	57
	Height: 16"	4'	84	39	26
8'		168	78	52	
12'		252	117	78	
<b>Cluster Acoustix</b>	Round	22"	48	24	16
	Square	22"	61	30	20
<b>Curvia Acoustix</b>	Height: 8"	4'	29	15	10
	Height: 12"	4'	45	22	14
	Height: 16"	4'	58	29	19
<b>Folia Calla Acoustix</b>	24" Ø		66	45	30
	36" Ø		125	71	53
	48" Ø		228	130	98
<b>Folia Calla Shallow Acoustix</b>	24" Ø		39	22	17
	36" Ø		89	50	39
	48" Ø		163	91	72



PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊
<b>Folia Bellis Acoustix</b>	24" Ø		70	50	35
	36" Ø		143	89	71
	48" Ø		260	163	130
<b>Folia Dahlia Acoustix</b>	24" Ø		70	50	35
	36" Ø		143	89	71
	48" Ø		260	163	130
<b>Mikro Wafer</b>	Rectangle	20"x24"	64	30	20
		20"x36"	96	45	30
		20"x48"	128	60	40
<b>Pop EchoCore™ Pendant, Surface</b>	Round	24" Ø	29	16	13
		36" Ø	48	27	21
		48" Ø	68	38	30
	Square	2x2	38	21	17
3x3		63	35	28	
<b>Pop EchoCore™ Recessed</b>	Round	2x2	38	21	17
	Square	2x2	38	21	17
<b>Pop Recessed Acoustix</b>	Flush	1x1	5	3	2
	Drop 1"	1x1	7	3	2
	Drop 2"	1x1	8	4	3
	Flush	1x2	11	5	4
	Flush	2x2	21	11	7
	Drop 1"	2x2	24	12	8
	Drop 2"	2x2	28	14	10
	Drop 3"	2x2	31	16	11
Drop 4"	2x2	35	18	12	
<b>Rim Verso Acoustix</b>	24" Ø		28	14	9
	36" Ø		65	32	22
	48" Ø		120	59	41



# Lumenwerx Acoustix Value Tables

## Room dimensions over 300 sq/ft

PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊
Squero Acoustix	Height: 8"	4'	29	15	10
	Height: 12"	4'	45	22	14
	Height: 16"	4'	58	29	19
Squero Acoustix Spoke V60, V90, V120	Height: 8"	24"	29	15	10
		36"	44	23	15
		48"	58	30	20
	Height: 12"	24"	45	22	14
		36"	68	33	21
		48"	90	44	28
Squero, Via 1.5 & 2 Acoustix Spoke Y-Shaped	Height: 16"	24"	58	29	19
		36"	90	44	28
	Height: 8"	24"	44	23	15
		36"	65	34	23
Squero, Via 1.5 & 2 Acoustix Spoke X-Shaped	Height: 12"	24"	68	33	21
		36"	101	50	32
	Height: 16"	24"	87	44	29
		36"	131	65	43
Squero Hubs Acoustix	Square	2"x2"	45	22	14
		2"x2"	20	10	6
		2"x2"	11	6	4
	Rectangle	2"x3"	30	15	9
		2"x4"	23	11	7
		2"x5"	18	9	6
		2"x6"	15	7	5
		2"x7"	13	6	4
		2"x8"	11	6	4
		3"x4"	15	7	5



PRODUCT			GOOD 😊	BETTER 😊 😊	BEST 😊 😊 😊	
Squero Hubs Acoustix	Rectangle	3"x5"	12	6	4	
		3"x6"	10	5	3	
		3"x7"	9	4	3	
		3"x8"	8	4	2	
		4"x5"	9	4	2	
		4"x6"	8	4	2	
		4"x7"	6	3	2	
		4"x8"	6	3	2	
	Triangle	2'	104	51	32	
		3'	46	23	14	
4'		26	13	8		
Tab Acoustix	Hexagon	2'	17	8	5	
		Height: 8"	4'	29	15	10
			6'	44	23	15
			8'	58	30	20
	Height: 12"		4'	45	22	14
		6'	68	33	21	
		8'	90	44	28	
		Height: 16"	4'	58	29	19
6'	87		44	29		
8'	116		58	38		
Togo Acoustix	24" ∅		28	14	9	
	36" ∅	65	32	22		
	48" ∅	120	59	41		
Via 1.5 & 2 Acoustix	Height: 8"	4'	29	15	10	
		6'	44	23	15	
		8'	58	30	20	
		Height: 12"	4'	45	22	14
	Height: 16"	4'	58	29	19	
		6'	87	44	29	
		8'	116	58	38	
		Via Stil	Height: 12"	2'	15	8
4'	29			15	10	
6'	44			23	15	
Height: 16"	4'		23	11	7	
	4'		45	22	14	
	6'		68	33	21	
	Height: 20"		2'	29	15	10
			4'	58	29	19
6'	87	44	29			



ACOUSTIX COLLECTION  
BROCHURE



ECHOCORE™ COLLECTION  
BROCHURE

 **Lumenwerx**

ALWAYS LIGHT  
RIGHT

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