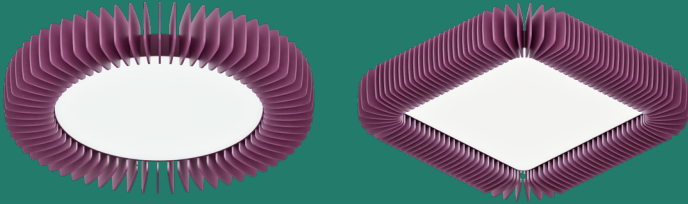


LumiCoustica™ Pinna ASTRA



Spec by: _____
 Agency: _____
 Project Name: _____
 Type of Project: _____
 Notes: _____



LIGHTING PERFORMANCE*

■ Square

	Output	Size					
		1' x 4'	2' x 2'	2' x 4'	4' x 4'	4' x 8'	6' x 6'
Power consumption (Watts)	Standard	9.5 W	11.2 W	25.2 W	56.7 W	126 W	137.2 W
	Premium	18.9 W	22.4 W	50.4 W	113.4 W	252 W	274.4 W
Delivered output (Lumens)	Standard	469 lm	358 lm	806 lm	1814 lm	4032 lm	6811 lm
	Premium	938 lm	1112 lm	2502 lm	5630 lm	12510 lm	13622 lm

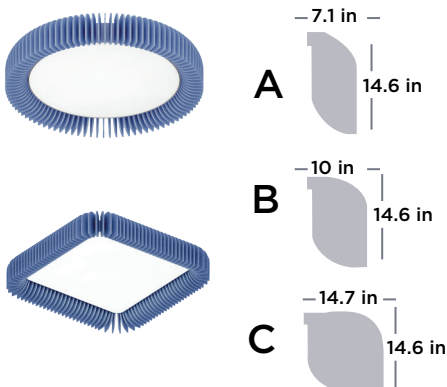
■ Circle

	Output	Size					
		3'	4'	5'	6'	8'	10'
Power consumption (Watts)	Standard	29 W	48 W	70 W	115 W	213 W	337 W
	Premium	50 W	92 W	157 W	217 W	414 W	664 W
Delivered output (Lumens)	Standard	941 lm	1523 lm	2240 lm	3674 lm	6810 lm	10774 lm
	Premium	2502 lm	4587 lm	7784 lm	10773 lm	20572 lm	32978 lm

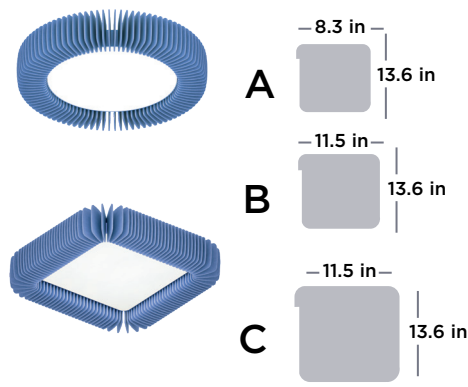
* Power Consumption and Delivered Output values are based on 6500K CCT

FINS DESIGN AND SIZE OPTIONS

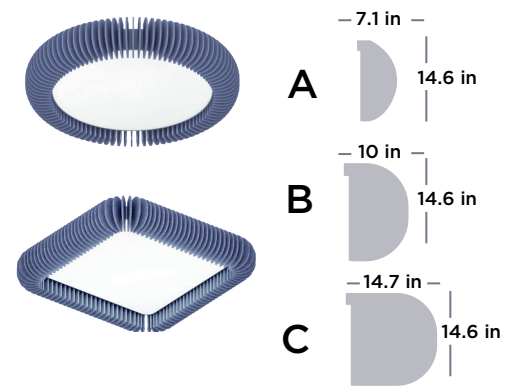
Calma



Sono



Eco



ORDERING CODE

TLS	LCT	PNA	AS	Shape	Size				Acoustic Fin Model	Fin Size*								
	Family	Product	Engine		1x4'	2x2'	3'	4'		5'	6'	8'	10'	A	B	C		
TLS	LumiCoustica LCT	Pinna PNA	Astra AS	Square* SQ	1x4'	2x2'	3'	4'	5'	6'	8'	10'	Calma CM	Sono SO	Eco ECO	A A	B B	C C
				Circle CL														

* Rounded corners only

* See full dimensions including fins on page 5-6

* See page 1

Acoustic Build*	SP	Acoustic PET Color	Frame color	CCT		Control		Output*	LS
	Mounting			Diffuser					
Enhanced (rich fin composition) EF	Suspended SP	Select from our PET color chart (page 3)	Black BL	2200K	22K	0-10V O/10	Premium (909 lm/sqf)** P	LightTex Silent LS	
Core (light fin composition) CF			White WH	2700K	27K	Remote RM			Standard (494 lm/sqf)** S
			Silver NS	3000K	30K	Dali DA			
			Match PET* MP	3500K	35K				
				4000K	40K				
				5600K	56K				
				6500K	65K				

*See details on page 2

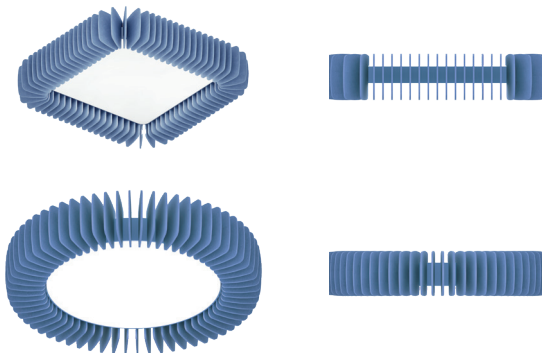
*Frame finish will coordinate with PET felt color; exact matching not guaranteed.

** Lm/sqf are calculated at LED source

ACOUSTIC BUILD

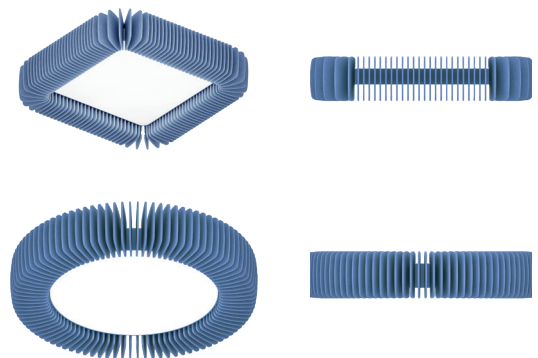
Core

Uses a standard fin density, with fins spaced farther apart, resulting in a lighter overall configuration.



Enhanced

Uses a higher fin density, with fins positioned closer together, creating a denser and more substantial configuration.



Pinna Square - Acoustic Build (number of fins)

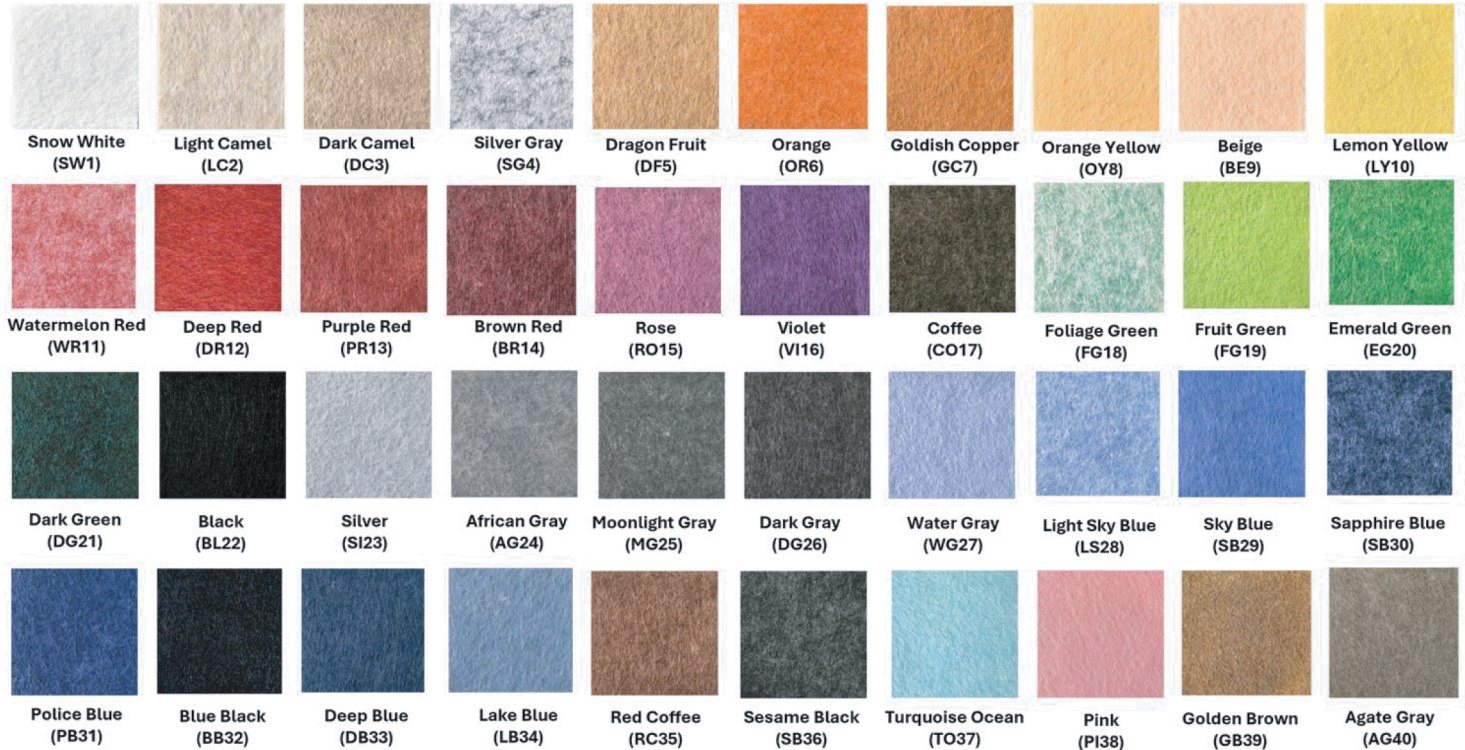
	1'x4'	2'x2'	2'x4'	4'x4'	6'x6'	8'x4'
Core	50	40	58	76	116	116
Enhanced	74	60	88	116	176	176

Pinna Circle - Acoustic Build (number of fins)

	3'	4'	5'	6'	8'	10'
Core	48	64	80	96	128	160
Enhanced	72	96	120	144	192	240

PET MATERIAL COLOR CHART

Experience our PET material through a diverse selection of colors, organized to support effortless coordination across a wide range of design applications.



Natural variations in color may occur during PET felt production. Digital color previews are for reference only and may differ from the final product. Availability and lead times can vary by color. Consult factory for more information.



Recyclable
Materials



Environmental
Responsibility



Sustainability
Commitment

This material is manufactured using recycled content, helping reduce waste and support more sustainable material cycles. By transforming post-consumer plastics into a high-performance architectural material, it contributes to responsible design and environmental stewardship.

Regular Care:

- **Dusting:** Use a vacuum with a soft brush attachment on low setting. Gently vacuum the felt in smooth, even strokes.
- **Light Debris:** Remove lint or small particles using a lint roller or low-tack tape.

Spot Cleaning:

If you notice a mark or smudge:

1. Use a soft microfiber cloth slightly dampened with clean water.
2. Gentle blot the area. Do not rub.
3. For tougher spots, you may use a mild soap and water solution. Apply sparingly and blot again with clean water afterward.
4. Allow the felt to air dry naturally.

TECHNICAL SPECIFICATIONS

■ PET Material

Polyester Acoustic Felt (PET)

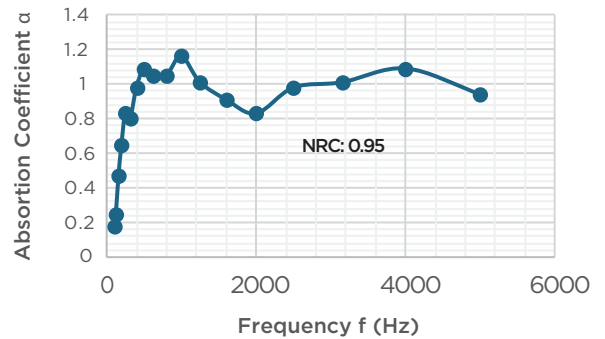
- **Material:** 100% polyester fiber
- **Panel Thickness:** 9 mm
- **Colors:** 40 colors
- **Fire Classification:** B-s1, d0

NRC Test Item: Polyester Fiber Board

Test Content: Sound absorption coefficient measured using the reverberation chamber method in accordance with **ISO 354 / GB-T 20247-2006**.

NRC (Noise Reduction Coefficient): 0.95

Frequency (Hz)	α_s	Frequency (Hz)	α_s
100	0.18	800	1.05
125	0.25	1000	1.16
160	0.47	1250	1.01
200	0.65	1600	0.91
250	0.83	2000	0.83
315	0.80	2500	0.98
400	0.98	3150	1.01
500	1.09	4000	1.09
630	1.05	5000	0.94



■ Diffuser

	Light Tex Silent
Material	100 % Polyester
Weight	172 gr/m2 (16 gr/ft2)
Fire classification	NFPA-701, B1, EN 13501-1, B-s1, d0
Transmission rate	37%
CCT shift	0-50K (see table page 5)
NRC	0.82

■ Lighting

Ingress protection	IP22 (indoor)
CRI	~ 90 (white LED)
LM80 *	> 150,000 hours
Operating temperature	-30 °C TO 80 °C

Note: *LM80 Test is only applicable to white pixels.

■ Frame color

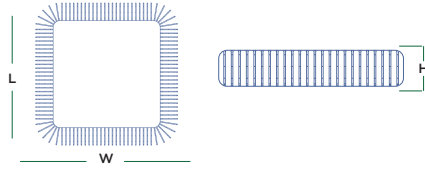
Material	Aluminum			
Standard colors	Black 	White 	Silver 	Match PET

Warranty*	5-year limited warranty for LED
------------------	---------------------------------

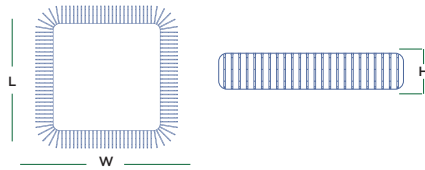
* Warranty Terms and Conditions at www.tls-led.com/warranty

DIMENSIONS

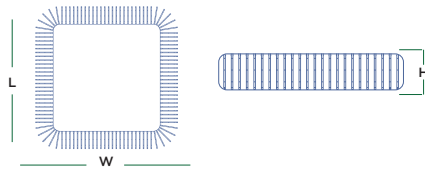
■ **Square**



	CALMA																	
	Fin Size A						Fin Size B						Fin Size C					
	Width		Lenght		Height		Width		Lenght		Height		Width		Lenght		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
2x2	894.9	35.2	894.2	35.2	369.6	14.6	1042.8	41.1	1042.8	41.1	369.6	14.6	1279.1	50.4	1279.1	50.4	369.6	14.6
1x4	590.1	23.2	1504.5	59.2	369.6	14.6	738.0	29.1	1652.4	65.1	369.6	14.6	974.3	38.4	1888.7	74.4	369.6	14.6
2x4	894.9	35.2	1504.5	59.2	369.6	14.6	1042.8	41.1	1652.4	65.1	369.6	14.6	1279.1	50.4	1888.7	74.4	369.6	14.6
4x4	1504.5	59.2	1504.5	59.2	369.6	14.6	1652.4	65.1	1652.4	65.1	369.6	14.6	1888.7	74.4	1888.7	74.4	369.6	14.6
4x8	1504.5	59.2	2723.7	107.2	369.6	14.6	1652.4	65.1	2871.6	113.1	369.6	14.6	1888.7	74.4	3107.9	122.4	369.6	14.6
6x6	2114.1	83.2	2114.1	83.2	369.6	14.6	2262.0	89.1	2262.0	89.1	369.6	14.6	2498.3	98.4	2498.3	98.4	369.6	14.6



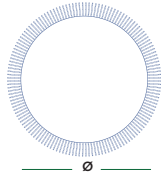
	SONO																	
	Fin Size A						Fin Size B						Fin Size C					
	Width		Lenght		Height		Width		Lenght		Height		Width		Lenght		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
2x2	955.7	37.6	955.7	37.6	345.9	13.6	1118.9	44.1	1118.9	44.1	345.9	13.6	1279.1	50.4	1279.0	50.4	350.6	13.8
1x4	650.9	25.6	1565.3	61.6	345.9	13.6	814.1	32.1	1728.5	68.1	345.9	13.6	974.3	38.4	1888.6	74.4	350.6	13.8
2x4	955.7	37.6	1565.3	61.6	345.9	13.6	1118.9	44.1	1728.5	68.1	345.9	13.6	1279.1	50.4	1888.6	74.4	350.6	13.8
4x4	1565.3	61.6	1565.3	61.6	345.9	13.6	1728.5	68.1	1728.5	68.1	345.9	13.6	1888.7	74.4	1888.7	74.4	350.6	13.8
4x8	1565.3	61.6	2784.5	109.6	345.9	13.6	1728.5	68.1	2947.7	116.1	345.9	13.6	1888.7	74.4	3107.8	122.4	350.6	13.8
6x6	2174.6	85.6	2174.9	85.6	345.9	13.6	2338.1	92.1	2338.1	92.1	345.9	13.6	2498.3	98.4	2498.23	98.4	350.6	13.8



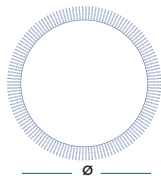
	ECO																	
	Fin Size A						Fin Size B						Fin Size C					
	Width		Lenght		Height		Width		Lenght		Height		Width		Lenght		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
2x2	894.9	35.2	894.2	35.2	369.6	14.6	1042.8	41.1	1042.8	41.1	369.6	14.6	1279.1	50.4	1279.1	50.4	369.6	14.6
1x4	590.1	23.2	1504.5	59.2	369.6	14.6	738.0	29.1	1652.4	65.1	369.6	14.6	974.3	38.4	1888.7	74.4	369.6	14.6
2x4	894.9	35.2	1504.5	59.2	369.6	14.6	1042.8	41.1	1652.4	65.1	369.6	14.6	1279.1	50.4	1888.7	74.4	369.6	14.6
4x4	1504.5	59.2	1504.5	59.2	369.6	14.6	1652.4	65.1	1652.4	65.1	369.6	14.6	1888.7	74.4	1888.7	74.4	369.6	14.6
4x8	1504.5	59.2	2723.7	107.2	369.6	14.6	1652.4	65.1	2871.6	113.1	369.6	14.6	1888.7	74.4	3107.9	122.4	369.6	14.6
6x6	2114.1	83.2	2114.1	83.2	369.6	14.6	2262.0	89.1	2262.0	89.1	369.6	14.6	2498.3	98.4	2498.3	98.4	369.6	14.6

DIMENSIONS

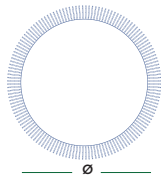
■ Circle



	CALMA											
	Fin Size A				Fin Size B				Fin Size C			
	Diameter		Height		Diameter		Height		Diameter		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
3 ft	1240.8	48.9	369.6	14.6	1388.8	54.7	369.6	14.6	1625.1	64.0	369.6	14.6
4 ft	1546.2	60.9	369.6	14.6	1694.2	66.7	369.6	14.6	1930.5	76.0	369.6	14.6
5 ft	1850.4	72.9	369.6	14.6	1998.4	78.7	369.6	14.6	2234.7	88.0	369.6	14.6
6 ft	2155.2	84.9	369.6	14.6	2303.2	90.7	369.6	14.6	2539.5	100.0	369.6	14.6
8 ft	2764.8	108.9	369.6	14.6	2912.8	114.7	369.6	14.6	3149.1	124.0	369.6	14.6
10 ft	3374.5	132.9	369.6	14.6	3522.4	138.7	369.6	14.6	3758.7	148.0	369.6	14.6



	SONO											
	Fin Size A				Fin Size B				Fin Size C			
	Diameter		Height		Diameter		Height		Diameter		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
3 ft	1301.7	51.2	345.9	13.6	1469.9	57.7	345.9	13.6	1625.1	64.0	350.6	13.8
4 ft	1607.1	63.3	345.9	13.6	1770.3	69.7	345.9	13.6	1930.5	76.0	350.6	13.8
5 ft	1911.3	75.2	345.9	13.6	2074.5	81.7	345.9	13.6	2234.7	88.0	350.6	13.8
6 ft	2216.1	87.2	345.9	13.6	2379.3	93.7	345.9	13.6	2539.5	100.0	350.6	13.8
8 ft	2825.7	111.2	345.9	13.6	2988.9	117.7	345.9	13.6	3149.1	124.0	350.6	13.8
10 ft	3435.3	135.2	345.9	13.6	3598.5	141.7	345.9	13.6	3758.7	148.0	350.6	13.8

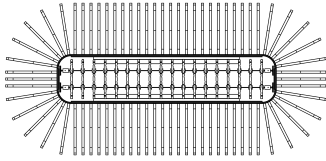


	ECO											
	Fin Size A				Fin Size B				Fin Size C			
	Diameter		Height		Diameter		Height		Diameter		Height	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
3 ft	1240.8	48.9	369.6	14.6	1388.8	54.7	369.6	14.6	1625.1	64.0	369.6	14.6
4 ft	1546.2	60.9	369.6	14.6	1694.2	66.7	369.6	14.6	1930.5	76.0	369.6	14.6
5 ft	1850.4	72.9	369.6	14.6	1998.4	78.7	369.6	14.6	2234.7	88.0	369.6	14.6
6 ft	2155.2	84.9	369.6	14.6	2303.2	90.7	369.6	14.6	2539.5	100.0	369.6	14.6
8 ft	2764.8	108.9	369.6	14.6	2912.8	114.7	369.6	14.6	3149.1	124.0	369.6	14.6
10 ft	3374.4	132.9	369.6	14.6	3522.4	138.7	369.6	14.6	3758.7	148.0	369.6	14.6

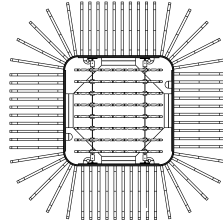
DIMENSIONS

■ Square

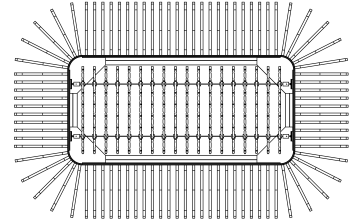
1'x4'



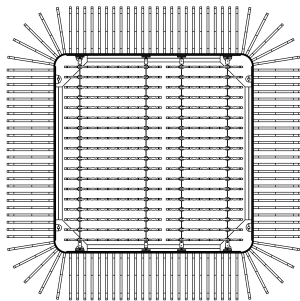
2'x2'



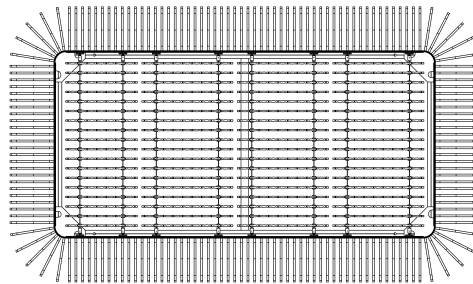
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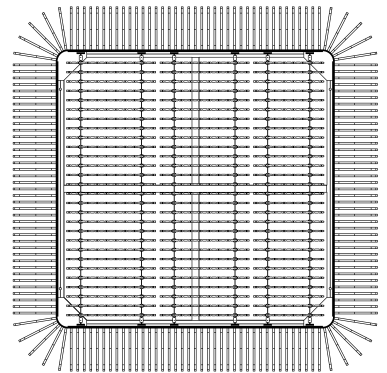
4'x4'



4'x8'

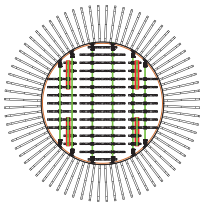


6'x6'

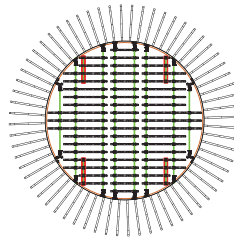


■ Circle

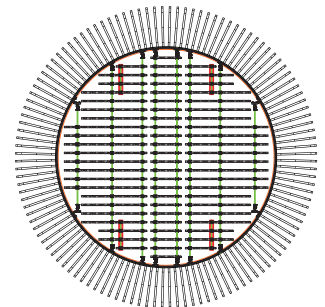
3ft



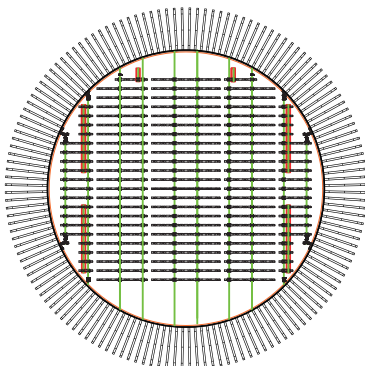
4ft



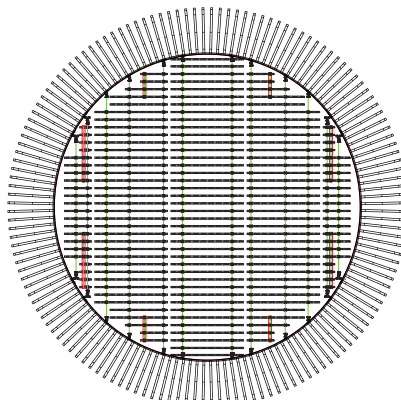
5ft



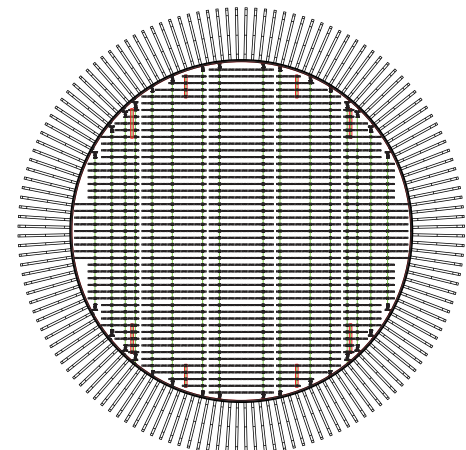
6ft



8ft

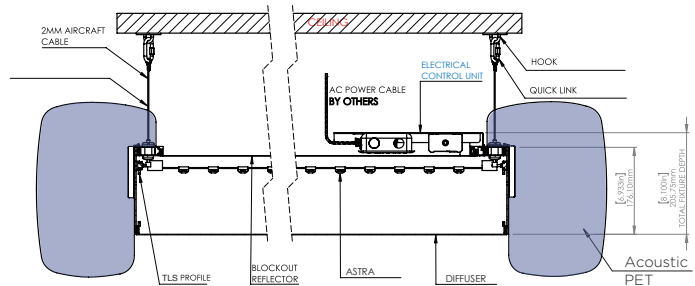
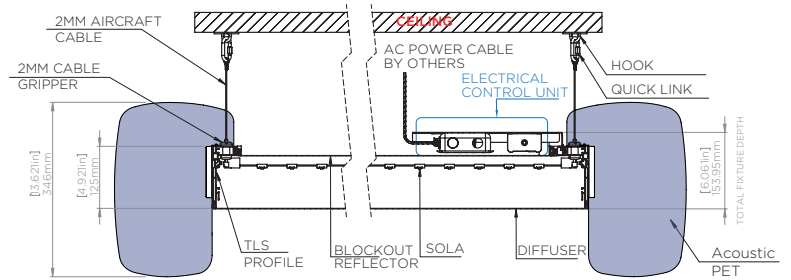
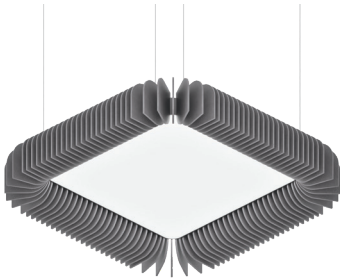


10ft



MOUNTING OPTIONS

■ Suspended (SP)



- Hooks to existing ceiling installed by others

WEIGHT*

PINNA SQUARE ASTRA		
Diameter [ft]	Weight [kg]	Weight [lb]
2x2	26.1	57.6
1x4	30.1	66.3
2x4	35.5	78.2
4x4	45.5	100.2
4x8	67.8	149.6
6x6	75.1	165.5

* Maximum weight

PINNA CIRCLE ASTRA		
Diameter [ft]	Weight [kg]	Weight [lb]
3	33.0	72.7
4	44.3	97.6
5	53.5	118.0
6	67.2	148.2
8	92.1	203.2
10	122.8	270.8

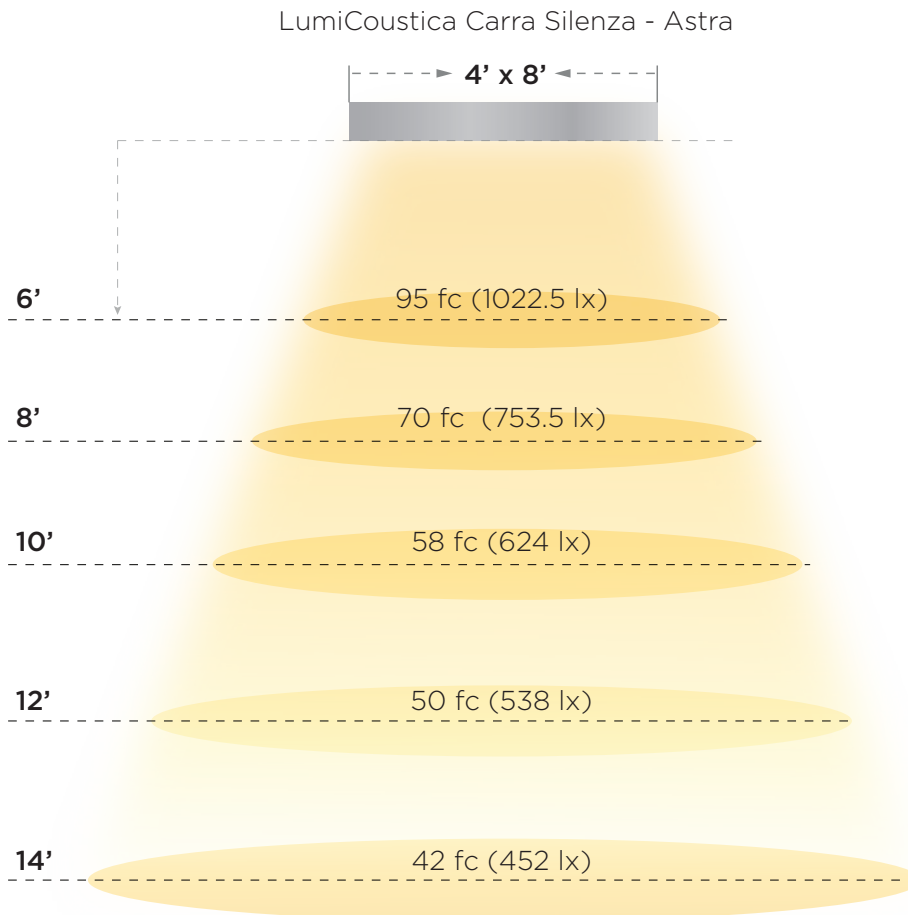
* Maximum weight

LIGHTING PERFORMANCE AND EFFICIENCY

- CCT Shifting**

Output	CCT						
	2,200K	2,700K	3,000K	3,500K	4,000K	5,600K	6,500K
Premium	2,148	2,665	2,995	3,380	3,938	5,703	6,513
Standard	-	2,662	2,973	3,426	3,899	5,584	6,419

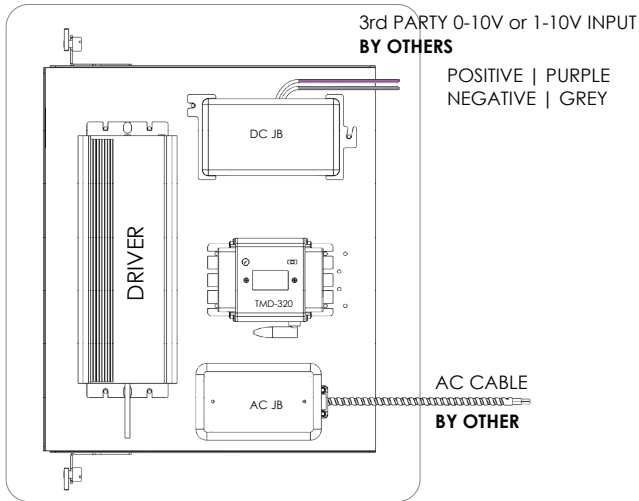
- Foot Candle per height**



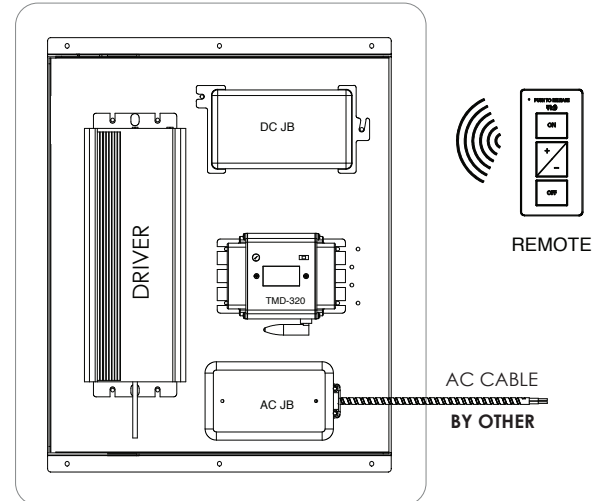
Note: Results are simulated based on 10' x 16' room & Reflection factors C70% W77% & F20% , other measurements available on requests.
Multiple panels will influence the foot candle.

CONTROL

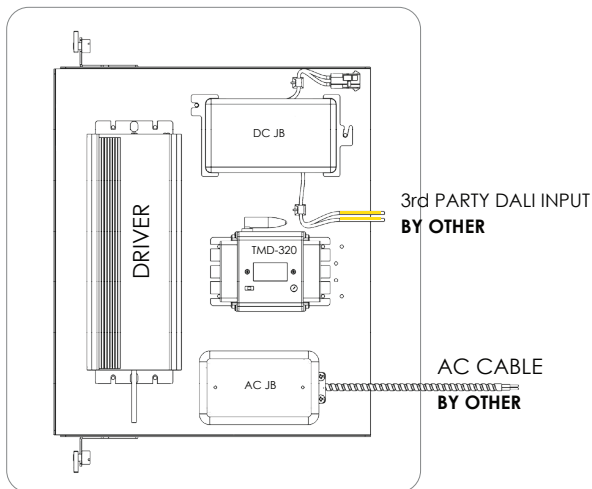
■ 0-10V (0/10)



■ RF Remote (RM)



■ Dali (DA)



■ Electrical

Driver models	HLG-60-24A, HLG-100-24A, HLG-150-24A, HLG-240-24A, HLG-320-24A
Input voltage	90-305 V AC, 47-63 HZ
Output voltage	21-24 V DC