

# ACOUSTIC

SERIES



DATE

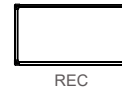
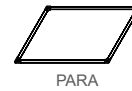
PROJECT

COMMENTS

CERTIFICATIONS



AVAILABLE GEO SHAPES



FEATURES

## GEO PLANE SUSPENDED

### DIRECT WITH ACOUSTIC

AN EXTENSION OF OUR ACOUSTIC & GEO SERIES

The GEO Plane series is an architectural fusion of light and sound. Combined with GEO, PLANE provides specifiers with a creative lighting option to add depth and shape to a space while incorporating high acoustical performance and top-line aesthetics. Pair with unlit PLANE to provide substantial sound dampening for a wide variety of commercial, civic, and educational spaces.

#### SOUND DAMPENING RATING

Sound Absorption: Average NRC 1.4 (Subject to mounting conditions)

#### PERFORMANCE

Up to 117 LPW at 90 CRI.

#### VERSATILITY

Lumen intensities range from 250-1000 lm/ft in 3000K, 3500K & 4000K CCT provides specifiers with accurate and powerful levels of illumination and color within each space. Supplied with remote power unit with easy to access wiring compartments

#### OPTICS

A seamless and elegant roll in lens for the direct illumination provides uniform light distribution, controls glare, and eliminates light leaks.

SAMPLE PART NUMBER: GEOP-D-PARA13-HD-30-UNV-T1-WH-03-C90

ORDERING

SERIES	PATTERN			DIRECT OUTPUT		CCT	VOLTAGE	MOUNTING	FIXTURE COLOR				
GEOP-D													
PARA13	1' x 3' PARALLELOGRAM	REC14	1' x 4' RECTANGLE	TRI-2	2' TRIANGLE	HD	1000 LM/FT	30 3000K	UNV 120-277V	T1	1" Grid	WH	White
PARA14	1' x 4' PARALLELOGRAM	REC16	1' x 6' RECTANGLE	TRI-3	3' TRIANGLE	MD	750 LM/FT	35 3500K	347 <sup>2</sup> 347V	T9	9/16" Grid	BLK	Black
PARA16	1' x 6' PARALLELOGRAM	REC23	2' x 3' RECTANGLE	TRI4	4' TRIANGLE	LD	500 LM/FT	40 4000K		SC	Screw Slot	S	Silver
PARA23	2' x 3' PARALLELOGRAM	REC24	2' x 4' RECTANGLE	SQR2	2' x 2' SQUARE	VLD <sup>1</sup>	250 LM/FT			HC	Hard Ceiling	GR	Charcoal Gray
PARA24	2' x 4' PARALLELOGRAM	REC26	2' x 6' RECTANGLE	SQR3	3' x 3' SQUARE	CD	Custom			JB	Junction Box		
PARA26	2' x 6' PARALLELOGRAM	HEX2	2' Diameter HEXAGON										
REC13	1' x 3' RECTANGLE	HEX4	4' Diameter HEXAGON										

#### ACOUSTIC BAFFLE COLOR

#### Colors

03 Marble	12 Avocado	18 Granite	33 Slate	92 Denim	192 Ocean
04 Graphite	13 Wine	21 Cream	39 Earth	93 Sage	
07 Sand	14 Biscuit	22 Khaki	40 Coffee	157 Midnight	
09 Onyx	15 Evergreen	24 Snow	43 Ivory	191 Stone	

#### Textures

50 Dark Walnut	61 FRESH Plywood	65 Vista Walnut
52 Ash	62 ITALIAN Walnut	66 WEATHERED Plywood
53 Honey	63 MAIN STREET Elm	
54 Plywood	64 Planche Oak	

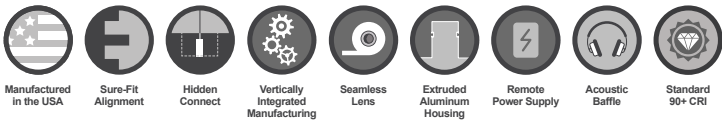
#### OPTIONS

CRI	SUSPENSION <sup>3</sup>		EMERGENCY <sup>4</sup>
C90			
C90 90 CRI	BLANK = 48" CABLE	CB144 144" Cables	EM Emergency Battery
	CB96 96" Cables	BC Black Canopy & Cord	EC Emergency Circuit

#### ORDERING & OPTION NOTES

- 1 VLD not available on 2' length
- 2 EM not available with 347V
- 3 For cable lengths longer than 144". Consult factory.
- 4 Contact factory for Emergency Battery (EM) and Circuit (EC) options with patterns. Factory drawings approval required.

GEO PLANE SUSPENDED  
DIRECT WITH ACOUSTIC



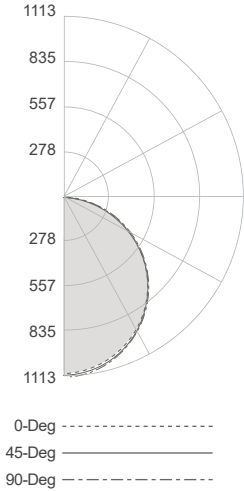
PHOTOMETRICS & ENERGY CHARTS

GEOP-D-XX-MD-35-UNV-XX-C90

Distribution: Direct  
Total Lumens: 3028  
Ratio: 0% Up & 100% Down  
Wattage: 26.2  
Efficacy: 116 LM/W  
Fixture Length: Four Feet  
UGR: 25  
4H X 8H Cross wise, Reflectance - Ceiling: 0.7, Wall: 0.5, Floor: 0.2

Zonal Lumen Summary

Zone	Lumens	% Fixt
0 - 30	839	27.7%
0 - 40	1359	44.9%
0 - 60	2367	78.2%
0 - 90	3027	100%
90 - 180	0	0%
0 - 180	3028	100%



Direct (Lambertian) Light at 90 CRI

	HD:1000	MD:750	LD:500	VLD:250	SLD:125
Watts/ft	8.8	6.6	4.4	2.3	1.1
Lumens/ft	980	757	514	269	124
LPW	110.9	115.6	115.8	117.6	112.7

Lumen Adjustment Calculations

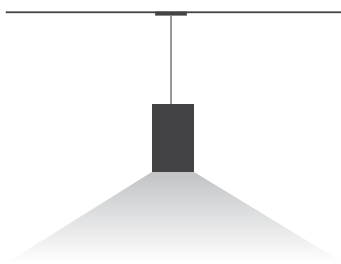
LUMEN MULTIPLIERS	
3000K	0.995
3500K	1.000
4000K	1.023

Example: MD Output, 3000K at 90CRI

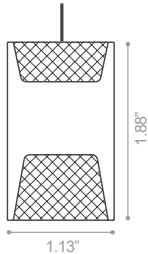
Total Light Output: 3028 x 0.995 = 3013 lm  
Total Light Output Per Foot: 757 x 0.995 = 753 lm/ft  
Efficacy = 753 / 6.6 = 114 lm/W

DISTRIBUTION & CROSS SECTIONS

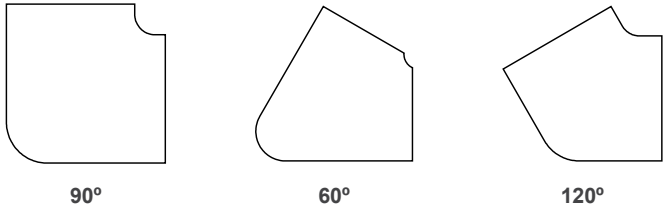
DISTRIBUTION: DIRECT



CROSS-SECTION

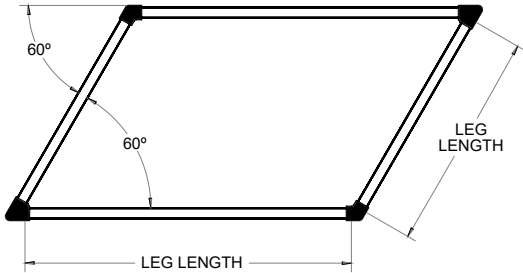


CORNER JOINT



STANDARD PRODUCT INFORMATION

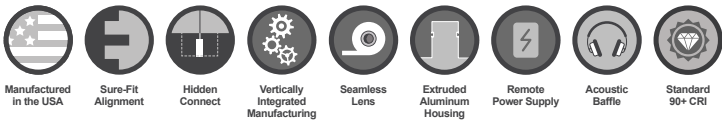
PARA  
(2) 60° and (2) 120° Corners



Product Dimensions

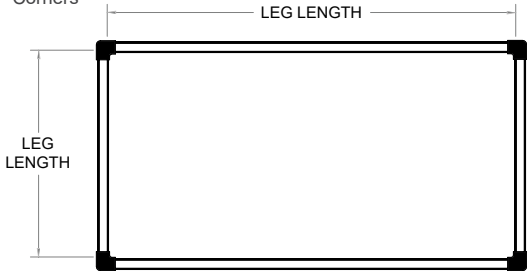
ORDERING	LEG LENGTH
PARA-13	1' & 3'
PARA-14	1' & 4'
PARA-16	1' & 6'
PARA-23	2' & 3'
PARA-24	2' & 4'
PARA-26	2' & 6'

GEO PLANE SUSPENDED  
DIRECT WITH ACOUSTIC



STANDARD PRODUCT INFORMATION

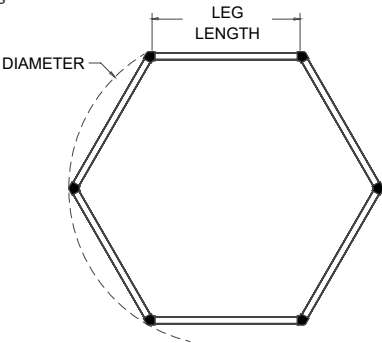
REC  
(4) 90° Corners



Product Dimensions

ORDERING	LEG LENGTH
REC-13	1' & 3'
REC-14	1' & 4'
REC-16	1' & 6'
REC-23	2' & 3'
REC-24	2' & 4'
REC-26	2' & 6'

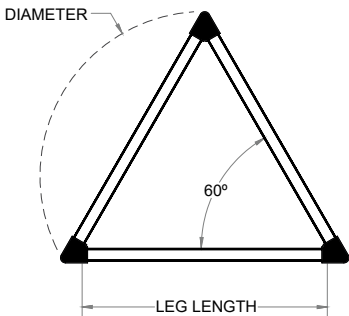
HEX  
(6) 120° Corners



Product Dimensions

ORDERING	DIAMETER	LEG LENGTH
HEX-2	2'	1'
HEX-4	4'	2'
HEX-6	6'	3'
HEX-8	8'	4'

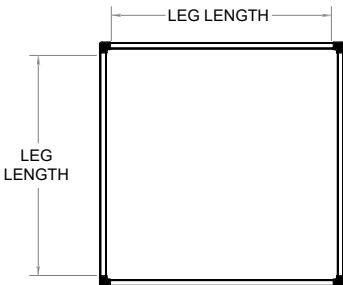
TRI  
(3) 60° Corners



Product Dimensions

ORDERING	DIAMETER	LEG LENGTH
TRI-2	2' 9"	2'
TRI-3	4'	3'
TRI-4	5' 1"	4'

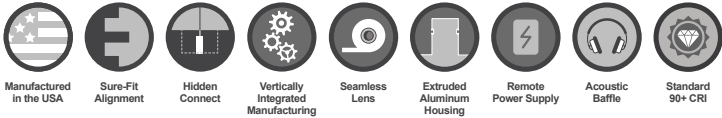
SQR  
(4) 90° Corners



Product Dimensions

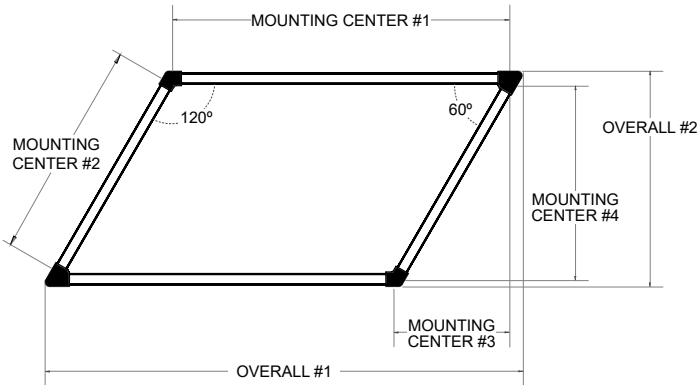
ORDERING	LEG LENGTH
SQR-2	2'
SQR-3	3'

GEO PLANE SUSPENDED  
DIRECT WITH ACOUSTIC



DIMENSIONS

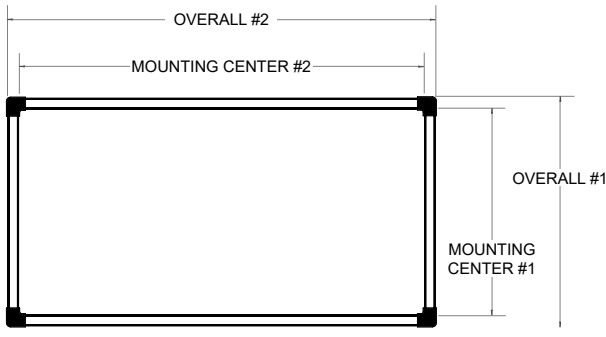
PARA



SIZE/DISTRIBUTION		PARA-13 DIRECT & INDIRECT / DIRECT	PARA-14 DIRECT & INDIRECT / DIRECT	PARA-16 DIRECT & INDIRECT / DIRECT	PARA-23 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	36.9	48.9	72.9	36.9
	#2	14.0	14.0	14.0	26.2
	#3	7.0	7.0	7.0	13.0
	#4	12.2	12.2	12.2	22.7
OVERALL	#1	47.3	59.4	83.3	53.4
	#2	14.5	14.5	14.5	25.0

SIZE/DISTRIBUTION		PARA-24 DIRECT & INDIRECT / DIRECT	PARA-26 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	48.9	72.9
	#2	26.2	26.2
	#3	13.0	13.0
	#4	22.7	22.7
OVERALL	#1	65.4	89.4
	#2	25.0	25.0

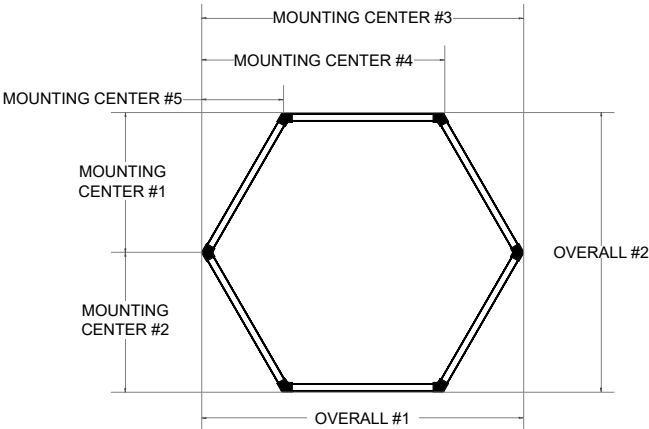
REC



SIZE/DISTRIBUTION		REC-13 DIRECT & INDIRECT / DIRECT	REC-14 DIRECT & INDIRECT / DIRECT	REC-16 DIRECT & INDIRECT / DIRECT	REC-23 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	14.3	14.3	14.3	26.5
	#2	37.2	49.2	19.2	37.2
OVERALL	#1	16.4	16.4	16.4	28.5
	#2	39.3	51.3	75.3	39.3

SIZE/DISTRIBUTION		REC-24 DIRECT & INDIRECT / DIRECT	REC-26 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	26.5	26.5
	#2	49.2	19.2
OVERALL	#1	28.5	28.5
	#2	51.3	75.3

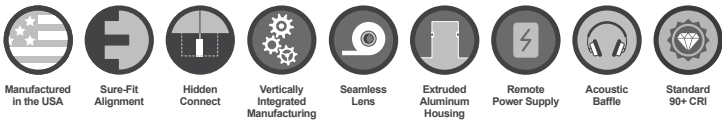
HEX



SIZE/DISTRIBUTION		HEX-2 DIRECT & INDIRECT / DIRECT	HEX-4 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	12.1	22.6
	#2	12.1	22.6
	#3	28.2	52.3
	#4	21.2	39.2
	#5	7.0	13.1
OVERALL	#1	30.6	54.7
	#2	26.3	47.2

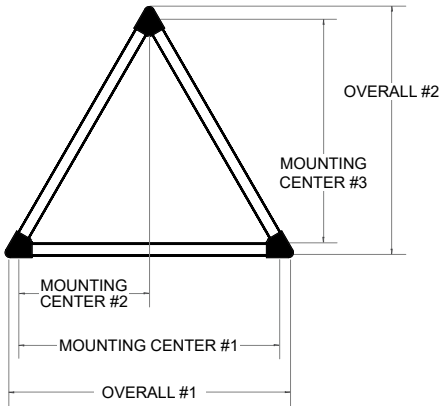
# GEO PLANE SUSPENDED

## DIRECT WITH ACOUSTIC



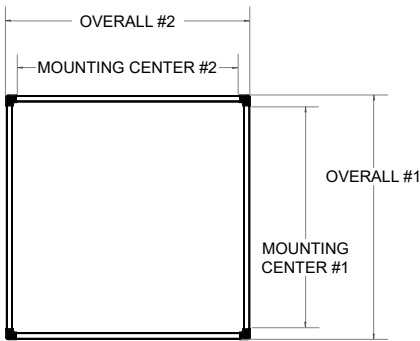
### DIMENSIONS

#### TRI



SIZE/DISTRIBUTION		TRI-2 DIRECT & INDIRECT / DIRECT	TRI-3 DIRECT & INDIRECT / DIRECT	TRI-4 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	26.1	36.9	48.9
	#2	13.1	18.4	24.4
	#3	22.6	31.9	42.3
OVERALL	#1	29.5	40.3	52.3
	#2	25.7	35.0	45.4

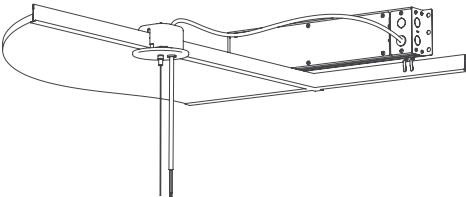
#### SQR



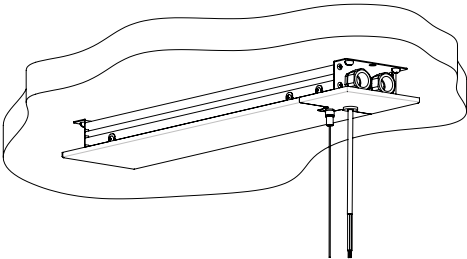
SIZE/DISTRIBUTION		SQR-2 DIRECT & INDIRECT / DIRECT	SQR-3 DIRECT & INDIRECT / DIRECT
MOUNTING CENTER	#1	26.5	37.2
	#2	26.5	37.2
OVERALL	#1	28.5	36.3
	#2	28.5	36.3

### REMOTE DRIVER MOUNTING OPTIONS: DETERMINED BY MOUNTING TYPE

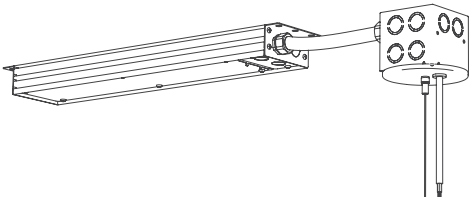
#### ABOVE GRID: T1 - T9 - SC



#### HARD CEILING: HC



#### J-BOX: JB

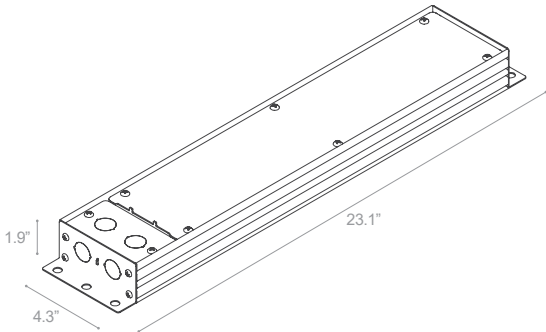


GEO PLANE SUSPENDED  
DIRECT WITH ACOUSTIC



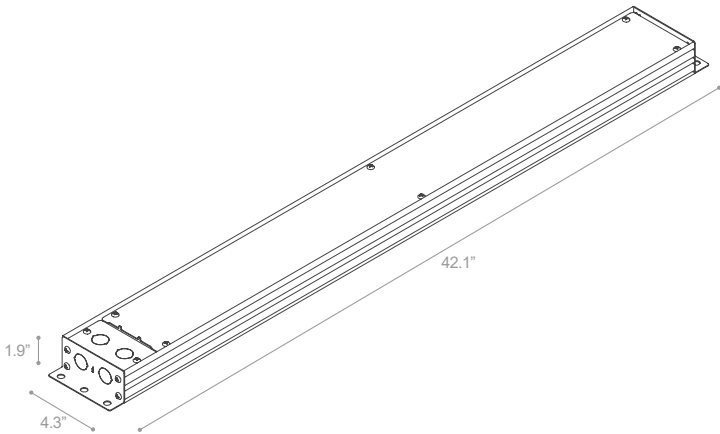
REMOTE DRIVER DETAILS

SHORT REMOTE POWER UNIT



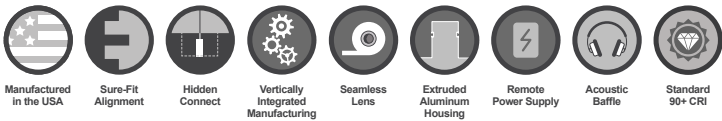
	SHORT REMOTE POWER UNIT	LONG REMOTE POWER UNIT
<b>DISTRIBUTION</b>		
Indirect/Direct (GEOP-ID)	X	X
Direct (GEOP-D)	X	X
<b>MOUNTING</b>		
Hard Ceiling	X	X
Grid (T1 - T9 - SC)	X	X
J-Box	X	X
<b>ADD-ON OPTIONS</b>		
Emergency Battery Pack (EM)		X
Emergency Circuit (EC)	X	X
<b>IC RATED</b>		
Approved		X

LONG REMOTE POWER UNIT



# GEO PLANE SUSPENDED

## DIRECT WITH ACOUSTIC



### ACOUSTIC BAFFLE OPTIONS

#### COLORS

03 Marble	04 Graphite	07 Sand	09 Onyx	12 Avocado
13 Wine	14 Biscuit	15 Evergreen	18 Granite	21 Cream
22 Khaki	24 Snow	33 Slate	39 Earth	40 Coffee
43 Ivory	92 Denim	93 Sage	157 Midnight	191 Stone
192 Ocean				

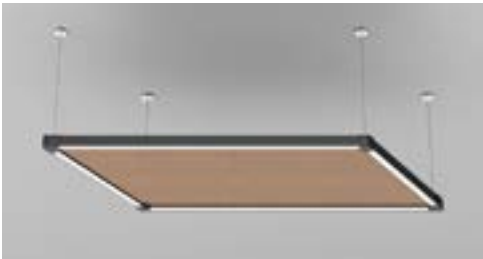
#### TEXTURES

50 Dark Walnut	52 Ash
53 Honey	54 Plywood
61 Fresh Plywood	62 Italian Walnut
63 Main Street Elm	64 Planche Oak
65 Vista Walnut	66 Weathered Plywood

### PLANE SERIES WITH GEO SERIES



**Suspended GEO Hexagon**  
Shown with Khaki (22) PLANE Acoustic



**Suspended GEO Parallelogram**  
Shown with Honey (53) PLANE Acoustic



**Suspended GEO Rectangle**  
Shown with Graphite (04) PLANE Acoustic



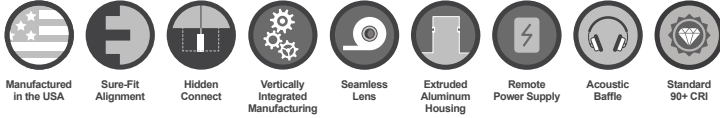
**Suspended GEO Square**  
Shown with Sage (93) PLANE Acoustic



**Suspended GEO Triangle**  
Shown with Coffee (40) PLANE Acoustic

# GEO PLANE SUSPENDED

## DIRECT WITH ACOUSTIC



### COMPLETE SERIES COLLECTION



**SLEK ACOUSTIC** (Distribution: Direct)  
 Dimensions: 7.00" or 12.00"H x 2.13"W  
 Mounting: Suspended  
 Sound Absorption: Average NRC 1.4  
 (Subject to mounting conditions)

#### [VIEW SPEC SHEET](#)

Learn more at: [Lumato.com/project/slek-acoustic-suspended/](https://lumato.com/project/slek-acoustic-suspended/)



**2SA ACOUSTIC** (Distribution: Direct, Indirect/Direct)  
 Dimensions: 7.00" or 12.00"H x 2.88"W  
 Mounting: Suspended  
 Sound Absorption: Average NRC 1.4  
 (Subject to mounting conditions)

#### [VIEW 2SA-D SPEC SHEET](#)

#### [VIEW 2SA-ID SPEC SHEET](#)

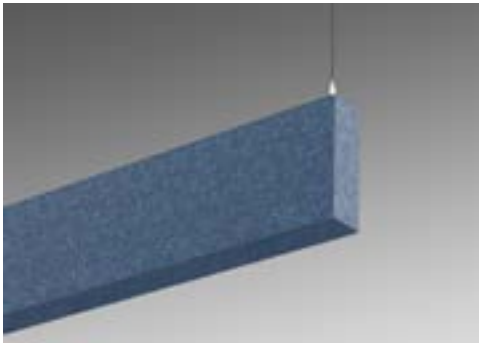
Learn more at:  
[Lumato.com/project/2sa-d-suspended/](https://lumato.com/project/2sa-d-suspended/)  
[Lumato.com/project/2sa-id-suspended/](https://lumato.com/project/2sa-id-suspended/)



**PLANE UNLIT**  
 Circle, Para, Rectangle, Hex, Triangle, Square  
 Mounting: Suspended  
 Sound Absorption: Average NRC 0.85  
 (Subject to mounting conditions)

#### [VIEW SPEC SHEET](#)

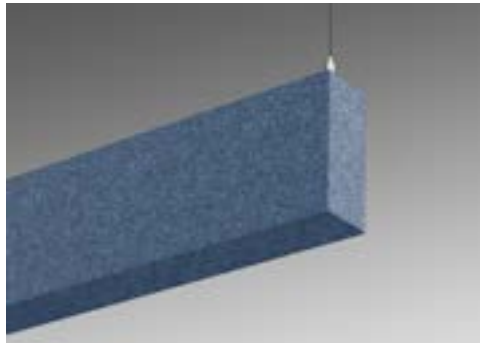
Learn more at: [Lumato.com/project/plane-suspended/](https://lumato.com/project/plane-suspended/)



**ACOUSTIC UNLIT MINI BOX**  
 Dimensions: 7.00" or 12.00"H x 2.13"W  
 Mounting: Pendant  
 Sound Absorption: Average NRC 1.4  
 (Subject to mounting conditions)

#### [VIEW SPEC SHEET](#)

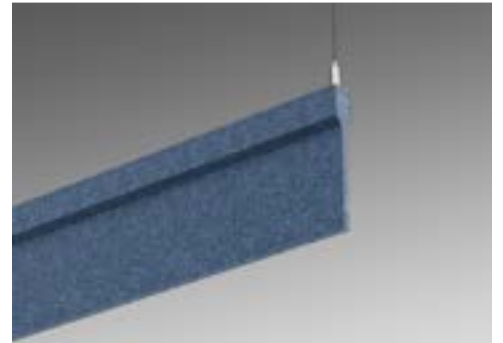
Learn more at: [Lumato.com/project/acoustic-box-mini/](https://lumato.com/project/acoustic-box-mini/)



**ACOUSTIC UNLIT BOX**  
 Dimensions: 7.00" or 12.00"H x 2.88"W  
 Mounting: Pendant  
 Sound Absorption: Average NRC 1.4  
 (Subject to mounting conditions)

#### [VIEW SPEC SHEET](#)

Learn more at: [Lumato.com/project/acoustic-box/](https://lumato.com/project/acoustic-box/)



**ACOUSTIC UNLIT BLADE**  
 Dimensions: 7.00" or 12.00"H x 1.13"W  
 Mounting: Pendant  
 Sound Absorption: Average NRC 0.75 - 1.15  
 (Subject to mounting conditions)

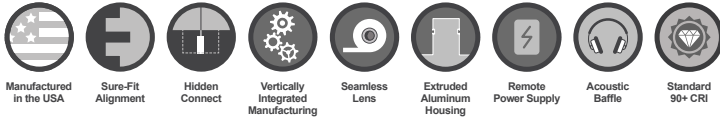
#### [VIEW SPEC SHEET](#)

Learn more at: [Lumato.com/project/acoustic-blade/](https://lumato.com/project/acoustic-blade/)



# GEO PLANE SUSPENDED

## DIRECT WITH ACOUSTIC



### SPECIFICATIONS

## MECHANICAL

### Housing Construction:

Extruded Aluminum 6063-T5 alloy outer housing and our high-quality connectors are engineered to conceal all fasteners, and to retain the sealing gaskets on the inside of the fixture while completing the clean and minimalistic look of this luminaire. The Acoustic PLANE is made of 100% polyester fiber acoustic felt and is available in 5 different shapes.

### Mounting Method/Hardware:

Standard hanging hardware includes 1/16" diameter, galvanized steel aircraft cable with adjustable and lockable nickel-plated cable grippers at the luminaire. White or black 18/4 cord carries low voltage to luminaire. The standard hardware includes a 57" power cord and 60" aircraft cables to accommodate a 48" mounting distance from the ceiling. All Lumato suspension hardware meets the UL1598 requirements for loading/fixture support. Ceiling Canopy hardware provided. For Geo Plane, sheet metal brackets installed on the edge of the baffles that install onto the GEO housing.

### Exterior Finish:

The GEO is available in White, Black, Silver, or Charcoal Grey polyester powder coat finish to ensure durability. Luminaires are available in any RAL color as an option.

### Acoustic Color:

The acoustic baffle is made of 100% polyester fiber. Available in the following Colors: Marble (03), Graphite (04), Sand (07), Onyx (09), Avocado (12), Wine (13), Biscuit (14), Evergreen (15), Granite (18), Cream (21), Khaki (22), Snow (24), Slate (33), Earth (39), Coffee (40), Ivory (43), Denim (92), Sage (93), Midnight (157), Stone (191), Ocean (192). Available Textures: Dark Walnut (50), Ash (52), Honey (53), Plywood (54), Fresh Plywood (61), Italian Walnut (62), Main Street Elm (63), Planche Oak (64), Vista Walnut (65), Weathered Plywood (66).

### Corner Joints:

Fully machined aluminum corner joints with 2 mounting screws per fixture to provide strength. A sheet metal connector cover connects the multiple fixtures and hanging hardware together. This allows easy install and final wiring. Wiring is completed prior final corner joint is installed. Corner joint and sheet metal connector cover are joined with a 1/4-20 screw.

## OPERATION

### Remote Power Unit:

Remote Power Unit powers only one luminaire at a time. In row configurations, one power unit is required for each luminaire. Easy to access wiring compartments for fast and easy installation. Line voltage and low voltage wire compartments.

### Remote Box Mounting Configurations:

- Above T-Grid with supplied clips
- Decorative surface mount on hard sheet rock construction
- Recessed in hard sheet rock construction (IC Rated)
- J-Box Mounted

### Light Engine:

The GEO is available in 3000K, 3500K, and 4000K CCT all within a 3-Step MacAdam Ellipse and has a standard CRI of 90+.

### Lower Optics:

Our frosted acrylic roll in lens is designed to maximize efficiency while minimizing glare and eliminating light leak at fixture joints. Fixtures come with lens installed.

### Upper Optics:

The upper optics consist of an extruded acrylic lens that provides a ultra-wide batwing distribution to produce a more evenly illuminated ceiling and wider spacing of luminaires.

### Electrical:

Electrical connections at fixture are preinstalled with low voltage wiring. Class 2 programmable (factory pre-set) premium power supply, 120-277VAC OR 347V input. Power factor >0.9. THD <15%. Integral Surge Protection to 2KV.

### Dimming:

The GEO comes standard with 0-10V dimming to 1%.

## PERFORMANCE

### Acoustic Material:

All raw materials are sustainably sourced from carefully selected vendors within the USA and abroad. All acoustic felt is made from low-VOC, 60% recycled PET polyester felt material. Frames are custom ordered in standardized sizes to prevent waste in the supply chain.

All Lumato products are free of allergens, irritants, and coatings/ sprays that degrade or give off VOC's. All acoustic materials also meet ASTM E84 Class A, Flame Spread 40.

### Product Maintenance:

Our acoustic baffles and panels are inherently easy to maintain. They can be wiped down with a damp cloth or vacuumed as needed.

If a stain does appear, warm water and soap can be used to gently blot the area affected.

Acoustic baffles and panels are 100% recyclable at end of life.

ASTM E84 Class A Fire Spread rating is permanently achieved by infusing 40% new material into the panel. Our manufacturing process never uses sprays or coatings that degrade or lose their rating status.

## GENERAL

### Warranty:

Ten (10) year limited warranty from date of shipment, covers LED's, driver, and luminaire. Optional accessories are covered by their individual manufacturers' warranties. Two (2) year limited warranty from date of shipment. Optional accessories are covered by their individual manufacturer warranties.

### Lumen Maintenance:

Rated for 85% initial lumen output (L85) at 90,000 hours of operation, operated at 25°C ambient temperature; per TM-21 Guidelines published by the Illuminating Engineering Society (IES).

### Certification:

All Luminaires and Remote Power Unit are UL and cUL Listed, approved for Dry/Damp locations.

Remote Driver Box may be IC rated as an option. Contact Lumato for more information.

### Acoustic Baffle Fire Rating:

ASTM E84 Class A Fire Spread rating is permanently achieved by infusing 40% new material into the panel. Our manufacturing process never uses sprays or coatings that degrade or lose their rating status.

### Manufactured in the USA:

All Lumato Luminaires and Components (with the exception of our LED boards and drivers) are proudly manufactured and assembled in the USA. All luminaires are UL/cUL Listed to UL 1598 Standards and approved for Indoor use in Dry/Damp Locations.

### Shipping:

6-8 Week lead-time for orders up to 1000 linear feet.

Lead-time for orders greater than 1000 linear feet will be determined at time of order.