

Grüv® Flare

Regressed

Recessed Linear LED



Features

The Gruv Flare Regressed fixture provides high-performance, visually comfortable, high efficient ambient lighting. Designed with a regressed lens and a flared aperture, the GRUV-FR provides more controlled light output with a unique design aesthetic for commercial and office environments.

Product Overview

Type:	Recessed Lens Direct
Wattage:	5W/ft, 10W/ft (other wattages available see p2)
Lumen Output:	3,959 max; 99.9 Lm/W (10W, 4ft fixture)
Color Temp:	2700K, 3000K, 3500K, 4000K
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K)
Dimming:	0-10V, 1% dimming (standard) Lutron Hi-lume® 3 wire, 1% dim Lutron Hi-lume® EcoSystem, 1% dim Lutron Hi-lume® 2 wire (120V only) Lutron Hi-lume® EcoSystem, 1% dim, fade to off Lutron Hi-lume® 5 Series DALI dimming, 0.1% dim

PROJECT:

TYPE:

Fixture Summary *(see following pages for more information)*

Ceiling Types

4" Tech Zone	6" Tech Zone	9/16"	15/16"	Gyp Board	Millwork
No	Yes	Yes	Yes	Yes	Yes

Performance Chart

Wattage Per Foot	Delivered Lumens	LPW	Color Temp
5	2,375	119.0	3000K
10	3,959	99.9	3000K

Data is based on 3500K-83 IES files available on website

Data is based on 4' fixture with performance lens

Electrical Data

Wattage Per Foot		4'		8'	
		System Watts	Amps	System Watts	Amps
5	120V	22.3	0.18	41.9	0.35
	277V	22.9	0.09	41.6	0.16
10	120V	42.1	0.35	84.2	0.70
	277V	41.5	0.15	83.0	0.30

Electronic multi-volt (120V-277V), constant current LED driver



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PROJECT:

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Ordering Information



- 1** Model
GRUV-FR-FLG-A16*
GRUV-FR-GRID-A16*
- 2** Optics
PL - performance lens (standard)
DL - designer lens
- 3** Wattage (per foot)
Standard:
5 - 5W/ft
10 - 10W/ft
Optional:
3 - 3W/ft (4' minimum length required)
4 - 4W/ft (4' minimum length required)
6 - 6W/ft
7 - 7W/ft
8 - 8W/ft
9 - 9W/ft
- 4** Color Temp
83 CRI:
27 - 2700K-83
30 - 3000K-83
35 - 3500K-83
40 - 4000K-83
92 CRI optional, consult factory
- 5** Finish
HW - high reflectance matte white
- 6** Voltage
120/277
- 7** Length
----- - specify length
(for individual fixture, 2' to 8' in 1' increments)
(for continuous run, specify to nearest foot)
(for made to measure, +/- 1/8" of customer supplied field dimensions)
- 8** Configuration
IND¹ - individual fixture, 2' to 8' in 1' increments
CON - continuous run > than 8', specify to nearest foot
CUS - custom made to measure, +/- 1/8" of customer supplied field dimensions
- 9** Drivers
0-10V - 0-10V, 1% dimming (standard)
HILUME-A-DH - Lutron Hi-lume® "A" Series, 3 wire, 1% dim
HILUME-A-ECO - Lutron Hi-lume® "A" Series, EcoSystem, 1% dim
HILUME-A-LTE - Lutron Hi-lume® "A" Series dim, 2 wire, 120V only
HILUME-H-ECO - Lutron Hi-lume® "H" Series, EcoSystem, 1% dim, fade to off
HILUME-5-ECO - Lutron Hi-lume® "5" Series, 5 wire
DALI - DALI dimming 120V-277V, 0.1% dim
- 10** Options/Accessories
CP - Chicago Plenum (CCEA)
WHIP - 6' whip, 18/5 conductor
EMC-PF² - emergency circuit requires power feed located in last fixture section (for other locations consult factory)
PF² - Extra power feed for additional circuiting

1 - Lengths less than 4' may have restrictions based upon wattage, lengths, drivers or other options.

2 - Not available with IND (individual) configuration.

* The "A" refers to the sequential revision in a year and "XX" refers to the year of update. Updates coincide with improved performance while not changing the overall fixture aesthetic and are reflected in the published performance data. Please contact your Amerlux representative for explanations of changes.

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Specifications

Application

Commercial and retail recessed ambient lighting applications. Fully regressed lens reduces glare for quiet, comfortable lighting. Made to measure lengths available. Flat end detail makes for clean installed look in grid ceilings.

Construction

Heavy gauge steel upper housing is secured to aluminum extruded trim rails. Die-formed, cold-rolled steel internal components and external mounting brackets. Numerous configurations accommodate most architectural ceiling conditions.

Optical

All lenses are snap-in, extruded acrylic, with a maximum length of 8'. Amerlux's proprietary acrylic lens provide excellent transmission while effectively concealing source image.

PL - Performance Lens provides high efficiency with controlled lens surface brightness (standard).

DL - Designer Lens provides flat even glow on lens. Best when lens is in direct or constant view.

LED

Amerlux's boards and patented connector design with brand name LEDs enables Amerlux fixtures to have excellent thermal management and offer a 10 year warranty. Our LED binning is within 3 MacAdam ellipse. Boards are configured for maximum flexibility resulting in even illumination no matter the fixture layout. LED boards are easily replaced in the field with just a Phillips screw driver.

Color Temperature Options:

2700K, 3000K, 3500K, 4000K

CRI: 83 typical, 92 optional - consult factory

R9: 16 @ CRI 83

R9: >50 @ CRI 92

Life: 50,000+ hr., > 70% of initial lumens (L70)

Electrical

Wiring: Supply wires are easily accessible through Access Plate on top of fixture.

WHIP: Optional factory installed 6' Greenfield whip (18/5 conductor) simplifies installation.

Standard Wattage: 5W/ft, 10W/ft.

Optional Wattages: 3W/ft, 4W/ft, 6W/ft, 7W/ft, 8W/ft, 9W/ft. (3W & 4W have a minimum length of 4'). For other wattages consult factory.

Emergency circuit via remote inverter or auxiliary emergency power supply (by others).

This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Amerlux® recommends using additional surge protection with this unit (supplied by others), surge and over voltage damage is not covered under warranty.

EMC-PF - Emergency circuit requires power feed wire harness to be located in last fixture section for continuous runs. For other locations consult factory. Not available for individual (IND) configuration.

PF - Extra power feed for additional circuiting. Not available for individual (IND) configuration.

Drivers

0-10V - 1% electronic dimming, multi-volt (120V-277V) constant current driver (standard). Cap leads for non-dim applications.

Optional Drivers:

HILUME-A-DH - Lutron "A" Series, 1% dim, 3-wire (Dim Hot)

HILUME-A-ECO - Lutron "A" Series, 1% dim, EcoSystem

HILUME-A-LTE - Lutron "A" Series, 1% dim, 2-wire, 120V only

HILUME-H-ECO - Lutron "H" Series, 1% dim, fade to off, EcoSystem

HILUME-5-ECO - Lutron "5" Series, EcoSystem

DALI - DALI Dimming 120V-277V, 0.1% dim

Finish

HW - High reflectance, matte white powder coat paint. Baked on finish for maximum durability and color stability.

Configurations/Lengths

IND - Individual fixtures are made of single standard lengths of 2 ft to 8 ft (in 1' increments). These are stand alone fixtures with matching End Caps, supplied with the mounting hardware. Lengths less than 4' may have restrictions based upon wattage, lengths, drivers or other options.

CON - Continuous runs, > 8', specified to nearest whole foot length in 1' increments. Runs made from standard lengths have Flat End Caps at the beginning and end of run. Runs > 60' may require second power feed. Each Housing has factory installed alignment pins. Mating fixtures are easily aligned and joined with "catch and latch" mechanisms out of sight, on top of the Housing. Wiring is made fast and positive with molded quick connectors.

CUS - Made To Measure runs are made to nearest 1/8" of customer supplied field measurements or drawings. Custom lengths use the same hardware for hairline joining.

Mounting

Intended for use in 5/8" gypsum board, 9/16" & 15/16" Tee grid, and Screw Slot ceilings. For individual and continuous row applications.

Please note, fixtures to be installed before gypsum board ceiling have flat end detail.

GRUV-FR-FLG-A16 - flare regressed exposed flange, in 6" wide gypsum board ceiling aperture

GRUV-FR-GRID-A16 - flare regressed grid mount, in 9/16" & 15/16" Tee ceiling aperture (compatible with 6" TechZone™ & other 6" wide architectural ceiling systems)

Certifications

Approved to UL standards for damp locations as tested by CSA

Intended for indoor use only

Chicago Plenum (CCEA) optional

Warranty

Amerlux's 5 year limited warranty. Please consult Amerlux website for details.

Grüv® Flare Regressed

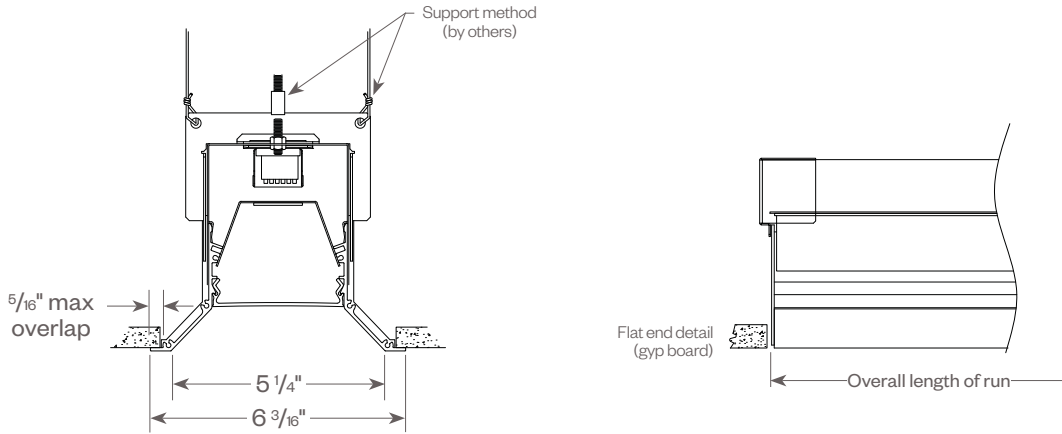
Recessed Linear LED



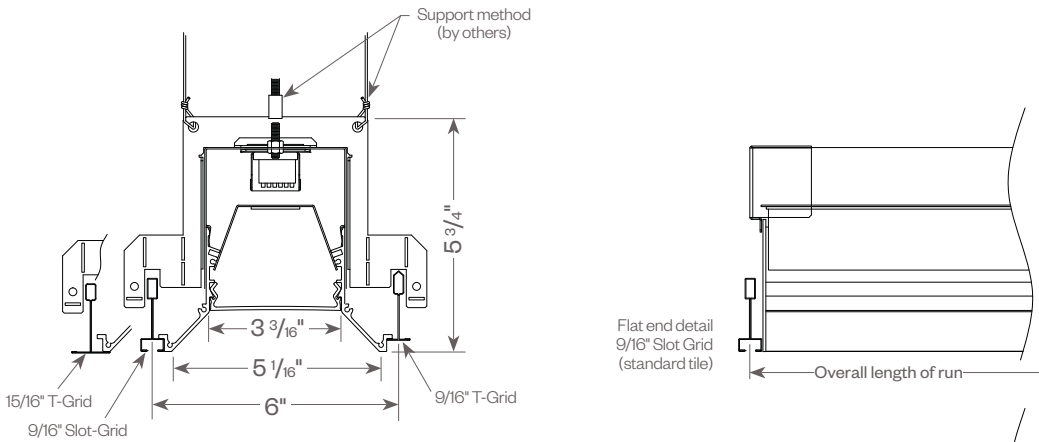
PROJECT:

TYPE:

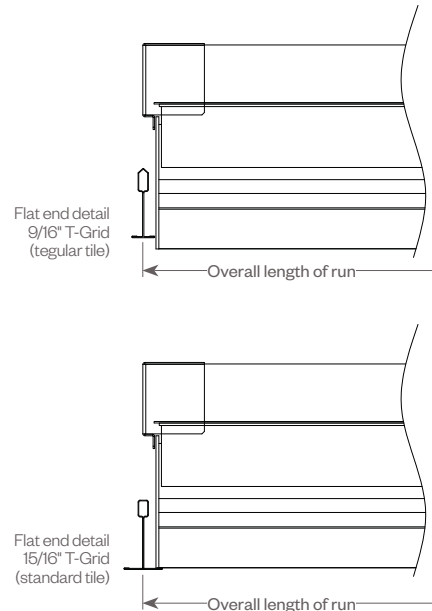
GRUV FLARE REGRESSED, FLANGED (GRUV-FR-FLG)



GRUV FLARE REGRESSED (GRUV-FR-GRID)



Compatible with 6" TechZone™ and other architectural ceiling systems.



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PROJECT:

TYPE:

FIXTURE DATA: (Complete photometric data (.ies format) available upon request)

MULTIPLYING FACTORS: (Multiplying Factor is based on 3000K-83 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W	10W
Factor:	0.36	0.46	0.56	0.66	0.76	0.85	0.93	1.0

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.93	1.0	1.08	1.15

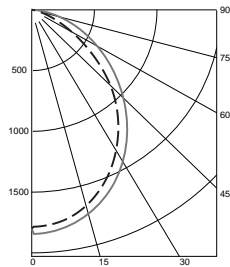
GRÜV FR PERFORMANCE LENS 10W 3000K 4FT

Total Watts: 40

Total Lumens: 3,959

Source: 128 White LED's

LTL# 1179058



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	2113	53.4
0-60	3430	86.6
0-90	3959	100.0
90-180	0	0.0

Total Luminaire Efficiency = 99.9 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	4714	4714	4714	4714
1	4366	4201	4054	3922
2	4012	3721	3480	3278
3	3687	3309	3016	2782
4	3397	2961	2641	2396
5	3140	2666	2335	2091
6	2911	2416	2084	1846
7	2708	2202	1875	1645
8	2527	2019	1699	1479
9	2366	1860	1550	1340
10	2223	1722	1422	1222

Note: Values are expressed as Lumens delivered to the task surface.

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PROJECT:

TYPE:

FIXTURE DATA: (Complete photometric data (.ies format) available upon request)

MULTIPLYING FACTORS: (Multiplying Factor is based on 3000K-83 120V IES file on website)

Wattage:	3W	4W	5W	6W	7W	8W	9W	10W
Factor:	0.36	0.46	0.56	0.66	0.76	0.85	0.93	1.0

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.87	0.93	1.0	1.08

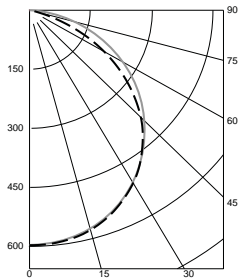
GRÜV FR DESIGNER LENS 5W 3500K 4FT

Total Watts: 18.6

Total Lumens: 1,600

Source: 120 White LED's

LTL# 11665872.30



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	762	47.6
0-60	1331	83.2
0-90	1600	100.0
90-180	0	0.0

Total Luminaire Efficiency = 86.0 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	1860	1860	1860	1860
1	1711	1648	1590	1538
2	1561	1447	1353	1272
3	1425	1277	1161	1068
4	1306	1135	1008	910
5	1202	1017	885	787
6	1111	917	785	688
7	1031	833	702	609
8	960	761	633	544
9	898	699	575	490
10	842	645	525	444

Note: Values are expressed as Lumens delivered to the task surface.

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DIMMING COMPATIBILITY:

Amerlux® Gruv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---

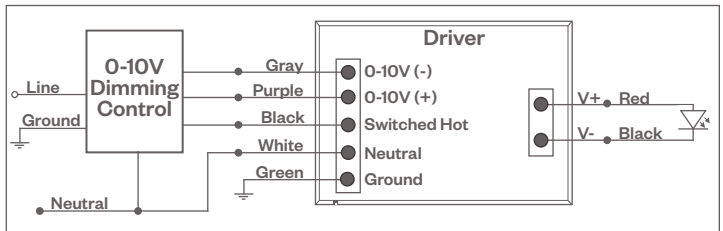
0-10V - DIMMING (Standard)

Integrates into a variety of building management and daylighting controls

Notes:

- 120V or 277V*
- Dims down to 1% light output
- Requires interface to turn off power to driver
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

0-10V Wiring Diagram



Compatible Dimmers

Wall Box

Lutron "Diva" - DDTV with PP-120H Interface

Leviton Renoir II 0-10v

Central System

Lutron Grafik Eye with GRX-TV1 Interface

LUTRON HI-LUME DIMMING

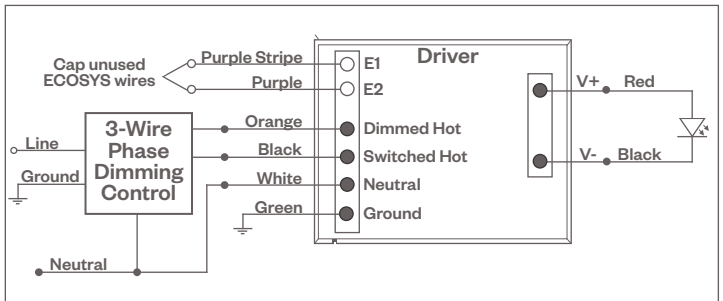
Integrates into Lutron EcoSystem building management

Notes:

- 120V or 277V*
- Dims down to less than 5% light output
- May use 3-Wire or EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

HILUME-A-DH

3-Wire Wiring Diagram



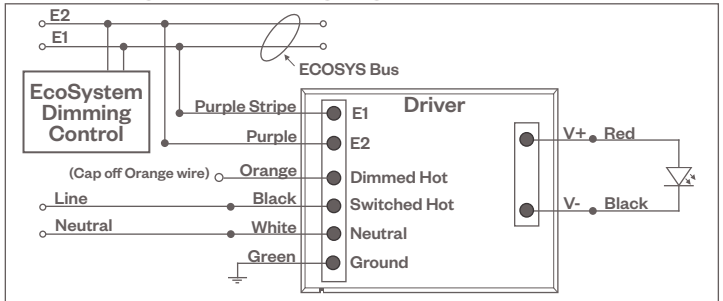
Compatible Dimmers

Wall Box (3-Wire Fluorescent)

DIVA
Maestro
Nova T
Vareo

HILUME-A-ECO, HILUME-H-ECO, HILUME-5-ECO

EcoSystem Digital Control Wiring Diagram



Central System

Lutron EcoSystem compatible controls

Notes:

* Driver is 277V dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120V wiring colors and method. Please refer to 277V dimmer installation instructions for 277V wiring diagrams.

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PROJECT:

TYPE:

DIMMING COMPATIBILITY:

Amerlux® Gruv fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---

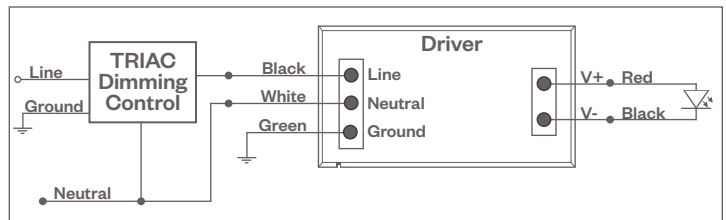
LUTRON HILUME-A-LTE DIMMING

Utilizes "Standard" incandescent dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

Notes:

- 120V only
- Dims down to less than 1% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

Lutron HILUME-A-LTE Wiring Diagram



Compatible Dimmers

Wall Box (Incandescent Style, Wattage as required)

Lutron "Diva"	Lutron "Vareo"
Lutron "Nova-T"	Lutron "Skylark"
Lutron "Maestro"	

Central System

ETC "SR" Rack w/D20 Module	Lutron Grafik Eye QS
Lutron "GP" Panel	
ETC "DRD" Rack w/D20 Module	

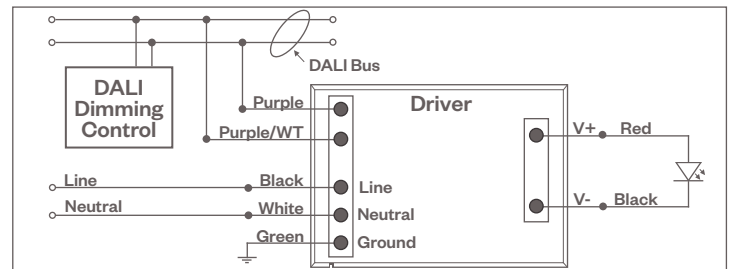
DALI - DALI DIMMING 120V-277V

Digital control protocol allows individual fixture control

Notes:

- 120V - 277V*
- Dims down to 0.1% light output in most cases

DALI Wiring Diagram



Compatible Dimmers

Wall Box (3-Wire Fluorescent)

Leviton CD250 Controller

Central System

Dynalite
Fifth Light

Notes:

* Driver is 277V dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120V wiring colors and method. Please refer to 277V dimmer installation instructions for 277V wiring diagrams.