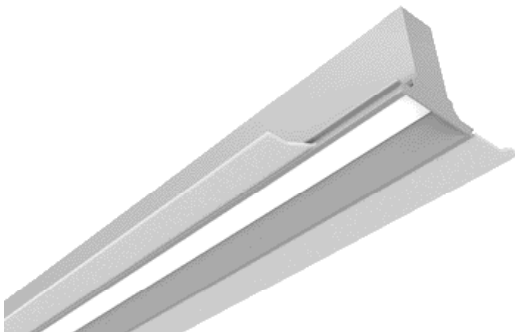


Grüv® Flare Regressed Recessed Linear LED



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:	4,092 max; 114.1 lm/W (36W, 4ft fixture)
Color Temp:	2700K, 3000K, 3500K, 4000K
CRI:	83 typ. or 90+ typ
Dimming:	0-10V, 1% dimming (standard) Lutron Hi-lume® EcoSystem, 1% dim, fade to off DALI dimming, 1% dim

PROJECT:

TYPE:

PRODUCT DISCONTINUED
Replacement Product: Gruv 6" HE

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 (4' Fixture)

Nominal Wattage/Foot	Actual Wattage/Foot	Total Wattage	Delivered Lumens	LPW	Color Temp-CRI
5	5	20	2,251	112.5	3500K-83
10	9	36	4,092	114.1	3500K-83

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 (120-277VAC), constant current LED driver

Grüv® Flare Regressed

Recessed Linear LED



PROJECT:

TYPE:

Ordering Information

				HW	120/277				
1	2	3	4	5	6	7	8	9	10

- 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

<u>83 CRI:</u>	<u>90+ CRI:</u>
27 - 2700K-83	279 - 2700K-90+
30 - 3000K-83	309 - 3000K-90+
35 - 3500K-83	359 - 3500K-90+
40 - 4000K-83	409 - 4000K-90+
- 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-H-ECO - Lutron "H" Series, 1% dim, fade to off, EcoSystem
DALI - DALI Dimming 120-277VAC, 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
EMB - emergency battery pack (not available for lengths under 4')

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.

Grüv® Flare Regressed

Recessed Linear LED



PROJECT:

TYPE:

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 5 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, 90+ (consult factory for lead times)

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 (120-277VAC) constant current driver (standard). Cap leads for non-dim applications.

Optional Drivers:

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

DALI - DALI Dimming 120-277VAC, 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)

Options

EMB - Emergency battery pack - 10W output power, 90 min of illumination time, up to 1300 lm of initial light output. Illuminated test-switch/charging indicator light is provided. Wattage consumption by EM: 2.5W/ft (4ft fixture), 1.66W/ft (6ft fixture), 1.25W/ft (8ft fixture). Request can be made to light up 4ft section on 8ft unit.

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

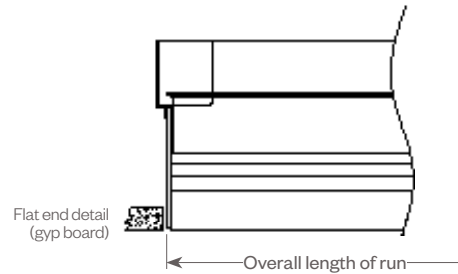
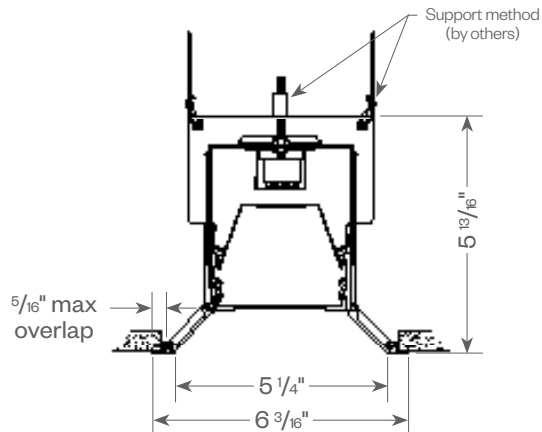
Recessed Linear LED



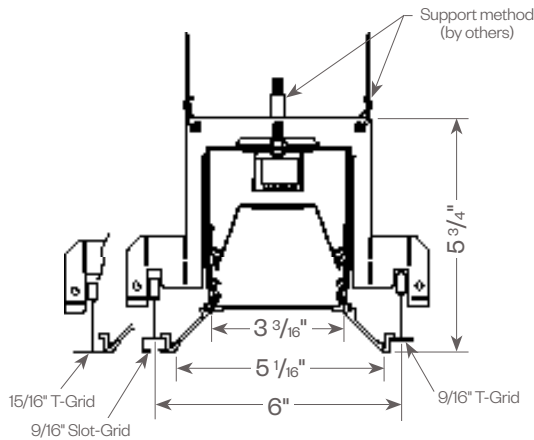
PROJECT:

TYPE:

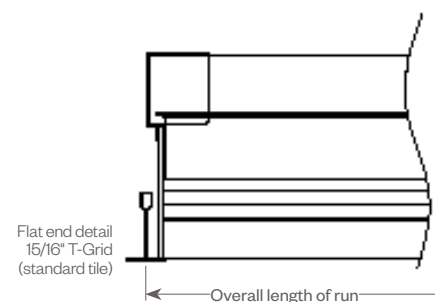
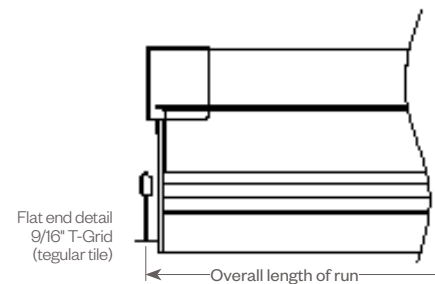
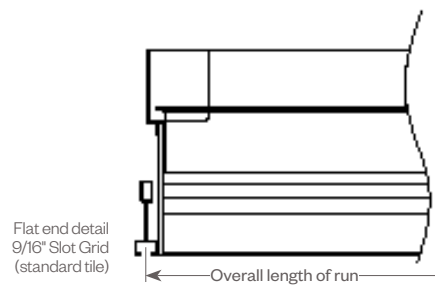
GRUV FLARE REGRESSED, FLANGED (GRUV-FR-FLG)



GRUV FLARE REGRESSED (GRUV-FR-GRID)



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



Grüv® Flare Regressed

Recessed Linear LED



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:	0.34	0.45	0.55	0.64	0.73	0.82	0.89	1.0

CCT Factors:				
CRI	2700K	3000K	3500K	4000K
83	0.92	0.97	1.0	1.02
90	0.81	0.84	0.86	0.89

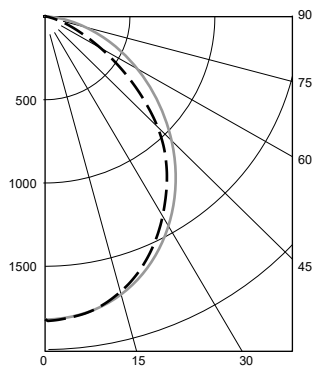
GRÜV FR PERFORMANCE LENS 10W 3500K 4FT

Total Watts: 36

Total Lumens: 4,092

Source: 120 White LED's

LTL# 1179058



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	2165	52.9
0-60	3544	86.6
0-90	4092	100.0
90-180	0	0.0

Total Luminaire Efficiency = 114.1 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
ROR				
0	119	119	119	119
1	110	106	102	99
2	101	94	88	83
3	93	83	76	70
4	86	75	67	60
5	79	67	59	53
6	73	61	52	46
7	68	55	47	41
8	64	51	43	37
9	60	47	39	34
10	56	43	36	31

Note: Values are expressed as percent of total lumen output delivered to the task surface.

Grüv® Flare Regressed

Recessed Linear LED



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:	0.63	0.82	1.0	1.17	1.34	1.50	1.64	1.83

CCT Factors:				
CRI	2700K	3000K	3500K	4000K
83	0.92	0.97	1.0	1.02
90	0.81	0.84	0.86	0.89

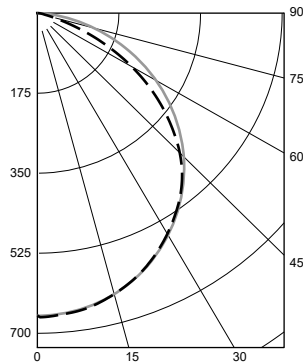
GRÜV FR DESIGNER LENS 5W 3500K 4FT

Total Watts: 18

Total Lumens: 1,766

Source: 120 White LED's

LTL# 13170267:19



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	839	47.5
0-60	1471	83.3
0-90	1766	100.0
90-180	0	0.0

Total Luminaire Efficiency = 97.6 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	110	105	101	98
2	100	92	86	80
3	92	81	74	67
4	84	72	64	57
5	77	65	56	49
6	71	58	49	43
7	66	53	44	38
8	62	48	40	34
9	57	44	36	31
10	54	41	33	28

Note: Values are expressed as percent of total lumen output delivered to the task surface.

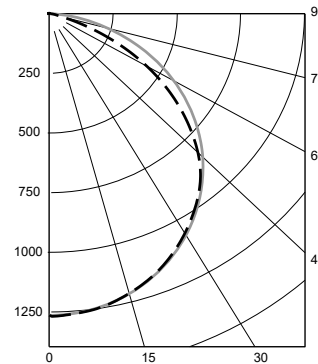
GRÜV FR DESIGNER LENS 10W 3500K 4FT

Total Watts: 36

Total Lumens: 3,372

Source: 128 White LED's

LTL# 13243195:11:19



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-40	1602	47.5
0-60	2811	83.4
0-90	3372	100.0
90-180	0	0.0

Total Luminaire Efficiency = 94.1 Lumens /Watt

COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 20%

RC	80			
RW	70	50	30	10
RCR				
0	119	119	119	119
1	110	105	101	98
2	100	92	86	81
3	92	81	74	67
4	84	72	64	57
5	77	65	56	49
6	71	58	50	43
7	66	53	44	38
8	62	48	40	34
9	58	44	36	31
10	54	41	33	28

Note: Values are expressed as percent of total lumen output delivered to the task surface.

Grüv® Flare Regressed

Recessed Linear LED



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 ---

0-10V - DIMMING (Standard)

Integrates into a variety of building management and daylighting controls

Notes:

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

Compatible Dimmers†:

Wall Box

Lutron:

Diva - DVSTV

Maestro - MS-Z101

Nova-T - NTSTV-DV

Wattstopper:

ADF-120277

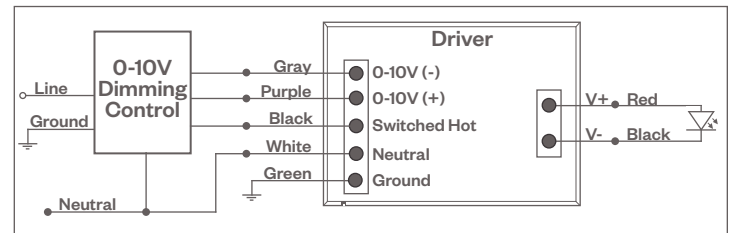
Leviton:

Renoir II

Center System

Lutron Grafik Eye with GRX-TV1 Interface

0-10V Wiring Diagram



LUTRON HI-LUME ECOSYSTEM DIMMING

Integrates into Lutron EcoSystem building management

Notes:

- 120VAC or 277VAC*
- Dims down to 1% light output
- EcoSystem Control
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

Compatible Dimmers†:

Lutron ECO System

Pow Pak Dimming Modules

Energi Savr Node

Grafik Eye QS/Homeworks

QS Control Unit

Quantum Hub

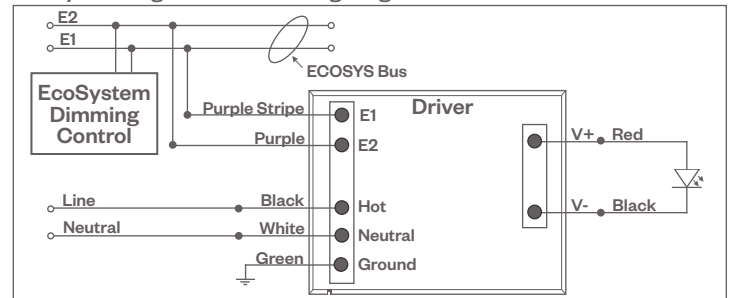
Homeworks QS/My Room

Central System

Lutron EcoSystem compatible controls

HILUME-H-ECO

EcoSystem Digital Control Wiring Diagram



DALI - DALI DIMMING 120-277VAC

Digital control protocol allows individual fixture control

Notes:

- 120VAC - 277VAC*
- Dims down to 1% light output in most cases

Compatible Dimmers†:

Wall Box

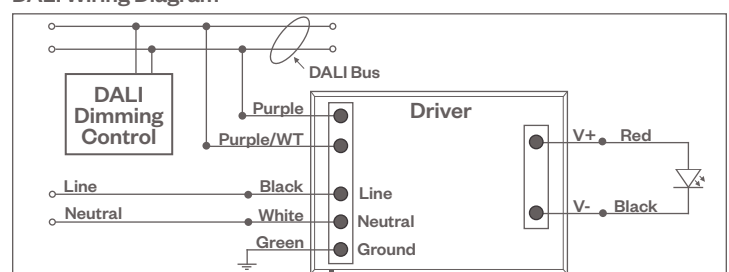
Leviton CD250 Controller

Center System

Dynalite

Fifth Light

DALI Wiring Diagram



Notes:

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

† The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.

Grüv® Flare Regressed

Recessed Linear LED



PROJECT:

TYPE:

EMERGENCY FIXTURE WITH BUILTIN BATTERY PACK (EMB) WIRING:

Note: EMB not available on lengths under 4'.

