Hornet® HP Select

Square Downlight

PROJECT:	TYPE:

Features

The Hornet HP Select square downlight series provides powerful yet comfortable accent lighting for retail and commercial spaces without compromising on budget or design. It delivers over 2000 lumens in a variety of beam distributions and features quiet optics for visually pleasing aesthetics. The Hornet HP Select offers trimmed, trimless, or millwork trim options and is perfect for both retrofit and new construction projects.

HSE-SD

Product Overview

Type:	Recessed Square Downlight
Wattage:	10W, 12W, 16W, 21W
Color Temp:	2700K, 3000K, 3500K, 4000K Signature LED options in 2700K & 3000K
CRI:	90+ typ.
Dimming:	**Wired:** TRIAC & ELV, Hi-lume®, 0-10V, DALI **Wireless:** Lutron Athena RF node, BubblyNet Bluetooth
UGR:	<5 overall *(see pg 6 for detailed values)*

Certifications

5 year limited warranty AMERLUX LED

Fixture Summary

Performance Data

Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
10	945	94.5	3415	3000K-90+
12	1166	97.2	4214	3000K-90+
16	1609	100.6	5812	3000K-90+
21	2011	96.6	7265	3000K-90+

Data is based on Medium Flood optic, 3000K-90+ 120V IES files available on website.
All wattages and LPW's include 2W for thermal protector.

Electrical Data

	10W		12W		16W		21W	
Voltage	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	10	0.08	12	0.10	16	0.13	21	0.18
277V	10	0.04	12	0.04	16	0.06	21	0.08

Electronic constant current LED driver.
Includes themal protector, 2W power consumption.

Hornet® HP Select

Square Downlight

amerlux

PROJECT:	TYPE:

Ordering Information - Housing/Frame

_____ . _____ . _____ . _____ . _____ . _____

1 2 3 4 5 6

1 Model

For New Construction

HSE-S-NC *(New Construction)*

HSE-S-CP *(Chicago Plenum (CCEA) housing)*

HSE-S-IC *(Insulated Ceiling/air tight, 16W max)*

For Existing Ceilings

HSE-S-REM *(Remodeler)*

2 Style

T trimmed

TL trimless

MWK[R] millwork *(for 1/2" - 11/16" ceiling thickness)*

MWK1[R] millwork *(for 3/4" - 1-1/2" ceiling thickness)*

MWK2[R] millwork *(for 1-1/2" - 2" ceiling thickness)*

[R]Not available for use with Remodeler model

3 Wattage

10

12

16

21*

**** Not available for use with IC housing***

4 Voltage

120

277

120/277 *(for use with IC housing only)*

5 Driver *(for non-dimming, select LE/TE option)*

Wired

LE/TE TRIAC/ELV dimming

HILUME-H-ECO - Lutron LDE1 Hi-lume®, 1% dim, Soft-On/Fade-to-Black

0-10V[T24] 0-10V dimming, 1% dim

DALI DALI dimming, 1% dim

Wireless

AWNR-010* Lutron Athena wireless node, RF only, 0-10V

BN-BT-010* BubblyNet Bluetooth node, 0-10V

**** Consult factory for lead time.***

6 Options/Accessories

EM - emergency battery pack with remote test switch *(not available for use with REM, CP or IC options)*

HB49 - hanger bars from min 29" to max 49" *(not available for use with REM options)*

Note: 26" hanger bars are included as standard. Choose HB49 option above for larger mounting spaces only.

Ordering Information - Trim

HSE-SD _____ . _____ . _____ . _____ . _____ . _____

1 2 3 4 5 6

1 Model

HSE-SD *(downlight)*

2 Style

T trimmed

TL trimless

MWK millwork

3 Finish

Trimmed

MBW matte black, white flange

MWW matte white, white flange

SLVW matte silver, white flange

MBB matte black, black flange

SLVS matte silver, silver flange

Trimless/Millwork

MB matte black

MW matte white

SLV matte silver

4 Beam Spread

20D narrow flood 20°

30D medium flood 30°

40D flood 40°

50D wide flood 50°

5 Color Temp

279 2700K-90+

309 3000K-90+

359 3500K-90+

409 4000K-90+

SA27 Signature Ambiance 2700K-90+

SA30 Signature Ambiance 3000K-90+

SW30 Signature White 3000K-90+

SC30 Signature Color 3000K-90+

6 Options/Accessories

HEX hexcell louver

SOL solite beam softening lens

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PROJECT:	TYPE:

Specifications

Application

Retail and commercial ambient lighting.

Construction

20 ga. galvanized steel frame
18 ga. galvanized steel splice housing and hanger brackets *(not for Remodeler version)*
Cast aluminum plaster frame with perforated face *(for trimless version only)*
Die-cast optical housing and trim
Die-cast heat sink

Optical

Beam Spreads: 20°, 30°, 40°, 50°

LED

Color Temp Options: 2700K, 3000K, 3500K, 4000K
Signature Ambiance, White, and Color options available *(see below)*
CRI: 90+ typ.
R9 Values: 55 *(92 CRI)*
Binning: 3 MacAdam *(SDCM)*
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs

Signature Ambiance *(2700K & 3000K): A refined, warm light recipe ideal for hospitality, residential-style commercial spaces, and retail. It accentuates woods, textiles, bronze, and darker finishes, creating a relaxed and inviting luxury environment.*

Signature White *(3000K): A premium white option built for crisp displays, clean architectural finishes, and retail settings. It enhances white surfaces and visual clarity, ensuring whites read brighter without sacrificing refinement.*

Signature Color *(3000K): A vibrant, color-enhancing option designed for spaces where merchandise, fabrics, and finishes need to stand out. It heightens the contrast between colors and whites, delivering deeper, richer presentations for dynamic retail and hospitality experiences.*

Electrical

Wattage: 10W, 12W, 16W, 21W
Electronic constant current LED driver, 120/277VAC input
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.
Note: *Drivers are universal but thermal protector is voltage specific*

Drivers

LE/TE - Leading Edge, TRIAC, forward phase/Trailing Edge, ELV, reverse phase
0-10V, Lutron and DALI systems available
See pages 10-12 for more dimming information

Finish

Powder coat paint/wet paint
Consult factory for custom finishes

Mounting

26" Hanger bars included *(except for Remodeler versions)*
Optional **HB49** - hanger bars from min 29" to max 49" available
Trimmed Fixture:
For use in grid or sheetrock ceilings, 5/8" - 2" standard
Trimless Fixture:
For use in sheetrock ceilings, max ceiling thickness 5/8"
Millwork Fixture:
Millwork extension collars are based on ceiling material specifications and thickness. Provides flush trim appearance level with ceiling material. Max thickness 2"
Not available for use with Remodeler model

Certifications

CSA damp as tested to UL 1598 standards
CP - Chicago Plenum *(CCEA)* option
IC/AT rated *(16W max)*
Damp location

Warranty

5 year limited warranty

Emergency Battery Pack *(EM)*

Powers fixture at 5.1 watts *(approx. 400 lm)* for 90 minutes *(not for use with CP, IC or REM versions)*

Optional RF Node

Amerlux® has partnered with control companies to create building environments that are safer, and smarter, than ever before. At the heart of our partnership is intelligent RF nodes, the most advanced digital wireless communication available today. Integrated into Amerlux products.

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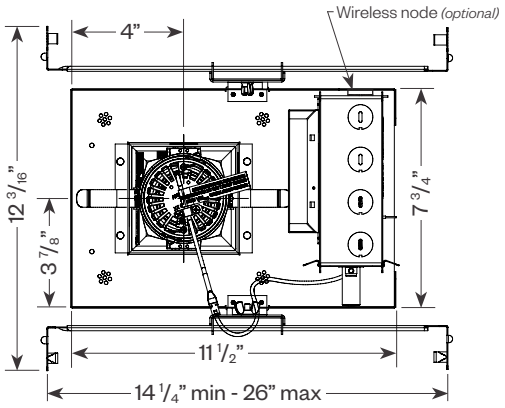
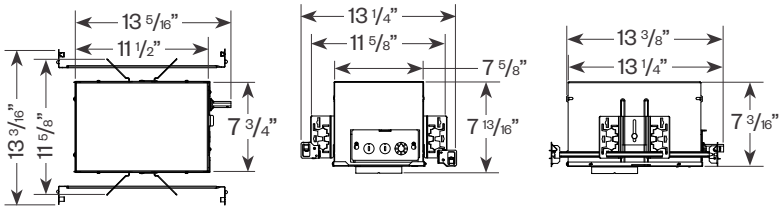
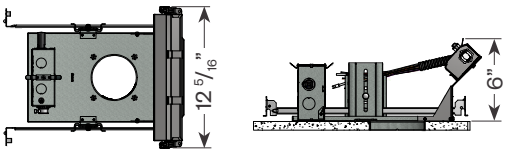
Product Details



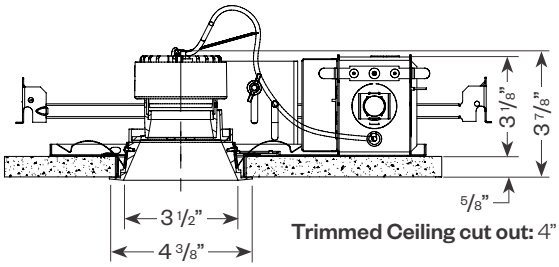
Optional CP or IC/AT housing



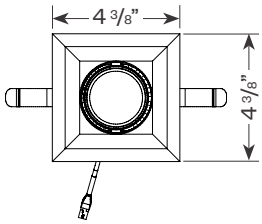
Emergency Battery Pack (EM) option



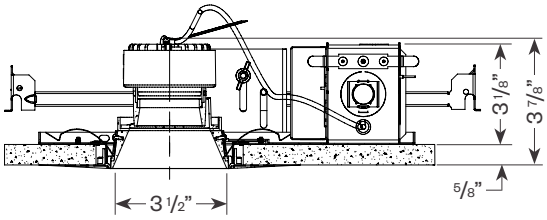
Trimmed

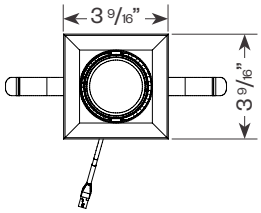


Trimmed Ceiling cut out: 4" dia.



Trimless

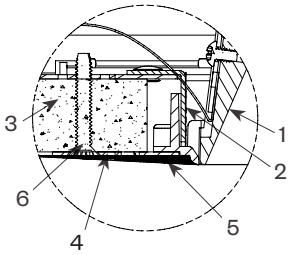




Trimless Ceiling Cut Out: 4 1/2" dia.

Plaster Frame Installation Detail *(for trimless fixture only)*

1. Reflector Trim
2. Aperture plate
3. Ceiling 5/8"
4. Cast Aluminum Plaster Frame
5. Plaster Skim Coat *(by others)*
6. 6-32 Type F Screw



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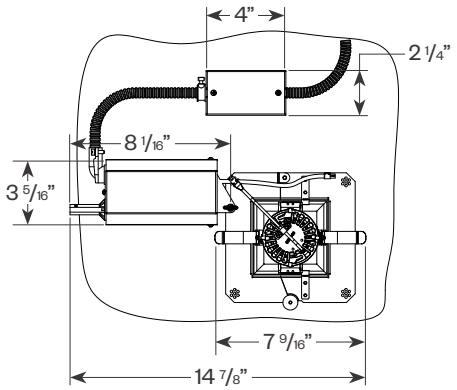
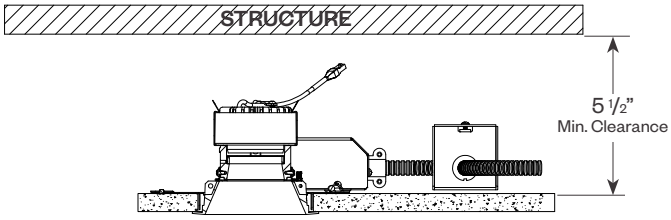
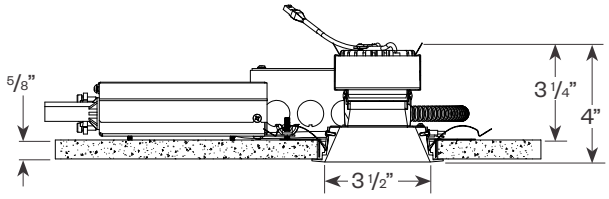
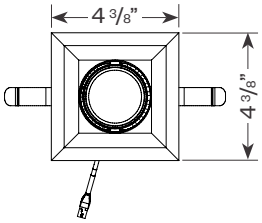
Product Details - Remodelerv





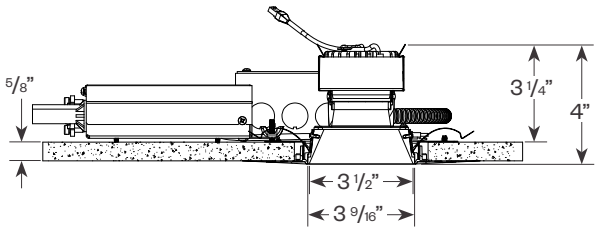
Trimmed

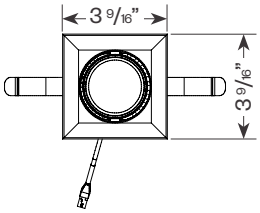




Ceiling Cut Out: 4” sq.

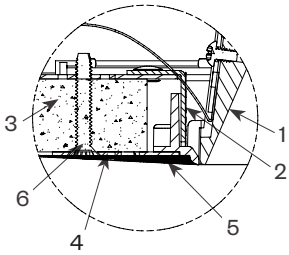
Trimless





Plaster Frame Installation Detail *(for trimless fixture only)*

1. Reflector Trim
2. Aperture plate
3. Ceiling 5/8”
4. Cast Aluminum Plaster Frame
5. Plaster Skim Coat *(by others)*
6. 6-32 Type F Screw



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PROJECT:	TYPE:

Performance Data

Multiplying Factors: *(Multiplying Factor is based on 3000K-90+ 120V IES file on website)*

Wattage:	10W	12W	16W	21W
Factor:	0.47	0.58	0.80	1.0

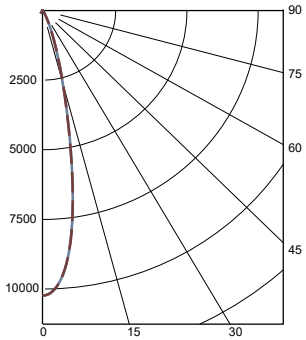
CCT:	2700K-90+	3000K-90+	3500K-90+	4000K-90+
Factor:	1.0	1.0	1.02	1.03

Beam:	20D	30D	40D	50D
UGR:	<5	<1	<4	<5

Tested with Matte White Finish.
UGR values calculated using UGR table method.

21W LED, 3000K-90+

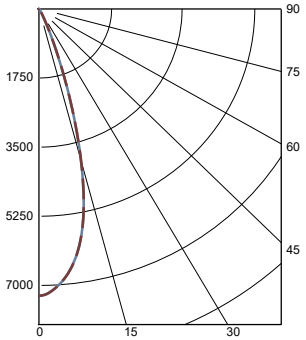
Narrow Flood (20°)
LTL # 15432052.01
Lumens: 1779 lm; 85.5 lm/W



Candelas at Nadir

Deg	Candela
0	10240
5	9128
15	2508
25	436
35	94
45	14

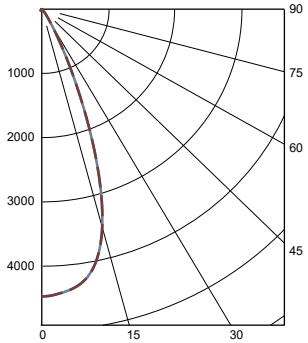
Medium Flood (30°)
LTL # 15432052.02
Lumens: 2011 lm; 96.6 lm/W



Candelas at Nadir

Deg	Candela
0	7265
5	6885
15	3987
25	497
35	65
45	9

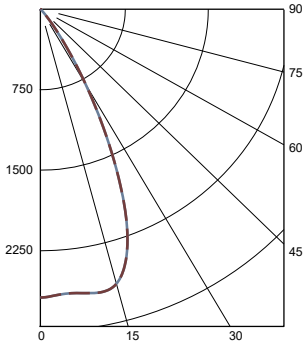
Flood (40°)
LTL # 15432052.03
Lumens: 1935 lm; 92.9 lm/W



Candelas at Nadir

Deg	Candela
0	4469
5	4400
15	3481
25	990
35	133
45	14

Wide Flood (50°)
LTL # 15432052.04
Lumens: 1926 lm; 92.4 lm/W

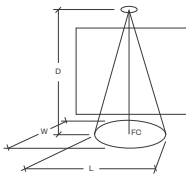


Candelas at Nadir

Deg	Candela
0	2686
5	2660
15	2642
25	1558
35	308
45	20

Application Data

Notes and Definitions:
Beam spread is to 50% center beam candlepower (CBCP).
D=Distance to floor or wall.
FC=Footcandles on floor or wall at center beam aiming location.
L=Effective Visual Beam length in feet (50% of maximum footcandle level).
W=Effective Visual Beam width in feet (50% of maximum footcandle level).



Narrow Flood (20°)

0° Aiming Angle Horizontal Footcandles

D	FC	L	W
5.0'	313	2.1	2.1
7.5'	162	3.0	3.0
10.0'	96	3.7	3.7
12.5'	63	4.7	4.7

Medium Flood (30°)

0° Aiming Angle Horizontal Footcandles

D	FC	L	W
5.0'	256	2.8	2.8
7.5'	122	4.0	4.0
10.0'	70	5.4	5.4
12.5'	45	6.7	6.7

Flood (40°)

0° Aiming Angle Horizontal Footcandles

D	FC	L	W
5.0'	169	3.3	3.3
7.5'	77	5.0	5.0
10.0'	44	6.8	6.8
12.5'	28	8.4	8.4

Wide Flood (50°)

0° Aiming Angle Horizontal Footcandles

D	FC	L	W
5.0'	104	4.5	4.5
7.5'	47	6.7	6.7
10.0'	27	8.9	8.9
12.5'	17	11.1	11.1

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Dimming Compatibility

Amerlux® Hornet® 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 ---

TRIAC *(Forward Phase)* DIMMING *(Standard)*

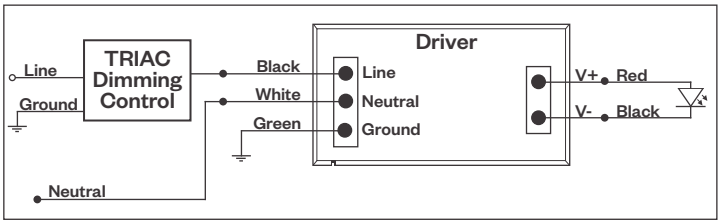
Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

Notes:

- 120VAC or 277VAC*
- Dims down to 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

Compatible Dimmers†:	
Wall Box *(TRIAC 120VAC)*	**Central System**
Lutron "Diva"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron Grafik Eye QS
Lutron "Maestro"	
Lutron "Skylark"	

TRIAC Wiring Diagram



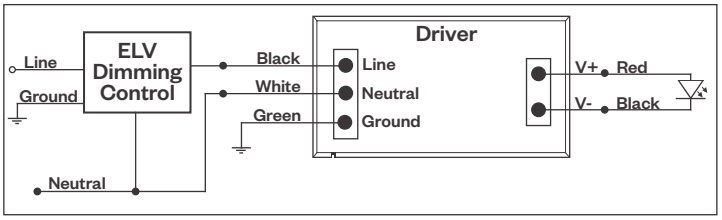
ELV - Electronic Low Voltage *(Reverse Phase)* DIMMING *(Standard)*

Utilizes specialized "ELV" dimmers.

Notes:

- 120VAC or 277VAC*
- Dims down to 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - **DO NOT SHARE NEUTRALS!**
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

ELV Wiring Diagram



Compatible Dimmers†:		
Wall Box *(ELV 120VAC)*	**Wall Box** *(ELV 277VAC)*	**Central System**
Lutron "Diva"	Leviton Revoir II AWSMT-E	Lutron "GP" Panel with PHPM-PA 120/277VAC
Lutron "Nova-T"		Lutron Grafik Eye QS with PHPM-PA 120/277VAC
Lutron "Maestro"		
Lutron "Skylark"		
Leviton "Surslide"		
Leviton "Vizio"		

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.

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Dimming Compatibility *(continued)*

Amerlux® Hornet® 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 ---

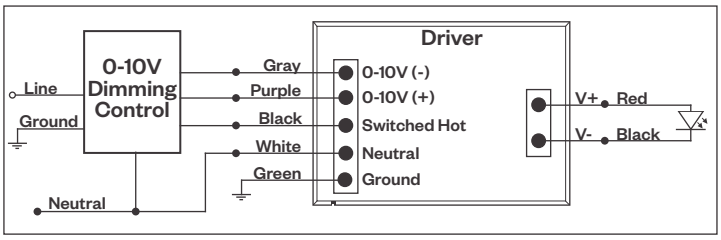
0-10V DIMMING

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!**

0-10V Wiring Diagram



Compatible Dimmers†:		
Wall Box		**Central System**
Lutron "Diva" - DVSTV	Leviton Renoir II 0-10V	Lutron Grafik Eye with GRX-TVI Interface

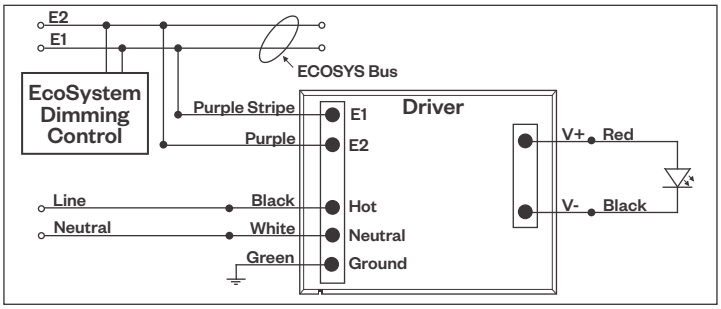
LUTRON LDE1 DIMMING

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!**

LDE1 *(HILUME-H-ECO)* EcoSystem Digital Control Wiring Diagram



Compatible Dimmers†:	
Lutron ECO System	**Central System**
Pow Pak Dimming Modules	Lutron EcoSystem compatible controls
Energi Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

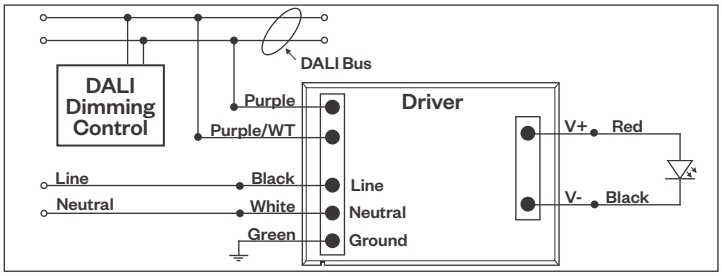
DALI DIMMING

Digital control protocol allows individual fixture control

Notes:

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

DALI Wiring Diagram



Compatible Dimmers†:	
Wall Box *(3-Wire Fluorescent)*	**Central System**
Leviton CD250 Controller	Dynalite
	Fifth Light

Notes:

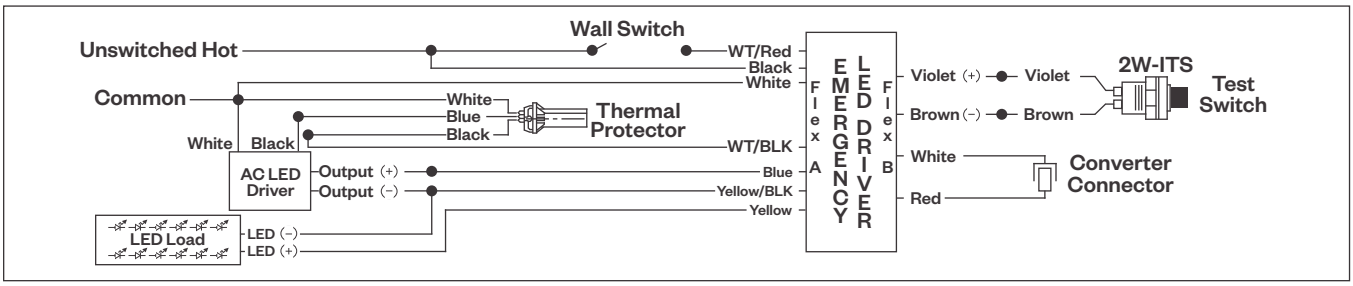
* Driver is 277VAC dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120VAC wiring colors and method. Please refer to 277VAC dimmer installation instructions for 277VAC wiring diagrams.

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

Hornet® HP Select

Square Downlight

PROJECT:	TYPE:

Emergency Battery Pack

Wiring Diagram