

# Hornet® HP Select

## Square Lensed Downlight



PROJECT:

TYPE:

### Features

The Hornet HP Select square downlight series provides powerful yet comfortable ambient lighting for retail and commercial spaces without compromising on budget or design. It delivers over 2,300 lumens in a 75-degree distribution and features Solite lensing for visually pleasing aesthetics. The Hornet HP Select offers trimmed, trimless, or millwork trim options and can easily integrate into current Hornet downlight platforms, making it perfect for both retrofit and new construction projects.



### Product Overview

Type: Recessed Square Lensed Downlight  
Wattage: 9W, 12W, 16W, 21W, 23W  
Color Temp: 2700K, 3000K, 3500K, 4000K  
CRI: 83 typ. or 90+ typ.  
Dimming: TRIAC & ELV, 5% Dim, 120/277VAC  
Lutron LDE1 Hi-lume® 1% Soft-On/Fade-to-Black, 120/277VAC  
0-10V, 1% Dim, 120/277VAC  
DALI, 1% Dim, 120/277VAC

### Certifications



### Fixture Summary

#### Performance Data

Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
9	924	102.6	560	3000K-83
12	1232	102.6	747	3000K-83
16	1635	102.2	992	3000K-83
21	2156	102.7	1308	3000K-83
23	2369	109.3	1437	3000K-83

Data is based on 3000K-83 120V IES files available on website.

All wattages and LPW's include 2W for thermal protector.

#### Electrical Data

Voltage	9W		12W		16W		21W		23W	
	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	9.8	0.08	11.9	0.10	15.2	0.13	21	0.18	22.8	0.19
277V	9.8	0.04	11.9	0.04	15.2	0.06	21	0.008	22.8	0.08

Electronic constant current LED driver.

Includes thermal protector, 2W power consumption.

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**Ordering Information - Housing/Frame**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
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1 Model	2 Style	3 Wattage
<p><u>For New Construction</u></p> <p><b>HSE-S-NC</b> (New Construction)</p> <p><b>HSE-S-CP</b> (Chicago Plenum (CCEA) housing)</p> <p><b>HSE-S-IC<sup>T24</sup></b> (Insulated Ceiling/air tight, 16W max)</p> <p><u>For Existing Ceilings</u></p> <p><b>HSE-S-REM</b> (Remodeler)</p>	<p><b>T</b> trimmed</p> <p><b>TL</b> trimless</p> <p><b>MWK<sup>R†</sup></b> millwork (for 1/2" - 11/16" ceiling thickness)</p> <p><sup>‡</sup> <b>Not available for use with Remodeler model</b></p> <p><sup>‡</sup> <b>Consult factory for use in ceilings thicker than 11/16"</b></p>	<p><b>9</b></p> <p><b>12</b></p> <p><b>16</b></p> <p><b>21</b></p> <p><b>23</b> (not available for use with IC housing)</p>
4 Voltage	5 Driver (for non-dimming, select LE/TE option)	6 Options/Accessories
<p><b>120</b></p> <p><b>277</b></p> <p><b>120/277</b> (for use with IC housing only)</p>	<p><b>LE/TE<sup>T24</sup></b> TRIAC/ELV dimming</p> <p><b>HILUME-H-ECO</b> - Lutron LDE1 Hi-lume®</p> <p>1% dim Soft-On/Fade-to-Black</p> <p><b>0-10V<sup>T24</sup></b> 0-10V dimming, 1% dim</p> <p><b>DALI</b> DALI dimming, 1% dim</p>	<p><b>EM</b> - emergency battery pack with remote test switch (not available for use with REM, CP or IC options)</p> <p><b>HB49</b> - hanger bars from min 29" to max 49" (not available for use with REM options)</p> <p><i>Note: 26" hanger bars are included as standard.</i></p> <p>Choose <b>HB49</b> option above for larger mounting spaces only.</p>

**Ordering Information - Trim**

<b>HSE-S-LD</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1 Model	2 Style	3 Finish	
<p><b>HSE-S-LD</b> (lensed downlight)</p>	<p><b>T</b> trimmed</p> <p><b>TL</b> trimless</p> <p><b>MWK</b> millwork</p>	<p><u>Trimmed</u></p> <p><b>MBW</b> matte black, white flange</p> <p><b>MWW</b> matte white, white flange</p> <p><b>SLVW</b> matte silver, white flange</p> <p><b>MBB</b> matte black, black flange</p> <p><b>SLVW</b> matte silver, silver flange</p>	<p><u>Trimless/Millwork</u></p> <p><b>MB</b> matte black</p> <p><b>MW</b> matte white</p> <p><b>SLV</b> matte silver</p>
4 Beam Spread	5 Color Temp		
<p><b>75SOL</b> 75° beam with solite lens</p>	<p><u>83 CRI</u></p> <p><b>27</b> 2700K-83</p> <p><b>30</b> 3000K-83</p> <p><b>35</b> 3500K-83</p> <p><b>40</b> 4000K-83</p>	<p><u>90+ CR</u></p> <p><b>279</b> 2700K-90+</p> <p><b>309</b> 3000K-90+</p> <p><b>359</b> 3500K-90+</p> <p><b>409</b> 4000K-90+</p>	

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### 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 Spread-Lens: **75SOL** - 75° beam with solite lens  
Visually best with SLV reflector finish.

#### LED

Color Temp Options: 2700K, 3000K, 3500K, 4000K  
CRI: 83 typ. or 90+ typ.  
R9 Values: 11 (83 CRI), 55 (92 CRI)  
Binning: 3 MacAdam (SDCM)  
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs

#### Electrical

Wattage: 9W, 12W, 16W, 21W, 23W  
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*) or Trailing Edge (*ELV, Reverse Phase*)  
0-10V, Lutron and DALI systems also available  
See pages 6-7 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" max standard

#### Trimless Fixture:

For use in sheetrock ceilings, max ceiling thickness 5/8" (*consult factory for thicker ceilings*)

#### Millwork Fixture:

Millwork extension collars are based on ceiling material specifications and thickness. Provides flush trim appearance level with ceiling material. Ceiling thickness 1/2" - 11/16".

*Consult factory for use in ceilings thicker than 11/16".*

**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 REM, CP or IC versions*)

# Hornet® HP Select

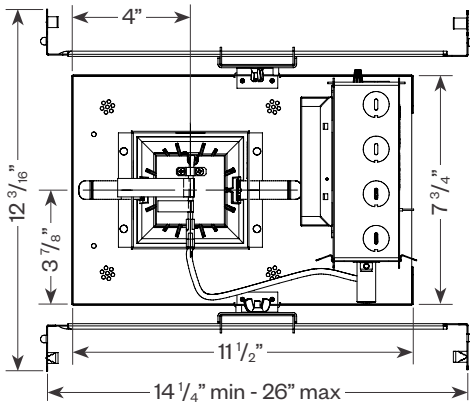
Square Lensed Downlight



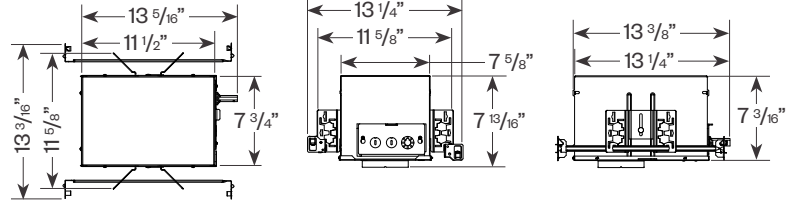
PROJECT:

TYPE:

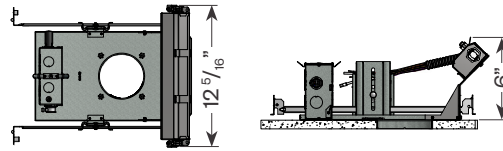
## Product Details - Trimmed



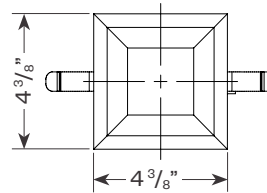
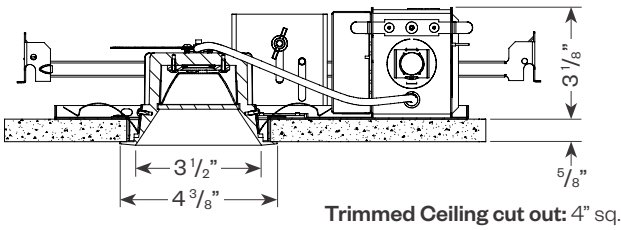
Optional CP or IC/AT housing



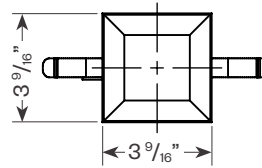
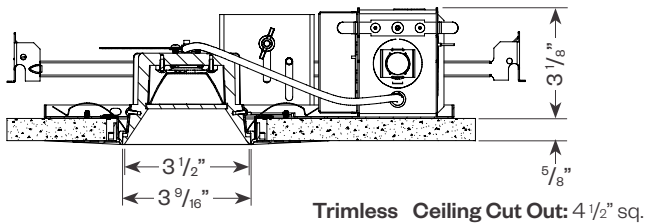
Emergency Battery Pack (EM) option



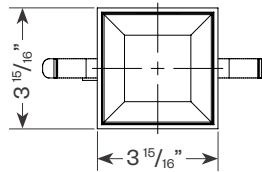
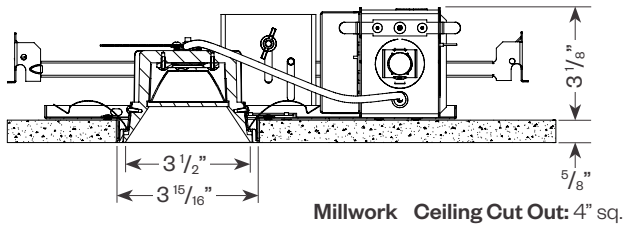
### Trimmed



### Trimless

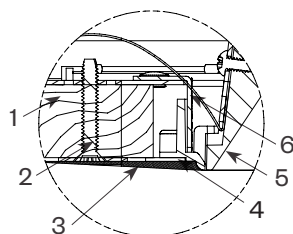


### Millwork



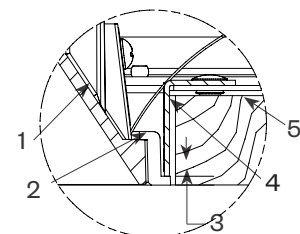
## Plaster Frame Installation Detail (for trimless fixture only)

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



## Millwork Detail

1. Reflector Trim
2. Millwork Ring
3. 1/16" required for trim to be flush with ceiling
4. Aperture Plate
5. Wood Ceiling



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<b>PROJECT:</b>	<b>TYPE:</b>
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### Performance Data

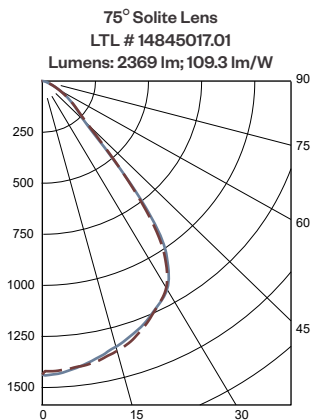
**Multiplying Factors:** (Multiplying Factor is based on 3000K-83 120V IES file on website)

Wattage:	9W	12W	16W	21W	23W
Factor:	0.39	0.52	0.69	0.91	1.0

CCT:	2700K-83	3000K-83	3500K-83	4000K-83
Factor:	0.96	1.0	1.02	1.04

CCT:	2200K-90+	2700K-90+	3000K-90+	3500K-90+	4000K-90+	CRISP	3CLA
Factor:	0.66	0.83	0.86	0.90	0.93	0.65	0.70

### 23W LED, 3000K-83



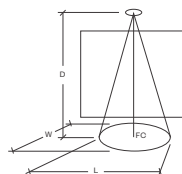
**Candelas at Nadir**

Deg	Candela
0	1437
5	1422
15	1344
25	1239
35	1000
45	281

### Application Data

75° Solite Lens  
0° Aiming Angle  
Horizontal  
Footcandles

D	FC	L	W
5.0'	56	6.2	6.1
7.5'	25	9.2	9.2
10.0'	15	12.4	12.4
12.5'	10	16.0	16.0



**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).

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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 ---

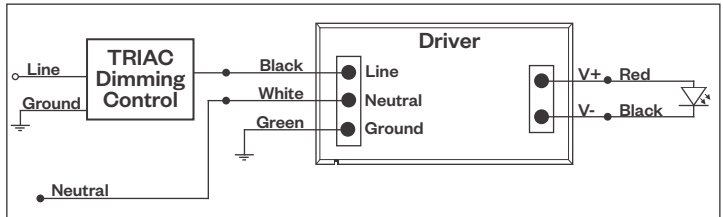
#### TRIAC (Forward Phase) DIMMING (Standard)

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

#### TRIAC Wiring Diagram



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

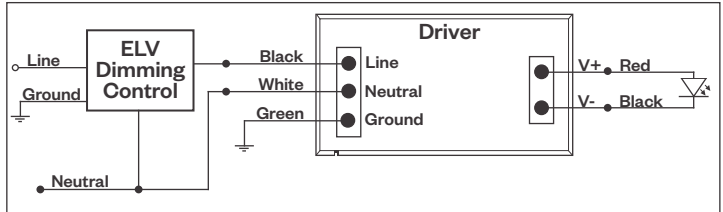
#### ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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.

# Hornet® HP Select

## Square Lensed Downlight



PROJECT:

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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 ---**

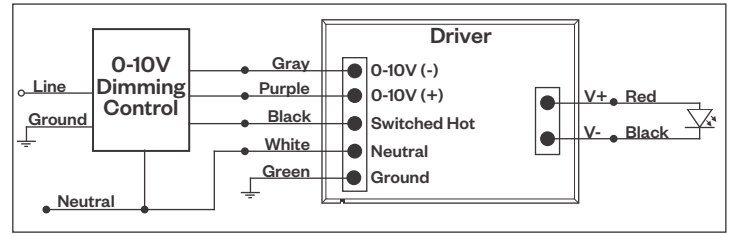
#### 0-10V DIMMING

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-TV1 Interface

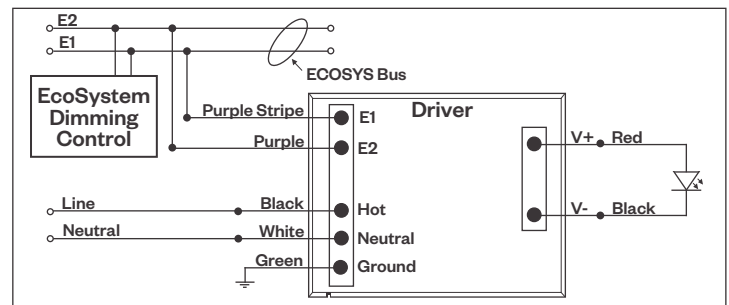
#### LUTRON LDE1 DIMMING

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
Energj Savr Node	
Grafik Eye QS/Homeworks	
QS Control Unit	
Quantum Hub	
Homeworks QS/My Room	

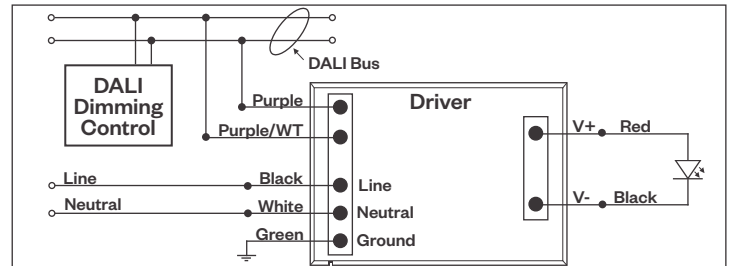
#### DALI DIMMING

Digital control protocol allows individual fixture control

**Notes:**

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

#### DALI Wiring Diagram



**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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## Emergency Battery Pack

Wiring Diagram

