Hornet® HP Select
Square Lensed Downlight

amerlux

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.

HSE-S-LD
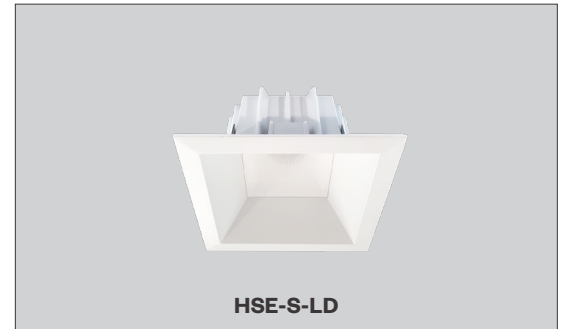
Product Overview

Type:	Recessed Square Lensed Downlight
Wattage:	10W, 12W, 16W, 21W, 23W
Color Temp:	2700K, 3000K, 3500K, 4000K
CRI:	83 typ. or 90+ typ.
Dimming:	**Wired:** TRIAC & ELV, Hi-lume®, 0-10V, DALI
	Wireless: Lutron Athena RF node, BubblyNet Bluetooth

Certifications

CSA c us

5 year limited warranty
AMERLUX LED

Fixture Summary

Performance Data

Watts	Delivered Lumens	LPW	CBCP	Color Temp-CRI
10	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	10W		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 themal protector, 2W power consumption.

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Hornet® HP Select
Square Lensed Downlight

PROJECT: **TYPE:**

Ordering Information - Housing/Frame

_____ . _____ . _____ . _____ . _____ . _____

1   **2**   **3**   **4**   **5**   **6**

1	**Model**	**2**	**Style**	**3**	**Wattage**
	<u>For New Construction</u>		**T** trimmed		**10**
	HSE-S-NC *(New Construction)*		**TL** trimless		**12**
	HSE-S-CP *(Chicago Plenum (CCEA) housing)*		**MWK**^{R‡} millwork *(for 1/2" - 11/16" ceiling thickness)*		**16**
	HSE-S-IC *(Insulated Ceiling/air tight, 16W max)*		*ᴿNot available for use with Remodeler model*		**21**
	<u>For Existing Ceilings</u>		*ᵀConsult factory for use in ceilings thicker than 11/16"*		**23** *(not available for use with IC housing)*
	HSE-S-REM *(Remodeler)*				

4	**Voltage**	**5**	**Driver** *(for non-dimming, select LE/TE option)*	**6**	**Options/Accessories**
	120		<u>Wired</u>		**EM** - emergency battery pack with remote test switch *(not available for use with REM, CP or IC options)*
	277		**LE/TE** TRIAC/ELV dimming		**HB49** - hanger bars from min 29" to max 49" *(not available for use with REM options)*
	120/277 *(for use with IC housing only)*		**HILUME-H-ECO** - Lutron LDE1 Hi-lume®, 1% dim, Soft-On/Fade-to-Black		*Note: 26" hanger bars are included as standard. Choose HB49 option above for larger mounting spaces only.*
			0-10V^{T24} 0-10V dimming, 1% dim		
			DALI DALI dimming, 1% dim		
			<u>Wireless</u>		
			AWNR-010* Lutron Athena wireless node, RF only, 0-10V		
			BN-BT-010* BubblyNet Bluetooth node, 0-10V		
			* Consult factory for lead time.		

Ordering Information - Trim

_____ HSE-S-LD _____ . _____ . _____ . _____ . _____

1   **2**   **3**   **4**   **5**

1	**Model**	**2**	**Style**	**3**	**Finish**	
	HSE-S-LD *(lensed downlight)*		**T** trimmed		<u>Trimmed</u>	<u>Trimless/Millwork</u>
			TL trimless		**MBW** matte black, white flange	**MB** matte black
			MWK millwork		**MWW** matte white, white flange	**MW** matte white
					SLVW matte silver, white flange	**SLV** matte silver
					MBB matte black, black flange	
					SLVS matte silver, silver flange	

4	**Beam Spread**	**5**	**Color Temp**	
	75SOL 75° beam with solite lens		<u>83 CRI</u>	<u>90+ CR</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+

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Hornet® HP Select

Square Lensed Downlight

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 Spread-Lens: **75SOL** - 75º 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: 10W, 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)*

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.
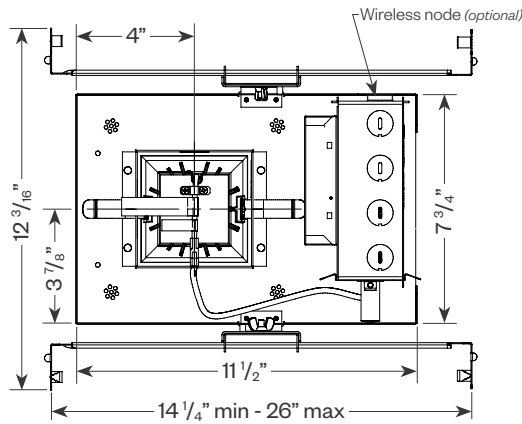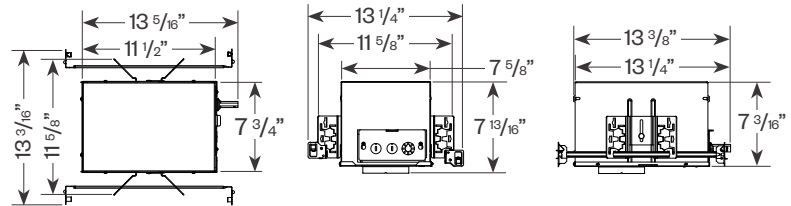
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Hornet® HP Select

Square Lensed Downlight

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PROJECT:	TYPE:

Product Details - Trimmed

Wireless node *(optional)*

4"

12 ³/₁₆"

3 ⁷/₈"

7 ³/₄"

11 ¹/₂"

14 ¹/₄" min - 26" max

Optional CP or IC/AT housing

13 ⁵/₁₆"

11 ¹/₂"

13 ³/₁₆"

11 ⁵/₈"

7 ³/₄"

13 ¹/₄"

11 ⁵/₈"

7 ⁵/₈"

7 ¹³/₁₆"

13 ³/₈"

13 ¹/₄"

7 ³/₁₆"

Emergency Battery Pack (EM) option

12 ⁵/₁₆"

6"

Trimmed

3 ¹/₈"

3 ¹/₂"

4 ³/₈"

⁵/₈"

Trimmed Ceiling cut out: 4" sq.

4 ³/₈"

4 ³/₈"

Trimless

3 ¹/₈"

3 ¹/₂"

3 ⁹/₁₆"

⁵/₈"

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

3 ⁹/₁₆"

3 ⁹/₁₆"

Millwork

3 ¹/₈"

3 ¹/₂"

3 ¹⁵/₁₆"

⁵/₈"

Millwork   Ceiling Cut Out: 4" sq.

3 ¹⁵/₁₆"

3 ¹⁵/₁₆"
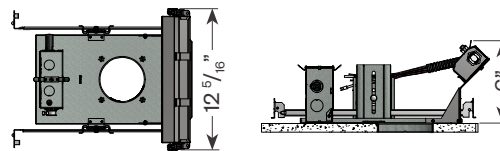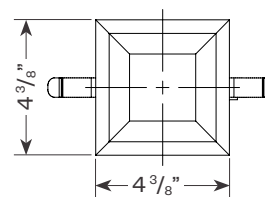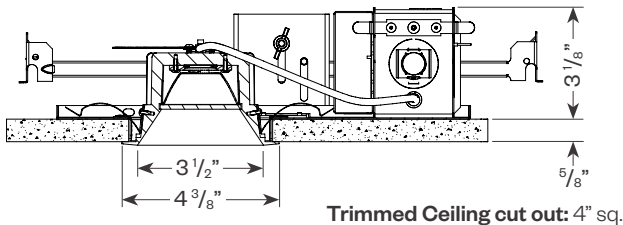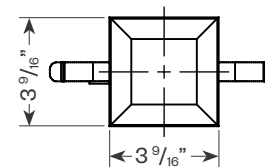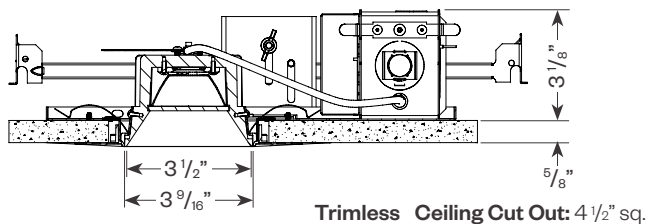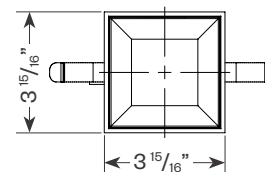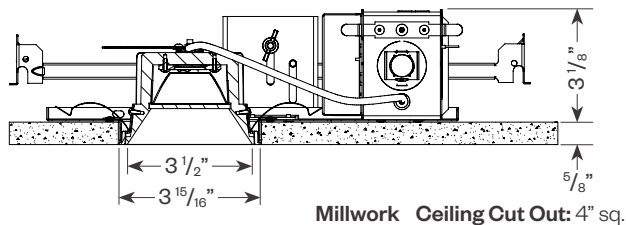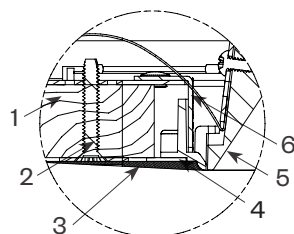
Plaster Frame Installation Detail *(for trimless fixture only)*

1. Ceiling ⅝"
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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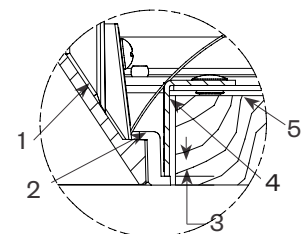
Hornet® HP Select

Square Lensed Downlight

PROJECT:	TYPE:

Performance Data

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

Wattage:	10W	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

75° Solite Lens
LTL # 14845017.01
Lumens: 2369 lm; 109.3 lm/W
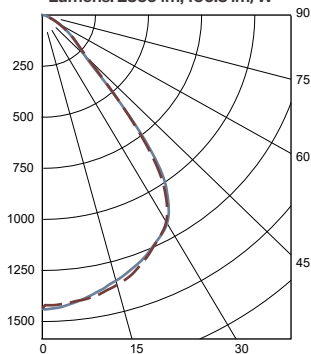
Candelas at Nadir

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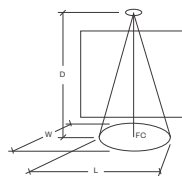
Notes and Definitions:
Beam spread is to 50% center beam candlepower (CBCP).
D=Distance to floor or wall.
FC=Footcandles on floor or wall at center beam aiming location.
L=Effective Visual Beam length in feet (50% of maximum footcandle level).
W=Effective Visual Beam width in feet (50% of maximum footcandle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

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Hornet® HP Select

Square Lensed Downlight

PROJECT:	TYPE:

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 ---
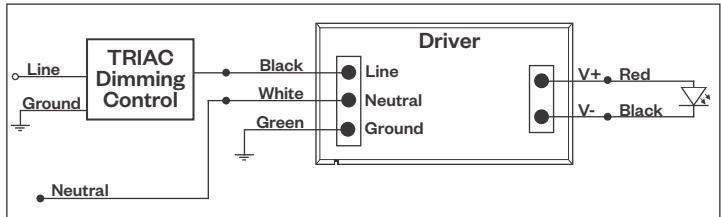
TRIAC *(Forward Phase)* **DIMMING** *(Standard)*
Utilizes standard TRIAC dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

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†:

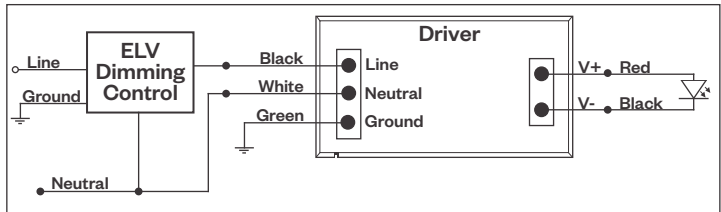| Wall Box *(TRIAC 120VAC)*	Central System
Lutron "Diva"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron Grafik Eye QS
Lutron "Maestro"	
Lutron "Skylark"	

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.

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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 ---
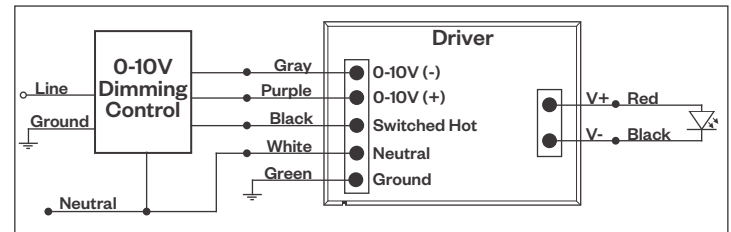
0-10V DIMMING
Integrates into a variety of building management and daylighting controls

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

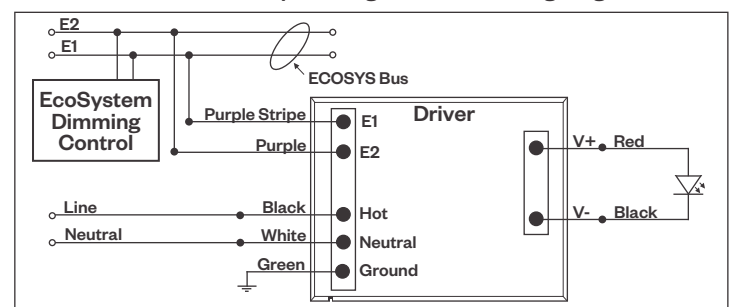| Compatible Dimmers†:		
Wall Box		**Central System**
Lutron "Diva" - DVSTV	Leviton Renoir II 0-10V	Lutron Grafik Eye with GRX-TVI Interface

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	

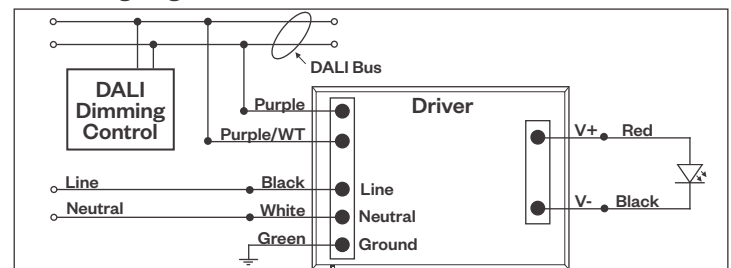### DALI DIMMING
Digital control protocol allows individual fixture control

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.

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Emergency Battery Pack

Wiring Diagram

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