

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

TYPE:

Features

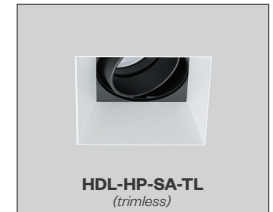
Add ambiance to any hospitality, residential, retail or commercial space. Amerlux Hornet HP Downlight Dim-To-Warm option offers a lower kelvin temperature as you dim the lights. An adaptable light source in a cost-effective, solid state lighting package. The Dim-To-Warm option can tap into the powerful mediums of light and color to enhance the experience, well-being, and human emotion. Amerlux Dim-To-Warm allows designers to simulate the familiar glow and dimming of incandescent lamps. Available for trimmed, trimless or millwork applications.

Product Overview

Type: Recessed Square Downlights
Wattage: 15W
Color Temp: 3000K to 1800K
CRI: 95 typ.
Dimming: Wired: TRIAC & ELV, Hi-lume®, 0-10V, DALI
Wireless: Lutron Athena RF node, BubblyNet Bluetooth



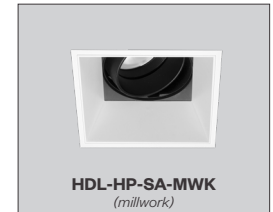
HDL-HP-SA



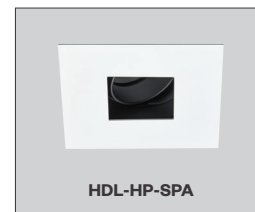
HDL-HP-SA-TL
(trimless)



HDL-HP-SD



HDL-HP-SA-MWK
(millwork)



HDL-HP-SPA



HDL-HP-SPASHW

Certifications



Fixture Summary

Fixture Type

New Construction	Remodeler	Trim	Trimless
Yes	Yes	Yes	Yes

Performance Data

Watts	Delivered Lumens	LPW	Color Temp-CRI
15	699	47.5	3000K-95

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

Data is based on SA trim, VNF optic. See pages 8-11 for other performance data.

Includes 2W for thermal protector.

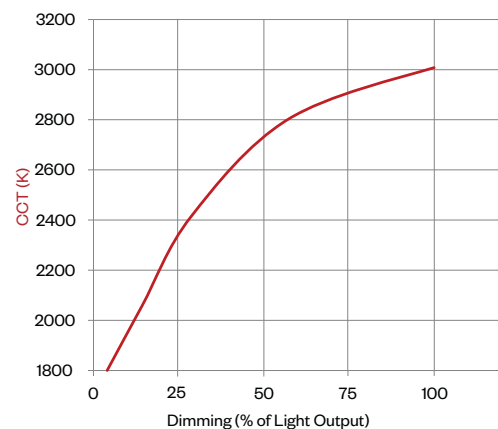
Electrical Data

15W		
Voltage	System Watts	Amps
120V	15	0.13
277V	16	0.06

Electronic constant current LED driver.

Includes thermal protector, 2W power consumption.

Dim-To-Warm CCT Curve



Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

TYPE:

Ordering Information - Housing/Frame

1	2	3	4	5	6
1 Model	2 Style	3 Wattage	4 Voltage	5 Driver (for non-dimming, select LE/TE option)	6 Options/Accessories
<u>For New Construction</u> HDL-HP-S-NC-DTW-A17 (New Construction) HDL-HP-S-CP-DTW-A17 (Chicago Plenum (CCEA) housing) HDL-HP-S-IC-DTW-A17 (Insulated Ceiling/air tight) <u>For Existing Ceilings</u> HDL-HP-S-REM-DTW-A17 (Remodeler)	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) ^RNot available for use with Remodeler model	15	120 277 120/277 (for use with IC housing only)	<u>Wired</u> LE/TE TRIAC/ELV dimming HILUME-H-ECO - Lutron LDE1 Hi-lume® 1% dim Soft-On/Fade-to-Black 0-10V 0-10V dimming, 1% dim DALI DALI dimming, 1% dim <u>Wireless</u> AWN^R-010* Lutron Athena wireless node, RF only, 0-10V BN-BT-010* BubblyNet Bluetooth node, 0-10V * Consult factory for lead time.	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

1	2	3	4	5	6
1 Model	2 Style	3 Finish	4 Beam Spread	5 Color Temp	6 Options/Accessories
HDL-HP-SD-DTW-A17 (downlight) HDL-HP-SA-DTW-A17 (adjustable) HDL-HP-SPA-DTW-A17 (pinhole adjustable) HDL-HP-SPASHW-DTW-A17 (shower, not available in trimless)	T trimmed TL trimless (not available for use with SPASHW trim) MWK millwork (not available for use with SPASHW trim)	<u>RD/RA Trims</u> <u>Trimmed</u> 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 <u>RPA/RPAS/RPASHW Trims (T/TL/MWK)</u> MB matte black MW matte white SLV matte silver	<u>RD/RA</u> <u>RPA/RPAS/RPASHW</u> VNF VNF MFL FL FL WF VNF very narrow flood, MFL medium flood, FL flood 28°, WF wide flood	95 CRI 309 3000K-95	HEX hexcell louver (not available for use with SPASHW trim) SOL solite beam softening lens (comes standard with SPASHW trim)

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

TYPE:

Specifications

Application

Hospitality and commercial ambient, accent & display 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: Very Narrow Flood, 18°; Medium Flood, 25°;
Flood, 35° (28° in SPA); Wide Flood, 45° (*see photometric data, pgs 8-11 for exact beams by fixture type*)
Adjustable Trims: 0-30° tilt (0-20° in SPA), 358° rotation

LED

Color Temp Options: 3000K (dims to 1800K)
CRI: 95 typ.
R9 Values: 85 (95 CRI)
Binning: 3 MacAdam (SDCM)
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs

Electrical

Wattage: 15W
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 12-13 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 (*not available with Shower trim*):

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
IC/AT rated (*optional*)
Damp location
JA10 compliant for Title 24 per L Test 13005791.01A (*available upon request*)

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*)
See wiring schematic on pg 14.

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.

Accessories (*diagram shows installation order*)



Hexcell, optical film, solite lens

Hornet® HP

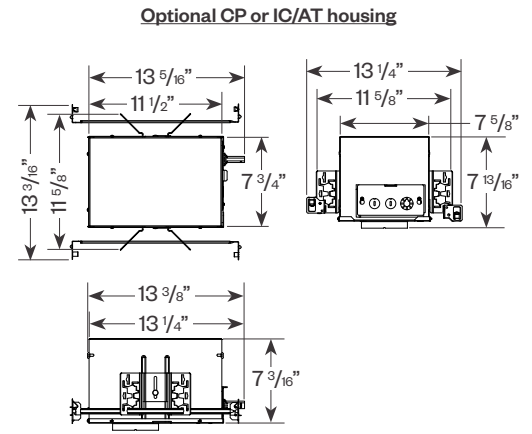
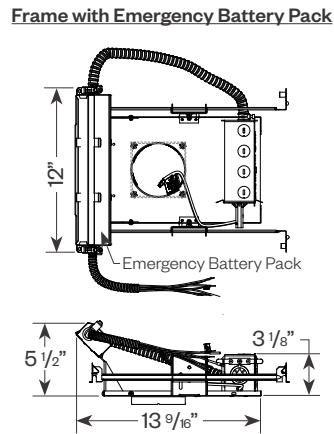
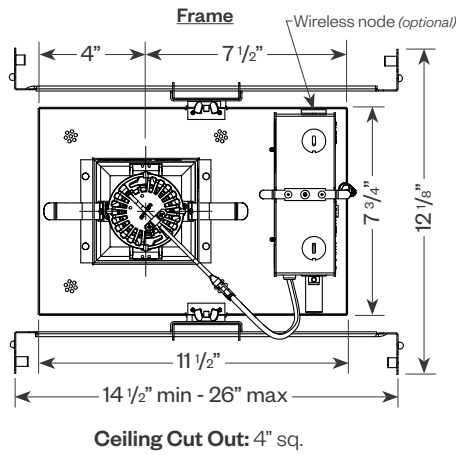
Square Downlights, Dim-To-Warm



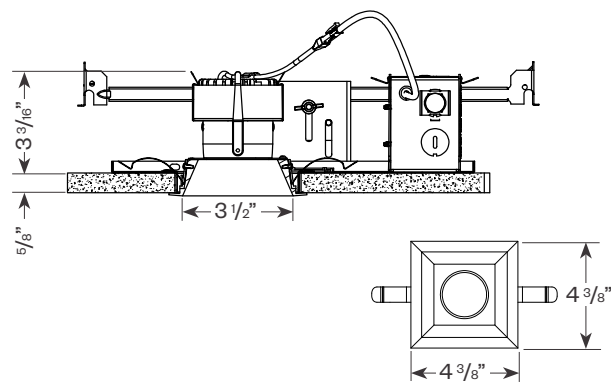
PROJECT:

TYPE:

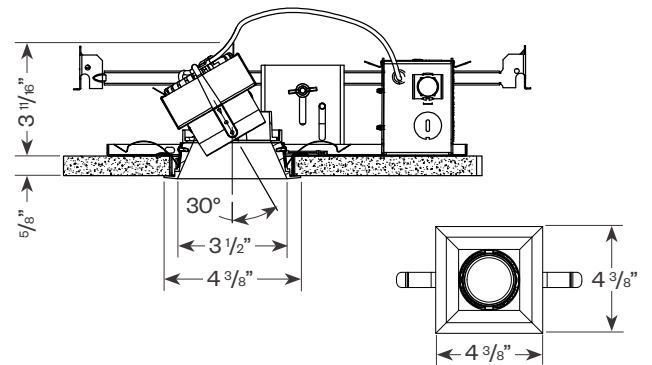
Product Details - Trimmed



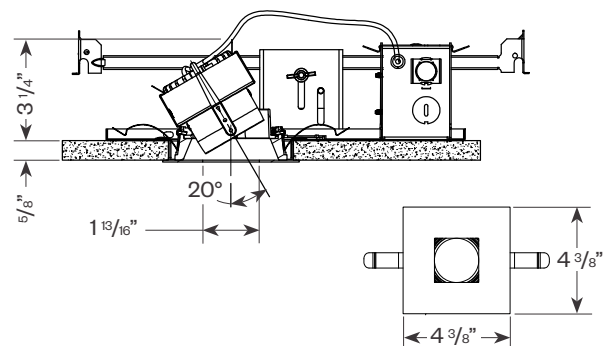
Downlight



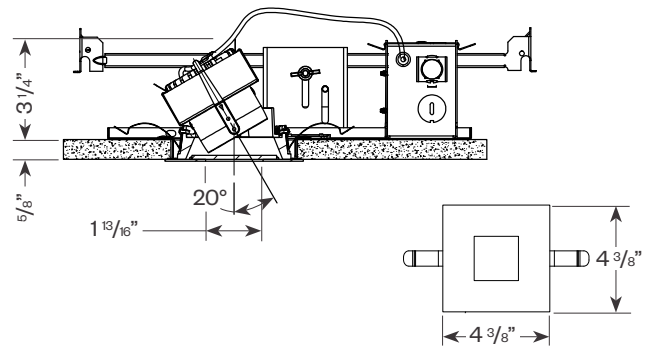
Adjustable



Pinhole Adjustable



Pinhole Adjustable Shower



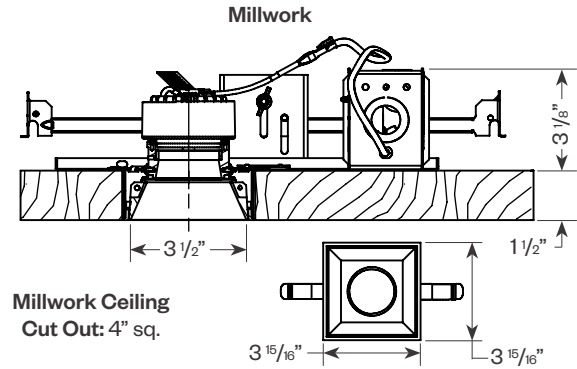
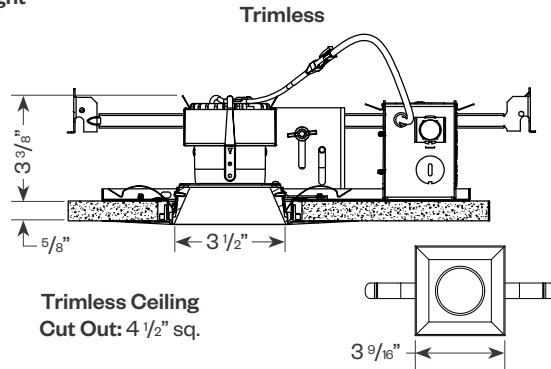
Delta Intelligent Building Technologies

PROJECT:

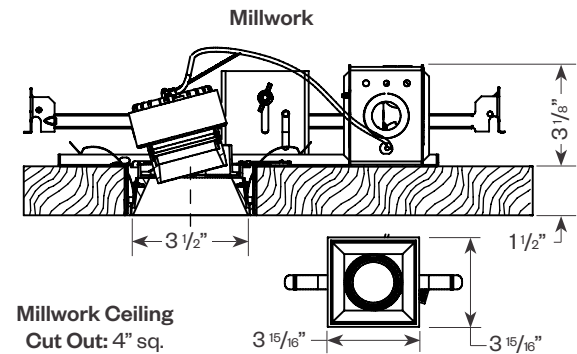
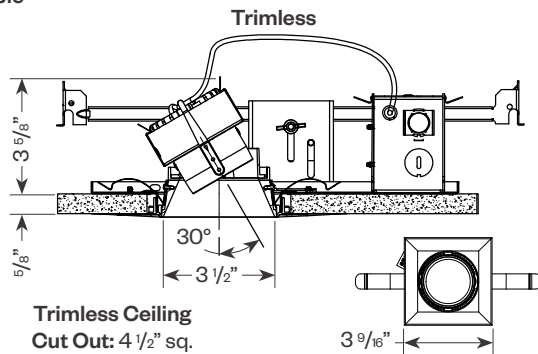
TYPE:

Product Details - Trimless & Millwork

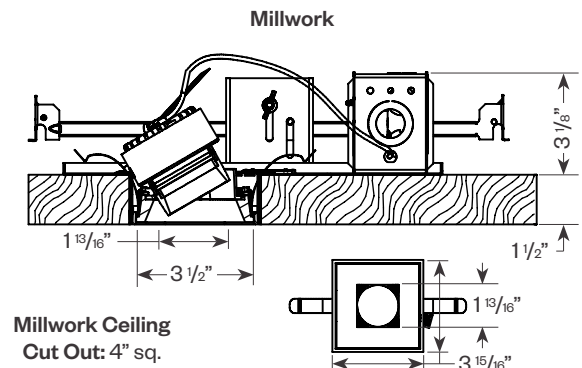
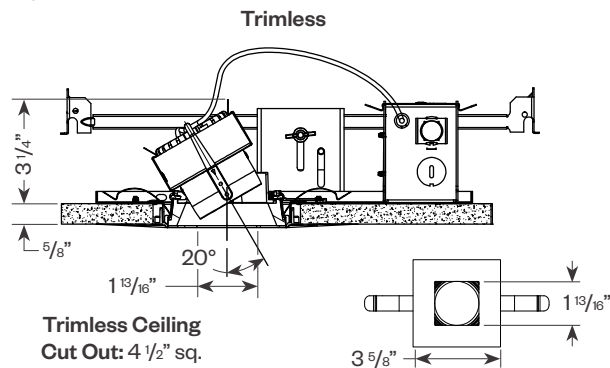
Downlight



Adjustable

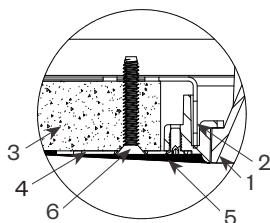


Pinhole Adjustable



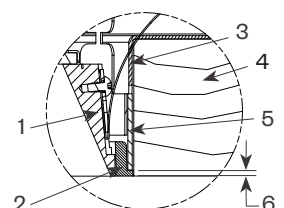
Plaster Frame Installation Detail (for trimless fixture only)

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 Thread Cutting Screw



Millwork Detail

1. Reflector Trim
2. Millwork Ring
3. Aperture Plate
4. Wood Ceiling 2" Max
5. Extension collar (see ordering information for ceiling thicknesses)
6. 1/16" required for trim to be flush with ceiling



Hornet® HP

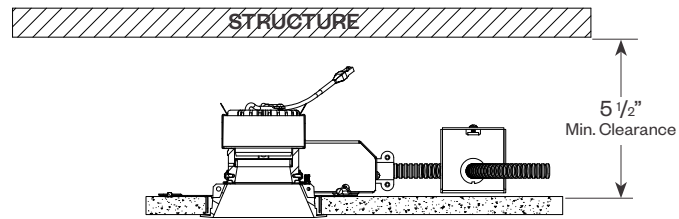
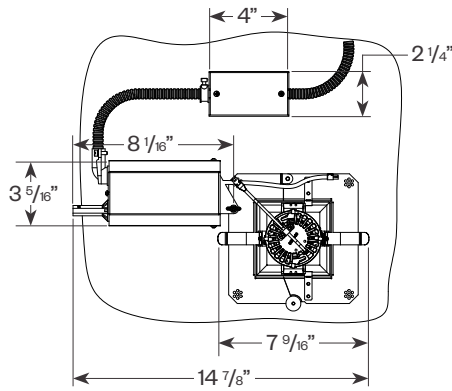
Square Downlights, Dim-To-Warm



PROJECT:

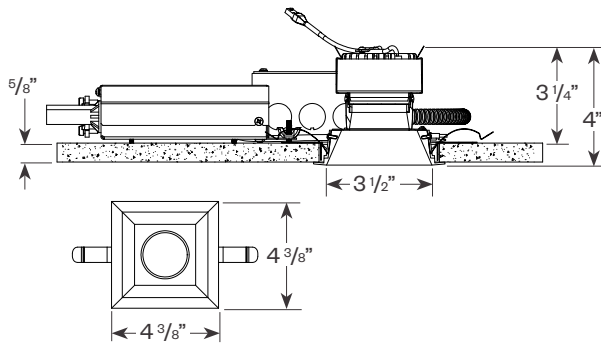
TYPE:

Product Details - Remodeler Trimmed

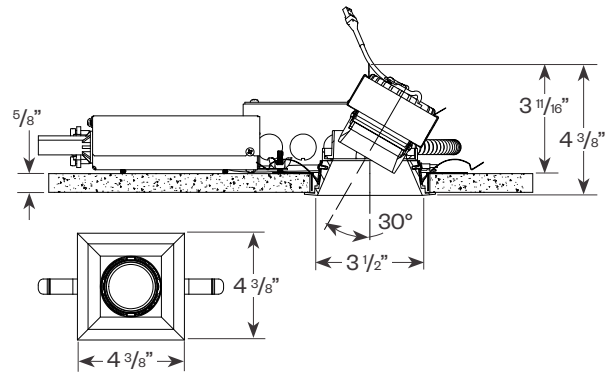


Ceiling Cut Out: 4" sq.

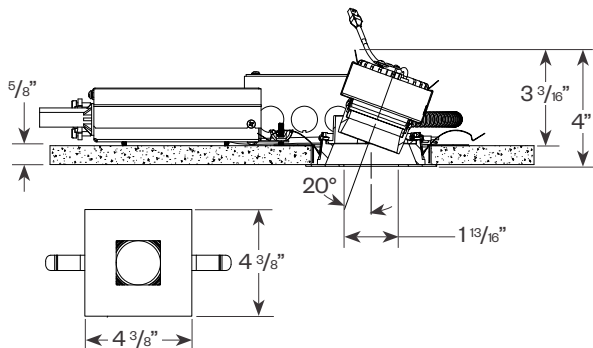
Downlight



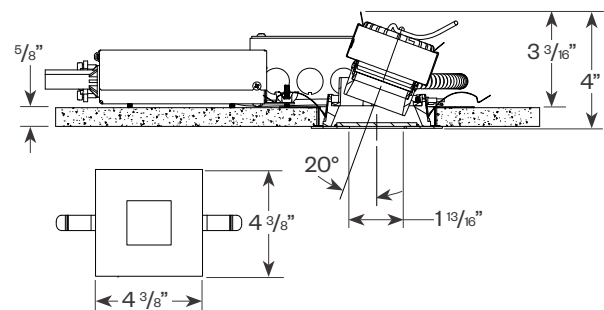
Adjustable



Pinhole Adjustable



Pinhole Adjustable Shower



Hornet® HP

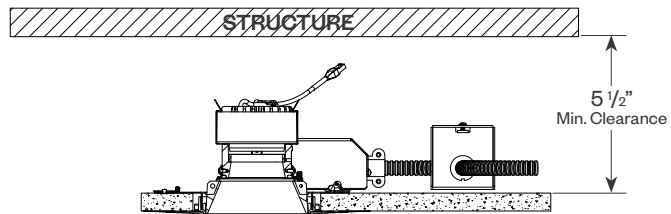
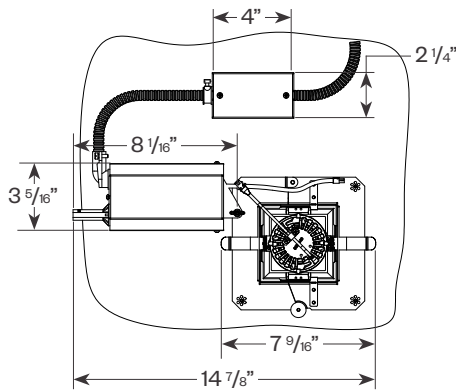
Square Downlights, Dim-To-Warm



PROJECT:

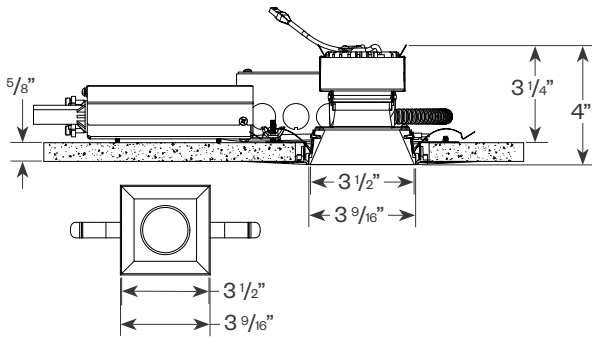
TYPE:

Product Details - Remodeler Trimless

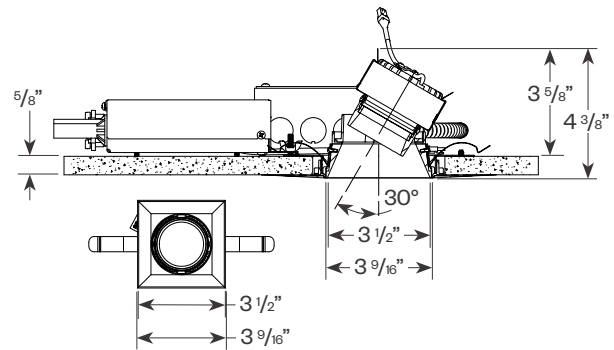


Trimless Ceiling Cut Out: 4 1/2" sq.

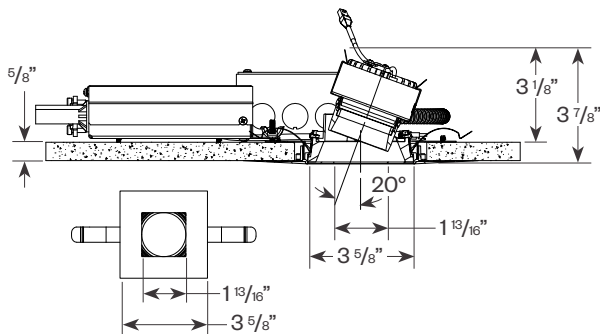
Downlight



Adjustable

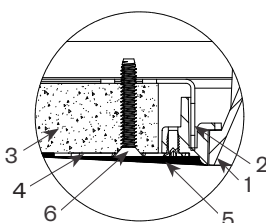


Pinhole Adjustable



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 Thread Cutting Screw



Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

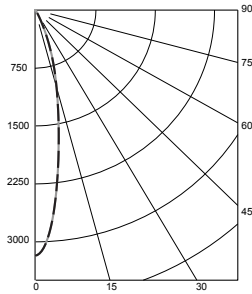
TYPE:

Performance Data - Round Downlight (HDL-HP-SD-DTW)

(Complete photometric data (.ies format) available on website)

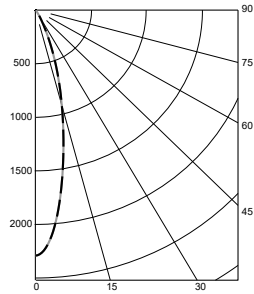
15W LED, 3000K-95

Very Narrow Flood (VNF)
Distribution, 18°
LTL #11919582.12
Lumens: 672



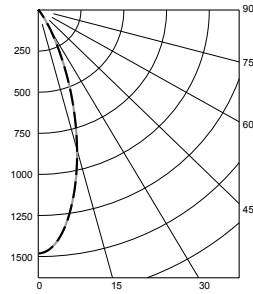
Candelas at Nadir	
Deg	Candela
0	3179
5	2638
15	1030
25	252
35	43
45	10

Medium Flood (MFL)
Distribution, 25°
LTL #11919582.13
Lumens: 609



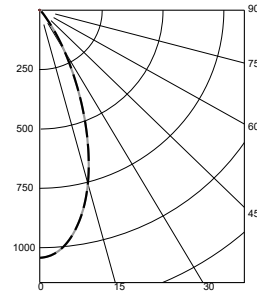
Candelas at Nadir	
Deg	Candela
0	2291
5	2024
15	942
25	267
35	50
45	11

Flood (FL)
Distribution, 35°
LTL #11919582.14
Lumens: 582



Candelas at Nadir	
Deg	Candela
0	1481
5	1395
15	882
25	331
35	63
45	13

Wide Flood (WF)
Distribution, 45°
LTL #11919582.15
Lumens: 540



Candelas at Nadir	
Deg	Candela
0	1042
5	1007
15	751
25	359
35	85
45	15

Application Data - Round Downlight (HDL-HP-SD-DTW)

Notes and Definitions:

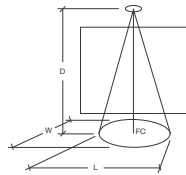
Beam spread is to 50% center beam candlepower (CBCP).

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).



		 0° Aiming Angle Horizontal Footcandles			
Very Narrow Flood	D	FC	L	W	
	5.0'	122	1.8	1.8	
	7.5'	55	2.9	2.9	
	10.0'	31	3.7	3.7	
	12.5'	20	4.6	4.6	

		0° Aiming Angle Horizontal Footcandles			
		D	FC	L	W
Medium Flood	5.0'	88	2.3	2.3	
	7.5'	40	3.3	3.3	
	10.0'	23	4.4	4.4	
	12.5'	15	5.5	5.5	

				0° Aiming Angle	
				Horizontal	
				Footcandles	
Flood	D	FC	L	W	
	5.0'	57	3.0	3.0	
	7.5'	26	4.4	4.4	
	10.0'	15	5.7	5.7	
	12.5'	9	7.2	7.2	

		0° Aiming Angle Horizontal Footcandles			
Wide Flood	D	FC	L	W	
	5.0'	40	3.4	3.4	
	7.5'	18	5.1	5.1	
	10.0'	10	6.9	6.9	
	12.5'	7	8.5	8.5	

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

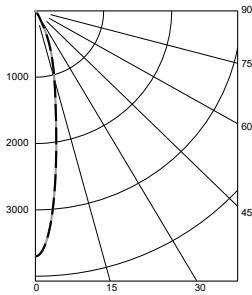
TYPE:

Performance Data - Round Adjustable (HDL-HP-SA-DTW)

(Complete photometric data (.ies format) available on website)

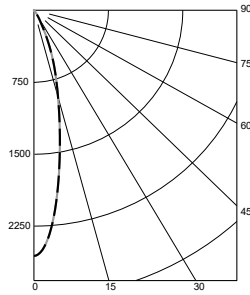
15W LED, 3000K-95

Very Narrow Flood (VNF)
Distribution, 18°
LTL #11919582.16
Lumens: 699



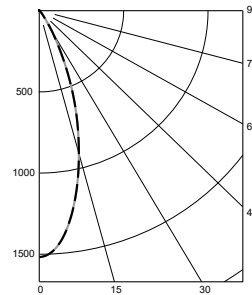
Candelas at Nadir	
Deg	Candela
0	3704
5	2907
15	1010
25	285
35	42
45	12

Medium Flood (MFL)
Distribution, 25°
LTL #11919582.17
Lumens: 652



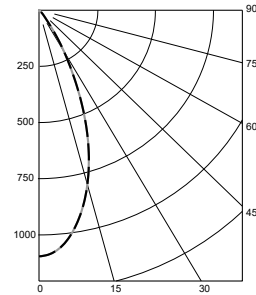
Candelas at Nadir	
Deg	Candela
0	2561
5	2215
15	967
25	296
35	49
45	14

Flood (FL)
Distribution, 35°
LTL # 11919582.18
Lumens: 611



Candelas at Nadir	
Deg	Candela
0	1517
5	1431
15	911
25	358
35	63
45	15

Wide Flood (WF)
Distribution, 45°
LTL # 11919582.19
Lumens: 579



Candelas at Nadir	
Deg	Candela
0	1096
5	1059
15	798
25	395
35	83
45	17

Application Data - Round Adjustable (HDL-HP-SA-DTW)

Notes and Definitions:

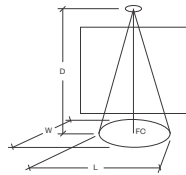
Beam spread is to 50% center beam candlepower (CBCP).

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).



	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	142	1.6	1.6
	7.5'	64	2.5	2.5
	10.0'	36	3.3	3.3
	12.5'	23	3.9	3.9

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	99	2.1	2.1
	7.5'	44	3.2	3.2
	10.0'	25	4.1	4.1
	12.5'	16	5.2	5.2

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	59	3.0	3.0
	7.5'	26	4.4	4.4
	10.0'	15	5.8	5.8
	12.5'	10	7.3	7.3

	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	42	3.5	3.5
	7.5'	19	5.3	5.3
	10.0'	11	7.0	7.0
	12.5'	7	8.7	8.7

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

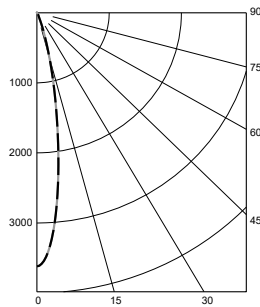
TYPE:

Performance Data - Round Pinhole Adjustable (HDL-HP-SPA-DTW)

(Complete photometric data (.ies format) available on website)

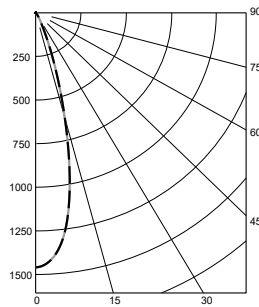
15W LED, 3000K-95

Very Narrow Flood (VNF)
Distribution, 18°
LTL # 11919582.22
Lumens: 457



Candelas at Nadir	
Deg	Candela
0	3620
5	2876
15	595
25	60
35	22
45	3

Flood (FL)
Distribution, 28°
LTL # 11919582.23
Lumens: 376



Candelas at Nadir	
Deg	Candela
0	1460
5	1375
15	635
25	108
35	25
45	4

Application Data - Round Pinhole Adjustable (HDL-HP-SPA-DTW)

Notes and Definitions:

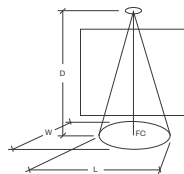
Beam spread is to 50% center beam candlepower (CBCP).

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).



Very Narrow Flood	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	139	1.5	1.5
	7.5'	63	2.4	2.4
	10.0'	36	3.1	3.1
	12.5'	23	3.8	3.8

Flood	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	56	2.5	2.5
	7.5'	25	3.6	3.6
	10.0'	14	4.8	4.8
	12.5'	9	5.9	5.9

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

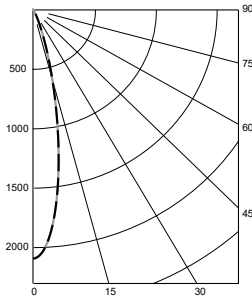
TYPE:

Performance Data - Round Pinhole Adjustable Shower (HDL-HP-SPASHW-DTW)

(Complete photometric data (.ies format) available on website)

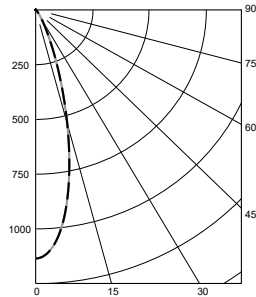
15W LED, 3000K-95

Very Narrow Flood (VNF)
Distribution, 23°
LTL #11919582.20
Lumens: 428



Candelas at Nadir	
Deg	Candela
0	2092
5	1830
15	641
25	115
35	26
45	7

Flood (FL)
Distribution, 28°
LTL # 11919582.21
Lumens: 354



Candelas at Nadir	
Deg	Candela
0	1135
5	1057
15	545
25	143
35	34
45	9

Application Data - Round Pinhole Adjustable Shower (HDL-HP-SPASHW-DTW)

Notes and Definitions:

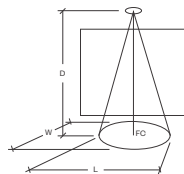
Beam spread is to 50% center beam candlepower (CBCP).

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).



Very Narrow Flood	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	81	2.0	2.0
	7.5'	36	2.9	2.9
	10.0'	21	3.9	3.9
	12.5'	13	4.9	4.9

Flood	0° Aiming Angle Horizontal Footcandles			
	D	FC	L	W
	5.0'	44	2.6	2.6
	7.5'	20	3.7	3.7
	10.0'	11	5.0	5.0
	12.5'	7	6.2	6.2

Hornet® HP

Square Downlights, Dim-To-Warm



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 ---

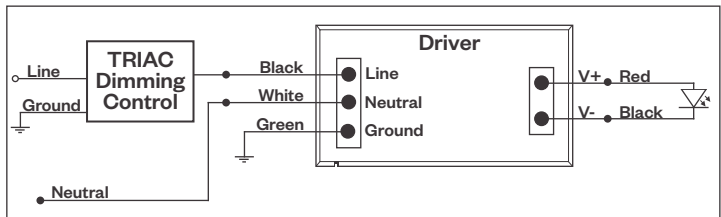
TRIAC (Forward Phase) DIMMING (Standard)

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"	

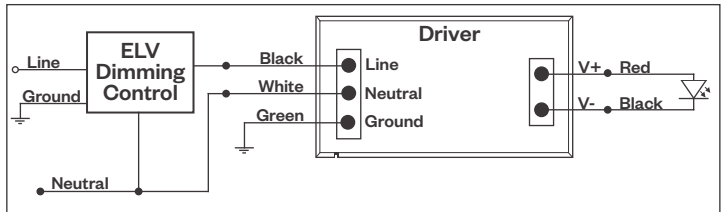
ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)

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.

Hornet® HP

Square Downlights, Dim-To-Warm



PROJECT:

TYPE:

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 ---

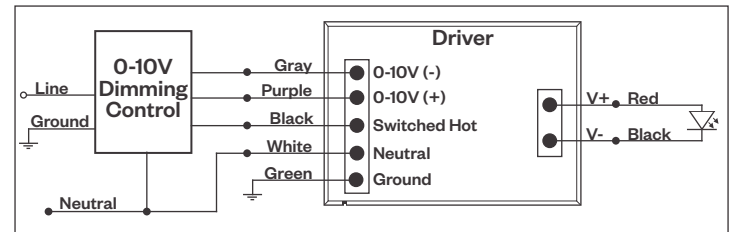
0-10V DIMMING

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	Lutron Grafik Eye with GRX-TVI Interface
Leviton Renoir II 0-10V	

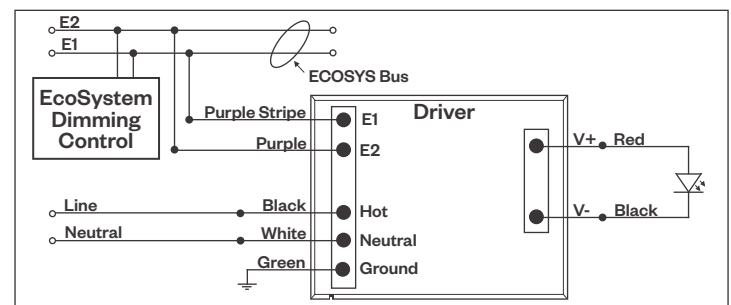
LUTRON LDE1 DIMMING

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	

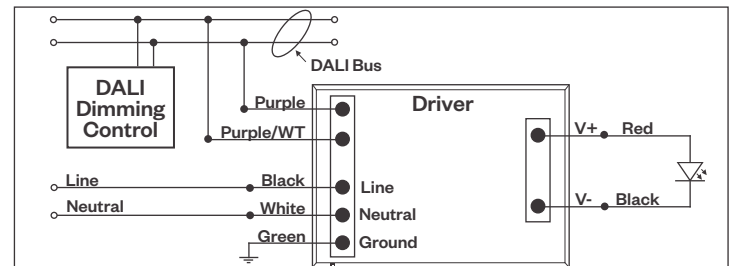
DALI DIMMING

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.

PROJECT:

TYPE:

Emergency Battery Pack

Wiring Diagram

