



# Area lighting

## Hazlux® 3 series

Safe, durable, and now available with LED technology for superior energy efficiency, Thomas & Betts Hazlux products are the brand specifiers rely on to safely provide light where it's needed — even under the harshest indoor and outdoor conditions. The Hazlux 3 LED series offers longer life, enhanced energy efficiency, reduced maintenance and a smaller footprint. All Hazlux LED products are designed and assembled for exceptional service and support with reduced lead times. Experienced assembly operation easily accommodates both large and small production runs with a fast turnaround.

### Maintenance-friendly

- Field-replaceable LED engine and driver

### LED fixtures with superior technology and performance

- High lumens per watt ratio
- Higher t-ratings for cooler operation and extended LED and driver life in extreme temperatures
- Available with a thermal-resistant globe and a variety of field—changeable internal and external reflectors for the ideal beam angle

### Labor-saving installation

- Designed for easy retrofit installation with existing Hazlux 3 top-hats
- Hinged design for single-person installation

### Applications

- Oil & gas
- Mining
- Food & beverage
- Chemical industries

### Advantages

- Easy tank access allows for safe, quick maintenance of Hazlux lighting fixtures
- The Hazlux LED fixtures engine and driver are designed for easy field replacement
- Cast, copper-free aluminum construction and epoxy paint provides the highest level of corrosion resistance



# Area lighting

## Hazlux® 3 LED DL-series

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### HazVertor® adapter ring

#### Replace competitor fixtures without removing the top hat

The HazVertor adapter ring offers the freedom to replace Champ® Series by Crouse-Hinds® lighting fixtures (VMV, DMV or LMV types) with Hazlux 3 lighting fixtures without removing the Crouse-Hinds top hat from the conduit system, eliminating the need to replace conduit and wiring.

#### Save time and increase efficiency.

The HazVertor ring can be ordered as a separate item or as part of a Hazlux 3 fixture assembly. Look for the HV1 mounting style options and switch to increased efficiency, wider suitability for hazardous locations, improved light distribution and improved t-numbers.



HazVertor adapter ring

### Hazlux UNIPAK® packaging

- UNIPAK is the Hazlux customized packaging system designed to save money
- UNIPAK fixtures are easily assembled and can include globes, guards, reflectors, lamps, fuses and other options
- Outlet boxes are shipped separately; consult factory regarding outlet boxes to be assembled to UNIPAK fixtures
- Assembled UNIPAK fixtures are shipped in one carton with the fixture foam packed in place
- For ordering information, refer to the “catalog numbering system” for each individual Hazlux fixture series
- UNIPAK saves seven ways:
  - Reduces the number of cartons to receive, count, move, open and dispose
  - Reduces storage issues
  - Reduces inventory expense
  - Eliminates lost or back-ordered parts
  - Significantly reduces labor costs
  - Reduces total installed cost per fixture

#### Certifications and standards

Class I – Division 2, groups A, B, C and D

- UL® listed (UL file # E65285)
- Wet location
- Marine location on classified



Contact your Thomas & Betts sales representative to verify classification.

Note: Crouse-Hinds and Champ are registered trademarks of Cooper Technologies Company, owned by Eaton.

## Hazlux® durability meets LED technology

### High-efficacy fixtures offer excellent performance and energy savings

Thomas & Betts has taken the rugged, reliable design of Hazlux lighting fixtures and introduced the capabilities of LED technology to create a high-performance fixture with an impressive lumen output.

### Higher t-ratings and optimal thermal management extend LED and driver life expectancy

With an exclusive design that maximizes heat dissipation, Hazlux LED fixtures lower internal temperature and allow for better T-ratings which means extended LED and driver life in extreme ambient temperatures.

With the entire surface acting as a heat sink, Hazlux LED luminaires allow higher wattages for better performance.

### Versatile optics include internal reflector options for diffused light distribution

Hazlux LED fixtures are available with a thermal-resistant globe and a variety of external and field-changeable internal reflectors for the ideal beam angle from 35° to 65° for your specific applications.

Hazlux model	AC power (W)	Lumen	Lm/W
DL005	45	5,800	129
DL007	58	7,100	122
DL010	88	10,000	114
DL015	122	15,600	128
DL017	131	17,800	135
DL020	166	20,400	123

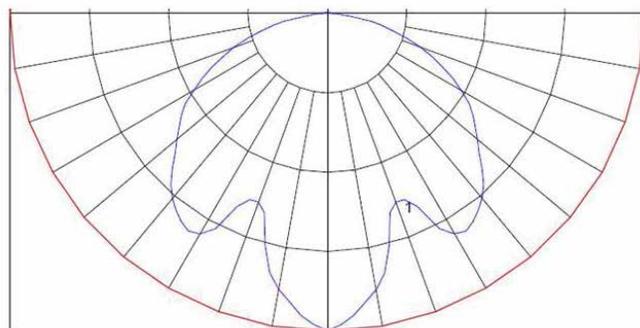
Hazlux model	Ambient temp. = 40 °C		Ambient temp. = 55 °C	
	Class I div 2	Class I div 2 & class II	Class I div 2	Class I div 2 & class II
DL005	T5	T4A	T5	T4
DL007	T5	T4A	T5	T4
DL010	T4A	T4A	T4	T4
DL015	T4	T3C	N/A	N/A
DL017	T4	T3C	N/A	N/A
DL020	T3C	T3C	N/A	N/A



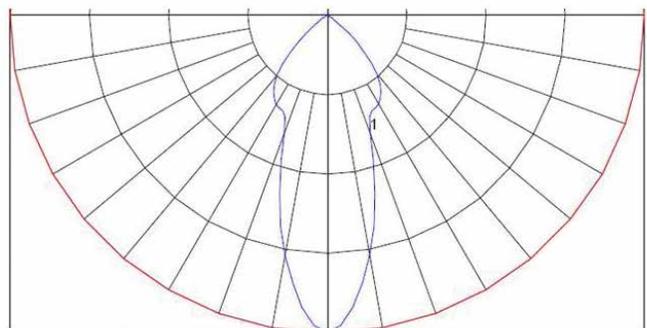
Internal reflector

Internal reflector (actual application)

Note: only for models DL005, DL007 and DL010



LED single board



LED single board with internal reflector installed

# Area Lighting

## Hazlux® 3 series

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### Labor-saving installation and maintenance-friendly construction.

#### Designed for easy retrofit installation

Using the same mounting style options as existing Hazlux lighting fixtures, the new LED luminaires can easily be attached as retrofit fixtures.

The HazVertor™ adapter ring makes it easy to replace Crouse-Hinds Champ® series lighting fixtures without removing the top hat from the conduit system.

#### Hinged design for hands-free wiring

Easy tank access allows Hazlux lighting fixtures to be maintained quickly and safely. The hinged lid is designed to support the weight of the tank, leaving both the installer's hands free.

#### Field-replaceable LED engine and driver

The LED driver is designed in its own compartment so it can be easily replaced in the field using a connector, with no re-wiring required. A fiberglass insulator protects the driver from the heat of the LED engine.

#### Robust construction for long life expectancy

Cast, copper-free aluminum construction offers corrosion resistance in a strong, lightweight fixture for maximum life expectancy. Baked epoxy powder finishes and stainless steel exposed hardware provide additional corrosion resistance.

#### Certifications shown on external surface

An easily identifiable nameplate displays third party certification for all electrical and hazardous location ratings as required by the NEMA, OSHA regulations and CSA to provide peace of mind, confirming that the correct lighting fixture with the required certifications is in place.

#### Now listed on the 'Design Lights Consortium' Qualified Products List

The Hazlux DL Series is now listed on the Qualified Products List (QPL) of the Design Lights Consortium (DLC) which is an institution devoted to defining and promoting leading-edge, high-quality, and high-efficiency LED products.



Note: Crouse-Hinds and Champ are registered trademarks of Cooper Technologies Company, owned by Eaton.

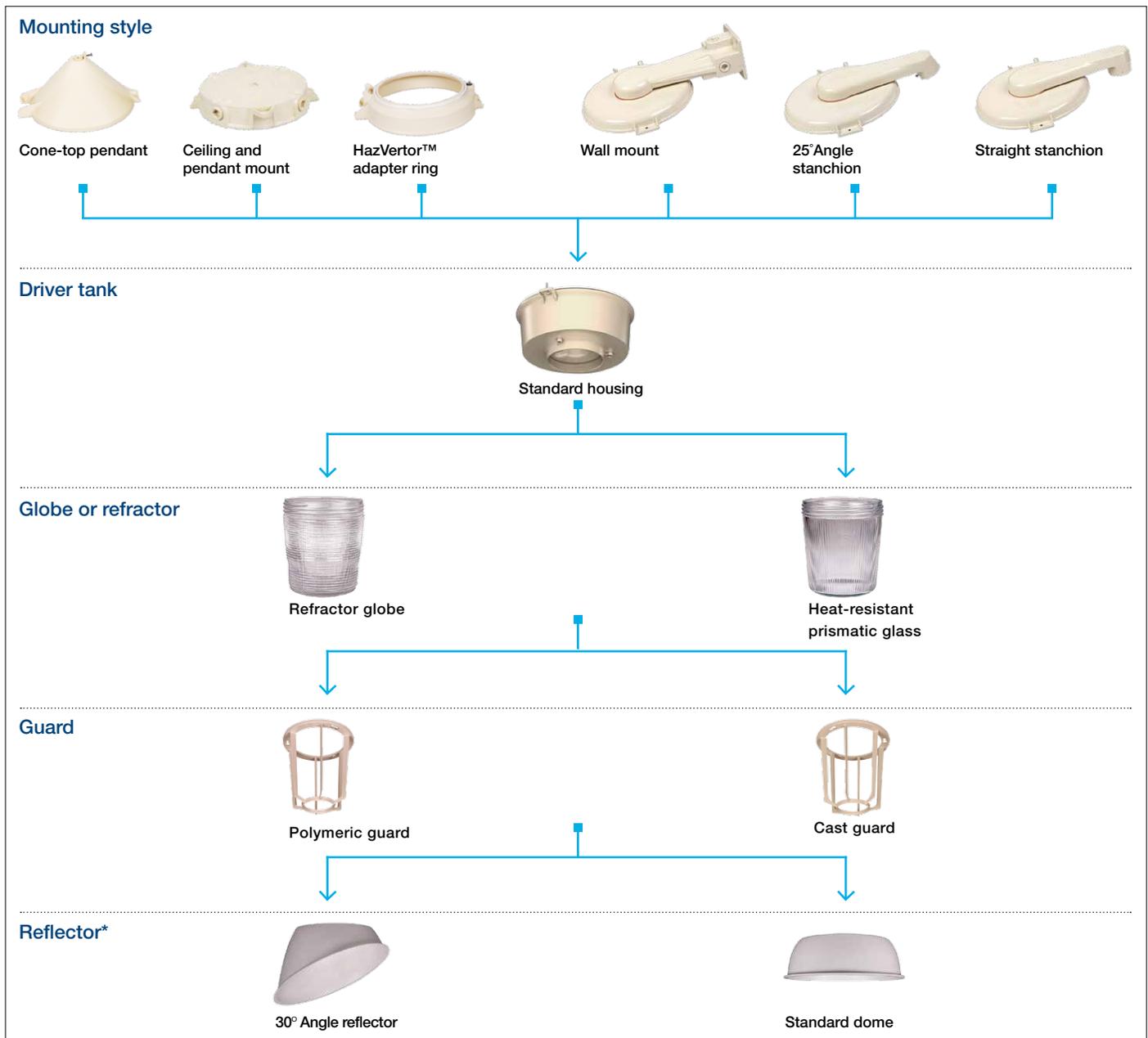
# Assembly guide

## Complete luminaire consists of:

- A mounting style
- Driver tank
- Globe or refractor
- Optional guard and/or reflector



## Hazlux® 3 LED DL series - assembly guide



\*Reflectors are sold separately

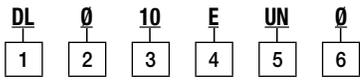
# Area Lighting

## Hazlux® 3 series

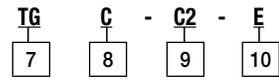
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### Catalog numbering system

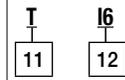
#### LED driver tank



#### Optics and mountings



#### Options



#### Labeling



Hazlux DL series model	Equivalent HID luminaire
DL005	100W
DL007	175W
DL010	250W
DL015	400W

Note: For reference only

#### LED driver tank

1 Fixture series	DL	Hazlux® 3 LED series
2 Fixture	Ø	Standard fixture
3 Lumen output	05	5,800 Lumens, 45W <sup>†</sup>
	07	7,100 Lumens, 58W <sup>†</sup>
	10	10,100 Lumens, 88W <sup>†</sup>
	15	15,600 Lumens, 122W <sup>†</sup>
	17	17,800 Lumens, 131W <sup>†</sup>
4 Driver circuit	E	Electronic LED driver
	UN	120 to 277VAC 50/60Hz (voltage range includes 208V, 220V, 240V etc.) <sup>†</sup>
5 Voltage/frequency	UN2	Universal 347/480VAC 50/60Hz (Not available for DL017 and DL020) <sup>†</sup>
	Ø	Standard housing <sup>†</sup>
6 LED driver housing style	S	Standard housing with stainless steel insert

#### Optics and mountings

7 Order assembly options**	TG	Thermal & heat-resistant prismatic glass globe <sup>†</sup>
	R1	Type I glass refractor globe
	R3	Type III glass refractor globe
	R5	Type V glass refractor globe
8 Guard option	Blank	No guard <sup>†</sup>
	C	Cast aluminum guard
	L	Polymeric guard
9 Fixture	A2	¾" Cone-top pendant <sup>†</sup>
	A3	1" Cone-top pendant <sup>†</sup>
	B2	¾" Wall mount
	B3	1" Wall mount
	C2	¾" Ceiling mount <sup>†</sup>
	C3	1" Ceiling mount <sup>†</sup>
	HV1	HazVertor® ring class I div. 2 zone 2*** <sup>†</sup>
	L4	1¼" Straight stanchion
	L5	1½" Straight stanchion
	S4	1¼" 25° Angle stanchion
S5	1½" 25° Angle stanchion	
	Blank	No mounting (to replace existing fixture)
10 UNIPAK® option	E	UNIPAK with LED light source

#### Certifications and standards

- Class I – Division 2, groups A, B, C and D
  - Zone 2, Group IIC, IIB and IIA
- Class II – Division 1 and 2, groups E, F and G
- Class III
  - UL 1598 A for Marine Locations
  - NEMA 4X
  - UL 844
  - CSA C22.2 No. 137.0



Contact your Thomas & Betts sales representative to verify classification. Simultaneous Class I Division 2 and Class II

#### Options

11 Special options	T	HazCote® custom anti-corrosion coating <sup>†</sup>
	G	Gray color option <sup>†</sup>
12 Light distribution options	I3	Internal reflector 35° beam angle*
	I4	Internal reflector 45° beam angle*
	I6	Internal reflector 65° beam angle*

#### Certifications & Labeling

13 Rating label	U	Labeled for shipment to the United States
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\* DL005, DL007 and DL010 only

\*\* For silicone coating, please add the suffix "s" before the first digit (ex. STG)

\*\*\* Not for use with HPM2 or JM5 mounts

<sup>†</sup> Option includes DLC Qualified Products Listing. Contact Thomas & Betts Technical Service to verify classification.

## Individual components (to be used with LED driver housing)



Cone-top pendant

Ceiling and pendant mount

HazVerter™ adapter ring

Wall mount

25° Angle stanchion

Straight stanchion

### Mounting options

Part No.	Description	Conduit hub size
VA2	Cone-top pendant	¾"
VA3	Cone-top pendant	1"
VC2	Ceiling mount	¾"
VC3	Ceiling mount	1"
VB2-VIB	Wall mount	¾"
VB3-VIB	Wall mount	1"
VS4-VIB	25° Angle stanchion	1¼"
VS5-VIB	25° Angle stanchion	1½"
VL4-VIB	Straight stanchion	1¼"
VL5-VIB	Straight stanchion	1½"
HV1	HazVerter™ adapter ring	N/A



Refractor globe

Heat-resistant prismatic glass globe

### Globes or refractors

Part No.	Description*
VGT15	Heat-resistant prismatic glass globe
VGL15R1	IES Type I refractor globe
VGL15R3	IES Type III refractor globe
VGL15R5	IES Type V refractor globe

\* For silicone coating, please add the suffix "s" before the first digit (ex. STG)



Polymeric guard

Cast guard

### Guards

Part No.	Description
VGU22P	Polymeric guard
VGU22	Cast guard

## Optional components



30° Angle reflector

Standard dome

### External reflectors

Part No.	Description
VR15P	Standard dome, fiberglass-reinforced polyester
VRA15P	Angular dome, fiberglass-reinforced polyester

## Individual components (continued)



LED engine module



Internal reflector



Internal reflector (actual application)

### LED engine modules and drivers

Hazlux cat. no.	LED engine cat. no.	Driver	
		120-277 VAC	347-480 VAC
DL005	039499-H	183.0141-H	183.0151-H
DL007	039499-H	183.0142-H	183.0152-H
DL010	039499-H	183.0143-H	183.0161-H
DL015	039501-H	183.0169-H	183.0151-H
DL017	039502-H	183.0146-H	N/A
DL020	039502-H	183.0144-H	N/A

### Internal reflectors

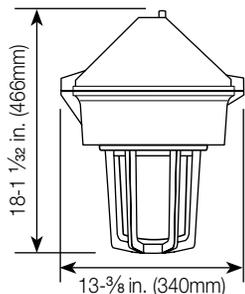
Cat. no.	Description
145.0056-H	I3 Internal reflector 35° beam angle
145.0057-H	I4 Internal reflector 45° beam angle
145.0058-H	I6 Internal reflector 65° beam angle

Note: only for models DL005, DL007 and DL010

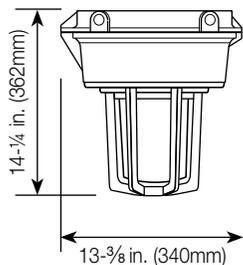
### Photo sensor (Class I, div. 2, group A, B, C, D)

Cat. no.	Description
HLPC-120-FG	120VAC, 50/60Hz
HLPC-208-277-FG	208/277VAC, 50/60Hz

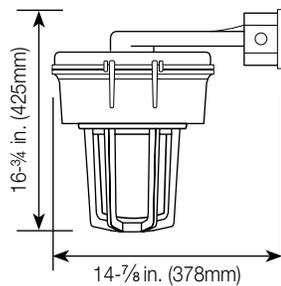
## Dimensions — standard housing with globe and guard



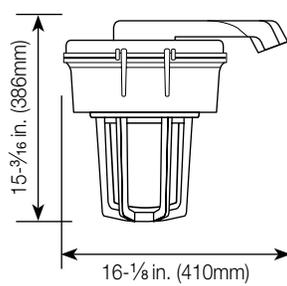
Cone-top pendant



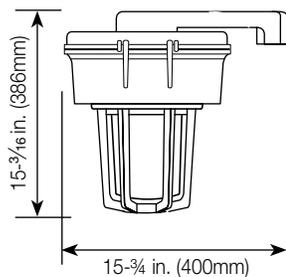
Ceiling mount



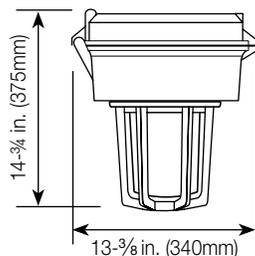
Wall mount



25° Angle stanchion mount



Straight stanchion



HazVektor™ ring

## Photometry — standard housing with globe and guard

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL005EUN0TGC2EU	
Luminaire lumens	5,895	
Luminaire efficacy rating (LER)	131	
Input watt	45.07	
Spacing criterion (0-180)	1.3	
Spacing criterion (90-270)	1.3	
Spacing criterion (diagonal)	1.44	

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL010EUN0TGC2EU	
Luminaire lumens	10,123	
Luminaire efficacy rating (LER)	115	
Input watt	88.19	
Spacing criterion (0-180)	1.24	
Spacing criterion (90-270)	1.24	
Spacing criterion (diagonal)	1.4	

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL015EUN0TGC2EU	
Luminaire lumens	15,605	
Luminaire efficacy rating (LER)	128	
Input watt	121.8	
Spacing criterion (0-180)	1.08	
Spacing criterion (90-270)	1.08	
Spacing criterion (diagonal)	1.42	

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL020EUN0TGC2EU	
Luminaire lumens	20,476	
Luminaire efficacy rating (LER)	123	
Input watt	166.1	
Spacing criterion (0-180)	1.46	
Spacing criterion (90-270)	1.46	
Spacing criterion (diagonal)	1.58	

# Area Lighting

## Hazlux® 3 Series

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Photometry — standard housing with glass refractor — ceiling mount



### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL010EUN0R1C2EU	
Luminaire lumens	8,047	
Luminaire efficacy rating (LER)	92	
Total fixture watts	87	
Maximum candela	2,890	
Maximum candela (< 90° vertical)	2,890	
Maximum candela at 90° vertical	887 (11.0% luminaire lumens)	
Maximum candela from 80 to < 90° Vertical	1,463 (18.2% luminaire lumens)	luminaire

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL010EUNOR3C2EU	
Luminaire lumens	8,649	
Luminaire efficacy rating (LER)	99	
Total fixture watts	87.27	
Maximum candela	3,731	
Maximum candela (< 90° vertical)	3,731	
Maximum candela at 90° vertical	883 (10.2% fixture lumens)	
Maximum candela from 80 to < 90° Vertical	1,308 (15.1% fixture lumens)	luminaire

### Ceiling mount

Reference data		Candlepower curve
Catalog no.	DL020EUN0R5C2EU	
Luminaire lumens	17,004	
Luminaire efficacy rating (LER)	102	
Total fixture watts	166.3	
Maximum candela	3,413	
Maximum candela (< 90° vertical)	3,413	
Maximum candela at 90° vertical	1,171.3 (6.9% fixture lumens)	
Maximum candela from 80 to < 90° Vertical	1,662.7 (9.8% fixture lumens)	luminaire