

Project

Date

Product Code

Type

Designer



WAFER/3 DL

recessed shallow LED downlight

FULLY SUSTAINABLE - FULLY SUSTAINABLE - FULLY SUSTAINABLE - FULLY SUSTAINABLE - FULLY SUSTAINABLE - FULLY SUSTAINABLE - FULLY SUSTAINABLE



FEATURES

- **WAFER/3 DL is a 3" aperture, high efficacy, LED downlight** with an overall depth of 3 1/2" (housing depth of 2 1/2" plus a 1" throat).
- **Luminaire employs an internal 'twist and lock' lens** to produce an initial beam-spread of either 32° or 60°. To allow beam-spread to be changed in installed luminaires, internal lenses are available as accessories.
- **Luminaire may be ordered standard (- DL) for maximum efficacy and spacing ratio - or - with a plastic diffuser (- DG)**, mounted atop reflector, to maximize beam uniformity and obscure appearance of LED.
- **Luminaire is powered by one of a number of Cree Chip on board LED's.** See below for wattages and efficacies.
- **External reflectors are available in three clear natural aluminum colors** – semi-specular (C), slightly diffuse (V) or fully diffuse (EC) – as well as champagne gold, black Alzak® and specular white enamel. Other finishes are available on special order.
- **Optional housing design for residential installation** in wood joist ceilings (- RI).
- **WAFER/3 DL includes a pair of mounting bars** (3/4" x 27" C channel). Specialty bars for wood and T-bar installations are also available.
- **For more information, [click here](#).**

APPLICATIONS

Luminaire is listed as an inherently protected luminaire for Damp Location. Luminaire is RoHS compliant, is suitable for use in a fire rated ceiling. Removal of the external reflector allows access to the LED module and junction box.



ENERGY STAR

Energy Star qualified under Luminaires Specification V2.0. See Energy Star website for model numbers included in listing. The following options are not qualified: L08H, L15S and ZG0MAG. On orders which require Energy Star labelling, add "-ESL" to the specified Product Code.

PRODUCT CODE

For complete product code, list basic unit and select one item from each following box.

Basic Unit
 no diffuser standard installation design..... W3-CLT-DL
 with diffuser standard installation design..... W3-CLT-DG

Internal Lens *Choose one.*
 32° initial beamspread - 32D
 60° initial beamspread - 60D

Light Source Output (Lumens)
 800 lumens / CRI 90+ 2700K & 3000K only..... - L08H
 1000 lumens 2700K & 3000K only..... - L10H
 1200 lumens 2700K & 3000K only..... - L12H
 1000 lumens / CRI 80+ - L10S
 1200 lumens - L12S
 1500 lumens - L15S

Driver
 dimmable to 1% by a 0-10V dimmer on 120 Or 277-volt service..... - DMV
 dimmable to 5% by either an incandescent or electronic low voltage dimmer only; 120-volt service only - DMP
 dimmable to 1% by a 2-wire Lutron compatible dimmer - DMHU
 dimmable to 1% SoftOn/FadeToBlack by a Lutron EcoSystem control ... - ECO-LU
 eldoLED 0-10V (Logarithmic) driver dimmable to 0.1% with a 0-10V dimmer - DVOELG
 eldoLED 0-10V (Linear) driver dimmable to 0.1% with a 0-10V dimmer - DVOELN
 eldoLED driver dimmable to 0.1% with DALI control system - DA0-EL
 dimmable to 0.1% by a Zigbee wireless network (Daintree, Encelium or Wink); wireless range 50' through standard walls;

Light Color
 2700 K..... - 27K
 3000 K..... - 30K
 3500 K..... - 35K
 4000 K..... - 40K

External Reflector Color & Trim	DL Model (no diffuser)		DG Model (with diffuser)	
	Overlap	Trim Flush*	Overlap	Trim Flush*
Semi-specular Clear	DL-COL	DL-CTF	DG-COL	DG-CTF
Slightly diffuse Clear	DL-VOL	DL-VTF	DG-VOL	DG-VTF
Fully diffuse Clear	DL-ECOL	DL-ECTF	DG-ECOL	DG-ECTF
Champagne Gold	DL-GOL	DL-GTF	DG-GOL	DG-GTF
Black	DL-BOL	DL-BTF	DG-BOL	DG-BTF
White	DL-WOL	DL-WTF	DG-WOL	DG-WTF

Standard reflector flange continues reflector finish. White painted flanges and custom painted flanges are available on special order. Add WF (white flange) or CCF (custom color flange).
 *Trim Flush reflector trim requires the use of a **plaster ring** Accessory (see below).

OPTIONS *Specify by adding to the basic unit.*

Housing designed for residential installation (see next page) including a pair of mounting bars (extendable to 20") for use between wood joists. - RI
Millwork trim detail consists of an aperture collar (see below) and a Trim Flush (TF) external reflector (see above).
 milled aluminum aperture collar - M
 white aperture collar - MWH
 black aperture collar - MBL
 custom color aperture collar - MCC
Remote emergency battery pack including two components – battery pack and plate with test switch and light – to be mounted adjacent to luminaire; for use in accessible ceilings; *not available with residential housing (-RI)*. - RX
Energy Star labelling available on some models; see the Energy Star info 'box' on this page - ESL

EXTRA INTERNAL LENSES *Specify as separate line items.*

32° internal lens CLT-LENS32-70
 60° internal lens CLT-LENS60-70

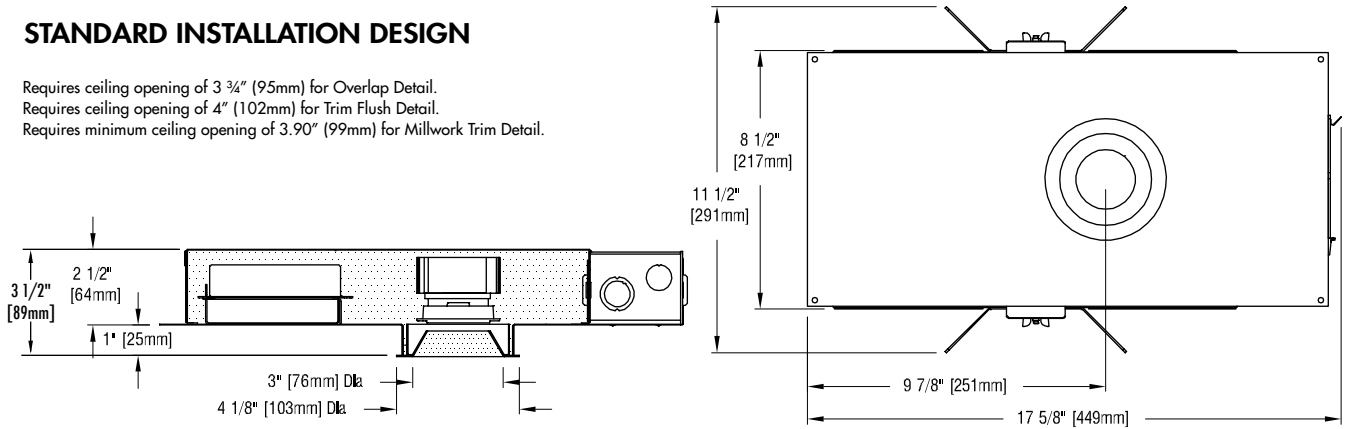
ACCESSORIES *Specify as a separate line item.*

Plaster ring allows use of 3 3/4" OD Trim Flush (-TF) reflector in sheetrock ceiling; 4" dia hole required..... TF RING/3

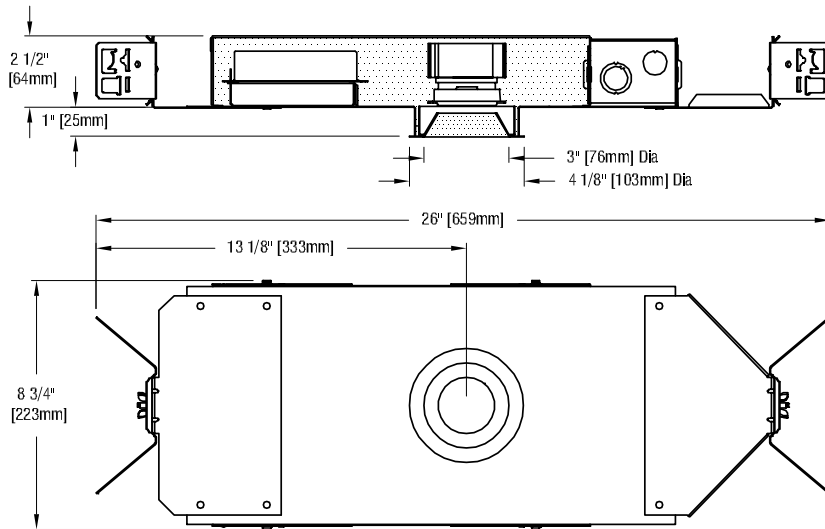


STANDARD INSTALLATION DESIGN

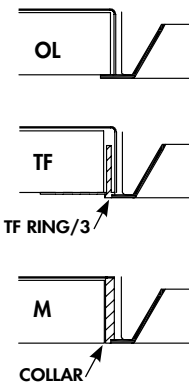
Requires ceiling opening of 3 3/4" (95mm) for Overlap Detail.
 Requires ceiling opening of 4" (102mm) for Trim Flush Detail.
 Requires minimum ceiling opening of 3.90" (99mm) for Millwork Trim Detail.



RESIDENTIAL INSTALLATION DESIGN (-RI)



EXTERNAL REFLECTOR TRIM DETAILS



– see below for photometric reports –

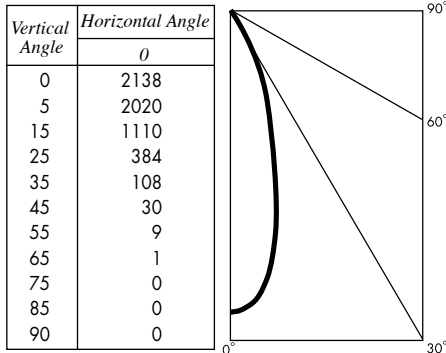


PHOTOMETRIC REPORT with 32° lens (tested per IESNA LM-79-2008)

UL Verification Services Report No. 11863545.12. Original test report furnished upon request.

Luminaire recessed LED round downlight with semi-specular clear aluminum reflector (NO DIFFUSER)
 Light Source Cree CXB1310 LED with 32° beam spread integral lens, 2700K CCT, 90 CRI, 1000 lumens
 Spacing Criteria 0.5

CANDLEPOWER DISTRIBUTION (Candela)



LUMINANCE DATA

Vertical Angle	Candelalm ²
45	9282
55	3451
65	727
75	93
85	106

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	734	95.5
0 - 60°	767	99.8
0 - 90°	769	100.0
90 - 180°	0	0.0

LUMINAIRE LIGHT OUTPUT AND EFFICACY

LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage	RX Light Output (90 min. run)
800 Lumens 90 CRI	646*	72*	9	423*
1000 Lumens 90 CRI	769	72	10	423*
1200 Lumens 90 CRI	945*	73*	13	423*
1000 Lumens 80 CRI	799*	89*	9	515*
1200 Lumens 80 CRI	953*	95*	10	515*
1500 Lumens 80 CRI	1176*	90*	13	515*

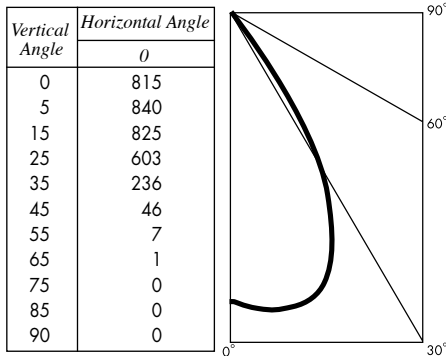
*estimated values

PHOTOMETRIC REPORT with 60° lens (tested per IESNA LM-79-2008)

UL Verification Services Report No. 11863545.11. Original test report furnished upon request.

Luminaire recessed LED round downlight with semi-specular clear aluminum reflector (NO DIFFUSER)
 Light Source Cree CXB1310 LED with 60° beam spread integral lens, 2700K CCT, 90 CRI, 1000 lumens
 Spacing Criteria 1.0

CANDLEPOWER DISTRIBUTION (Candela)



LUMINANCE DATA

Vertical Angle	Candelalm ²
45	14370
55	2524
65	465
75	31
85	48

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	732	93.8
0 - 60°	779	99.9
0 - 90°	780	100.0
90 - 180°	0	0.0

LUMINAIRE LIGHT OUTPUT AND EFFICACY

LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage	RX Light Output (90 min. run)
800 Lumens 90 CRI	655*	73*	9	429*
1000 Lumens 90 CRI	780	72	10	429*
1200 Lumens 90 CRI	959*	74*	13	429*
1000 Lumens 80 CRI	811*	90*	9	522*
1200 Lumens 80 CRI	967*	97*	10	522*
1500 Lumens 80 CRI	1193*	92*	13	522*

*estimated values

STANDARD DMV DRIVER INFORMATION (UL Class 2, dry and damp location)

Voltage	120	277
Input Watts (L08H/L10H/L12H/L10S/L12S/L15S)	9/10/13/9/10/13	9/10/13/9/10/13
Input Current (A) (L08H/L10H/L12H/L10S/L12S/L15S)	08/08/11/08/08/11	04/04/06/04/04/06
Output Current (mA)	350-700	350-700
Min. Power Factor	.99	.99
Operating Temperature Range (F)	-13 to 122	-13 to 122

LIGHT OUTPUT MULTIPLIER

LED Light Engine	Light Output Multiplier	RX Light Output Multiplier
800 Lumens 90 CRI	0.84*	.55
1000 Lumens 90 CRI	1	.55
1200 Lumens 90 CRI	1.23*	.55
1000 Lumens 80 CRI	1.04*	.67
1200 Lumens 80 CRI	1.24*	.67
1500 Lumens 80 CRI	1.53*	.67

*estimated values

REFLECTOR COLOR MULTIPLIERS

Slightly diffuse clear (V)	1
Fully diffuse clear (EC)	.90
Champagne gold clear (G)	1
Specular white (W)	.70
Black (B)	.40