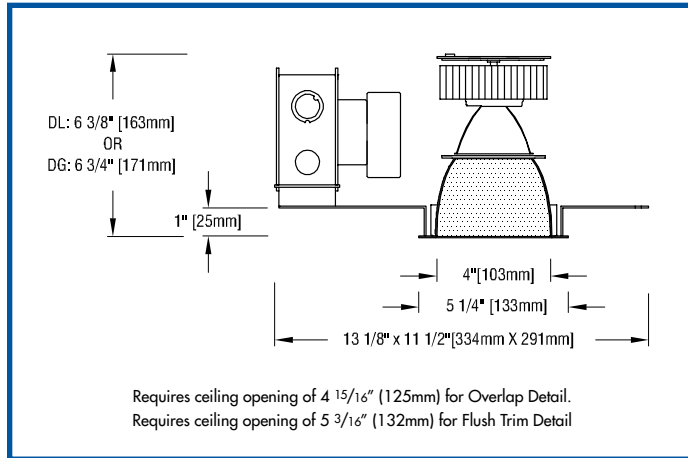


FOUR HI CZS DL recessed LED downlight

HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT - HIGH OUTPUT



FEATURES

- **FOUR HI CZS DL is a 4" aperture LED downlight capable of 31° to 56° beam spreads.** Luminaire is powered by Citizen chip-on-board LED's providing CRI's of 80+, 90+ or 97. See tables below for wattages and efficacies.
- **Precise external reflector design minimizes aperture brightness** and provides a shielding angle of 40°. A thin, highly efficient plastic diffuser is included to obscure the LED module from view from below.
- **Luminaire employs an internal 'twist and lock' reflector** to produce an initial beamspread of 31°, 40° or 56°. To allow beamspread to be changed in installed luminaires, internal reflectors are available as accessories.
- **An optional integral holder (DG)** permits the use of one or two of a number of **Optical Accessories** including lenses and color filters. A complimentary prismatic lens is included with this option.
- **External reflectors are available in three clear natural aluminum finishes** — semi-specular (C), slightly diffuse (V) or fully diffuse (EC) — as well as champagne gold, black Alzak® or white. Other finishes available on special order.
- **Luminaire includes a pair of mounting bars** (3/4" x 27" C channel). Specialty bars for wood joists and T-bar installations are also available.
- **For more information, [click here](#).**

APPLICATIONS

Luminaire is listed for Damp Location. Fixture is prewired with an insulation detecting thermal protector. Luminaire is approved for eight #12 wire 90° C branch circuit pull through wiring. Removal of the external reflector allows access to the LED module and junction box.



PRODUCT CODE

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

Basic Unit	
no lens holder; 6 3/8" depth	FH-CZS2-DL-4
with lens holder; 6 3/4" depth	FH-CZS2-DG-4
Internal Reflector	
31° initial beam spread	31D
40° initial beam spread	40D
56° initial beam spread	56D
Driver	
dimable to 1% by a 0-10V dimmer on 120 or 277-volt service	DMV
dimable to 5% by either an incandescent or ELV dimmer; 120-volt service only	DMP
dimable to 1% by a 2-wire Lutron compatible dimmer	DMHU
dimable 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 on 120 or 277-volt service	DVOELG
eldoLED 0-10V (Linear) driver dimmable to 0.1% with a 0-10V dimmer on 120 or 277-volt service	DVOELN
eldoLED driver dimmable to 0.1%, compatible with DAU control system	DA0-EL
Moon's driver dimmable to 0.1%, compatible with DMX controllers	DX0-MN
Magnitude (Logarithmic) driver dimmable to 0.1% by a Zigbee Wireless Network; wireless range 50' through standard walls	ZG0MAG

Light Source Output (Lumens)	
1500L / CRI 97	2700K & 3000K only - L15A
2100L	2700K & 3000K only - L21A
2800L	2700K & 3000K only - L28A
3000L	2700K & 3000K only - L30A
1700L / CRI 90+	2700K & 3000K only - L17H
2300L	2700K & 3000K only - L23H
3100L	2700K & 3000K only - L31H
3400L	2700K & 3000K only - L34H
1900L / CRI 80+	2700K & 3000K only - L19S
2700L	2700K & 3000K only - L27S
3600L	2700K & 3000K only - L36S
4000L	2700K & 3000K only - L40S

Light Color	
2700 K	27K
3000 K	30K
3500 K	not available in CRI 90+ and CRI 97 - 35K
4000 K	not available in CRI 90+ and CRI 97 - 40K
5000 K	not available in CRI 90+ and CRI 97 - 50K

Voltage	
120 volt service	120
277 volt service	277

External Reflector Color and Detail	Overlap	Trim Flush*
Semi-specular Clear	COL	CTF
Slightly diffuse Clear	VOL	VTF
Fully diffuse Clear	ECOL	ECTF
Champagne Gold	GOL	GTF
Black	BOL	BTF
White	WOL	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).
▶ Reflectors detailed for metal or wood ceilings available on special order.

OPTIONS Specify by adding to the basic unit.

Box Housing construction for fire rated ceilings; 7 1/8" depth, 13 1/8" x 11 1/2" footprint; see drawing below	- FC
Emergency battery pack Fixture depth increases to 9"; footprint increases to 17" x 10"	- EM

ACCESSORIES Specify as separate line item.

Plaster ring allows use of 4 7/8" OD Trim Flush (-TF) reflector in sheetrock ceiling; 5 3/16" dia hole required	- TF RING/4
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EXTRA REFLECTORS Specify as separate line items.

31° initial beam spread	CZS-REF31
40° initial beam spread	CZS-REF40
56° initial beam spread	CZS-REF56

OPTICAL ACCESSORIES *Specify as separate line*

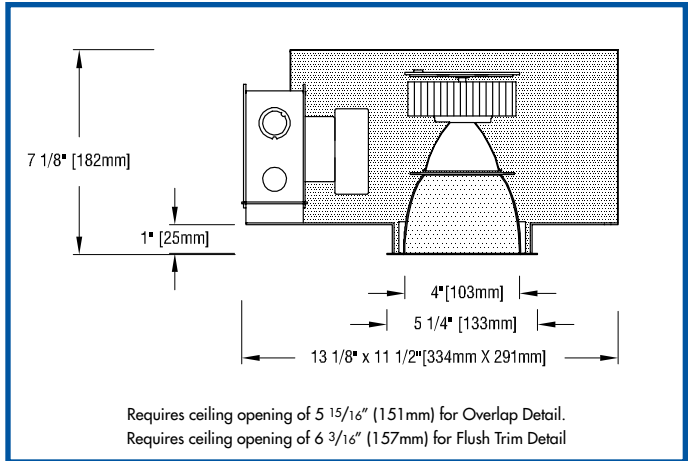
For use only with the "lens holder" fixture model; see Product Code / Basic Unit above.
All are 3 3/8" (95mm) diameter. Lenses and filters are glass; screens are aluminum.

- prismatic lens (Solite) PLS/3.75
- 55° spread lens LENS/3.75
- 40° x 70° spread lens LENS/3.75-4070
- 33% light reduction screen SCR33/3.75
- 50% light reduction screen SCR50/3.75

color filters

- surprise pink PNK/3.75
- daylight blue DAY/3.75
- amber AMB/3.75
- blue BLU/3.75
- green GRN/3.75
- red RED/3.75

BOX HOUSING OPTION (FC)

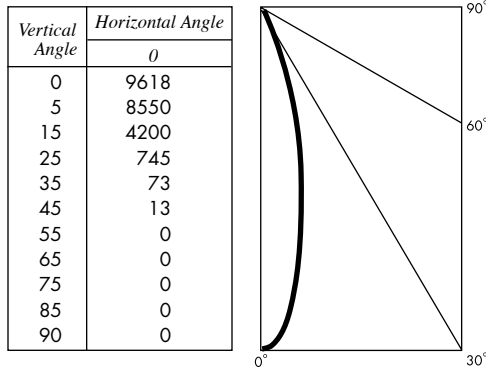


PHOTOMETRIC REPORT with 31° reflector (TESTED PER IESNA LM-79-2008)

Leading Testing Laboratories Report No. UT18080004-01a. Original test report furnished upon request.

Luminaire recessed LED round downlight with semi-specular clear aluminum reflector
Lamp Citizen LED, 3600 lumens, 3000K CCT, 80 CRI, with 31° beam spread integral reflector and DIF15 diffuser
Lamp Life rated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request
Spacing Criteria 0.5

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(3000K LED, 31° beam spread integral reflector)

LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage	EM Light Output (90 min. run)
1500 Lumens 97 CRI (L15A)	952*	60*	16	348*
2100 Lumens 97 CRI (L21A)	1301*	62*	21	348*
2800 Lumens 97 CRI (L28A)	1765*	59*	30	348*
3000 Lumens 97 CRI (L30A)	1975*	58*	34	348*
1700 Lumens 90 CRI (L17H)	1069*	67*	16	395*
2300 Lumens 90 CRI (L23H)	1463*	70*	21	395*
3100 Lumens 90 CRI (L31H)	1975*	66*	30	395*
3400 Lumens 90CRI (L34H)	2184*	64*	34	395*
1900 Lumens 80 CRI (L19S)	1254*	78*	16	465*
2700 Lumens 80 CRI (L27S)	1742*	83*	21	465*
3600 Lumens 80 CRI (L36S)	2323	76	30	465*
4000 Lumens 80 CRI (L40S)	2555*	75*	34	465*

*estimated values

LUMINANCE DATA

Vertical Angle	Candela/m ²
45	4400
55	0
65	0
75	0
85	0

ZONAL LUMEN SUMMARY

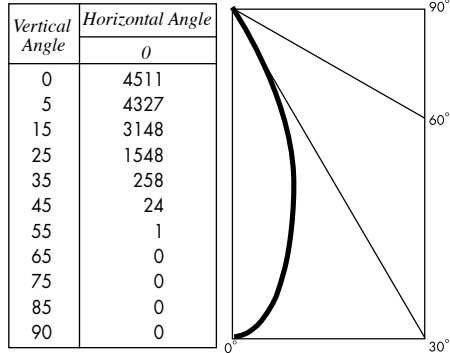
Zone	Lumens	% Fixture
0 - 40°	2309	99.4
0 - 60°	2320	99.9
0 - 90°	3420	99.9
90 -180°	3	0.1

PHOTOMETRIC REPORT with 40° reflector (tested per IESNA LM-79-2008)

Leading Testing Laboratories Report No. UT18080004-02a. Original test report furnished upon request.

Luminaire recessed LED round downlight with semi-specular clear aluminum reflector
 Light Source Citizen LED, 3600 lumens, 3000K CCT, 80 CRI, with 40° beam spread integral reflector and DIF30 diffuser
 Lamp Life rated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request
 Spacing Criteria 0.72

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(3000K LED, 40° beam spread integral reflector)

LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage	EM Light Output (90 min. run)
1500 Lumens 97 CRI (L15A)	897*	56*	16	328*
2100 Lumens 97 CRI (L21A)	1225*	58*	21	328*
2800 Lumens 97 CRI (L28A)	1662*	55*	30	328*
3000 Lumens 97 CRI (L30A)	1859*	55*	34	328*
1700 Lumens 90 CRI (L17H)	1006*	63*	16	372*
2300 Lumens 90 CRI (L23H)	1378*	66*	21	372*
3100 Lumens 90 CRI (L31H)	1859*	62*	30	372*
3400 Lumens 90CRI (L34H)	2056*	60*	34	372*
1900 Lumens 80 CRI (L19S)	1181*	74*	16	437*
2700 Lumens 80 CRI (L27S)	1640*	78*	21	437*
3600 Lumens 80 CRI (L36S)	2187	72	30	437*
4000 Lumens 80 CRI (L40S)	2406*	71*	34	437*

*estimated values

LUMINANCE DATA

Vertical Angle	Candelam ²
45	8122
55	0
65	0
75	0
85	0

ZONAL LUMEN SUMMARY

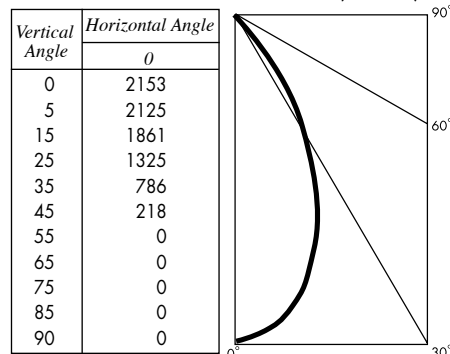
Zone	Lumens	% Fixture
0 - 40°	2158	98.7
0 - 60°	2180	99.7
0 - 90°	2181	99.7
90 - 180°	6	.3

PHOTOMETRIC REPORT with 56° reflector (tested per IESNA LM-79-2008)

Leading Testing Laboratories Report No. UT18080004-03a. Original test report furnished upon request.

Luminaire recessed LED round downlight with semi-specular clear aluminum reflector
 Light Source Citizen LED, 3600 lumens, 3000K CCT, 80 CRI, with 56° beam spread integral reflector and DIF80 diffuser
 Lamp Life rated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request
 Spacing Criteria 0.9

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(3000K LED, 56° beam spread integral reflector)

LED Light Engine	Luminaire Light Output	Luminaire Efficacy (lms/watt)	System Wattage	EM Light Output (90 min. run)
1500 Lumens 97 CRI (L15A)	821*	51*	16	300*
2100 Lumens 97 CRI (L21A)	1122*	53*	21	300*
2800 Lumens 97 CRI (L28A)	1522*	51*	30	300*
3000 Lumens 97 CRI (L30A)	1703*	50*	34	300*
1700 Lumens 90 CRI (L17H)	921*	58*	16	341*
2300 Lumens 90 CRI (L23H)	1262*	60*	21	341*
3100 Lumens 90 CRI (L31H)	1703*	57*	30	341*
3400 Lumens 90CRI (L34H)	1883*	55*	34	341*
1900 Lumens 80 CRI (L19S)	1082*	68*	16	401*
2700 Lumens 80 CRI (L27S)	1502*	72*	21	401*
3600 Lumens 80 CRI (L36S)	2003	66	30	401*
4000 Lumens 80 CRI (L40S)	2203*	65*	34	401*

*estimated values

LUMINANCE DATA

Vertical Angle	Candelam ²
45	73777
55	0
65	0
75	0
85	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	1815	90.6
0 - 60°	2003	100.0
0 - 90°	2003	100.0
90 - 180°	0	0.0

LIGHT OUTPUT MULTIPLIER *(based on 3600 lumens LED)*

LED Light Engine	Light Output Multiplier	EM Light Output Multiplier (90-minute run)
1500 Lumens 97 CRI (L15A)	0.41*	0.15*
2100 Lumens 97 CRI (L21A)	0.56*	0.15*
2800 Lumens 97 CRI (L28A)	0.76*	0.15*
3000 Lumens 97 CRI (L30A)	0.85*	0.15*
1700 Lumens 90 CRI (L17H)	0.46*	0.17*
2300 Lumens 90 CRI (L23H)	0.63*	0.17*
3100 Lumens 90 CRI (L31H)	0.85*	0.17*
3400 Lumens 90CRI (L34H)	0.94*	0.17*
1900 Lumens 80 CRI (L19S)	0.54*	0.2*
2700 Lumens 80 CRI (L27S)	0.75*	0.2*
3600 Lumens 80 CRI (L36S)	1	0.2*
4000 Lumens 80 CRI (L40S)	1.1*	0.2*

*estimated values

STANDARD DRIVER INFORMATION

(UL Class 2, dry and damp location)

Voltage	120	277
Input Watts (L15A/L21A/L28A/L30A/L17H/L23H/ L31H/L34H/L19S/L27S/L36S/L40S lumens)	16/21/30/34	16/21/30/34
Input Current (A) (L15A/L21A/L28A/L30A/L17H/L23H/ L31H/L34H/L19S/L27S/L36S/L40S lumens)	.13/.18/.25/.28	.06/.08/.11/.12
Output Current (mA)	350-1100	350-1100
Min. Power Factor	>0.9	>0.9
Operating Temperature Range (F)	-4 to 122	-4 to 122

REFLECTOR COLOR MULTIPLIERS

Semi-specular clear (C)	1
Slightly diffuse clear (V)	.95
Fully diffuse clear (EC)	.88
Champagne gold clear (G)	.95
Black (B)	.49

LED CCT MULTIPLIERS

2700K	.96
3000K	1
3500K	1.02
4000K	1.03
5000K	1.04