

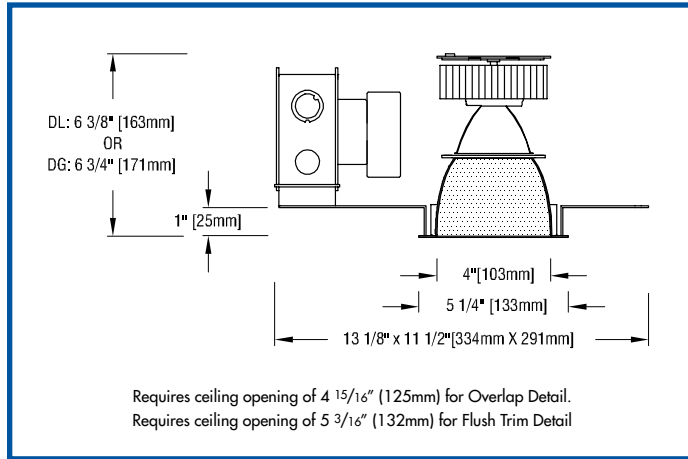


MADE IN USA

[Click Here](#)

FOUR HI TUNE DL

recessed tunable white downlight



- Luminaire includes a Bridgelux Vesta Tunable White COB LED and may be controlled by one of a number of protocols; see 'Control Options' box on this page. Tunable parameters include:
 - on / off
 - CCT range of 2700K to 6500K
 - dimming 100% to 0.1% at constant CCT
- Luminaire employ an internal 'twist and lock' reflector to produce an internal beam spread of 15°, 31°, 40° or 56°. To allow beam spread to be changed after installation, internal reflectors are also available as accessories.
- An optional lens 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.
- 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. (Note: This diffuser is available with the downlight model of the Mood Master BTS/4 only.)
- 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 or black Alzak®. Other finishes available on special order. A LightPlate trim may be used instead of an external reflector.
- 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 and is RoHS compliant. Luminaire is prewired with thermal protector, approved for eight #12 wire 90° branch circuit pull-through wiring, and suitable for use in a fire rated ceiling. Removal of the reflector allows access to the junction box.



Four Hi Tune DL is a 4" aperture, tunable white downlight powered by a Bridgelux® Vesta chip-on-board LED module that produces 90+CRI white light between 2700K and 6500K. See tables below for wattages and efficacies.

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-BTS-DL-4
with lens holder; 6 3/4" depth	FH-BTS-DG-4

Internal Reflector	
15° initial beam spread	15D
31° initial beam spread	31D
40° initial beam spread	40D
56° initial beam spread	56D

Light Source Output	
1300 lumens / 90+ CRI	L13
1800 lumens / 90+ CRI	L18
2300 lumens / 90+ CRI	L23

Control Options	
EldoLED 2-channel 0-10V driver, pre-set in logarithmic control curve, dims to 0.1% using two 0-10V dimmers (one dims, one controls CCT)	DVOELG
EldoLED 2-channel 0-10V driver, pre-set in linear control curve, dims to 0.1% using two 0-10V dimmers (one dims, one controls CCT)	DVOELN
EldoLED 2-channel DALI driver, dims to 0.1% and controls CCT by DALI control devices	DAO-EL
Dim to 0.1% and control CCT with Casambi App on iOS or Android device, downloadable from Apple App Store or Google Play Store	BEO-CB

Voltage	
120 volt service	120
277 volt service	277

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
White	WOL	WTF
Black	BOL	BTF
Other reflector finishes available on special order.		
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.		
A LightPlate may be ordered instead of a standard reflector above (see next page).		
LightPlate Downlight Spot, white	DP-OL	DP-TF
Custom painted trims for LightPlate are available on special order. Add -CC		

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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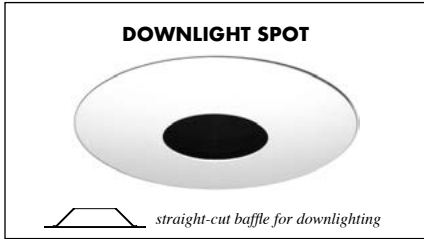
EXTRA REFLECTORS Specify as separate line items.

15° initial beam spread	CZS-REF15
31° initial beam spread	CZS-REF31
40° initial beam spread	CZS-REF40
56° initial beam spread	CZS-REF56

OPTICAL ACCESSORIES ▼ See next page



LIGHTPLATE LightPlate may be used instead of standard reflectors.



OPTICAL ACCESSORIES Specify as separate line

For use only with the "lens holder" fixture model; see Product Code / Basic Unit above.
All are 3 3/4" (95mm) diameter. Lenses and filters are glass; screens are aluminum.

prismatic lens (Solite) included with DG option.....	PLS/3.75	color filters	surprise pink	PNK/3.75
55° spread lens	LENS/3.75	daylight blue.....	DAY/3.75	
40° x 70° spread lens	LENS/3.75-4070	amber	AMB/3.75	
33% light reduction screen	SCR33/3.75	blue	BLU/3.75	
50% light reduction screen	SCR50/3.75	green	GRN/3.75	
		red	RED/3.75	

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

Voltage	120	277
Input Watts (L23/L18/L13 Lumens)	29/22/16	29/22/16
Input Current (L23/L18/L13 Lumens)	.24/.18/.13	.10/.08/.06
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

COLOR TEMPERATURE MULTIPLIER (CCT)

Color Temperature	Multiplier
2700K	0.85
3000K	0.89
3500K	0.96
4000K	1
5000K	1.02
5700K	1.01
6000K	1
6500K	1

LIGHT OUTPUT MULTIPLIER

(Based on 4000 lumens LED)

LED Light Engine	Light Output Multiplier
L23 (2300 lumens 90 CRI)	1
L18 (1800 lumens 90 CRI)	0.8*
L13 (1300 lumens 90 CRI)	0.58*

*estimated values

PHOTOMETRIC REPORT with 15° reflector (TESTED PER IESNA LM-79-2008)

UL Verification Services Report No. 13133717.05. Original test report furnished upon request.

Luminairerecessed LED round downlight with 15° beam spread integral reflector, 5D frosted diffuser and semi-specular clear aluminum reflector

LampBRIDGELUX TW 13mm COB LED, 2300 lumens (tested at 4000K CCT).

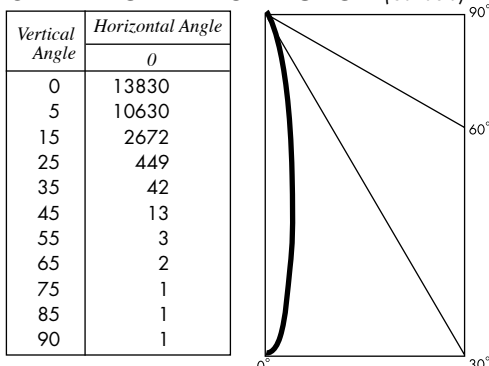
Lamp Liferated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request.

Spacing Criteria ..0.3

LUMINANCE DATA

Vertical Angle	Candelalm ²
45	2341
55	565
65	545
75	610
85	0

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(Based on 4000K CCT)

LED Light Engine	Luminaire Light Output	Luminaire CBCP	Luminaire Efficacy (lms/watt)	System Wattage
2300 lumens 90 CRI	1882	13827	65	29
1800 lumens 90 CRI	1506*	11062*	68*	22
1300 lumens 90 CRI	1092*	8020*	68*	16

*estimated values

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	1865	99.1
0 - 60°	1878	99.8
0 - 90°	1882	100.0
90 - 180°	0	0

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

UL Verification Services Report No. 13133717.06. Original test report furnished upon request.

Luminairerecessed LED round downlight with 31° beam spread integral reflector, 15D frosted diffuser and semi-specular clear aluminum reflector

LampBRIDGELUX TW 13mm COB LED, 2300 lumens (tested at 4000K CCT).

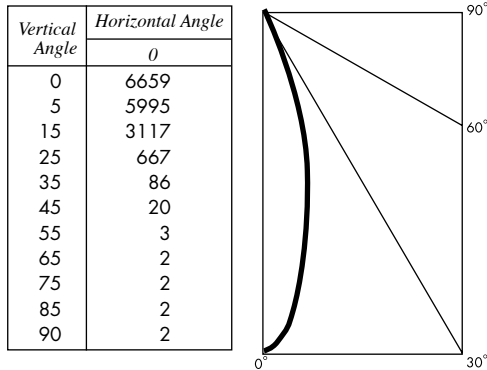
Lamp Liferated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request.

Spacing Criteria ..0.48

LUMINANCE DATA

Vertical Angle	Candelalm ²
45	3398
55	693
65	687
75	914
85	0

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(Based on 4000K CCT)

LED Light Engine	Luminaire Light Output	Luminaire CBCP	Luminaire Efficacy (lms/watt)	System Wattage
2300 lumens 90 CRI	1783	6659	61	29
1800 lumens 90 CRI	1426*	5327*	65*	22
1300 lumens 90 CRI	1034*	3862*	65*	16

*estimated values

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	1758	98.6
0 - 60°	1777	99.7
0 - 90°	1783	100.0
90 - 180°	0	0

PHOTOMETRIC REPORT with 40° reflector (TESTED PER IESNA LM-79-2008)

UL Verification Services Report No. 13133717.07. Original test report furnished upon request.

Luminairerecessed LED round downlight with 40° beam spread integral reflector, 30D frosted diffuser and semi-specular clear aluminum reflector

LampBRIDGELUX TW 13mm COB LED, 2300 lumens (tested at 4000K CCT).

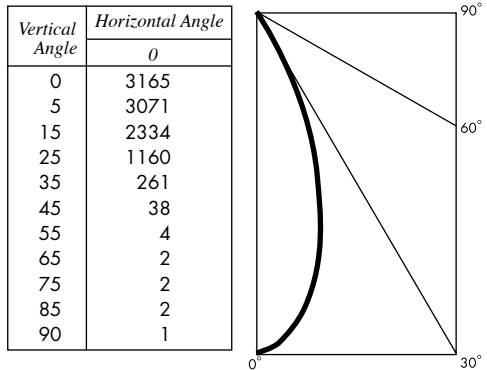
Lamp Liferated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request.

Spacing Criteria ..0.72

LUMINANCE DATA

Vertical Angle	Candelalm ²
45	6545
55	782
65	646
75	801
85	0

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(Based on 4000K CCT)

LED Light Engine	Luminaire Light Output	Luminaire CBCP	Luminaire Efficacy (lms/watt)	System Wattage
2300 lumens 90 CRI	1674	3165	58	29
1800 lumens 90 CRI	1339*	2532*	61	22
1300 lumens 90 CRI	971*	1836*	61	16

*estimated values

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	1631	97.5
0 - 60°	1669	99.7
0 - 90°	1674	100
90 - 180°	0	0

PHOTOMETRIC REPORT with 56° reflector (TESTED PER IESNA LM-79-2008)

UL Verification Services Report No. 13133717.08. Original test report furnished upon request.

Luminairerecessed LED round downlight with 56° beam spread integral reflector, 80D frosted diffuser and semi-specular clear aluminum reflector

LampBRIDGELUX TW 13mm COB LED, 2300 lumens (tested at 4000K CCT).

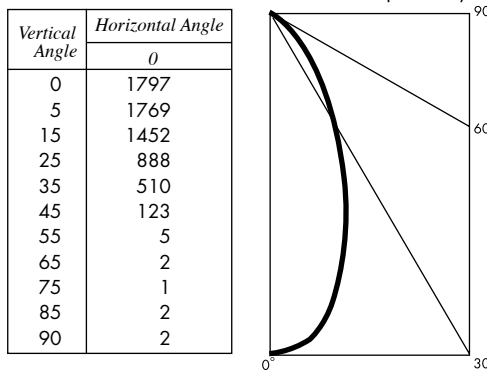
Lamp Liferated 50,000 hours based on L70/B50 criteria. LM80 report by LED manufacturer furnished upon request.

Spacing Criteria ..0.78

LUMINANCE DATA

Vertical Angle	Candelalm ²
45	21390
55	1161
65	524
75	678
85	0

CANDLEPOWER DISTRIBUTION (Candela)



LUMINAIRE LIGHT OUTPUT AND EFFICACY

(Based on 4000K CCT)

LED Light Engine	Luminaire Light Output	Luminaire CBCP	Luminaire Efficacy (lms/watt)	System Wattage
2300 lumens 90 CRI	1406	1797	48	29
1800 lumens 90 CRI	1125*	1438*	51	22
1300 lumens 90 CRI	815*	1042*	51	16

*estimated values

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0 - 40°	1288	91.6
0 - 60°	1401	99.6
0 - 90°	1406	100
90 - 180°	0	0