

# Concerto LED - LD3B

## 3-1/2" Series

### Low Profile Square Adjustable Trim

#### DESCRIPTION

The adjustable round or square trims, will provide a maximum accent lighting that will be useful in various applications such as the library, kitchen, corridor, etc...

#### SPECIFICATIONS

COLOR TEMPERATURE	2,700K, 3,000K, 3,500K and 4,000K
CRI	80 + 90 + (only at 3,000K)
POWER SUPPLY	Several driver models available giving you 3 dimming options: ELV, 0-10V or Pulse Width Modulation (PWM).

LED MODULE	Bridgelux Vero 18, delivers a lumen maintenance greater than 70% after 50,000 hours of operation ( $L_{70}$ ). Provides a high quality true color and a clean white light without hot spots. Binning within 3 steps on MacAdam ellipse. Surpass ANSI binning requirements.
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DELIVERED LUMENS (Determined by the choice of housing)	<b>Performance 1:</b> 1,100 lumens, 70 lm/W <b>Performance 2:</b> 1,575 lumens, 68 lm/W
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TRIM	Powder coated paint or plated die-formed steel. Different finishes available. Painted finishes available with Marine Grade option.
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OPTIC SYSTEM	Interchangeable optional optical reflectors and lenses available to personalize your lighting. Protection lens covered with a high-performance film 98% effective. Lens of 1/8" (3 mm) thick and 1.9" (49 mm) Ø.
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**Choice of available lenses:**  
Clear (C), Frosted (F), Honeycombs (H), Linear (L), Prismatic (P) and Solite (S)

**Optical reflectors available:**  
**M:** Narrow Flood → 27°      **W:** Flood → 47°

ADJUSTABILITY	Swivel: 360° 30° tilt and with locking position. Choose aiming angle then tighten screws to lock into position.
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HEAT SINK	High quality injected aluminum heat sink ensuring maximum heat dissipation.
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CEILING CUTOUT	Ø 3-5/8" (92 mm)
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COMPATIBLE HOUSINGS	Remodel Housing	New Construction Housing	Insulated Housing	
(Performance 2 trims work with either performance 1 and 2 housings.)	<b>Performance 1</b> (1,500 lumens)	RELD300LE1 RELD300LD1 RELD300LA1	NWLD300LE1 NWLD300LD1 NWLD300LA1	ISLD300LE1 ISLD300LD1 ISLD300LA1
	<b>Performance 2</b> (2,000 lumens)	RELD300LE2 RELD300LD2 RELD300LA2	NWLD300LE2 NWLD300LD2 NWLD300LA2	Not available

For dimming, please refer to the selected housing specification sheet.

CERTIFICATION	• cULus E343977 for damp locations
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WARRANTY	1 year for standard finishes, 2 years on "Marine Grade" finish and 5 years on LED module.
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Project \_\_\_\_\_

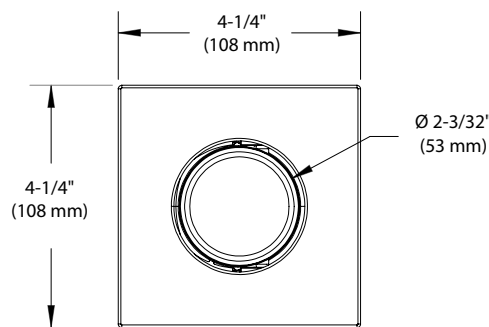
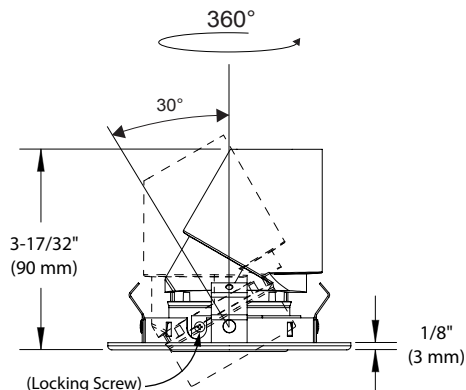
Notes \_\_\_\_\_

Fixture Type \_\_\_\_\_

Date \_\_\_\_\_



LD3BC-12BR (illustrated)



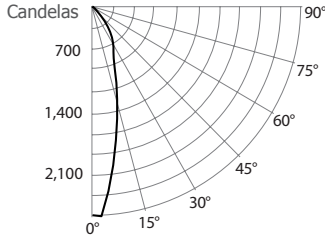
# Concerto LED - LD3B

3-1/2" Series

## PHOTOMETRIC DATA

### 3,000K, 80 + of CRI, Narrow Flood with performance 1 housing

#### CANDLEPOWER DISTRIBUTION



#### LIGHT CONE

Distance	FC	DIA
06'	68.2	3.0'
08'	38.4	4.0'
10'	24.6	5.0'
12'	17.1	5.9'
14'	12.5	6.9'
16'	9.6	7.9'

Beam: 28°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

#### LUMINAIRE

Performance 1 LED	3,000K	Narrow Flood
CBCP / Lumens	2,456	/ 1,094
Watts	120V	277V
	16.16W	16.66W
Operating AMPS	0.13A	0.060A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	80 +	
Lumens/Watt	67.5	
Spacing Criteria	0.5	
Certificate LM79-08	Based on test 475821	

#### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	103	101	99	98	96
	4	96	91	93	89	91	88
	6	87	82	85	81	83	80
	8	78	74	77	73	76	72
	10	71	66	70	66	69	65

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	779	71.24%
0-40	1,004	91.76%
0-60	1,089	99.59%
60-90	4	0.41%
0-90	1,094	100%

#### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	53	0.72
6'	30	0.4
7'	21	0.28
8'	21	0.28
9'	13	0.17

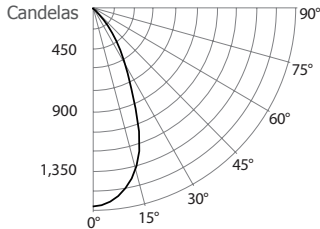
Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).  
Reflection factor of 80%/50%/30%.

#### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	2,456	45	97
5	2,186	55	4
10	1,600	65	2
15	1,130	75	2
20	773	85	0
25	589	90	0
35	367		

### 3,000K, 80 + of CRI, Flood with performance 1 housing

#### CANDLEPOWER DISTRIBUTION



#### LIGHT CONE

Distance	FC	DIA
06'	43.3	5.3'
08'	24.3	7.0'
10'	15.6	8.8'
12'	10.8	10.5'
14'	7.9	12.3'
16'	6.1	14.1'

Beam: 47°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

#### LUMINAIRE

Performance 1 LED	3,000K	Flood
CBCP / Lumens	1,558	/ 1,088
Watts	120V	277V
	15.53W	16.03W
Operating AMPS	0.19A	0.058A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	80 +	
Lumens/Watt	70.2	
Spacing Criteria	0.7	
Certificate LM79-08	Based on test 475823	

#### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	103	101	99	99	97
	4	97	92	93	90	92	89
	6	88	83	86	82	84	81
	8	80	75	78	74	77	74
	10	73	68	71	67	71	67

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	822	75.4%
0-40	1,020	93.7%
0-60	1,085	99.6%
60-90	4	0.4%
0-90	1,088	100%

#### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	53	0.69
6'	30	0.39
7'	21	0.27
8'	21	0.27
9'	13	0.17

Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).  
Reflection factor of 80%/50%/30%.

#### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	1,558	45	73
5	1,527	55	3
10	1,438	65	3
15	1,287	75	1
20	1,032	85	0
25	698	90	0
35	318		



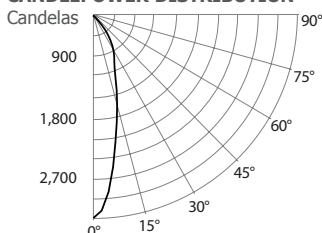
# Concerto LED - LD3B

3-1/2" Series

## PHOTOMETRIC DATA

### 3,000K, 80 + of CRI, Narrow Flood with performance 2 housing

#### CANDLEPOWER DISTRIBUTION



#### LIGHT CONE

Distance	FC	DIA
06'	88.9	2.9'
08'	50.0	3.9'
10'	32.0	4.9'
12'	22.2	5.8'
14'	16.3	6.8'
16'	12.5	7.8'

Beam: 27°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

#### LUMINAIRE

Performance 2 LED	3,000K	Narrow Flood
CBCP / Lumens	3,200	/ 1,435
Watts	120V	277V
	23.2W	23.7W
Operating AMPS	0.13A	0.060A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	80 +	
Lumens/Watt	61.8	
Spacing Criteria	0.4	
Certificate LM79-08	Based on test 606976	

#### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	103	101	99	98	96
	4	96	91	92	89	90	87
	6	87	81	84	80	83	79
	8	78	73	76	72	76	72
	10	71	66	69	65	69	65

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,015	70.72%
0-40	1,309	91.23%
0-60	1,427	99.49%
60-90	7	0.51%
0-90	1,435	100%

#### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	69	1.03
6'	39	0.58
7'	27	0.4
8'	27	0.4
9'	17	0.26

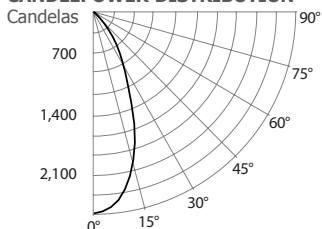
Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).  
Reflection factor of 80%/50%/30%.

#### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	3,200	45	133
5	2,801	55	8
10	2,030	65	3
15	1,462	75	3
20	1,025	85	0
25	789	90	0
35	480		

### 3,000K, 80 + of CRI, Flood with performance 2 housing

#### CANDLEPOWER DISTRIBUTION



#### LIGHT CONE

Distance	FC	DIA
06'	66.3	4.9'
08'	37.3	6.5'
10'	23.9	8.2'
12'	16.6	9.8'
14'	12.2	11.5'
16'	9.3	13.1'

Beam: 45°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

#### LUMINAIRE

Performance 2 LED	3,000K	Flood
CBCP / Lumens	2,387	/ 1,569
Watts	120V	277V
	23.15W	23.65W
Operating AMPS	0.19A	0.085A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	80 +	
Lumens/Watt	67.9	
Spacing Criteria	0.7	
Certificate LM79-08	Based on test 606978	

#### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	103	101	99	99	97
	4	96	92	93	90	91	88
	6	88	83	85	82	84	81
	8	79	75	78	74	77	73
	10	72	67	71	67	70	66

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,168	74.42%
0-40	1,462	93.15%
0-60	1,562	99.55%
60-90	7	0.45%
0-90	1,569	100%

#### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	76	1.02
6'	43	0.58
7'	30	0.4
8'	30	0.4
9'	19	0.26

Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).  
Reflection factor of 80%/50%/30%.

#### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	2,387	45	114
5	2,324	55	6
10	2,138	65	4
15	1,818	75	2
20	1,411	85	0
25	968	90	0
35	476		



# Concerto LED - LD3B

## 3-1/2" Series

### LD3B MODEL PHOTOMETRIC DATA

#### With performance 1 housing

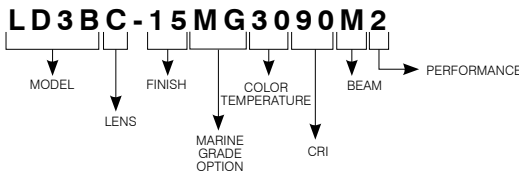
	Narrow Flood		Flood	
<b>2,700K with 80 CRI</b>	1,106 Lms	70.9 lm/W	1,000 Lms	63.7 lm/W
<b>3,000K with 90 CRI</b>	933 Lms	59 lm/W	862.2 Lms	54.3 lm/W
<b>3,500K with 80 CRI</b>	1,239 Lms	79 lm/W	1,153 Lms	73.4 lm/W
<b>4,000K with 80 CRI</b>	1,189 Lms	75.2 lm/W	1,256 Lms	79.5 lm/W

#### With performance 2 housing

	Narrow Flood		Flood	
<b>2,700K with 80 CRI</b>	1,780 Lms	82.8 lm/W	1,610 Lms	71.2 lm/W
<b>3,000K with 90 CRI</b>	1,230 Lms	54.7 lm/W	1,287 Lms	56.9 lm/W
<b>3,500K with 80 CRI</b>	1,625 Lms	75.6 lm/W	1,662 Lms	77.3 lm/W
<b>4,000K with 80 CRI</b>	1,603 Lms	70.6 lm/W	1,739 Lms	76.3 lm/W

\* All .ies files are available on our Website.

### CODIFICATION EXAMPLE



### ORDERING CODE

MODEL	LENS	FINISH	MARINE GRADE	COLOR TEMPERATURE	CRI	BEAM	PERFORMANCE
<b>LD3B</b>							<b>2</b>
<b>LD3B</b>	<b>C</b> Clear	<b>-01</b> White	<b>MG (optional)</b>	<b>27</b> 2,700K	<b>80</b> 80+ CRI	<b>M</b> Narrow Flood (27°)	Use with Performance 1 (1,500 lumens) or Performance 2 (2,000 lumens) Housings
	<b>F</b> Frosted	<b>-02</b> Black	May be applied on finishes: -01, -02,	<b>30</b> 3,000K	<b>90</b> 90+ CRI	<b>W</b> Flood (47°)	
	<b>H</b> Honeycombs	<b>-03</b> Gold Plated 24K	-05, -06, -11 and	<b>35</b> 3,500K	(only with 3,000K)		
	<b>L</b> Linear	<b>-04</b> Chrome	-15.	<b>40</b> 4,000K			
	<b>P</b> Prismatic	<b>-04BR</b> Brushed Chrome					
	<b>S</b> Solite	<b>-05</b> Architectural Bronze					
		<b>-06</b> Antique Copper					
		<b>-11</b> Matte White					
		<b>-12BR</b> Brushed Nickel					
		<b>-13</b> Satin Nickel					
		<b>-15</b> Metallic Grey					
		<b>-17</b> Antique Nickel					

For future on site modification of the light distribution.

#### Ordering codes: replacement lenses.

##### Lenses (to modify light diffusion)

Linear: **103092** Honeycombs: **103089**  
 Solite: **103098** Frosted: **316228**  
 Prismatic: **103095** Clear: **103584**

##### Reflectors (to modify the beam angle)

For a Narrow Flood: **316082**  
 For a Flood: **316211**

**MARINE GRADE** - Unless otherwise indicated, trims are for interior, cold and exterior locations where fixtures are not subject to direct rain or snow exposure as in soffits. **MARINE GRADE** treatment is recommended for exterior, shower and high salinity environment.

