

NC2-831 / NC2-836 / NC2-838

8" Sapphire II LED Reflectors

Source: 15W to 60W LED
900lm to 4500lm

PRODUCT DESCRIPTION

The Sapphire II COB Series is an architectural grade LED high lumen downlight. The Sapphire II uses the latest COB technology by Cree®. The COB allows for better optic control offering 3 beam spreads. Beam spreads focus the light down to the work plane from high ceiling applications. The reflectors have been designed for the high efficiency (LPW) while providing low aperture brightness. The Sapphire II COB Series is proudly assembled in the USA.

FEATURES

- Cree® COB technology
- Shatter resistant lens
- Specifiable beam spreads
- 8" deep cone reflectors, wall wash and deco glass
- 900lm, 1500lm, 2500lm, 3500lm and 4500lm LED packages
- 2700K, 3000K, 3500K and 4000K @ 90+ CRI
- 5-year limited warranty
- ENERGY STAR certified
- cULus Listed for Wet Locations

ELECTRICAL

Lumens / Wattage: L09 = 900lm / 15W; L15 = 1500lm / 18W; L25 = 2500lm / 30W; L35 = 3500lm / 46W; L45 = 4500lm / 60W

Color Temperature 2700K, 3000K, 3500K, 4000K

CRI: 90+ CRI

Beam Spread: (S) 43° Spot, (M) 65° Narrow Flood, (F) 83° Flood

Operating Temp.: 0°C to 45°C ambient temperature

Lifetime: 60,000 hours @ L70

COMPATIBLE FRAME-INS

Reflector is only compatible with respective Sapphire II series frames manufactured by Nora Lighting.

CATALOG NO. DESCRIPTION

NCAH2-830 8" Universal New Construction Frame-In

NCHR2-834 8" Remodel Frame-In

SPECIFICATION

Reflector: Deep cone self flanged reflector spun from 0.050 high grade aluminum provides even illumination and visual comfort. The deep cone reflectors provide 55+ degree cut-off. NC2-838 includes 3 studs mounted in the flange for attaching decorative glass. Decorative glass will reduce the amount of usable light by 10 to 30%, depending on the selected glass.

Reflector Assembly: The reflector assembly includes the LED optical package and heat sink mounted on top. Reflector assembly easily wires to dedicated frame with lockable quick connect.

Emergency: NC2-831 is compatible with integral emergency test switch, must specify.

LABELS AND LISTINGS

- cULus Listed for Wet Location when used with compatible frame-in
- ENERGY STAR certified
- 5-Year Limited Warranty
- RoHS Compliant



Type

Project

Catalog No.

Notes

PRODUCT IMAGES & DIMENSIONS



8" Sapphire II LED Reflectors - Dedicated Frame-In Required

Trim Type	Lumen / Wattage	Color Temp.	Beam Spread	Reflector / Flange Finish	Emergency
NC2-831 = Open Reflector	L09 = 900lm / 15W	27 = 2700K	S = Spot	BSF = Black / Self Flanged	EMI = Integral emergency test switch (Compatible with NC2-831 only, must specify on frame-in)
NC2-836 = Wall Wash ¹	L15 = 1500lm / 18W	30 = 3000K	M = Narrow Flood	BWSF = Black / White	
NC2-838 = Deco Glass ^{*,1}	L25 = 2500lm / 30W	35 = 3500K	F = Flood	DSF = Clear Diffused / Self Flanged	
	L35 = 3500lm / 46W	40 = 4000K		DWSF = Clear Diffused / White	
	L45 = 4500lm / 60W			HSF = Haze / Self Flanged	
				HWSF = Haze / White	
				WSF = White / Self Flanged	

* Deco Glass Option

NTG-8B/167	Tempered Blue Glass with 6-5/8" Open Center
NTG-8B/80	Tempered Blue Glass with 3-1/8" Open Center
NTG-8CF	Tempered Clear Glass with Frosted Center
NTG-8FC	Tempered Frosted Glass with Clear Center
NTG-8HC	Tempered Clear Glass with Frosted Center and 3-1/8" Open Center

Example: NC2-831L2530WSF = 8" Sapphire II Open Reflector, 2500lm / 30W LED, 3000K, White / Self Flange Finish

NCAH2-830

8" Sapphire II New Construction Frame-In

Source: 15W to 60W LED
900lm to 4500lm

Type

Project

Catalog No.

Notes

PRODUCT DESCRIPTION

Architectural grade LED High Lumen Downlights featuring deep cone reflectors. Dimmable Cree® LEDs and Cree® LED drivers make for a solid, complete and tested package. The Sapphire series is available in 4", 6" or 8" sizes and also in new construction or remodel frame-ins.

CONSTRUCTION

Plaster Frame: Architectural quality 0.050 galvanized steel ring riveted to 0.064 steel junction box and driver tray. Plaster frame opening includes (3) "butterfly" spring clips to hold reflector assembly in place.

Mounting: Frame-in includes two adjustable bar hangers and universal brackets that accept flat bar hangers, C-Channel (ordered separately) or rigid 1/2" conduit. Adjustable hanger bars with captive nails, alignment foot, T-Bar slot are included on frame. Frame-in includes an adjustable deep ceiling collar that accommodates ceiling thickness from 1/2" to 2".

Minimum Clearances: Frames require a minimum of 3" from thermal insulation and 1/2" from adjacent building component.

Junction Box: Plaster frame integrated 29 cubic inch 0.064" thick galvanized steel, with seven 1/2" knockouts, four pryouts, and snap on cover. Electrical connections are made through a single junction box door. Green wire provided for installations with ground wire fed through PVC pipe conduit. Junction box connects to reflector assembly with lockable quick connect.

Thermal Protector: LE3: External thermal device is located on the junction box; LE6: Thermally protected driver

Driver: Isolated driver separates the primary side from the secondary side.

ELECTRICAL

Input Voltage: 120V or 120-277V

Operating Temp.: 0°C to 45°C ambient temperature

Lumens / Wattage: L09 = 900lm / 15W; L15 = 1500lm / 18W; L25 = 2500lm / 30W; L35 = 3500lm / 46W; L45 = 4500lm / 60W

Dimming: Triac, ELV or 0-10V dimming

[Click Here](#) or check complete dimmer list at www.NoraLighting.com in the "Compatibility" page under "Resources" tab

COMPATIBLE REFLECTORS

CATALOG NO.	DESCRIPTION
NC2-831	8" Open Reflector
NC2-836	8" Wall Wash Reflector
NC2-838	8" Decorative Glass Reflector

Emergency LED Driver

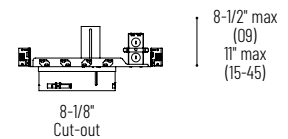
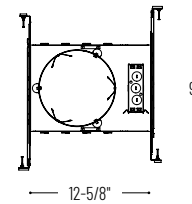
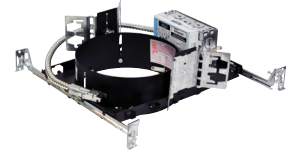
- Up to 7.5W emergency illumination with LEDs.
- Illumination Time: 90min
- Voltage: 120/277 VAC, 60Hz
- Output Voltage: 15.0-50.0 VDC
- Available with remote or integral test switch, must specify

LABELS AND LISTINGS

- cULus Listed for Damp Location (Wet Location when used with compatible reflector)
- [5-Year Limited Warranty](#)
- RoHS Compliant
- Emergency LED Driver meets Title 20 CEC efficiency standards



PRODUCT IMAGES AND DIMENSIONS



8" Sapphire II New Construction Frame-In - Compatible with Sapphire II Reflectors

Lumens / Wattage	Driver	Optional Emergency
NCAH2-830/09 = 900lm / 15W	LE3 = 120V Input; Triac/ELV/0-10V dimming	EM = Emergency Pack w/ Remote Test Switch
NCAH2-830/15 = 1500lm / 18W	LE6 = 120-277V Input; 0-10V dimming	EMI = Emergency Pack w/ Integral Test Switch, must specify on reflector
NCAH2-830/25 = 2500lm / 30W		
NCAH2-830/35 = 3500lm / 46W		
NCAH2-830/45 = 4500lm / 60W		

Example: **NCAH2-830/15LE6EM** = 8" Sapphire II Universal New Construction Frame-In, 1500lm / 18W, 120-277V Input, Emergency with Remote Test Switch

NCHR2-834

8" Sapphire II Remodel Frame-In

Source: 15W to 60W LED
900lm to 4500lm

Type

Project

Catalog No.

Notes

PRODUCT DESCRIPTION

The Sapphire II COB Series is an architectural grade LED high lumen downlight. The Sapphire II uses the latest COB technology by Cree®. The COB allows for better optic control offering 3 beam spreads. Beam spreads focus the light down to the work plane from high ceiling applications.

CONSTRUCTION

Plaster Frame: Architectural quality 0.050 galvanized steel ring riveted to 0.064 steel junction box and driver tray. Remodel frame opening includes (3) "butterfly" spring clips to hold reflector assembly in place.

Mounting: Designed for installation in existing ceilings. Three high tension tempered steel springs secure remodel housings evenly to the ceiling; hole cutout template provided for convenience. Remodel frame-in accommodates ceiling thickness from 1/2" to 1-1/4".

Minimum Clearances: Frames require a minimum of 3" from thermal insulation and 1/2" from adjacent building component.

Junction Box: Plaster frame integrated 29 cubic inch 0.064" thick galvanized steel, with seven 1/2" knockouts, four pryouts, and snap on cover. Electrical connections are made through a single junction box door. Green wire provided for installations with ground wire fed through PVC pipe conduit. Junction box connects to reflector assembly with lockable quick connect.

Thermal Protector: LE3: External thermal device is located on the junction box; LE6: Thermally protected driver

Driver: Isolated driver separates the primary side from the secondary side.

ELECTRICAL

Input Voltage: 120V or 120-277V

Lumens / Wattage: L09 = 900lm / 15W; L15 = 1500lm / 18W; L25 = 2500lm / 30W; L35 = 3500lm / 46W; L45 = 4500lm / 60W

Operating Temp.: 0°C to 45°C ambient temperature

Dimming: Triac, ELV or 0-10V dimming

[Click Here](#) or check complete dimmer list at www.NoraLighting.com in the "Compatibility" page under "Resources" tab

COMPATIBLE REFLECTORS

CATALOG NO.	DESCRIPTION
NC2-831	8" Open Reflector
NC2-836	8" Wall Wash Reflector
NC2-838	8" Decorative Glass Reflector

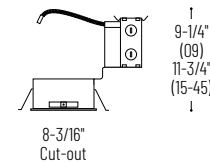
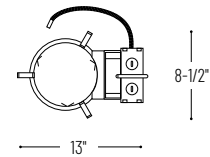
Emergency: Housing can be specified with connections for emergency battery installation. Requires top access. Must specify battery with remote test switch separately, NEPK-07LEDUNV.

LABELS AND LISTINGS

- cULus Listed for Damp Location (Wet Location when used with compatible reflector)
- [5-Year Limited Warranty](#)
- RoHS Compliant
- Emergency LED Driver meets Title 20 CEC efficiency standards



PRODUCT IMAGES AND DIMENSIONS



8" Sapphire II Remodel Frame-In - Compatible with Sapphire II Reflectors

Lumens / Wattage	Driver
NCHR2-834/09 = 900lm / 15W	LE3 = 120V Input; Triac/ELV/0-10V dimming
NCHR2-834/15 = 1500lm / 18W	LE6 = 120-277V Input; 0-10V dimming
NCHR2-834/25 = 2500lm / 30W	
NCHR2-834/35 = 3500lm / 46W	
NCHR2-834/45 = 4500lm / 60W	

Optional Accessories

Description
NEPK-07LEDUNV = Remote Emergency Battery w/Test Switch

Example: **NCHR2-834/15LE6** = 8" Sapphire II Remodel Frame-In, 1500lm / 18W, 120-277V Input

PHOTOMETRICS

8" Sapphire II Series

Type

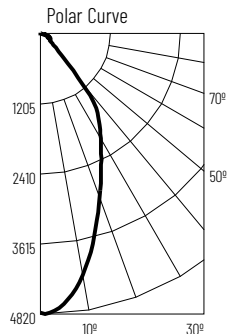
Project

Catalog No.

Notes

Test Information

Test Number: 727461
Part Number: NC2-831L4540SWSF
Lumens: 4630lm
Wattage: 56.3W
Efficacy: 82lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180): 0.76
Spacing Criteria (90°-270): 0.76



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	135fc	5'-11"
9'	60fc	8'-10"
12'	33.8fc	11'-8"
15'	21.6fc	14'-8"
18'	15fc	17'-7"

Zonal Lumen Summary

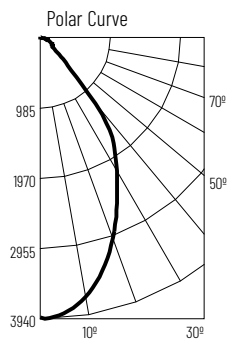
Zone	Lumens	% Luminaire
0-30	2573	55.6
0-40	3642	78.7
0-60	4298	92.8
0-90	4598	99.3
90-180	32	0.7
0-180	4630	100

Candela Table

Vertical Angles	Candela
0	4800
5	4667
15	3600
25	2485
35	1749
45	515

Test Information

Test Number: 727477
Part Number: NC2-831L4540MWSF
Lumens: 4596lm
Wattage: 56W
Efficacy: 82lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180): 0.92
Spacing Criteria (90°-270): 0.92



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	109fc	7'-8"
9'	48.4fc	11'-7"
12'	27.2fc	15'-5"
15'	17.4fc	19'-4"
18'	12.1fc	23'-1"

Zonal Lumen Summary

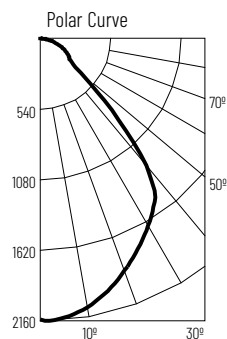
Zone	Lumens	% Luminaire
0-30	2475	53.8
0-40	3571	77.7
0-60	4266	92.8
0-90	4565	99.3
90-180	31	0.7
0-180	4596	100

Candela Table

Vertical Angles	Candela
0	3819
5	3864
15	3377
25	2555
35	1804
45	567

Test Information

Test Number: 727489
Part Number: NC2-831L4540FSWF
Lumens: 3762lm
Wattage: 56.2W
Efficacy: 67lpw
CCT / CRI: 4000K / 90 CRI
Spacing Criteria (0°-180): 1.16
Spacing Criteria (90°-270): 1.16



Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	59.7fc	10'-10"
9'	26.5fc	16'-2"
12'	14.9fc	21'-7"
15'	9.6fc	26'-11"
18'	6.6fc	32'-4"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1577	41.9
0-40	2514	66.8
0-60	3384	90
0-90	3737	99.3
90-180	25.2	0.7
0-180	3762	100

Candela Table

Vertical Angles	Candela
0	2150
5	2134
15	1991
25	1765
35	1521
45	786

Lumen Output Multipliers

Color Temperature: 2700K (0.87), 3000K (0.91), 3500K (0.96), 4000K (1.00)
Lumen Package: L09 (0.25), L15 (0.33), L25 (0.54), L35 (0.85), L45 (1.00)