

NC2-631 / NC2-636 / NC2-638

6" Sapphire II LED Reflectors

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. 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
- 6" 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
- cULus listed for wet locations
- ENERGY STAR certified

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) 44° Spot, (M) 64° Narrow Flood, (F) 71° 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
NCAH2-630	6" Universal New Construction Frame-In
NCHR2-634	6" 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. NC2-638 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: NC2-631 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



PRODUCT IMAGES & DIMENSIONS



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

Reflector Type	Lumens / Wattage	Color Temp.	Beam Spread	Reflector / Flange Finish	Optional Emergency
NC2-631 = Open Reflector	L09 = 900lm / 15W	27 = 2700K	S = Spot	BSF = Black / Self Flanged	EMI = Integral emergency test switch (Compatible with NC2-631 only, must specify on frame-in)
NC2-636 = Wall Wash ¹	L15 = 1500lm / 18W	30 = 3000K	M = Narrow Flood	BWSF = Black / White Flange	
NC2-638 = Deco Glass ¹	L25 = 2500lm / 30W	35 = 3500K	F = Flood	DBSF = Clear Diffused / Black Flange	
	L35 = 3500lm / 46W	40 = 4000K		DSF = Clear Diffused / Self Flanged	
	L45 = 4500lm / 60W			DWSF = Clear Diffused / White Flange	
				HBSF = Haze / Black Flange	
				HSF = Haze / Self Flanged	
				HWSF = Haze / White Flange	
				WSF = White / Self Flanged	

*** Deco Glass Option**

NTG-6B/120	Tempered Blue Glass with 4-3/4" Open Center
NTG-6B/80	Tempered Blue Glass with 3-1/8" Open Center
NTG-6CF	Tempered Clear Glass with Frosted Center
NTG-6FC	Tempered Clear Glass with Clear Center
NTG-6HC	Tempered Clear Glass with Frosted Center and 3-1/8" Open Center

Example: NC2-631L2530WSF = 6" Sapphire II Open Reflector, 2500lm / 30W LED, 3000K, Spot Beam Spread, White / Self Flange Finish

NCAH2-630

6" Sapphire II New Construction 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. 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
NC2-631	6" Open Reflector
NC2-636	6" Wall Wash Reflector
NC2-638	6" Decorative Glass Reflector

Emergency LED Driver

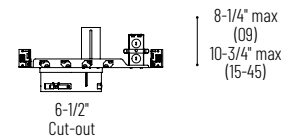
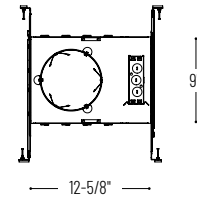
- Up to 7.5W emergency illumination with LEDs.
- Illumination Time: 90min
- Voltage: 120/277 VAC, 60Hz
- Output Voltage: 15.0-50.0 VDC
- Available with remote or integral test switch, must specify

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



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

Lumens / Wattage	Driver	Optional Emergency
NCAH2-630/09 = 900lm / 15W	LE3 = 120V Input; Triac/ELV/0-10V dimming	EM = Emergency Pack w/ Remote Test Switch
NCAH2-630/15 = 1500lm / 18W	LE6 = 120-277V Input; 0-10V dimming	EMI = Emergency Pack w/ Integral Test Switch, must specify on reflector
NCAH2-630/25 = 2500lm / 30W		
NCAH2-630/35 = 3500lm / 46W		
NCAH2-630/45 = 4500lm / 60W		

Example: NCAH2-630/25LE6EM = 6" Sapphire II Universal New Construction Frame-In, 2500lm / 30W, 120-277V Input, Emergency with Remote Test Switch

NCHR2-634

6" 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
NC2-631	6" Open Reflector
NC2-636	6" Wall Wash Reflector
NC2-638	6" Decorative Glass Reflector

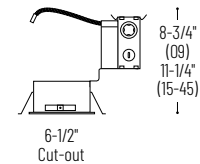
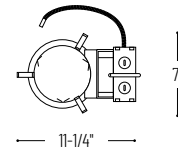
Emergency: Housing can be specified with connections for emergency battery installation. Requires top access. Must specify battery with remote test switch separately, NEPK-07LEDUNV.

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



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

Lumens / Wattage	Driver
NCHR2-634/09 = 900lm / 15W	LE3 = 120V Input; Triac/ELV/0-10V dimming
NCHR2-634/15 = 1500lm / 18W	LE6 = 120-277V Input; 0-10V dimming
NCHR2-634/25 = 2500lm / 30W	
NCHR2-634/35 = 3500lm / 46W	
NCHR2-634/45 = 4500lm / 60W	

Optional Accessories

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

Example: NCHR2-634/15LE6 = 6" Sapphire II LED Remodel Frame-In, 1500lm / 18W, 120-277V Input

PHOTOMETRICS

6" Sapphire II Series

Type

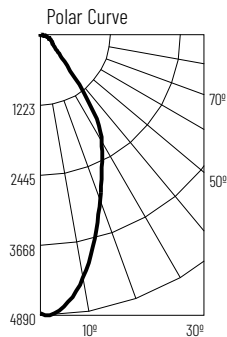
Project

Catalog No.

Notes

Test Information

Test Number: 727461
Part Number: NC2-631L4540SWSF
Part Number: Spot
Lumens: 4585lm
Wattage: 56.2W
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

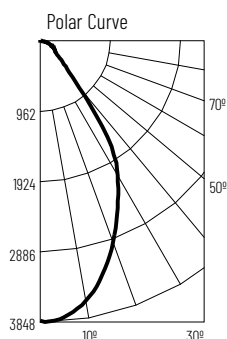
Zone	Lumens	% Luminaire
0-30	2624	57.2
0-40	3579	78.1
0-60	4198	91.6
0-90	4549	99.2
90-180	36	0.8
0-180	4585	100

Candela Table

Vertical Angles	Candela
0	4861
5	4724
15	3654
25	2535
35	1597
45	462

Test Information

Test Number: 727477
Part Number: NC2-631L4540MWSF
Part Number: Narrow Flood
Lumens: 4395lm
Wattage: 55.5W
Efficacy: 79lpw
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'	106fc	7'-7"
9'	47.3fc	11'-4"
12'	26.6fc	15'-1"
15'	17fc	18'-11"
18'	11.8fc	22'-8"

Zonal Lumen Summary

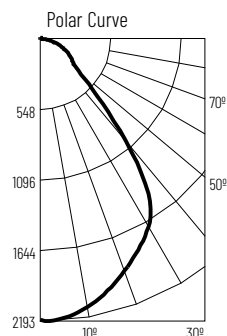
Zone	Lumens	% Luminaire
0-30	2429	55.3
0-40	3387	77.1
0-60	4021	91.5
0-90	4361	99.2
90-180	34.43	0.8
0-180	4395	100

Candela Table

Vertical Angles	Candela
0	3833
5	3769
15	3296
25	2587
35	1596
45	500

Test Information

Test Number: 727489
Part Number: NC2-631L4540FWSF
Part Number: Flood
Lumens: 3687lm
Wattage: 56.5W
Efficacy: 65lpw
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'	60.6fc	9'-10"
9'	26.9fc	14'-10"
12'	15.2fc	19'-8"
15'	9.7fc	24'-7"
18'	6.7fc	29'-6"

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1602	43.5
0-40	2487	67.4
0-60	3274	88.8
0-90	3659	99.2
90-180	28	0.8
0-180	3687	100

Candela Table

Vertical Angles	Candela
0	2182
5	2164
15	2018
25	1799
35	1454
45	643

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)