

# NC-631

## 6" Sapphire I High Lumen LED Reflector

Source: 81W or 104W LED  
6000lm or 8000lm

Type

Project

Catalog No.

Notes

### PRODUCT DESCRIPTION

The Sapphire Series is an architectural grade LED high lumen downlight. The Sapphire Series features deep cone reflector and dimmable LEDs. Cree LEDs and Drivers make for a solid, tested package. The reflector has been designed for the high efficiency (LPW) while providing low aperture brightness. The Sapphire Series is proudly assembled in the USA. Cree TrueWhite technology with the highest performing commercially available LEDs and mixes in complementary light from red and unsaturated yellow LEDs to create beautiful, warm, white light. This patented approach enables precise color management to preserve reliable high color consistency over the life of the product.

### FEATURES

- Cree TrueWhite® Technology
- 6000lm or 8000lm LED packages
- 3000K, 3500K or 4000K @ 90+ CRI
- 10-year limited warranty
- ENERGY STAR certified
- cULus Listed for Wet Locations

### ELECTRICAL

**Delivered Lumens / Wattage:** L60 = 5594lm / 81W; L80 = 6542lm / 104W

**Color Temperature:** 3000K, 3500K, 4000K

**CRI:** 90+CRI

**Beam Spread:** 74° Flood

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

**Lifetime:** 36,300 hours @ L70

### COMPATIBLE FRAME-INS

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

CATALOG NO.	DESCRIPTION
NCAH-630	6" Universal New Construction Frame-In
NCHR-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.

**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:** 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
- [10-Year Limited Warranty](#)
- RoHS Compliant



### PRODUCT IMAGES AND DIMENSIONS



BSF

BWSF

CSF



DBSF

DSF

DWSF



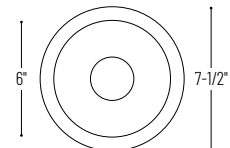
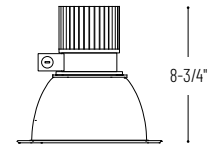
HBSF

HSF

HWSF



WSF



### 6" Sapphire I High Lumen LED Reflector - Dedicated Frame-In Required

Reflector Type	Lumens / Wattage	Color Temp.	Reflector / Flange Finish	Optional Emergency
NC-631 = Open Reflector	L60 = 6000lm / 81W	30 = 3000K	<b>BSF</b> = Black / Self Flanged	<b>EMI</b> = Integral emergency test switch, must specify on frame-in
	L80 = 8000lm / 104W	35 = 3500K	<b>BWSF</b> = Black / White Flange	
		40 = 4000K	<b>CSF</b> = Specular Clear / Self Flanged	
			<b>DBSF</b> = Clear Diffused / Black Flange	
			<b>DSF</b> = Clear Diffused / Self Flanged	
			<b>DWSF</b> = Clear Diffused / White Flange	
			<b>HBSF</b> = Haze / Black Flange	
			<b>HSF</b> = Haze / Self Flanged	
			<b>HWSF</b> = Haze / White Flange	
			<b>WSF</b> = White / Self Flanged	

Example: **NC-631L6030WSF** = 6" Sapphire I Open Reflector, 6000lm / 81W LED, 3000K, White / Self Flange Finish

# NCAH-630

## 6" Sapphire I High Lumen New Construction Frame-In

Source: 81W or 104W LED  
6000lm or 8000lm

Type

Project

Catalog No.

Notes

### PRODUCT DESCRIPTION

Architectural grade LED High Lumen Downlights featuring deep cone reflector. 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" apertures 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:** Minimum clearance of 24" from thermal insulation and adjacent building component, and 48" between any recessed fixtures.

**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:** External thermal device is located on the junction box.

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

### ELECTRICAL

**Input Voltage:** 120V or 277V

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

**Lumens / Wattage:** L60 = 6000lm / 81W; L80 = 8000lm / 104W

**Dimming:** Triac, ELV or 0-10V dimming

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

### COMPATIBLE REFLECTOR

CATALOG NO.	DESCRIPTION
NC-631	6" Open Reflector

### Emergency LED Driver (BSL17C-C2)

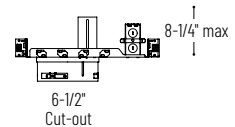
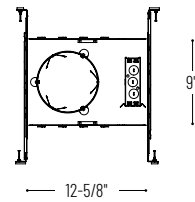
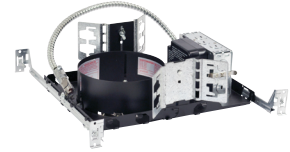
- Up to 7.5W emergency illumination with LEDs.
- Illumination Time: 90min
- Voltage: 120/277 VAC, 60Hz
- Output Voltage: 15.0-50.0 VDC
- Available with remote or integral test switch, must specify

### LABELS AND LISTINGS

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



### PRODUCT IMAGES AND DIMENSIONS



## 6" Sapphire I High Lumen New Construction Frame-In - Compatible with Sapphire I High Lumen Reflector

Lumens / Wattage	LED Module	Driver	Emergency
<b>NCAH-630/60</b> = 6000lm / 81W	(blank) = Cree TrueWhite®	<b>LE1</b> = 120V Input; 0-10V dimming	<b>EM</b> - Emergency Pack w/ Remote Test Switch
<b>NCAH-630/80</b> = 8000lm / 104W		<b>LE2</b> = 277V Input; 0-10V dimming	<b>EMI</b> - Emergency Pack w/ Integral Test Switch, must specify on reflector
		<b>LE4</b> = 120V Input; Triac/ELV dimming	

Example: **NCAH-630/60LE1EM** = 6" Sapphire I Universal New Construction Frame-In, 6000lm / 81W, 120V Input, Emergency with Remote Test Switch

# NCHR-634

## 6" Sapphire I High Lumen Remodel Frame-In

Source: 81W or 104W LED  
6000lm or 8000lm

Type
Project
Catalog No.
Notes

### PRODUCT DESCRIPTION

Architectural grade LED High Lumen Downlights featuring deep cone reflector. 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" apertures 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:** 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:** Minimum clearance of 24" from thermal insulation and adjacent building component, and 48" between any recessed fixtures.

**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:** External thermal device is located on the junction box.

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

### ELECTRICAL

**Input Voltage:** 120V or 277V

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

**Lumens / Wattage:** L60 = 6000lm / 81W; L80 = 8000lm / 104W

**Dimming:** Triac, ELV or 0-10V dimming

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

### COMPATIBLE REFLECTOR

CATALOG NO.	DESCRIPTION
NC-631	6" Open Reflector

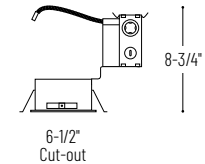
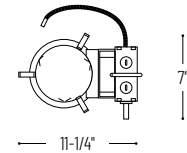
**Emergency:** Housing can be specified with connections for emergency battery installation. Requires top access. Must specify battery with remote test switch separately, NEPK-BSL17C-C2U.

### LABELS AND LISTINGS

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



### PRODUCT IMAGES AND DIMENSIONS



### 6" Sapphire I High Lumen Remodel Frame-In - Compatible with Sapphire I High Lumen Reflector

Lumens / Wattage	LED Module	Driver
NCHR-634/60 = 6000lm / 81W	(blank) = Cree TrueWhite®	LE1 = 120V Input; 0-10V dimming
NCHR-634/80 = 8000lm / 104W		LE2 = 277V Input; 0-10V dimming
		LE4 = 120V Input; Triac/ELV dimming

### Optional Accessories

Description
NEPK-BSL17C-C2U = Remote Emergency Battery w/Test Switch

Example: NCHR-634/60LE1 = 6" Sapphire I High Lumen Remodel Frame-In, 6000lm / 81W, 120V Input

# PHOTOMETRICS

## 6" Sapphire I High Lumen Series

Type \_\_\_\_\_

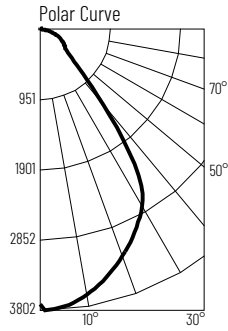
Project \_\_\_\_\_

Catalog No. \_\_\_\_\_

Notes \_\_\_\_\_

### Test Information

Test Number: 727489  
 Part Number: NC-631L6040WSF  
 Lumens: 5594lm  
 Wattage: 86W  
 Efficacy: 65lpw  
 CCT / CRI: 4000K / 90 CRI  
 Beam Spread: 74°  
 Spacing Criteria (0°-180°): 1.1  
 Spacing Criteria (90°-270°): 1.12



### Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	104fc	9'
9'	46.3fc	13'-5"
12'	26.1fc	17'-11"
15'	16.7fc	22'-5"
18'	11.6fc	26'-11"

### Zonal Lumen Summary

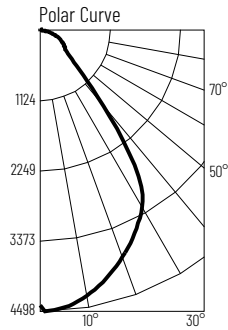
Zone	Lumens	% Luminaire
0-30	2692	48.1
0-40	4022	71.9
0-60	5023	89.8
0-90	5549	99.2
90-180	44.5	0.8
0-180	5594	100

### Candela Table

Vertical Angles	Candela
0	3754
5	3703
15	3418
25	2978
35	2209
45	774

### Test Information

Test Number: 727489  
 Part Number: NC-631L8040WSF  
 Lumens: 6542lm  
 Wattage: 107.7W  
 Efficacy: 61lpw  
 CCT / CRI: 4000K / 90 CRI  
 Beam Spread: 73°  
 Spacing Criteria (0°-180°): 1.1  
 Spacing Criteria (90°-270°): 1.14



### Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
6'	122fc	8'-11"
9'	54.4fc	13'-5"
12'	30.6fc	17'-10"
15'	19.6fc	22'-4"
18'	13.6fc	26'-10"

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	3153	48.2
0-40	4709	72
0-60	5869	89.7
0-90	6488	99.2
90-180	53.56	0.8
0-180	6542	100

### Candela Table

Vertical Angles	Candela
0	4405
5	4334
15	4002
25	3487
35	2577
45	902