

# NCR3-61 / NCR3-66 / NCR3-68

## 6" Sapphire III High Lumen Retrofit Downlight

Source: 13W to 60W  
900lm to 5500lm

Type
Project
Catalog No.
Notes

### PRODUCT DESCRIPTION

Sapphire III COB retrofit luminaires are an architectural grade LED high lumen replacement. Using existing commercial or architectural frame-ins, replace old light source and reflectors with the latest LED technology. Each luminaire includes a junction box and dimmable driver. The Sapphire III utilizes Signify® Fortimo COB LED technology for better optic control with three specified 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. Sapphire III luminaires are proudly assembled in the USA and a perfect solution for lobbies, corridors, offices and conference rooms.

### FEATURES

- Retrofit existing architectural or commercial frame-ins
- Over 80% energy savings when compared to incandescent
- Signify® Fortimo COB LED technology
- Specifiable beam spreads

### 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. NCR3-68 includes three 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 is connected to junction box and dimmable driver. Junction box easily wires to input voltage with wire nuts (included). Luminaire accommodates ceiling thickness from 3/8" to 1-1/2".

**Decorative Glass:** NCR3-68 is compatible with up to two decorative glass options (ordered separately). Each glass includes mounting hardware (NRA-203).

- NTG-6CF** 6" Tempered Clear Glass with Frosted Center
- NTG-6FC** 6" Tempered Frosted Glass with Clear Center
- NTG-6HC** 6" Tempered Clear Glass with Frosted Center and 3-1/8" Open Center

### COMPATIBLE FRAME-INS

Reflector assembly is compatible with 6" Commercial and Architectural Frame-Ins.

### LABELS AND LISTINGS

- cULus classified for Wet Location
- [5-Year Limited Warranty](#)
- ENERGY STAR certified
- RoHS Compliant
- FCC Compliant



### PRODUCT IMAGES & DIMENSIONS



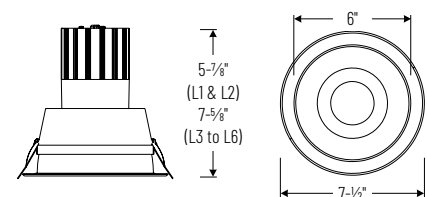
**NCR3-61**  
Open Reflector



**NCR3-66**  
Wall Wash Reflector



**NCR3-68**  
Decorative Glass Reflector  
(Specify glass separately)



ELECTRICAL	L1	L2	L3	L4	L5	L6
<b>Input Voltage</b>	120VAC or 120-277VAC		120VAC or 277VAC			
<b>Input Power</b>	13W max.	18W max.	26W max.	38W max.	46W max.	60W max.
<b>Compatible Reflector</b>	NCR3-61L1 NCR3-66L1 NCR3-68L1	NCR3-61L2 NCR3-66L2 NCR3-68L2	NCR3-61L3 NCR3-66L3 NCR3-68L3	NCR3-61L4 NCR3-66L4 NCR3-68L4	NCR3-61L5 NCR3-66L5 NCR3-68L5	NCR3-61L6
<b>Delivered Lumens</b>	900lm	1500lm	2500lm	3500lm	4500lm	5500lm
<b>Color Temperature</b>	2700K, 3000K, 3500K or 4000K					
<b>Color Rendering Index</b>	90+ CRI					
<b>Beam Spread</b>	38° Spot, 56° Narrow Flood or 72° Flood					
<b>Dimming</b>	Triac/ELV or 0-10V					
<b>Operating Temperature</b>	0°C to 40°C	0°C to 40°C	0°C to 35°C	0°C to 35°C	0°C to 25°C	0°C to 25°C
<b>Lifetime</b>	50,000 hours @ L70					

### 6" Sapphire III Retrofit Reflectors

Reflector Type	Lumens / Wattage	CCT	Beam Spread	Input Voltage / Dimming Type	Reflector / Flange Finish
<b>NCR3-61</b> = Open Reflector	<b>L1</b> = 900lm / 13W	<b>27</b> = 2700K	<b>S</b> = Spot	<b>P01</b> = 120V input; Phase Dimming (Triac/ELV)	<b>BB</b> = Black Reflector / Black Flange
<b>NCR3-66</b> = Wall Wash <sup>1</sup>	<b>L2</b> = 1500lm / 18W	<b>30</b> = 3000K	<b>N</b> = Narrow Flood	<b>C12</b> = 120-277V input; 0-10V Dimming	<b>BMPW</b> = Black Reflector / Matte Powder White Flange
<b>NCR3-68</b> = Deco Glass <sup>1</sup>	<b>L3</b> = 2500lm / 26W	<b>35</b> = 3500K	<b>F</b> = Flood	<b>P01</b> = 120V input; Phase Dimming (Triac/ELV)	<b>CC</b> = Specular Clear Reflector / Specular Clear Flange †
<sup>1</sup> Not compatible with L6	<b>L4</b> = 3500lm / 38W	<b>40</b> = 4000K		<b>C01</b> = 120V input; 0-10V Dimming	<b>DB</b> = Clear Diffused Reflector / Black Flange
	<b>L5</b> = 4500lm / 46W			<b>C02</b> = 277V input; 0-10V Dimming	<b>DD</b> = Clear Diffused Reflector / Clear Diffused Flange
	<b>L6</b> = 5500lm / 60W				<b>DMPW</b> = Clear Diffused Reflector / Matte Powder White Flange
					<b>HZ</b> = Haze Reflector / Haze Flange
					<b>HZB</b> = Haze Reflector / Black Flange
					<b>HZMPW</b> = Haze Reflector / Matte Powder White Flange
					<b>MPW</b> = Matte Powder White Reflector & Flange

† Not available with wall wash

### \* Decorative Glass Option

- 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: **NCR3-61L635NCO2MPW** = 6" Sapphire III Retrofit Reflector, 5500lm / 60W, 3500K, Narrow Flood Beam Spread, 277V input; 0-10V dimming, Matte Powder White Reflector / Matte Powder White Flange

# PHOTOMETRICS

6" Sapphire III High Lumen Retrofit Downlight  
5500lm / 60W

Type

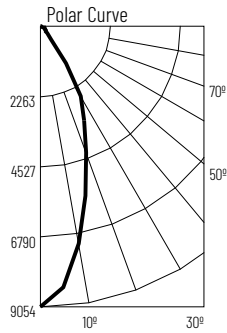
Project

Catalog No.

Notes

## Test Information

Test Number: NTR2350R1  
Part Number: NCR3-61L640SCO1MPW  
Beam Spread: 38° Spot  
Lumens: 5673lm  
Wattage: 56.59W  
Efficacy: 100lpw  
CCT / CRI: 4000K / 90 CRI  
Spacing Criteria (0°-180°): 0.62  
Spacing Criteria (90°-270°): 0.62



## Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
8'	141fc	5'-7"
12'	62.9fc	8'-5"
16'	35.4fc	11'-2"
20'	22.6fc	14'
24'	15.7fc	16'-10"

## Zonal Lumen Summary

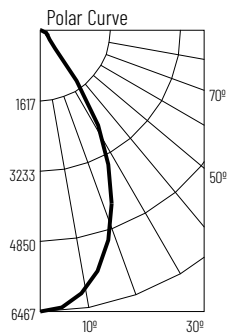
Zone	Lumens	% Luminaire
0-30	3900	68.8
0-40	4883	86.1
0-60	5362	94.5
0-90	5673	100
90-180	0	0
0-180	5673	100

## Candela Table

Vertical Angles	Candela
0	9054
5	8452
15	5655
25	3344
35	1462
45	307

## Test Information

Test Number: NTR2349R1  
Part Number: NCR3-61L640NCO1MPW  
Beam Spread: 56° Narrow Flood  
Lumens: 5709lm  
Wattage: 56.65W  
Efficacy: 101lpw  
CCT / CRI: 4000K / 90 CRI  
Spacing Criteria (0°-180°): 0.86  
Spacing Criteria (90°-270°): 0.86



## Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
8'	101fc	8'-7"
12'	44.9fc	12'-11"
16'	25.3fc	17'-1"
20'	16.2fc	21'-5"
24'	11.2fc	25'-8"

## Zonal Lumen Summary

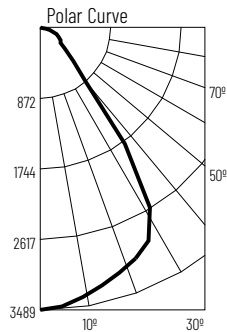
Zone	Lumens	% Luminaire
0-30	3364	58.9
0-40	4654	81.5
0-60	5377	94.2
0-90	5709	100
90-180	0	0
0-180	5709	100

## Candela Table

Vertical Angles	Candela
0	6467
5	6361
15	5481
25	3838
35	1679
45	305

## Test Information

Test Number: NTR2343R1  
Part Number: NCR3-61L640FCO1MPW  
Beam Spread: 72° Flood  
Lumens: 5003lm  
Wattage: 56.68W  
Efficacy: 88lpw  
CCT / CRI: 4000K / 90 CRI  
Spacing Criteria (0°-180°): 1.18  
Spacing Criteria (90°-270°): 1.16



## Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
8'	54.5fc	11'-8"
12'	24.2fc	17'-7"
16'	13.6fc	23'-5"
20'	8.7fc	29'-4"
24'	6.1fc	35'-1"

## Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	2168	43.3
0-40	3449	68.9
0-60	4535	90.7
0-90	5003	100
90-180	0	0
0-180	5003	100

## Candela Table

Vertical Angles	Candela
0	3489
5	3448
15	3243
25	3014
35	1965
45	589

## Lumen Output Multipliers

Lumen Package: L1 (0.18), L2 (0.25), L3 (0.47), L4 (0.67), L5 (0.8), L6 (1.00)  
Color Temperature: 2700K (0.5), 3000K (0.91), 3500K (0.97), 4000K (1.00)  
Reflector Finish: Black (0.68), Specular Clear (1.06), Diffused (1.08), Haze (0.96), Matte Powder White (1.00)