

NCR3-61 / NCR3-66 / NCR3-68

6" Sapphire III High Lumen Retrofit Downlight

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

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 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-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

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

Emergency: Luminaire is compatible with [NEPK-07LEDUNV](#) (ordered separately). Remote mounted battery operates luminaire for 90 minute emergency operation with a fully charged battery.

LABELS AND LISTINGS

- Assembled in USA with domestic and foreign components
- cULus classified for Wet Location
- [5-Year Limited Warranty](#)
- ENERGY STAR certified (Black and Specular Clear finish are not certified)
- RoHS Compliant
- FCC Compliant



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

Type	
Project	
Catalog No.	
Notes	

PRODUCT IMAGES & DIMENSIONS



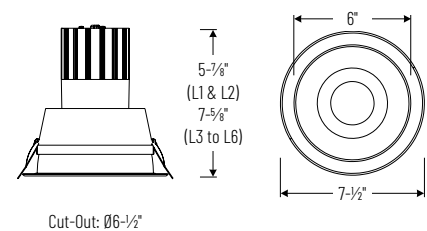
NCR3-61
Open Reflector



NCR3-66
Wall Wash Reflector



NCR3-68
Decorative Glass Reflector
(Specify glass separately)



6" Sapphire III Retrofit Reflectors

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

* Decorative Glass Option

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

[†] Not available with wall wash

Example: **NCR3-61L635NC02MPW** = 6" Sapphire III Retrofit Reflector, 5500lm / 60W, 3500K, Narrow Flood Beam Spread, 277V input; 0-10V dimming, White Reflector / White Flange

PHOTOMETRICS

6" Sapphire III High Lumen Retrofit Downlight

5500lm / 60W

Type

Project

Catalog No.

Notes

Test Information

Test Number: NTR2350R1

Part Number: NCR3-61L640SC01MPW

Beam Spread: 38° Spot

Lumens: 5673lm

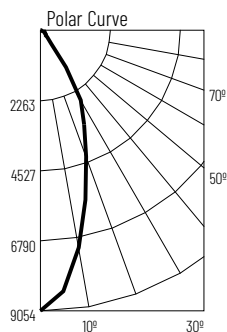
Wattage: 56.59W

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: NCR3-61L640NC01MPW

Beam Spread: 56° Narrow Flood

Lumens: 5709lm

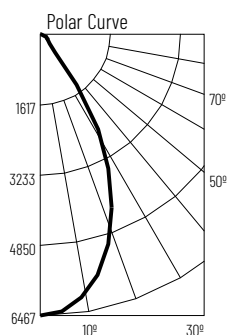
Wattage: 56.65W

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: NCR3-61L640FC01MPW

Beam Spread: 72° Flood

Lumens: 5003lm

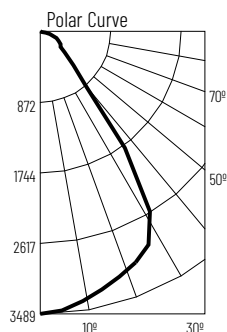
Wattage: 56.68W

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)