

# NC3-81 / NC3-86 / NC3-88

8" Sapphire III LED Reflectors

Source: 13W to 60W

900lm to 5500lm

Type

Project

Catalog No.

Notes

## PRODUCT DESCRIPTION

The architectural grade Sapphire III high lumen LED downlights are a perfect solution for lobbies, corridors, offices and conference rooms. 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. The Sapphire III luminaires are proudly assembled in the USA.

## FEATURES

- Signify® Fortimo COB LED technology
- Specifiable beam spreads
- 8" deep cone reflectors, wall wash and deco glass
- 2700K, 3000K, 3500K and 4000K @ 90+ CRI
- 5-year limited warranty

## SPECIFICATION

**Reflector:** Deep cone reflector spun from 0.050" high grade aluminum provides even illumination and visual comfort. The deep cone reflectors provide 55+ degree cut-off. NC3-88 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.

**Decorative Glass:** NC3-88 is compatible with up to two decorative glass options (ordered separately). Each glass includes mounting hardware (NRA-203).

**NTG-8B/80** 8" Tempered Blue Glass with 3-1/4" Open Center

**NTG-8CF** 8" Tempered Clear Glass with Frosted Center

**NTG-8FC** 8" Tempered Frosted Glass with Clear Center

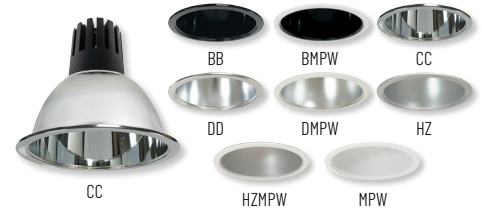
**Emergency:** NC3-81 is compatible with integral emergency test switch (must specify)

## LABELS AND LISTINGS

- cULus Listed for Wet Locations when used with compatible frame-in
- [5-Year Limited Warranty](#)
- ENERGY STAR certified
- RoHS Compliant
- FCC Compliant



## PRODUCT IMAGES & DIMENSIONS



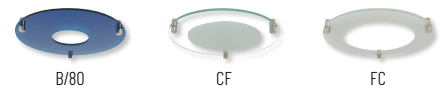
**NC3-81**  
Open Reflector



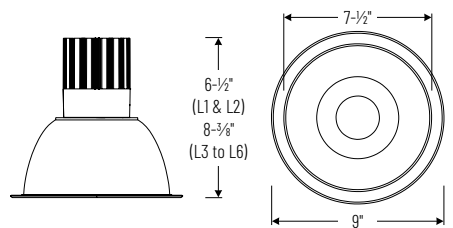
**NC3-86**  
Wall Wash Reflector



**NC3-88**  
Decorative Glass Reflector  
(Specify glass separately)



**NTG-8**  
8" Decorative Glass



ELECTRICAL	L1	L2	L3	L4	L5	L6
<b>Delivered Lumens</b>	900lm	1500lm	2500lm	3500lm	4500lm	5500lm
<b>Wattage</b>	13W max.	18W max.	26W max.	38W max.	46W max.	60W max.
<b>Color Temperature</b>	2700K, 3000K, 3500K or 4000K					
<b>Color Rendering Index</b>	90+ CRI					
<b>Beam Spread</b>	38° Spot, 57° Narrow Flood or 78° Flood					
<b>Compatible Frame-In</b>	NCH3-8L1 NCHR3-8L1	NCH3-8L2 NCHR3-8L2	NCH3-8L3 NCHR3-8L3	NCH3-8L4 NCHR3-8L4	NCH3-8L5 NCHR3-8L5	NCH3-8L6 NCHR3-8L6
<b>Lifetime</b>	50,000 hours @ L70					

## 8" Sapphire III LED Reflectors - Dedicated Frame-In Required

Reflector Type	Lumens / Wattage	CCT	Beam Spread	Reflector / Flange Finish	Optional Emergency
<b>NC3-81</b> = Open Reflector	<b>L1</b> = 900lm / 13W	<b>27</b> = 2700K	<b>S</b> = Spot	<b>BB</b> = Black Reflector / Black Flange	<b>EMI</b> = Integral Emergency Test Switch (Compatible with NC3-81 only must specify on frame-in)
<b>NC3-86</b> = Wall Wash	<b>L2</b> = 1500lm / 18W	<b>30</b> = 3000K	<b>N</b> = Narrow Flood	<b>BMPW</b> = Black Reflector / Matte Powder White Flange	
<b>NC3-88</b> = Deco Glass*	<b>L3</b> = 2500lm / 26W	<b>35</b> = 3500K	<b>F</b> = Flood	<b>CC</b> = Specular Clear Reflector / Specular Clear Flange <sup>†</sup>	
	<b>L4</b> = 3500lm / 38W	<b>40</b> = 4000K		<b>DD</b> = Clear Diffused Reflector / Clear Diffused Flange <sup>†</sup>	
	<b>L5</b> = 4500lm / 46W			<b>DMPW</b> = Clear Diffused Reflector / Matte Powder White Flange <sup>†</sup>	
	<b>L6</b> = 5500lm / 60W			<b>HZ</b> = Haze Reflector / Haze Flange <sup>†</sup>	
				<b>HZMPW</b> = Haze Reflector / Matte Powder White Flange <sup>†</sup>	
				<b>MPW</b> = Matte Powder White Reflector & Flange	
				<sup>†</sup> Not available with wall wash	

## \* Decorative Glass Option

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

Example: **NC3-81L630NMPW** = 8" Sapphire III Open Reflector, 5500lm / 60W, 3000K, Narrow Flood Beam Spread, Matte Powder White Reflector / Matte Powder White Flange

# PHOTOMETRICS

8" Sapphire III LED Reflectors  
5500lm / 60W

Type

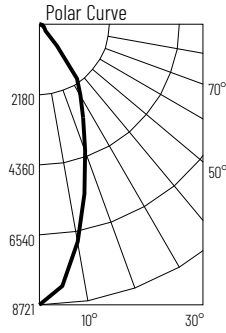
Project

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## Test Information

Test Number: NTR2368R1  
Part Number: NC3-81L640SMPW  
Beam Spread: 38° Spot  
Lumens: 5778lm  
Wattage: 56.66W  
Efficacy: 102lpw  
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'	136fc	5'-7"
12'	60.6fc	8'-5"
16'	34.1fc	11'-2"
20'	21.8fc	14'
24'	15.1fc	16'-10"

## Zonal Lumen Summary

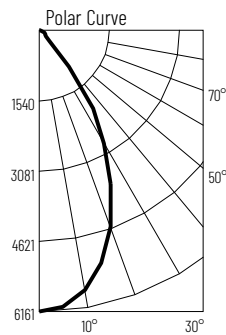
Zone	Lumens	% Luminaire
0-30	3776	65.4
0-40	4971	86
0-60	5506	95.3
0-90	5778	100
90-180	0	0
0-180	5778	100

## Candela Table

Vertical Angles	Candela
0	8721
5	8166
15	5452
25	3212
35	2073
45	284

## Test Information

Test Number: NTR2369R1  
Part Number: NC3-81L640NMPW  
Beam Spread: 57° Narrow Flood  
Lumens: 5818lm  
Wattage: 56.7W  
Efficacy: 103lpw  
CCT / CRI: 4000K / 90 CRI  
Spacing Criteria (0°-180°): 0.88  
Spacing Criteria (90°-270°): 0.88



## Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
8'	96.3fc	8'-8"
12'	42.8fc	13'-1"
16'	24.1fc	17'-6"
20'	15.4fc	21'-11"
24'	10.7fc	26'-2"

## Zonal Lumen Summary

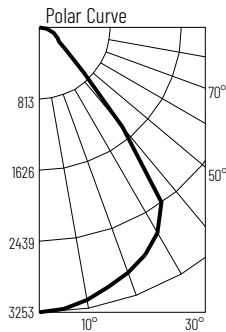
Zone	Lumens	% Luminaire
0-30	3735	64.2
0-40	5017	86.2
0-60	5552	95.4
0-90	5818	100
90-180	0	0
0-180	5784	100

## Candela Table

Vertical Angles	Candela
0	6161
5	6074
15	5281
25	3712
35	2079
45	327

## Test Information

Test Number: NTR2370R1  
Part Number: NC3-81L640FMPW  
Beam Spread: 78° Flood  
Lumens: 5140lm  
Wattage: 56.29W  
Efficacy: 91lpw  
CCT / CRI: 4000K / 90 CRI  
Spacing Criteria (0°-180°): 1.24  
Spacing Criteria (90°-270°): 1.22



## Illuminance at a Distance

Distance from Luminaire	FC at Nadir	Beam Diameter
8'	50.8fc	13'-1"
12'	22.6fc	19'-7"
16'	12.7fc	26'-1"
20'	8.1fc	32'-7"
24'	5.7fc	39'-2"

## Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	2479	48.2
0-40	3867	75.2
0-60	4749	92.4
0-90	5140	100
90-180	0	0
0-180	5140	100

## Candela Table

Vertical Angles	Candela
0	3253
5	3226
15	3070
25	2864
35	2439
45	722

## 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)