## NM4-R470

4" M4 Round LED Recessed Elbow

Source: 12W LED 950lm

# Type Project Catalog No. Notes

#### PRODUCT DESCRIPTION

4" M4 Round LED Elbow downlight features an adjustable head that extends 75° and rotates 300° for precise aiming. Quality and convenience with easy installation for insulated or non-insulated applications. Luminaires can be configured into square trim with accessory.

#### **FEATURES**

- · No housing required IC Air-Tight rated
- · Field changeable optics included
- Easy installation for remodel or new construction applications
- · Square trim available for an alternative appearance
- · Quick disconnect allows for extended lengths
- · 2700K or 3000K @ 90+ CRI
- · Triac or ELV dimming
- 5-year limited warranty
- · ENERGY STAR certified
- · cETLus Listed for Damp Locations

#### **SPECIFICATION**

**Construction:** Die-cast aluminum trims available in matte black or matte powder white finish. Rotates 300° horizontally and extends up to 75°. Optional field changeable square trim is available.

**Optics:** Each downlight includes field changeable optics (24° spot and 40° narrow flood - preinstalled).

Air Flow Restriction: Luminaire has factory installed gasket to restrict airflow from room into ceiling plenum to <2CFM (cubic feet per minute) in accordance with ASTM-283 Air-Tight requirements.

**Clearance:** IC rated luminaires are rated for direct contact with insulation (not spray foam insulation), no minimum clearance is required.

**Junction Box:** Prewired junction box includes quick connect to LED fixtures for ease of installation. Junction box includes four  $\frac{1}{2}$ " trade size knockouts and snap on cover with 7" quick connect wire. Luminaire includes 6" quick connect wire.

**Mounting:** No housing is required, two tensions steel spring clips secure luminaire to ceiling. Accommodates ceiling thickness up to  $3\sqrt[4]{}$ . New construction frame-in available, see mounting accessories.

#### **ELECTRICAL**

Input Voltage: 120V

Lumens / Wattage: 950lm / 12W Color Temperature: 2700K or 3000K Color Rendering Index: 90+CRI

**Beam Spread:** 24° Spot and 40° Narrow Flood (included) **Operating Temp.:** 0°C to 25°C ambient temperature

Lifetime: 50,000 hours @ L70

**Dimming:** Dimmable down to 10% with Triac or ELV <u>Click Here</u> or check complete dimmer list at www.NoraLighting.com in the "Compatibility" page under

"Resources" tab

#### **OPTIONAL TRIM ACCESSORIES**

NM4-SET: Square Trim for NM4-R470, Black or White

#### **OPTIONAL MOUNTING ACCESSORIES**

NF-R246: Universal New Construction Frame-In
NM2-EW-4: 4' Quick Connect Linkable Extension Cable
NM2-EW-10: 10' Quick Connect Linkable Extension Cable

#### **LABELS AND LISTINGS**

- cETLus Listed for Damp Locations
- ENERGY STAR certified
- 5-Year Limited Warranty
- · FCC compliant
- Certified to the high efficacy requirements of California Title 24 JA8-2019













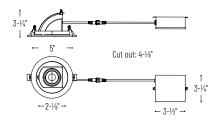


| Performance Data |        |       |
|------------------|--------|-------|
| Part Number      | Lumens | ССТ   |
| NM4-R47027BB     | 887lm  | 2700K |
| NM4-R47027MPW    | 942lm  | 2700K |
| NM4-R47030BB     | 932lm  | 3000K |
| NM4-R47030MPW    | 970lm  | 3000K |

Delivered lumens will vary depending on optic

#### PRODUCT IMAGES AND DIMENSIONS







NM4-SET Square Trim

# 4" M4 Round LED Recessed Elbow

| Trim Type                 | Color Temperature / CRI    | Finish                          |
|---------------------------|----------------------------|---------------------------------|
| NM4-R470 = 4" Round Elbow | <b>27</b> = 2700K / 90 CRI | BB = Matte Black                |
|                           | <b>30</b> = 3000K / 90 CRI | <b>MPW</b> = Matte Powder White |

# NM4-R470 Trim Accessories

Accessory Type Finish

NM4-SET = Square Trim for NM4-R470 B = Matte Black

MPW = Matte Powder White

# Optional Mounting Accessories

**Accessory Type** 

NF-R246 = Universal New Construction Frame-In NM2-EW-4 = 4' Quick Connect Extension Cable NM2-EW-10 = 10' Quick Connect Extension Cable

Example: NM4-R47030MPW = 4" M4 Round LED Recessed Elbow, 950lm / 12W, 3000K / 90 CRI, Matte Powder White



# NM4-R470

# 4" M4 Round LED Recessed Elbow Accessories

Type
Project
Catalog No.
Notes



Square Trim for NM4-R470

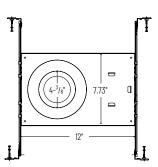
NM4-SETB Matte Black
NM4-SETMPW Matte Powder White
Converts the round trim included with
NM4-R470 elbow into a square trim



Universal New Construction Frame-In

#### NF-R246

For new construction pre-wiring and easier layout planning.





Quick Connect Extension Linkable Cables

NM2-EW-4 NM2-EW-10

4' Cable 10' Cable

Use to extend the length between luminaire and driver enclosure. Can be connected together to create custom lengths. Maximum length between luminaire and driver is 40'.

# **PHOTOMETRICS**

# NM4-R470

4" M4 Round LED Recessed Elbow

Туре

Project

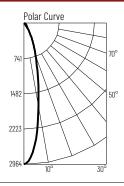
Catalog No.

Notes

#### **Test Information**

Test Number: NTR187IR1
Part Number: NTR187IR1
Part Number: NM4-R47027MPW
Beam Spread: 24° Spot
Lumens: 935Im
Wattage: 11.74W
Efficacy: 80Ipw
CCT / CRI: 2700K / 90 CRI
Spacing Criteria (0°-180°): 0.42

Spacing Criteria (90°-270°): 0.42



| Illuminance | at a | Distance |
|-------------|------|----------|
|             |      |          |

| Distance from<br>Luminaire | FC at Nadir | Beam Diameter |
|----------------------------|-------------|---------------|
| 4'                         | 185fc       | 1'-8"         |
| 6'                         | 82.2fc      | 2'-7"         |
| 8'                         | 46.2fc      | 3'-6"         |
| 10'                        | 29.6fc      | 4'-4"         |
| 12'                        | 20.5fc      | 5'-2"         |

#### Zonal Lumen Summary

|        | ,      |                |
|--------|--------|----------------|
| Zone   | Lumens | %<br>Luminaire |
| 0-30   | 721    | 77             |
| 0-40   | 807    | 86.2           |
| 0-60   | 899    | 96.1           |
| 0-90   | 935    | 100            |
| 90-180 | 0      | 0              |
| 0-180  | 935    | 100            |
|        |        |                |

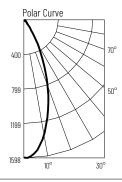
# Candela Table

| Calluela Table     |         |  |
|--------------------|---------|--|
| Vertical<br>Angles | Candela |  |
| 0                  | 2958    |  |
| 5                  | 2607    |  |
| 15                 | 1124    |  |
| 25                 | 398     |  |
| 35                 | 128     |  |
| 45                 | 67      |  |
|                    |         |  |

# **Test Information**

Test Number: NTR1872R1 Part Number: NM4-R47027MPW Beam Spread: 40° Narrow Flood Lumens: 942Im

Wattage: 11.74W
Efficacy: 80lpw
CCT / CRI: 2700K / 90 CRI
Spacing Criteria (0°-180°): 0.66
Spacing Criteria (90°-270°): 0.66



# Illuminance at a Distance

| Distance from<br>Luminaire | FC at Nadir | Beam Diameter |
|----------------------------|-------------|---------------|
| 4'                         | 99.7fc      | 3'            |
| 6'                         | 44.3fc      | 4'-5"         |
| 8'                         | 24.9fc      | 5'-11"        |
| 10'                        | 15.9fc      | 7'-5"         |
| 12'                        | 11.1fc      | 8'-11"        |
|                            |             |               |

## Zonal Lumen Summary

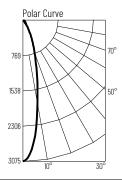
| Zone   | Lumens | %<br>Luminaire |
|--------|--------|----------------|
| 0-30   | 697    | 74             |
| 0-40   | 819    | 86.9           |
| 0-60   | 912    | 96.7           |
| 0-90   | 942    | 100            |
| 90-180 | 0      | 0              |
| 0-180  | 942    | 100            |

#### Candela Table

| Vertical<br>Angles | Candela |
|--------------------|---------|
| 0                  | 1595    |
| 5                  | 1516    |
| 15                 | 1076    |
| 25                 | 568     |
| 35                 | 200     |
| 45                 | 66      |
|                    |         |

## **Test Information**

Test Number: NTR1875R1
Part Number: NM4-R47030MPW
Beam Spread: 24° Spot
Lumens: 958Im
Wattage: 11.51W
Efficacy: 83Ipw
CCT / CRI: 3000K / 90 CRI
Spacing Criteria (0°-180°): 0.42
Spacing Criteria (90°-270°): 0.42



#### Illuminance at a Distance

| Distance from<br>Luminaire | FC at Nadir | Beam Diameter |
|----------------------------|-------------|---------------|
| 4'                         | 192fc       | 1'-8"         |
| 6'                         | 85.3fc      | 2'-7"         |
| 8'                         | 48fc        | 3'-5"         |
| 10'                        | 30.7fc      | 4'-4"         |
| 12'                        | 21.3fc      | 5'-2"         |

#### Zonal Lumen Summary

| Zone   | Lumens | %<br>Luminaire |
|--------|--------|----------------|
| 0-30   | 733    | 76.6           |
| 0-40   | 823    | 85.9           |
| 0-60   | 920    | 96.1           |
| 0-90   | 958    | 100            |
| 90-180 | 0      | 0              |
| 0-180  | 958    | 100            |

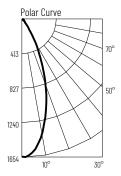
## Candela Table

| Vertical<br>Angles | Candela |
|--------------------|---------|
| 0                  | 3072    |
| 5                  | 2688    |
| 15                 | 1183    |
| 25                 | 449     |
| 35                 | 149     |
| 45                 | 73      |
|                    |         |

## **Test Information**

Test Number: NTR1876R1 Part Number: NM4-R47030MPW Beam Spread: 40° Narrow Flood Lumens: 970Im

Wattage: 11.56W Efficacy: 84lpw CCT / CRI: 3000K / 90 CRI Spacing Criteria (0°-180°): 0.66 Spacing Criteria (90°-270°): 0.66



#### Illuminance at a Distance

| Distance from<br>Luminaire | FC at Nadir | Beam Diameter |
|----------------------------|-------------|---------------|
| 4'                         | 103fc       | 2'-11"        |
| 6'                         | 45.9fc      | 4'-5"         |
| 8'                         | 25.8fc      | 5'-11"        |
| 10'                        | 16.5fc      | 7'-4"         |
| 12'                        | 11.5fc      | 8'-10"        |

#### Zonal Lumen Summary

| Zone   | Lumens | %<br>Luminaire |
|--------|--------|----------------|
| 0-30   | 716    | 73.8           |
| 0-40   | 841    | 86.7           |
| 0-60   | 939    | 96.8           |
| 0-90   | 970    | 100            |
| 90-180 | 0      | 0              |
| 0-180  | 970    | 100            |

#### Candela Table

| Vertical<br>Angles | Candela |
|--------------------|---------|
| 0                  | 1651    |
| 5                  | 1594    |
| 15                 | 1120    |
| 25                 | 559     |
| 35                 | 176     |
| 45                 | 56      |

# Finish Multiplier

Finish: Black (x0.95), Matte Powder White (x1.0)