# EZ-LIGHT™ Indicators — Daylight Visible

*DC-Operated Indicators for Outdoor Applications*

For the latest technical information about this product, including specifications, dimensions, and wiring, see *www.BannerEngineering.com*.

more sensors, more solutions

- Intense levels of light output for outdoor applications
- Controlled field of view for signage and narrow lane use
- May also be used for low-cost vision sensor illumination
- Rugged, cost-effective and easy to install
- Compact devices are completely self-contained — no controller needed
- Up to three colors in one housing
- Immune to ambient light, EMI and RFI interference
- 50 mm diameter with flat profile and 30 mm mounting base
- PNP (sourcing) or NPN (sinking) input type, depending on model
- 15 to 30V dc operation

QPMA Contact Factory for more information

## Models

**NOTE:** Optional sun shield model K50DS is available for enhanced visibility in desert sun brightness levels (see *Sun Shield* on page 4).

| Model* | LED Function** | Inputs‡ | | Model* | LED Function** | Inputs‡ |
|--------|----------------|---------|---|--------|----------------|---------|
| **K50LDGRYPQ** | 3 Color: Green, Red, Yellow | PNP | | **K50LDXGXPQ** | 1 Color: Green | PNP/NPN |
| **K50LDGRYNQ** | | NPN | | **K50LDXRXPQ** | 1 Color: Red | PNP/NPN |
| **K50LDGRBPQ** | 3 Color: Green, Red, Blue | PNP | | **K50LDXYXPQ** | 1 Color: Yellow | PNP/NPN |
| **K50LDGRBNQ** | | NPN | | **K50LDXWXPQ** | 1 Color: White | PNP/NPN |
| | | | | **K50LDXBXPQ** | 1 Color: Blue | PNP/NPN |

\* Integral QD models only are listed.

- For 150 mm PVC pigtail with QD, replace **Q** with **QP** in model number (example, **K50LDGRYPQP**).
- For 2 m (6.5') cable, omit suffix **Q** from model number (example, **K50LDGRYP**).
- A model with a QD requires a mating cable (see *4-Pin Euro-Style Cordsets* on page 4).

**\*\* 3-color models:** 6 LEDs per color          **1-color models:** 18 LEDs per color

Contact factory for other colors and color combinations.

‡ 1-color models are PNP/NPN selectable, depending on hookup.

⚠ **WARNING: Not To Be Used for Personnel Protection**
Never use this product as a sensing device for personnel protection. Doing so could lead to serious injury or death. This product does NOT include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

# Specifications

**Supply Voltage and Current**

15 to 30V dc @ 120 mA max. (1-color models)

15 to 30V dc @ 40 mA max. per LED color (3-color models)

**NOTE:** 12V dc minimum voltage to -20°C for both models

**Supply Protection Circuitry**

Protected against reverse polarity and transient voltages

**Indicators**

LED colors are independently selected, depending on model

**Input Response Time**

Indicator ON/OFF: 1 ms max.

**Environmental Rating**

Fully encapsulated, rated IEC IP67

**Construction**

Base and covers: polycarbonate

**Connections**

Integral 4-pin Euro-style QD, 150 mm PVC pigtail with QD, or 2 m (6.5') integral cable, depending on model
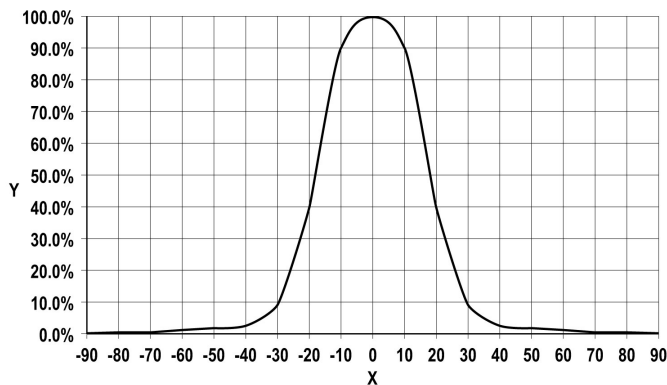
**Operating Conditions**

−40° to +50° C (−40° to +122° F)

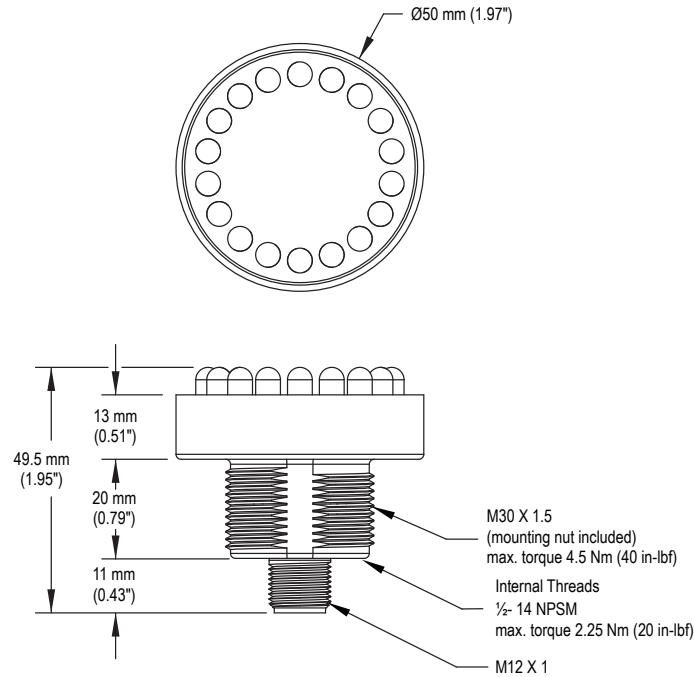90% @ 55º C max. relative humidity (non-condensing)

**Certifications**
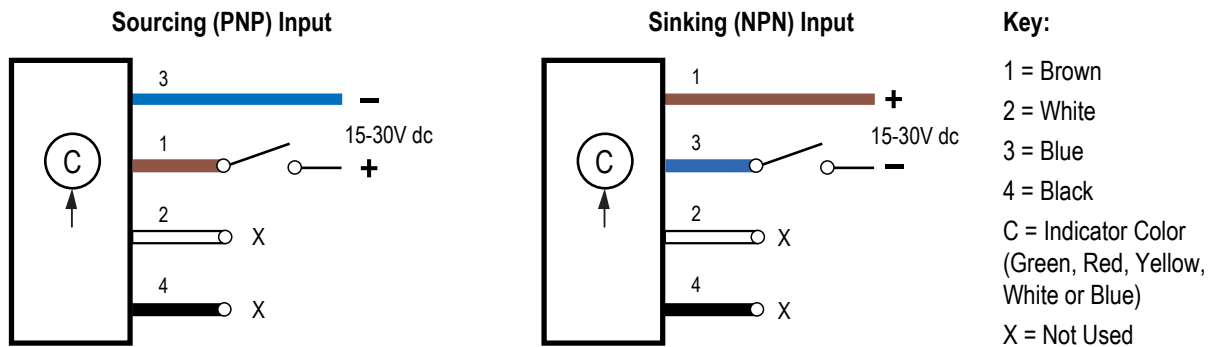
C E

# Percent of Maximum Intensity vs Viewing Angle



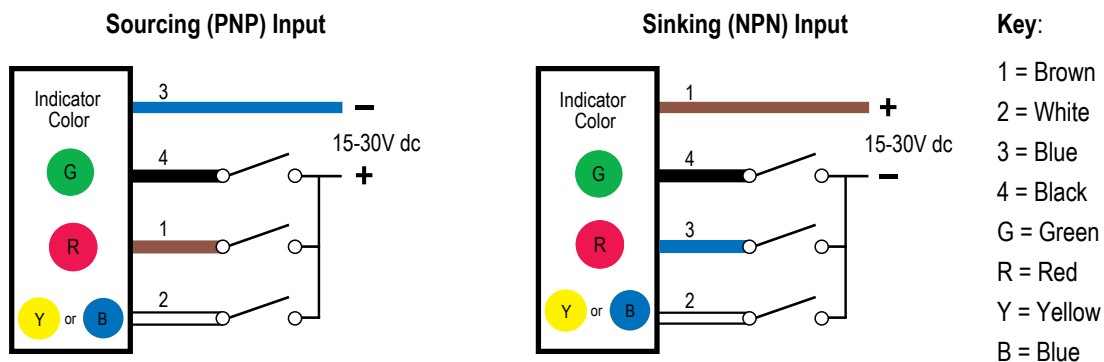X: Viewing Angle (Deg)

Y: Intensity (Percent)

## Dimensions

Ø50 mm (1.97")

49.5 mm (1.95")

13 mm (0.51")

20 mm (0.79")

11 mm (0.43")

M30 X 1.5
(mounting nut included)
max. torque 4.5 Nm (40 in-lbf)

Internal Threads
½- 14 NPSM
max. torque 2.25 Nm (20 in-lbf)

M12 X 1

## Wiring – 1-Color Models

**Sourcing (PNP) Input**

3 — Blue — −
1 — Brown — +
2 — White — X
4 — Black — X
C
15-30V dc

**Sinking (NPN) Input**

1 — Brown — +
3 — Blue — −
2 — White — X
4 — Black — X
C
15-30V dc

**Key:**

1 = Brown

2 = White

3 = Blue

4 = Black

C = Indicator Color
(Green, Red, Yellow,
White or Blue)

X = Not Used

NOTE: 1-color models are PNP/NPN selectable

## Wiring – 3-Color Models

**Sourcing (PNP) Input**

Indicator Color

G
R
Y or B

3 — Blue — −
4 — Black — +
1 — Brown
2 — White
15-30V dc

**Sinking (NPN) Input**

Indicator Color

G
R
Y or B

1 — Brown — +
4 — Black — −
3 — Blue
2 — White
15-30V dc

**Key**:

1 = Brown

2 = White

3 = Blue

4 = Black

G = Green

R = Red

Y = Yellow

B = Blue

## 4-Pin Euro-Style Cordsets

| 4-Pin M12/Euro-Style Cordsets (straight connector) | 4-Pin M12/Euro-Style Cordsets (right-angle connector) |
|---|---|
| **MQDC-406,** 2 m (6.5') | **MQDC-406RA,** 2 m (6.5') |
| **MQDC-415,** 5 m (15') | **MQDC-415RA,** 5 m (15') |
| **MQDC-430,** 9 m (30') | **MQDC-430RA,** 9 m (30') |

## Sun Shield

| **K50DS** | • Use for enhanced visibility in desert sun brightness levels<br>• Thermoplastic polyester |  |
|---|---|---|

## Accessory Mounting Brackets

For more information about these and other available brackets, visit *www.bannerengineering.com*.

30 mm brackets mount to base of light:

- SMB30A
- SMBAMS30RA
- SMBAMS30P
- SMB30SC
- SMB30MM
- SMB3018SC

## Contact Us

For more information: Contact your local Banner representative or Banner Corporate Offices around the world.

**Corporate Headquarters: Banner Engineering Corp.** 9714 Tenth Ave. North, Mpls., MN 55441, Tel: 763-544-3164, *www.bannerengineering.com*, *sensors@bannerengineering.com*

**Europe: Banner Engineering Europe** Park Lane, Culliganlaan 2F, Diegem B-1831 BELGIUM,Tel: 32-2 456 07 80, Fax: 32-2 456 07 89, *www.bannereurope.com*, *mail@bannereurope.com*

**Latin America:** Contact Banner Engineering Corp. (US) or e-mail **Mexico:** *mexico@bannerengineering.com*; or **Brazil:** *brasil@bannerengineering.com*

**Asia:**

**Banner Engineering China** Shanghai Rep Office Rm. G/H/I, 28th Flr. Cross Region Plaza No. 899, Lingling Road, Shanghai 200030 CHINA, Tel: 86-21-54894500, Fax: 86-21-54894511, *www.bannerengineering.com.cn*, *sensors@bannerengineering.com.cn*

**Banner Engineering Japan** Cent-Urban Building 305 3-23-15, Nishi-Nakajima Yodogawa-Ku, Osaka 532-0011 JAPAN, Tel: 81-6-6309-0411, Fax: 81-6-6309-0416, *www.bannerengineering.co.jp*, *mail@bannerengineering.co.jp*

**Banner Engineering Asia ─ Taiwan** Neihu Technology Park 5F-1, No. 51, Lane 35, Jihu Rd., Taipei 114 TAIWAN, Tel: 886-2-8751-9966, Fax: 886-2-8751-2966, *www.bannerengineering.com.tw*, *info@bannerengineering.com.tw*

**Banner Engineering India** Pune Head Quarters Office, No. 1001 Sai Capital, Opp. ICC Senapati Bapat Road, Pune 411016 INDIA, Tel: 91-20-66405624, Fax: 91-20-66405623, *www.bannerengineering.co.in*, *india@bannerengineering.com*



**more sensors, more solutions**