29N/D10/MVS/E2


| Project: |  | Type: |
| :--- | :--- | :--- |
|  |  |  |
| Prepared By: | Date: |  |
|  |  |  |
|  |  |  |
| Driver Info |  | LED Info |
| Type: | Constant Current | Watts: |
| 120V: | 0.24 A | Color Temp: |
| 208V: | 0.15 A | Color Accuracy: |
| 240V: | 0.13 A | L70 Lifespan: |
| 277V: | 0.11 A | Lumens: |
| Input Watts: | 29 W | Efficacy: |
| Efficiency: | $99 \%$ |  |
|  |  |  |

## Technical Specifications

## Listings

UL Listing:
Suitable for damp locations

## IESNA LM-79 \& IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM79 and 80, and have received the Department of Energy "Lighting Facts" label.

## Electrical

## Driver:

Class 2, Constant Current, $100-277 \mathrm{~V}, 50 / 60 \mathrm{~Hz}, 120 \mathrm{~V}$ : $0.201 \mathrm{~A}, 208 \mathrm{~V}: 0.24 \mathrm{~A}, 240 \mathrm{~V}: 0.13 \mathrm{~A}, 277 \mathrm{~V}: 0.11 \mathrm{~A}$, THD $<15 \%$, Power Factor $>90 \%$, 4kV surge protection

## Dimming Driver:

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit Dims as low as 10\%.

## Emergency Battery Backup:

Emergency battery backup will operate the fixture for 90 minutes if power fails. Wired for 120-277V.

THD:
$14.3 \%$ at $120 \mathrm{~V}, 12.0 \%$ at 277 V

## Power Factor:

$98.8 \%$ at $120 \mathrm{~V}, 92.8 \%$ at 277 V

## Smart Sensing

Programmable occupancy sensor for multi-level lighting control. Includes manual override from a light switch.

## Construction

## Ambient Temperature:

Suitable for $40^{\circ} \mathrm{C}\left(104^{\circ} \mathrm{F}\right)$ ambient temperatures

## IC Rating:

Suitable for direct contact with insulation

## Housing:

Die-formed, 20-gauge, cold-rolled steel

## Mounting:

Integral T-grid clips make installation easy and secure

## Reflector:

High-reflectance, powder-coated finish, optimized for uniorm distribution

## Lens:

Snap-in, frosted polycarbonate lens

## Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

## Green Technology:

Mercury and UV free. RoHS compliant components Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

## LED Characteristics

## LEDs:

Long-life, high-efficiency surface mount LEDs

## Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

## Color Stability:

LED color temperature is warrantied to shift no more than 200 K in CCT over a 5 year period.

Color Uniformity:
RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.3772011.

## Other

## Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

## Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

## Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

Trade Agreements Act Compliant:
This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:
Suitable in accordance with FAR Subpart 25.4.
Replacement:
29 Watt $2 \times 2$ replaces (3) F17 T8 or (3) F14 T5

## Technical Specifications (continued)

## Other

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

## Patents:

This design is protected by patents pending in US, Canada, China, Taiwan and Mexico.

## Sensor Specifications

## Capacitance Load:

400 W at $120 \mathrm{~V}, 800 \mathrm{~W}$ at $230 \mathrm{~V}, 1000 \mathrm{~W}$ at 277 V

## Operating Temperature:

$-20^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right.$ to $\left.+140^{\circ} \mathrm{F}\right)$

## Customizable Detection Area:

$10,50,75$ or $100 \%$

## Time Delay:

$5 \mathrm{~s}, 30 \mathrm{~s}, 1 \mathrm{~min}, 5 \mathrm{~min}, 10 \mathrm{~min}, 20 \mathrm{~min}, 30 \mathrm{~min}$

## Cut Off Period:

$0 \mathrm{~s}, 10 \mathrm{~s}, 1 \mathrm{~min}, 5 \mathrm{~min}, 10 \mathrm{~min}, 30 \mathrm{~min}, 1 \mathrm{hr}$, Bi-Level
Cut Off Dimming level:
10, 20, 30, 50\%
Cut Off Power:
Less than 1W
Daylight Threshold:
About .2-5 fc for disabled

## Relay:

Zero-cross relay

## Maximum Mounting Height:

5m


## Features

Emergency battery back-up included
Optional surface mount and dry wall frame kits available
Optional programmable occupancy sensor for multi-level lighting control
$0-10 \mathrm{~V}$ dimming standard on all models
100,000-hour LED lifespan
5-year warranty

## Ordering Matrix

| Family | Size | Watts | Color Temp | Dimming | Sensor | Battery Backup |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SWISH | 2X2 | 29 | N | /D10 | /MVS | /E2 |
|  | $2 \mathrm{X} 2=2^{\prime} \times 2^{\prime}$ | $\begin{aligned} & 19=19 W \\ & 29=29 W \end{aligned}$ | $\begin{gathered} \text { Y }=3000 \mathrm{~K}(\text { Warm }) \\ \mathrm{YN}=3500 \mathrm{~K}(\text { Warm Neutral }) \\ \mathrm{N}=4000 \mathrm{~K}(\text { Neutral }) \end{gathered}$ | /D10 = Dimmable | Blank = No Occupancy Sensor /MVS = Occupancy Sensor | /E2 $=120-277 \mathrm{~V}$ Battery Backup |

