# Nemalux™

# AR-HZ
rev. A5

## KEY FEATURES

- Designed for hazardous location use
- Optimized thermal management of electronics for longevity
- Multiple optical distribution patterns for superior lighting quality
- Approved for through-wiring of several units on a single circuit
- Built-in junction area for simplified termination
- 8 mounting options for installation flexibility
- Available in 90+ CRI

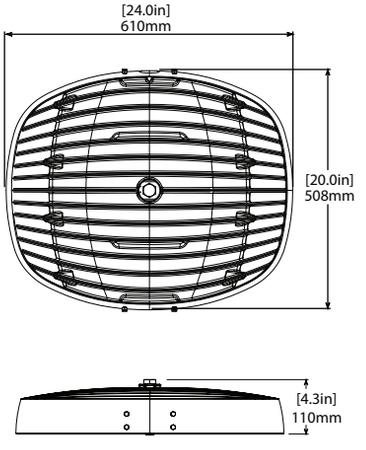
SAFETY US-CA MARINE US E477829

## TECHNICAL SPECIFICATIONS / MAXIMUM RATINGS

| | |
|---|---|
| **HOUSING** | Copper free aluminum and polycarbonate lens |
| **MOUNTING** | See pages 4 and 5 for MOUNTING OPTIONS |
| **INPUT VOLTAGE** | **AC:** 120-277 VAC \| **HV:** 347-480 VAC (50/60Hz) |
| **POWER (TYP)** | See CHART on page 2 |
| **CURRENT (TYP)** | See CHART on page 2 |
| **CONNECTIONS** | 2x 3/4" NPT |
| **DIMMING** | 0-10V Dimmable, Class 1 wiring \| See CHART on page 2 |
| **TEMPERATURE RANGE** | See CHART on page 3 |
| **CERTIFICATIONS** | Certified to UL 844 / CSA C22.2 No. 137-M1981;<br>UL 1598 / CSA C22.2 No. 250.0-08 ; UL 1598A;<br>UL 8750; CSA C22.2 No. 250.13<br>Class I, Division 2, Groups ABCD; T4<br>Class II, Division 2, Groups FG, T4A;<br>Class III;<br>Class I, Zone 2, Groups IIC;<br>Zone 22, Groups IIIB |
| **INGRESS PROTECTION** | IP66/67 Suitable for wet locations.<br>Marine outside type (salt water). |
| **COLOR TEMP RANGE** | **50:** 5,000K \| **Special Order:** 2,700-6,500K |
| **CRI VALUE (MIN)** | **50:** 70 \| **Special Order:** 90+ |
| **TOTAL LUMENS** | See CHART on page 2 |
| **LUMEN MAINTENANCE** | LM-80 > 100,000 hrs (Based on CREE long term testing) |
| **WEIGHT** | 16.4 kg \| 36 lbs |

** The ambient temperature during lifetime, lumen and chromaticity determination is 25℃ ± 1℃.*

## DIMENSIONS




## WARRANTY

Five (5) year limited warranty to the original purchaser. The warranty covers defects in materials and workmanship under normal use and service.

For additional information see:
https://nemalux.com/legal

## ELECTRICAL RATINGS

**AC MODELS**
**(5000K CCT, minimum 70CRI)**
**120-277 VAC Input Range**
**50/60 Hz Frequency**

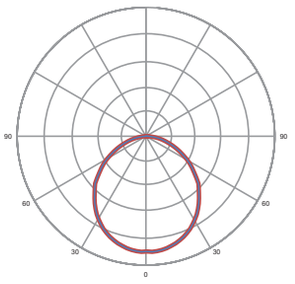
| MODEL | RATED WATTAGE [Watts] | TYPICAL POWER - FLOOD MODELS [WATTS] | | TYPICAL POWER - OPTIC MODELS [WATTS] | |
|---|---|---|---|---|---|
| | | @120VAC | @277VAC | @120VAC | @277VAC |
| AR10 | 107 | 88.8 | 91.8 | 96.9 | 99.2 |
| AR15 | 145 | 119.5 | 121.6 | 130.0 | 131.7 |
| AR20 | 190 | 156.3 | 157.0 | 170.0 | 170.6 |
| AR25 | 247 | 209.7 | 208.1 | 224.9 | 222.7 |
| AR30 | 312 | 277.7 | 274.4 | 297.0 | 292.9 |

**HV MODELS**
**(5000K CCT, minimum 70CRI)**
**347-480 VAC Input Range**
**50/60 Hz Frequency**

| MODEL | RATED WATTAGE [Watts] | TYPICAL POWER - FLOOD MODELS [WATTS] | | TYPICAL POWER - OPTIC MODELS [WATTS] | |
|---|---|---|---|---|---|
| | | @ 347VAC | @ 480VAC | @ 347VAC | @ 480VAC |
| AR10 | 129 | 113.0 | 118.3 | 121.9 | 127.0 |
| AR15 | 145 | 135.6 | 140.6 | 145.7 | 150.6 |
| AR20 | 187 | 171.5 | 193.8 | 180.5 | 183.3 |
| AR25 | 248 | 224.6 | 228.4 | 238.3 | 241.9 |
| AR30 | 310 | 287.3 | 289.5 | 297.6 | 297.4 |

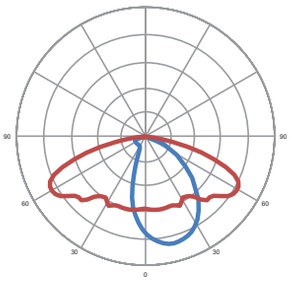
## OPTIC OPTIONS

**Vertical Plane (RED) | Lateral Cone (BLUE)**



**WC - Wide Beam (No Optics)**

| MODEL | LUMENS | LUMENS/WATT |
|---|---|---|
| AR10 | 12,270 | 140 |
| AR15 | 16,490 | 140 |
| AR20 | 20,730 | 134 |
| AR25 | 26,610 | 129 |
| AR30 | 33,190 | 121 |



**T2 - IESNA Type 2**

| MODEL | LUMENS | LUMENS/WATT |
|---|---|---|
| AR10 | 12,370 | 132 |
| AR15 | 16,340 | 130 |
| AR20 | 20,560 | 125 |
| AR25 | 26,090 | 117 |
| AR30 | 31,670 | 109 |

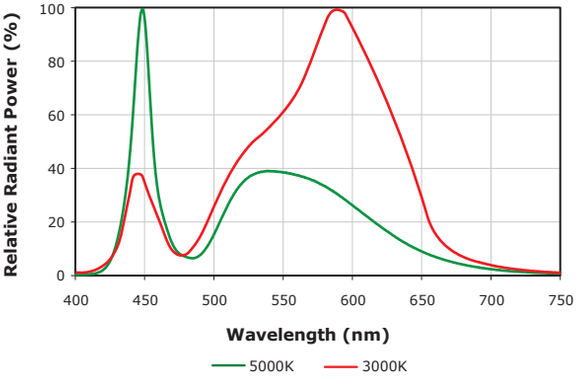
## NOMINAL POWER CURRENT TABLE

Hazardous Location (ARXX-XXX-XX-XX-HZ-XX)

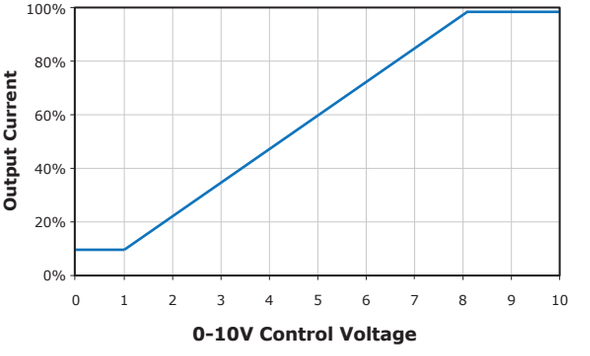
| LUMINANCE | INPUT VOLTAGE | RATED WATTAGE [Watts] | RATED VOLTAGE [Volts] | FREQUENCY [Hz] | CURRENT [A] |
|---|---|---|---|---|---|
| AR10 | AC | 107 | 120-277 | 50/60 | 1.11A/0.48A |
| | HV | 129 | 347-480 | 50/60 | 0.43A/0.31A |
| AR15 | AC | 145 | 120-277 | 50/60 | 1.42A/0.61A |
| | HV | 145 | 347-480 | 50/60 | 0.47A/0.34A |
| AR20 | AC | 190 | 120-277 | 50/60 | 1.75A/0.75A |
| | HV | 187 | 347-480 | 50/60 | 0.59A/0.42A |
| AR25 | AC | 247 | 120-277 | 50/60 | 2.18A/0.95A |
| | HV | 248 | 347-480 | 50/60 | 0.74A/0.53A |
| AR30 | AC | 312 | 120-277 | 50/60 | 2.82A/1.22A |
| | HV | 310 | 347-480 | 50/60 | 0.97A/0.70A |

*Note: 13 alternate optical profiles available upon request.*
*Contact Nemalux sales representative for further details. Minimum order quantities, additional costs and lead times may apply.*

## PHOTOMETRICS




## DIMMING



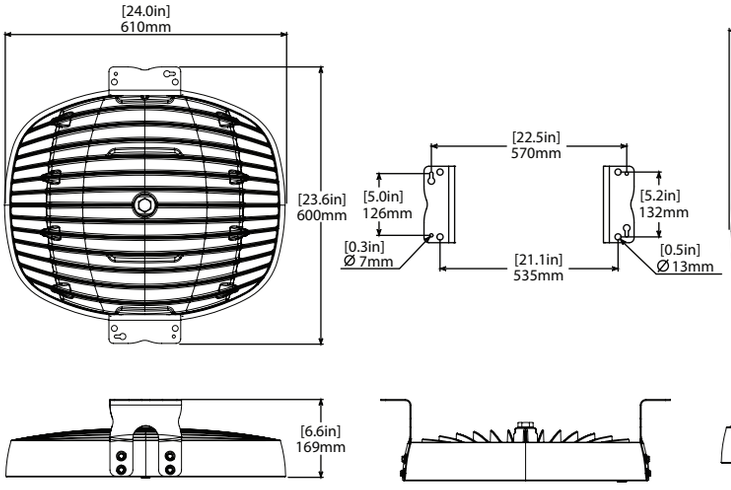

- *Driver will source a maximum of 200uA for control needs*
- *Controller must sink current from the 0-10V control leads*

## TEMPERATURE RANGE CHART:

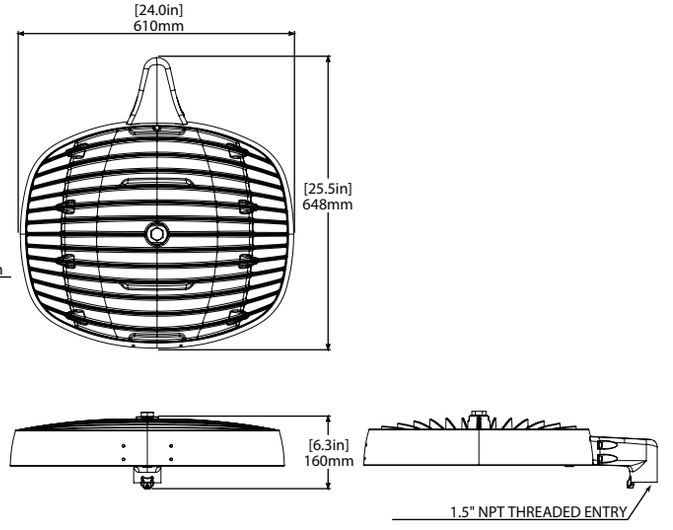
| | | OPTICAL MODELS | | FLOOD MODELS | | ALL MODELS |
|---|---|---|---|---|---|---|
| MODEL | INPUT VOLTAGE | AMBIENT TEMP [°C] | CLASS I, DIV 2 T-CODES | AMBIENT TEMP [°C] | CLASS I, DIV 2 T-CODES | CLASS II, DIV 2 T-CODES |
| AR10 | AC | -40 to 55 | T3C | -40 to 55 | T4A | T5 |
| | HV | -40 to 54 | T3C | -40 to 51 | T4 | T5 |
| AR15 | AC | -40 to 55 | T3C | -40 to 55 | T4A | T5 |
| | HV | -40 to 54 | T3C | -40 to 51 | T4 | T5 |
| AR20 | AC | -40 to 55 | T3C | -40 to 55 | T4A | T5 |
| | HV | -40 to 54 | T3C | -40 to 51 | T4 | T5 |
| AR25 | AC | -40 to 51 | T3C | -40 to 55 | T4A | T5 |
| | HV | -40 to 44 | T3B | -40 to 50 | T4A | T5 |
| AR30 | AC | -40 to 43 | T3 | -40 to 42 | T4A | T5 |
| | HV | -40 to 43 | T3 | -40 to 40 | T3 | T5 |

## MOUNTING OPTIONS (Ordered Separately)

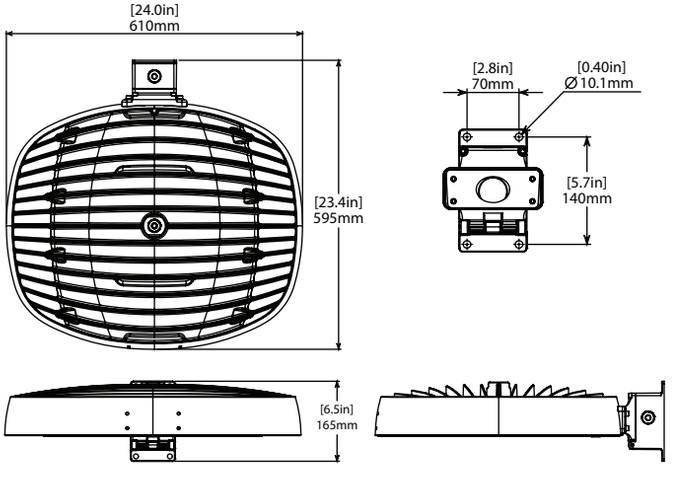
**SURFACE/SUSPENDED MOUNT (UM-SM):** 16.8 kg | 37 lbs



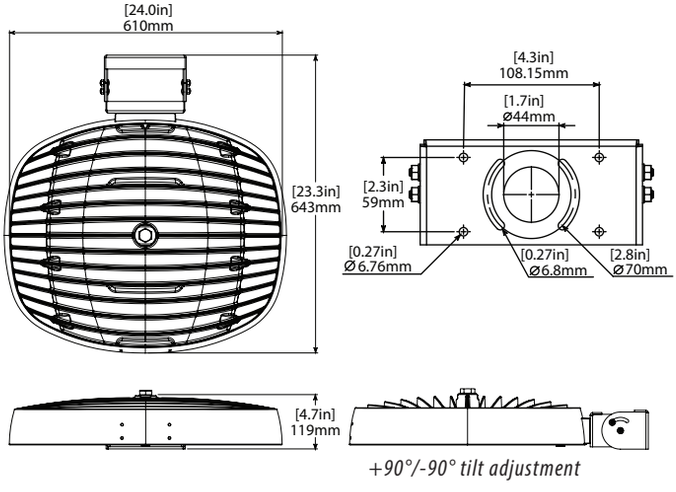

**POLE MOUNT (UM-PM-GY):** 17.3 kg | 38 lbs | EPA: 0.07 $m^2$ / 0.72 $ft^2$




**WALL MOUNT 2 (UM-WM2-GY):** 17.6 kg | 38.5 lbs

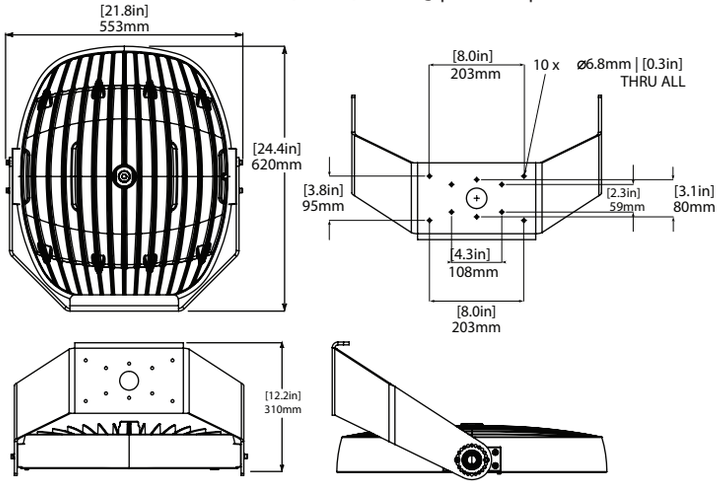



**YOKE MOUNT (UM-YM):** 18.0 kg | 39.6 lbs | EPA: 0.28 $m^2$ / 3.06 $ft^2$



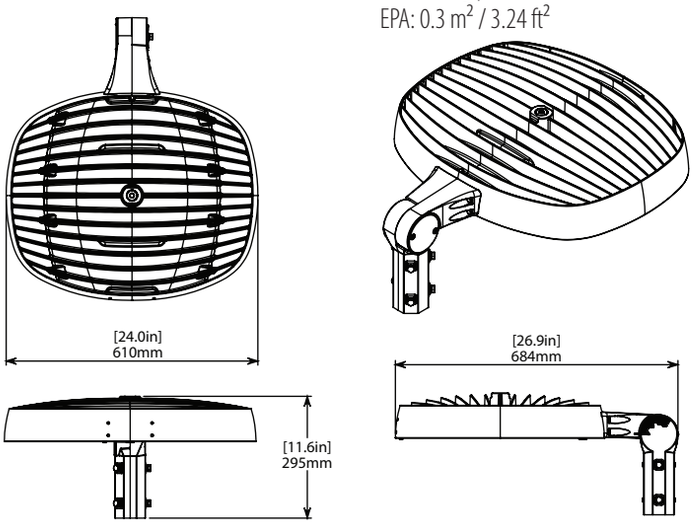

*+90°/-90° tilt adjustment*

**HIGH VIBRATION YOKE MOUNT (AR-YK):** 23.8 kg | 52.5 lbs | EPA: 0.37 $m^2$ / 3.97 $ft^2$

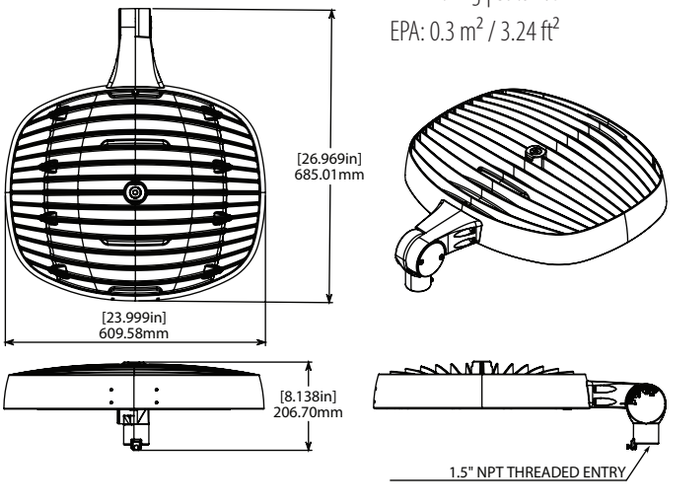


## MOUNTING OPTIONS (Ordered Separately)

**SLIP FITTER YOKE MOUNT (UM-SFY-GY-HZ):** 18.35 kg | 40.3 lbs
EPA: 0.3 $m^2$ / 3.24 $ft^2$

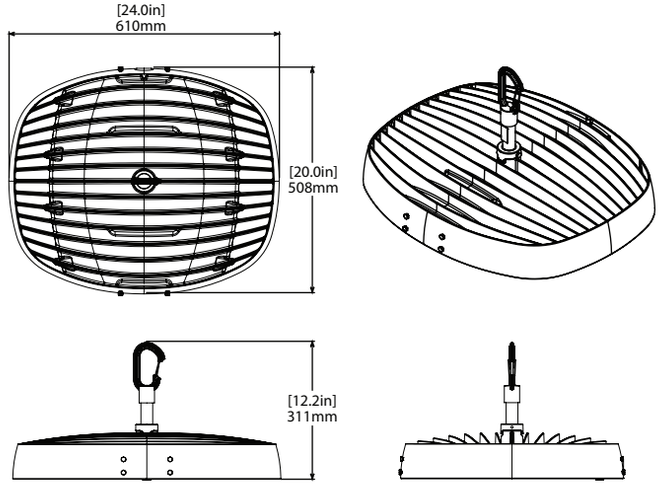



**1.5" THREADED ADJUSTABLE POLE MOUNT (UM-SFY-1.5-GY-HZ):**
17.4 kg | 39.5 lbs
EPA: 0.3 $m^2$ / 3.24 $ft^2$

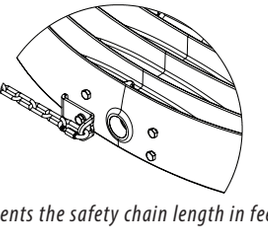



*Stepped to accept either 1.5" Trade size (1-13/16" [46mm] to 2" [50mm] OD) & 2" Trade size (2-1/8" [53mm] to 2-7/16" [63mm])*

**HOOK PENDANT MOUNT (UM-HK-GY):** 16.8 kg | 36.9 lbs




**SECONDARY SAFETY KIT (UM-SK-##)**



*##represents the safety chain length in feet (i.e. 05=5', 10=10'). Secondary Safety Kit contains bracket, stainless steel chain (1/8 trade size), and two stainless steel oval threaded connecting links.*

## ORDERING INFORMATION

| | | | |
|---|---|---|---|
| PROJECT NAME | | TYPE | |
| PROJECT LOCATION | | | |
| COMMENT | | DATE | |
| PREPARED BY | | | |

## MODEL SELECTOR

**Sample Number: AR30-50-WC-GY-HZ-AC**

| MODEL | CCT | OPTIC | FINISH | LOCATION | POWER |
|---|---|---|---|---|---|
| - | - | - | GY - | HZ - | |
| **AR10**[5]<br>**AR15**[5]<br>**AR20**[5]<br>**AR25**[5]<br>**AR30**[5] | **30** - 3,000K<br>**40** - 4,000K<br>**50** - 5,000K<br><br>Custom CCT options are available. Please contact for details.[1] | **WC** - Wide Beam (Typ. Type 5)<br><br>Special Order:<br>**T1** - IESNA Type 1[1]<br>**T2** - IESNA Type 2[1]<br>**T3** - IESNA Type 3[1]<br>**T4** - IESNA Type 4[1] | **GY** - Grey<br><br>Custom finish options are available. Please contact for details.[1] | **HZ** - Hazardous Location | **AC** - 120-277 VAC<br>**HV** - 347-480 VAC |

## ACCESSORIES (Order Separately)

**Sample Number: UM-WM2-GY**

| ACCESSORY | |
|---|---|
| *All options below are rated for hazardous location use with the AR Series* | |
| **UM-SM** | - Surface Mount[2] |
| **UM-PM-GY** | - Pole Mount; Grey Finish |
| **UM-WM2-GY** | - Wall Mount 2; Grey Finish |
| **UM-YM** | - Yoke Mount[2] |
| **AR-YK** | - AR Series; High Vibration Yoke Mount[2] |
| **UM-SFY-GY-HZ** | - Slip Fitter Yoke Mount; Grey Finish; Hazardous Location |
| **UM-SFY-1.5-GY-HZ** | - Threaded Adjustable Pole Mount; Grey Finish; Hazardous Location |
| **UM-HK-GY** | - Hook Pendant Mount; Grey Finish |
| **UM-SK-##** | - Secondary Safety Kit; Length in Feet[2,4] |
| **AR-SP-AC** | - AR Series; Surge Suppressor[6] |
| **AR-SP-HV** | - AR Series; Surge Suppressor[6] |

**NOTES:**

1. *Minimum order quantities, additional costs and lead times may apply.*
2. *Only available in stainless steel finish.*
3. *IDA Fixture Seal of Approval only applies to fixtures with a CCT of 3000K or less, and have fixed mounts aiming the fixture perpendicular to the ground.*
4. *## represents the safety chain length in feet (i.e. 05=5', 10=10'). Secondary safety kit contains bracket, stainless steel chain (1/8 trade size), and two stainless steel oval threaded connecting links.*
5. *See DLC listed models chart.*
6. *See surge suppressor options.*

*DLC listed models chart:*

| *DesignLights Consortium (DLC) v5.1 Qualified LED Luminaire Listings* | | | |
|---|---|---|---|
| *Model No.* | *Category* | *General Application* | *Classification* |
| *AR10-50-WC-xx-xx-AC* | *Outdoor Luminaires* | *High Output* | *DLC Premium* |
| | *Indoor Luminaires* | *High-Bay* | *DLC Standard* |
| *AR15-50-WC-xx-xx-[AC,HV]* | *Outdoor Luminaires* | *High Output* | *DLC Premium* |
| | *Indoor Luminaires* | *High-Bay* | *DLC Standard* |
| *AR20-50-WC-xx-xx-[AC,HV]* | *Outdoor Luminaires* | *High Output* | *DLC Premium* |
| | *Indoor Luminaires* | *High-Bay* | *DLC Standard* |
| *AR25-50-WC-xx-xx-[AC,HV]* | *Outdoor Luminaires* | *High Output* | *DLC Premium* |
| | *Indoor Luminaires* | *High-Bay* | *DLC Standard* |
| *AR30-50-WC-xx-xx-[AC,HV]* | *Outdoor Luminaires* | *Very High Output* | *DLC Premium* |
| | *Indoor Luminaires* | *High-Bay* | *DLC Standard* |

*Surge suppressor options:*

**AR-SP-AC – 277V FOR USE WITH -AC AR MODELS**

-Protects against surges and transients per ANSI C62.41-2002 category C high (10KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave

-Protects against surges and transients per new ANSI C82.77-5 2015 category C high (20KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave

**AR-SP-HV – 480V FOR USE WITH -HV AR MODELS**

-Protects against surges and transients per ANSI C62.41-2002 category C high (10KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave

-Protects against surges and transients per new ANSI C82.77-5 2015 category C high (20KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave