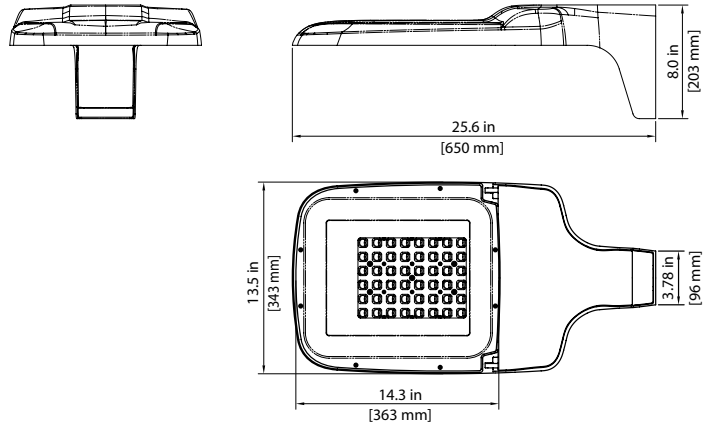


# ARIETA® 13 Architectural LED Area Luminaire

## AR13 N-Series Specification Data Sheet

### Luminaire Data

**Weight** 15.4 lbs [7 kg]  
**EPA** 0.47 ft<sup>2</sup>



### Ordering Information

Sample Catalog No. AR13 48N MV NW 5 BK 190 MSL3

Product	LED Code	Voltage	Nominal Color Temperature	Distribution	Finish <sup>1</sup>	Output Code <sup>2</sup>	Options
AR13	48N	MV 120-277V HV 347-480V	WW 3000K	2 Type 2 3 Type 3 4 Type 4 5 Type 5 AFR Auto Front Row	BK Black DB Dark Bronze (RAL6022) DB1 Dark Bronze (RAL8019) WH White GY Gray NA Natural Aluminum	WW - 3000K	BLS <sup>3</sup> Back Light Shield (Factory Installed)
							FOC <sup>4</sup> Fixed Output Code
						030	PCR <sup>5</sup> NEMA Photocontrol Receptacle
						040	PCR7 <sup>5</sup> ANSI 7-wire Photocontrol Receptacle
						055	PCR7-CR <sup>6</sup> Control Ready 7-wire Photocontrol Receptacle
						080	MSL7 <sup>7</sup> Motion Sensor with L7 Lens
						100	MSL3 <sup>7</sup> Motion Sensor with L3 Lens
						120	SP2 20kV/10kA Surge Protector
						150	PND1 <sup>8</sup> Part-Night Dimming
						170	PND2 <sup>8</sup> Part-Night Dimming
						190	PND3 <sup>8</sup> Part-Night Dimming
			NW 4000K			NW - 4000K	ORR Optics Rotated Right
			CW 5000K			CW - 5000K	ORL Optics Rotated Left
						030	WL Utility Wattage Label
						040	CF <sup>11</sup> Coastal Paint Finish
						060	
						080	
						100	
						120	
						160	
						190	
						200	

1 Black, Dark Bronze, White, Gray, or Natural Aluminum standard. DB (RAL6022) is our original dark bronze. DB1 (RAL8019) is a new dark bronze option. Consult factory for other finishes. See page 2 for specifications.

2 Specified output code set at the factory set. Includes fixture mounted output selector that enables field adjustable light levels.

3 Flush mounted enhanced back light shield, factory installed.

4 No field adjustable output. Specified output code set at the factory.

5 Includes output selector that enables field adjustability of light levels. Field changeable connectors included to enable dimming connection to PCR7 (wireless node dimming is disabled by default).

6 Control-ready wired at factory for wireless node dimming. Output selector not included in fixture. Not able to adjust above specified drive current.

7 See L7 or L3 Lens coverage details on page 4. Consult factory for MS specified with ANSI 7-wire Photocontrol Receptacle. PCR option is required for On/Off control using light detection. Not available in HV.

8 For PND profile options see page 5. Only available with MV (120-277V).

9 Specify Color (GY, DB, DB1, BK, WH, NA)

10 Specify MV (120-277V) or HV (347V-480V)

11 Specify the CF Option for coastal installation. See warranty for details.

Accessories*	
BLS	Enhanced Back Light Shield
RPA <sup>9</sup>	Round Pole Adapter
PTF1 <sup>9</sup>	Square Pole Top Fitter Single
PTF2 <sup>9</sup>	Square Pole Top Fitter Twin at 180°
PTF4 <sup>9</sup>	Square Pole Top Fitter Quad
WM <sup>9</sup>	Wall Mount
BSK	Bird Deterrent Spider Kit
LLPC <sup>10</sup>	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap
FSIR100	Motion Sensor Configuration Tool

\*Accessories are ordered separately and not to be included in the catalog number

### Luminaire Specifications

#### Housing

Die cast aluminum housing with universal mounting design allows for attachment to existing pole without re-drilling for retrofit applications. Aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass. Electrical components are accessed without tools and are mounted on removable power door.

#### Light Emitting Diodes

Hi-flux/Hi-power white LEDs produce a minimum of 90% of initial intensity at 100,000 hours of life based on IES TM-21. LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 3000K, 4000K, or 5000K and 70 CRI minimum. LEDs are 100% mercury and lead free.

#### Field Adjustability

An output selector is supplied to adjust light output for local conditions (not available with PCR7-CR option). The specified output code will be factory set.

#### Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

#### Optical Systems

Micro-lens optical systems are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Auto Front Row (AFR) optics are designed to enhance light levels at site perimeter while minimizing wattage and backlight. Optional enhanced Back Light Shield (BLS) is designed to meet strict light trespass and LEED requirements. Optics may be rotated right or left with options ORR/ORL, respectively

#### Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Standard surge protection complies with IEEE/ANSI C62.41 and ANSI C136.2-2015, Enhanced (10kV/5kA). SP2 option provides Extreme level (20kV/10kA).

#### Controls

3-Wire photocontrol receptacle (PCR) is available. ANSI C136.41 7-wire (PCR7) photocontrol receptacles are available. All photocontrol receptacles have tool-less rotatable bases. Wireless control module is provided by others.

#### Finish

Housing receives a fade and abrasion resistant polyester powder coat finish with 3.0 mil nominal thickness. Finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

#### Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C.

#### Photometry

Luminaires photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

#### Warranty

10-year limited warranty is standard on luminaire and components. 5-year limited warranty on luminaires and components with a motion sensor.

#### Standards

Luminaire complies with:  
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77  
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

### Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
<b>GY</b>	Gray	7040	429C
<b>BK</b>	Black	9004	426C
<b>DB</b>	Dark Bronze	6022	BLACK 2C
<b>DB1</b>	Dark Bronze	8019	412
<b>WH</b>	White	9003	11-0601
<b>NA</b>	Natural Aluminum	9006	N/A

### Performance Data 3000K

All data nominal. IES files are available at leotek.com.

LED Code	Output Code	Drive Current (mA)	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)	Field Adjustable Output Range <sup>2</sup>
<b>48N</b>	030	120	22	2970	135	↑ ↓
	040	170	29	4020	139	
	055	230	39	5500	141	
	080	350	52	7500	144	
	100	500	72	9930	138	↑ ↓
	120	620	88	12090	137	
	150	800	113	15020	133	
	170	940	138	17680	128	
	190	1050	149	19200	129	

### Performance Data 4000K & 5000K

All data nominal. IES files are available at leotek.com.

LED Code	Output Code	Drive Current (mA)	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)	Field Adjustable Output Range <sup>2</sup>
<b>48N</b>	030	120	22	3160	144	↑ ↓
	040	170	29	4370	151	
	060	230	39	5900	151	
	080	350	52	7890	152	
	100	500	72	10900	151	↑ ↓
	120	620	88	12900	147	
	160	800	113	16600	147	
	190	940	138	19600	142	
	200	1050	149	20600	138	

**Notes:**

- 1 Normal tolerance ± 10% due to factors including distribution type, LED bin variance, driver variance, and ambient temperatures.
- 2 Performance codes available in two ranges for adjustable output as shown in performance data tables. Output set at factory to specified performance code.

### BUG Ratings: 3000K (30K)

All data nominal. IES files for all CCTs are available at [www.leotek.com](http://www.leotek.com).

Product & LED Code	Output Code	Type 2	Type 3	Type 4	Type 5	Auto Front Row
		BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
AR13 48N	030	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G0	B1-U0-G1
	040	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1	B1-U0-G1
	055	B1-U0-G1	B1-U0-G1	B2-U0-G1	B3-U0-G1	B2-U0-G1
	080	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G1	B2-U0-G2
AR13 48N	100	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B2-U0-G2
	120	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G2	B3-U0-G2
	150	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3
	170	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3
	190	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3

### BUG Ratings: 4000K (40K) and 5000K (50K)

All data nominal. IES files are available at [leotek.com](http://leotek.com).

Product & LED Code	Output Code	Type 2	Type 3	Type 4	Type 5	Auto Front Row
		BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
AR13 48N	030	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1	B1-U0-G1
	040	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1	B1-U0-G1
	060	B1-U0-G1	B1-U0-G1	B2-U0-G1	B3-U0-G1	B1-U0-G1
	080	B2-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G1	B2-U0-G1
AR13 48N	100	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B2-U0-G2
	120	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2	B2-U0-G2
	160	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3
	190	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3
	200	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2	B3-U0-G3

Notes:

- 1 Normal tolerance ± 10% due to factors including distribution type, LED bin variance, driver variance, and ambient temperatures.
- 2 Performance codes available in two ranges for adjustable output as shown in performance data tables. Output set at factory to specified performance code.

### Motion Sensor (Optional) Specifications

#### Description

Digital passive infrared luminaire integrated outdoor occupancy sensor provides high/low/off control based on motion detection. Initial setup and subsequent sensor adjustments are made using a handheld configuration tool. PCR option is required for On/Off control using light detection.

#### Operation

Standard factory setting will dim the luminaire to 50% until motion is sensed and then it will power to 100%. When motion is not detected for five minutes, the luminaire will dim back to 50%. Ramp up and fade down times are adjustable, but initially set to NONE. The percent dimming and time durations may be field adjusted as required using FSIR-100 configuration tool. FSIR-100 user guide available at: [www.wattstopper.com](http://www.wattstopper.com).

#### Optical System

Multi-cell, multi-tier Fresnel lens with a 360 degree view detects unobstructed motion within one mounting height, up to 20 ft. maximum (MSL3) or 40 ft. maximum (MSL7). Consult factory for higher mounting height requirements.

#### Finish

Sensor exterior ring and lens are white polycarbonate, UV and impact resistant.

#### Listings/Ratings

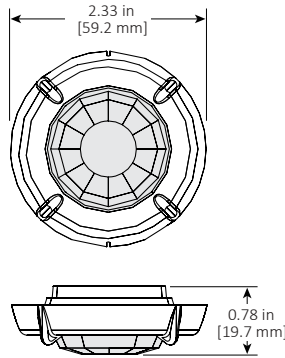
Sensor is TUV, UL and cUL listed, IP66 rated and CE compliant.

#### Warranty

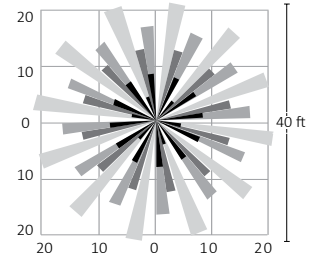
5-year limited warranty on luminaires and components with a motion sensor.

### Motion Sensor (Optional) Data

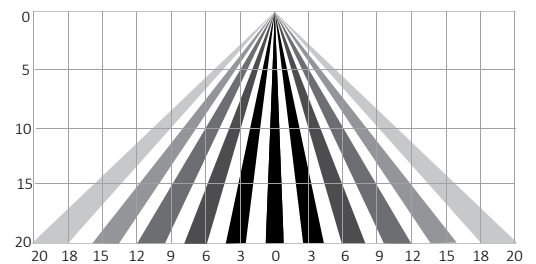
#### MSL3 Lens Dimensions



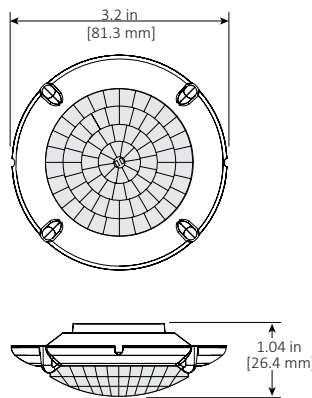
MSL3 Lens Coverage Top View



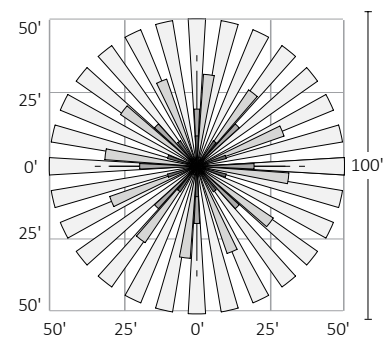
MSL3 Lens Coverage Side View



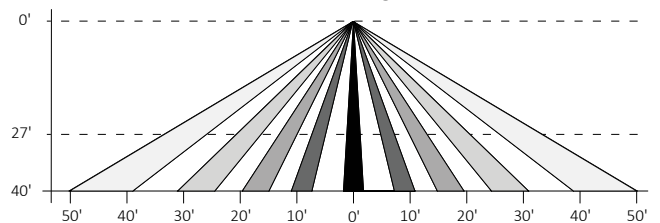
#### MSL7 Lens Dimensions



MSL7 Lens Coverage Top View



MSL7 Lens Coverage Side View



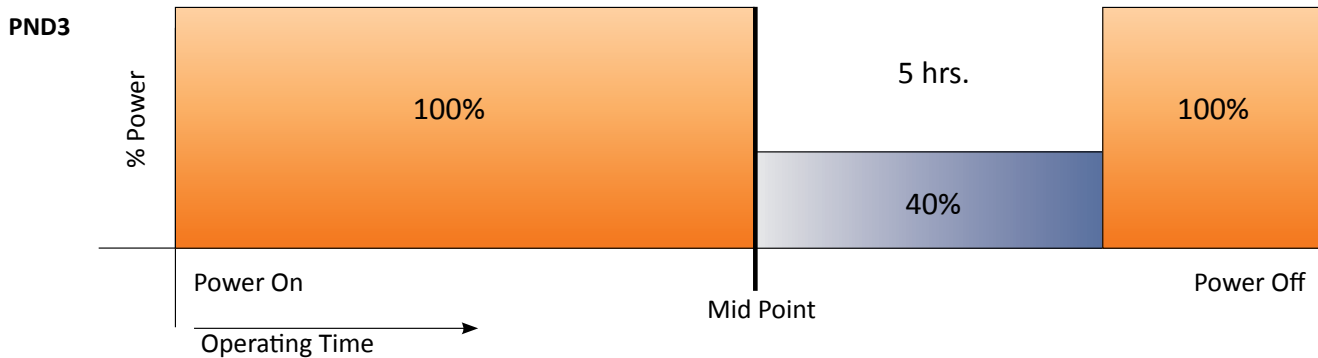
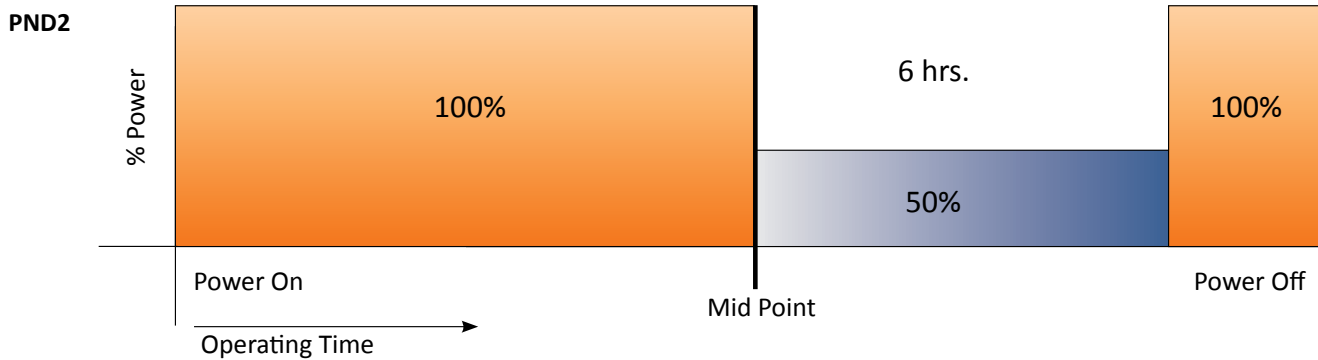
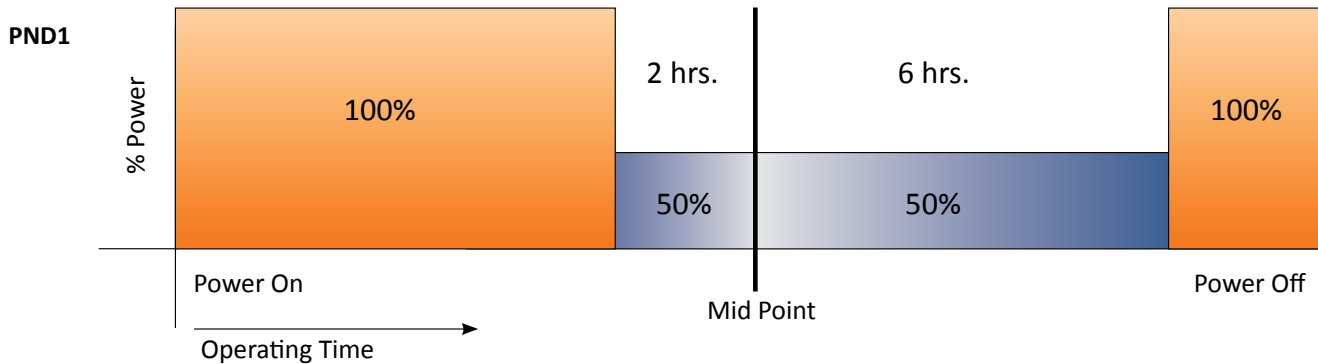
### Part-Night Dimming Specifications

#### Description

Arieta's Part-Night Dimming (PND) option enables significant energy savings by automatically dimming the luminaire during early morning hours when infrequent use is expected. Factory programmed dimming profiles automatically take into account seasonal changes based on geographical location by continuously monitoring the nighttime midpoint. PND does not provide power on/off control which is provided by external controls (example: time clock) or a photocontrol using PCR3 or PCR7 option. Dimming profile of PND option is not field adjustable.

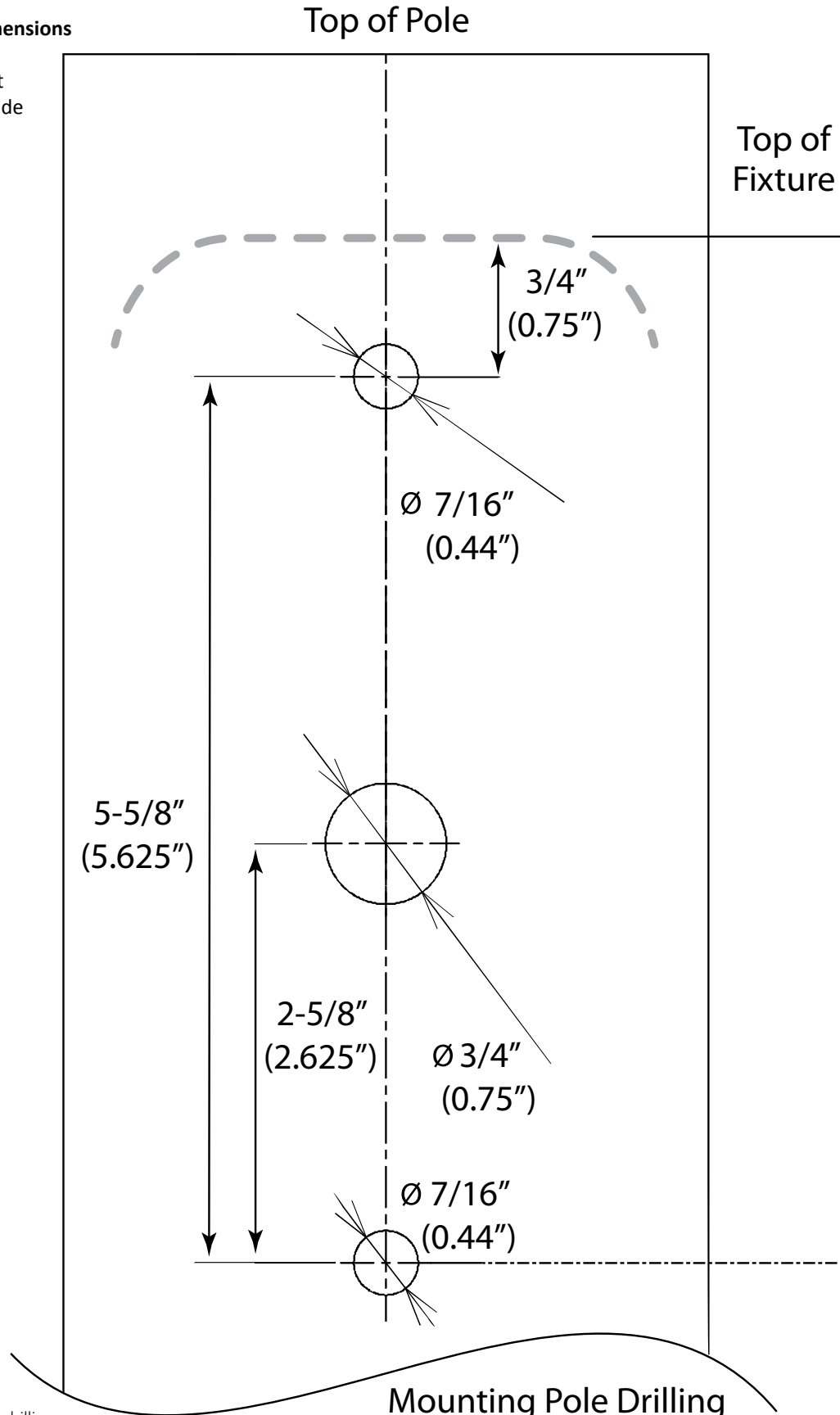
#### Operation

Based on the PND profile that is selected, the luminaire dims to the corresponding % power for the corresponding length of time (based on the nighttime mid-point) as shown below. Mid-point is continuously recalculated in the luminaire by monitoring the average length of time between when the light turns on (power on) and turns off (power off) over the previous two days. In effect, this functionality will take two days to initialize after installation before any dimming will occur. Power interruptions are ignored and do not affect the determination of mid-point. A motion sensor (MSL3 or MSL7) can be used with PND to temporarily override the dimming profile when motion is detected. Three factory programmed PND profiles are available for selection:



**Pole Mount Drilling Dimensions  
for New Construction**

For more details, consult  
the Arieta Installation Guide



**Mounting Pole Drilling  
Dimensions for New Construction**

If printing this page to be used as a drilling  
template, for best results update printer  
settings from: "Fit to Page" to "Actual Size".