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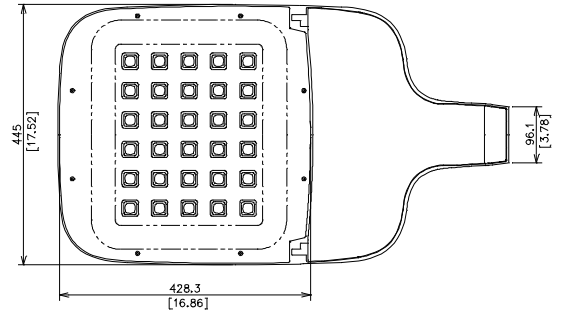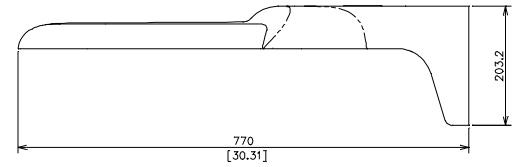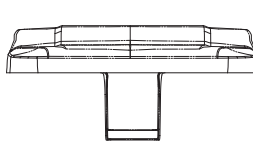
ARIETA® 18 Architectural LED Area Luminaire
AR18 M2 Series Specification Data Sheet

Luminaire Data

Weight 24 lbs [10.9 kg]
EPA 0.55 ft^2

Ordering Information
Sample Catalog No. AR18 20M2 MV NW 3 DB 700 HSS

Product	LED Code	Voltage (RAL6022)	Nominal Color Temperature	Distribution	Finish[1]	Drive Current Code[2]	Options
AR18	6M2 10M2 15M2 18M2 20M2 24M2 30M2	MV 120-277V HV 347-480V	WW 3000K NW 4000K CW 5000K	2 Type 2 3 Type 3 4 Type 4 5 Type 5	BK Black DB Dark Bronze (RAL6022) DB1 Dark Bronze (RAL8019) WH White GY Gray NA Natural Aluminum	350 530 700	HSS[3] House Side Shield (Factory Installed) FDC[4] Fixed Drive Current FFA[5] Full Field Adjustabilty PCR[6] NEMA Photocontrol Receptacle PCR7[6] ANSI 7-wire Photocontrol Receptacle PCR7-CR[7] Control Ready 7-wire Photocontrol Receptacle MSL7[8] Motion Sensor with L7 Lens MSL3[8] Motion Sensor with L3 Lens PND1[9] Part-Night Dimming PND2[9] Part-Night Dimming PND3[9] Part-Night Dimming ORR Optics Rotated Right ORL Optics Rotated Left WL Utility Wattage Label

Notes:

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 drive current code is the factory set maximum drive current. Field adjustable current selector enables standard dimming to lower wattage drive currents only. Consult factory if wattage limits require a special drive current.

3 Flush mounted shield factory installed, also available for field installion. House Side Shield cuts light off at 1/2 mounting height behind luminaire.

4 Non-field adjustable drive current. Specify 350mA, 530mA or 700mA setting.

5 The FFA option enables full field adjustability from the specified drive current code to all drive currents available. This option is not DLC qualified.

6 Field adjustable current selector included to enable standard dimming to lower wattage drive currents only. Field changeable connectors included to enable connection to PCR7 (wireless node dimming is disabled by default).

7 Control-ready wired at factory for wireless node dimming. Supplied at maximum drive current. If lower drive current is required, consult factory.

8 Motion Sensor available with MV or HV. See L7 or L3 Lens coverage details on page 5. Consult factory for MS specified with ANSI 7-wire Photocontrol Receptacle. PCR option is required for On/Off control using light detection.

9 For PND profile options see page 6. Only available with MV (120-277V).

10 Specify Color (GY, DB, DB 1, BK, WH, NA)

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

Accessories*	
HSSAR18[3,10]	House Side Shield
RPA[10]	Round Pole Adapter
PTF1[10]	Square Pole Top Fitter Single
PTF2[10]	Square Pole Top Fitter Twin at 180°
PTF4[10]	Square Pole Top Fitter Quad
WM[10]	Wall Mount
BSK	Bird Deterrent Spider Kit
LLPC[11]	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 redrilling 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 (WW), 4000K (NW), or 5000K (CW) and 70 CRI minimum. LEDs are 100% mercury and lead free.

Field Adjustability
LED drive current can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified drive current code will be the factory set maximum drive current and field adjustments can only be made to available lower wattage drive currents. Select the FFA option if full field adjustability to all available drive currents (700mA max) is desired. The FFA option is not DLC qualified.

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 produce IESNA Type 2, Type 3, Type 4 or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90º (BUG Rating, U=0). Optional house side shield (HSS) cuts light off at 1/2 mounting height behind luminaire. 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. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

Controls
3-Wire photocontrol receptacle (PCR) is available. ANSI C136.41 or 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. 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
GY	Gray	7040	429C
BK	Black	9004	426C
DB	Dark Bronze	6022	BLACK 2C
DB1	Dark Bronze	8019	412
WH	White	9003	11-0601
NA	Natural Aluminum	9006	N/A

Performance Data 3000K (WW)
All data nominal. IES files are available at leotek.com.

LED Code	Current Code	System Wattage (W)	Type 2, 3, 4		Type 5	
			Delivered Lumens (Lm)[1]	Efficacy (Lm/W)	Delivered Lumens (Lm) [1]	Efficacy (Lm/W)
6M2	350	29	2930	101	2750	95
	530	41	4110	99	3860	93
	700	54	5040	94	4950	92
10M2	350	41	4600	112	4500	109
	530	63	6700	106	6600	104
	700	87	8500	97	8400	96
15M2	350	63	7400	117	7300	116
	530	90	9600	107	9500	106
	700	124	12900	104	12700	102
18M2	350	81	9000	111	9100	112
	530	122	12800	105	13000	107
	700	160	16400	103	16700	104
20M2	350	84	10700	127	10800	129
	530	132	15300	116	15500	117
	700	172	18200	106	18500	108
24M2	350	98	10700	109	10800	110
	530	152	15300	100	15500	102
	700	209	19500	93	19900	95
30M2	350	133	14300	107	14500	109
	530	202	20400	101	20600	102
	700	262	24500	93	24800	95

Notes:
1 Normal tolerance ± 10% due to factors including distribution type, LED bin variance, driver variance, and ambient temperatures.

Performance Data 4000K (NW) & 5000K (CW)

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

LED Code	Current Code	System Wattage (W)	Type 2, 3, 4		Type 5	
			Delivered Lumens (Lm) [1]	Efficacy (Lm/W)	Delivered Lumens (Lm) [1]	Efficacy (Lm/W)
6M2	350	29	3490	120	3480	120
	530	41	4810	116	4850	117
	700	54	5980	111	5880	109
10M2	350	41	5400	132	5300	129
	530	63	7800	124	7700	122
	700	87	10000	115	9800	113
15M2	350	63	8400	133	8300	132
	530	90	11500	128	11300	126
	700	124	15000	121	14700	119
18M2	350	81	9600	119	9700	120
	530	122	13700	112	13900	114
	700	160	17500	109	17800	111
20M2	350	84	10600	126	10800	129
	530	132	15200	115	15500	117
	700	172	19500	114	19800	115
24M2	350	98	12500	128	12700	130
	530	152	17900	118	18600	122
	700	209	23400	112	23800	114
30M2	350	133	16900	127	16800	126
	530	202	24100	119	24000	119
	700	262	28900	110	29300	112

Notes:

1 Normal tolerance ± 10% due to factors including distribution type, LED bin variance, driver variance, and ambient temperatures.

BUG Ratings: 3000K (WW)

All data nominal. IES files for all CCTs are available at leotek.com.

LED Code	Current Code	Type 2	Type 3	Type 4	Type 5
6M2	350	B1 U0 G1	B1 U0 G1	B1 U0 G1	B2 U0 G0
	530	B1 U0 G1	B1 U0 G1	B1 U0 G1	B2 U0 G1
	700	B1 U0 G1	B1 U0 G1	B1 U0 G1	B3 U0 G1
10M2	350	B1 U0 G1	B1 U0 G1	B1 U0 G1	B2 U0 G1
	530	B1 U0 G1	B1 U0 G1	B2 U0 G1	B3 U0 G1
	700	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
15M2	350	B1 U0 G1	B1 U0 G2	B2 U0 G2	B3 U0 G1
	530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	700	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
18M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
	700	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
20M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B3 U0 G3	B2 U0 G2	B3 U0 G2	B4 U0 G2
	700	B3 U0 G3	B3 U0 G3	B3 U0 G2	B4 U0 G2
24M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B3 U0 G3	B2 U0 G2	B2 U0 G2	B4 U0 G2
	700	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
30M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B4 U0 G2
	530	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
	700	B3 U0 G3	B3 U0 G3	B3 U0 G3	B5 U0 G3

BUG Ratings: 4000K (NW) & 5000K (CW)

All data nominal. IES files for all CCTs are available at leotek.com.

LED Code	Current Code	Type 2	Type 3	Type 4	Type 5
6M2	350	B1 U0 G1	B1 U0 G1	B1 U0 G1	B2 U0 G1
	530	B1 U0 G1	B1 U0 G1	B1 U0 G1	B3 U0 G1
	700	B1 U0 G1	B1 U0 G1	B1 U0 G1	B3 U0 G1
10M2	350	B1 U0 G1	B1 U0 G1	B1 U0 G1	B3 U0 G1
	530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
	700	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
15M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
	530	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	700	B2 U0 G2*	B2 U0 G2	B3 U0 G2	B4 U0 G2
18M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B2 U0 G2	B2 U0 G2	B3 U0 G2	B4 U0 G2
	700	B3 U0 G3	B3 U0 G2*	B3 U0 G2	B4 U0 G2
20M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B2 U0 G2*	B2 U0 G2	B3 U0 G2	B4 U0 G2
	700	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2
24M2	350	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	530	B3 U0 G3	B3 U0 G2*	B3 U0 G2	B4 U0 G2
	700	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2*
30M2	350	B3 U0 G3	B2 U0 G2*	B3 U0 G2	B4 U0 G2
	530	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2*
	700	B3 U0 G3	B3 U0 G4	B3 U0 G4	B5 U0 G3

* These BUG ratings are slightly different for 5000K (CW). Refer to IES files for actual CW rating.

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. Available with both MV and HV input voltage options.

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.

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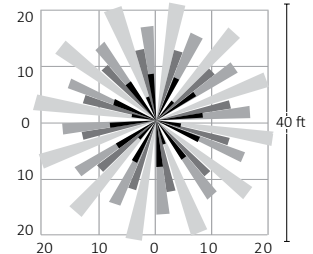Sensor is TUV, UL and cUL listed, IP66 rated and CE compliant.

Warranty
5-year limited warranty on luminaires and components with a motion sensor.
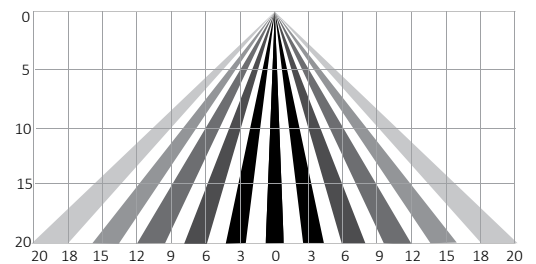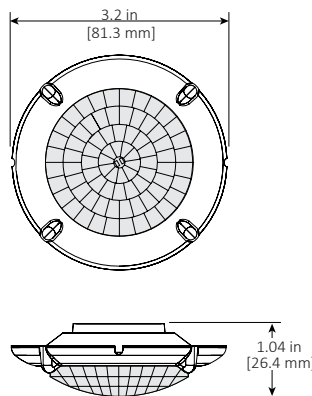
Motion Sensor (Optional) Data

MSL3 Lens Dimensions

2.33 in [59.2 mm]

0.78 in [19.7 mm]
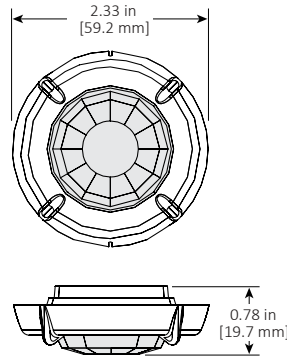
MSL3 Lens Coverage Top View

40 ft

MSL3 Lens Coverage Side View

MSL7 Lens Dimensions

3.2 in [81.3 mm]

1.04 in [26.4 mm]

L7 Lens Coverage Top View

100'
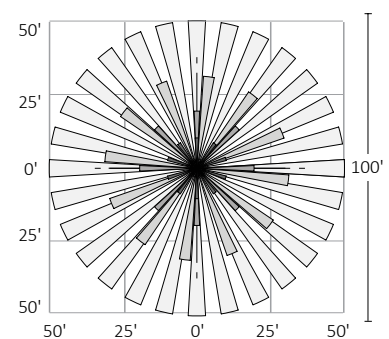
L7 Lens Coverage Side View
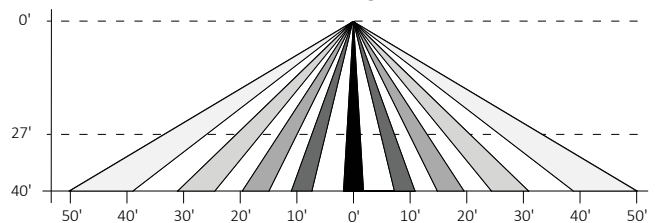
Part-Night Dimming Specifications

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. This option is fully compatible with photocells and time clock devices, but 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:

PND1

PND2

PND3
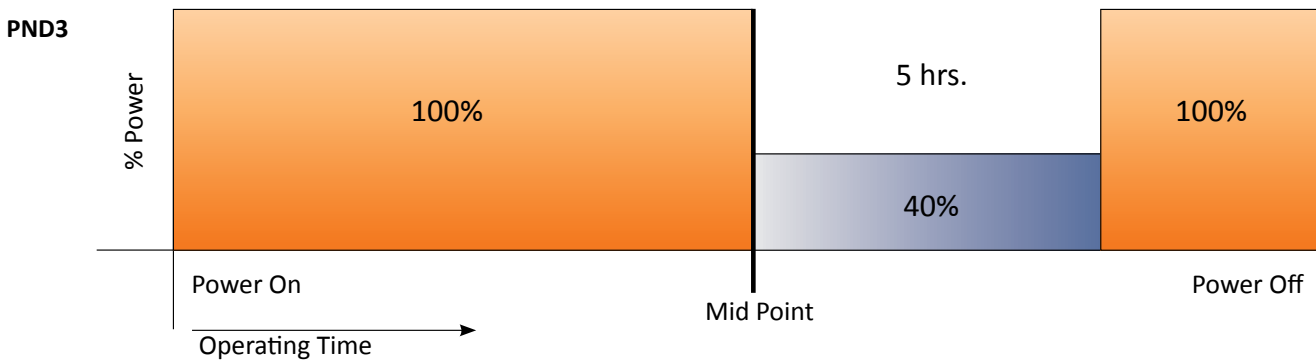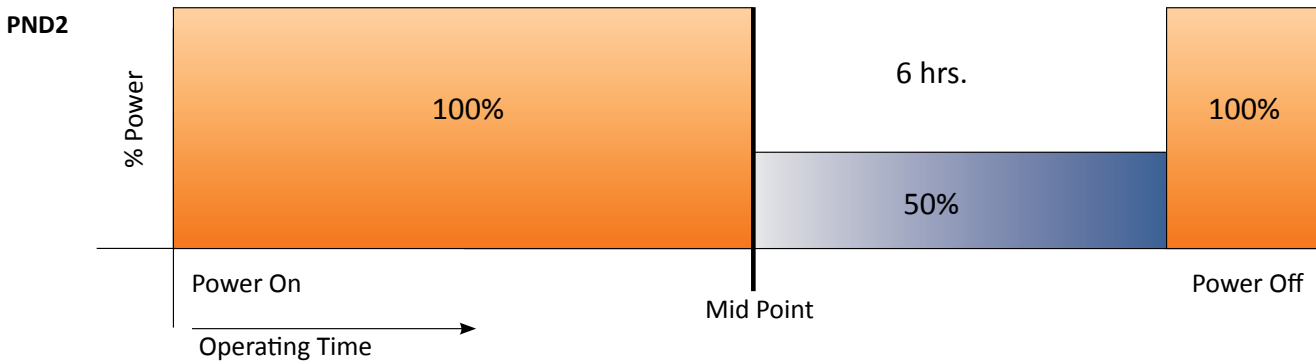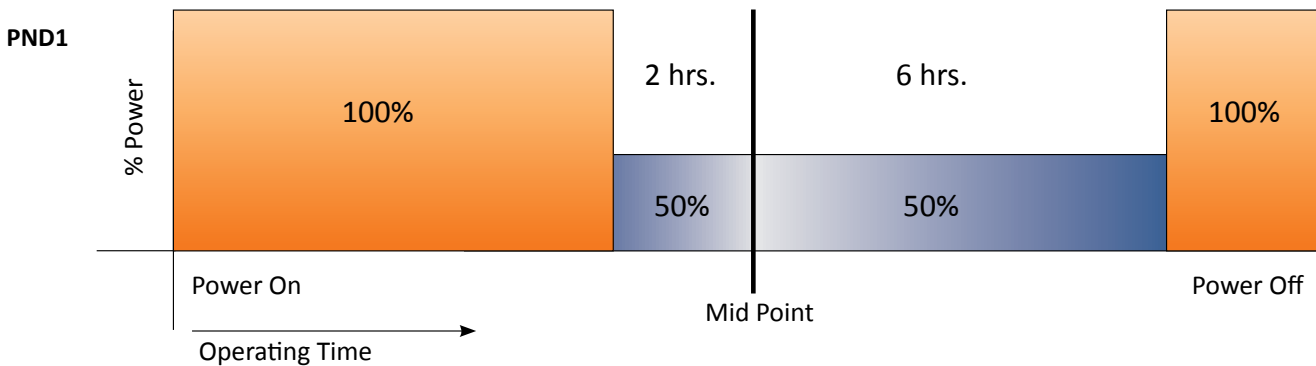
**Pole Mount Drilling Dimensions
for New Construction**
For more details, consult
the Arieta Instllation Guide

Top of Pole

Top of
Fixture

3/4"
(0.75")

Ø 7/16"
(0.44")

5-5/8"
(5.625")

2-5/8"
(2.625")

Ø 3/4"
(0.75")

Ø 7/16"
(0.44")