



GARDEN SERIES DIM-TO-OFF FUNCTIONALITY

Plants can be sensitive to the duration and intensity of light, and some plant species have specific dark period requirements during various phases of growth that need to be managed. **URBARN** understands these photo periods and the need for light deprivation and can offer you guidance when selecting the right tools to grow with.

Many horticultural luminaires incorporate dim-to-off functionality. **URBARN** offers its Garden Series luminaires with a dim-to-off option. It is important to recognize that normal facility electromagnetic interference (EMI) from FANS, HVAC, or other ELECTRICAL SOURCES may interrupt and impact the dimming signal to **URBARN** luminaires. These issues may cause the light fixtures to glow nominally or to turn on entirely, thus interrupting the necessary dark period.

Suggestions for mitigation include:

1. **URBARN** recommends the use of AC circuit contactors to ensure that glowing or dimming interruptions are mitigated by completely disconnecting the facility AC voltage from the luminaire.
2. **URBARN** recommends using a shielded communication cable that runs from the luminaire to the controller. Wire should be thermally rated to withstand any contact with LED drivers or aluminum housing. Wire connections and splices should be made with an insulated and moisture resistant connector.

Our team is here to support you in assessing your lighting requirement, crop cultivation practices, and infrastructure needs. **Please contact** support@abundant.lighting for matters regarding “dim-to-off.”

Visit our support center for more information.

www.urbarn.com/support

Parameter		Min.	Typ.	Max.	Remark
0-10V Dimming (Optional)	Dim Vcc	0V		12V	
	Dim Range	10% Io Set		100% Io Set	DIM+ source current 110uA
	Rec. Dim Range	0V		10V	
PWM Dimming (Optional)	PWM High	9.8V		10.2V	
	PWN Low	0V		0.3V	DIM+ source current 110uA
	Frequency	1KHz		2KHz	
	PWM Duty	0%		100%	
Resistor Dimming (Optional)	Resistance	0K		100K	
	Dim Range	10%		100%	
Dim to Off	Dim Off	7%	8%	9%	
	Dim On	8%	9%	10%	

EMI/EMS	Criterion	Remark
Conduction Emission	EN55015:2013+A1:2015 FCC Part 15 Subpart B; ANSI C63.4:2014	Class B
Radiation Emission	EN55015:2013+A1:2015 FCC Part 15 Subpart B; ANSI C63.4:2014	Class B
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C
Surge	IEC/EN 61000-4-5	DM: 6kV,CM: 10kV, Criterion B
Ring Wave	IEC/EN 61000-4-12	DM: 6kV,CM: 6kV, Criterion B

Min. Control Wire Gauge	18AWG
Conductors	2
Cable Type	Shielded
Wire Splice	Moisture Resistant
Max Interconnected Fixtures	28
Max Distance to Last Fixture	200 FT

O/P Power Vs. Dimming

