NEMA BL 3-2013 (R2021)

Dimming Ballast Energy Performance

Published by

National Electrical Manufacturers Association 1300 North 17th Street, Suite 900 Rosslyn, Virginia 22209

Approved: August 11, 2021

www.nema.org

© 2021 National Electrical Manufacturers Association. All rights including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works, and the International and Pan American Copyright Conventions.

NOTICE AND DISCLAIMER

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

National Electrical Manufacturers Association (NEMA) Standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus Standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in its Standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, expressed or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer or seller's products or services by virtue of this Standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity, nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other Standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test, or inspect products, designs, or installations for safety or health purposes. Any certification or other statement of compliance with any health or safety–related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

CONTENTS

Section 1 (General	. 5
1.1	Scope	. 5
1.2	Normative References	. 5
1.3	Definitions	. 5
Section 2 E	Section 2 Background	
Section 3 On-State Power Consumption		
Section 4 (Section 4 Off-State Power Consumption	
	uppendix A (Informative)	

Foreword

The NEMA Ballast Section has prepared this Standard, *Dimming Ballast Energy Performance*. This Standard provides a methodology for applying existing test methods for program start ballasts to fluorescent dimming ballasts and provides a way to calculate BLE for fluorescent dimming ballasts. In the preparation of this Standard, input of users and other interested parties has been sought and evaluated. Inquiries, comments, and proposed or recommended revisions should be submitted to the concerned NEMA product subdivision by contacting:

NEMA Technical Operations Department National Electrical Manufacturers Association 1300 North 17th Street, Suite 900 Rosslyn, Virginia 22209

Section approval of the Standard does not necessarily imply that all section Members voted for its approval or participated in its development.

At the time the Standard was approved, the Ballast Section was composed of the following Members:

Acuity Brands Lighting Atlas Lighting Products, Inc. Crestron DALI & LED Drivers Eaton's Cooper Lighting ELB Electronics, Inc. **GE** Lighting Halco Lighting Technologies Hubbell Lighting, Inc. Leviton Lighting & Energy Solutions Lutron Electronics Company, Inc. MaxLite OSRAM SYLVANIA Inc. Philips Lighting Electronics North America Sunpark Electronics Corp. Technical Consumer Products, Inc. Ultrasave Lighting Ltd. Universal Lighting Technologies Venture Lighting International

Section 1 General

1.1 Scope

This Standard provides a methodology for applying existing test methods for program start ballasts to fluorescent dimming ballasts and provides a way to calculate BLE for fluorescent dimming ballasts. NEMA offers this Standard to augment and harmonize with the 2014 Department of Energy (DOE) fluorescent ballast regulations. By design, dimming ballasts are already energy saving, but this Standard would provide the methodology to also calculate new BLE limits for fluorescent dimming ballasts. This Standard offers BLE limits for ballasts of common four foot bi-pin lamps, such as T8 and T5 lamps that are not covered by the most recent Federal rulemaking.