

DTL DUR103 Control Specification Guideline  
Division 16520

PART 1. GENERAL

1.1 INTRODUCTION

- A. The intent of this specification is to provide for furnishing, installing, testing and placing into operation, a remote locking-type photocontrol receptacle with a mounting bracket.

1.2 DESCRIPTION OF WORK

- A. Provide a remote photocontrol receptacle with a mounting bracket for use with outdoor lighting.
- B. Requirements are indicated elsewhere in these specifications.

1.3 QUALITY ASSURANCE

- A. Independent Testing Laboratory - The receptacle assemblies shall be tested and listed under the UL 773.
- B. Manufacturer experience - To insure a uniform installation and single responsibility, all switching equipment described herein shall be supplied by a manufacturer with a minimum of 10 years experience in lighting control systems.
- C. Manufacturer shall be:

Dark To Light  
3825 Columbus Rd. SW  
Granville, Oh. 43023  
800-442-6745  
www.darktolight.com

- D. Manufacturing Location shall be ISO certified.
- E. Product shall be DTL (Dark To Light) **DUR103**. Alternate products meeting prior approval requirements may be proposed as add or deduct alternate only.

1.4 CODES AND STANDARDS

- A. UL 773
- B. ANSI C136.10
- C. ANSI C136.24
- D. ANSI C136.2-2004
- E. IEEE C62.41.2-2002
- F. IES DG-13

1.5 SUBMITTALS

Prior to fabrication manufacture shall submit the following materials for approval.

- A. Manufacturer's published catalog data sheets for all equipment and components of the photocontrol receptacle assemblies.
- B. Shop Drawings - Submit detailed drawings and documentation of photocontrol receptacle assemblies. As a minimum, the shop drawings shall include the following:
  - 1. Schematic diagrams
  - 2. Full catalog sheets

PART 2. PRODUCTS

## 2.1 SYSTEM DESCRIPTION

- A. The photocontrol receptacle assembly shall interface with photocontrols to control all luminaire on which it is installed.
- B. The photocontrol receptacle assembly shall interface with locking type photocontrol as per ANSI C136.10

## 2.2 RATINGS

- A. Photocontrol receptacle shall have a rated line voltage of 120-480 Volts AC at 50/60 Hertz
- B. Photocontrol receptacle shall have a load rating of at least 15 amps
- C. Photocontrol receptacle shall operate in -40 degrees to 158 degrees Fahrenheit (-40 degrees to 70 degrees Celsius) ambient temperatures
- D. Photocontrol receptacle shall withstand an Interface Temperature of 105 degrees Celsius where Interface Temperature is defined in ANSI C136.10

## 2.3 HARDWARE

- A. Housing and Nipple
  - 1. The housing shall be 2.5 inches (63.5 millimeters) high and 2.5 inches (63.5 millimeters) in diameter
  - 2. The photocontrol receptacle shall weigh 4.35 ounces (122.5 grams)
  - 3. Housing of photocontrol receptacle shall be black polycarbonate or polyester with a gray polycarbonate cup
  - 4. Housing shall be made of an impact and UV resistant material.
    - a.) Photocontrol receptacle shall have an impact resistance of greater than 1.0 ft-lbs at -20°C
    - b.) Photocontrol receptacle shall pass an impact test after 1000 hours in a QUV chamber
      - Color shift shall not be more than one Pantone number after the QUV test
  - 5. The bottom of the receptacle cup shall be a threaded nipple with half inch straight pipe thread that fits a standard half inch knock-out or threaded connector
  - 6. Photocontrol receptacle shall withstand a drop of three feet to a concrete floor without causing damage to the casing or changing electrical operation
- B. Housing Labeling
  - 1. A directional arrow marked "NORTH" shall be molded on the top of the casing so an installer knows how to properly line up an inserted photocontrol.
- C. Bracket
  - 1. Bracket shall be made of aluminum
  - 2. Bracket shall be L-shaped
  - 3. Bracket shall be 1.25 inches wide (31.75 millimeters), 0.125 inches (3.175 millimeters) thick, 5 inches (127 millimeters) long on the long end, and 2.75 inches (69.85 millimeters) long on the short end
  - 4. The long end of the bracket shall contain two mounting holes for attaching the bracket to poles or other supports
  - 5. The short end of the bracket shall contain a circular opening to fit nipple of receptacle cup.
- D. Nut
  - 1. Photocontrol receptacle assembly shall include an galvanized steel ½ inch locknut to hold the receptacle in place on the bracket
- E. Leads
  - 1. Photocontrol receptacle shall have three leads assigned as follows:
    - a.) Black = line
    - b.) Red = load
    - c.) White = neutral or common
  - 2. Leads shall be a minimum of 18 inches (457.2 millimeters) long
  - 3. Ends of the leads shall be stripped 0.5 inches (12.7 millimeters)
  - 4. Leads shall use #14 AWG (American Wire Gauge)
  - 5. Leads shall be rated for use up to 105 degrees Celsius
  - 6. Leads shall be capable of withstanding a five pound force (22.24 Newton) pull

## 2.4 PACKAGING

- A. The photocontrol receptacles shall be sold in packages of 12 units
- B. Each photocontrol receptacles shall be individually packaged inside its own poly bag

## PART 3: EXECUTION

### 3.1 EQUIPMENT INSTALLATION AND DOCUMENTATION

- A. Installation - The photocontrol receptacle shall be installed and connected as directed by the manufacturer and in accordance with all applicable codes.
- B. Documentation - The complete product specification shall be available from the manufacturer.

### 3.2 PRODUCT SUPPORT AND SERVICE

Factory telephone support shall be available at no cost to the owner. Factory assistance shall consist of assistance in solving application issues pertaining to the control equipment.

### 3.3 WARRANTY

Manufacturer shall provide a six year (6) limited warranty on the photocontrol consisting of a one for one control replacement. The official warranty policy is the following:

DTL undertakes that this product shall operate within its original operating specifications and shall be free of electrical or mechanical defects. DTL's liability hereunder shall be limited to providing a replacement unit and shall not cover the costs of removal or installation of the unit nor any consequential damages.

This express warranty is in lieu of and excludes all other warranties, guaranties or representations, expressed or implied, including, but not limited to, warranties of merchantability or fitness for a specific purpose, by operation of law or otherwise.

END