Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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Contact us

Tyco Electronics

Circular Light Module (CN88)

Top Ring

Compression Ring

Reflector

Protection Cover

PCBA

Screws and Washers

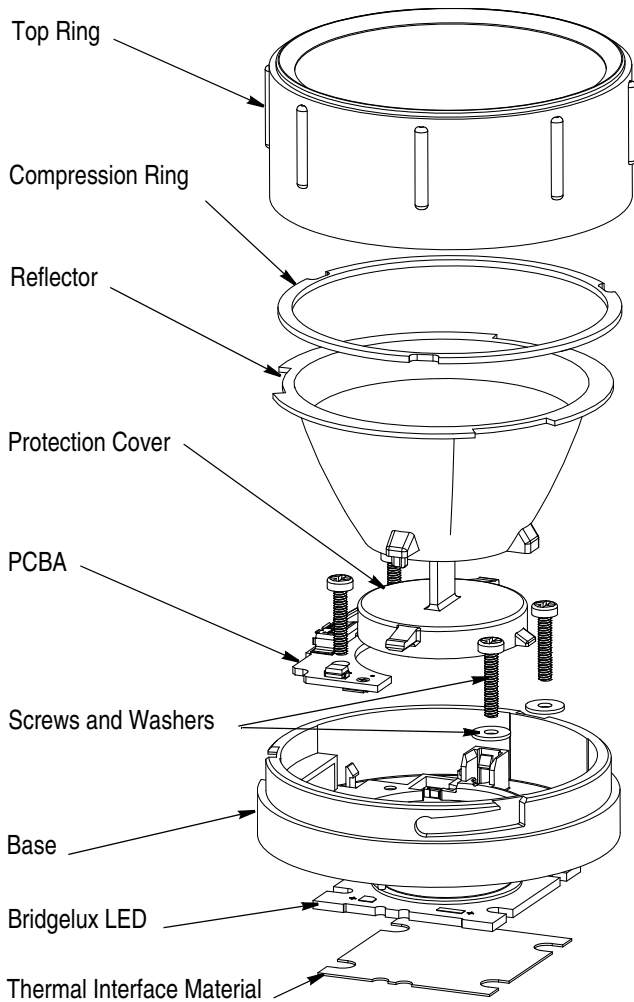Base

Bridgelux LED

Thermal Interface Material

Figure 1

1. INTRODUCTION

The circular Light Module (CN88), (part number 2154159-[ ]), is designed as a compact, self-contained, easy-to-mount, plug-and-play circular module to be used in both prototype and custom production applications. This module is to be used with the NEVALO* Interconnect System (refer to Tyco Electronics (TE) Application Specification 114-13290). The module can be used with the Straight and Right-Angle NEVALO Connectors.

NOTE *All numerical are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of ±0.13 and angles have a tolerance of ±2°. Figures and illustrations are for identification only and not drawn to scale.*

Bridgelux is a trademark.

2. DESCRIPTION

This module consists of a base with mounting hardware, Bridgelux LED, PCBA with thermal protection, Thermal Interface Material (TIM), protection cover, reflector with multiple beam angle configurations (narrow and wide), and a snap-on top ring. The module is available in several configurations. See Figure 1.

3. ASSEMBLY PROCEDURE

NOTE *The module must be assembled by a qualified electrician in accordance with national and local electrical codes and the following instructions.*

3.1. Heat Sink Mounting

NOTE *The thermal management of the overall system is critical to the life of the LED. It is very important that the thermal management is adequate for the LED lighting fixture being used. For more detailed information, refer to Application Specification 114-13300.*

Figure 2 shows a properly sized heat sink mounting pattern. For low volume production applications of the CN88, TE offers a Transfer Punch Guide (part number 2154454-1) to assist in the making of the heat sink mounting hole drill locations. See Figure 2.
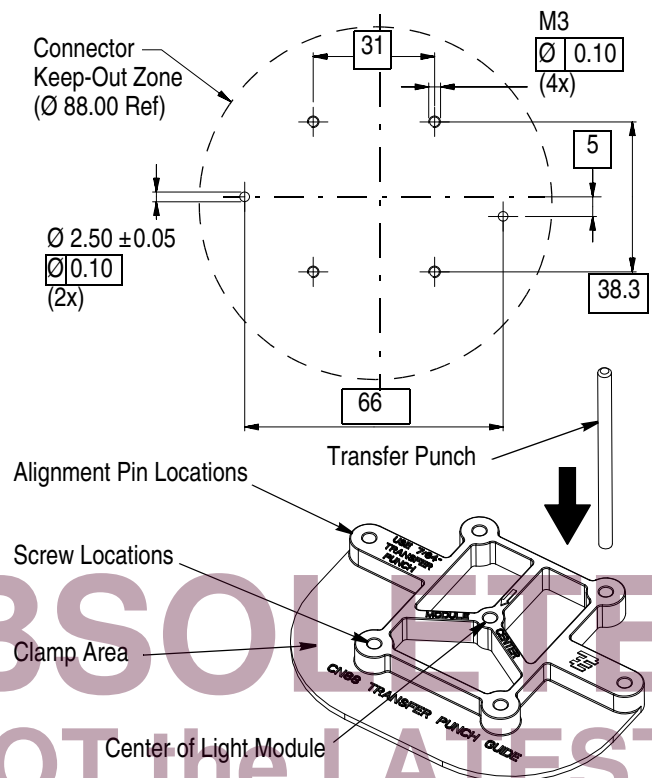
Connector Keep-Out Zone (Ø 88.00 Ref)

M3
Ø 0.10
(4x)

31

5

Ø 2.50 ±0.05
Ø 0.10
(2x)

38.3

66

Transfer Punch

Alignment Pin Locations

Screw Locations

Clamp Area

Center of Light Module

Figure 2

TOOLING ASSISTANCE CENTER 1-800-722-1111
PRODUCT INFORMATION 1-800-522-6752

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LOC B

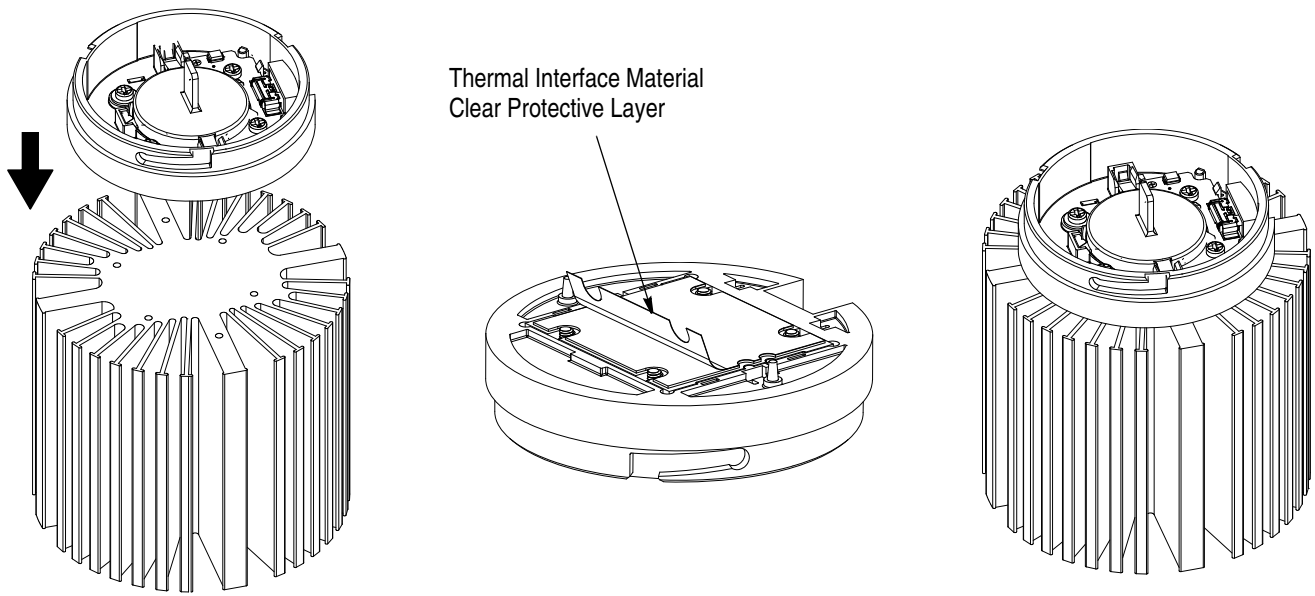Thermal Interface Material
Clear Protective Layer

Figure 3

3.2. Mounting the Circular Light Module (CN88)

1. Once the heat sink has been properly sized and prepared for the application of the Circular Light Module (CN88), the base sub-assembly (base housing, screws, protection cover, PCBA, LED, and TIM) can be aligned over the mounting holes. Mounting screws to be alternately tightened to a torque of 0.28 to 0.45 N•m [2.5 to 4.0 in.-lbf]. See Figure 3. The protective cover can now be removed.

| CAUTION ⚠ | *When mounting the module, care must be taken not to damage the light module and LEDs with the screwdriver used for tightening the mounting screws. The protection cover is protecting the LED during this operation.* |

| CAUTION ⚠ | *If the clear protective layer on the TIM material is not removed, optimum thermal performance will not be achieved.* |

2. The reflector is then installed, aligning three keyways. Reflector posts have a slight click-fit into the light engine holes. Firmly seat the optic in place. See Figure 4.

| CAUTION ⚠ | *TE recommends that when handling the reflector, that non-marking gloves be used. The reflector should be handled by the outer diameter to eliminate the chance of leaving marks within the light emitting area.* |

3. The top ring (with compression ring pre-assembled) is then lowered over the light module, aligning three (3) pegs in the top ring to three (3) guide features in the base. With a slight downward pressure (to compress the compression ring and a clockwise twist), you will feel and hear a tactile and audible click. This secures the top ring on the Circular Light Module (CN88) and completes the assembly. See Figure 5. Refer to Application

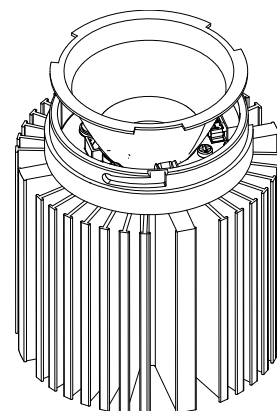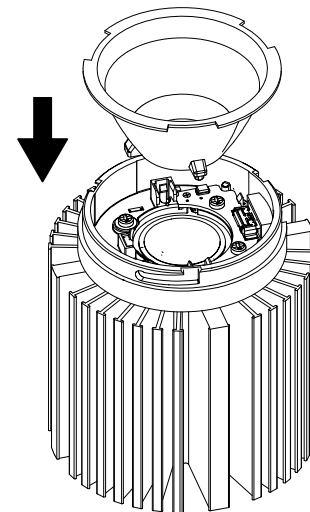Specification 114-13290 for information on assembly procedures on the NEVALO Interconnect System.
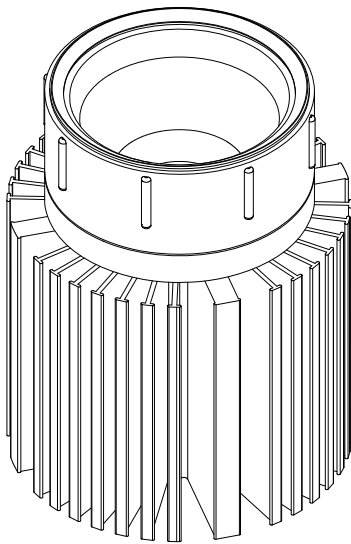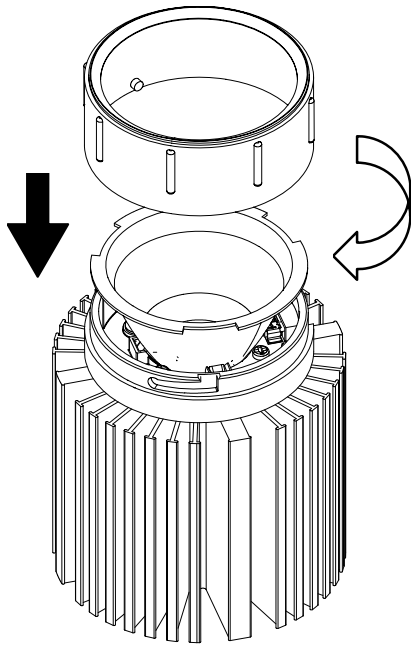

Figure 4

Figure 5

4. After the Circular Light Module (CN88) is secured to the heat sink, the mating NEVALO Cable Assembly can be mated to energize the module. The Circular Light Module (CN88) will accept the Straight and Right-Angle NEVALO Connectors. Straight is shown in Figure 6.
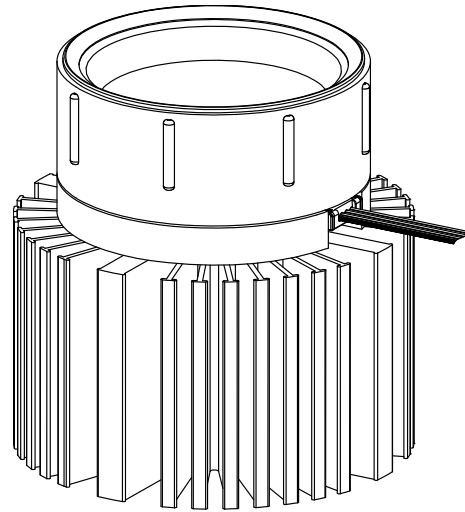

Figure 6

4. REPLACEMENT AND REPAIR

⚠ CAUTION	*Circular Light Module (CN88) components are not repairable. If it is evident that a component is damaged, it must be removed and replaced with a new component.*

Order products through your local Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (038-035)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

5. REVISION SUMMARY

• Initial release of document