# New StarLighting

PROJECT:
TYPE:
PRODUCT:
APPROVED BY:

### **PRODUCT FEATURES**

- Intended for MRI and Hybrid Surgical Suite applications
- Non-ferrous construction. Six inch sealed downlight, round and square aperture options
- Variety of wattages and lumen packages, up to 4000 lumens
- Suitable for wet location installations, IP65 ated per IEC60598 and NSF2 Splash/Non-Food Zone listed. Non-IC rated with optional IC-Rated housing per UL 1598 Independently tested and certified to meet the MIL Spec 461G Fixed Navy/Air Force for Radiated and Conducted emissions
- This product is Made in America and complies with Buy American Act (BAA), and the Build America, Buy America Act (BABAA)

### ORDERING INFORMATION

Example: CCDLMRI-6-R-MD-35-F-A-WFA-WH-90C-UN-DM1



CCDLMRI-6" MRI SERIES



CCDLMRI	6					А	WFA
Series	Aperture 6 = 6 inch	Shape R = Round S = Square	Lumen Output LW = Low SD = Standard MD = Medium HG = High GREEN/White = 530nm Subject to change. Performance data on page 2	Color Temp. 30 = 3000K 35 = 3500K 40 = 4000K 50 = 5000K	Trim F = Flange T = Trimless	Trim Finish A = .080 Alum. Painted C = 18Ga. 304 Brushed* D = 18Ga. SS Painted* *Additional fees may apply. Consult factory for details.	<b>Lens</b> WFA = 0.125" White Frosted Acrylic

	90C			
Reflector	CRI	Voltage	Driver Type	Options
WH = White	90C = 90 CRI	<b>12</b> = 120V	DMI = 0-10V Dimming with	<b>FZ1</b> = Fuse (120V)
SIL = Silver		<b>27</b> = 277V	1-100% range	<b>FZ2</b> = Fuse (277V)
CC= Custom*		UN = Universal (120V-277V)	DMT = 0-10V & TRIAC/ELV	IC = IC Rated Housing*
				EM = Emerg. Battery (Remote)**
				W = Wing Bracket
*Consult factory				
				*Required for CCEA. CCEA only available with IC Rated Housing. **If stored, batteries should be fully recharged every six months and kept between 0°C-25°C to maintain optimal battery capacity.

\*CompleteCare MRI Downlights require remote power supply. See Power Supply Information on page 3



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### **SPECIFICATIONS**

**HEAT SINK:** Custom diecast aluminum heat sink design for maximum thermal dissipation.

**FRAME-IN KIT:** Vertically adjustable collar accommodates ceiling thicknesses up to 1.25", adjustable post-installation. Telescopic hanger bars come as standard. For installation with wood T-grid ceiling systems spaced up to 24" on center.

**TRIM:** IP-rated trim/Light engine incorporates the heat sink, LED module, optics and lower trim. Configurable with an IP64-rated Flush lens trim that is secured to the Frame-In kit with hidden torsion springs or an IP65 Flush lens trim secured with three (Round) or four (Square) tamper resistant Torx® captive fasteners. Closed-cell gasketing at ceiling flange. See Trim Ordering Information for available options

**OPTICAL:** Round or Square aperture. Diffuse Acrylic upper lens. 1/8" clear impact-resistant acrylic or polycarbonate flush lens at ceiling trim. Continuous seal between lens and trim ring. Available with various reflector finishes. See Ordering Information for available options.

**ELECTRICAL:** LED source available in multiple CCT and CRI combinations with a maximum 3-step MacAdam variation allowance. See Trim Ordering Information for available options. 120-277VAC, 50/60Hz electrical input with serviceable constant current driver (<20% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range; 0.2mA maximum source current.

**INSTALLATION:** Recessed drywall and grid installation. Frame adjustable to ceiling thickness 0.5" to 1.25".

#### WARRANTY: 5 Year Warranty.

LABEL: Fixture is certified to UL standards by Intertek Testing Labratory for non-IC and wet location installations. IP65 Rating per IEC60598. Certified for NSF2 Splash Zone/ Non-Food Zones.This product is Made in America and complies with Buy American Act (BAA).

### **DIMENSIONAL DATA**

NON-IC CONSTRUCTION

IC CONSTRUCTION



#### 6" DOWNLIGHT



### **PERFORMANCE DATA**

SHAPE	LUMENS OUTPUT	сст	DELIVERED LUMENS	EFFICACY	SYSTEM WATTS
R	LW = LOW	40K	1405	101.8	13.8
	STD = STANDARD	40K	2081	102.5	20.3
	MD = MEDIUM	40K	2736	101.0	27.1
	HG = HIGH	40K	4181	95.5	43.8

SHAPE	LUMENS OUTPUT	сст	DELIVERED LUMENS	EFFICACY	SYSTEM WATTS
	LW = LOW		1392	101.7	13.8
		40K			
	STD = STANDARD		2070	101.7	20.3
-		40K			
S	MD = MEDIUM		2760	101.6	27.1
		40K			
	HG = HIGH		3990	95.9	41.5
		40K			

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#### POWER SUPPLY SPECIFICATION FEATURES

HOUSING: Galvanized steel housing. The power supply must be installed outside the shielded MRI environment. It contains ferrous components that can damage or interfere with MRI equipment.

ELECTRONICS: Input: 120/277V 50/60 HZ. Output: Max (3) 36VDC Constant Current Drivers.

**EMI FILTER:** MRI Room EMI filter required (supplied by others). Note, each driver requires individual filter.

**INSTALLATION:** Wiring/Conduit: All power and dimming wiring must be completely shielded in grounded conduit. Minimum 18 AWG low voltage supply wire.

### ORDERING INFORMATION

#### Example: CCDLMRI-6-PS-HC-M2-421-DM

CCDLMRI	6	RPS	нс	
Series	Aperature 6 = 6 inch	Power Supply RPS = Remote Power Supply	Housing HC = Aluminum Steel	Wattage LW = Low - 14 Watts SD = Standard - 20 Watts MD = Medium - 27 Watts HG = High - 44 Watts

Number of Fixtures Per Driver*							
Driver 1	Driver 2	Driver 3					
*Divide the total number of fixtures per d LW (14W) can have up to 3 fixtures per d							
STD (20W) can have up to 2 fixtures per	driver						
MD (27W) can have up to 2 fixtures per of HG (44W) can have up to 1 fixture per dr							
Example: 6 fixtures with 14W							
Recommended configuration (Uses least amount of drivers = leasat mount of filters to purchase):							

Driver 1 = 3 fixtures, Driver 2 = 3 fixtures, Driver 3 = 0 fixture

Not recommended:

Driver 1 = 2 fixtures, Driver 2 = 2 fixtures, Driver 3 = 2 fixture



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#### **CCDLM REMOTE POWER SUPPLY**

CCDLMRI must have a remote Power Supply Box mounted outside the MRI Room. Inside each Power Supply Box are drivers (3 drivers max per box). Each driver can accommodate a certain number of fixtures based on the fixture wattage. When ordering, specifier must determine the quantity of fixtures per driver.

Note, each driver requires a MRI Filter (supplied by others). MRI downlights available in a 14W, 20W, 27W and 44W.

LW (14W) can have up to 3 fixtures per driver

- STD (20W) can have up to 2 fixtures per driver
- MD (27W) can have up to 2 fixtures per driver

HG (44W) can have up to 1 fixture per driver

The number of fixtures must be divided over the 3 drivers. See below configurations and examples.

#### EXAMPLE 1: CCDLMRI-6-RPS-HC-MD-220-DM

MRI Room has four downlights that are STD (20W) specified. Order (1) Power Supply Box and determine number of fixtures per driver. Each driver can have up to 2 fixtures.

Driver 1 = 2 fixtures

Driver 2 = 2 fixtures

Driver 3 = 0 fixtures

MRI Filters (by others) = 2



\* Diagram is for example purposes only. Other configurations possible. Consult factory for lighting wiring diagrams.

### EXAMPLE 1: CCDLMRI-6-RPS-HC-MD-220-DM

MRI Room has nine downlights that are LW (14W) specified. Order (1) Power Supply Box and determine number of fixtures per driver. Each driver can have up to 4 fixtures.

Driver 1 = 3 fixtures

Driver 2 = 3 fixtures Driver 3 = 3 fixtures

MRI Filters (by others) = 3



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#### **IMPORTANT SAFETY MEASURES**

Power supply must be grounded to ensure adequate EMI filtering. Remote Power Supply system must be ordered separately, and installed according to provided instructions.

- This must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved in a MRI environment
- Disconnect power to all circuits before wiring fixture
- Install in accordance with all national, state, and local codes
- Remote Power Supply MUST be grounded
- Failure to install unit on a mechanically sound surface may result in personal injury, physical damage, or potential fire hazard
- Use installation procedures appropriate to a MRI environment and sensitive electronic equipment
- Read all fixture marketing and labels to ensure correct installation of the luminaire
- Supplemental instructions may be located on the luminaire, in addition to the instruction sheet provided by New Star, regarding orientation or mounting restrictions



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#### SPECIFIER ACKNOWLEDGMENT

Contractor acknowledges and understands the requirements of installing New Star Lighting products prior to the installation. Please sign below before New Star Lighting releases your order.

Signature:	Date:
Print Name:	Project Name:

------ See next page for MRI installation registration checklist ------



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#### MRI INSTALLATION REGISTRATION CHECKLIST

Customer acknowledges that attached Installation Registration Checklist will be provided to the installer to sign and return to New Star Lighting after the installation is complete. Please fill out this form and return to your New Star Lighting Representative.

The warranty for your MRI installation will not go into effect until receipt of this signed registration checklist.

I certify that the lighting installation for the listed MRI suite is completed per the provided installation instructions and to the best of my abilities.

Please check off to denote status:

Installation instruction sheet for Remote Power Supply is read and followed.

Remote Power supply is located outside the shielded MRI exam room and grounded.

All dimming signals wiring is located outside the shielded MRI room.

Lighting system fully tested (including dimming operation if applicable) while MRI machine is in idle mode.

Lighting system fully tested (including dimming operation, if applicable) while MRI machine is in scan operation mode with the magnets fully activated.

If any of those steps cannot be completed or you need technical assistance, please contact your New Star Lighting Representative.

Electrical Contractor	Installation site
Name:	Project Name:
Phone:	City / State (Province):
Installation date:	Send the form to your New Star Lighting Representative.

New Star Lighting Representative: \_\_\_\_

Date: \_\_\_\_



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