# New StarLighting

PROJECT:
TYPE:
PRODUCT:
APPROVED BY:

## **PRODUCT FEATURES**

- Intended for MRI and Hybrid Surgical Suite applications
- Non-ferrous construction. Four inch sealed downlight, round and square aperture options
- Variety of wattages and lumen packages, up to 4000 lumens
- Suitable for wet location installations, IP65 rated 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-4-R-MD-35-F-A-WFA-WH-90C-UN-DM1



CCDLMRI-4" MRI SERIES



CCDLMRI	4					Α	WFA
Series	Aperture	Shape	Lumen Output	Color Temp.	Trim	Trim Finish	Lens
	<b>4</b> = 4 inch	R = Round	LW = Low	<b>30</b> = 3000K	F = Flange	A = .080 Alum. Painted	<b>WFA</b> = 0.75" White
		<b>s</b> = Square	SD = Standard	<b>35</b> = 3500K	T = Trimless	<b>C</b> = 18Ga. 304 Brushed*	Frosted Acrylic
			MD = Medium	<b>40</b> = 4000K		D = 18Ga. SS Painted*	
			HG = High	<b>50</b> = 5000K			
			GREEN/White = 530nm				
			Subject to change. Performance data on page 2			*Additional fees may apply. Consult factory for details.	

	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*		<b>UN</b> = 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 ceiling thickness 0.5" to 1.25".

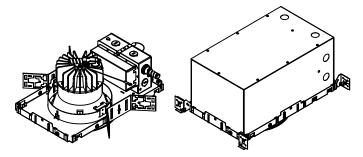
#### WARRANTY: 5 Year Warranty.

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).

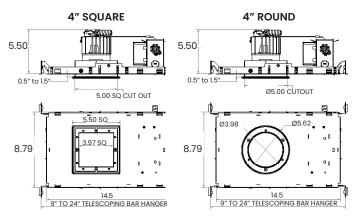
## **DIMENSIONAL DATA**

NON-IC CONSTRUCTION

IC CONSTRUCTION



### 4" DOWNLIGHT



## PERFORMANCE DATA

SHAPE	LUMENS OUTPUT	сст	DELIVERED LUMENS	EFFICACY	SYSTEM WATTS
	LW = LOW	40K	1260	84	14
R	STD = STANDARD	40K	1450	83	18
	MD = MEDIUM	40K	1650	81	21
	HG = HIGH	40K	2172	77	28

SHAPE	LUMENS OUTPUT	сст	DELIVERED LUMENS	EFFICACY	SYSTEM WATTS
	LW = LOW	40K	1257	84	14
S	STD = STANDARD	40K	1525	84	18
Ŭ	MD = MEDIUM	40K	1750	83	21
	hg = high	40K	2236	79	28

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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-4-PS-HC-M2-421-DM

CCDLMRI	4	RPS	нс	
Series	Aperature	Power Supply	Housing	Wattage
	<b>4</b> = 4 inch	<b>RPS</b> = Remote Power Supply	HC = Aluminum Steel	LW = Low - 14 Watts
				SD = Standard - 18 Watts
				MD = Medium - 21 Watts
				HG = High - 28 Watts
	I			1

Number of Fixtures Per Driver\*

Driver 1	Driver 2	Driver 3			
*Divide the total number of fixtures per driver.					
LW (14W) can have up to 3 fixtures per driver					
STD (18W) can have up to 3 fixtures per driver					
MD (21W) can have up to 2 fixtures per driver					

HG (28W) can have up to 1 fixture per driver

Example: 6 fixtures with 14W

Recommended configuration (Uses least amount of drivers = least amount 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, 18W, and 21W and 28W.

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

STD (18W) can have up to 3 fixtures per driver

MD (21W) can have up to 2 fixtures per driver

HG (28W) can have up to 1 fixture per driver

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

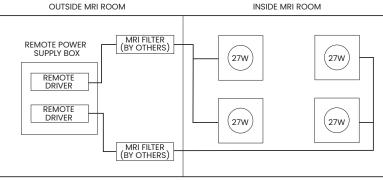
## EXAMPLE 1: CCDLMRI-4-RPS-HC-MD-220-DM

MRI Room has four downlights that are MD (27W) 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-4-RPS-HC-MD-220-DM

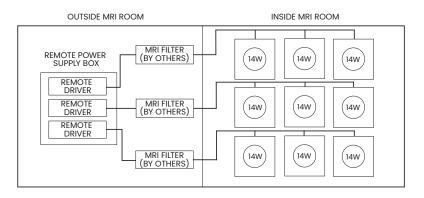
MRI Room has nine downlights that are LW (14W) specified. Order (1) Power Supply Box and determine number of fixtures per driver. Each driver can have up to 4 fixtures.

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:	I	Date:
Print Name:	I	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.

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

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

Date: \_\_\_\_



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