

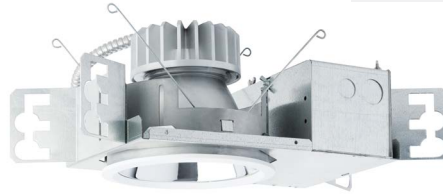
# MEDMASTER DOWNLIGHT

## Luminaires for Medical Applications

### MDL SERIES using Indigo-Clean Technology

#### PRODUCT FEATURES:

- » 6" sealed, recessed downlight with regressed or flush lens trim
- » Provides on-demand environmental disinfection via LED light
- » Single, white disinfection mode
- » Independent laboratory tested to kill harmful bacteria, including Staph\*, such as MRSA\*\*
- » Delivered lumens: 1,258 - 3,153 lm
- » 1% Dimming via 0-10V, DALI or EcoSystem control



#### PROJECT INFORMATION

Job Name \_\_\_\_\_

Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

#### SPECIFICATIONS

**HEAT SINK:** Die-cast aluminum with external radial fins for natural convection.

**ROUGH-IN FRAME:** 18-gauge die-formed, corrosion-resistant steel. Vertically adjustable collar accommodates ceiling thicknesses up to 2", adjustable post-installation. Universal mounting brackets accept 3/4" and 1-1/2" lathers channel, 1/2" EMT conduit and hanger bars. Quick-access junction box accessible post-installation from above and below ceiling. Includes (4) 1/2" and (2) 3/4" knock-outs to allow straight conduit runs. Listed for (8) 12AWG, 90°C conductors and feed-thru branch wiring. Provided with FMC with electrical quick-connect to Trim Section.

**TRIM/HOUSING SECTION:** IP-rated housing section incorporates the heat sink, LED module, optics and lower trim. Configurable with an IP64-rated Regressed or Flush lens trim that is secured to the Rough-In frame with hidden torsion springs, and an IP65 Flush lens trim secured with four (4) Phillips-head, captive fasteners. Anti-microbial finish standard on all exposed painted surfaces. See trim ordering information for available options.

**OPTICAL:** High-efficiency mixing chamber design with regressed diffused tempered-glass lens produces uniform light output. Available with various reflector distribution patterns and finishes. Flush lens trim options include a clear lens. See distribution and reflector finish ordering information for available options.

**ELECTRICAL:** Serviceable white and 405nm Indigo LED array. Available 3200K, 3700K and 4300K color temperature with 3-step MacAdam variation allowance. Minimum 82 CRI standard. 120-277VAC and 347VAC, 50/60Hz electrical input with serviceable high power factor electronic, constant-current drivers (<10% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities. 200µA maximum source current. Optional DALI and Lutron EcoSystem dimming drivers with 1-100% range. Single, white disinfection mode.

**PHOTOMETRICS:** Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For photometric information, go to [www.kenall.com](http://www.kenall.com).

**WARRANTY:** Limited five (5) year LED warranty.

**LISTINGS:** Luminaire is certified to UL standards by Intertek Testing Laboratory for non-IC and Wet Location installations. IP64 and IP65 rating per IEC60598. NSF2 Splash/Non-Food Zone. Optional CCEA compliance.

\* Per independent lab report #5GS-09516076094. Contact Kenall for a copy of this report.

\*\* Antimicrobial Activity of a Continuous Visible Light Disinfection System by Rutala, et. al, ID Week 2016.



#### ORDERING INFORMATION (EX: MDL6-R-5BR-22C-37K8-W-CS-RIG6-DV-DIM1)

##### TRIM

Model      Trim Style      Trim Finish      Lamp Power      Lamp Color      Distribution      Reflector Finish      Flush Lens Type

##### MDL6

###### Trim Style

- R** Regressed Lens (IP64)  
**NF** Flush Lens (Without Fasteners - IP64)  
**FF** Flush Lens (With Fasteners - IP65)

###### Trim Finish

- DCFW** Die-Cast Aluminum in Flat White (R and NF Trim Style)  
**2FW** Cold-Rolled Steel in Flat White  
**5BR** Type 304 Stainless Steel with 4B Brushed Finish

###### Lamp Power

- 22C** 22 Watt White & Indigo LED  
**38C†** 38 Watt White & Indigo LED

###### Lamp Color

- 32K8** 3200K / 80 CRI min.  
**37K8** 3700K / 80 CRI min.  
**43K8** 4300K / 80 CRI min.

###### Distribution

- M** Medium  
**W** Wide

###### Reflector Finish

- FW** Flat White  
**CS** Clear Specular  
**CSS** Clear Semi-Specular

###### Flush Lens Type (n/a Regressed Trim Style)

- T** 1/8" Clear High-Impact Acrylic

##### ROUGH-IN

Rough-In      Input Voltage      Driver Type      Options

##### RIG6

###### Rough-In

- RIG6** 6" Rough-In

###### Input Voltage

- DV** 120-277V, 50/60Hz  
**120** 120VAC, 60Hz  
**277** 277VAC, 60Hz  
**347<sup>1</sup>** 347VAC, 60Hz

###### Driver Type

- DIM1** 0-10V Dimming to 1%  
**DALI** DALI Dimming to 1%  
**ECO1** Lutron EcoSystem®

###### Options

- LEL** Emergency Battery Backup with Remote Test Switch  
**FS** Fuse & Holder  
**CCEA** CCEA Approved (specified voltage required; n/a 347V)

<sup>1</sup> N/A with DALI or ECO1 Driver Type. N/A with LEL option  
 † Must be installed with a minimum 24" on-center spacing, 12" from wall, and have 3" clearance above the Trim/Housing



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MDL6-ICT-101118

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Luminaires for Medical Applications

## MDL SERIES using Indigo-Clean Technology

### PERFORMANCE - REGRESSED LENS

Optic		Lamp Power	Initial Delivered Lumens, By Lamp Color			Input Power (W)	Estd. L70 LED Life (hrs)
Distribution	Reflector Finish		32K8	37K8	43K8		
M	CS	22C	1,737	1,737	1,850	24	75,000
		38C	2,780	2,780	2,960	45	60,000
	CSS	22C	1,456	1,456	1,551	24	75,000
		38C	2,331	2,331	2,482	45	60,000
	FW	22C	1,523	1,523	1,622	24	75,000
		38C	2,438	2,438	2,596	45	60,000
W	CS	22C	1,822	1,822	1,940	24	75,000
		38C	2,916	2,916	3,105	45	60,000
	CSS	22C	1,603	1,603	1,707	24	75,000
		38C	2,566	2,566	2,732	45	60,000
	FW	22C	1,850	1,850	1,970	24	75,000
		38C	2,961	2,961	3,153	45	60,000

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Wide Distribution Candela Curve	MDL6-R-22C-37K8-W-CS		Distance to illuminated plane (ft)	MDL6-R-22C-37K8-M-CS		Medium Distribution Candela Curve
	Initial center beam foot-candles	Beam diameter (ft)		Initial center beam foot-candles	Beam diameter (ft)	
	42.0	7.5	5'	134.6	3.3	
	33.7	7.8	6'	93.5	3.6	
	24.7	9.0	7'	68.7	4.2	
	18.9	10.5	8'	52.6	4.7	
	15.0	12.0	9'	41.6	5.4	
	12.1	13.0	10'	33.7	6.0	
Spacing Criteria: 1.42	foot-candle multipliers for 32K8(1.0), 43K8(1.1)					Spacing Criteria: 0.64
Beam Angle: 60°	Beam diameter is where foot-candles drop to 50% of maximum					Beam Angle: 31°

Wide Distribution Candela Curve	MDL6-R-38C-37K8-W-CS		Distance to illuminated plane (ft)	MDL6-R-38C-37K8-M-CS		Medium Distribution Candela Curve
	Initial center beam foot-candles	Beam diameter (ft)		Initial center beam foot-candles	Beam diameter (ft)	
	67.2	7.8	5'	215.5	3.3	
	53.9	8.0	6'	149.6	3.6	
	39.5	9.2	7'	109.9	4.2	
	30.3	10.7	8'	84.2	4.8	
	24.0	12.0	9'	66.5	5.4	
	19.4	13.0	10'	53.9	6.0	
Spacing Criteria: 1.42	foot-candle multipliers for 32K8(1.0), 43K8(1.1)					Spacing Criteria: 0.64
Beam Angle: 60°	Beam diameter is where foot-candles drop to 50% of maximum					Beam Angle: 31°



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# MEDMASTER DOWNLIGHT

Luminaires for Medical Applications

## MDL SERIES using Indigo-Clean Technology

### PERFORMANCE - FLUSH LENS

Optic		Lamp Power	Initial Delivered Lumens, By Lamp Color			Input Power (W)	Estd. L70 LED Life (hrs)
Distribution	Reflector Finish		32K8	37K8	43K8		
M	CS	22C	1,357	1,357	1,445	24	80,000
		38C	2,172	2,172	2,313	45	75,000
	CSS	22C	1,274	1,274	1,357	24	80,000
		38C	2,039	2,039	2,171	45	75,000
	FW	22C	1,258	1,258	1,340	24	80,000
		38C	2,014	2,014	2,145	45	75,000
W	CS	22C	1,528	1,528	1,627	24	80,000
		38C	2,445	2,445	2,604	45	75,000
	CSS	22C	1,297	1,297	1,381	24	80,000
		38C	2,075	2,075	2,210	45	75,000
	FW	22C	1,437	1,437	1,530	24	80,000
		38C	2,299	2,299	2,448	45	75,000

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Wide Distribution Candela Curve	MDL6-FF-22C-37K8-W-CS-T		Distance to illuminated plane (ft)	MDL6-FF-22C-37K8-M-CS-T		Medium Distribution Candela Curve
	Initial center beam foot-candles	Beam diameter (ft)		Initial center beam foot-candles	Beam diameter (ft)	
	35.4	7.7	5'	107.5	3.2	
	28.0	7.8	6'	74.7	3.5	
	20.5	9.2	7'	54.9	4.0	
	15.7	10.5	8'	42.0	4.6	
	12.5	11.6	9'	33.2	5.2	
	10.1	13.0	10'	26.9	5.8	
Spacing Criteria: 1.4	foot-candle multipliers for 32K8(1.0), 43K8(1.1)				Spacing Criteria: 0.62	
Beam Angle: 59°	Beam diameter is where foot-candles drop to 50% of maximum				Beam Angle: 34°	

Wide Distribution Candela Curve	MDL6-FF-38C-37K8-W-CS-T		Distance to illuminated plane (ft)	MDL6-FF-38C-37K8-M-CS-T		Medium Distribution Candela Curve
	Initial center beam foot-candles	Beam diameter (ft)		Initial center beam foot-candles	Beam diameter (ft)	
	56.7	7.7	5'	172.1	3.2	
	44.8	7.8	6'	119.5	3.5	
	32.8	9.2	7'	87.8	4.0	
	25.1	10.5	8'	67.2	4.6	
	20.0	11.6	9'	53.1	5.2	
	16.2	13.0	10'	43.0	5.8	
Spacing Criteria: 1.4	foot-candle multipliers for 32K8(1.0), 43K8(1.1)				Spacing Criteria: 0.62	
Beam Angle: 59°	Beam diameter is where foot-candles drop to 50% of maximum				Beam Angle: 34°	



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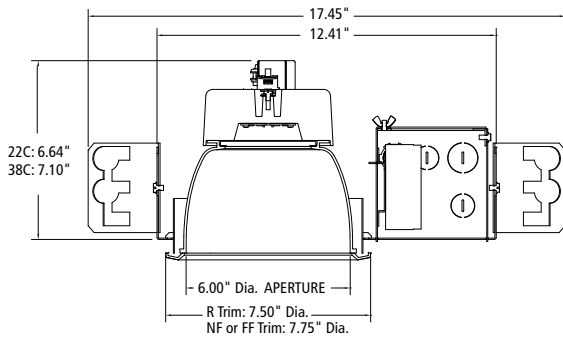
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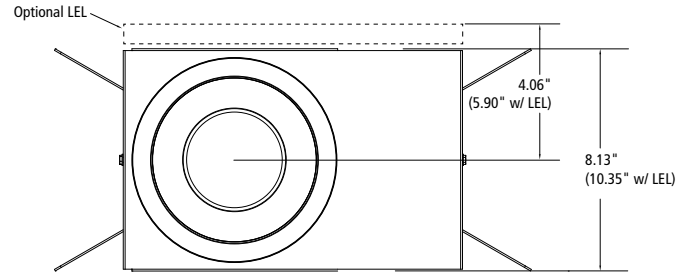
## MDL SERIES using Indigo-Clean Technology

### DIMENSIONAL DATA

CROSS SECTION



BOTTOM VIEW



#### RECOMMENDED CEILING CUT-OUT

R and NF Trims: 7.13" Dia.

FF Trims: 7.38" Dia.



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