

MEDMASTER NARROW SPECTRUM

Luminaires for Medical Applications

MDL SERIES

PRODUCT FEATURES:

- » 6" sealed, recessed downlight with regressed or flush lens trim
- » Phosphor-converted 590nm Amber LED source provides higher lumen output and lifetime than native Amber sources
- » Suitable for circadian and other spectrally sensitive healthcare applications
- » 1% Dimming via 0-10V or DALI control



470nm (Blue)



590nm (Phosphor Amber)

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: Diffused tempered glass upper lens. 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: Phosphor-converted (PC) LED source provides Amber light with a 590nm nominal peak wavelength. Phosphor-converted InGaN-based source provides a higher output and efficacy as well as longer lifetime compared to native amber (AlInGaP-based) source for applications where a broader spectrum is acceptable. Native Blue LED option with 470nm nominal peak wavelength. 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 and dim-to-dark capabilities; 165µA maximum source current. Optional eldoLED ECOdrive DALI driver with 1-100% range.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For photometric information, go to 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.



ORDERING INFORMATION (EX: MDL6-FF-2FW-12PA-W-CSS-T-RIG6-DV-DIM1)

TRIM

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

12PA 12 Watt Phosphor-Converted Amber LED
18BL 18 Watt 470nm Native Blue LED

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
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RIG6

Rough-In

RIG6 6" Rough-In

Input Voltage

DV 120-277V, 50/60Hz
120 120VAC, 50/60Hz
277 277VAC, 50/60Hz

Driver Type

DIM1 0-10V Dimming to 1%
DALI DALI Dimming to 1%

Options

LEL 7W Emergency Battery Backup with Remote Test Switch
FS Fuse & Holder
CCEA CCEA Approved (specified voltage required)



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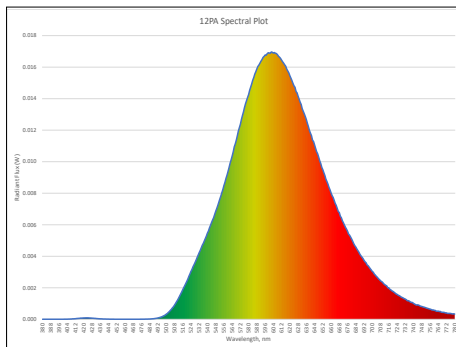
For additional photometry, go to www.kenall.com

PHOTOMETRIC PERFORMANCE

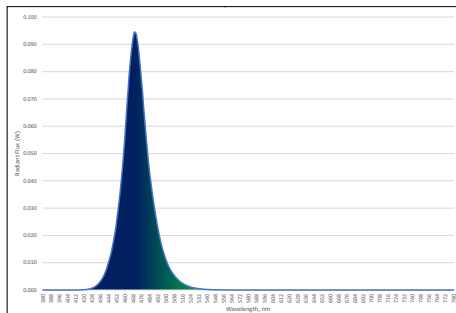
Distribution	Optic			Lamp Code	Lamp Color	Initial Delivered Lumens	Input Power (W)	Estd. L70 LED Life (hrs)
	Distribution	Reflector Finish	Lens Type					
R	M	CS	n/a	12PA	590nm PC Amber	882	15	72,000
				18BL	470nm Blue	309	21	60,000
		CSS		12PA	590nm PC Amber	828	15	72,000
				18BL	470nm Blue	290	21	60,000
		FW		12PA	590nm PC Amber	955	15	72,000
				18BL	470nm Blue	335	21	60,000
	W	CS		12PA	590nm PC Amber	969	15	72,000
				18BL	470nm Blue	340	21	60,000
		CSS		12PA	590nm PC Amber	853	15	72,000
				18BL	470nm Blue	299	21	60,000
		FW		12PA	590nm PC Amber	925	15	72,000
				18BL	470nm Blue	324	21	60,000
FF / NF	M	CS	T	12PA	590nm PC Amber	807	15	72,000
				18BL	470nm Blue	283	21	60,000
		CSS		12PA	590nm PC Amber	758	15	72,000
				18BL	470nm Blue	266	21	60,000
		FW		12PA	590nm PC Amber	748	15	72,000
				18BL	470nm Blue	262	21	60,000
	W	CS		12PA	590nm PC Amber	908	15	72,000
				18BL	470nm Blue	318	21	60,000
		CSS		12PA	590nm PC Amber	771	15	72,000
				18BL	470nm Blue	270	21	60,000
		FW		12PA	590nm PC Amber	854	15	72,000
				18BL	470nm Blue	299	21	60,000

Subject to change without notice. Visit www.kenall.com for ies files and additional information.

SPECTROPHOTOMETRIC PERFORMANCE



12PA	
Purity	0.993
UV (<400nm)	0.003%
Radiant Flux (≤560nm)	13.400%
Bandwidth	101.6 nm
Peak Wavelength	600 nm



18BL	
Purity	0.9583
Bandwidth	24.4 nm
Peak Wavelength	470 nm



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MDL6-NS-101723

MEDMASTER DOWNLIGHT

Luminaires for Medical Applications

MDL SERIES

For additional photometry, go to www.kenall.com

PERFORMANCE - REGRESSED LENS

Wide Distribution Candela Curve	MDL6-R-12PA-W-CS		Distance to illuminated plane (ft)	MDL6-R-12PA-M-CS		Medium Distribution Candela Curve
	Initial center beam footcandles	Beam diameter (ft)		Initial center beam footcandles	Beam diameter (ft)	
	20.4	7.4	5'	68.4	3.0	
	14.2	8.9	6'	47.5	3.6	
	10.4	10.3	7'	34.9	4.2	
	8.0	11.8	8'	26.7	4.8	
	6.3	13.3	9'	21.1	5.4	
	5.1	14.8	10'	17.1	6.1	
Spacing Criteria: 1.41	Footcandle multipliers for 12PA (1.00); 18BL (0.35)				Spacing Criteria: 0.63	
Beam Angle: 73°	Beam diameter is where footcandles drop to 50% of maximum				Beam Angle: 34°	

Wide Distribution Candela Curve	MDL6-R-12PA-W-CSS		Distance to illuminated plane (ft)	MDL6-R-12PA-M-CSS		Medium Distribution Candela Curve
	Initial center beam footcandles	Beam diameter (ft)		Initial center beam footcandles	Beam diameter (ft)	
	23.29	7.3	5'	35.9	5.6	
	16.17	8.7	6'	24.9	6.7	
	11.88	10.2	7'	18.3	7.9	
	9.10	11.6	8'	14.0	9.0	
	7.19	13.1	9'	11.1	10.1	
	5.82	14.5	10'	9.0	11.2	
Spacing Criteria: 1.19	Footcandle multipliers for 12PA (1.00); 18BL (0.35)				Spacing Criteria: 0.91	
Beam Angle: 72°	Beam diameter is where footcandles drop to 50% of maximum				Beam Angle: 59°	

PERFORMANCE - FLUSH LENS

Wide Distribution Candela Curve	MDL6-vF-12PA-W-CS-T		Distance to illuminated plane (ft)	MDL6-vF-12PA-M-CS-T		Medium Distribution Candela Curve
	Initial center beam footcandles	Beam diameter (ft)		Initial center beam footcandles	Beam diameter (ft)	
	20.0	7.3	5'	64.3	2.8	
	13.9	8.8	6'	44.7	3.4	
	10.2	10.2	7'	32.8	3.9	
	7.8	11.7	8'	25.1	4.5	
	6.2	13.2	9'	19.9	5.0	
	5.0	14.6	10'	16.1	5.6	
Spacing Criteria: 1.38	Footcandle multipliers for 12PA (1.00); 18BL (0.35)				Spacing Criteria: 0.61	
Beam Angle: 72°	Beam diameter is where footcandles drop to 50% of maximum				Beam Angle: 31°	

Wide Distribution Candela Curve	MDL6-vF-12PA-W-CSS-T		Distance to illuminated plane (ft)	MDL6-vF-12PA-M-CSS-T		Medium Distribution Candela Curve
	Initial center beam footcandles	Beam diameter (ft)		Initial center beam footcandles	Beam diameter (ft)	
	21.9	5.7	5'	40.8	4.6	
	15.2	6.8	6'	28.4	5.5	
	11.2	7.9	7'	20.8	6.5	
	8.5	9.1	8'	16.0	7.4	
	6.8	10.2	9'	12.6	8.3	
	5.5	11.3	10'	10.2	9.2	
Spacing Criteria: 1.13	Footcandle multipliers for 12PA (1.00); 18BL (0.35)				Spacing Criteria: 0.77	
Beam Angle: 59°	Beam diameter is where footcandles drop to 50% of maximum				Beam Angle: 50°	



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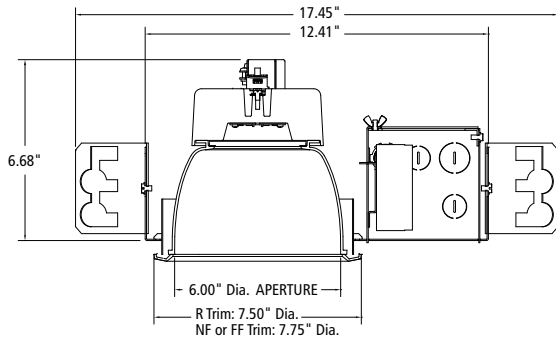
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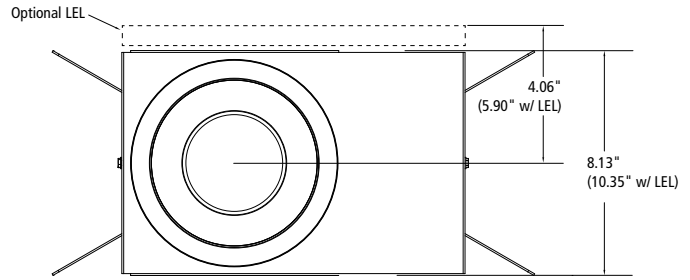
MDL SERIES

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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