PROJECT	Job Name	Catalog Number	
INFORMATION	Fixture Type	 Approved by	

Luminaires for Medical Applications

MDL SERIES

PRODUCT FEATURES:

- » 6" sealed, recessed downlight with regressed or flush lens trim
- » 675 5,000 delivered lumens with multiple distribution, reflector finish and lens options
- » 1% Dimming via 0-10V or DALI-2 control
- » NSF2 and IP64/IP65 ingress protection rating

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: Clear tempered glass upper lens. Flush lens trims provided with 1/8" clear impact-resistant acrylic lens at ceiling trim. Continuous seal between lens and trim ring. Available with various reflector distribution patterns and 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 or 347VAC, 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; 0.2mA maximum source current. Optional eldoLED ECOdrive DALI-2 (DT6) / LEDcode2 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 (FX: MDI 6-FF-2FW-18I -40K8-W-CSS-T-RIG6-DV-DIM1)

TRIM						ROUGH-IN						
Model	Trim Style Trim Finish Lamp Power	Lamp Co	or Distribution	Reflector Finish	Flush Lens Type	Rough-In	Input Voltage	Driver Type	Options			
MDL	.6			_	_	RIG6						
Trim St	tyle	Lamp C	olor			Rough-In						
	Regressed Lens (IP64)	30K8	3000K / 80 CRI n	nin.		RIG6 6"	Rough-In					
NF F	Flush Lens (Without Fasteners - IP64)	35K8	3500K / 80 CRI n	nin.								
FF F	Flush Lens (With Fasteners - IP65)	35K9	3500K / 90 CRI n			Input Vol						
		40K8	4000K / 80 CRI n)-277V, 50/60Hz					
Trim Fi		40K9 4000K / 90 CRI min.					120 120VAC, 60Hz					
DCFW		50K8	5000K / 80 CRI n	nin.		277 277VAC, 60Hz						
	(R and NF Trim Style)		_			347† 347	7VAC, 60Hz					
2FW	Cold-Rolled Steel in Flat White	Distribu										
5BR	Type 304 Stainless Steel with 4B Brushed Finish						Driver Type DIM1 0-10V Dimming to 1% with Dim-to-Dark					
	_	W	Wide									
	Power	WW*	Wall Wash			DALI	ALI-2/LEDcode2 Din	nming to 1% with	out Dim-to-Dark			
9L 18L	9 Watt LED 18 Watt LED	Reflecto	v Einich			Ontions						
16L 24L	24 Watt LED		at White			Options LEL Emergency Battery Backup with Remote Test Switch						
24L 32L	32 Watt LED		ear Specular				ergency battery back e & Holder	up with Kemote i	est switch			
32L 43L▲	43 Watt LED		ear Semi-Specular				EA Approved (specifi	ad voltage require	d)			
4JL	45 Wall LLD	(33	ear seriii-speculai			CCLA CC	LA Approved (specifi	eu voitage require	·u)			
		Flush Le	ns Type (n/a Regr	essed Trim Style)		* Availabl	e with CSS reflector	finish only				
			8" Clear High-Impa				h DALI Driver Type. N		CCEA option			
				,			e installed with a mi					
							m wall, and have 3"					
						Trim/Ho	ousing					



Luminaires for Medical Applications

MDL SERIES

PERFORMANCE - REGRESSED LENS

Ор	tic			Initial De	livered Lur	nens, By La	mp Color		E.(;;		TM-21	TM-21
Distribution	Reflector Finish	- Lamp Power	30K8	35K8	35K9	40K8	40K9	50K8	Efficacy (lm/W)	Input Power (W)	Reported L90 (hrs)	Reported L70 (hrs)
		9L	1,162	1,189	978	1,196	998	1,210	80 - 103	12	>55,000	>55,000
		18L	2,032	2,080	1,710	2,092	1,745	2,116	81 - 104	20	>55,000	>55,000
	CS	24L	2,982	3,052	2,509	3,070	2,561	3,105	85 - 109	28	52,000	>55,000
		32L	3,751	3,838	3,155	3,861	3,221	3,905	81 - 104	38	52,000	>55,000
		43L	4,803	4,916	4,041	4,945	4,125	5,001	77 - 98	51	51,000	>55,000
		9L	1,028	1,052	865	1,059	883	1,071	71 - 91	12	>55,000	>55,000
		18L	1,799	1,841	1,513	1,851	1,544	1,873	72 - 92	20	>55,000	>55,000
М	CSS	24L	2,639	2,701	2,220	2,717	2,266	2,748	75 - 97	28	52,000	>55,000
		32L	3,319	3,397	2,792	3,417	2,850	3,456	72 - 92	38	52,000	>55,000
		43L	4,250	4,350	3,576	4,375	3,650	4,425	68 - 87	51	51,000	>55,000
		9L	1,056	1,081	888	1,087	907	1,099	73 - 94	12	>55,000	>55,000
		18L	1,847	1,890	1,554	1,901	1,586	1,923	74 - 95	20	>55,000	>55,000
	FW	24L	2,710	2,773	2,280	2,789	2,327	2,821	77 - 99	28	52,000	>55,000
		32L	3,408	3,488	2,867	3,508	2,927	3,548	74 - 95	38	52,000	>55,000
		43L	4,365	4,467	3,672	4,493	3,748	4,544	70 - 89	51	51,000	>55,000
		9L	1,139	1,166	958	1,173	978	1,186	79 - 101	12	>55,000	>55,000
		18L	1,993	2,039	1,676	2,051	1,711	2,075	80 - 102	20	>55,000	>55,000
	CS	24L	2,924	2,992	2,459	3,010	2,511	3,044	83 - 107	28	52,000	>55,000
		32L	3,677	3,763	3,093	3,785	3,158	3,828	80 - 102	38	52,000	>55,000
		43L	4,709	4,819	3,961	4,847	4,044	4,903	75 - 96	51	51,000	>55,000
		9L	1,099	1,125	924	1,131	944	1,144	76 - 98	12	>55,000	>55,000
		18L	1,922	1,967	1,617	1,979	1,651	2,001	77 - 99	20	>55,000	>55,000
W	CSS	24L	2,820	2,886	2,373	2,903	2,422	2,936	80 - 103	28	52,000	>55,000
		32L	3,547	3,630	2,984	3,652	3,046	3,693	77 - 98	38	52,000	>55,000
		43L	4,543	4,649	3,821	4,676	3,901	4,730	72 - 93	51	51,000	>55,000
		9L	989	1,012	832	1,018	849	1,029	68 - 88	12	>55,000	>55,000
		18L	1,729	1,770	1,455	1,780	1,485	1,800	69 - 89	20	>55,000	>55,000
	FW	24L	2,537	2,597	2,134	2,612	2,179	2,642	72 - 93	28	52,000	>55,000
		32L	3,191	3,266	2,684	3,285	2,740	3,323	69 - 89	38	52,000	>55,000
		43L	4,087	4,182	3,438	4,207	3,509	4,255	65 - 84	51	51,000	>55,000
		9L	916	938	771	943	787	954	63 - 81	12	>55,000	>55,000
		18L	1,603	1,640	1,348	1,650	1,376	1,669	64 - 82	20	>55,000	>55,000
ww	CSS	24L	2,351	2,406	1,978	2,421	2,019	2,448	32 - 86	28	52,000	>55,000
		32L	2,957	3,027	2,488	3,044	2,540	3,079	42 - 82	38	52,000	>55,000
		43L	3,787	3,876	3,186	3,899	3,252	3,943	60 - 77	51	51,000	>55,000

 $\label{thm:composition} \textbf{Subject to change without notice. Visit www.kenall.com for ies files and additional information.}$



Luminaires for Medical Applications

MDL SERIES

PERFORMANCE - REGRESSED LENS

	MDL6-R-18L	-40K8-W-CS		MDL6-R-18L	-40K8-M-CS	Medium Distribution Candela Curve	
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)		
563	57.7	6.8	5'	83.7	4.9	730	
1126	40.1	8.2	6'	58.1	5.9	1459	
1689	29.5	9.6	7'	42.7	6.9	2189 /	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	22.6	10.9	8'	32.7	7.8	2910	
	17.8	12.3	9'	25.8	8.8	$HT \setminus Y \mid$	
	14.4	13.7	10'	20.9	9.8		
Spacing Criteria: 1.33	Foot-can	Foot-candle multipliers for 30K8 (0.97), 35K8 (0.99), 35K9 (0.82), 40K9 (0.83), 50K8 (1.01)					
Beam Angle: 69°		Beam diameter is where foot-candles drop to 50% of maximum					

	MDL6-R-18L-	40K8-W-CSS		MDL6-R-18L-	40K8-M-CSS	Medium Distribution Candela Curve	
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)		
472	58.9	4.1	5'	117.1	4.5	732	
944	40.9	4.9	6'	81.3	5.4	1463	
1416	30.1	5.7	7'	59.7	6.3	2195 / 2927	
100/	23.0	6.5	8'	45.7	7.2	2921	
	18.2	7.3	9'	36.1	8.1	HYYY	
	14.7	8.1	10'	29.3	9.0		
Spacing Criteria: 1.31	Spacing Criteria: 1.31 Foot-candle multipliers for 30K8 (0.97), 35K8 (0.99), 35K9 (0.82), 40K9 (0.83), 50K8 (1.01)						
Beam Angle: 44°		Beam Angle: 48°					

	MDL6-R-18L-	-40K8-W-FW		MDL6-R-18L	-40K8-M-FW		
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)	Medium Distribution Candela Curve	
379	60.6	6.4	5'	66.3	6.5	451	
758	42.1	7.7	6'	46.0	7.9	901	
1516	30.9	9.0	7'	33.8	9.2	1352 /	
1310	23.7	10.3	8'	25.9	10.5		
1 X/X+	18.7	11.5	9'	20.5	11.8	$HT \setminus Y \mid$	
	15.2	12.8	10'	16.6	13.1		
Spacing Criteria: 1.11	Foot-can	dle multipliers for	30K8 (0.97), 35K8 (0.99), 35K9 (0.82)	Spacing Criteria: 1.05			
Beam Angle: 65°		Beam Angle: 66°					

Luminaires for Medical Applications

MDL SERIES

PERFORMANCE - FLUSH LENS

	Optic		Lamp	ı	nitial Deli	vered Lur	nens, By L	amp Colo	r	Efficacy	Input	TM-21	TM-21
Distribution	Reflector Finish	Lens Type	Power	30K8	35K8	35K9	40K8	40K9	50K8	(lm/W)	Power (W)	Reported L90 (hrs)	Reported L70 (hrs)
			9L	1,119	1,145	941	1,152	961	1,165	77 - 99	12	>55,000	>55,000
			18L	1,957	2,002	1,646	2,014	1,680	2,037	78 - 100	20	>55,000	>55,000
	CS	Т	24L	2,871	2,938	2,415	2,955	2,465	2,989	82 - 105	28	52,000	>55,000
			32L	3,611	3,695	3,038	3,717	3,101	3,759	78 - 100	38	52,000	>55,000
			43L	4,624	4,732	3,890	4,760	3,971	4,815	74 - 94	51	51,000	>55,000
			9L	983	1,006	827	1,012	844	1,024	68 - 87	12	>55,000	>55,000
			18L	1,720	1,760	1,447	1,771	1,477	1,791	69 - 88	20	>55,000	>55,000
М	CSS	Т	24L	2,524	2,583	2,123	2,598	2,167	2,628	72 - 92	28	52,000	>55,000
			32L	3,174	3,248	2,670	3,267	2,726	3,305	69 - 88	38	52,000	>55,000
			43L	4,065	4,160	3,420	4,184	3,491	4,232	65 - 83	51	51,000	>55,000
			9L	1,016	1,040	855	1,046	873	1,058	70 - 90	12	>55,000	>55,000
			18L	1,777	1,819	1,495	1,830	1,526	1,851	71 - 91	20	>55,000	>55,000
	FW	Т	24L	2,608	2,669	2,194	2,685	2,239	2,715	74 - 95	28	52,000	>55,000
			32L	3,280	3,357	2,759	3,376	2,817	3,415	71 - 91	38	52,000	>55,000
			43L	4,200	4,299	3,533	4,324	3,607	4,373	67 - 86	51	51,000	>55,000
			9L	1,103	1,129	928	1,135	947	1,148	76 - 98	12	>55,000	>55,000
			18L	1,929	1,974	1,623	1,986	1,656	2,008	77 - 99	20	>55,000	>55,000
	CS	Т	24L	2,830	2,896	2,381	2,913	2,430	2,947	81 - 104	28	52,000	>55,000
			32L	3,560	3,643	2,994	3,664	3,057	3,706	77 - 99	38	52,000	>55,000
			43L	4,559	4,665	3,835	4,693	3,915	4,746	73 - 93	51	51,000	>55,000
			9L	1,045	1,070	879	1,076	898	1,088	72 - 93	12	>55,000	>55,000
			18L	1,828	1,871	1,538	1,882	1,570	1,903	73 - 94	20	>55,000	>55,000
W	CSS	Т	24L	2,682	2,745	2,256	2,761	2,303	2,793	76 - 98	28	52,000	>55,000
			32L	3,374	3,453	2,838	3,473	2,897	3,513	73 - 94	38	52,000	>55,000
			43L	4,320	4,422	3,634	4,448	3,710	4,498	69 - 88	51	51,000	>55,000
			9L	932	954	784	959	800	970	65 - 83	12	>55,000	>55,000
			18L	1,630	1,668	1,371	1,678	1,400	1,697	65 - 84	20	>55,000	>55,000
	FW	Т	24L	2,392	2,448	2,012	2,462	2,054	2,491	68 - 87	28	52,000	>55,000
			32L	3,008	3,079	2,531	3,097	2,583	3,132	65 - 84	38	52,000	>55,000
			43L	3,853	3,943	3,241	3,966	3,309	4,011	61 - 79	51	51,000	>55,000
			9L	833	852	700	857	715	867	58 - 74	12	>55,000	>55,000
			18L	1,456	1,490	1,225	1,499	1,251	1,516	58 - 75	20	>55,000	>55,000
WW	CSS	Т	24L	2,137	2,187	1,798	2,200	1,835	2,225	61 - 78	28	52,000	>55,000
			32L	2,688	2,750	2,261	2,767	2,308	2,798	58 - 75	38	52,000	>55,000
			43L	3,442	3,522	2,895	3,543	2,956	3,584	55 - 70	51	51,000	>55,000

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Luminaires for Medical Applications

MDL SERIES

PERFORMANCE - FLUSH LENS

	MDL6-xF-18L-	40K8-W-CS-T		MDL6-xF-18L-	40K8-M-CS-T	Medium Distribution Candela Curve	
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)		
543	56.5	5.3	5'	80.0	5.0	664	
1086	39.3	6.4	6'	55.6	6.0	1328	
1629	28.8	7.5	7'	40.8	7.0	1992 /	
	22.1	8.5	8'	31.3	8.0	2030	
	17.5	9.6	9'	24.7	9.0	$HT \setminus Y \mid$	
	14.1	10.7	10'	20.0	10.0		
Spacing Criteria: 1.35	Foot-ca	Spacing Criteria: 0.97					
Beam Angle: 56°		Beam diame	eter is where foot-candles drop to 50%	of maximum		Beam Angle: 53°	

	MDL6-xF-18L-	40K8-W-CSS-T		MDL6-xF-18L-	40K8-M-CSS-T	Medium Distribution Candela Curve	
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)		
433	59.0	3.9	5'	108.9	4.5	681	
866	41.0	4.6	6'	75.6	5.4	1361	
1299	30.1	5.4	7'	55.6	6.3	2042 / 2722	
"	23.1	6.2	8'	42.5	7.2		
	18.2	7.0	9'	33.6	8.1	$HY \setminus Y \mid$	
	14.8	7.7	10'	27.2	9.0		
Spacing Criteria: 1.28 Foot-candle multipliers for 30K8 (0.97), 35K8 (0.99), 35K9 (0.82), 40K9 (0.83), 50K8 (1.00)						Spacing Criteria: 0.72	
Beam Angle: 42°		Beam diameter is where foot-candles drop to 50% of maximum					

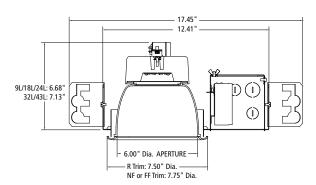
	MDL6-xF-18L-	40K8-W-FW-T		MDL6-xF-18L-	40K8-M-FW-T	Medium Distribution Candela Curve	
Wide Distribution Candela Curve	Initial center beam foot-candles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam foot-candles	Beam diameter (ft)		
361	57.7	6.3	5'	63.9	6.4	429	
721	40.1	7.6	6'	44.3	7.7	859	
1082	29.4	8.8	7'	32.6	9.0	1288 7	
"\\ \\	22.5	10.1	8'	24.9	10.3		
$ \times / \uparrow + $	17.8	11.4	9'	19.7	11.6	$HH \setminus Y \mid$	
	14.4	12.6	10'	16.0	12.9		
Spacing Criteria: 1.1	Foot-ca	Spacing Criteria: 1.03					
Beam Angle: 64.6°		Beam diameter is where foot-candles drop to 50% of maximum					

Luminaires for Medical Applications

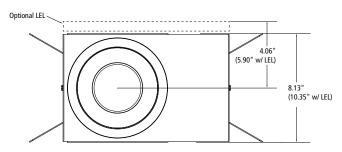
MDL SERIES

DIMENSIONAL DATA

CROSS SECTION



BOTTOM VIEW



RECOMMENDED CEILING CUT-OUT R and NF Trims: 7.13" Dia. FF Trims: 7.38" Dia.