

Project:	Catalog #:	Type:
Notes:		

Product Description

The MDD series downlights brings to patient rooms a refined aesthetic with a highly functional design. The low-profile trim adds a touch of sophistication, while avoiding any clinical or institutional impression typically found in similar fixtures. These gasketed regressed lensed luminaires are designed to seal the ceiling and prevent the entrance of contaminated air into the patient room. Capable of up to 5000 lumens, these fixtures provide full range dimming to 1% offering the flexibility desired by patients and staff.



Feature Options

- Designed for use with grid, drywall or cleanroom ceilings
- Delivered lumens: 1000 - 5000 lm
- Standard sealed regressed lens
- Optional smooth wipe-down flush lens
- NSF2 Splash Zone Certified
- IP64 certified room-side
- Antimicrobial finished trims
- Optional flush IP65 sealed trim
- Optional Low Voltage Controller

Install Frame

18 Ga Rigid Steel Frame supported by two Butterfly style vertically adjustable brackets. Frame supports a large junction box with (5) 1/2 inch trade size knockouts. Plaster ring attachment provides for adjustment after installation from below the ceiling for ceilings up to 2.5 inches thick.

Optical Assembly

The assembly is factory sealed to maintain a clean appearance. The heat sink, reflector, lens and trim are sealed with long-life EPDM closed cell gasket materials. Supported by Torsion Springs to a vertically adjustable collar (plaster flange) that allows up to 2.5" thick ceilings.

Lens

Standard lens; A regressed clear, spherical, high impact polycarbonate sealed into the reflector assembly to maintain a clean optical chamber. A die-cast gasketed trim seals to the reflector and ceiling. Smooth external surfaces for easy cleaning. Optional Lens: Flush, flat polycarbonate lens sealed to the trim at the roomside surface.

Gaskets

Die cut closed cell EPDM foam gaskets seal lens to the trim and reflector.

LED

Factory sealed COB style LED light engine that is field replaceable and serviceable from below. COB LEDs are high efficiency and closely regulated to maintain CRI, color consistency, lumen performance, and efficacy. Choose from 2700K, 3000K, 3500K, 4000K, and 5000K color temperatures with a color consistency of 2 SDCM, standard 80 CRI, optional 90 and 95 CRI. Lifetime L70 is greater than 60,000 hrs.

Electrical

The standard electronic driver is constant current, programmable and dimmable to 1% using a 0-10V protocol. High efficiency (>85%) and low THD (<10%). Certified to FCC Part 15, Class A. 120-277Vac or 347Vac, 50/60hz. See "Options" for DALI driver choices.

Trim Finish

5 Stage pretreatment and antimicrobial matte white polyester powder coated. Antimicrobial Gloss white polyester powder coating is optional*. See "Finish Options".

Installation

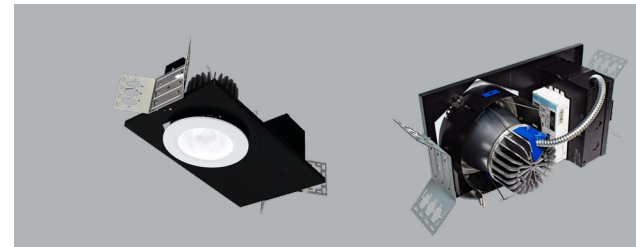
Recessed Non-IC- Marked Spacings for T-bar Grid and F type (drywall) ceilings. Compatible with 9/16" (NFG), 15/16", 1" and 1-1/2" standard grid ceilings. Plaster Ring has vertical adjustment for ceilings from 1/2"-2.5" thick. Use under a covered structural ceiling.

Listings, Certifications and Ratings

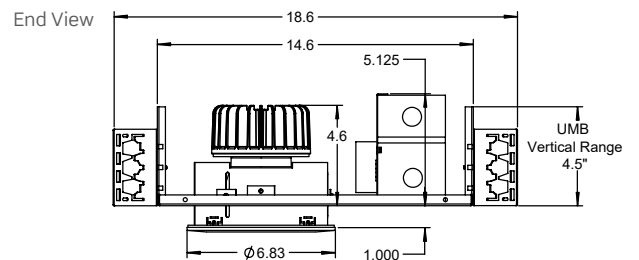
ETL listed for recessed type Non-IC Marked Spacings, Wet locations. Ingress protection rated IP64 (regressed lens) or IP65 (Flush lens).

Approvals

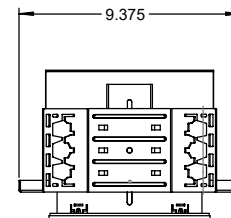
- UL listed to CSA and UL standards for insulated ceilings
- Certified IP65 & Certified NSF



Dimensions



Side View



Warranty

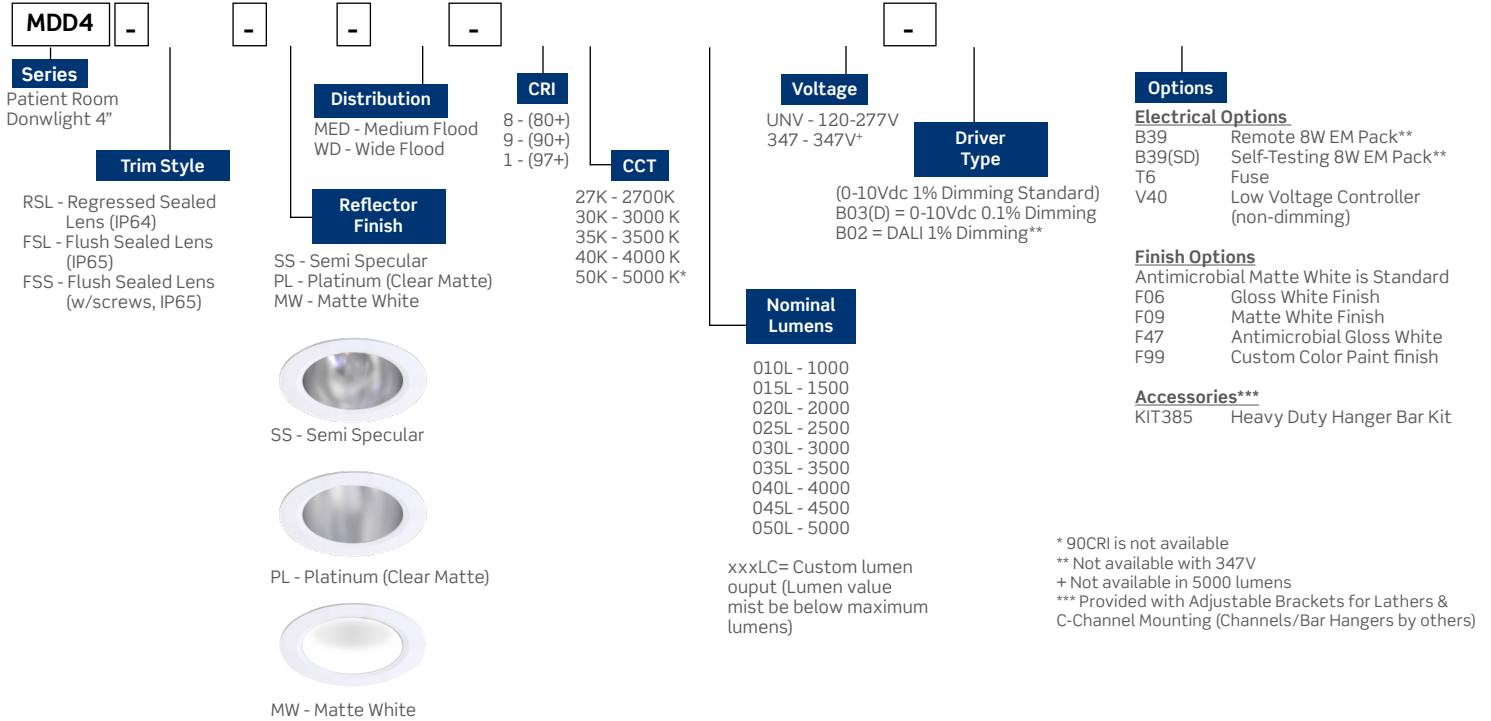
5 year limited warranty. For complete warranty, click here:



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Order Key

EXAMPLE: MDD4-RSL-SS-WD-840KUNV



Performance Scaling

CRI	CCT	Lumen Multiplier
80	2700K	0.91
	3000K	0.92
	3500K	0.98
	4000K	1.00
	5000K	1.02
90	3000K	0.84
	3500K	0.79
	4000K	0.82
98	3500K	0.75
	4000K	0.79

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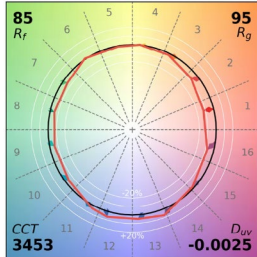
LED Performance Data - 4" RSL (Regressed Dome Lens)

Distribution Order Code	Reflector Order Code	Lumens Order Code	Delivered Lumens 2700K	Delivered Lumens 3000K	Delivered Lumens 3000K	Delivered Lumens 3500K	Delivered Lumens 3500K	Delivered Lumens 4000K	Delivered Lumens 4000K	Delivered Lumens 5000K	Delivered Lumens 3500K	Delivered Lumens 4000K	Estimated L80 LED Life (hrs)	Supply Watts	Efficacy Range
			80 CRI	80 CRI	90 CRI	80 CRI	90 CRI	80 CRI	90 CRI	80 CRI	98 CRI	98 CRI			
MED - Medium	SS	010L	892	897	820	958	776	980	799	995	730	770	>90Khrs	10.2	69.6 - 95.0
		015L	1337	1346	1230	1437	1164	1470	1199	1493	1095	1155	>90Khrs	15.4	69.2 - 94.4
		020L	1783	1795	1640	1916	1552	1960	1599	1991	1460	1540	>90Khrs	20.5	69.3 - 94.5
		025L	2229	2244	2050	2396	1940	2449	1999	2489	1825	1925	>80Khrs	25.6	69.4 - 94.6
		030L	2675	2692	2460	2875	2328	2939	2398	2986	2190	2310	>80Khrs	30.8	69.2 - 94.4
		035L	3121	3141	2870	3354	2716	3429	2798	3484	2555	2695	>80Khrs	35.9	69.3 - 94.4
		040L	3566	3590	3280	3833	3104	3919	3198	3982	2920	3080	>80Khrs	41.3	68.8 - 93.8
		045L	4012	4039	3690	4312	3492	4409	3598	4480	3285	3465	>70Khrs	46.2	69.2 - 94.4
	050L	4458	4487	4100	4791	3880	4899	3997	4977	3650	3850	>70Khrs	51.3	69.2 - 94.4	
	PL	010L	944	950	868	1014	821	1037	846	1054	773	815	>90Khrs	10.2	75.8 - 103.3
		015L	1416	1425	1302	1522	1232	1556	1270	1581	1159	1223	>90Khrs	15.4	75.3 - 102.6
		020L	1888	1900	1736	2029	1643	2074	1693	2108	1545	1630	>90Khrs	20.5	75.4 - 102.8
		025L	2360	2375	2170	2536	2054	2593	2116	2634	1932	2038	>80Khrs	25.6	75.5 - 102.9
		030L	2832	2850	2604	3043	2464	3112	2539	3161	2318	2446	>80Khrs	30.8	75.3 - 102.6
		035L	3303	3325	3038	3550	2875	3630	2962	3688	2704	2853	>80Khrs	35.9	75.3 - 102.7
		040L	3775	3800	3472	4057	3286	4149	3385	4215	3091	3261	>80Khrs	41.3	74.8 - 102.1
045L		4247	4275	3907	4565	3697	4667	3809	4742	3477	3669	>70Khrs	46.2	75.3 - 102.6	
050L	4719	4750	4341	5072	4107	5186	4232	5269	3864	4076	>70Khrs	51.3	75.3 - 102.7		
W - Wide	SS	010L	932	938	857	1001	811	1024	835	1040	763	805	>90Khrs	10.2	74.8 - 102.0
		015L	1398	1407	1285	1502	1216	1536	1253	1560	1144	1207	>90Khrs	15.4	74.3 - 101.3
		020L	1863	1876	1714	2003	1622	2048	1671	2080	1525	1609	>90Khrs	20.5	74.4 - 101.5
		025L	2329	2345	2142	2503	2027	2560	2089	2601	1907	2012	>80Khrs	25.6	74.5 - 101.6
		030L	2795	2813	2571	3004	2433	3071	2506	3121	2288	2414	>80Khrs	30.8	74.3 - 101.3
		035L	3261	3282	2999	3505	2838	3583	2924	3641	2670	2817	>80Khrs	35.9	74.4 - 101.4
		040L	3727	3751	3428	4005	3243	4095	3342	4161	3051	3219	>80Khrs	41.3	73.9 - 100.7
		045L	4193	4220	3856	4506	3649	4607	3759	4681	3432	3621	>70Khrs	46.2	74.3 - 101.3
	050L	4658	4689	4285	5006	4054	5119	4177	5201	3814	4024	>70Khrs	51.3	74.3 - 101.4	
	PL	010L	970	976	892	1042	844	1066	870	1083	794	838	>90Khrs	10.2	77.8 - 106.1
		015L	1455	1464	1338	1563	1266	1598	1304	1624	1191	1256	>90Khrs	15.4	77.3 - 105.5
		020L	1939	1952	1784	2084	1688	2131	1739	2165	1588	1675	>90Khrs	20.5	77.5 - 105.6
		025L	2424	2440	2230	2605	2110	2664	2174	2707	1985	2094	>80Khrs	25.6	77.5 - 105.7
		030L	2909	2928	2676	3127	2532	3197	2609	3248	2382	2513	>80Khrs	30.8	77.3 - 105.5
		035L	3394	3416	3122	3648	2954	3730	3043	3789	2779	2932	>80Khrs	35.9	77.4 - 105.6
		040L	3879	3904	3568	4169	3376	4262	3478	4331	3176	3350	>80Khrs	41.3	76.9 - 104.9
		045L	4364	4392	4014	4690	3798	4795	3913	4872	3572	3769	>70Khrs	46.2	77.3 - 105.5
	050L	4849	4881	4460	5211	4220	5328	4348	5413	3969	4188	>70Khrs	51.3	77.4 - 105.5	
	MW	010L	899	905	827	967	783	988	806	1004	736	777	>90Khrs	10.2	72.2 - 98.4
		015L	1349	1358	1241	1450	1174	1482	1210	1506	1104	1165	>90Khrs	15.4	71.7 - 97.8
		020L	1799	1810	1654	1933	1565	1976	1613	2008	1472	1554	>90Khrs	20.5	71.8 - 98.0
		025L	2248	2263	2068	2416	1957	2471	2016	2510	1841	1942	>80Khrs	25.6	71.9 - 98.1
		030L	2698	2716	2481	2900	2348	2965	2419	3012	2209	2330	>80Khrs	30.8	71.7 - 97.8
		035L	3148	3168	2895	3383	2739	3459	2822	3514	2577	2719	>80Khrs	35.9	71.8 - 97.9
040L		3597	3621	3309	3866	3131	3953	3226	4016	2945	3107	>80Khrs	41.3	71.3 - 97.2	
045L		4047	4074	3722	4349	3522	4447	3629	4518	3313	3495	>70Khrs	46.2	71.7 - 97.8	
050L	4497	4526	4136	4833	3913	4941	4032	5020	3681	3884	>70Khrs	51.3	71.8 - 97.9		

This chart is for performance selection and may change without notice. Consult IES files for official performance data.

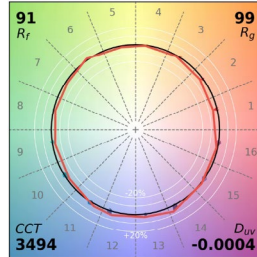
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3500K CCT Color Metric Summary				
CCT:	3453	CRI:	83	
Δ				
2700	3000	3500	4000	5000



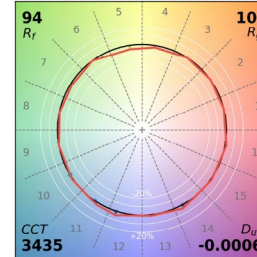
TM-30	Rf = 85
	Rg = 95
CRI	Ra = 83
	R9 = 8

3500K CCT Color Metric Summary				
CCT:	3494	CRI:	93	
Δ				
2700	3000	3500	4000	5000



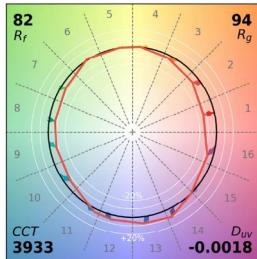
TM-30	Rf = 91
	Rg = 99
CRI	Ra = 93
	R9 = 63

3500K CCT Color Metric Summary				
CCT:	3500K	CRI:	98	
Δ				
2700	3000	3500	4000	5000



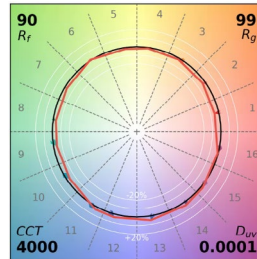
TM-30	Rf = 94
	Rg = 101
CRI	Ra = 98
	R9 = 98

4000K CCT Color Metric Summary				
CCT:	3933	CRI:	82	
Δ				
2700	3000	3500	4000	5000



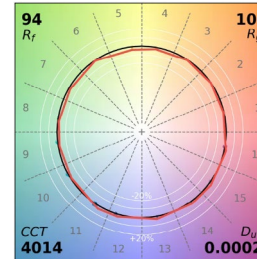
TM-30	Rf = 82
	Rg = 94
CRI	Ra = 82
	R9 < 6

4000K CCT Color Metric Summary				
CCT:	4000K	CRI:	92	
Δ				
2700	3000	3500	4000	5000



TM-30	Rf = 90
	Rg = 99
CRI	Ra = 92
	R9 = 63

4000K CCT Color Metric Summary				
CCT:	4014	CRI:	98	
Δ				
2700	3000	3500	4000	5000



TM-30	Rf = 94
	Rg = 100
CRI	Ra = 98
	R9 = 98

MDD4-RSL-PL-WD-840K020L	2131 Lumens	UGR Rating:	12	20x30x10h
Medical Downlight Performance			Spacing Criteria: 0-180	1.34
Size	Distribution	Finish	Spacing Criteria: Diag. 1.12	
4"	Wide	Platinum (PL)	Beam Angle	60.6
Watts:	20.5	80CRI	375	750 1125 1500
Mtg. Ht. (ft)	Light Level (fc)	Beam Dia. (ft)		
5	60.0	5.8		
6	41.7	7.0		
7	30.6	8.2		
8	23.4	9.3		
9	18.5	10.5		
10	15	11.7		

MDD4-RSL-SS-WD-840K-035L	3584 Lumens	UGR Rating:	14	20x30x10h
Medical Downlight Performance			Spacing Criteria: 0-180	1.62
Size	Distribution	Finish	Spacing Criteria: Diag. 1.22	
4"	Wide	Semi-Specular	Beam Angle	79.7
Watts:	35.9	80CRI	600	1200 1800 2400
Mtg. Ht. (ft)	Light Level (fc)	Beam Dia. (ft)		
5	88.4	8.3		
6	61.4	10.0		
7	45.1	11.7		
8	34.5	13.4		
9	27.3	15.0		
10	22.1	16.7		

MDD4-RSL-SS-MED-840K-040L	3282 Lumens	UGR Rating:	14	20x30x10h
Medical Downlight Performance			Spacing Criteria: 0-180	1.42
Size	Distribution	Finish	Spacing Criteria: Diag. 1.2	
4"	Medium	Semi-Specular	Beam Angle	73.3
Watts:	35.9	80CRI	575	1150 1725 2300
Mtg. Ht. (ft)	Light Level (fc)	Beam Dia. (ft)		
5	75.2	7.4		
6	52.2	8.9		
7	38.4	10.4		
8	29.4	11.9		
9	23.2	13.4		
10	18.8	14.9		

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