

| | | |
|----------|------------|-------|
| 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

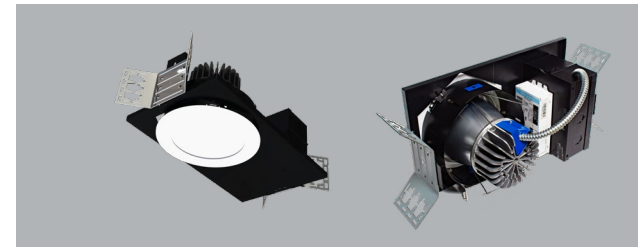
Recessed Non-IC- Marked Spacings for T-bar Grid and F type (drywall) ceilings. Compatible with 9/16" (NFG), 15/16", 1" and 1-1/2" standard grid ceilings. Plaster Ring has vertical adjustment for ceilings from 1/2"-2.5" thick. Use under a covered structural ceiling.

Listings, Certifications and Ratings

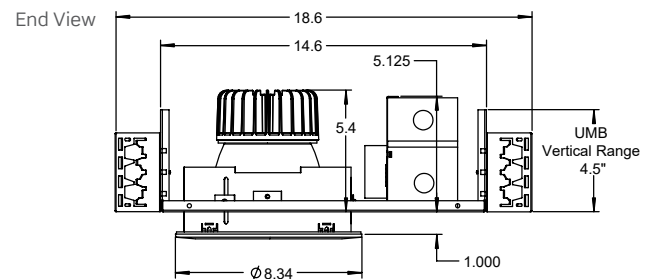
ETL listed for recessed type Non-IC Marked Spacings, Wet locations. Ingress protection rated IP64 (regressed lens) or IP65 (Flush lens).

Approvals

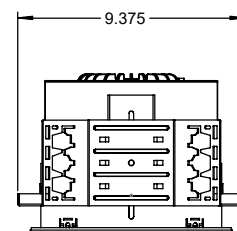
- UL listed to CSA and UL standards for insulated ceilings
- Certified IP65 & Certified NSF



Dimensions



Side View



Warranty

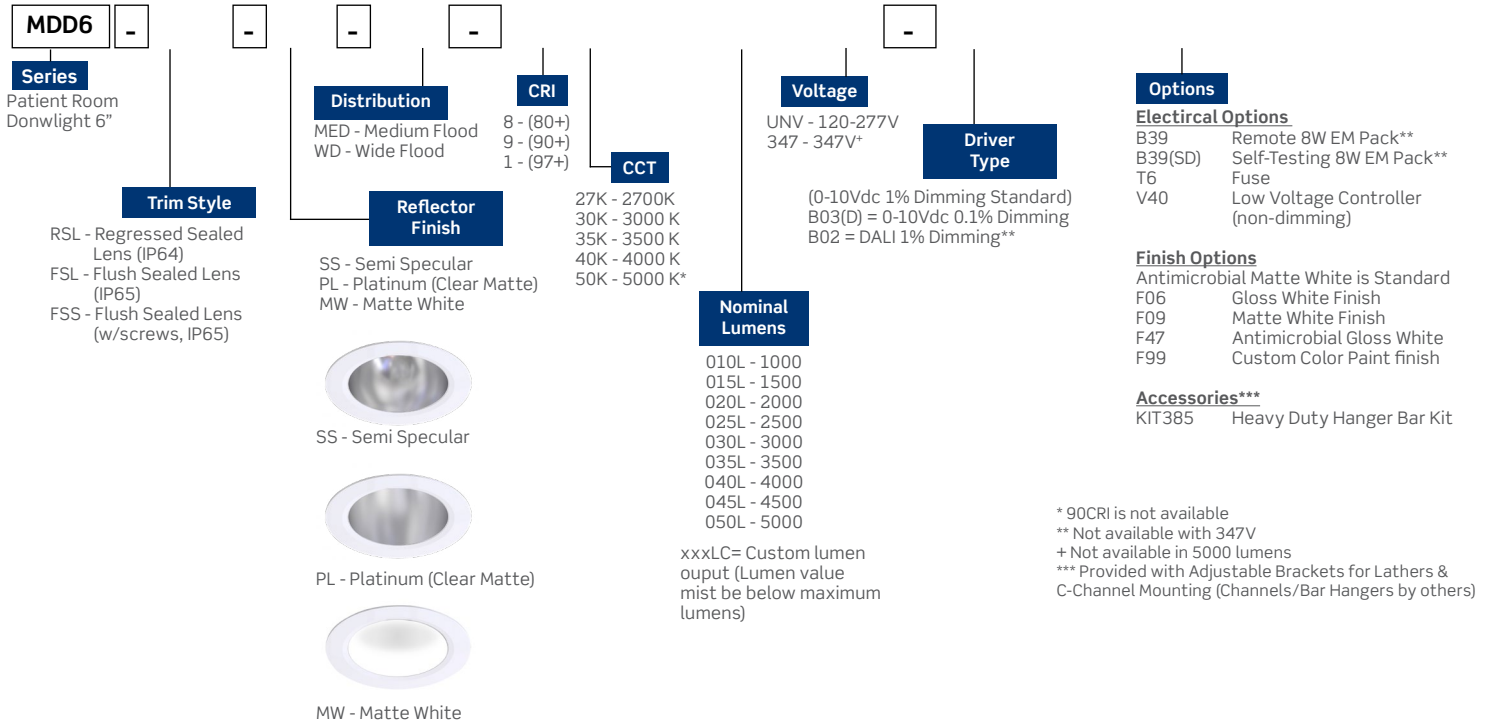
5 year limited warranty. For complete warranty, click here:



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Order Key

EXAMPLE: MDD6-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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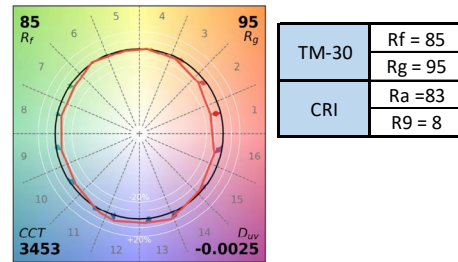
LED Performance Data - 4" FLS (Flush Sealed Lens)

| 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 | 90 CRI | 80 CRI | | | |
| MED - Medium | SS | 010L | 878 | 884 | 808 | 944 | 764 | 965 | 788 | 981 | 719 | 759 | >90Khrs | 10.2 | 70.5 - 96.1 |
| | | 015L | 1317 | 1326 | 1212 | 1416 | 1147 | 1448 | 1181 | 1471 | 1079 | 1138 | >90Khrs | 15.4 | 70.0 - 95.5 |
| | | 020L | 1757 | 1768 | 1616 | 1888 | 1529 | 1930 | 1575 | 1961 | 1438 | 1517 | >90Khrs | 20.5 | 70.2 - 95.7 |
| | | 025L | 2196 | 2210 | 2020 | 2360 | 1911 | 2413 | 1969 | 2452 | 1798 | 1897 | >80Khrs | 25.6 | 70.2 - 95.8 |
| | | 030L | 2635 | 2652 | 2424 | 2832 | 2293 | 2896 | 2363 | 2942 | 2157 | 2276 | >80Khrs | 30.8 | 70.0 - 95.5 |
| | | 035L | 3074 | 3094 | 2827 | 3304 | 2675 | 3378 | 2757 | 3432 | 2517 | 2655 | >80Khrs | 35.9 | 70.1 - 95.6 |
| | | 040L | 3513 | 3536 | 3231 | 3776 | 3058 | 3861 | 3150 | 3922 | 2876 | 3035 | >80Khrs | 41.3 | 69.6 - 95.0 |
| | | 045L | 3952 | 3978 | 3635 | 4248 | 3440 | 4343 | 3544 | 4413 | 3236 | 3414 | >70Khrs | 46.2 | 70.0 - 95.5 |
| | | 050L | 4392 | 4421 | 4039 | 4720 | 3822 | 4826 | 3938 | 4903 | 3595 | 3793 | >70Khrs | 51.3 | 70.1 - 95.6 |
| W - Wide | SS | 010L | 873 | 879 | 803 | 939 | 760 | 960 | 783 | 975 | 715 | 754 | >90Khrs | 10.2 | 70.1 - 95.6 |
| | | 015L | 1310 | 1319 | 1205 | 1408 | 1140 | 1439 | 1175 | 1463 | 1072 | 1131 | >90Khrs | 15.4 | 69.6 - 95.0 |
| | | 020L | 1747 | 1758 | 1606 | 1877 | 1520 | 1919 | 1566 | 1950 | 1430 | 1509 | >90Khrs | 20.5 | 69.8 - 95.1 |
| | | 025L | 2183 | 2198 | 2008 | 2346 | 1900 | 2399 | 1958 | 2438 | 1787 | 1886 | >80Khrs | 25.6 | 69.8 - 95.2 |
| | | 030L | 2620 | 2637 | 2410 | 2816 | 2280 | 2879 | 2349 | 2925 | 2145 | 2263 | >80Khrs | 30.8 | 69.6 - 95.0 |
| | | 035L | 3057 | 3077 | 2811 | 3285 | 2660 | 3359 | 2741 | 3413 | 2502 | 2640 | >80Khrs | 35.9 | 69.7 - 95.1 |
| | | 040L | 3493 | 3516 | 3213 | 3754 | 3040 | 3839 | 3132 | 3900 | 2860 | 3017 | >80Khrs | 41.3 | 69.2 - 94.4 |
| | | 045L | 3930 | 3956 | 3615 | 4223 | 3420 | 4318 | 3524 | 4388 | 3217 | 3394 | >70Khrs | 46.2 | 69.6 - 95.0 |
| | | 050L | 4366 | 4395 | 4016 | 4693 | 3800 | 4798 | 3915 | 4875 | 3575 | 3771 | >70Khrs | 51.3 | 69.7 - 95.0 |
| | PL | 010L | 993 | 1000 | 914 | 1068 | 865 | 1092 | 891 | 1109 | 813 | 858 | >90Khrs | 10.2 | 79.7 - 108.7 |
| | | 015L | 1490 | 1500 | 1371 | 1602 | 1297 | 1638 | 1336 | 1664 | 1220 | 1287 | >90Khrs | 15.4 | 79.2 - 108.0 |
| | | 020L | 1987 | 2000 | 1828 | 2135 | 1729 | 2183 | 1782 | 2218 | 1627 | 1716 | >90Khrs | 20.5 | 79.4 - 108.2 |
| | | 025L | 2484 | 2500 | 2284 | 2669 | 2162 | 2729 | 2227 | 2773 | 2033 | 2145 | >80Khrs | 25.6 | 79.4 - 108.3 |
| | | 030L | 2980 | 3000 | 2741 | 3203 | 2594 | 3275 | 2673 | 3328 | 2440 | 2574 | >80Khrs | 30.8 | 79.2 - 108.0 |
| | | 035L | 3477 | 3500 | 3198 | 3737 | 3026 | 3821 | 3118 | 3882 | 2847 | 3003 | >80Khrs | 35.9 | 79.3 - 108.1 |
| | | 040L | 3974 | 4000 | 3655 | 4271 | 3459 | 4367 | 3563 | 4437 | 3253 | 3432 | >80Khrs | 41.3 | 78.8 - 107.4 |
| | | 045L | 4471 | 4500 | 4112 | 4805 | 3891 | 4913 | 4009 | 4991 | 3660 | 3861 | >70Khrs | 46.2 | 79.2 - 108.0 |
| | | 050L | 4967 | 5000 | 4569 | 5339 | 4323 | 5459 | 4454 | 5546 | 4067 | 4291 | >70Khrs | 51.3 | 79.3 - 108.1 |
| | MW | 010L | 939 | 945 | 864 | 1009 | 817 | 1032 | 842 | 1049 | 769 | 811 | >90Khrs | 10.2 | 75.4 - 102.8 |
| | | 015L | 1409 | 1418 | 1296 | 1514 | 1226 | 1548 | 1263 | 1573 | 1153 | 1217 | >90Khrs | 15.4 | 74.9 - 102.1 |
| | | 020L | 1878 | 1891 | 1728 | 2019 | 1635 | 2064 | 1684 | 2097 | 1538 | 1622 | >90Khrs | 20.5 | 75.0 - 102.3 |
| | | 025L | 2348 | 2363 | 2159 | 2523 | 2043 | 2580 | 2105 | 2621 | 1922 | 2028 | >80Khrs | 25.6 | 75.1 - 102.4 |
| | | 030L | 2817 | 2836 | 2591 | 3028 | 2452 | 3096 | 2526 | 3146 | 2307 | 2433 | >80Khrs | 30.8 | 74.9 - 102.1 |
| | | 035L | 3287 | 3309 | 3023 | 3533 | 2861 | 3612 | 2947 | 3670 | 2691 | 2839 | >80Khrs | 35.9 | 75.0 - 102.2 |
| | | 040L | 3756 | 3781 | 3455 | 4037 | 3269 | 4128 | 3368 | 4194 | 3075 | 3245 | >80Khrs | 41.3 | 74.5 - 101.6 |
| | | 045L | 4226 | 4254 | 3887 | 4542 | 3678 | 4644 | 3789 | 4718 | 3460 | 3650 | >70Khrs | 46.2 | 74.9 - 102.1 |
| | | 050L | 4696 | 4727 | 4319 | 5046 | 4087 | 5160 | 4211 | 5243 | 3844 | 4056 | >70Khrs | 51.3 | 74.9 - 102.2 |

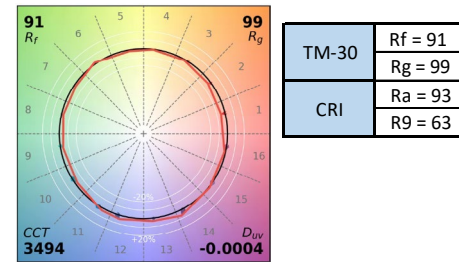
This chart is for performance selection and may change without notice. Consult IES files for official performance data.

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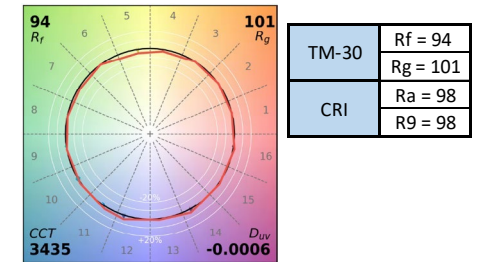
| 3500K CCT Color Metric Summary | | | | | |
|--------------------------------|------|------|------|------|--|
| CCT: | 3453 | CRI: | 83 | | |
| Δ | | | | | |
| 2700 | 3000 | 3500 | 4000 | 5000 | |



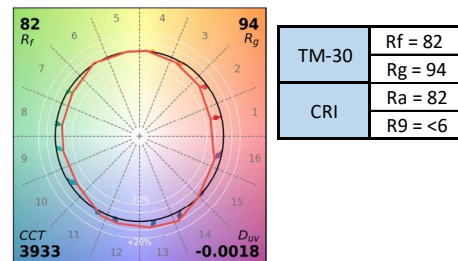
| 3500K CCT Color Metric Summary | | | | | |
|--------------------------------|------|------|------|------|--|
| CCT: | 3494 | CRI: | 93 | | |
| Δ | | | | | |
| 2700 | 3000 | 3500 | 4000 | 5000 | |



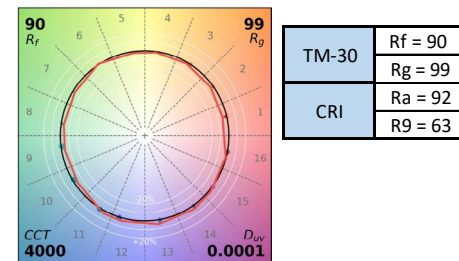
| 3500K CCT Color Metric Summary | | | | | |
|--------------------------------|-------|------|------|------|--|
| CCT: | 3500K | CRI: | 98 | | |
| Δ | | | | | |
| 2700 | 3000 | 3500 | 4000 | 5000 | |



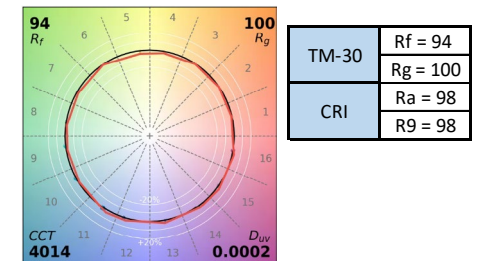
| 4000K CCT Color Metric Summary | | | | | |
|--------------------------------|------|------|------|------|--|
| CCT: | 3933 | CRI: | 82 | | |
| Δ | | | | | |
| 2700 | 3000 | 3500 | 4000 | 5000 | |



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



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



| MDD6-RSL-SS-MED-840K-025L | 2413 Lumens | UGR Rating | 9 | 20x30x10h |
|-------------------------------|------------------|----------------|-------------------------|-----------|
| Medical Downlight Performance | | | | |
| Size | Distribution | Finish | Spacing Criteria: 0-180 | 1.02 |
| 6" | Medium | Semi-Specular | Spacing Criteria: Diag. | 1.06 |
| Watts: | 25.6 | 80CRI | Beam Angle | 65.9 |
| | | | 625 | 1250 |
| | | | 1875 | 2500 |
| Mtg. Ht. (ft) | Light Level (fc) | Beam Dia. (ft) | | |
| 5 | 100.4 | 6.5 | | |
| 6 | 69.7 | 7.8 | | |
| 7 | 51.2 | 9.1 | | |
| 8 | 39.2 | 10.4 | | |
| 9 | 31.0 | 11.7 | | |
| 10 | 25.1 | 13.0 | | |

| MDD6-RSL-PL-WD-840K-020L | 2183 Lumens | UGR Rating | 11 | 20x30x10h |
|-------------------------------|------------------|----------------|-------------------------|-----------|
| Medical Downlight Performance | | | | |
| Size | Distribution | Finish | Spacing Criteria: 0-180 | 1.30 |
| 6" | Wide | Semi-Specular | Spacing Criteria: Diag. | 1.06 |
| Watts: | 20.5 | 80CRI | Beam Angle | 62.3 |
| | | | 425 | 850 |
| | | | 1275 | 1700 |
| Mtg. Ht. (ft) | Light Level (fc) | Beam Dia. (ft) | | |
| 5 | 65.2 | 6.0 | | |
| 6 | 45.3 | 7.3 | | |
| 7 | 33.3 | 8.5 | | |
| 8 | 25.5 | 9.7 | | |
| 9 | 20.1 | 10.9 | | |
| 10 | 16.3 | 12.1 | | |

| MDD6-RSL-SS-WD-840K020L | 1919 Lumens | UGR Rating | 14 | 20x30x10h |
|-------------------------------|------------------|----------------|-------------------------|-----------|
| Medical Downlight Performance | | | | |
| Size | Distribution | Finish | Spacing Criteria: 0-180 | 1.38 |
| 6" | Wide | Platinum | Spacing Criteria: Diag. | 1.08 |
| Watts: | 40.5w | 80CRI | Beam Angle | 72.8 |
| | | | 750 | 1500 |
| | | | 2250 | 3000 |
| Mtg. Ht. (ft) | Light Level (fc) | Beam Dia. (ft) | | |
| 5 | 125.6 | 7.4 | | |
| 6 | 87.2 | 8.8 | | |
| 7 | 64.1 | 10.3 | | |
| 8 | 49.1 | 11.8 | | |
| 9 | 38.8 | 13.3 | | |
| 10 | 31.4 | 14.7 | | |

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