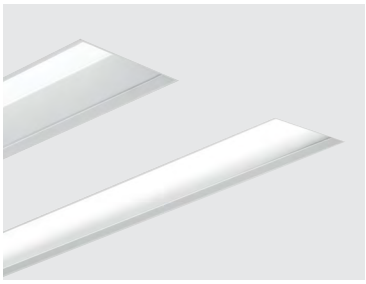
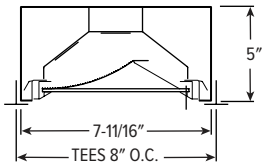
MD4 tunable WHITE
Architectural Multi-Function Medical





CATALOG #:

Type:

PROJECT:

BAA & BABA COMPLIANT

FEATURES

- Support human-centric design with adaptive, individualized lighting using tunable white light
- Specify as a single fixture or in pairs to customize ambient, exam, and reading light output
- Illuminate exam surfaces asymmetrically when installed in pairs and meet IESNA guidelines
- Fixtures can be installed to allow maintenance access without working directly over patient beds
- Optional low-voltage controller allows for bedside lighting control
- Double-gasketed sani-shield protects fixture from dust, bugs and other contaminants while simplifying maintenance and cleaning
- Anti-microbial white finish standard
- Quick-wire access plate in back of fixture housing for easy attachment of incoming power supply
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed and welded C.R.S.
- DOOR FRAME – .050″ extruded regressed aluminum frame with curved diffuse acrylic lens and clear acrylic sani-shield. Fully enclosed spring-loaded cam latches
- SHIELDING – Internal curved diffuse ribbed acrylic with external clear, non-prismatic sani-shield lens
- FINISH – 92% minimum average reflective white anti-microbial powder coat, bonded to phosphate-free, multi-stage pretreated metal. Salt spray tested, 1,000 hours (ASTM B117). All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High-quality mid-power LED board. L70 > 50,000 hours per IES TM-21. Tunable White products use LEDs of multiple CCTs and may produce a perceptibly different shade of white from single-CCT products at the same CCT. All CCTs are within 3 MacAdam ellipses.
- MOUNTING – NEMA Type “G” 15/16″ or 1″ grid standard. For NEMA Type “NFG” and “SG” 9/16″ grid installations, specify EQCLIPS option. Drywall flange kit available, shipped separately, see options. Fixture must be installed prior to Drywall Kit.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - Build America, Buy America (BABA) and Buy American Act (BAA) compliant. Request certification at hew.com/buy-american
- WARRANTY – 5-year limited warranty, see hew.com/warranty

ORDERING EXAMPLE: MD 4+4AE G - 4 - L40/L100/8TW - A - OPTIONS - DALI - UNV

ORDERING INFO

SERIES	STYLE	CEILING TYPE	LENGTH	LUMENS [1]	CRI	CCT
MD	See table below	**G** 9/16″, 15/16″, or 1″ grid [2]	**4** 4′	See table below	**8** 80 **9** 90	**TW** Tunable white (3000K-5000K) **TW2** Tunable white (2700K-6500K)

SHIELDING

- **A** Curved diffuse ribbed acrylic with clear, acrylic lens
- **A/PC080** Clear, non-prismatic polycarbonate lens, .080″ thick

OPTIONS [3]

- **EM/10W** 10-watt emergency battery
- **GLR** Fuse, fast blow [4]
- **EQCLIPS** Earthquake clips [5]
- **TG** Triple gasket [6]
- **DFK-0848AMW** Drywall kit, 8″ x 48″, anti-microbial white [7]
- **TP** Tamper resistant tri-groove screws [8]

CONTROL

See page 4 for CONTROL DETAILS.

- **DALI** Driver prewired for DALI applications
- **DIM** Dimming driver with (1) 0-10V signal to control dimming and (1) 0-10V signal to control CCT
- **DMX** Driver prewired for DMX applications
- **LD2** Lutron DALI-2 digital driver, 1%

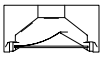
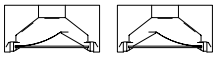
VOLTAGE

- **120** 120V
- **277** 277V
- **UNV** 120-277V

ACCESSORIES

TPTG TOOL Tamper-resistant tool for tri-groove screws. [9]

CONFIGURATIONS

STYLE	DESCRIPTION	AMBIENT LUMENS	EXAM LUMENS	READING LUMENS	CONFIGURATION
4A	Single fixture, ambient only	**L45** 5,500	—	—	
4AR_	Single fixture, ambient & reading Specify fixture direction: **L** for Left and **R** for Right			900	
4AE	Single fixture, ambient & exam	**L20** 2,000	**L50** 5,000	—	
4AER_	Single fixture, ambient, exam & reading Specify fixture direction: **L** for Left and **R** for Right			900	
4+4A	Pair of fixtures, ambient only	**L90** 9,000	—	—	
4+4AR	Pair of fixtures, ambient & reading			1,900	
4+4AE	Pair of fixtures, ambient & exam	**L40** 4,000	**L100** 10,000	—	
4+4AER	Pair of fixtures, ambient, exam & reading			1,900	

NOTES

1. Lumens based on A Shielding, 80 CRI/4000K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2. Must specify EQCLIPS option when 9/16″ grid mounting.
3. Low-voltage controllers available, see page 3 for LOW-VOLTAGE CONTROLLER.
4. Specify voltage, one fuse required per driver.
5. 2 clips per fixture. Optional for 1″ grid installations. Required for 9/16″ grid mounting.
6. Field-installed. See page 4 for GASKETING DETAILS..
7. 2 kits required for 4+4 style fixtures. Fixture must be installed prior to Drywall Kit. See page 4 for DRYWALL KIT (DFK) OPTIONS.
8. Requires a tamper-resistant tool, see Accessories.
9. Tamper-resistant tool must be ordered separately. Please specify quantity required per project.

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FIXTURE PERFORMANCE DATA

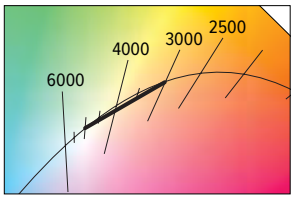
	STYLE	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	SYSTEM WATTAGE	SYSTEM EFFICACY
MD4A	A	L45	4,552	52.8	86	52.8	86
	R	—	931	10.6	88	—	—
MD4+4A	A	L90	9,104	105.7	86	105.7	86
	R	—	1,863	21.1	88	—	—
MD4AE	A	L20/L50	2,027	25.0	81	79.6	89
	E		5,041	54.6	92		
	R	—	931	10.6	88	—	—
MD4+4AE	A	L40/L100	4,054	50.0	81	159.7	89
	E		10,083	109.7	92		
	R	—	1,863	21.1	88	—	—

- Photometrics tested in accordance with IESNA LM-79. Results based on A shielding, 80 CRI/4000K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- When specifying fixtures with Reading compartment, add R wattage to system wattage to find total fixture wattage.
- Use multiplier table to calculate additional options.

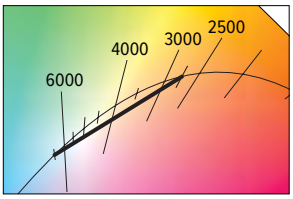
MULTIPLIER TABLE

	COLOR TEMPERATURE	TW		TW2	
	CCT	LUMENS	WATTAGE	LUMENS	WATTAGE
80 CRI	2700K	–	–	0.93	1.02
	3000K	0.95	1.04	0.95	1.01
	3500K	0.98	1.02	0.98	1.00
	4000K	1.00	1.00	1.00	1.00
	5000K	0.96	1.04	1.02	1.00
	6500K	–	–	1.01	1.04
90 CRI	2700K	–	–	0.81	1.02
	3000K	0.83	1.04	0.83	1.01
	3500K	0.86	1.02	0.86	1.00
	4000K	0.88	1.00	0.88	1.00
	5000K	0.84	1.04	0.89	1.00
	6500K	–	–	0.88	1.04

TW

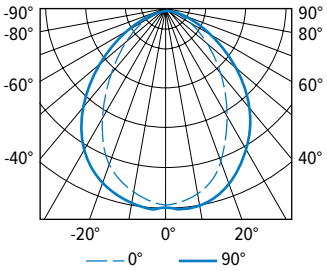


TW2



PHOTOMETRY

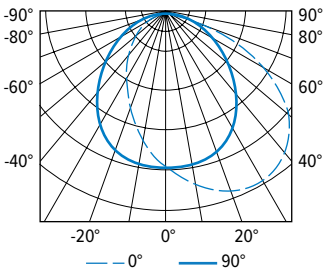
MD4AEG-4-L20/L50/8TW-A-DALI-UNV Ambient only Total Luminaire Output: 2027 lumens; 25 Watts | Efficacy: 81 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
	0	1052	1052	1052	1052	1052	
	5	1034	1053	1068	1046	1037	100
	15	950	1003	1035	984	961	280
	25	776	886	935	860	793	397
	35	575	722	791	655	568	426
	45	402	527	584	432	354	373
	55	258	340	361	229	187	266
	65	107	174	190	96	58	140
	75	25	43	69	13	11	42
	85	0	2	5	1	1	4
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	776	38
	0 - 60	1841	91
	0 - 90	2027	100
	0 - 180	2027	100

MD4AEG-4-L20/L50/8TW-A-DALI-UNV Exam only Total Luminaire Output: 5041 lumens; 54.6 Watts | Efficacy: 92 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
	0	1937	1937	1937	1937	1937	
	5	2076	2046	1964	1783	1843	183
	15	2300	2211	1909	1480	1467	525
	25	2413	2258	1765	1156	1082	797
	35	2376	2176	1527	884	776	965
	45	2167	1912	1231	636	533	993
	55	1684	1483	844	400	363	851
	65	827	929	478	212	180	535
	75	171	278	164	53	52	180
	85	0	3	3	2	3	13
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1506	30
	0 - 60	4314	86
	0 - 90	5041	100
	0 - 180	5041	100

PHOTOMETRY CONTINUED ON NEXT PAGE

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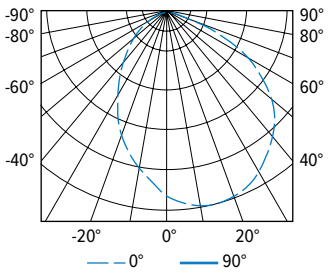
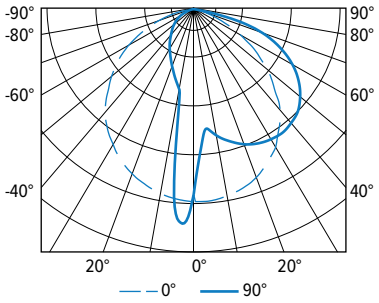
MD4AEG-4-L20/L50/8TW-A-DALI-UNV Ambient & Exam Total Luminaire Output: 7068 lumens; 79.6 Watts | Efficacy: 89 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
	0	2989	2989	2989	2989	2989	
	5	3111	3099	3032	2829	2880	283
	15	3251	3214	2944	2464	2428	805
	25	3189	3145	2700	2016	1875	1194
	35	2951	2897	2318	1539	1343	1391
	45	2569	2439	1814	1068	887	1366
	55	1942	1823	1205	629	550	1117
	65	935	1103	667	307	238	675
	75	196	321	233	66	62	221
	85	0	4	8	3	4	17
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2282	32
	0 - 60	6155	87
	0 - 90	7068	100
	0 - 180	7068	100

MD4AERRG-4-L20/L50/8TW-A-DALI-UNV Reading Only Total Luminaire Output: 931 lumens; 10.6 Watts | Efficacy: 88 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
	0	472	472	472	472	472	
	5	312	344	490	577	524	40
	15	348	323	474	218	182	92
	25	378	349	436	175	138	130
	35	388	347	377	135	107	160
	45	373	308	293	101	79	170
	55	328	266	199	69	57	157
	65	251	192	98	41	35	118
	75	120	94	27	17	14	57
	85	2	2	0	2	2	6
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 40	423	45
	0 - 60	750	81
	0 - 90	931	100
	0 - 180	931	100

LOW-VOLTAGE CONTROLLER

EXAMPLE: LVC2A/E			
CONTROLLER	**LOAD 1**	**LOAD 2**	**LOAD 3**
LVC1 1-circuit	**A** Ambient **R** Reading **E** Exam		
LVC2 2-circuit	**A/** Ambient **R/** Reading	**R** Reading **E** Exam	
LVC3 3-circuit or dimming control	**A/** Ambient **R/** Reading **DIMA/** Ambient, 0-10 dimming [1] **DIMR/** Reading, 0-10 dimming [1]	**A/** Ambient **R/** Reading **E/** Exam	**E** Exam
	DIMA/DIMR Ambient and reading, 0-10 dimming [1] **SEQAR/** Ambient and reading, sequential switching [2]		

120V-277V only. Tunable white color tuning performed by alternate 0-10V control source.

LVC wall plate accessories available, see hew.com/LVCWP for details.

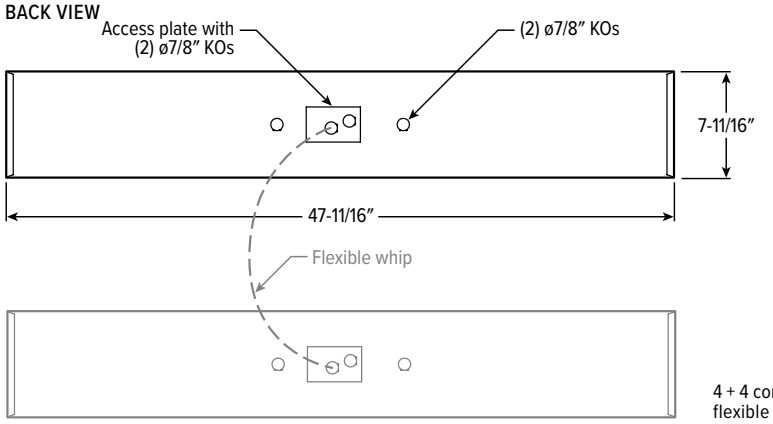
Bedside switch used to control dimming only, color tuning performed by alternate 0-10V control source. DIM only, 120V or 277V only.

[1] Smooth dimming of the load utilizing a single, dry contact, momentary, normally open switch which will dim from 25% up to 100% while holding down the switch.

[2] Alternating off and on of (2) loads with multiple cycles of one switch.

FIXTURE DETAILS

BACK VIEW



4 + 4 combinations supplied with 9' flexible whip between fixture pairs.

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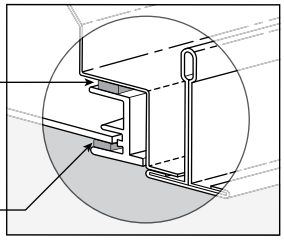
GASKETING DETAILS

DOUBLE GASKETING (STANDARD)

Door frame gasketing factory-installed between door frame and luminaire housing prevents light leak and reduces dust ingress.

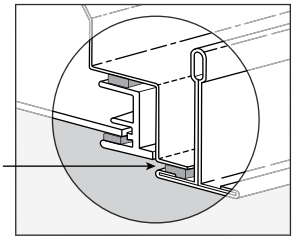
Shielding gasketing factory-installed between door frame and lens reduces dust and bug contaminants.



TRIPLE GASKETING (TG OPTION)

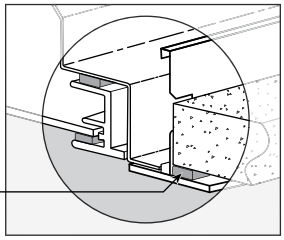
T-bar

Ceiling gasketing field installed between bottom perimeter of fixture and T-bar ceiling seals plenum dust from the room.



Drywall (DFK option)

Between bottom perimeter of fixture and hardpan ceiling.



DRYWALL KIT (DFK) OPTIONS

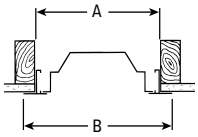
ORDERING INFO

EXAMPLE: DFK - 08 48 W			
SERIES	WIDTH	LENGTH	FINISH
DFK Drywall kit	**08** 8″	**48** 4′	**W** White **AMW** Anti-microbial white

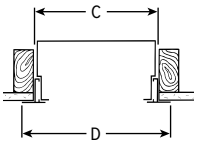
INSTALLATION DIMENSIONS

NOMINAL SIZE	ROUGH-IN		FINISH TRIM SIZE	
	WIDTH (A)	LENGTH (C)	WIDTH (B)	LENGTH (D)
8″ x 4′	8-3/8″	48-3/8″	9-5/16″	49-5/16″

TYPICAL INSTALLATION



Width



Length

CONTROL DETAILS

DIM

DALI

DMX

LD2