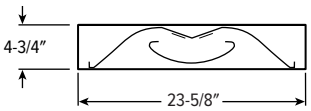
MDB LED Multi-Function Medical Bed Light





End View
Ambient (DI shown)

CATALOG #:

Type:

PROJECT:

FEATURES

- Choose between two attractive ambient styles
- Select ambient, exam and reading light output among two configurations
- Protect against contaminants with the easy-to-clean, lensed door
- Ambient compartment is designed to incorporate Williams' popular DI or HET styles
- Anti-microbial finish suppresses the spread of dangerous micro-organisms, mold, and bacterial growth
- Fully gasketed door frame minimizes contaminants
- Optional low-voltage controller allows for bedside lighting control
- Low-voltage controller wall plate accessories provide easy access for healthcare personnel
- Highly reflective matte white paint increases efficiency
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge die-formed, welded C.R.S.
- DOOR FRAME & LENS – Transparent acrylic lens, .080" thick, mounted in .050" thick extruded aluminum door frame, flat with mitered corners.
- REFLECTOR – Precision die-formed metal with highly reflective, non-glare matte white polyester powder coated finish.
- 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 boards. L70 >50,000 hours. 50/60hz, THD < 10%.
- MOUNTING – NEMA Type "G" 15/16" or 1" grid standard. Earthquake clips provided. Surface mount available. Drywall kit available, shipped separately, see options.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - City of Chicago Environmental Air approved when specified with CP option.
  - 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: MDB AER G - HET - L44/840 - A/AF12125/W - FA - OPTIONS - DRV - UNV

ORDERING INFO

SERIES
MDB

STYLE
AE Ambient and exam
AER Ambient, exam, and reading

CEILING TYPE [1]
G 15/16" or 1" grid
S Surface mount

AMBIENT STYLE [2]
DI Direct/indirect
HET High efficiency troffer

LUMENS [3]
Specified for ambient compartment only. See table below for lumens.

CRI/CCT
80 CRI
830 3000K
835 3500K
840 4000K
90 CRI
940 4000K
950 5000K

SHIELDING

AMBIENT
AD Acrylic [4]
WPR White perforated round [5]
A Frosted, ribbed acrylic [6]

EXAM
AF12125 Frosted acrylic, pattern #12, .125" thick
AF19156 Frosted acrylic, pattern #19, .156" thick

READING [7]
S Semi-specular
W White

LENS

FA Flat aluminum door frame, clear, non-prismatic acrylic, .080" thick
FP Flat aluminum door frame, clear, non-prismatic polycarbonate lens, .080" thick

OPTIONS

See page 4 for LOW-VOLTAGE CONTROLLER OPTIONS.

EM/10W 10-watt emergency battery [8]
GLR Fuse, fast blow [9]
NL Night light [10]
CP Chicago Plenum (CCEA)
DFK-2448AMW Drywall kit, 24" x 48", anti-microbial white [11]

CONTROL

DIM Dimming driver, 0-10V
DRV Non-dimming driver

VOLTAGE

120 120V
277 277V
UNV 120-277V
347 347V [12]

CONFIGURATIONS

STYLE	CONFIGURATION	AMBIENT LUMENS	EXAM LUMENS	READING LUMENS
AE	A E	**L27** 2,700 **L44** 4,400	7,800	—
AER	R→ A E	**L27** 2,700 **L44** 4,400	7,800	1,600

NOTES

1 See page 3 for DRYWALL KIT (DFK) OPTIONS.
2 See page 3 for CROSS SECTIONS.
3 Lumen output based on 80 CRI/4000K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
4 DI Ambient Style only.
5 DI Ambient Style only.
6 HET Ambient Style only.
7 Specify Shielding for Reading only when AER style is specified.
8 Ambient compartment only.
9 Specify voltage, 1 per driver.
10 Must specify 120V or 277V. See page 4 for FIXTURE DETAILS.
11 See page 3 for DRYWALL KIT (DFK) OPTIONS.
12 Not available with EM batteries or low-voltage controller Options.

MDB LED
Multi-Function Medical Bed Light

FIXTURE PERFORMANCE DATA

STYLE		LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)	SYSTEM WATTAGE TOTAL				SYSTEM EFFICACY TOTAL				SHIELDING MULTIPLIERS		
						AE	AER	AEN	AERN	AE	AER	AEN	AERN	WPR	AF19156	FP
A	DIAD	L27	2741	21.7	126	86.2	106.7	92.6	113.1	123	115	121	114	1.00	—	0.94
		L44	4403	33.9	130	98.4	118.9	104.8	125.3	124	117	123	116	1.00	—	
E	AF12125	—	7837	64.5	122	—	—	—	—	—	—	—	—	—	0.98	
A	DIAD	L27	2741	21.7	126	86.2	106.7	92.6	113.1	111	105	110	105	0.78	—	
		L44	4403	33.9	130	98.4	118.9	104.8	125.3	114	108	113	108	0.78	—	
A	HET	L27	2549	21.7	117	86.2	106.7	92.6	113.1	121	113	119	112	—	—	
		L44	4095	33.9	121	98.4	118.9	104.8	125.3	121	114	120	113	—	—	
E	AF12125	—	7837	64.5	122	—	—	—	—	—	—	—	—	—	0.98	
A	HET	L27	2549	21.7	117	86.2	106.7	92.6	113.1	109	103	108	103	—	—	
		L44	4095	33.9	121	98.4	118.9	104.8	125.3	111	106	110	105	—	—	
R	AF12125	—	1646	20.5	—	—	—	—	—	—	—	—	—	—	—	—
NL	AF12125	—	640	6.4	—	—	—	—	—	—	—	—	—	—	—	—

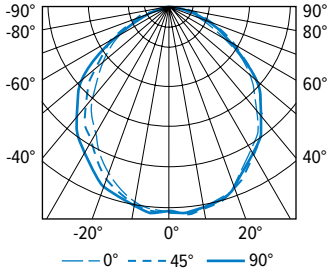
MULTIPLIER TABLE

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	3000K	0.96
	3500K	0.97
	4000K	1.00
90 CRI	4000K	0.83
	5000K	0.86

- Photometrics tested in accordance with IESNA LM-79. Results based on 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.
- Use multiplier table to calculate additional options.

PHOTOMETRY

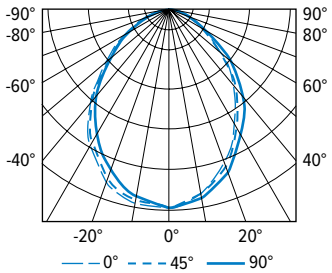
MDBAERN-HET-L44/840-A/AF12125 ALL ON Total Luminaire Output: 14218 lumens; 113 Watts | Efficacy: 125.3 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	6376	6376	6376	6376	6376	
	5	6293	6287	6309	6336	6340	599
	15	5857	5893	5986	6066	6104	1685
	25	5191	5197	5309	5403	5414	2444
	35	4549	4421	4498	4579	4570	2802
	45	3704	3502	3400	3412	3397	2667
	55	2574	2495	2257	2281	2249	2105
	65	1112	1461	1235	1290	1285	1285
	75	420	441	454	495	531	530
	85	71	62	73	75	82	102
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	4728	33
	0 - 40	7529	53
	0 - 60	12301	87
	0 - 90	14218	100
	0 - 180	14218	100

MDBAERN-HET-L44/840-A/AF12125 EXAM Total Luminaire Output: 7837 lumens; 64.5 Watts | Efficacy: 122 lm/W | 80 CRI; 4000K CCT



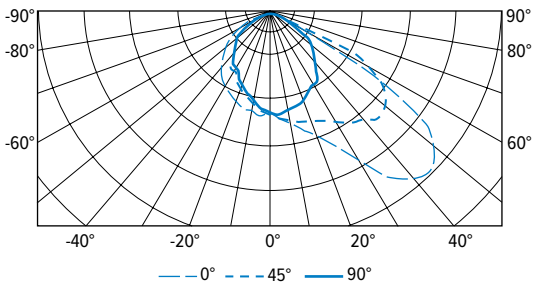
CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
		0°	45°	90°	135°	180°	
	0	3878	3878	3878	3878	3878	
	5	3758	3758	3786	3819	3839	360
	15	3416	3456	3563	3682	3742	1006
	25	2885	2952	3112	3266	3316	1431
	35	2243	2329	2546	2703	2749	1571
	45	1613	1666	1862	1963	2007	1413
	55	1015	1052	1202	1274	1316	1053
	65	565	572	665	705	757	650
	75	245	227	256	284	335	292
	85	44	37	44	46	55	61
	90	0	0	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2797	36
	0 - 40	4369	56
	0 - 60	6835	87
	0 - 90	7837	100
	0 - 180	7837	100

PHOTOMETRY CONTINUED ON NEXT PAGE.

MDB LED
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MDBAERN-HET-L44/840-A/AF12125 READING Total Luminaire Output: 1646 lumens; 20.5 Watts | Efficacy: 80 lm/W | 80 CRI; 4000K CCT



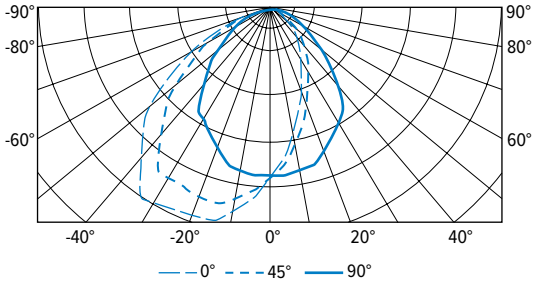
CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
0	460	460	460	460	460	
5	490	489	476	457	445	44
15	557	523	460	404	386	131
25	664	555	422	352	334	211
35	917	632	388	310	293	297
45	1046	700	305	237	232	357
55	871	659	233	181	167	342
65	133	422	150	110	97	193
75	13	39	62	44	41	60
85	5	2	9	9	11	10
90	0	0	0	0	0	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	386	24
0 - 40	684	42
0 - 60	1383	84
0 - 90	1646	100
0 - 180	1646	100

MDBAERN-HET-L44/840-A/AF12125 NIGHT Total Luminaire Output: 640 lumens; 6.4 Watts | Efficacy: 100 lm/W | 80 CRI; 4000K CCT



CANDLEPOWER DISTRIBUTION

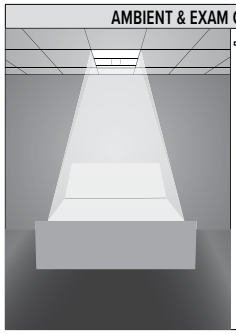
VERTICAL ANGLE	HORIZONTAL ANGLE 0°	45°	90°	135°	180°	ZONAL LUMENS
0	265	265	265	265	265	
5	240	249	266	290	300	25
15	170	195	258	321	347	72
25	114	138	229	317	354	106
35	84	106	201	313	362	128
45	55	66	138	239	292	120
55	37	45	90	167	209	97
65	22	29	53	94	121	62
75	9	13	20	35	45	26
85	1	1	1	2	2	4
90	0	0	0	0	0	

LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0 - 30	203	32
0 - 40	331	52
0 - 60	548	86
0 - 90	640	100
0 - 180	640	100

FOOTCANDLE ESTIMATOR & DISTRIBUTION

AMBIENT & EXAM ONLY

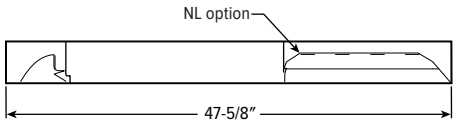


67	80	66
75	89	73
78	91	76
83	93	80
83	93	81
75	84	73
63	70	61
49	54	48
39	41	38

Footcandle calculations based on standard reflectance of 80/50/20 and a light loss factor of .85. Fixture centered over bed at 9' ceiling height, positioned 4' on center from wall. Values are for bed surface.

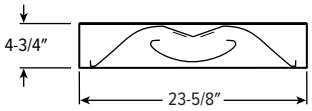
CROSS SECTIONS

EXAM | **READING** Side View

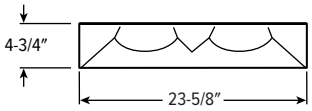


AMBIENT End Views

DI



HET



DRYWALL KIT (DFK) OPTIONS

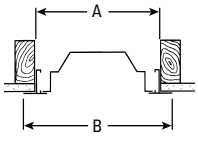
ORDERING INFO

EXAMPLE: DFK - 24 48 W			
SERIES	WIDTH	LENGTH	FINISH
DFK Drywall kit	**24** 2′	**48** 4′	**W** White **AMW** Anti-microbial white

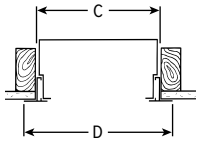
INSTALLATION DIMENSIONS

NOMINAL SIZE	ROUGH-IN WIDTH (A)	ROUGH-IN LENGTH (C)	FINISH TRIM SIZE WIDTH (B)	FINISH TRIM SIZE LENGTH (D)
2′ x 4′	24-3/8″	48-3/8″	25-5/16″	49-5/16″

TYPICAL INSTALLATION



Width



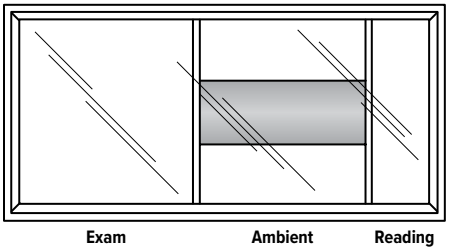
Length

MDB LED Multi-Function Medical Bed Light

FIXTURE DETAILS

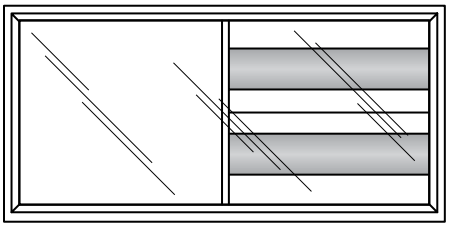
EXAMPLES OF CONFIGURATIONS: Styles must be specified in order: 1) Ambient 2) Exam 3) Reading

MDBAERG-DI

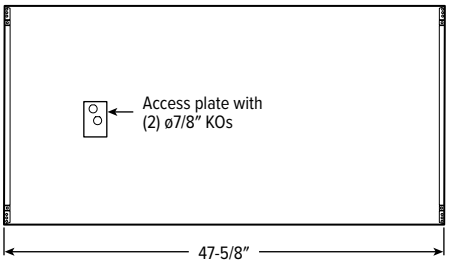


MDBAEG-HET

With A (Ambient) and AF12125
or AF19156 (Exam) shielding, no reading light



BACK VIEW



LOW-VOLTAGE CONTROLLER OPTIONS

EXAMPLE: LVC3A/R/N			
CONTROLLER	**LOAD 1**	**LOAD 2**	**LOAD 3**
LVC1 1-circuit	**A** Ambient **N** Night **R** Reading **E** Exam		
LVC2 2-circuit	**A/** Ambient **R/** Reading	**A** Ambient **N** Night **R** Reading **E** Exam	
LVC3 Dimming control	**A/** Ambient **R/** Reading **DIMA/** Ambient, 0-10 dimming [1] **DIMR/** Reading, 0-10 dimming [1]	**A/** Ambient **N/** Night **R/** Reading **E/** Exam **—** None	**N** Night **E** Exam **—** None
	DIMA/DIMR/ Ambient and reading, 0-10 dimming [1] **SEQAR/** Ambient and reading, sequential switching [2]		

120V-277V only.

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

[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.

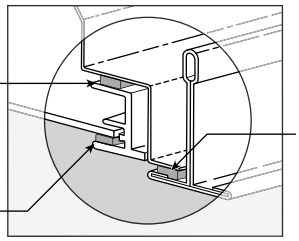
[2] Alternating off and on of (2) loads with multiple cycles of one switch.

GASKETING DETAILS

T-BAR

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.



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.

