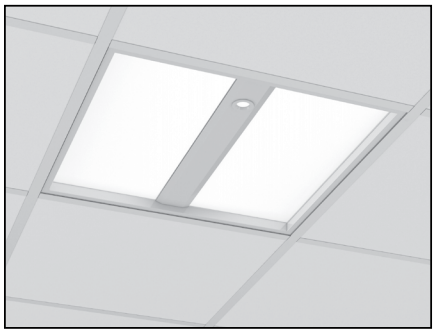
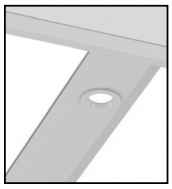
Multi-Function 2x2 | OVERBED RECESSED





(RD) Reading light shown

2021 Silver Winner GRANDS PRIX DU DESIGN

Project _____

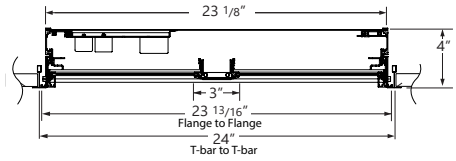
Type _____

Notes _____

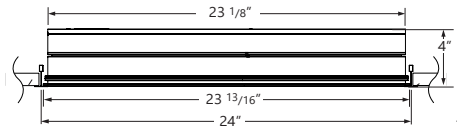
- BeWell light guide transitions from soft ambient to high powered exam to deliver multi-functional optics without segmented compartments, transition lines, or pixelation
- Reading light options: 3000K - 4000K
- Ambient and exam CCTs: 3000K - 4000K; Tunable White range is 2700K - 5000K
- Modular optical chamber with room-side access
- Low profile design, housing only 4" deep
- Compatible with common pillow speaker controls
- 2x4 also available

*See performance chart on page 7.

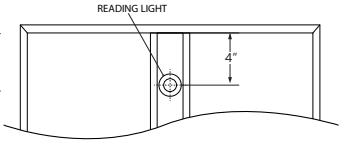
SECTION VIEW



SIDE VIEW



BOTTOM VIEW



BeSealed Construction · BeWell Controls · BeWell Technologies · BeWell Optics · bios Illuminated · cULus Listed · IC cULus Listed Type I.C. · CCEA Approved · Axitune Tunable White · PoE · NSF · IP64 · Control Sensors · LED Board & Driver 5 Year Limited Warranty

Ordering Guide

*Patent pending.

BCMF		22							
PRODUCT ID		**SIZE**		**CRI**		**COLOR TEMP .**		**READING (OPT.)**	
BCMF	Multi-Function Overbed	**22**	2'X2' (2000lm - ambient, 7800lm - ambient with exam)	**80**	80 CRI	**30**	3000 K	**RD30**	3000K
				90	90 CRI*	**35**	3500 K	**RD35**	3500K
						40	4000 K	**RD40**	4000K
						B30	3000 K - BIOS* (Ambient mode only)		
						B35	3500 K - BIOS* (Ambient mode only)		
						B40	4000 K - BIOS* (Ambient mode only)		
						TW2750	2700-5000 K - Tunable White**		
		For Exam mode: Drivers ambient and exam are ON For ambient: Only ambient driver is ON		* Not available with BIOS		*Consult BIOS guide for more information on BIOS technology. Only available with 80 CRI. ** When TW2750 is selected, Exam CCT is 3500K. Consult factory for Tunable White. Consult Axitune technical sheet for more information on color technology.		When Reading is selected a 3rd circuit is standard. Reading light CCT can differ from any color temp selected for ambient and exam functions.	

FINISH		**VOLTAGE**		**DRIVER**		**CIRCUITS (OPT.)**	
AMW	antimicrobial white*	**120**	120 V	**DP**	dimming (0-10V) 1%	**+E(#)**	emergency section *
W	white	**277**	277 V	**LT**	Lutron	**+GTD(#)**	generator transfer device *
C	custom**	**347**	347 V	**O(#)**	other**		
		UNV	universal	**DPB(#)**	dimming (0-10V) 1% with BIOS*		
		DC	low voltage*	**TW(#)**	tunable white drivers (remote)*		
				POE(#)	POE drivers*		
* Standard finish **Consult for NSF		* Only available with POE drivers.		* See page 3 to specify system ** Please consult factory; see page 3		Standard 2 circuits without reading light or 3 circuits with reading light. * Specify quantity	

LV CONTROLLER (OPT.)		**MOUNTING**		**BATTERY (OPT.)**	
LVC1	low voltage controller (Mode 1)	**TB9**	t-bar 9/16"	**B(#)**	battery pack
LVC2	low voltage controller (Mode 2)	**TB15**	t-bar 15/16"		
LVCD3	low voltage controller (Mode 3 step dim)	**TG9**	tegular 9/16"		
LVCD4	low voltage controller (Mode 3 smooth dim)	**TG15**	tegular 15/16"		
LVCD5	low voltage controller (Mode 4 step dim)	**DF**	drywall flange		
LVCD6	low voltage controller (Mode 4 smooth dim)				
Available with DP driver single CCT options only Not available with 347V Please consult factory For compatibility with control devices, such as pillow speaker handset. See wiring diagrams on page 5-6.				Not available with 347V Please consult factory	

Accessories ordered separately. See Accessories ordering guide.

Optical chamber available to order separately. See page 2.

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Modular optical chamber is available as optional shelf stock for easy maintenance change-out; ordered separately.

Optical Chamber Ordering Guide

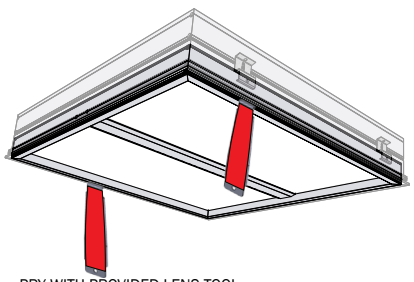
BCMF		OC22							
PRODUCT ID		**SIZE**		**CRI**		**COLOR TEMP .**		**READING (OPT.)**	
BCMF	Multi-Function Overbed	**OC22**	optical chamber 2'X2' (2000lm-ambient, 7800lm-ambient with exam)	**80** **90**	80 CRI 90 CRI*	**30** **35** **40** **B30** **B35** **B40** **TW2750**	3000 K 3500 K 4000 K 3000 K - BIOS* 3500 K - BIOS* 4000 K - BIOS* 2700-5000 K - Tunable White**	**RD30** **RD35** **RD40**	3000K 3500K 4000K
				* Not available with BIOS		*Consult BIOS guide for more information on BIOS technology. Only available with 80 CRI. ** When TW2750 is selected, Exam CCT is 3500K. Consult factory for Tunable White. Consult Axitune technical sheet for more information on color technology.	Ambient mode only	When Reading is selected a 3rd circuit is standard. Reading light CCT can differ from any color temp selected for ambient and exam functions.	

	NA	NA	NA	NA
FINISH	**VOLTAGE**	**DRIVER**	**CIRCUITS (OPT.)**	**LVC (OPTIONAL)**
AMW antimicrobial white* **W** white **C** custom**	**NA** not applicable	**NA** not applicable	**NA** not applicable	**NA** not applicable
* Standard finish **Consult for NSF				

NA	NA	NA
MOUNTING	**BATTERY (OPT.)**	**OTHER (OPT.)**
NA not applicable	**NA** not applicable	**NA** not applicable

Optical Chamber Replacement

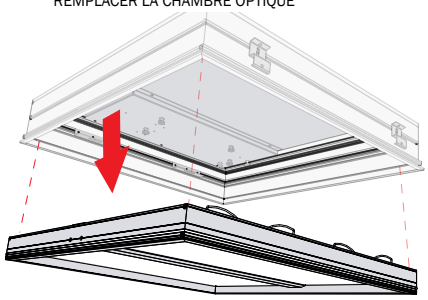
1



PRY WITH PROVIDED LENS TOOL FOUR CORNERS

LEVIER AVEC OUTILE FOURNIS AUX QUATRE COINS

2 REPLACE OPTICAL CHAMBER
REMPLACER LA CHAMBRE OPTIQUE



DISCONNECT WIRES FROM DRIVER
DÉBRANCHEZ LES FILS DU PILOTE

Use part # BCLTL to order lens tool as an accessory

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SPECIFICATIONS

Housing	Extruded aluminum (0.065" nominal)
Central Housing	Extruded aluminum (0.065" nominal)
Side Lens	4mm PMMA light guides
Reflectors	Post painted high reflectance white
Drywall Flange Kit	Extruded aluminum (0.060" nominal)

ELECTRICAL

Lutron driver (remote only)	**LDE1** - Hi-lume 1% EcoSystem with Soft-on, Fade-to-Black *Consult factory
Other drivers (remote only)**	**DALI** - Digital Addressable Lighting Interface **DMX** - Digital Multiplex **Xitanium SR** - For wireless sensor
BIOS DPB drivers*	**STC** - BIOS control 0-10V with static spectrum and BIOS SkyBlue enabled from 100% to 1%. **DCA** - DynamicCare™ for Axis; BIOS control 0-10V with dynamic spectrum and BIOS SkyBlue® with Bio-Dimming™, which changes spectral qualities by removing the SkyBlue component when dimming from 100% to 51%, while light output remains relatively constant; CCT will decrease approximately 500K through bio-dimming; dimming from 50% to 1% will then reduce light output.
Tunable White TW drivers* (remote only)	**DALIDT6** - DALI Type 6 (Two DALI Addresses) **DALIDT8** - DALI Type 8 (One DALI Address)
Power over Ethernet POE drivers* (remote, consult factory for more information) UL2108 certified for integral or remote driver	MOLEX IGOR SMARTENGINE **O** - Other (Consult factory)
Emergency (remote only) **Consult factory**	Emergency battery pack or emergency circuit optional.
Input Voltage	120V, 277V, 347V (Remote driver only), UNV, DC.

***Choose driver from available options.**

Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.

STANDARD POWER FEED

Knockouts for BX cable connection are provided.

(BX CABLE BY OTHER)

WEIGHT

Standard	19 lbs / 8.6 kg
Drywall with Kit	21 lbs / 9.6 kg

LED SYSTEM

CRI	Minimum 80 or 90 color rendering index options.
CRI BIOS	Minimum 80 color rendering index with R9>75 for all CCTs.
CCT Single Color	Choice of 3000K, 3500K and 4000K color temperature with a great color consistency (within 3–step MacAdam ellipse). Both within fixture and fixture to fixture.
CCT BIOS	BIOS Static (STC) Choice of 3000K, 3500K and 4000K. BIOS SkyBlue® DynamicCare™ for Axis (DCA) Choice of 3000K, 3500K, and 4000K with Bio-Dimming™ , which then reduces by 500K Consult BIOS guide for more information on BIOS technology.
CCT Axitune Systems	Consult Axitune technical sheet for more information on color technology.
LED life	Minimum 50,000h with 85% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
Thermal Management	Aluminum housing acting as the heat sink to maximize life.
Environment	For all line voltage drivers, dry and damp rated for indoor use only in ambient operating temperature of -20° to +40°C (-4° to +104°F) For POE driver option, dry and damp rated for indoor use only in ambient operating temperature of 0° to +40°C (+32° to +104°F) Consult factory for temperature outside this range.

APPROVALS

With product features that promote cleanability and durability, Axis Lighting meets functional and application-specific industry listings such as UL, Ingress Protection (IP) and National Sanitation Foundation (NSF) standards.

FINISH

Highly reflective, matte powder coat white paint for high efficiency. Matte texture to diffuse glare and lamp image on the surface within the optical chamber exterior. Custom finishes are also available.

WARRANTY

Limited 5-year warranty is available. Warranty is valid provided luminaires are installed and used according to specifications. For full terms and conditions, please consult warranty section at axislighting.com.

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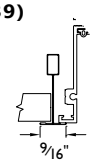
● *CEILING SYSTEM*

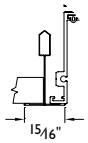
T-BAR STYLE MOUNTING

(TB9)



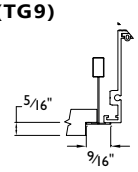
9/16" T-BAR

(TB15)



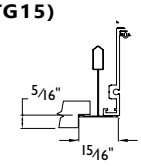
15/16" T-BAR

(TG9)



9/16" TEGULAR

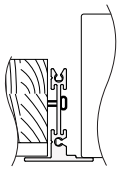
(TG15)



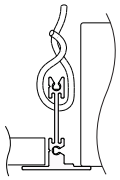
15/16" TEGULAR

Installation sheets for all mounting options are available at: www.axislighting.com

DRYWALL WITH FLANGE KIT (DF)

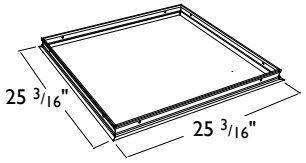


WITH WOOD FRAME



WITHOUT WOOD FRAME

DRYWALL MOUNTING KIT



FIXTURE DIMENSIONS
23 11/16"x23 11/16"

CUT HOLE DIMENSIONS
24 7/16"/24 7/16"

● *LIGHT DISTRIBUTION ZONE CHART*

OVERBED GENERAL AMBIENT

Ambient – diffuse lighting for general conversation and movement around the patient bed, recommendation is 100-200 lux at floor for area surrounding bed, 4:1 avg:min uniformity.

OVERBED EXAM

Exam – requires excellent color rendering to evaluate a patient's condition; sufficiently high, uniform light levels focused on the bed area for examination of patients from head to foot. Provides recommended 500-1000 lux at 36" AFF, 2:1 avg:min uniformity.

OVERBED READING

Reading – focused light onto a 450 inclined plane, recommendation is 400-800 lux on horizontal when patient is in elevated reading position, 3:1 avg:min uniformity.

NIGHT CHECK

Night check – light levels dimmed low enough for staff to check on patients during the night without waking them from sleep, recommendation is 30 lux at 36" above finished floor (AFF).

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● LOW VOLTAGE CONTROLLERS - CONFIGURATIONS

		MODE #1 (DEFAULT)	MODE #2	MODE #3		MODE #4	
		Ambient Light and Reading Light Independent (ON/OFF), Exam Light	Ambient Light and Reading Light Sequential, Exam Light	Ambient Light Dimming, Reading Light Independent (ON/OFF), Exam Light		Ambient Light and Reading Light Dimming, Exam Light	
		LVC1 Option	**LVC2 Option**	Step Dimming (one direction) **LVCD3 Option**	Smooth Dimming (two direction) **LVCD4 Option**	Step Dimming (one direction) **LVCD5 Option**	Smooth Dimming (two direction) **LVCD6 Option**
Toggling Switch 1 (Pillow Speakers, wall switch) affects Ambient Light as follows:	**First Toggle**	Ambient ON	Ambient ON, Reading Light OFF	Ambient ON, Full brightness	First toggle: Ambient ON, dim level set to Approx. 100% brightness Subsequent sustained presses: smooth dimming* Second toggle: Ambient OFF	Ambient ON, Full brightness dimming	First toggle: Ambient ON, dim level set to Approx. 100% brightness Subsequent sustained presses: smooth dimming* Second toggle: Ambient OFF
	Second Toggle	Ambient OFF	Ambient OFF, Reading Light ON	Ambient ON, Approx. 60% (4 VDC) brightness		Ambient ON, Approx. 60% (4 VDC) brightness	
	Third Toggle	-	Ambient ON, Reading Light ON	Ambient ON, Approx. 30% (1.37 VDC) brightness		Ambient ON, Approx. 30% (1.37 VDC) brightness	
	Fourth Toggle	-	Ambient OFF, Reading Light OFF	Ambient ON, Approx. 10% (0.8 VDC) brightness		Ambient ON, Approx. 10% (0.8 VDC) brightness	
	Fifth Toggle	-	-	Ambient OFF		Ambient OFF	
Toggling Switch 2 (Pillow Speakers, wall switch) affects Reading Light as follows:	**First Toggle**	Reading Light ON	-	Reading ON	Reading ON	Reading ON, Full brightness	First toggle: Reading ON, dim level set to Approx. 100% brightness Subsequent sustained presses: smooth dimming* Second toggle: Reading OFF
	Second Toggle	Reading Light OFF	-	Reading OFF	Reading OFF	Reading ON, Approx. 60% (4 VDC) brightness	
	Third Toggle	-	-	-	-	Reading ON, Approx. 30% (1.37 VDC) brightness	
	Fourth Toggle	-	-	-	-	Reading ON, Approx. 10% (0.8 VDC) brightness	
	Fifth Toggle	-	-	-	-	Reading OFF	
Toggling Switch 3 (Pillow Speakers, wall switch) affects Exam Light as follows:	**First Toggle**	Ambient and Exam maximum brightness	Ambient and Exam maximum brightness	Ambient and Exam maximum brightness	Ambient and Exam maximum brightness	Ambient and Exam maximum brightness	Ambient and Exam maximum brightness
	Second Toggle	Ambient returns to previous setting, Exam OFF	Ambient returns to previous setting, Exam OFF	Ambient returns to previous setting, Exam OFF	Ambient returns to previous setting, Exam OFF	Ambient returns to previous setting, Exam OFF	Ambient returns to previous setting, Exam OFF

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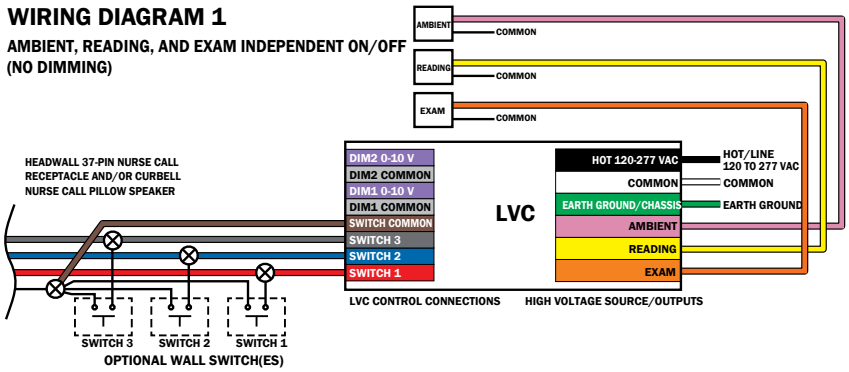
● *LOW VOLTAGE CONTROLLERS WIRING DIAGRAMS*

WIRING DIAGRAM 1

AMBIENT, READING, AND EXAM INDEPENDENT ON/OFF (NO DIMMING)

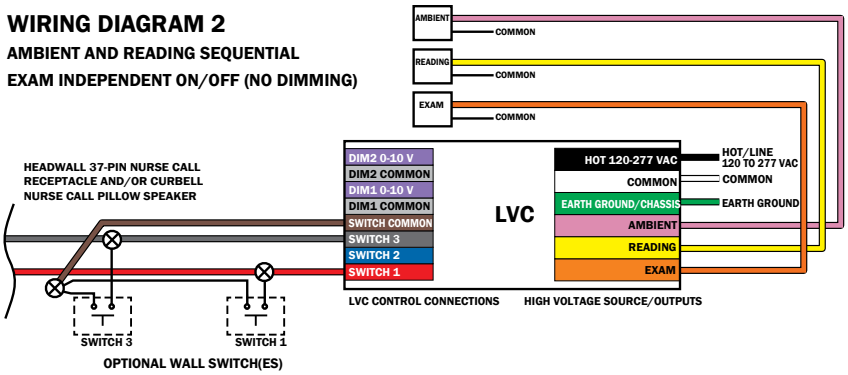


1. LVC Mode 1 (independent ON/OFF no dimming, EXAM mode on switch 3) DEFAULT mode.

WIRING DIAGRAM 2

AMBIENT AND READING SEQUENTIAL

EXAM INDEPENDENT ON/OFF (NO DIMMING)

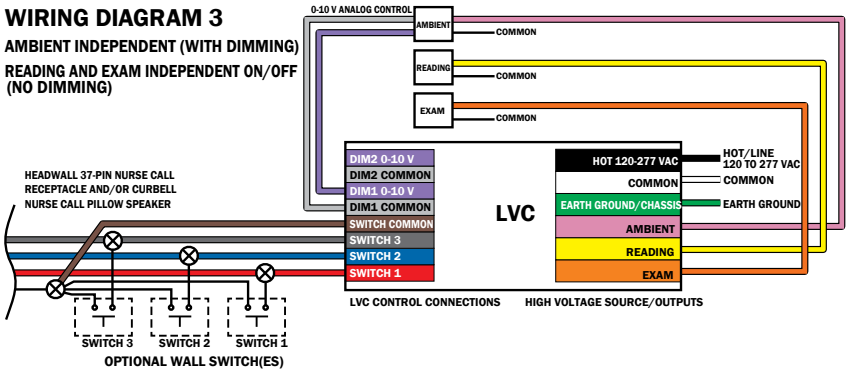


2. LVC Mode 2 (sequential ON/OFF no dimming, EXAM mode on switch 3)

WIRING DIAGRAM 3

AMBIENT INDEPENDENT (WITH DIMMING)

READING AND EXAM INDEPENDENT ON/OFF (NO DIMMING)

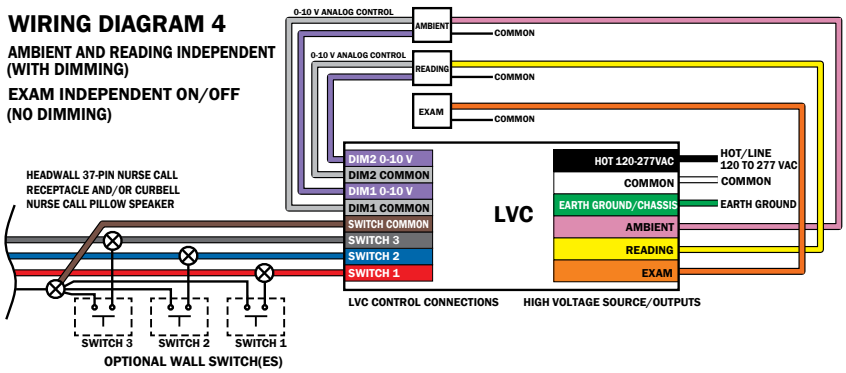


3. LVCD Mode 3 step dimming (Ambient dimming, Reading Light ON/OFF, EXAM mode on switch 3)
4. LVCD Mode 3 smooth dimming (Ambient dimming, Reading Light ON/OFF, EXAM mode on switch 3)

WIRING DIAGRAM 4

AMBIENT AND READING INDEPENDENT (WITH DIMMING)

EXAM INDEPENDENT ON/OFF (NO DIMMING)



5. LVCD Mode 4 step dimming (Ambient and Reading Light dimming, EXAM mode on switch 3)
6. LVCD Mode 4 smooth dimming (Ambient and Reading light dimming, EXAM mode on switch 3)

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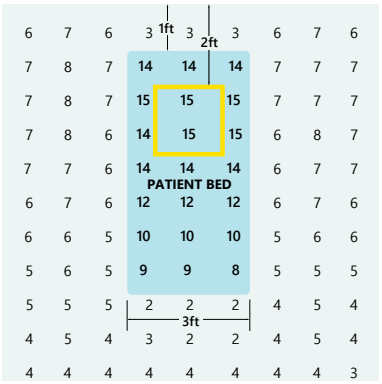
RECOMMENDED LAYOUT PHOTOMETRICS SPREAD

The following illustrations depict calculations performed at 9' ceiling height, and meet recommended industry standards for illuminance and uniformity.

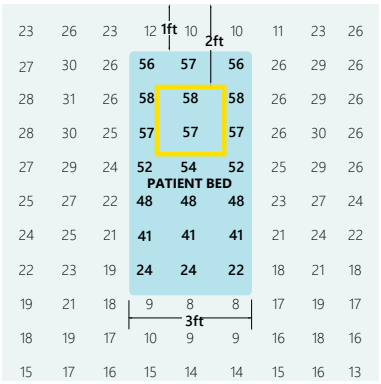
Ambient



Ambient	Avg fc	Avg lux	Avg:Min
Bed	12.6	135.8	1.6
Floor	5.2	55.9	2.6
Eye (vert)	9.1	99.3	1.5

*Vertical plane at head of bed

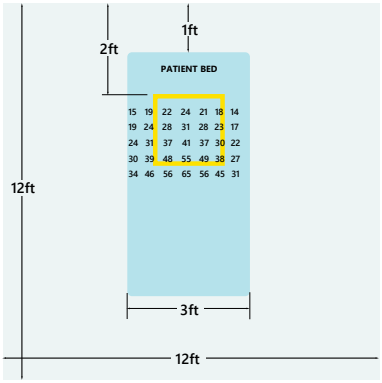
Exam



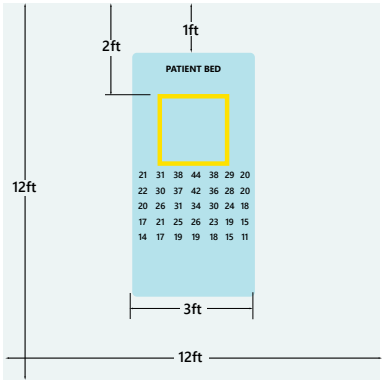
Exam	Avg fc	Avg lux	Avg:Min
Bed	49.6	533	1.5
Floor	20.5	218.5	2.6
Eye (vert)*	36.2	388	1.6

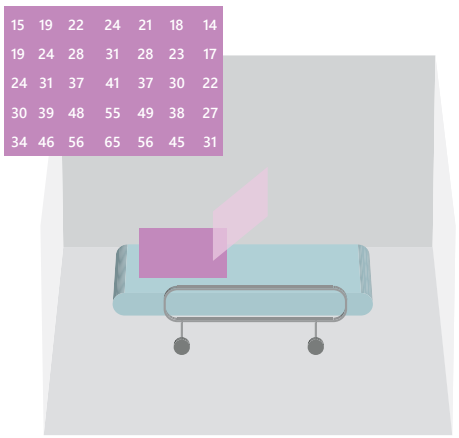
*Vertical plane at head of bed

Reading Flat

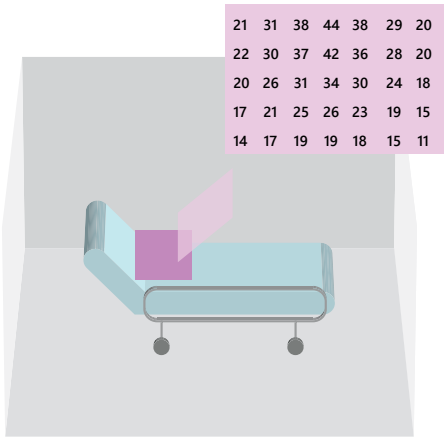


Reading 45° Inclined Plane





Flat horizontal plane (2' x 3')



Raised Bed w 45° inclined reading plane (2' X 3')

BCMF Reading Light
Luminaire at 2'-0" from headwall
Light at 2'-4" from headwall

	Avg fc	Avg lux	Avg:Min
Flat Bed	33	353	2.34
45° Inclined Plane	25	268	2.28

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PERFORMANCE AT 3500K

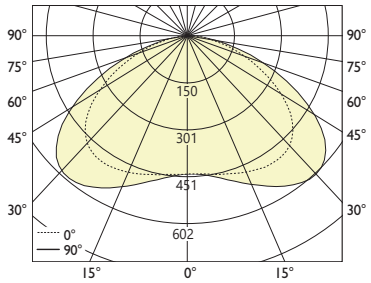
FUNCTION	NOMINAL LUMEN OUTPUT	INPUT WATTS*	EFFICACY	Estd. L85 LED Life (hrs.)
AMBIENT	2000 lm	23.2 W	86.2 lm/W	50000, min
AMBIENT & EXAM	7796 lm	85 W	92.2 lm/W	50000, min
READING*	1366 lm	13.66 W	100 lm/W	50000, min

Please consult factory for custom lumen output and wattage.
* Reading Light at 3000K.

● *PHOTOMETRIC DATA*

PHOTOMETRIC CURVE

Ambient



Luminaire Lumens: 2000 lm
Input Watts: 23.2W
Efficacy: 86.2 lm/W
IES FILE: BCM-22-2000-80-35-W-120-D.IES

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	**0**	**22.5**	**45**	**67.5**	**90**
0	444	444	444	444	444
5	445	445	446	446	447
15	459	460	466	474	477
25	478	483	501	520	529
35	489	500	530	565	584
45	466	482	522	571	598
55	382	397	436	487	517
65	251	260	288	323	345
75	123	127	138	152	163
85	31	31	31	29	29
90	1	2	2	2	3

ZONAL LUMENS

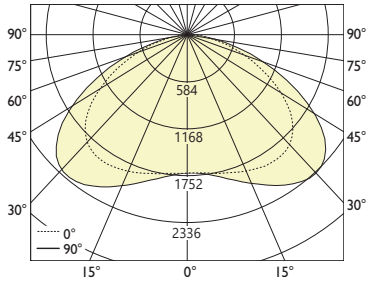
	Lumens
Zone	
0	
0-10	43
10-20	134
20-30	234
30-40	335
40-50	403
50-60	388
60-70	283
70-80	146
80-90	35
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	**0**	**45**	**90**
45	1958	2193	2515
55	1980	2261	2677
65	1768	2024	2424
75	1414	1589	1870
85	1052	1052	986

PHOTOMETRIC CURVE

Ambient & Exam



Luminaire Lumens: 7796 lm
Input Watts: 85 W
Efficacy: 92.2 lm/W
IES FILE: BCM-22-5800-80-35-W-120-D-2.IES.ies

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	**0**	**22.5**	**45**	**67.5**	**90**
0	1744	1744	1744	1744	1744
5	1752	1753	1755	1758	1758
15	1807	1814	1836	1865	1878
25	1883	1904	1967	2041	2077
35	1927	1966	2074	2207	2278
45	1837	1888	2027	2210	2317
55	1506	1549	1681	1863	1980
65	994	1016	1103	1227	1312
75	491	495	531	581	619
85	127	121	121	119	122
90	7	7	7	7	7

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	169
10-20	525
20-30	917
30-40	1309
40-50	1569
50-60	1504
60-70	1097
70-80	566
80-90	141
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	**0**	**45**	**90**
45	7718	8517	9736
55	7804	8709	10257
65	6986	7753	9224
75	5632	6091	7107
85	4341	4108	4167

ℹ All IES files are available for download at: www.axislighting.com

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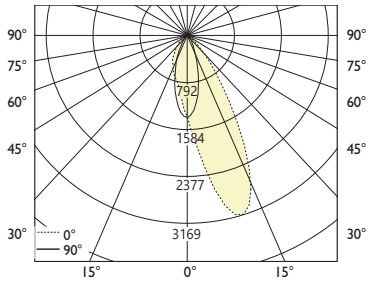
● *PHOTOMETRIC DATA*

PHOTOMETRIC CURVE
Reading light



Luminaire Lumens: 1366 lm
Input Watts: 13.66 W
Efficacy: 100 lm/W
IES FILE: BCM-22-80-35-RD-W-120-D-2.ies

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	**0**	**22.5**	**45**	**67.5**	**90**
0	1391	1391	1391	1391	1391
5	1915	1786	1585	1402	1267
15	3136	2379	1454	941	701
25	2472	1647	869	468	270
35	1017	721	417	186	121
45	327	265	163	72	55
55	106	92	64	30	32
65	31	29	25	18	19
75	12	12	11	10	10
85	3	3	3	2	3
90	0	1	1	1	1

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	131
10-20	354
20-30	387
30-40	253
40-50	130
50-60	66
60-70	29
70-80	12
80-90	3
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	**0**	**45**	**90**
45	451132	224370	76062
55	180796	109651	55009
65	72083	57400	43966
75	46043	40073	39586
85	35795	29960	29176

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