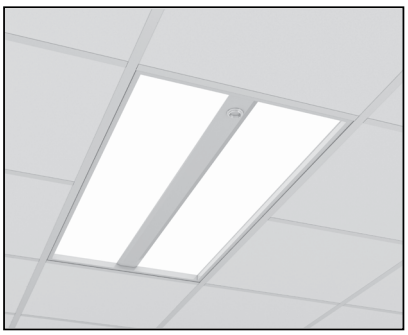
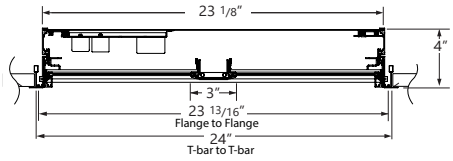
Multi-Function 2x4 | OVERBED RECESSED

BalancedCare™

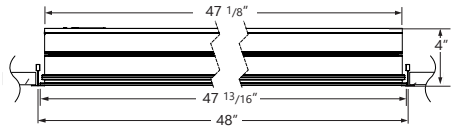


(RD) Reading light shown

SECTION VIEW



SIDE VIEW



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
- 2x2 also available

BeSealed CONSTRUCTION · BeWell CONTROLS · BeWell TECHNOLOGIES · BeWell OPTICS · bios ILLUMINATED · cULus Listed · CCEA APPROVED · Axitune Tunable White · PoE · NSF2 · IP64 · Control Sensors · LED BOARD & DRIVER 5 YEAR LUMINAIRE WARRANTY

***Patent pending**

Ordering Guide

*See performance chart on page 7.

BCMF		24							
PRODUCT ID		**SIZE**		**CRI**		**COLOR TEMP .**		**READING (OPT.)**	
BCMF	Multi-Function Overbed Recessed	**24**	2'X4' (4000lm-ambient, 14280lm-ambient+exam)	**80**	80 CRI	**30**	3000 K	**RD**	reading light*
				90	90 CRI*	**35**	3500 K	**RD30**	Fixed 3000K reading light with TW2750**
						40	4000 K	**RD35**	Fixed 3500K reading light with TW2750**
						B30	3000 K - BIOS* Ambient mode only	**RD40**	Fixed 4000K reading light with TW2750**
						B35	3500 K - BIOS*		
						B40	4000 K - BIOS*		
						TW2750	2700-5000 K - Tunable White**		
				* 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.		* Reading light CCT is same as ambient CCT when static COLOR TEMP. (3000K, 3500K, or 4000K) is selected. ** When tunable white is selected as COLOR TEMP, choose a static CCT for READING option: RD30, RD35, or RD40.	

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 factory 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. Consult factory. **Specify quantity.	

LV CONTROLLER (OPT.)		**MOUNTING**		**BATTERY (OPT.)**		**OTHER (OPT.)**	
LVC1	low voltage controller (Mode 1)	**TB9**	t-bar 9/16"	**B(#)**	battery pack	**F**	fuse *
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)						
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		*Requires 120V or 277V	

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		OC24							
PRODUCT ID		**SIZE**		**CRI**		**COLOR TEMP .**		**READING (OPT.)**	
BCMF	Multi-Function Overbed Recessed	**OC24**	optical chamber 2'X4' (4000lm/ft-ambient, 15600lm/ft-exam)	**80**	80 CRI	**30**	3000 K	**RD**	reading light*
				90	90 CRI*	**35**	3500 K	**RD30**	Fixed 3000K reading light with TW2750**
						40	4000 K	**RD35**	Fixed 3500K reading light with TW2750**
						B30	3000 K - BIOS* (Ambient mode only)	**RD40**	Fixed 4000K reading light with TW2750**
						B35	3500 K - BIOS* (Ambient mode only)		
						B40	4000 K - BIOS* (Ambient mode only)		
						TW2750	2700-5000 K - Tunable White**		
				* 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.		* Reading light CCT is same as ambient CCT when static COLOR TEMP. (3000K, 3500K, or 4000K) is selected. ** When tunable white is selected as COLOR TEMP, choose a static CCT for READING option: RD30, RD35, or RD40.	

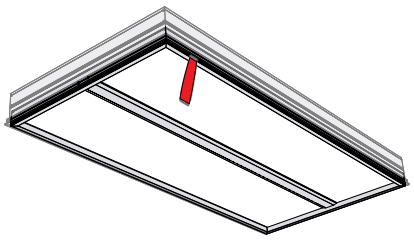
	NA		NA		NA		NA		NA	
FINISH		**VOLTAGE**		**DRIVER**		**CIRCUITS**		**LVC (OPT.)**	
AMW	antimicrobial white*	**NA**	not applicable	**NA**	not applicable	**NA**	not applicable	**NA**	not applicable
W	white								
C	custom**								

* Standard finish
** Consult factory for NSF.

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

Optical Chamber Replacement

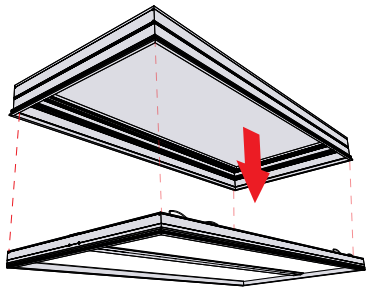
1



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

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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 **LDE5** - 5-Series EcoSystem **LTEA** - Hi-lume 1% 2-wire (120V forward phase only) *Consult factory
Other drivers (remote only)**	**DALI** - Digital Addressable Lighting Interface **DMX** - Digital Multiplex **LV** - line voltage - Advance Mark 10 **Xitanium SR** - For wireless sensor
BIOS DPB drivers*	**STC** - BIOS control 0-10V with static spectrum and BIOS SkyBlue enabled from 100% to 1%. **DYN**- BIOS control 0-10V with dynamic spectrum and BIOS SkyBlue® with Bio-Dimming™ enabled 100% to 50%, light output dimming from 49% to 1%.
Tunable White TW drivers* (remote only)	**DALIDT6** - DALI Type 6 (Two DALI Addresses) **DALIDT8** - DALI Type 8 (One DALI Address) **LTTW** - Lutron T-Series Tunable White
Power over Ethernet POE drivers* (remote, consult factory for more information) UL2108 certified for integral or remote driver	MOLEX IGOR **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.**

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

STANDARD AND END MOUNT POWER FEED

Knockouts for BX cable connection are provided.

(BX CABLE BY OTHER)

APPROVALS

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

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® Dynamic (DYN) Choice of 3000K, 3500K, and 4000K with Bio-Dimming™ 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 ambient operating temperature of -20° to +40°C (-4° to +104°F) For POE driver option, , dry and damp rated for ambient operating temperature of 0° to +40°C (+32° to +104°F) Consult factory for temperature outside this range.

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

BalancedCare™ by Axis Lighting will warrant defective LEDs, boards, and drivers for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specifications. If defective, BalancedCare™ will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to BalancedCare™.

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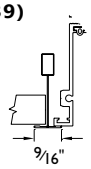
● *CEILING SYSTEM*

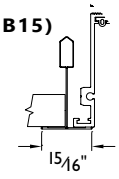
T-BAR STYLE MOUNTING

(TB9)



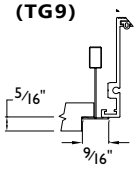
9/16" T-BAR

(TB15)



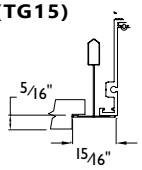
15/16" T-BAR

(TG9)



9/16" TEGULAR

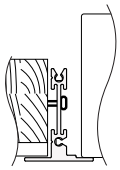
(TG15)



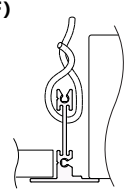
15/16" TEGULAR

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

DRYWALL WITH FLANGE KIT (DF)

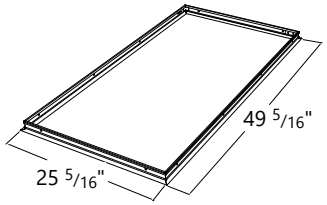


WITH WOOD FRAME



WITHOUT WOOD FRAME

DRYWALL MOUNTING KIT



FIXTURE DIMENSIONS
47 13/16"x23 13/16"

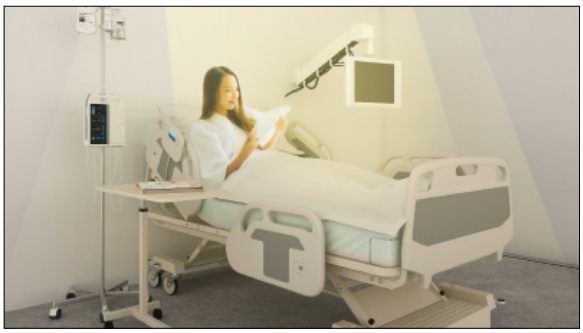
CUT HOLE DIMENSIONS
48 9/16"/24 9/16"

● *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 45° inclined plane, recommendation is 400-800 lux on horizontal when patient is in an 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	
				Step Dimming (one direction)	Smooth Dimming (two direction)	Step Dimming (one direction)	Smooth Dimming (two direction)
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	Ambient ON, Approx. 60% (4 VDC) brightness	
	Third Toggle	-	-	-	-	Ambient ON, Approx. 30% (1.37 VDC) brightness	
	Fourth Toggle	-	-	-	-	Ambient ON, Approx. 10% (0.8 VDC) brightness	
	Fifth Toggle	-	-	-	-	Ambient 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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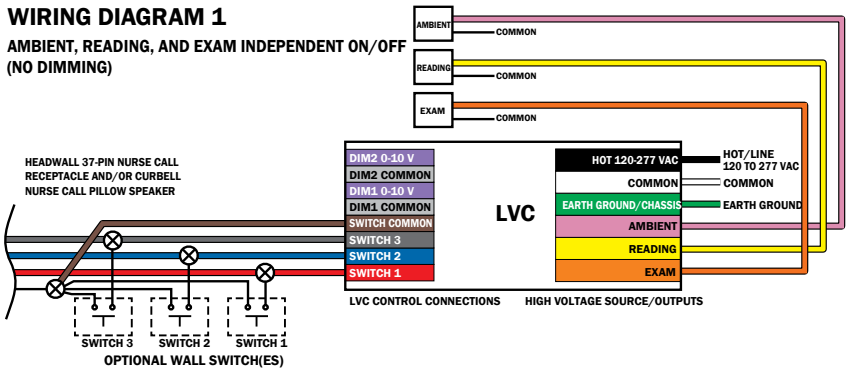
● LOW VOLTAGE CONTROLLERS WIRING DIAGRAMS

WIRING DIAGRAM 1

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

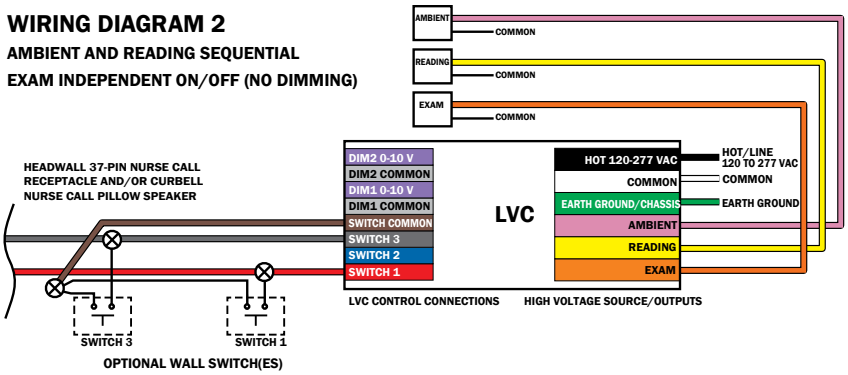


1. LVC Mode 1 (independent ON/OFF no dimming, EXAM mode on switch 3) DEFAULT mode.

WIRING DIAGRAM 2

AMBIENT AND READING SEQUENTIAL

EXAM INDEPENDENT ON/OFF (NO DIMMING)

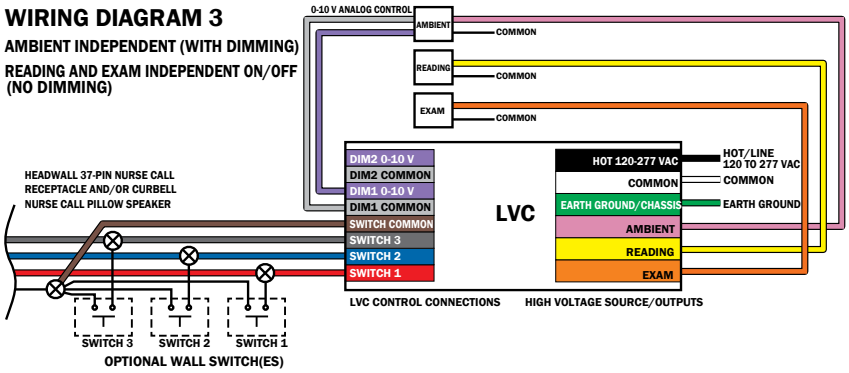


2. LVC Mode 2 (sequential ON/OFF no dimming, EXAM mode on switch 3)

WIRING DIAGRAM 3

AMBIENT INDEPENDENT (WITH DIMMING)

READING AND EXAM INDEPENDENT ON/OFF (NO DIMMING)

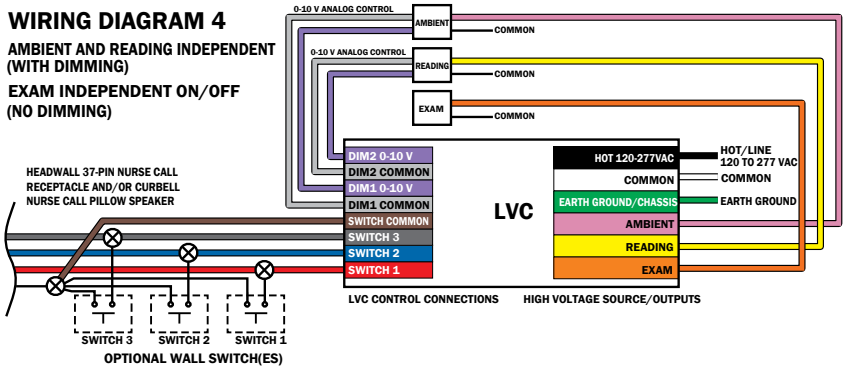


3. LVCD Mode 3 step dimming (Ambient dimming, Reading Light ON/OFF, EXAM mode on switch 3)
4. LVCD Mode 3 smooth dimming (Ambient dimming, Reading Light ON/OFF, EXAM mode on switch 3)

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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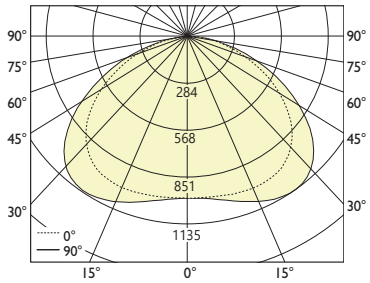
PERFORMANCE AT 3500K

FUNCTION	NOMINAL LUMEN OUTPUT	INPUT WATTS*	EFFICACY	Estd. L85 LED Life (hrs.)
AMBIENT	4000 lm	33.8 W	113 lm/W	50000, min
AMBIENT & EXAM	14300 lm	204 W	70 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: 3819 lm
Input Watts: 33.8 W
Efficacy: 113 lm/W
IES FILE: BCM-24-80-35-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	957	957	957	957	957
5	959	960	961	961	962
15	968	973	988	1005	1011
25	974	989	1029	1070	1086
35	950	976	1040	1106	1135
45	859	893	969	1049	1086
55	688	719	788	861	896
65	463	485	534	582	607
75	236	248	272	292	303
85	58	60	58	51	49
90	2	2	3	4	5

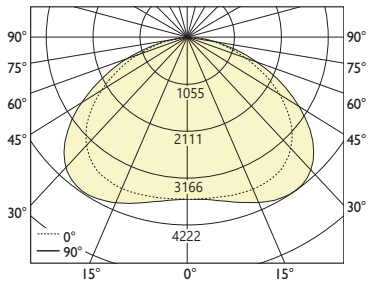
ZONAL LUMENS

	Lumens
Zone	
0	
0-10	92
10-20	282
20-30	477
30-40	651
40-50	744
50-60	699
60-70	522
70-80	283
80-90	69
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	**0**	**45**	**90**
45	1842	2079	2328
55	1819	2084	2368
65	1660	1914	2178
75	1381	1593	1776
85	1014	1015	861

PHOTOMETRIC CURVE
Ambient & Exam



Luminaire Lumens: 14280 lm
Input Watts: 204 W
Efficacy: 70 lm/W
IES FILE: BCMF-24-80-35-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	3646	3646	3646	3646	3646
5	3641	3646	3653	3660	3662
15	3676	3695	3749	3810	3834
25	3697	3744	3876	4015	4078
35	3602	3674	3874	4085	4188
45	3255	3335	3559	3802	3928
55	2602	2665	2854	3067	3186
65	1753	1785	1910	2049	2134
75	899	906	961	1018	1060
85	219	205	201	195	199
90	7	7	8	9	10

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	351
10-20	1070
20-30	1804
30-40	2443
40-50	2769
50-60	2586
60-70	1931
70-80	1055
80-90	271
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	**0**	**45**	**90**
45	7030	7687	8484
55	6928	7600	8482
65	6333	6903	7713
75	5306	5673	6256
85	3839	3529	3495

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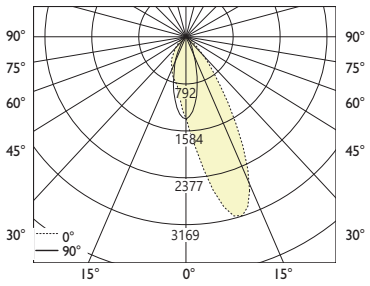
● *PHOTOMETRIC DATA*

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

Zone	**Lumens**
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	

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