

Project		Catalog #		Type	
Prepared by		Notes		Date	



## Fail-Safe APR ArcMed Patient Room

Patient Room Recessed  
Ambient / Exam / Reading / Night  
Behavioral Health / Medical

### Typical Applications

Medical • Behavioral Health • Patient Rooms • Exam Rooms

### Product Certification



### Product Feature



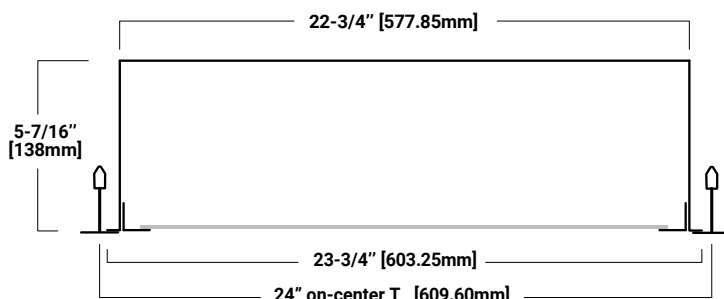
### Interactive Menu

- Order Information page 2
- Compartment Configurations page 4
- Energy Data page 5
- VividTune™ Color Tuning Solutions page 7
- BioUp - Melanopic Lighting page 8
- Product Warranty

### Top Product Features

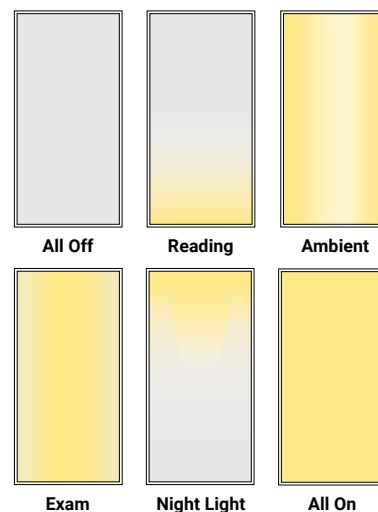
- Fully luminous frosted bottom lens with illumination above - enables functional illumination – ambient, exam, reading, nightlight – to suit the needs of the patient, medical professionals, and others in the space
- Easy and quick access to LEDs and electrical from room side, using an aesthetically pleasing, fastener-free door frame and lens
- Fully luminous frosted bottom lens for easy wipe down and cleaning. Anti-microbial matte white paint standard.
- BioUp melanopic lighting options enable circadian design for patient or staff care
- VividTune CCT tuning options from 3000K-5000K or 2700K-6500K
- Options to meet Build America, Buy America and Buy American domestic preference requirements
- 10-Day Quick Spec available

### Dimensional and Mounting Details



2x2=23-3/4" x 23-3/4" (W x L)  
2x4=23-3/4" x 47-3/4" (W x L)

additional  
product diagrams



\* Choose from any combination of desired illumination scenarios based on the activities in the patient room. Mix or match to suit the need/desires. Details on page 3.

## Order Information

SAMPLE: 24APR-49/L940-180/L940-120-HCD/CD-RL935-LVC3/AD/ED/R

SAMPLE: 24APR-58/L840-200/L840-UNV-HCD/CD-NL827

10 DAY QUICK SPEC SAMPLE: QS-24APR-67/L835-180/L835-UNV-HCD/HCD

Gray bar denotes available with 10-Day Quick Spec

Domestic Preferences <sup>(1)</sup>	Quick Spec <sup>(2)</sup>	Fixture Size	Fixture Family	Mounting
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act <b>BABA</b> =Build America Buy America Act	<b>QS</b> =Quick Spec, ArcMed Patient Recessed <sup>(2)</sup>	<b>22</b> =2x2 <b>24</b> =2x4	<b>APR</b> =ArcMed Patient Recessed	Recessed Grid, 9/16"-1" T-Bar
<b>Notes</b> (1) Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to <a href="#">DOMESTIC PREFERENCES</a> website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	<b>Notes</b> (2) 10 day ship from receipt of clean PO to ship date. 25 unit maximum per PO. QS only available with shaded options.			<b>Notes</b> For Hard Lid ceiling, use DFCL framing kit (see accessories). For a 1-1/2" T-grid ceiling application, ETO request can be submitted.

Ambient Lumens	Ambient CCT	Exam Lumens <sup>(8)</sup>	Exam CCT	Voltage
<b>2x2</b> <b>22</b> =2200 <b>30</b> =3000 <b>34</b> =3400 <sup>(5)</sup> <b>38</b> =3800 <sup>(5)</sup>  <b>2x4</b> <b>49</b> =4900 <b>58</b> =5800 <b>67</b> =6700 <sup>(5)</sup> <b>85</b> =8500 <sup>(5)</sup>	<b>L830</b> =80CRI, 3000K <b>L835</b> =80CRI, 3500K <b>L840</b> =80CRI, 4000K <b>L850</b> =80CRI, 5000K <b>L930</b> =90CRI, 3000K <b>L935</b> =90CRI, 3500K <b>L940</b> =90CRI, 4000K <b>L950</b> =90CRI, 5000K <b>L82765</b> =White tuning 80 CRI, 2700K-6500K <sup>(3), (4)</sup> <b>L83050</b> =White tuning 80 CRI, 3000K-5000K <sup>(3), (4)</sup> <b>L92765</b> =White tuning 90 CRI, 2700K-6500K <sup>(3), (4)</sup> <b>L93050</b> =White tuning 90 CRI, 3000K-5000K <sup>(3), (4)</sup> <b>B35</b> =BioUp Static 3500K <sup>(6)</sup> <b>B40</b> =BioUp Static 4000K <sup>(6)</sup> <b>B50</b> =BioUp Static 5000K <sup>(6)</sup> <b>B2750</b> =BioUp Tunable 2700K-5000K <sup>(7)</sup>	<b>2x2</b> <b>62</b> =6200 <b>71</b> =7100 <b>80</b> =8000 <sup>(5)</sup> <b>89</b> =8900 <sup>(5)</sup>  <b>2x4</b> <b>140</b> =14000 <b>160</b> =16000 <b>180</b> =18000 <sup>(5)</sup> <b>200</b> =20000 <sup>(5)</sup>	<b>L830</b> =80CRI, 3000K <b>L835</b> =80CRI, 3500K <b>L840</b> =80CRI, 4000K <b>L850</b> =80CRI, 5000K <b>L930</b> =90CRI, 3000K <b>L935</b> =90CRI, 3500K <b>L940</b> =90CRI, 4000K <b>L950</b> =90CRI, 5000K <b>L82765</b> =White tuning 80 CRI, 2700K-6500K <sup>(3), (4)</sup> <b>L83050</b> =White tuning 80 CRI, 3000K-5000K <sup>(3), (4)</sup> <b>L92765</b> =White tuning 90 CRI, 2700K-6500K <sup>(3), (4)</sup> <b>L93050</b> =White tuning 90 CRI, 3000K-5000K <sup>(3), (4)</sup>	<b>120</b> =120 Volt <b>277</b> =277 Volt <b>UNV</b> =Universal Voltage 120-277
<b>Notes</b> (3) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two 10V dimming control channels, 1 color, 1 intensity. (4) Not available in all lumen outputs. (5) Requires thermal protectors (thermal protector detail, page 4). (6) BioUp Static to be used with HCD driver. (7) BioUp Tunable provides correlated color temperatures (CCT) between 2700K (warm) to 5000K (cool). Must be used with W2A (for two channel 0-10V Control) or W2D (for 2 channel Dali Control) driver. See BioUp page for more information.				<b>Notes</b> If ordering Options, such as Relays or Emergencies, please reference the notes as they may require specific voltage of 120 or 277.

Ambient Driver Type	Exam Driver Type	Reading Light Options <sup>(8)</sup>	Night Light Options
<b>CD</b> =10% Dimming <b>HCD</b> =1% Dimming <b>SLTD</b> =DALI 5% <b>LH</b> =Lutron 1% EcoSystem <b>W2A</b> =White Tuning, 2ch Analog 0-10V intensity and CCT control, 1% dimming <sup>(9)</sup> <b>W2D</b> =White Tuning, DALI Type 8, 1% dimming <sup>(11)</sup>	<b>CD</b> =10% Dimming <b>HCD</b> =1% Dimming <b>SLTD</b> =DALI 5% <b>LH</b> =Lutron 1% EcoSystem	<b>RL827</b> =2700K <b>RL830</b> =3000K <sup>(12)</sup> <b>RL835</b> =3500K <sup>(12)</sup> <b>RL840</b> =4000K <sup>(12)</sup> <b>RL850</b> =5000K <sup>(12)</sup>	<b>NLA</b> =Night Light, Amber <b>NL827</b> =Night Light, 2700K <b>NL830</b> =Night Light, 3000K <sup>(13)</sup> <b>NL835</b> =Night Light, 3500K <sup>(13)</sup> <b>NL840</b> =Night Light, 4000K <sup>(13)</sup> <b>NL850</b> =Night Light, 5000K
<b>Notes</b> (9) White tuning provides correlated cct temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two 10V dimming control channels, 1 cct, 1 intensity. (11) W2D for use with BioUp options only. White tuning CCT between 2700K and 5000K. Must be used with DALI controls; one address to control two channels - intensity and CCT. For Emergency options ONLY EL10W can be used. (6) Requires thermal protectors (thermal protector detail, page 4).		<b>Notes</b> Dimmable standard. Reading light delivers approximately 1000 lumens delivered. (8) VividTune white tuning and BioUp static and dynamic options are not available with these options. (12) For 90cri, replace "8" with a "9" for RL930, RL935, RL940, RL950.	<b>Notes</b> Night light delivers approximately 500 lumens delivered. NLA, Amber night light is approximately 300 lumens delivered. (13) For 90cri, replace "8" with a "9" for NL930, NL935, NL940.

continued on next page

## Order Information (continued)

## Options

**LVCp/x/y**=Low Voltage Relay, Non-Dimming. Controls up to 2 circuits. <sup>(14), (16)</sup>  
 LVCp ordering function callout (x/y): **A**=Ambient, **E**=Exam, **R**=Reading, **N**=Nightlight. Unused circuit leave blank.  
 i.e. **LVCp/A/E**=(Relay controlling Ambient & Exam), i.e. **LVCp/A**=(Relay controlling Ambient only)  
**LVC3/x/y/z**=Low Voltage Relay. Controls up to 3 circuits, and up to 2 circuits dimmable. <sup>(15), (16)</sup>  
 LVC3 ordering function callout (x/y/z): **A**=Ambient, **E**=Exam, **R**=Reading, **N**=Nightlight. Provide a "D" with the function callout requiring dimming; up to 2 circuits can be dimmable. Unused circuit leave blank.  
 i.e. **LVC3/AD/ED/R**=(Relay controlling Ambient(Dimming)/ Exam(Dimming) & Reading(no-dimming)  
 i.e. **LVC3/AD/E/RD**=(Relay controlling Ambient(Dimming)/ Exam(no dimming) & Reading(Dimming)  
**EL7W**=7W emergency battery pack <sup>(16), (18)</sup>  
**EL10W**=10W emergency battery pack <sup>(16), (19)</sup>  
**EL14W**=14W emergency battery pack <sup>(16), (18)</sup>  
**ETRD**=Emergency Transfer Relay connected to Exam Circuit <sup>(16), (20)</sup>  
**GTR2**=Generator Transfer Relay connected to Exam Circuit <sup>(16), (20)</sup>  
**CP125**= .125" Clear Poly Lens. CP125 requires screws to fasten door to housing <sup>(17)</sup>  
**CP250**= .250" Clear Poly Lens. CP250 requires screws to fasten door to housing <sup>(17)</sup>  
**TRS**=Tamper-Resistant Screws, T20 TORX®, optional when ordering either the CP125 or CP250 lens options <sup>(17)</sup>  
**GSK**=Gasket applied to outside edge of flange for grid contact <sup>(24)</sup>  
**IP65**=Ingress Protection <sup>(25)</sup>

## Lens Options

**NP1**=Natural Pattern 1, 0.080" Thick  
**NP2**=Natural Pattern 2, 0.080" Thick  
**NP3**=Natural Pattern 3, 0.080" Thick

## Notes

(14) LVCp- low voltage relay up to 2 circuits, no-dimming. LVCp ordering function callouts (x,y) are **A**=Ambient, **E**=Exam, **R**=Reading, **N**=Nightlight. Unused circuits, leave function blank. i.e. **LVCp/A/E**=low volt relay, Ambient no dimming & Exam no dimming. (15) LVC3- Low Voltage Relay can control up to 3 circuits, and up to 2 circuits can be dimmable. Use with CD or HCD driver options. LVC3 ordering function callouts (x,y,z) are **A**=Ambient, **E**=Exam, **R**=Reading, **N**=Nightlight. Provide "D" with function callout that requires dimming capability. Unused circuits leave blank. (16) Must specify voltage, 120 or 277 in ordering logic. LVCp, LVC3, ETRD, GTR2 require specific voltage and EL7W, EL10W, EL14W require thermal protectors. (17) CP125 & CP250 options require door screws, therefore will NOT be the standard fastener-free door design. Tamper-resistant, T20 TORX® screws is optional with CP125 and CP250 lens options. (18) Emergency battery pack is factory installed and incorporates a remote indicator/test switch. (19) 10W EM pack mounted on the back of the fixture, adding 1.25" to fixture depth. (20) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 option includes 2 relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. (24) GSK option meets IP65 requirements. (25) IP65 exceeds IP64 rating. Suitable for environments requiring IP65 compliance.

Accessories (order separately) <sup>(22)</sup>

**DFCL-2448W-U**=2'x4' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25"x48.25" <sup>(23)</sup>  
**DFCL-2424W-U**=2'x2' gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25"x24.25" <sup>(23)</sup>  
**DFVR/APR-2448W-U**=2'x4' vandal resistant gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 48.25" <sup>(23)</sup>  
**DFVR/APR-2424W-U**=2'x2' vandal resistant gasketed drywall framing kit. Ships with gasket to be applied in field. Cut out dimension 24.25" x 24.25" <sup>(23)</sup>

## Notes

(22) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. (23) For Anti-microbial, matte white finish, replace "W" with "AMW", ie .DFVR/APR-2448AMW-U

## Natural Pattern Lenses



**NP1** Natural Pattern 1  
Grasses

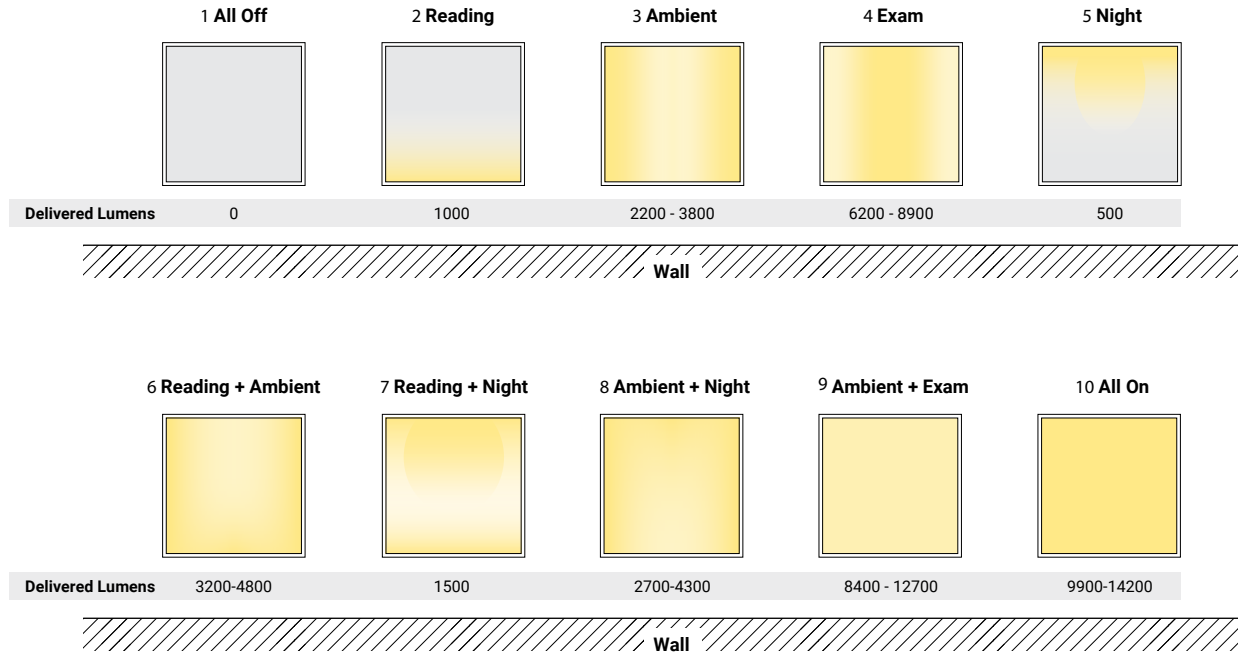


**NP2** Natural Pattern 2  
Weave

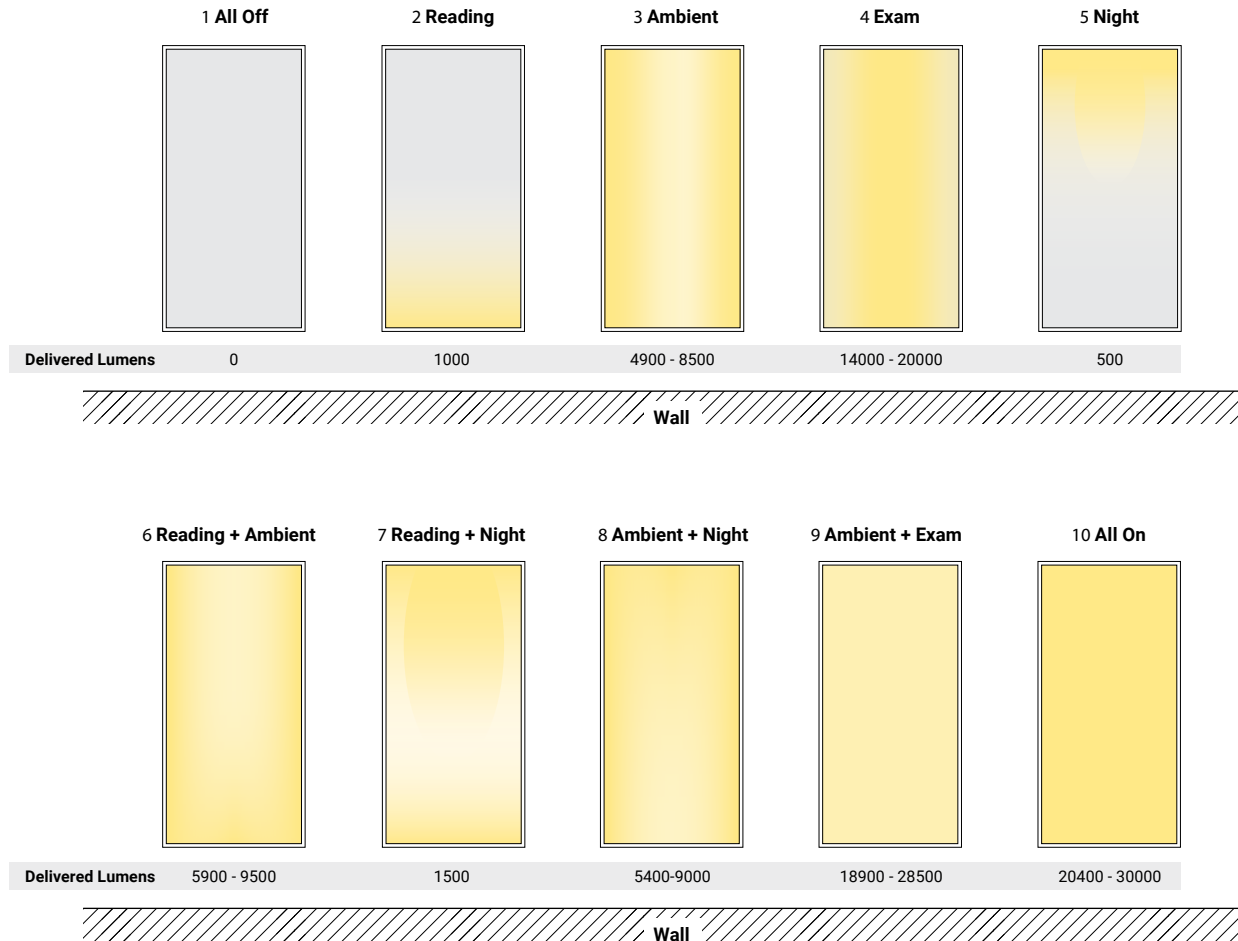


**NP3** Natural Pattern 3  
Geometric

### Compartment Configurations – 2x2



### Compartment Configurations – 2x4



## Energy and Performance Data (4000K)

## Lumen Calculator

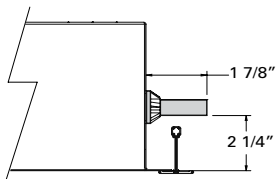
[View IES files](#)

Function	Size	Output Level	Nominal Lumens	Wattage	Efficacy
Ambient	2x2	22	2013	21W	96
		30	2745	30W	92
		34	3112	35W	89
		38	3446	39W	88
	2x4	49	4484	43W	104
		58	5308	52W	102
		67	6168	60W	103
		85	7779	78W	100
Exam	2x2	62	5637	51W	111
		71	6530	60W	109
		80	7376	69W	107
		89	8181	78W	105
	2x4	140	12629	104W	121
		160	14642	121W	121
		180	16564	139W	119
		200	18395	157W	117
Reading	2x2		915	15W	61
	2x4		915	15W	61
Night	2x2		458	6W	76
	2x4		458	6W	76

Notes: All lumen levels are based on 80 CRI, 4000K

**Thermal Protector Detail**

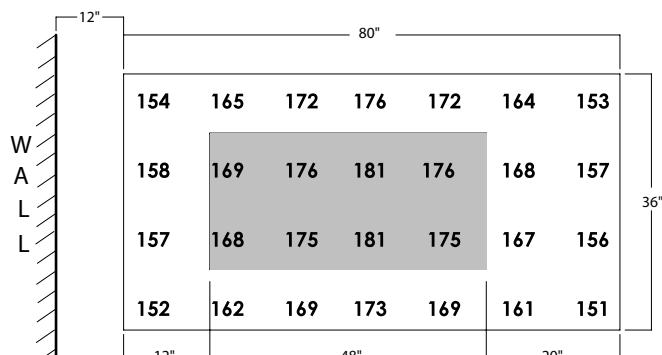
Factory wired on the side of fixture.  
Customer must remove split bushing  
and insert TP in housing in the field.



## Typical Application: Patient Room Luminaire Placement - Directly Over the Bed

### APR - FOOT CANDLE CHART

BED 36" X 80"



### CATALOG NUMBER: 24APR-X-181/L840

- 18,100 DELIVERED LUMENS- EXAM ONLY ILLUMINATED
- CEILING HEIGHT - 9'
- REFLECTANCES - 80/50/20
- 36" AFF - AVG FC= 157 MAX=181 MIN= 123
- 30" AFF - AVG FC= 139 MAX= 157 MIN= 113

AFF= ABOVE FINISHED FLOOR

## Product Specifications

### Application

- Designed for use in healthcare facilities where exam and ambient illumination is required:
  - Patient Rooms, Exam Rooms, Behavioral Health

### Mounting

- Designed for standard grid sizes from 9/16" to 1" T-grid
- Drywall Kits available for use in hard ceilings

### Housing

- 20-ga steel housing construction
- Standard housing finish antimicrobial matte white

### Door

- 20-ga steel door, using multiple torsion components to secure door to housing. Tamper screws, optional.
- Standard door finish antimicrobial matte white

### Lens

- 0.080" diffuse opal acrylic lens standard
- 0.125" or 0.250" clear, polycarbonate lens optional- on bottom of the 0.080" opal acrylic lens

### LEDs

- Available in 3000K, 3500K, 4000K and 5000K; 80 and 90 CRI
- Ambient and Exam TM21 life at 60,000 hours up to L82 and calculated L70 exceeds 110,000 hours
- Efficacies exceeding 130 LPW

### Electrical

- Electronic driver 120-277V standard 0-10V dimming, 10% & 1% dimming available
- DALI and Lutron drivers available
- LVCP Low voltage controller, non-dimming, 2 load
- LVC3 Low voltage controller, dimmable, 3 load/2dim

### Compliances

- cULus Damp Location
- IP65 rated when specified in catalog logic
- IK10 rated for maximum impact resistance
- Meets BSL 1-4 and ISO Class 5 when specified in catalog logic
- Fixture is rated for NSF/ANSI standard 2 - Light fixture for Splash Zone and Non-Food Zone

### BABA Domestic Preference Compliance

- This Cooper product is manufactured in the US and meets the BABA cost of components rule. To verify a configured product with specific accessories and options meets BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Our BABA designation is based on the minimum compliance requirement for BABA. Individual Government Agencies may have more stringent compliance standards. Please refer to the [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

### Warranty

- Five year limited warranty on LEDs and Electrical, consult website for details. [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)
- 10 year warranty available

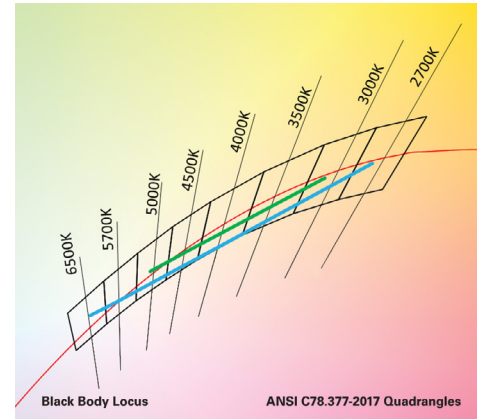
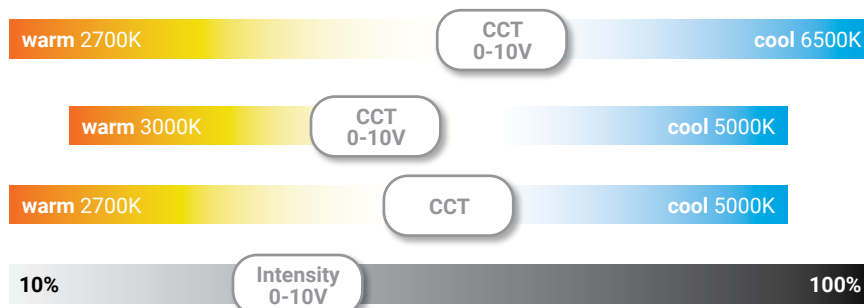


### APR with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.

### Controlling VividTune and BioUp Tunable White

From wall dimmers to wireless controls, tunable white luminaires are compatible with industry standard 0-10V and DALI controls. One channel to control intensity (brightness) and a second channel to adjust CCT.



# Proven Research. Industry Recognized.

## BioUp

Melanopic Lighting



See better



Feel better



Function better



See BioUp  
brochure for  
more details

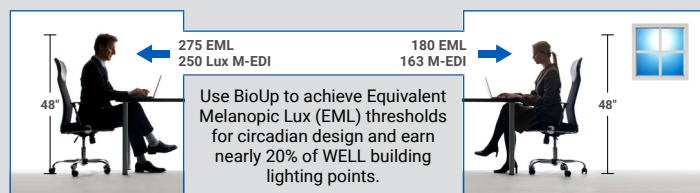


ANSI/IES RP-46-23  
/ TM18 published  
March 2024 based  
on over 40 years of  
research.

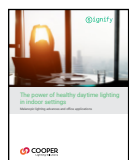
"...circadian clock synchronization is paramount to the body's efficient and appropriate functioning." – TM18



BioUp solutions maximize WELL  
points for Circadian Lighting  
Design (L03):



**MDER, M-EDI** and **EML** are key metrics used to quantify non-visual performance of indoor lighting systems.

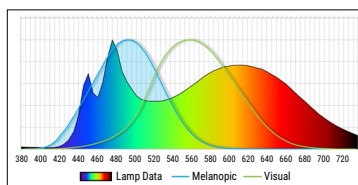
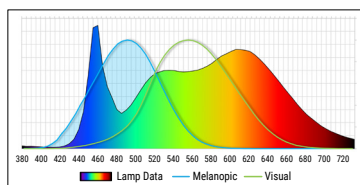


See BioUp  
white paper for  
more details

**MDER** - Melanopic Daylight Efficacy Ratio (MDER) measures the amount of light stimulating to the melanopsin receptors.

**Standard 4000K LED**  
MDER = .62

**BioUp 4000K LED**  
MDER = .82



## 30% boost Biological impact compared to traditional LED sources

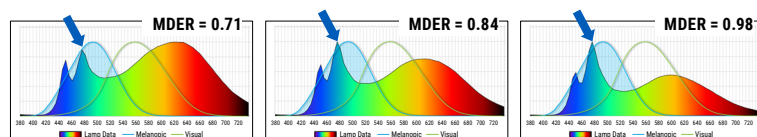
CCT	LED MDER ~83 CRI	BioUp Static		BioUp Dynamic	
		MDER	CRI	MDER	CRI
2700K	0.44	—	—	0.43	95
3000K	0.49	—	—	0.54	94
3500K	0.56	0.71	90	0.71	90
4000K	0.64	0.84	87	0.82	87
5000K	0.77	0.98	84	0.98	84

BioUp enhances the LED spectrum with cyan light at 475nm increasing the biological impact of the light to enhance our circadian rhythm which regulates our sleep/wake cycle, daytime engagement, and mood – **all without distorting visual color impression.**

### Static (non-tunable)

Static BioUp is used when simple Melanopic Lighting is desired at all times.

Arrow in graph shows BioUp spectrum boost is at 475nm where non-visual biological response is enhanced.



3500K

or 4000K

or 5000K

Cyan light component always present

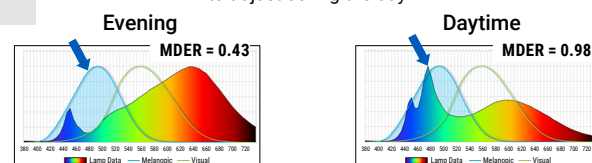
Dimming  
Control



> no CCT control needed

### Dynamic - (Tunable)

Dynamic BioUp is used when Melanopic Lighting is desired to adjust during the day.



Warmer CCT Without  
Cyan content

Cooler Light With  
Cyan content

2700K – 5000K



Dimming  
Control



> Control with Wavelinx, 2ch 0-10V, or DALI