

PROJECT: \_\_\_\_\_  
 TYPE: \_\_\_\_\_  
 PRODUCT: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

## PRODUCT FEATURES

- Intended for Patient Rooms, Nurses' Stations, Waiting Areas, Lobbies, Medical Office Buildings, and more
- Provides glare-free direct ambient lighting in 2x2 and 2x4 dimensions
- Unique clip design allows for a tool-free lens removal for ease of maintenance
- Optional doorframe and lens provides a flat wipe-down surface for easy cleaning. Wet Location listed
- Recessed Grid or Flange installations. Flange installation uses yoke mounting kit (provided)
- This product is Made in America and complies with the Buy American Act (BAA), and the Build America, Buy America Act (BABAA).



AACH Series

## ORDERING INFORMATION

EXAMPLE: AACHG22-HC20-OC18/CP12-F3L40-90C-2C-RW-90C-UN-DM1



| AACH   |                                    |                                                                                    |                                                                   |                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |                                                                                                                                                 |
|--------|------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Series | Mounting<br>G = Grid<br>F = Flange | Size*<br>22 = 2x2<br>24 = 2x4<br><br>*Nominal Size.<br>Dimensional Data on Page 2. | Housing<br>HC20 = 20Ga. CRS Painted<br>HA16 = 16Ga. Alum. Painted | Optional Doorframe<br>blank = No Doorframe*<br>OC18 = Overlap 18Ga. CRS Painted<br>OA16 = Overlap 16Ga. Alum. Painted<br>IC20 = Inset 20Ga. CRS Painted<br>IA16 = Inset 16Ga. Alum. Painted<br><br>*If no frame is specified, do not select a frame lens. Damp location rated without a doorframe. | Doorframe Lens<br>blank = No Doorframe Lens*<br>CP12 = .125 Clear Poly.<br>CA12 = .125 Clear Acrylic<br>CP18 = .187 Clear Poly.<br>CA18 = .187 Clear Acrylic<br><br>*If no frame is specified, do not select a frame lens. | Function*<br>F2 = 2 Functions (Ambient & Exam)<br>F3L = 3 Functions (Low Reading, Ambient & Exam)<br>F3H = 3 Functions (High Reading, Ambient & Exam)**<br><br>*Subject to change. Performance Data on page 3.<br>**N/A with AACH22 | Color Temp.<br>30 = 3000K<br>35 = 3000K<br>40 = 4000K<br>50 = 5000K<br>TW1 = Tunable White 2700K to 5000K<br>TW2 = Tunable White 2700K to 6500K |

|                                     |                                                                                              | RW                                   |                                                                |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CRI<br>80C = 80 CRI<br>90C = 90 CRI | Circuits<br>1C = 1 Circuits<br>2C = 2 Circuits*<br><br>*Allows for Inboard/Outboard control. | Diffuser<br>RW = White Polycarbonate | Voltage<br>12 = 120V<br>27 = 277V<br>UN = Universal (120-277V) | Driver<br>DM1 = 0-10V Dimming to 1%<br><br>Tunable White Driver*:<br>TW0 = 2-Channel 0-10V DALI8<br>DALI8 = 1-Channel DALI8<br><br>*Tunable White Driver requires choice of TW1 or TW2 in Color Temp. column | Dimming/Control<br>blank = No Dimming/Control*<br>LV3 = Independent Load Dimming Low Voltage Controller**<br>LVD = Multi-load Dimming Low Voltage Controller**<br><br>*Leave blank when FSD is specified. If no control system (and FSD is not specified), all functions will be on independent line voltage circuits.<br>**Click <a href="#">HERE</a> for more information. Provides control of lighting from a pillow speaker, bedside rail or wall switch | Options<br>FZ1 = Fuse (120V)<br>FZ2 = Fuse (277V)<br>TH = Tamper-resistant Torx® head fasteners | Accessory<br>PF = Plaster Frame Kit*<br>EL1 = Remote Emergency Battery (10W)**<br>EL2 = Remote Emergency Battery (20W)**<br><br>*Consult factory for details.<br>**Consult factory for CA Title 24 options. If stored, batteries should be fully recharged every six months and kept between 0°C-25°C to maintain optimal battery capacity. Provided with test switch on a wall plate unless otherwise specified. Requires unswitched line. |



**New Star Lighting**  
 2225 W Pershing Rd, Chicago, IL 60609  
 (773) 847-1400  
[www.newstarlighting.com](http://www.newstarlighting.com)

Specifications and dimensions are subject to change without notice. For additional options and dimensional details, please consult your New Star Lighting representative.

© 2025, New Star Lighting. All rights reserved. Unauthorized duplication or distribution is prohibited.

## SPECIFICATIONS

**HOUSING:** 20-Gauge formed cold rolled steel or 16-gauge aluminum housing with continuous seam welds.

**DOORFRAME:** Optional die formed cold rolled steel or aluminum doorframe. Black neoprene gasket between the housing and doorframe.

**LENS:** Optional die-formed cold rolled steel or aluminum doorframe and optional .125" or .187" clear polycarbonate or acrylic lens to provide a flat wipe-down surface for easy cleaning. Black neoprene gasket between the housing and doorframe.

**LED:** LED sources available in four color temperatures 3000K, 3500K, 4000K and 5000K with maximum 3-step MacAdam variation allowance. Tunable White also available, from 2700K - 5000K or 2700K - 6500K. Minimum 50,000 hours with 70% lumen maintenance in a 25°C ambient temperature environment, compliant with IES LM-80 testing standards.

**ELECTRICAL:** 120-277VAC 50/60HZ electrical input high power factor electronic, constant current driver (<20% THD, >0.90 PF). Each function is independently circuited for individual control. Standard 0-10V dimming with 1-100% range for ambient and reading functions. Step dimming options available.

### OPTIONAL TUNABLE WHITE DRIVERS:

**DALI8** - DALI Type 8 (One DALI Address)

**TWO** - Two Channel 0-10V dimming; one channel for brightness, one channel for CCT

**LOW VOLTAGE CONTROL:** The LVD allows multiple loads (functions) to turn on at once to achieve specified light levels. It is factory set to provide: Load 1 (reading) with 0-10V dimming control, Load 1 + 2 (ambient) with 0-10V dimming control, and Load 1 + 2 + 3 (exam) for on/off control. The LVD is provided on one circuit that operates through low voltage. The exam function can be wired to a low voltage wall switch (all drivers are connected to one low voltage controller)

**FASTENERS:** Stainless steel Philips flat head fasteners with captive cage nuts when doorframe option is selected.

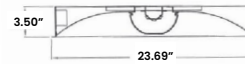
**FINISH:** White antimicrobial polyester powder coat finish following multi-stage iron phosphate pretreatment.

**INSTALLATION:** Grid or Flange installation. Grid installation compatible with 1-1/2" and 15/16" Grid systems. Flange installation uses yoke mounting kit (provided). Mounting for custom ceilings available, consult factory.

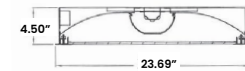
**WARRANTY:** 5 Year Warranty.

**LABEL:** Fixture is certified to UL standards by Intertek Testing Laboratories for Wet Location (under covered ceiling) when a doorframe is used. This product was Made in America and complies with the Buy American Act (BAA), and the Build America, Buy American Act (BABAA).

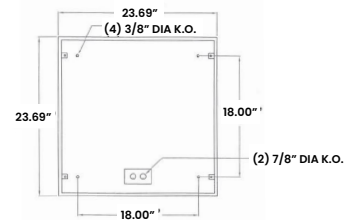
## DIMENSIONAL DATA



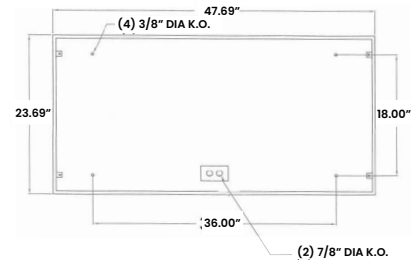
CROSS SECTION WITHOUT DOOR



CROSS SECTION WITH DOOR

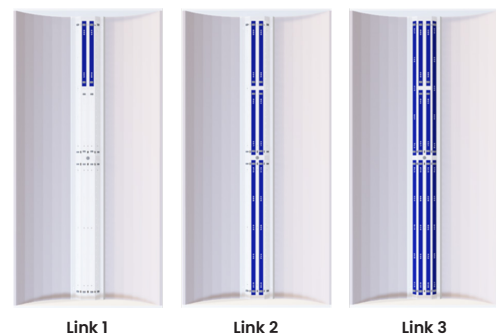


AAC22 BACKVIEW



AAC24 BACKVIEW

## LOW VOLTAGE CONTROL DIAGRAM



Link 1

Link 2

Link 3

## PERFORMANCE DATA\*

\*Data is with 80 CRI chip. Tested without an outer lens. LEDs are frequently updated therefore values may change without notice.

| MODEL  | FUNCTION                | OUTPUT                      | COLOR TEMP. | LUMENS DELIVERED | EFFICACY (lm/W) | INPUT POWER (W) |
|--------|-------------------------|-----------------------------|-------------|------------------|-----------------|-----------------|
| AACH22 | F2 = Ambient & Exam     | Ambient                     | 30 = 3000K  | 2450             | 98              | 25              |
|        |                         |                             | 35 = 3500K  | 2575             | 103             | 25              |
|        |                         |                             | 40 = 4000K  | 2650             | 106             | 25              |
|        |                         |                             | 50 = 5000K  | 2725             | 109             | 25              |
|        |                         | Exam = All LED boards       | 30 = 3000K  | 4750             | 95              | 50              |
|        |                         |                             | 35 = 3500K  | 5000             | 100             | 50              |
|        |                         |                             | 40 = 4000K  | 5150             | 103             | 50              |
|        |                         |                             | 50 = 5000K  | 5300             | 106             | 50              |
|        | F3L = Low Reading, Exam | Low Reading                 | 30 = 3000K  | 1250             | 100             | 12.5            |
|        |                         |                             | 35 = 3500K  | 1313             | 105             | 12.5            |
|        |                         |                             | 40 = 4000K  | 1350             | 108             | 12.5            |
|        |                         |                             | 50 = 5000K  | 1388             | 111             | 12.5            |
|        |                         | Ambient = Reading + Ambient | 30 = 3000K  | 2450             | 109             | 25              |
|        |                         |                             | 35 = 3500K  | 2575             | 114             | 25              |
|        |                         |                             | 40 = 4000K  | 2650             | 117             | 25              |
|        |                         |                             | 50 = 5000K  | 2725             | 120             | 25              |
|        |                         | Exam = All LED boards       | 30 = 3000K  | 4750             | 95              | 50              |
|        |                         |                             | 35 = 3500K  | 5000             | 100             | 50              |
|        |                         |                             | 40 = 4000K  | 5150             | 103             | 50              |
|        |                         |                             | 50 = 5000K  | 5300             | 106             | 50              |



**New Star Lighting**

2225 W Pershing Rd, Chicago, IL 60609  
(773) 847-1400  
www.newstarlighting.com

Specifications and dimensions are subject to change without notice. For additional options and dimensional details, please consult your New Star Lighting representative.

© 2025, New Star Lighting. All rights reserved. Unauthorized duplication or distribution is prohibited.

## PERFORMANCE DATA\*

\*Data is with 80 CRI chip. LEDs are frequently updated therefore values may change without notice.

| MODEL  | FUNCTION                         | OUTPUT                      | COLOR TEMP. | LUMENS DELIVERED | EFFICACY (lm/W) | INPUT POWER (W) |
|--------|----------------------------------|-----------------------------|-------------|------------------|-----------------|-----------------|
| AACH24 | F2 = Ambient & Exam              | Ambient                     | 30 = 3000K  | 5450             | 109             | 50              |
|        |                                  |                             | 35 = 3500K  | 5700             | 114             | 50              |
|        |                                  |                             | 40 = 4000K  | 5850             | 117             | 50              |
|        |                                  |                             | 50 = 5000K  | 6000             | 120             | 50              |
|        |                                  | Exam = All LED boards       | 30 = 3000K  | 10600            | 106             | 100             |
|        |                                  |                             | 35 = 3500K  | 11100            | 111             | 100             |
|        |                                  |                             | 40 = 4000K  | 11400            | 114             | 100             |
|        |                                  |                             | 50 = 5000K  | 11700            | 117             | 100             |
|        | F3L = Low Reading, Exam          | Low Reading                 | 30 = 3000K  | 1362.5           | 109             | 12.5            |
|        |                                  |                             | 35 = 3500K  | 1425             | 114             | 12.5            |
|        |                                  |                             | 40 = 4000K  | 1475             | 118             | 12.5            |
|        |                                  |                             | 50 = 5000K  | 1512             | 121             | 12.5            |
|        |                                  | Ambient = Reading + Ambient | 30 = 3000K  | 5400             | 108             | 50              |
|        |                                  |                             | 35 = 3500K  | 5650             | 113             | 50              |
|        |                                  |                             | 40 = 4000K  | 5850             | 117             | 50              |
|        |                                  |                             | 50 = 5000K  | 6000             | 120             | 50              |
|        |                                  | Exam = All LED boards       | 30 = 3000K  | 10600            | 106             | 100             |
|        |                                  |                             | 35 = 3500K  | 11100            | 111             | 100             |
|        |                                  |                             | 40 = 4000K  | 11400            | 114             | 100             |
|        |                                  |                             | 50 = 5000K  | 11800            | 118             | 100             |
|        | F3H = High Reading, Ambient Exam | High Reading                | 30 = 3000K  | 2625             | 105             | 25              |
|        |                                  |                             | 35 = 3500K  | 2750             | 110             | 25              |
|        |                                  |                             | 40 = 4000K  | 2826             | 113             | 25              |
|        |                                  |                             | 50 = 5000K  | 2900             | 116             | 25              |
|        |                                  | Ambient = Reading + Ambient | 30 = 3000K  | 5400             | 108             | 50              |
|        |                                  |                             | 35 = 3500K  | 5650             | 113             | 50              |
|        |                                  |                             | 40 = 4000K  | 5850             | 117             | 50              |
|        |                                  |                             | 50 = 5000K  | 6000             | 120             | 50              |
|        |                                  | Exam = All LED boards       | 30 = 3000K  | 10600            | 106             | 100             |
|        |                                  |                             | 35 = 3500K  | 11100            | 111             | 100             |
|        |                                  |                             | 40 = 4000K  | 11400            | 114             | 100             |
|        |                                  |                             | 50 = 5000K  | 11800            | 118             | 100             |



**New Star Lighting**

2225 W Pershing Rd, Chicago, IL 60609

(773) 847-1400

www.newstarlighting.com

Specifications and dimensions are subject to change without notice. For additional options and dimensional details, please consult your New Star Lighting representative.

© 2025, New Star Lighting. All rights reserved. Unauthorized duplication or distribution is prohibited.