

# HIGH ABUSE

## HASEDI SERIES using Indigo-Clean Technology

### PROJECT INFORMATION

Job Name \_\_\_\_\_

Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

#### PRODUCT FEATURES:

- » Provides environmental disinfection and effective, efficient lighting performance via visible LED light
- » Dual-Mode Indigo-Clean Technology is independently tested to kill 94% of SARS CoV-2 and Influenza-A\*\*\*, in addition to MRSA
- » Single-Mode Indigo-Clean Technology is independently tested to kill harmful bacteria, such as Staph\*, including MRSA\*\* Suitable for universal installation into 1" and 1.5" grid and flange (drywall) ceilings
- » Peace of Mind Guarantee® against breakage



#### SPECIFICATIONS

**HOUSING:** 20-gauge CRS. Hole-free, one-piece, seam-welded construction. 18-gauge housing flange with mitered and welded corners. White TGIC polyester powder coat finish – 5-step pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%.

**DOORFRAME:** 18-gauge CRS. One-piece inset construction with welded corners. White TGIC polyester powder coat – 5-stage pre-treatment. Salt spray test: 1,000 hours; Reflectance: 92%. Optional 20 gauge type 304 stainless steel with 4B brushed finish. Lens frame secured to housing with continuous hinge and 3 tamper-resistant stainless steel Torx® with center pin fasteners.

**OPTICS:** Diffused acrylic inner lens with 0.25" clear polycarbonate outer lens. Lens sealed to doorframe with silicone sealant and secured with continuous lens retention system.

**ELECTRICAL: (Single- and Dual-Mode ICT)** Serviceable mid-power white and 405nm Indigo LED array. Available 3200K, 3700K and 4300K color temperatures with 3-step MacAdam variation allowance. Minimum 82 CRI standard. 120-277VAC and 347VAC electrical input with serviceable high power factor electronic, constant-current drivers (<10% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities (non-dim-to-dark on Dual-Mode ICT). 495µA maximum source current. **Single-Mode ICT** provides a single, white disinfection operational mode. **Dual-Mode ICT** provides two operational modes based on room occupancy. White Disinfection Mode is a white LED array for ambient lighting plus a simultaneous low-power 405nm LED array for low-level, continuous and safe environmental disinfection. Indigo Disinfection Mode is a higher-level 405nm array for continuous safe environmental disinfection during periods of room vacancy. The operational mode is determined via internal low-voltage device based upon the input signal provided by an external control device/system, such as the **IC150** product. Luminaire dimming is overridden in this operational state. Refer to the **Kenall Dual-Mode ICT Control Application Guide** for further description.

**INSTALLATION:** Adjustable swing-out mounting brackets standard. Suitable installation into -30°C to 40°C ambient environments, unless otherwise noted.

**PHOTOMETRICS:** Photometry tested to the IESNA LM-79-08 standard. For additional photometric data, please go to [www.kenall.com](http://www.kenall.com)

**WARRANTY:** Limited five (5) year LED warranty. **Peace of Mind Guarantee** against breakage.

**LISTINGS:** Luminaire is certified to UL standards by Intertek Testing Laboratory for non-IC and Wet Location installations. ETL certified IP65 per IEC60598. EPA Est. No. 99283-WI-1.

\* Per independent lab report #SG5-09517036476. Contact Kenall for a copy of this report.  
 \*\* Antimicrobial Activity of a Continuous Visible Light Disinfection System by Rutala, et. al, ID Week 2016.  
 \*\*\* Refer to [www.indigo-clean.com](http://www.indigo-clean.com) for details.



#### ORDERING INFORMATION (Ex: HASEDI-24-34I/82C-37K8-DIM1-DV-2F-2H-SYM/9-2C)

Model	Size	Lamp Power	Lamp Color	Driver	Voltage	Doorframe	Housing	Lens Type	Options
<b>HASEDI</b>				<b>DIM1</b>				<b>SYM/9</b>	
<b>Size</b>		<b>Lamp Power</b>		<b>Driver Type</b>				<b>Options</b>	
<b>14</b> 1'x4'		<b>1'x4'</b>		<b>DIM1</b> 0-10V Dimming to 1%				<b>LEL•</b> 8.4W Emergency Battery Backup	
<b>22</b> 2'x2'		<b>55C†</b> 55W Single-Mode ICT		<b>Voltage</b>				<b>FS</b> Fuse & Holder	
<b>24</b> 2'x4'		<b>82C</b> 82W Single-Mode ICT		<b>DV</b> 120-277VAC, 50/60Hz				<b>HJ</b> Sealed Wireway	
		<b>23I/55C†</b> 55W Dual-Mode ICT		<b>120</b> 120VAC, 60Hz				<b>IF*†</b> Install Frame	
		<b>34I/82C</b> 82W Dual-Mode ICT		<b>277</b> 277VAC, 60Hz				<b>PF*</b> Plaster Frame	
		<b>2'x2'</b>		<b>347</b> 347VAC, 60Hz				<b>RM†</b> Continuous Row Mounting	
		<b>55CD</b> 55W Single-Mode ICT		<b>Doorframe Options</b>				<b>TH</b> 1/2" Trade Size Threaded Hub	
		<b>82C</b> 82W Single-Mode ICT		<b>2F</b> 18-Ga CRS Painted (STD)				<b>2C</b> Two Circuit Wiring	
		<b>23I/55CD</b> 55W Dual-Mode ICT		<b>5F</b> 20-Ga Type 304 SS Brushed					* Add .375" to ceiling cut out dimensions
		<b>34I/82C</b> 82W Dual-Mode ICT		<b>Housing/Flange Options</b>					† Only available when installed in drywall ceilings (flange mount)
		<b>2'x4'</b>		<b>2H</b> 20-Ga CRS/18-Ga CRS (STD)					‡ n/a with 2C option
		<b>55CD</b> 55W Single-Mode ICT		<b>5H5</b> 20-Ga Type 304 SS/18-Ga Type 304 SS					• n/a with 165W lamp options or 347V input; voltage-specific selection required and height of fixture is 5.875" when specified with 110W lamp options; 0°C/32°F min. operating environment.
		<b>82C</b> 82W Single-Mode ICT		<b>2H5</b> 20-Ga CRS/18-Ga Type 304 SS					
		<b>110C</b> 110W Single-Mode ICT		<b>Lens Type</b>					
		<b>165C</b> 165W Single-Mode ICT		<b>SYM/9</b> Symmetric, Diffused DR Acrylic inside lens					
		<b>23I/55CD</b> 55W Dual-Mode ICT		.250" Clear Polycarbonate outside lens					
		<b>34I/82C</b> 82W Dual-Mode ICT							
		<b>46I/110C</b> 110W Dual-Mode ICT							
		<b>68I/165C</b> 165W Dual-Mode ICT							
		<b>Lamp Color</b>							
		<b>32K8</b> 3200K / 82 CRI min.							
		<b>37K8</b> 3700K / 82 CRI min.							
		<b>43K8</b> 4300K / 82 CRI min.							

**ACCESSORIES ORDERED SEPARATELY**  
**IC150** External Room Control System for Dual-Mode ICT Products  
 (click [here](#) for Specifications)



[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA  
 This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2022 Kenall Mfg. Co.

A brand of **Legrand**

# HIGH ABUSE

## HASEDI SERIES – with Indigo-Clean Technology

### PERFORMANCE

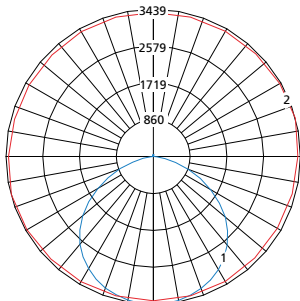
Technology	Length	Lamp Code	Lumen Output by Color (lm) <sup>1</sup>			Efficacy (lm/W)	Power Consumption <sup>2</sup>			Estd L70 LED Life (Hrs)
			32K8	37K8	43K8		Occupied (W)	LPD (W)	Unoccupied (W)	
Single-Mode ICT	1 x 4	55C	5,254	5,390	5,445	86 - 89	61	51	n/a	80,000
		82C	7,933	8,139	8,222	80 - 83	93	77		
	2 x 2	55CD	5,081	5,213	5,266	83 - 86	61	51		
		82C	7,673	7,872	7,952	83 - 86	93	77		
	2 x 4	55CD	6,167	6,327	6,392	106 - 110	58	48		
		82C	7,576	7,773	7,852	81 - 84	93	77		
		110C	9,337	9,579	9,677	77 - 79	122	101		
	165C	13,558	13,910	14,052	74 - 77	183	152			
	1 x 4	23I/55C	5,254	5,390	5,445	86 - 89	61	51	29	80,000
		34I/82C	7,933	8,139	8,222	85 - 88	93	77	44	
2 x 2	23I/55CD	5,081	5,213	5,266	83 - 86	61	51	29		
	34I/82C	7,673	7,872	7,952	83 - 86	93	77	44		
2 x 4	23I/55CD	6,167	6,327	6,392	106 - 110	58	48	29		
	34I/82C	7,576	7,773	7,852	81 - 84	93	77	46		
	46I/110C	9,337	9,579	9,677	77 - 79	122	101	61		
	68I/165C	13,558	13,910	14,052	74 - 77	183	152	91		

<sup>1</sup>Lumen output is with the SYM/9 lens type. Information subject to change without notice. Visit [www.kenall.com](http://www.kenall.com) for IES files and additional information.

<sup>2</sup>Lighting Power and Energy Calculations:

- Use **Occupied Power** for total electrical load calculations. Use this value to estimate branch circuit lighting loads.
- Use **LPD Power** for lighting power density calculations. Only the power attributed to white light is required per NEMA LSD EB 84-202X. Power used toward germicidal disinfection has been removed for this calculation.
- Use **Unoccupied** and **Occupied Power** for Energy calculations to determine the power consumed over time based on the use of the space.

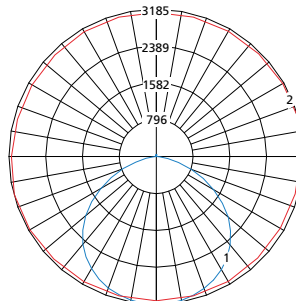
Model: HASEDI-14-82C-37K8-DIM1-DV-2F-2H-SYM/9 and HASEDI-14-34I/82C-37K8-DIM1-DV-2F-2H-SYM/9



Maximum Candela = 3439 Located At Horizontal Angle = 15, Vertical Angle = 5

- 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

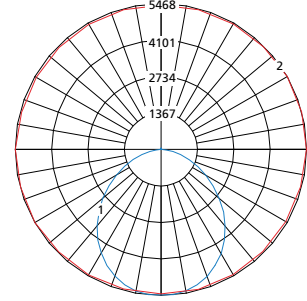
Model: HASEDI-22-82C-37K8-DIM1-DV-2F-2H-SYM/9 and HASEDI-22-34I/82C-37K8-DIM1-DV-2F-2H-SYM/9



Maximum Candela = 3185 Located At Horizontal Angle = 0, Vertical Angle = 0

- 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Model: HASEDI-24-165C-37K8-DIM1-DV-2F-2H-SYM/9 and HASEDI-24-68I/165C-37K8-DIM1-DV-2F-2H-SYM/9



Max Candela = 5468 Located At Horizontal Angle = 0, Vertical Angle = 5

- 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)



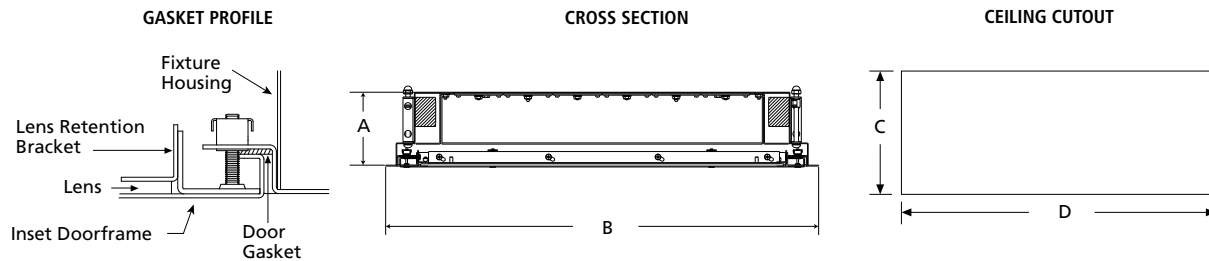
[www.kenall.com](http://www.kenall.com) | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

This product complies with the Buy American Act: manufactured in the United States with more than 50% of the component cost of US origin. It may be covered by patents found at [www.kenall.com/patents](http://www.kenall.com/patents). Content of specification sheets is subject to change; please consult [www.kenall.com](http://www.kenall.com) for current product details. ©2022 Kenall Mfg. Co.

A brand of Legrand

# HIGH ABUSE HASEDI SERIES – with Indigo-Clean Technology

## DIMENSIONAL DATA



**DIMENSIONAL DATA (IN INCHES)**

	A	B	C	D
<b>1x4</b>	4.20	11.75 x 47.75	10.85	46.85
<b>2x2</b>	4.20	23.75 x 23.75	22.85	22.85
<b>2x4</b>	4.20	23.75 x 47.75	22.85	46.85

\* Add .375" to ceiling cut out dimensions when IF Option is specified  
 \*\* Height is 5.875" with LEL option

