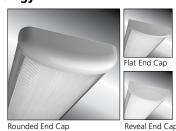
MILLENIUM STRETCH™

MLHA12 SERIES using Indigo-Clean Technology

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**
- » Peace of Mind Guarantee® against breakage



	PROJECT INFORMATION
Job N	Name
Fixtu	ге Туре
Catal	log Number
Appr	oved by

SPECIFICATIONS

HOUSING: Marine grade aluminum. Extruded body with die-cast end caps. Housing, with end caps, post assembly TGIC polyester powder coat finished - 5-step pre-treatment. See Ordering Information for available finishes.

OPTIC: High-impact extruded diffuser. Smooth exterior, linear prismatic interior. Nominal thickness .156". Lens securely positioned in body channels and end caps. Lens locked in place with four (4) tamper-resistant stainless steel Torx® T-20 with center pin fasteners and sealed with closed cell gaskets. Full reflector/wire cover with 92% reflectivity.

END CAPS: Marine grade die-cast aluminum. Three styles available: Flat, Rounded and Reveal. Conduit and "Wiremold™ ready" knockouts visible only from interior of end cap (Flat and Rounded

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). 330μA 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, 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: Standard six-point mounting required for Peace of Mind Guarantee®. Suitable for installation into -30°C to 40°C ambient environments, unless otherwise noted.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to 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 Wet Location - covered ceiling mount. ETL certified IP64 per IEC 60598. Damp rated - ceiling mount. Corner, horizontal wall and pendant mount installation - Damp Location only. ADA compliant. EPA Est. No. 99283-WI-1.

- * Per independent lab report #SGS-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 for details.











ORDERING INFORMATION (Ex: MLHA12-48-F-MB-FA-34I/82C-37K8-DCC-DV-FS-9500)

Model	Lengt	•	Finish	Lens	Lamp Power	Lamp Color	Driver Type	Voltag	ie	Options	Accessories		
MLHA12	4	<u> </u>		FA			DCC						
	Length			Lens				Voltage					
	48	48 4'			FA Frosted DR Acrylic				DV 120-277 Volts, 50/60Hz 347 347 Volts, 60Hz				
	End Caps			Lamp Power				The state of the s					
	F R RV	Flat Rounded Reveal		55C 55W Single-Mode ICT 82C 82W Single-Mode ICT 110C 110W Single-Mode ICT 23I/55C 55W Dual-Mode ICT 34I/82C 82W Dual-Mode ICT 46I/110C 110W Dual-Mode ICT				Options LEL† Integral 10W Emergency Battery Backup CDF Captive Diffuser Fasteners DL Damp Location (Interior use NO gasketing) FS Single Fuse & Holder (one per circuit) PH Phillips Head Fasteners PM§ Pendant Mount (Max. 3/8" NPT stems by others; damp only)					
	Finis LG MB	h Light Gray Matte Black											
	MW Matte White CC Custom Color (Consult Fa			Lamp Color /) 32K8 3200K / 82 CRI min 37K8 3700K / 82 CRI min 43K8 4300K / 82 CRI min				NLW• 2700K White LED Night Light (controlled independently of Tunable White driver) NLA• Amber LED Night Light ((controlled independently of Tunable White driver)					
				Driver Type DCC 0-10V Dimming Constant Current				Accessories CMB§ Corner Mount Bracket (Must be ordered with DL Option)			tion)		

- 55C or 23I/55C lamp max, 0°C minimum operating temperature; n/a with 347V
- PM and CMB not available in conjunction
- n/a with 347V

ACCESSORIES ORDERED SEPARATELY

IC150 External Room Control System for Dual-Mode ICT Products (click here for Specifications)



MILLENIUM STRETCH™

MLHA12 SERIES - with Indigo-Clean Technology

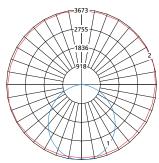
PERFORMANCE

Technology	Length	Lamp	Lumen Output by Color (lm) ¹			Efficacy	Power Consumption ²			Estd L70	
		Lamp Code	32K8	37K8	43K8	(lm/W)	Occupied (W)	LPD (W)	Unoccupied (W)	LED Life (Hrs)	
Single-Mode ICT	4'	55C	5,652	5,799	5,858	93 - 96	61	51			
		82C	8,535	8,757	8,846	92 - 95	93	77	n/a	80,000	
		110C	10,518	10,791	10,901	86 - 89	122	101			
Dual-Mode ICT			23I/55C	5,652	5,799	5,858	93 - 96	61	51	29	
	4'	34I/82C	8,535	8,757	8,846	92 - 95	93	77	44	80,000	
		46I/110C	10,518	10,791	10,901	86 - 89	122	101	58		

¹Provided values are applicable to the FA lens Type. Information subject to change without notice. Visit www.kenall.com for IES files and additional information. ²Lighting 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: MLHA12-48-X-MW-FA-110C-37K8-DCC-DV and MLHA12-48-X-MW-FA-46I/110C-37K8-DCC-DV

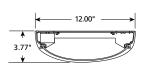


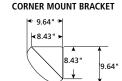
Maximum Candela = 3673 Located At Horizontal Angle = 15, Vertical Angle = 5

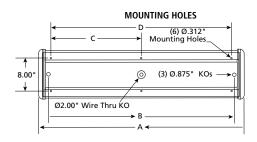
1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

DIMENSIONAL DATA

CROSS SECTION/DETAILS







Nominal Four Foot Fixture Legend											
End Cap	Α	В	C	D							
R	51.13	46.31	22.50	45.00							
F	49.31	46.31	22.50	45.00							
RV	53.84	46.31	22.50	45.00							

