PROJECT	Job Name	Catal	atalog Number
NFORMATION	Fixture Type	Appro	proved by

MILLENIUM™ SATURN **HASD SERIES – DUAL-ENGINE LAMPING**

PRODUCT FEATURES:

- » Center and perimeter light engines with independent illumination and control
- » Center light engine with static white LED
- » Perimeter light engine with static white, static color, RGB, RGBW, or switchable (white and color)
- » Surface wall or ceiling installation
- » 14" or 18" nominal diameter with 2" overall depth
- » Available embedded motion sensor in 18" model

» IK10 impact rating and Peace of Mind Guarantee® against breakage **SPECIFICATIONS**



HOUSING: Die-cast aluminum basenlate and frontal heat sink trim. Ontional die-cast aluminum surface-mount adapter for use with conduit. Standard TGIC polyester powder coat finish on aluminum components with five-step pre-treatment to withstand 1,000-hour salt spray test per ASTM B117. See Ordering Information for available finishes. Closed cell gasketing seals all housing component interfaces.

OPTICAL: Injection-molded diffused UV-stabilized polycarbonate outer lenses for center and perimeter light engines. Center light engine utilizes inner acrylic light guide to provide uniformity from edge-lit light source.

LAMPING: Center: 360° edge-lit illumination. Available 3000K, 3500K and 4000K white color temperatures with 3-step MacAdam variation allowance. Standard 80 CRI min, optional 90CRI min. Perimeter: Circumferential back-lit lamping. Available matching color temperature source to center white light engine. Available static color source in 630 nm native red, 590 nm native amber, phosphor-converted mint or 500 nm cyan; inquire with factory on other available static color options. Available Switchable engine on 18" model provides white light and native amber or native red, controlled by internal device based on signal input; see Control for further description. Available RGB (red-green-blue) in 14" model for dynamic and mixed lighting scenes. 18" model features RGBW perimeter lamping which includes a 2500K, 70 CRI white LED for the broadest color gamut and white color matching; a 90 CRI center lamp color is recommended in conjunction. The RGB(W) package uses phosphor-converted red, phosphor-converted green and native blue source for longevity.

ELECTRICAL: 120-277VAC, 50/60Hz electrical input with serviceable high-power factor electronic, constant-current drivers (<20% THD, >0.90 PF). 347VAC input available in DIM1 driver configurations. DIM1; Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities; independent dimming control of center and perimeter lamping functions. 0.2mA source current per luminaire, per dimming line. <u>DALI</u>: Optional DALI-2 DT6 driver with 1-100% dimming range without dim-to-dark capabilities. Independent addressing and control of lamping functions. <u>DMX</u>: DMX-RDM compatible driver with 0.1-100% dimming range and dim-to-dark. (14" model) One four-channel driver powers both the static white center and the RGB perimeter lamp functions; four total DMX network addresses. (18" model) One driver powers the static white center and another driver powers the RGBW perimeter; five total DMX network addresses.

SENSOR & CONTROLS: (18" Model) Optional embedded microwave motion sensor (MS) mounted behind center diffuser. Factory default is 30% dimming and 20min. timeout. Custom settings available upon request. Sensor operates at 5.8 GHz (continuous-wave radar) and provides 360° coverage. Switchable perimeter lamping utilizes Kenall-developed internal device to switch between white or colored sources based on voltage of sensing input (10V = white, <5V = color). When MS option is ordered in conjunction with switchable perimeter, the product is factory wired to have both lamp functions operate in white output state during occupancy. In periods of unoccupancy, the center lamp turns off and the perimeter changes to the specified color. This is intended to be a 'night light' or 'wildlife friendly' operational mode. To see the full list of third-party compatible controls, click here.

INSTALLATION: Suitable for surface wall or ceiling installations over recessed junction box. -30°C to 40°C ambient environments, unless otherwise noted. Available surface adapter for applications requiring surface-run conduit or photocell control. Anchored four-point mounting required. Trim assembly secured to baseplate with three (3) concealed, tamper-resistant Torx® fasteners.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric information, 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 Wall and Covered Ceiling; listing includes Emergency Battery Pack "LEL" option. IP64 rating per IEC 60598. Luminaire tested to an IK10 impact protection rating per IEC 60068-2-75:1997-08.













ORDI Model		•		/24L/18R-35K8-DIM1-E	•	Drive	_	Voltogo	Ontions	A	
iviodei	FIIIIS		саптр туре ((Center/Perimeter)	Lamp Color	Drive	ı	Voltage	Options	Accessory	
		PP									
Model HASD14 14" Nominal Diameter HASD18 18" Nominal Diameter Finish MW Matte White MB Matte Black WS Warm Satin Painted Anodized CS Cool Satin Painted Anodized BR Bronze DB Dark Bronze LG Light Gray		Lamp Type: Perimeter Engine 14" 16L‡ 16 Watt Static White 12R 12 Watt Static Red 12NA 12 Watt Static Amber 6PM 6 Watt Static Mint 8CY 8 Watt Static Cyan PXX Custom Static Light Color (consult factory) 16RGB 16 Watt Dynamic RGB Color 18" 24L‡ 24 Watt Static White			Driver Type DIM1 0-10V Dimming to 1% with Dim-to-Dark DALI▲ DALI-2 DT6 Dimming to 1% without Dim-to-Dark DMX+ DMX Control with Dimming to 0.1% Voltage DV 120-277VAC, 50/60Hz 120 120VAC, 60Hz 277 277VAC, 60Hz 347▲ 347VAC, 60Hz (DIM1 only) Options						
cc	Custom Color (Consult	actory)	18R	18 Watt Static Red		LEL*		4W Emergency Bat			
.		3 .	18NA	18 Watt Static Amber		BPC-SA FS		ontrol – Shielded B use & Holder (n/a 3	utton Type with Die-ca	st Surface Adapter	
Optic Type PP Pearlescent Polycarbonate			8PM 12CY PXX	12CY 12 Watt Static Cyan			NAT Suitable for Natatorium applications MS° Embedded Motion Sensor				
Lamp Type: Center Engine 14"							ories Die-Cas	st Surface Adapter	for Conduit (non-comp	oliant with ADA)	
10L 16L 22L	10 Watt White LED 16 Watt White LED 22 Watt White LED		24M	24 Watt Dynamic RGBW C (must pair with 24L center)	olor	† Requi	red for all c		RGB or RGBW, center		
18" 16L 24L 33L	16L 16 Watt White LED 24L 24 Watt White LED			Lamp Color 30K8		* n/a 347V; 0°C min. ambient; n/a in conjunction with DMX Driver or MS option ▼ 120 or 277V input only; non-compliant with ADA ¹ 18" models only; for use with white/static color and white/switchable color; max. 16L center; DIM1 only; n/a with 347V. ▲ n/a 14" fixture; n/a with 24L/18R or 24L/18NA (18" fixture).					



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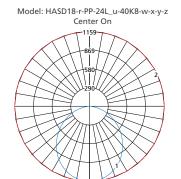
PERFORMANCE

Model	Light Engine	Lamp Code	Lamp Description -		Initial Deliv	Input	TM-21 Reported					
				30K8	35K8	35K9	40K8	40K9	Colors	Power (W)	L70 (hrs)	
HASD14	Center	10L		1,151	1,188	1,088	1,251	1,113	-	13	>72,000	
		16L	Static White	1,749	1,806	1,654	1,901	1,692	-	22		
		22L		2,275	2,349	2,151	2,473	2,201	-	27		
		16L	Static White	1,574	1,625	1,488	1,710	1,522	-	20	>72,000	
		12R	630 nm Red	-	-	-	-	-	513	16		
		12NA	590 nm Amber	-	-	-	-	-	351	16	60,000	
		6PM	PC Mint	-	-	-	-	-	803	8	>60,000	
	Perimeter	8CY	500 nm Cyan	-	-	-	-	-	471	10		
		16RGB	PC Red	-	-	-	-	-	388	21		
			PC Green	-	-	-	-	-	1,934	21	>36,000	
			Blue	-	-	-	-	-	198	21		
		10L/16L		2,742	2,832	2,593	2,981	2,653	-	33	>72,000	
	Combined	16L/16L	Static White	3,299	3,406	3,119	3,585	3,191	-	39		
		22L/16L		3,848	3,974	3,639	4,183	3,723	-	46		
	Center	16L		1,847	1,907	1,747	2,008	1,787	-	19	>72,000	
		24L	Static White	2,817	2,909	2,664	3,062	2,725	-	30		
		33L		3,758	3,881	3,554	4,085	3,636	-	38		
	Perimeter	24L	Static White	2,477	2,558	2,343	2,693	2,396	-	29	>72,000	
		18R	630 nm Red	-	-	-	-	-	824	23	. 60 000	
		18NA	590 nm Amber	-	-	-	-	-	588	24		
		8PM	PC Mint	-	-	-	-	-	1,288	11	>60,000	
		12CY	500 nm Cyan	-	-	-	-	-	725	13		
HASD18		24L/18R	Sw. White / 630 nm Red	2,477	2,558	2,343	2,693	2,396	824	29 / 23	721/ / 62::	
		24L/18NA	Sw. White / 590 nm Amber	2,477	2,558	2,343	2,693	2,396	588	29 / 24	>72K / >60K	
		24M	PC Red	-	-	-	-	-	532	27		
			PC Green	-	-	-	-	-	2,331	24	>36,000	
			Blue	-	-	-	-	-	270	27		
			White (2500K, 70CRI)	-	-	-	-	-	2,073	28		
		16L/24L		4,344	4,485	4,108	4,722	4,202	-	49	>72,000	
	Combined	24L/24L	Static White	5,294	5,467	5,006	5,754	5,121	-	59		
		33L/24L		6,308	6,514	5,965	6,857	6,103	-	68		

NOTE: Information subject to change without notice. All testing conducted by an ILAC/ISO17025 accredited laboratory. Please visit www.kenall.com for IES files and additional information.

Model: HASD18-r-PP-t_24L-40K8-w-x-y-z

Static White Perimeter On

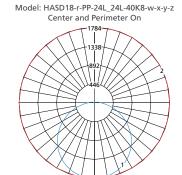


 $\mbox{Max Candela} = 1159 \mbox{ Located At Horizontal Angle} = 0, \mbox{Vertical Angle} = 0$

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

 $\label{eq:max-cond} \text{Max Candela} = 630 \text{ Located At Horizontal Angle} = 0, \text{Vertical Angle} = 0$

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



 $\mbox{Max Candela} = 1784 \mbox{ Located At Horizontal Angle} = 0, \mbox{Vertical Angle} = 0$

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

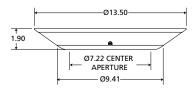


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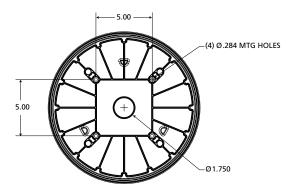
DIMENSIONAL DATA

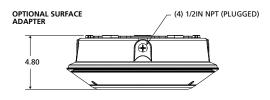
14" FIXTURE

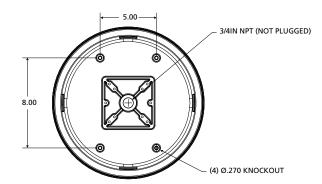


OPTIONAL LEL

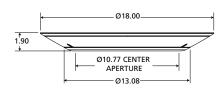








18" FIXTURE



OPTIONAL LEL



