

## HAL-Center Sensor Aisle Lighter, Narrow

### Maximum Off Time

- Infrequently occupied, high piled storage aisles often yield as much as 65% off time when individual fixture occupancy sensors are deployed.
- Zone strategies typically yield only one-half of the savings.

### Durable Aisle Configuration

- The low profile allows the fixture to be mounted closer to the ceiling than a standard HID Hi-bay, thus reducing the possibility of forklift hits. The linear 1x8 configuration and choice of optics provide improved uniformity and excellent vertical foot-candles in aisle applications.
- Fire sprinkler clearance an issue? At 6.25" wide, clearing obstructions is no problem.
- Full body center sensor design is extremely resistant to forklift strikes.

### Our Experience

- We've been focused on nothing but supporting energy efficient re-lighting projects since 1992. Hit a dead end? Give our application support team a try.

### HAL-Aisle Lighter



### Application

- Durable aisle lighter ideally suited for distribution and high piled storage applications.
- Fixture built around the center mounted sensor.
- Perfect for infrequently occupied storage aisles.
- EA reflector ideal for Hi-bays.
- WA reflector ideal for Lo-bays.
- Available in 1 or 2 lamp cross sections. 2 or 4 lamps per 8' fixture.
- See HAW series for 3-lamp cross section, 6 lamps per 8' fixture.

## HAL-1x8-4L-T5HO-UL1-MN-PSH-ST-EA-C8-RH4

HAL	1x8	4L	T5HO	UL1	MN	PSH	ST	EA	C8	RH4		
Model	Fixt Size	Lamp Qty	Lamp Type	Voltage	Ballast Factor	Ballast Starting	Ballast Grade	Reflector Material	Cord Plug	Occ Sensor	Other	Other

#### Fixture Model

HAL

#### Fixture Size

1x4 = 1x4 Nominal  
1x8 = 1x8 Nominal

#### Lamp Qty

xL = x Indicates quantity of lamps

#### Lamp Type

T5HO = Linear T5HO Lamps  
T8 = Linear T8 Lamps

#### Voltage (1)

UHx = Universal 347-480  
ULx = Universal 120-277

#### Ballast Factor (2)

MN = Neutral Power (.97-1.04)  
HP = High Power (1.15-1.20)

#### Numeric Footnotes

- (1) Numeral indicates number of ballasts per fixture.
- (2) Ballast factors outside ranges shown to be called out numerically.
- (3) Numeral indicates number of lamps controlled.

#### Ballast Starting

IS = Instant Start  
ISD = Instant Start Step Dimming  
PS = Programmed Start  
PSD = Program Start Step Dimming  
PSH = Program Start Hi-Lo

#### Ballast Grade

ST = Standard Grade  
UE = Ultra Efficient T8

#### Reflector Material

EA = Enhanced Aluminum 93-94%  
MM = Micro Matte 91-93%  
WA = White Aluminum Reflector 90-91%

#### Cord & Plug

C8 = 8' Cord, No Plug  
C8/L715 = 8' Cord & Plug (L7-15P)  
PQC15 = 15' Cord/Quick Connect

#### Occupancy Sensor(3)

SHx = Standard 360 View Hi-Bay  
RHx = Rectangular Aisle View Hi-Bay  
SLx = Standard 360 View Lo-Bay  
RLx = Rectangular Aisle View Lo-Bay

#### Other (Sensor)

DR = Dual Relay, Dual Delay Sensor  
DO = Daylight Over Occupancy Sensor

#### Other (Lens)

CA = Clear Acrylic  
WG = Wireguard

#### Other

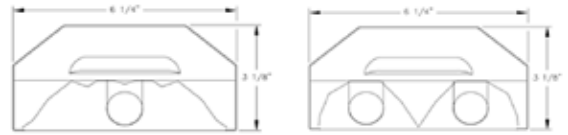
LF = Factory Lamps (Lamp spec elsewhere)  
HB = 2 Point Mount Dedicated Hanging Brackets  
NO = Narrow Optics (Focused on aisle Center)  
MO = Medium Optics (Default)  
WO = Wide Optics (Focused on aisle walls)

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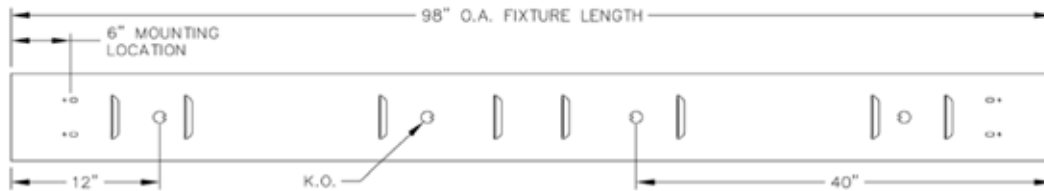
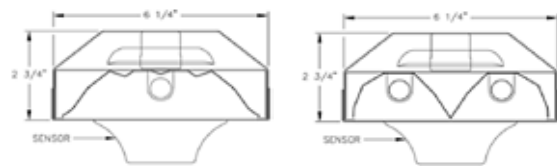
### Fixture Construction

- Heavy duty white aluminum body dissipates heat at 4x the rate of steel.
- Fully ventilated body and endplates help reduce heat in ballast compartment for longer life.
- Fixture built around the center mounted sensor.
- Environmentally friendly and labor saving bulk project packaging.
- Dottie slot mounting points and V-hangers included.
- Made in the USA: Hudson WI, Gainesville FL, Orange County CA.

1L and 2L T8 Cross-X



1L and 2L T5 Cross-X



### Existing System

Existing Hi-Bay System	Lamp Qty & Type	Initial Lamp Lumens	Lumen Maintenance	EOL(1) Lumens All Lamps	Total Fixture Lumens	Ballast Factor	Fixture Efficiency	EOL(1) Lumens Per Fixt	S/P (2) Ratio	Net (3) EOL Lumens	Fixt Input Watts
MH250	1 Std MH250	20,500	58%	11,890	11,890	1.00	0.75	8,918	1.49	12,171	295
MH320PS	1 PS MH320	31,700	62%	19,654	19,654	1.00	0.75	14,741	1.49	20,119	368
MH400	1 Std MH400	38,000	58%	22,040	22,040	1.00	0.75	16,530	1.49	22,561	458
HPS400	1 Std HPS400	50,000	70%	35,000	35,000	1.00	0.75	26,250	0.62	18,080	464

### Re-Lighting Options

Proposed Hi-Bay System	Lamp Qty & Type	Initial Lamp Lumens	Lumen Maintenance	EOL(1) Lumens All Lamps	Total Fixture Lumens	Ballast Factor	Fixture Efficiency	EOL(1) Lumens Per Fixt	S/P (2) Ratio	Net (3) EOL Lumens	Fixt Input Watts
2L-T5HO	2 FP54T5HO	5,000	93%	4,650	9,300	1.00	0.92	8,556	1.62	12,465	117
4L-T5HO	4 FP54T5HO	5,000	93%	4,650	18,600	1.00	0.92	17,112	1.62	24,930	234
2L-T8 Plus	2 F32T8/841	2,950	90%	2,655	5,310	1.15	0.90	5,496	1.62	8,007	73
4L-T8 Plus	4 F32T8/841	2,950	90%	2,655	10,620	1.14	0.90	10,896	1.62	15,874	147

(1) EOL = End of Life (2) S/P Ratio = Scotopic to Photopic Lumens (3) Net EOL Lumens = EOL Lumens Per Fixture x (S/P).78 [.78 exponent]

### General Notes

- Lamp/ballast system values shown are a general reference intended to supply a quick comparison of several common lamp/ballast systems, the associated energy consumption, and net lumen output.
- Values shown are based on normal operating temperatures (25c T8 and 35c T5) and at 277 volts.
- Fixture efficiency percentages are generally representative of each system type, actual values will vary.
- There are many operating variables that affect system output, in addition to rating variances from brand to brand.
- All T8 electronic ballast values shown are based on Ultra Efficient (aka 3rd Generation) T8 ballasts.
- All T5 and T8 lamp values shown are for basic grade lamps. Extended life and higher lumen lamps types are available.
- In addition to those shown there are a wide variety of systems to choose from, each with distinct features and cost points.
- Please consult the lamp/ballast manufacturer's catalogs for the detailed information required to model your system.