

ABV4 Series

LED High Bay Lighting



The **Albeo® ABV4** LED luminaire is an exceptional mixture of value and performance. Ideal for high bay and low bay applications in industrial and commercial buildings. Designed to replace 150W–1500W HID and four-to-eight lamp T5/T8 fixtures with unmatched reliability and quality. Now with integral Daintree® sensors and controls. See optic **N1** for aisle distribution!

CONSTRUCTION

Housing:	Combination steel and aluminum
Lens:	Polycarbonate, Acrylic
Paint:	Powder coat painted housing No glass in housing or lenses
Weight:	10–11 lbs (4.55–4.99 kg) per module <i>(see dimensional drawings)</i>
Optical Assembly:	Polycarbonate reflective optics with optional lens

OPTICAL SYSTEM

Distribution:	Wide, Wide Diffused (reduce Glare), Medium and Narrow
Lumens:	9,000–90,000
Efficacy:	167 - 197 LPW typical
CCT:	3000K, 3500K, 4000K, 5000K
CRI:	70, 80, & 90

ELECTRICAL

Input Voltage:	120V–277V, 347V, & 480V
Input Frequency:	50/60Hz
LED Driver Type:	Designed to exceed 100,000 hrs of operation at worst possible rated conditions
Power Factor (PF)*:	>0.9*
Total Harmonic Distortion (THD)*:	<20%*
Surge Protection:	Tested per ANSI C136.2-2015 <ul style="list-style-type: none"> • 6kV surge protection, standard for Lumen Output '24' and higher • 3kV surge protection, Lumen Output '18' and lower
EMI:	FCC CFR Title 47 Part 15, Class A

* PF and THD may vary with options

CONTROLS

Dimming:	Standard 0–10VDC, 10%
Controls:	High-end trim, occupancy and ambient light detection with dimming available. Wireless Daintree® options available.
Listing	DLC 5.1 LLC: Integrated/embedded networked lighting controls, luminaire-level lighting control (LLC)

LUMEN AMBIENT TEMPERATURE

TYPE	TEMPERATURE RATE
OPERATING TEMPERATURE	–30°C to +55°C (–22°F to 131°F)
STORAGE TEMPERATURE	–40°C to +70°C (–40°F to 158°F)

LUMEN MAINTENANCE

ESTIMATED LXX(10K) @ HRS 250,000 HR AT 25°C	REPORTED LXX(10K) @ HRS 65,000 HR AT 25°C	LXX(10K) @ HOURS 100,000 HR AT 55°C
L70	L90	L70

MOUNTING & ACCESSORIES

- **Typical Mounting:**
 - Standard Chain/Cable mount ready
 - Threaded rod kit & Surface mount optional
 - Pendant mount kit optional
- **Standard:** Knockout access (no cord, no plug)
- **Cord & Plugs:**
 - 6 ft, 12 ft, 15 ft, 20 ft cord options
 - 5A, 20A, Straight or twist lock plug
 - Reloc OCS Cord-Plug FS or GS
 - Plug-N-Go Cord-Plug MF or HF
- **Wire Guard Option Available**
- **Integral and Accessory EMBB Options Available**

DESIGN LIFE & WARRANTY

- **Reliability Testing:** Fixture components designed to exceed 100,000 hrs of operation at the worst possible rated conditions. Please refer to the DLC QPL website for the latest and most complete information: <http://www.designlights.org/QPL>
- **Certification:** UL/cUL Listed, RoHS
- **Packaging:** Standard job pack contain 7–21 fixtures. Orders of <14 are typically single pack. 90T & 90H are bulk pack only.
- **Current's Limited 5-year Warranty:** See website
- **Rated:** IP20, Damp
- Certain airborne contaminants can reduce integrity of acrylic material and LEDs and may negatively affect the functioning of the LEDs and other electronic components, depending on factors such as concentration levels, ventilation and temperature. (Contact manufacturer for list of substances)



DLC Premium on select configurations. Call factory for details



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Ordering Information

CUSTOMER NAME _____

Project Name _____

Date _____ Type _____

Catalog Number _____

ABV4

PRODUCT ID	VOLTAGE	LUMEN OUTPUT	CCT/CRI	OPTICS/LENS	CONTROLS	MOUNTING	CORD ¹	PLUG ²	FINISH	OPTIONS
ABV4 = Albeo® Highbay ABV 4 th Gen	0 = 120-277	09 = 9,000lm	70 Plus CRI	W1 = 120° No Lens	QQ = Dimming leads not externally accessible	ST = Standard	K = Knockout	Q = None	WHITE = White	Blank = No Special Options 1PK = Single Pack for distributor stocking. Default is Job Pack (7-21). E20 ^{5,6,10,11} = Emergency Unit 20W E30 ⁸ = 30W integrated emergency battery pack. Certified in CA Title 20 MAEDBS (Assurance L Series) GTD ⁷ = Generator Transfer Device WC = White Cord SP10 = 10kV Surge Protection Uplight (nominal lumens) ^{16,17,18,19} U1 = 1000 lumens U2 = 2000 lumens U3 = 3000 lumens U4 = 4000 lumens
	1 = 120	12 = 12,000lm	47 = 4000k	WD = 120° Diffused ¹³	QV = 0-10V Dimming	SM = Surface Mount	A = 6ft. 18ga black cord	A = 15A Straight Plug	BLCK = Black	
	4 = 277	15 = 15,000lm	57 = 5000k	M1 = 55° Diffused ¹⁴	Daintree® Networked:	22 = 1/2" Threaded rod mount kit (Rod and nut not included)	B = 12ft. 18ga black cord	B = 20A Straight Plug		
	D = 347	18 = 18,000lm	80 Plus CRI	N1 = 30° Diffused ¹⁴	NA = Occupancy & Ambient Light Sensor, w/ Continuous Dimming (full feature)	23 = 3/4" Pendant Mount Kit	C = 15ft. 18ga black cord	C = 15A Twist Lock Plug		
	5 = 480	24 = 24,000lm	38 = 3000k		TQ ³ = Wireless Daintree® Enabled (no sensor)	41 = Y-Cable/ Hook 5ft.	D = 20ft. 18ga black cord	D = 20A Twist Lock Plug		
		30 = 30,000lm	C8 = 3500k		Daintree® EZ Connect:	42 = Y-Cable/ Hook 10ft.				
		36 = 36,000lm	48 = 4000k		DF = Occupancy & Ambient light sensor w/ Continuous Dimming	43 = Y-Cable/ Hook 15ft.				
		48 = 48,000lm	58 = 5000k		Daintree® One:	44 = Y-Cable/ Hook 20ft.				
		60 = 60,000lm	90 Plus CRI		FB = Occupancy & Ambient Light Sensor with Continuous Dimming					
		72 = 72,000lm	C9 = 3500k		3rd Party Options ⁴:					
	90 = 90,000lm	49 = 4000k		QA = Occupancy Sensor On/Off 360° LSXR, No External Wiring						
				QB ¹² = Occupancy Sensor Continuous Dimming 360° LSXR						
				QP = Daylight Sensor w/occupancy On/Off LSXR, No External Wiring, Full Featured						
				NXCHM ¹⁵ = NX Connect NXC-WHS20 Wireless High Bay Occupancy & Photocell Sensor						
							Specialty Modular Cord Sets^{2a}:			
							FS = Reloc 10ft 18ga White Cord			
							GS = Reloc 15ft 18ga White Cord			
							MF = Plug-N-Go - 3ft. 18ga Black Cord			
							HF = Plug-N-Go - 10ft. 18ga Black Cord			
							LE ⁹ = ACS - MC Flex3+ 10ft 2EA 10-LW 277/480 #16AWG			
							NE ⁹ = ACS - MC Flex3+ 12ft 2EA 12-LW 277/480 #16AWG			

- 3-conductor cords. Dimming leads separate if controls option QV is selected. Contact factory if 5-conductor cord is needed.
- Must specify discrete voltage. See NEMA Plug Type Table.
- TQ not available with 72/90 Lumen or D/5 Voltage.
- QA, QB, QP not available with 72/90 Lumen.
- Emergency unit and 347/480VAC version not available with mounting SM, 22 and 23.
- Contact manufacturer for specialty and regular cord feasibility
- GTD with 347/480V contact factory
- Contact factory for lead-time.
- Available with Voltage 4 or 5 only
- Not available with GTD
- Only available with Single Pack
- QB not available with 480V
- WD is Polycarbonate lens
- NX Connect devices can be customized with the NX Connect app, available on the Apple® Store. NX Connect sensors are typically bottom mounted
- ST Mounting Option only
- For 347/480V contact factory
- Only available up to 48,000 lumens
- Uplight max ambient temperature = +40°C

NOTE:

- See WHS20 spec sheet for default program parameters and occupancy detection patterns.
- Daintree Wireless Controls can be upgraded over time for greater functionality.
 - WHR1 Remote PN: 93131632
 - Daintree EZ Connect App can be downloaded on the Apple® App Store.
 - 40ft (12m) mounting height.



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Ordering Information

CUSTOMER NAME _____

Project Name _____

Date _____ Type _____

Catalog Number _____

70 CRI @ 4000K OR 5000K CCT							
LUMEN PACKAGE	TYPICAL DELIVERED LUMENS	TYPICAL POWER		TYPICAL LPW 120-277V	TYPICAL LPW 347V	MODULE BODY	TYPICAL LUMEN IN EMERGENCY MODE
		120-277V	347/480V				
09	9,000	46	48	197	188	1S	3755
12	12,000	61	63	196	190	1S	3794
15	15,000	78	79	192	189	1S	3789
18	18,000	97	95	187	190	1S	3800
24	24,000	135	133	178	181	1S	3614
30	29,000	173	171	167	170	1S	3401
36	36,000	194	192	184	187	2S	3747
48	48,000	271	266	177	180	2S	3603
60	60,000	319	314	188	191	2D	3822
72	72,000	370	364	195	198	3D	3959
90	90,000	477	470	189	192	3D	3832

OPTIC CODE	OPTIC DESCRIPTION	OUTPUT
W1	120° No Lens	100%
WD	120° Diffused Lens	93%
M1	55° Textured Diffused Lens	94%
N1	30° Textured Diffused Lens	95%

CRI	LUMENS	CCT	LUMEN PACKAGE OUTPUT
70	All Lumen	4000	100%
		5000	100%
80		5000	92%
		4000	92%
		3500	90%
90		3000	87%
		3500	81%
		4000	83%

LPW/LUMEN SPECS BASED ON WIDE DISTRIBUTION

De-rate 5°C for "SM" Surface Mount Option

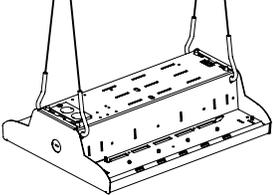
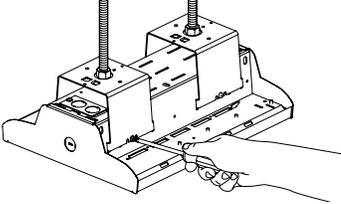
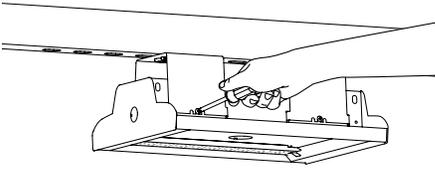
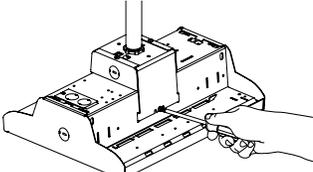
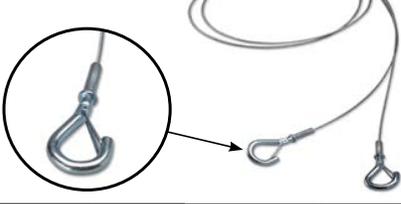
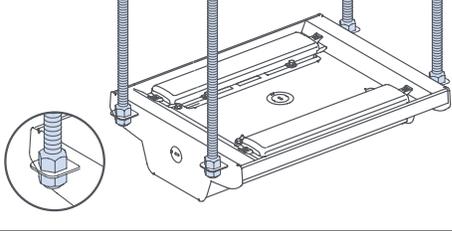
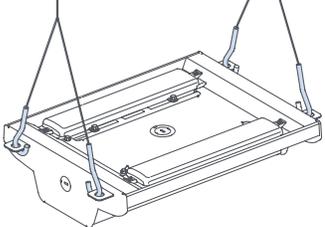
Add 7W for "E20" option and 10W for "E20" with 347/480V input. (Charging Load)

NEMA PLUG TYPE				
VOLTAGE	A (15A STRAIGHT)	B (20A STRAIGHT)	C (15A TWIST LOCK)	20D (1 A TWIST LOCK)
120	5-15P	5-20P	L5-15P	L5-20P
277	7-15P	7-20P	L7-15P	L7-20P
347	24-15P	24-20P	N/A	L24-20P
480	N/A	N/A	N/A	L8-20P

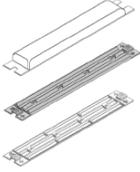
FIELD INSTALLABLE 20W BATTERY KITS*	
ORDERING SKU	ABV BODY SIZE
93313452	1S
93313453	2S, 2D, 3D

*Emergency battery pack options are California Energy Commission (CEC) Title 20 compliant

MOUNTING AND ACCESSORIES:

MOUNTING OPTIONS	IMAGE	ORDER LOGIC CODE	AFTERMARKET ORDER LOGIC
<p>Standard Chain/ Cable Mount Available on all fixture configurations (chain not included). Y-Cable w/hook can be ordered as an accessory.</p>		<p>ST = Standard (No chain or mounting hardware included)</p>	<p>Aftermarket: NA</p>
<p>Rod Mount (optional) Available on all fixture configurations. Attaches to 1/2" threaded rod (rod and nuts not included).</p>		<p>22 = 1/2" Threaded Rod Kit</p>	<p>SKU: 93120346G Description: 1/2" Surface Mounting Kit NOTE: Kit included two (2) brackets.</p>
<p>Surface Mount (optional) Available on all fixture configurations. Attaches to structural member in ceiling. (Hardware not included.)</p>		<p>SM = Surface Mount</p>	
<p>Pendant Mount (optional) Available on all fixture configurations. Attaches to 3/4" threaded conduit. (conduit not included).</p>		<p>23 = 3/4" Pendant Mount Kit</p>	<p>SKU: 93120347G Description: 3/4" Pendant Mounting Kit</p>
<p>Y-Cable w/hook (optional) Use with Standard Mounting Option only. Order separately. Price adder per pair. 5 ft., 10 ft., 15 ft., 20 ft. lengths available.</p>			<p>(41) Y-Cable/Hook 5ft: 93075756G (42) Y-Cable/Hook 10ft: 93075552G (43) Y-Cable/Hook 15ft: 93075553G (44) Y-Cable/Hook 20ft: 93075554G</p>
<p>Standard Inverted Mount Available on all fixture configurations. Attaches to 3/8" threaded rod (rod not included)</p>		<p>UP = Standard Inverted Mount</p>	<p>Aftermarket: NA NOTE: Dimensions center hole to center hole of inverted mount are: Single-Wide (1S, 2S, 3S housings): Width 7.4" Double-Wide (1D, 2D, 3D housings): Width 12.06" Lengths: 14.87" (1S/1D), 28.42" (2S, 2D), 41.97" (3S, 3D)</p>
<p>Inverted Y- Cable Mount</p>		<p>61 = Inverted Mount Y-Cable/ Hook 5ft 62 = Inverted Mount Y-Cable/ Hook 10ft 63 = Inverted Mount Y-Cable/ Hook 15ft 64 = Inverted Mount Y-Cable/ Hook 20ft</p>	<p>Aftermarket: NA NOTE: Dimensions center hole to center hole of inverted mount are: Single-Wide (1S, 2S, 3S housings): Width 7.4" Double-Wide (1D, 2D, 3D housings): Width 12.06" Lengths: 14.87" (1S/1D), 28.42" (2S, 2D), 41.97" (3S, 3D)</p>

REPLACEMENT LENSES & OPTICS:



ORDERING SKU	ORDERING CAT# LOGIC	FIXTURE CAT# LOGIC	DESCRIPTION
93075866G	Wide Diffused Lens Kit	Optics = WD	Diffused Lens Only (2 Lenses) <small>*does not change beam angle</small>
93075989G	Reflector Optic Kit	Optics = WD	120 Degree Optic (2 White Reflectors)
93117671G	M1 Optic Kit	Optics = M1	Textured Diffused 55 degree Optic (2 Refractors)
93117672G	N1 Optic Kit	Optics = N1	Textured Diffused 30 Degree Optic (2 Refractors)

Check fixture images on pg. 1 to determine how many optics are needed based on housing type.

Example: 60T lumen code = '2D' housing = 8 lenses and/or optics needed = 4 kits

WIRE GUARDS:



ORDERING SKU	DESCRIPTION
93077600G	1S Wire Guard White Painted - 5pk
93077602G	2S Wire Guard White Painted - 5pk
93077604	3S Wire Guard White Painted - 5pk
93077668G	2D Wire Guard White Painted - 5pk

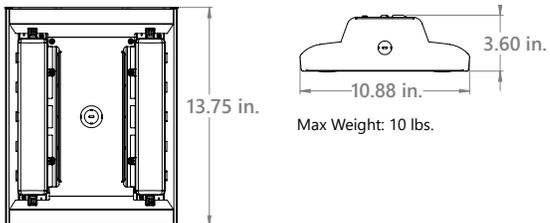
FIELD SWAPPABLE WHS20 SENSOR ACCESSORIES:



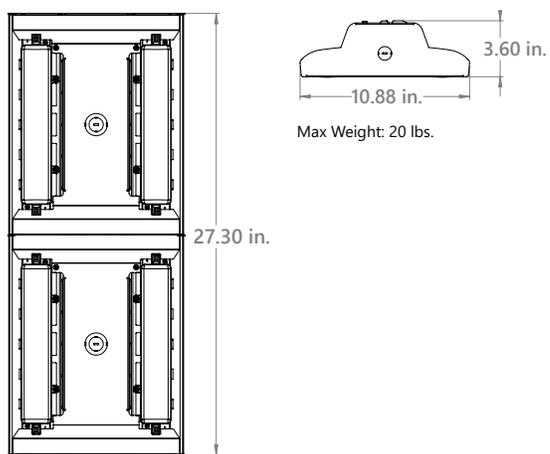
ORDERING SKU	ORDERING CAT# LOGIC	DESCRIPTION
93134999G	WHS20_LOW_LENS_KIT_10	Low Lens: 2.5m (8ft) - 10pk
93135001G	WHS20_MED_LENS_KIT_10	Med Lens: 6m (20ft) - 10pk
93135003G	WHS20_HIGH_LENS_KIT_10	High Lens: 12m (40ft) - 10pk
93134985G	WHS20_SNAP_AISLE_MASK_KIT_10	Snap on Aisle Mask

NOTE: See WHS20 spec sheet for Occupancy Detection Patterns

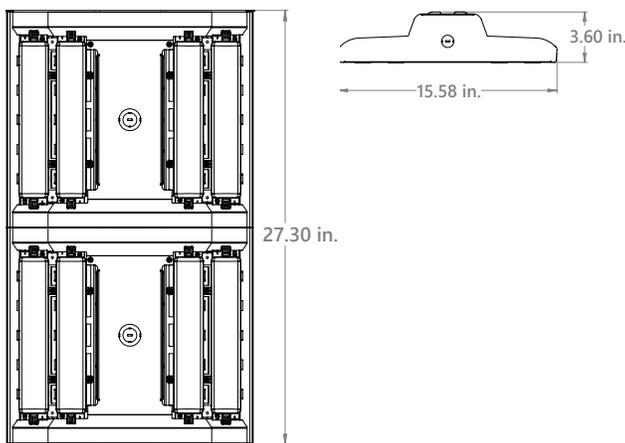
1S MODULE - 9K, 12K, 15K, 18K, 24K, 30K LUMENS



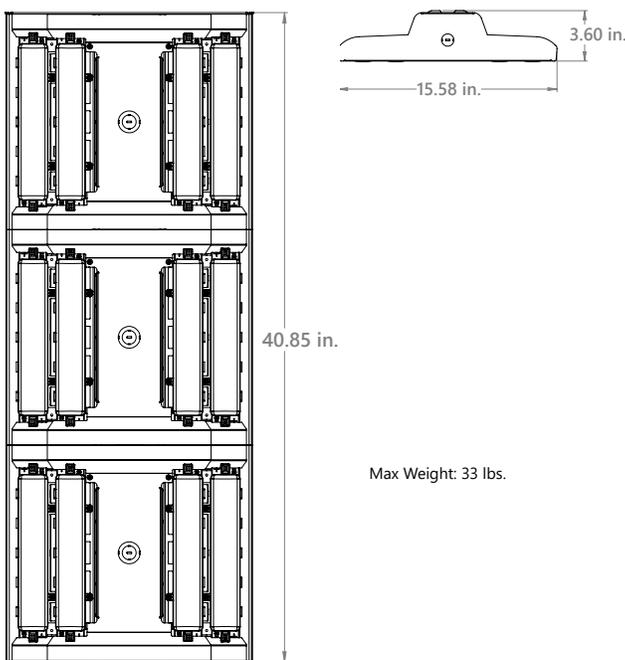
2S MODULE - 36K, 48K LUMENS

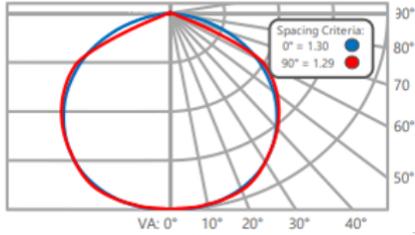
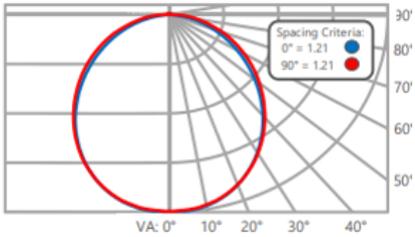
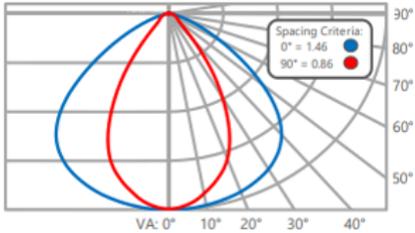
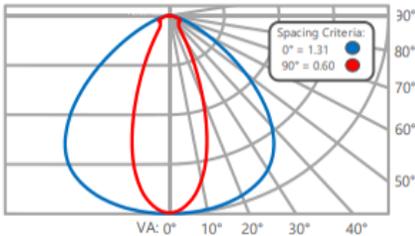


2D MODULE - 60K LUMENS



3D MODULE - 72K, 90K LUMENS



PHOTOMETRIC DATA
W1 = WIDE

WD = WIDE DIFFUSED

M1 = MEDIUM

N1 = NARROW


CUSTOMER NAME _____

Project Name _____

Date _____ Type _____

Catalog Number _____

WIRELESS NETWORKING AND SENSING DEVICE OPTIONS*

- **Daintree® One:** Wireless fixture integrated sensor that is perfect for single fixtures or small area applications. Standalone wireless lighting controls that work independently. Comes preset from the factory, yet can be upgraded to Daintree EZ Connect and/or Daintree Enterprise in the future. Factory preset to shut off 20 minutes after the space is vacated of occupants. Daylight harvesting preset enabled on.
- **Daintree® EZ Connect:** Wireless fixture integrated sensor that is designed for room based controls where a group of fixtures communicate to each other and communicate wirelessly in chorus as a system. The advantage is simple, minimal field based commissioning. Factory preset to shut off 20 minutes after the space is vacated of occupants. No daylight harvesting set in initial preset. EZ Connect wireless lighting controls are set up and/or can be changed by the Daintree EZ Connect application that can be downloaded via a smart device.
- **Daintree® Enterprise:** Wireless fixture integrated sensor technology that is ideal for multisite lighting system management. System requires software and commissioning. Monitor multiple controls, lighting, energy, HVAC with unlimited potential for other (3rd party) sensor integration. "Open on the bottom" means that ZigBee communication protocol is an industry standard with countless wireless hardware sensing options. "Open on the top" means that the data from the sensors can be used by any 3rd party software supplier/developer, be it part of a complete BMS system or simple API (Application Programming Interface or "App"). Daintree Enterprise offers a complete future proof solution from any Daintree enabled installed base of fixtures.

*Contact Factory for specific option availability

WHR1 IR REMOTE



ABV4 WITH OPTIONAL DAINTREE WIRELESS WHS20 CONTROL MODULE

