TITANBAY™ SERIES

PROJECT SUBMITTAL	
PROJECT NAME	
TYPE / DESIGNATION	
CATALOG NUMBER	
SUBMITTED BY	DATE
NOTES / REMARKS	

ROUND HEAVY-DUTY INDUSTRIAL & INDOOR SPORTS HIGH BAY SYSTEM

DESIGNED IN ACCORDANCE WITH APPLICABLE IES RECOMMENDED PRACTICES

Intended for use as a Basis of Design lighting system for industrial, commercial, and indoor sports applications.

100W | 150W | 200W

SYSTEM CONFIGURATIONS

ETL LISTED • DLC PREMIUM • IP20/IP65 • BAA COMPLIANT

SYSTEM ENGINEERING

Lighting system performance is achieved through configurable optical systems utilizing either wide-distribution lenses or aluminum reflectors, allowing adaptation of beam control and spacing for varied industrial and indoor applications.

KEY SYSTEM ATTRIBUTES

- Wide-distribution lens optic (120° standard)
- Optional 90° aluminum reflector for controlled distribution
- Heavy-duty die-cast aluminum thermal housing
- High-efficacy LED platform for high-bay applications
- Flicker-free driver operation for indoor sports environment

710 ARMSTRONG DR, BUFFALO GROVE, IL 60089
(224) 567-8312 • SALES@DUVONLIGHTING.COM • DUVONLIGHTING.COM

SYSTEM OVERVIEW & PERFORMANCE SUMMARY

SYSTEM OVERVIEW

The TitanBay™ Series is a round LED high-bay luminaire engineered for industrial facilities and indoor sports environments requiring reliable illumination, stable thermal performance, and durable construction.

The luminaire utilizes a die-cast aluminum housing with integrated heat sink geometry to maintain stable LED junction temperatures during continuous operation.

TitanBay luminaires utilize wide-distribution lens optics or optional aluminum reflector optics to provide uniform illumination or controlled distribution depending on application requirements.

Lighting layouts using TitanBay luminaires are verified through photometric simulation to confirm illumination levels, spacing, and uniformity.

SYSTEM PERFORMANCE IS ACHIEVED THROUGH COORDINATED DESIGN OF OPTICAL DISTRIBUTION, MOUNTING HEIGHT, AND FIXTURE SPACING.

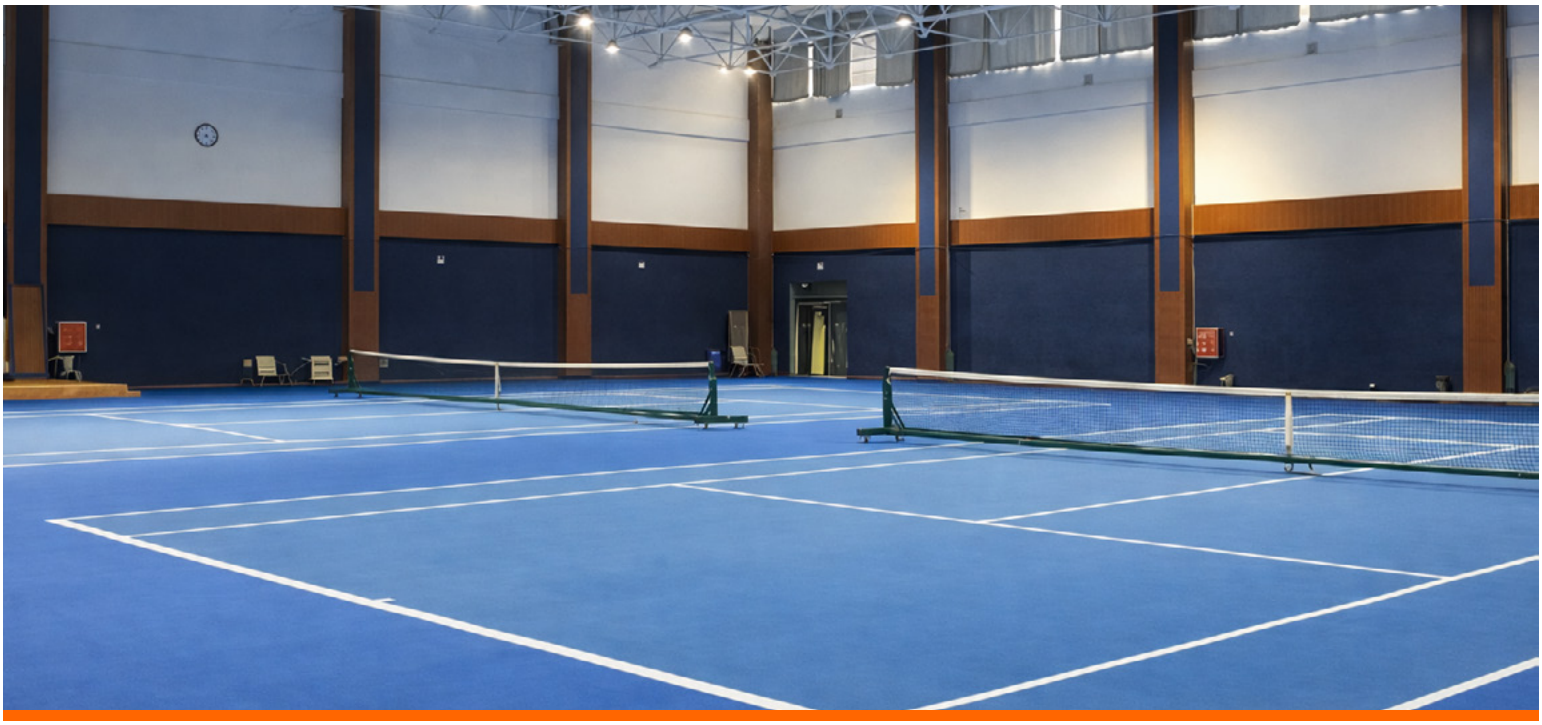
TESTING & COMPLIANCE

Photometric Testing: IES LM-79
LED Reliability: IES LM-80
Lifetime Projection: TM-21
Electrical Safety: UL 1598

SYSTEM PERFORMANCE SUMMARY

ATTRIBUTE	PERFORMANCE
Typical System Efficacy	140–150 lm/W (dependent on configuration)
Rated Life	L70 ≥ 100,000 hours
Input Voltage	100–277 V std. (277–480 V opt.)
Operating Temperature	-40°F to +122°F
Ingress Protection	IP20 std. (IP65 opt.)
Surge Protection	10 kV std. (20 kV opt.)
Warranty	5-years

APPLICATIONS & DESIGN SUPPORT



PRIMARY APPLICATIONS

INDUSTRIAL & LOGISTICS FACILITIES
High-bay warehouse storage and distribution centers, automated logistics and fulfillment facilities, manufacturing and production floors, cold storage and refrigerated facilities.

INDOOR SPORTS & RECREATION FACILITIES
School and university gymnasiums, indoor basketball and volleyball courts, indoor soccer and multi-sport training centers, athletic training facilities and recreation complexes.

COMMERCIAL & INSTITUTIONAL INTERIORS
Large interior workspaces, maintenance garages and service bays, retail warehouse environments.

TYPICAL MOUNTING CONDITIONS

Typical mounting heights: 15–35 ft. Final mounting height, fixture spacing, fixture quantity, and optical distribution shall be determined through project-specific lighting design

ENGINEERING & DESIGN SUPPORT

Duvon provides lighting system design assistance including luminaire selection, optical configuration, and photometric verification.

Engineering services include:

- AGi32 photometric layouts
- Fixture spacing calculations
- Mounting height evaluation
- Uniformity analysis

LIGHTING PERFORMANCE

REFERENCE STANDARD

Lighting designs utilizing TitanBay luminaires are developed in accordance with applicable IES recommended practices, including:
· ANSI/IES RP-7 (Industrial Lighting)
· ANSI/IES RP-6 (Sports and Recreational Lighting, where applicable)

APPLICATION	IES RECOMMENDED (AVG. MAINTAINED)	DESIGN TARGET (PROJECT-DEPENDENT
High-Bay Warehouses / Distribution	10–30 fc	20–30 fc
Logistics & Fulfillment Facilities	20–40 fc	30–40 fc
Manufacturing (General Assembly)	30–50 fc	40–50 fc
Manufacturing (Precision / Inspection)	50–100 fc	60–80 fc
Gymnasiums — Recreational (Class IV)	20–30 fc	30 fc
Indoor Sports Training (Class III)	30–50 fc	50 fc
Competitive Indoor Sports (Class II)	50–75 fc	60–75 fc
Collegiate / Tournament (Class I)	75–100 fc	80–100 fc

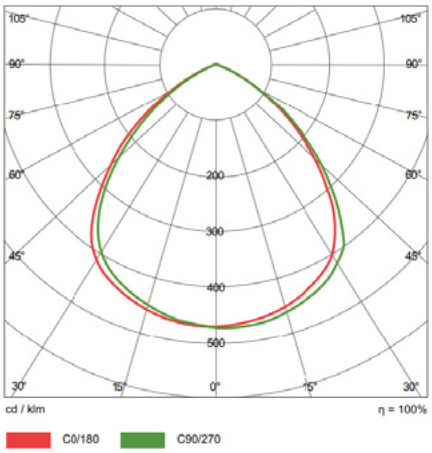
Typical lighting designs target uniformity ratios appropriate for the application. Final illumination levels and uniformity shall be verified through project-specific photometric calculations.

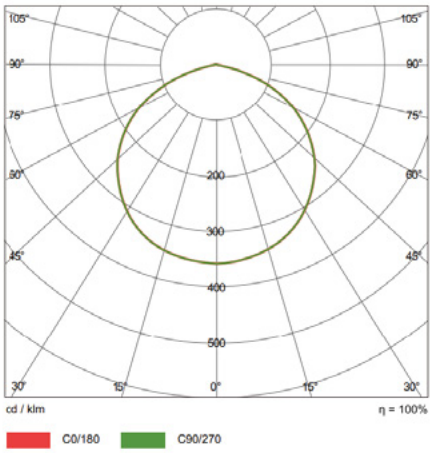
TYPICAL SPACING GUIDANCE

Fixture spacing is commonly evaluated using the spacing-to-mounting-height ratio (S/MH). For round high-bay luminaires with wide optical distributions, typical S/MH ratios range between 1.2 and 1.5.

MOUNTING HEIGHT	TYPICAL FIXTURE SPACING
15 ft	15–20 ft
20 ft	20–25 ft
25 ft	25–32 ft
30 ft and above	30–40 ft

OPTICAL DISTRIBUTIONS





OPTICAL TYPE	DISTRIBUTION	TYPICAL APPLICATION
Wide Distribution	120° lens optic	Open industrial spaces and gymnasiums
Reflector Distribution	90° aluminum reflector	Higher mounting heights and controlled lighting zones

OPTICAL DESIGN

120° lens optics provide broad-area illumination suitable for open industrial environments and indoor sports facilities.

Optional 90° aluminum reflector optics utilize a nano-coated reflective surface to concentrate light distribution for higher mounting heights and controlled applications.

Optical selection shall be based on mounting height, spacing, and application requirements.

ELECTRICAL & MECHANICAL SPECIFICATIONS

LUMEN OUTPUT

MODEL	WATTS	LUMEN OUTPUT
TITANBAY-100	100 W	15,000 lm
TITANBAY-150	150 W	22,500 lm
TITANBAY-200	200 W	30,000 lm

TYPICAL SYSTEM EFFICACY

140–150 lm/W

Depending on wattage, CCT, and driver configuration.

AVAILABLE CCT OPTIONS

4000K | 5000K

INPUT CURRENT (AMPERAGE)

VOLTAGE	100W	150W	200W
120V	0.83 A	1.25 A	1.67 A
208V	0.48 A	0.72 A	0.96 A
240V	0.42 A	0.63 A	0.83 A
277V	0.36 A	0.54 A	0.72 A
480V	0.21 A	0.31 A	0.42 A

Input current values are nominal. Final branch circuit sizing shall be verified in accordance with NEC and project requirements.

ELECTRICAL CHARACTERISTICS

ATTRIBUTE	SPECIFICATION
Input Voltage	100–277 V std. (277–480 V opt.)
Driver Type	Constant Current LED Driver
Surge Protection	10 kV std. (20 kV opt.)
Dimming	0–10 V compatible
LED Lifetime	L70 ≥ 100,000 hours
CRI	80 std. (90 opt.)

MECHANICAL CONSTRUCTION

COMPONENT	SPECIFICATION
Housing	Die-cast aluminum
Finish	Black polyester powder coating

MOUNTING OPTIONS

Hook Mount (Standard)

Integrated hook mounting point supplied with stainless steel suspension chains for ceiling suspension installations.

U-Bracket Mount (Optional)

Heavy-duty adjustable steel U-bracket mounting system for rigid mounting to structural members or mounting frames.

FIXTURE WEIGHT (LUMINAIRE ONLY)

MODEL	WEIGHT
TITANBAY-100	15.85 lbs
TITANBAY-150	16.75 lbs
TITANBAY-200	17.12 lbs

Fixture weight varies by wattage and internal configuration. Final values shall be confirmed in project-specific submittals.

NOTES

Fixture dimensions remain consistent across wattage models due to the shared die-cast housing platform. Weight variation reflects driver configuration and internal electrical components.

ENVIRONMENTAL RATINGS

COMPONENT	SPECIFICATION
Operating Temp	-40°F to +122°F
Ingress Protection	IP20 std. (IP65 opt.)
Warranty	5-years

SYSTEM CONTROLS

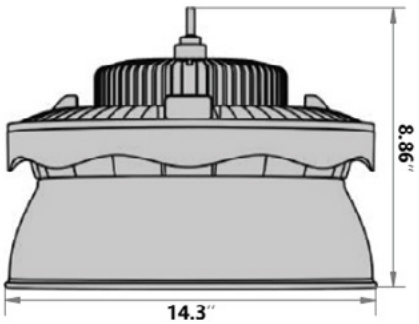
TitanBay luminaires support integration with building lighting control systems.

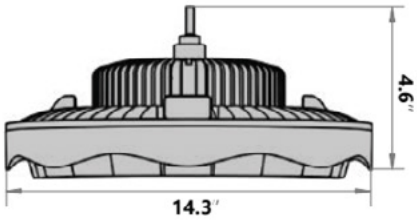
Supported devices include:
- Occupancy sensors
- Wireless lighting controls
- Building management systems

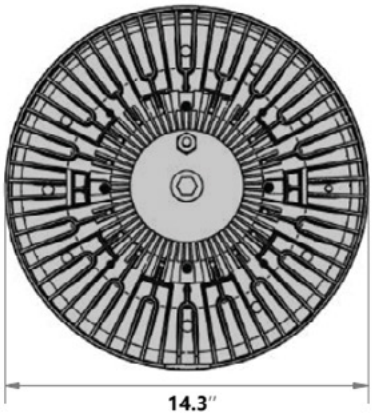
Control features may include:
- On/off control
- Scheduled operation
- Dimming (0-10 V)
- Energy monitoring

Control configuration is determined by project requirements.

DIMENSIONAL DATA







ORDERING INFORMATION & SUBMITTAL SCHEDULE

MODEL SELECTION BUILDER

MODEL	WATTS	CCT	CRI	OPTIC	VOLTAGE	MOUNT	OPTIONS
TITANBAY	100 150 200	40K **50K**	**80** 90	A B	**STD** HV	**HK** UB	MS SC

Bold values indicate standard configuration.

CATALOG NUMBER EXAMPLE TITANBAY-150-50K-A-80-STD-HK-MS

CONFIGURATION CODES

CCT

40K = 4000K
50K = 5000K

MOUNT

HK = HOOK MOUNT
UB = U-BRACKET

OPTICS

A = 120° (WIDE)
B = 90° (REFLECTOR)

OPTIONS

MS = MOTION SENSOR
SC = SMART CONTROL INTERFACE

VOLTAGE

STD = 100-277V
HV = 277-480V

FIXTURE SCHEDULE

TYPE	CATALOG NUMBER	QTY

Final configuration shall be verified against project-specific electrical and photometric requirements.

DUVON LIGHTING LLC

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