

# TITANBAY™ SERIES

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

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



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

# 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                         |

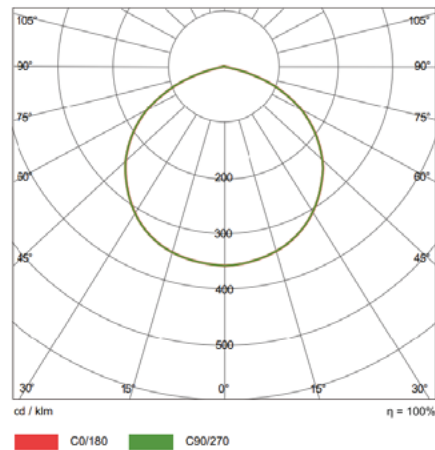
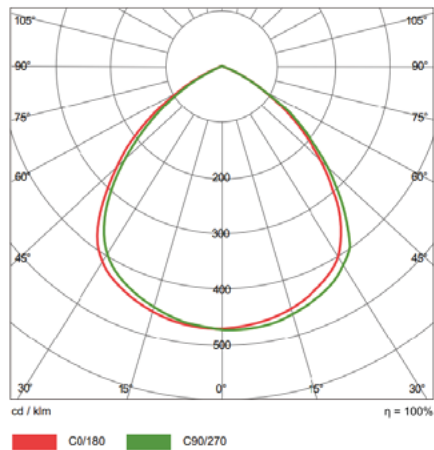
Typical lighting designs target uniformity ratios appropriate for the application. Final illumination levels and uniformity shall be verified through project-specific photometric calculations.

## 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:

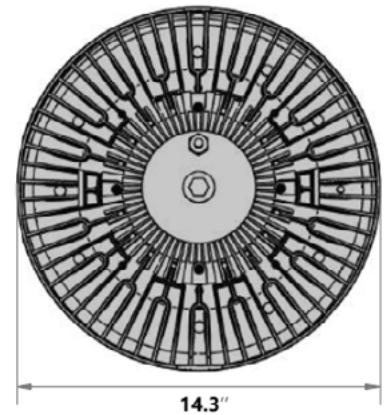
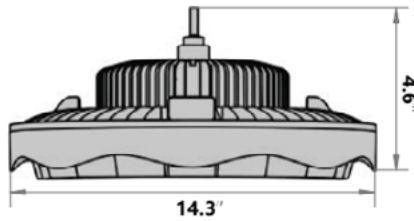
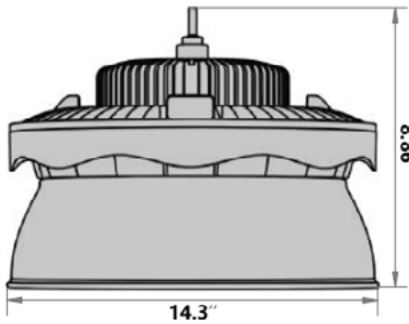
- Occupancy sensors
- Wireless lighting controls
- Building management systems

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   | 40K        | <b>80</b> | A     | <b>STD</b> | <b>HK</b> | MS      |
|          | 150   |            |           | B     |            |           | SC      |
|          | 200   | <b>50K</b> | 90        |       | HV         | UB        |         |

Bold values indicate standard configuration.

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

### CONFIGURATION CODES

#### CCT

40K = 4000K  
50K = 5000K

#### OPTICS

A = 120° (WIDE)  
B = 90° (REFLECTOR)

#### VOLTAGE

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

#### MOUNT

HK = HOOK MOUNT  
UB = U-BRACKET

#### OPTIONS

MS = MOTION SENSOR  
SC = SMART CONTROL  
INTERFACE

### FIXTURE SCHEDULE

| TYPE | CATALOG NUMBER | QTY |
|------|----------------|-----|
|      |                |     |
|      |                |     |
|      |                |     |
|      |                |     |
|      |                |     |

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

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TITANBAY™ SERIES  
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE