DLE 12·18·24·48
Intelligent LED High Bay Fixtures

The cornerstone of Digital Lumens’ intelligent high bay fixture portfolio, the DLE family offers unparalleled performance and reliability in a broad range of commercial, industrial, and sporting applications. With market-leading value and efficiency, DLE fixtures are high-performance alternatives for uncontrolled LED, fluorescent, and HID high bay fixtures, and are available in light output versions from 12,000 to 48,000 lumens.

All DLE high bay fixtures feature integrated occupancy and daylight sensors, rotatable light bars, and a variety of optics options to deliver high-quality light and maximum efficiency, flexibility, and control. The only LED high bay with adjustable direct/indirect lighting, DLEs are ideal in manufacturing, sporting, and other applications that require lighting uniformity and distribution across both ceilings and workspaces.

Proven to offer superior performance and efficiency in the world’s most demanding customer environments, DLEs are wirelessly networked to LightRules® lighting management software for comprehensive reporting and easy management of lighting system settings. In addition to rugged design and construction, DLE fixtures offer emergency lighting capabilities to enhance employee safety and regulatory compliance, as well as automated life-safety testing and reporting through LightRules software.

PRODUCT FAMILY FEATURES:

- 12,000, 18,000, 24,000, and 48,000 lumen output versions to provide high-quality light distribution
- Wireless connectivity with LightRules software for easy reporting and fine tuning of lighting settings anytime, anywhere
- Software-defined coordinated control and progressive dimming to maximize occupant comfort and energy savings
- Direct/indirect lighting distribution options for optimal visual comfort
- Narrow, wide, aisle, and diffuse optic options to accommodate a broad range of applications
- Integrated power metering, occupancy, and daylight sensing for maximum efficiency
- Emergency battery-backup accessory with reliable operation and automated testing for enhanced safety
<table>
<thead>
<tr>
<th><strong>SENSING &amp; CONTROL</strong></th>
<th><strong>ASSOCIATES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onboard Intelligence</strong></td>
<td><strong>DHHAS</strong> Aircraft Cable Hanging Hardware</td>
</tr>
<tr>
<td>- Built-in sensing with data logging</td>
<td><strong>DHH50</strong> DLE Hanging Hardware Standoff</td>
</tr>
<tr>
<td>- Energy and fault monitoring</td>
<td><strong>DHRM</strong> Fixed Mount Hanging Hardware (2x required for DLE-48 fixtures)</td>
</tr>
<tr>
<td>- Protective temperature monitoring and control</td>
<td><strong>DLEDK</strong> DLE Tabletop Demo Kit with Hard Case (fixture not included)</td>
</tr>
<tr>
<td>- Automatic emergency light monitoring, testing, and reporting</td>
<td><strong>DLESM</strong> PIR Sensor Mask, 10-pack</td>
</tr>
<tr>
<td><strong>Native Sensing</strong></td>
<td><strong>DDWPL</strong> DLE Direct Wiring Plug, Fixture</td>
</tr>
<tr>
<td>- Integrated PIR occupancy sensor</td>
<td><strong>BBD43UL</strong> Battery Backup (North America)</td>
</tr>
<tr>
<td>- Integrated daylight sensor</td>
<td><strong>BBD43CE</strong> Battery Backup (Europe)</td>
</tr>
<tr>
<td><strong>Wireless Networking</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ENVIRONMENTAL</strong></td>
</tr>
<tr>
<td>- IEEE 802.15.4 Wireless Mesh</td>
<td><strong>IP Rating</strong> IP52</td>
</tr>
<tr>
<td><strong>Control Capabilities</strong></td>
<td><strong>Operating Temperature</strong></td>
</tr>
<tr>
<td>- Scheduling via LightRules®</td>
<td>Fixture only: -30° to 50° C</td>
</tr>
<tr>
<td>- kWh and occupancy logging</td>
<td>Fixture with BBD43: 0° to 50° C</td>
</tr>
<tr>
<td>- Daylight harvesting</td>
<td><strong>Humidity</strong> 0-95%, non-condensing</td>
</tr>
<tr>
<td><strong>Dimming</strong></td>
<td><strong>Photobiological Safety</strong> Exempt group per IEC 62471</td>
</tr>
<tr>
<td>- 0-100%, continuous</td>
<td><strong>PERFORMANCE</strong></td>
</tr>
<tr>
<td>- PAR1789-compliant with modulation &gt; 1.25 kHz</td>
<td><strong>Unified Glare Rating</strong> 20</td>
</tr>
<tr>
<td><strong>ENVIRONMENTAL</strong></td>
<td><strong>Lumen Maintenance</strong></td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>L70 (18K): 103,000 hours</td>
</tr>
<tr>
<td>IP52*</td>
<td>L70 calculated: 121,000 hours</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>L80 calculated: 78,000 hours</td>
</tr>
<tr>
<td>Fixture only: -30° to 50° C</td>
<td>L90 calculated: 41,000 hours</td>
</tr>
<tr>
<td>Fixture with BBD43: 0° to 50° C</td>
<td><strong>Power Factor</strong> 0.9 min</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td><strong>Surge Protection</strong></td>
</tr>
<tr>
<td>0-95%, non-condensing</td>
<td>Per IEC 61547</td>
</tr>
<tr>
<td><strong>Photobiological Safety</strong></td>
<td>1 kV line-line / 2 kV line-earth</td>
</tr>
<tr>
<td>Exempt group per IEC 62471</td>
<td><strong>Wiring</strong></td>
</tr>
<tr>
<td><strong>PHYSICAL</strong></td>
<td>WAGO Winsta® modular socket;</td>
</tr>
<tr>
<td><strong>Mounting Options</strong></td>
<td>Direct wiring with 0.5 in (1.3 cm)</td>
</tr>
<tr>
<td>Aircraft Cable or Fixed Mount</td>
<td>trade-size knockout*</td>
</tr>
<tr>
<td><strong>Fixture Frame &amp; Power Enclosure</strong></td>
<td><strong>Optic Material</strong></td>
</tr>
<tr>
<td>- PC/ABS polymer &amp; anodized aluminum</td>
<td>Optical grade PMMA</td>
</tr>
<tr>
<td>- Zinc-plated steel</td>
<td>Optical grade PC option (diffuse optic)</td>
</tr>
<tr>
<td><strong>Optic Options</strong></td>
<td><strong>OPTIC OPTIONS</strong></td>
</tr>
<tr>
<td>Narrow, Wide, Aisle, or Diffuse</td>
<td><strong>WARRANTY</strong></td>
</tr>
<tr>
<td><strong>WARRANTY</strong></td>
<td><strong>Fixture Warranty</strong> 10-Year Limited</td>
</tr>
<tr>
<td><strong>BBD43 Warranty</strong></td>
<td><strong>BBD43 Warranty</strong> 5-Year Limited</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

**POWER CORDS**

**North America:**

*Without plugs:*

- **DWUL1** 10 ft whip, 300 V rated cable (UL, cUL)
- **DWUL2** 20 ft whip, 300 V rated cable (UL, cUL)
- **DWUH1** 10 ft whip, 600 V rated cable (UL, cUL)
- **DWUH2** 20 ft whip, 600 V rated cable (UL, cUL)
- **DWNM1** 10 ft whip, 300 V rated cable (UL-NOM)
- **DWNM2** 20 ft whip, 300 V rated cable (UL-NOM)

*With plugs:*

- **DCUL10** 0 ft whip (UL)
- **DCUL20** 0 ft whip (UL)
- **DCU10** 10 ft whip (UL-NOM)
- **DCU20** 20 ft whip (UL-NOM)

**Europe/International:**

*Without plugs:*

- **DWCE1** 3 m whip (CE rated)
- **DWCE2** 6 m whip (CE rated)

*With plugs:*

- **DCCE320** 3 m (Schneider Electric Canalis KBC16DCF21 (CE); 220-240 V)
- **DCCE620** 6 m (Schneider Electric Canalis KBC16DCF21 (CE); 220-240 V)
**FIXTURE SPECIFICATIONS**

### DLE-12-ST/HV

- **PERFORMANCE**
  - Color Temperature: 5,000 Kelvin CCT, 4,000 Kelvin CCT
  - Lumen Output (Nominal): 14,650 lm, 12,590 lm
  - Power Consumption (Nominal): 121 W, 119 W
  - Efficacy: 120 lm/W, 90 lm/W
  - CRI: 70 min, 72 typ
  - Input Ratings: Standard Voltage (ST): 120-277 V AC, 50/60 Hz, High Voltage (HV): 347-480 V AC, 50/60 Hz

- **PHYSICAL**
  - Dimensions (H x W x D): Fixture only: 8.9 x 34.3 x 55.9 cm, Fixture with BBD43: 8.9 x 34.3 x 59.5 cm
  - Weight: Fixture only: 4.3 kg, Fixture with BBD43: 5.2 kg

- **CERTIFICATION**
  - DLE-12 Certifications: UL, cUL, UL-NOM, CE, FCC Part 15 Class B, CISPR 15, DLC Premium; (Standard Voltage only:) PSE, VDE-ENEC, C-Tick, ST COA, CCC, TISI, SII

### Additional Fixture Options:
- BBD43 compatibility

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### DLE-18-ST/HV

- **PERFORMANCE**
  - Color Temperature: 5,000 Kelvin CCT, 4,000 Kelvin CCT
  - Lumen Output (Nominal): 21,680 lm, 18,650 lm
  - Power Consumption (Nominal): 181 W, 178 W
  - Efficacy: 119 lm/W, 90 lm/W
  - CRI: 70 min, 72 typ
  - Input Ratings: Standard Voltage (ST): 120-277 V AC, 50/60 Hz, High Voltage (HV): 347-480 V AC, 50/60 Hz

- **PHYSICAL**
  - Dimensions (H x W x D): Fixture only: 8.9 x 47.0 x 55.9 cm, Fixture with BBD43: 8.9 x 47.0 x 59.5 cm
  - Weight: Fixture only: 5.4 kg, Fixture with BBD43: 6.3 kg

- **CERTIFICATION**
  - DLE-18 Certifications: UL, cUL, UL-NOM, CE, FCC Part 15 Class B, CISPR 15, DLC Premium; (Standard Voltage only:) PSE, VDE-ENEC, C-Tick, ST COA, CCC, TISI, SII

### Additional Fixture Options:
- BBD43 compatibility
### FIXTURE SPECIFICATIONS

#### DLE-24-ST/HV

**Color Temperature**
- 5,000 K CCT
- 4,000 K CCT

**Lumen Output (Nominal)**
- 28,781 lm
- 24,630 lm

**Power Consumption (Nominal)**
- 241 W
- 232 W

**Efficacy**
- 119 lm/W
- 90 lm/W

**CRI**
- 70 min, 72 typ
- 80 min, 82 typ

**Input Ratings**
- **Standard Voltage (ST):** 120-277 V AC, 50/60 Hz
- **High Voltage (HV):** 347-480 V AC, 50/60 Hz

#### PERFORMANCE

#### PHYSICAL

**Dimensions (H x W x D)**
- **Fixture only:** 8.9 x 53.8 x 55.9 cm
- **Fixture with BBD43:** 8.9 x 53.8 x 59.5 cm

**Weight**
- **Fixture only:** 6.6 kg
- **Fixture with BBD43:** 7.5 kg

#### CERTIFICATION

**DLE-24 Certifications**
- UL, cUL, UL-NOM, CE, FCC Part 15 Class B, CISPR 15, DLC Premium; (Standard Voltage only): PSE, VDE-ENEC, C-Tick, ST COA, CCC, TISI, SII

#### DLE-48-ST/HV

**Color Temperature**
- 5,000 Kelvin CCT

**Lumen Output (Nominal)**
- 58,200 lm

**Power Consumption (Nominal)**
- 489 W

**Efficacy**
- 119 lm/W

**CRI**
- 70 min, 72 typ

**Input Ratings**
- **Standard Voltage (ST):** 120-277 V AC, 50/60 Hz
- **High Voltage (HV):** 347-480 V AC, 60 Hz

#### PERFORMANCE

#### PHYSICAL

**Dimensions (H x W x D)**
- **Fixture only:** 8.9 x 53.8 x 104.2 cm
- **Fixture with (2x) BBD43:** 8.9 x 53.8 x 112.7 cm

**Weight**
- **Fixture only:** 13.0 kg
- **Fixture with (2x) BBD43:** 14.8 kg

#### CERTIFICATION

**DLE-48 Certifications**
- UL, cUL, FCC Part 15 Class B, CISPR 15, DLC Premium; (Standard Voltage only): UL-NOM, CE, PSE, ST COA, CCC, TISI, SII

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**Additional Fixture Options:**
- Uplighting
- BBD43 compatibility

Note: (2x) BBD43 units required per DLE-48 fixture.
Polar Candela Distribution

NARROW OPTIC

10°-10°

DLE-12

20°-20°

DLE-18

20°-20°-20°

DLE-24

20°-20°-20°

DLE-48

WIDE OPTIC

0°-0°

DLE-12

0°-0°

DLE-18

0°-0°-0°

DLE-24

0°-0°-0°

DLE-48

DIFFUSE OPTIC

0°-0°

DLE-12

0°-0°

DLE-18

0°-0°-0°

DLE-24

0°-0°-0°

DLE-48

AISLE OPTIC

40°-40°

DLE-12

40°-40°

DLE-18

40°-0°-40°

DLE-24

40°-0°-40°

DLE-48

SPACING CRITERIA

<table>
<thead>
<tr>
<th>Optic Type</th>
<th>DLE-12</th>
<th>DLE-18</th>
<th>DLE-24</th>
<th>DLE-48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow</td>
<td>0.50 / 1.40</td>
<td>0.48 / 1.02</td>
<td>0.56 / 2.22</td>
<td>.52 / .80</td>
</tr>
<tr>
<td>Wide</td>
<td>1.32 / 1.32</td>
<td>1.30 / 1.32</td>
<td>1.32 / 1.30</td>
<td>1.32 / 1.32</td>
</tr>
<tr>
<td>Diffuse</td>
<td>1.24 / 1.28</td>
<td>1.24 / 1.30</td>
<td>1.24 / 1.28</td>
<td>1.24 / 1.30</td>
</tr>
<tr>
<td>Aisle</td>
<td>0.72 / 2.32</td>
<td>0.42 / 1.48</td>
<td>0.44 / 1.72</td>
<td>–</td>
</tr>
</tbody>
</table>
**DLE UPLIGHTING**
- Improve aesthetics, visual comfort, and safety by reducing glare and ceiling/floor contrast
- Independently aimable light bars rotate between 0° and 180°

**Ordering Information:**
- Available for DLE-24 and DLE-48 fixtures only.

**BATTERY BACKUP (BBD43)**

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runtime</td>
<td>(CE) 180 minutes</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0° to 50° C</td>
</tr>
<tr>
<td>Battery Type</td>
<td>NiMh</td>
</tr>
<tr>
<td>Input</td>
<td>42 V DC, 150 mA</td>
</tr>
<tr>
<td>Output</td>
<td>42 V DC, 500 mA</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP52</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>8.3 x 29.8 x 7.3 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.9 kg</td>
</tr>
<tr>
<td>BBD43 Certifications</td>
<td>UL 924 (UL, cUL, UL-NOM), CE</td>
</tr>
<tr>
<td>BBD43 Warranty</td>
<td>5-Year Limited</td>
</tr>
</tbody>
</table>

**DLE UPLIGHTING**
- Improve aesthetics, visual comfort, and safety by reducing glare and ceiling/floor contrast
- Independently aimable light bars rotate between 0° and 180°

**Ordering Information:**
- Available to order for DLE fixtures that are BBD43-compliant.
- DLE-48 fixtures require two (2x) BBD43 units per fixture.

**MAX MOUNTING HEIGHT (FOR DLE + BBD43)**

<table>
<thead>
<tr>
<th>Fixture</th>
<th>Height (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLE-12/18/24</td>
<td>17.7</td>
</tr>
<tr>
<td>DLE-48</td>
<td>23.5</td>
</tr>
</tbody>
</table>
HANGING HARDWARE

STANDARD AIRCRAFT CABLE (DHHAS)

Ordering Information:
- Available to order for DLE-12, DLE-18, DLE-24, and DLE-48 fixtures.
- One DHHAS includes five (5x) units of hanging hardware.
- One DHHSO includes 100x units of standoff hardware.

FIXED MOUNT (DHHRM)

Ordering Information:
- Available to order for DLE-12, DLE-18, DLE-24, and DLE-48 fixtures.
- One DHHRM includes five (5x) units of hanging hardware.
- DLE-48 requires two (2x) fixed mount hardware per fixture.

DLE + Fixed Mount Hardware

Dimensions:

DLE-12/18/24 22.3 cm

DLE-48
## DLE Fixture Ordering Information

The tables below provide guidelines for encoding item numbers when ordering DLE fixtures. Select a fixture type (lumen output), voltage, optic, and CRI/CCT, and then use the character codes (in bold) when ordering.

**Note:**
- CRI/CCT codes ending in 1 or 2 indicate a fixture that is compatible with BBD43 (battery backup).
- For short/standard leadtimes, select options in **bold**.

### DLE-12 / DLE-18 Fixtures:

<table>
<thead>
<tr>
<th>Fixture Prefix</th>
<th>Voltage</th>
<th>Optic</th>
<th>CRI/CCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLE-12- or DLE-18-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard Voltage</td>
<td>Narrow</td>
<td>-840 4000 K CCT</td>
</tr>
<tr>
<td></td>
<td>High Voltage</td>
<td>Wide</td>
<td>-750 5000 K CCT</td>
</tr>
<tr>
<td></td>
<td>Aisle</td>
<td></td>
<td>-841 4000 K CCT, BBD43-compatible</td>
</tr>
<tr>
<td>DLE-12- or DLE-18-</td>
<td></td>
<td>Diffuse</td>
<td>-751 5000 K CCT, BBD43-compatible</td>
</tr>
</tbody>
</table>

### DLE-24 Fixtures:

<table>
<thead>
<tr>
<th>Fixture Prefix</th>
<th>Voltage</th>
<th>Optic</th>
<th>CRI/CCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLE-24-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLE-24-</td>
<td>Standard Voltage</td>
<td>Narrow</td>
<td>-840 4000 K CCT</td>
</tr>
<tr>
<td>DLE-24-</td>
<td>High Voltage</td>
<td>Wide</td>
<td>-750 5000 K CCT</td>
</tr>
<tr>
<td>DLE-24-</td>
<td>Aisle</td>
<td></td>
<td>-842 4000 K CCT, BBD43-compatible, Uplight-compatible</td>
</tr>
<tr>
<td>DLE-24-</td>
<td>Diffuse</td>
<td></td>
<td>-752 5000 K CCT, BBD43-compatible, Uplight-compatible</td>
</tr>
</tbody>
</table>

### DLE-48 Fixtures:

<table>
<thead>
<tr>
<th>Fixture Prefix</th>
<th>Voltage</th>
<th>Optic</th>
<th>CRI/CCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLE-48-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLE-48-</td>
<td>Standard Voltage</td>
<td>Narrow</td>
<td>-750 5000 K CCT</td>
</tr>
<tr>
<td>DLE-48-</td>
<td>High Voltage</td>
<td>Wide</td>
<td>-752 5000 K CCT, BBD43-compatible, Uplight-compatible</td>
</tr>
<tr>
<td>DLE-48-</td>
<td>Diffuse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **Clean with mild soap and water only.**
2. **Maintain 3 m setback from walls open to exterior.**
3. Calculated in nominal application environment.
4. Projected based on TM-21 data. L70 = Time to 70% lumen maintenance. For details, refer to the Statement of Lumen Maintenance.
5. Requires DDWPL (DLE Direct Wiring Plug). Refer to the DLE Installation Instructions for more information.
6. Fixtures with Wide or Diffuse optics, as well as all DLE-48 fixtures ship without sensor masks.
7. Requires BBD43-compatible fixtures. DLE-48 requires two (2x) BBD43 units per fixture. Refer to individual product specifications for details.
8. High Voltage fixtures (HV) available in North America only.
10. Efficacy values vary with optic option. See DLC QPL for variant details.
11. Input ratings may vary for international certifications.
12. Note that Daylight Harvesting is not operable by a fixture with Diffuse optics.