

# Birch™ High Lumen LED Module (1250 lm-5000 lm)

The beautifully designed die-cast module houses powerful and advanced LED technology to provide increased durability and outstanding illumination. Works with 4", 6" & 8" Birch Commercial Frames, Remodel, Retrofits and Twist-On Trims.



## Features

- **Non-IC** for use in Non-IC applications
- Select Lumen Output (1250 lm to 5000 lm) by using manual switch on module
- Adjustable Focus Beam Angle allows for manual beam angle adjustment from 22° to 50° range with the ease of a twist
- Featured Twist-On mechanism to easily lock module to any size trim
- Encased Quick Connector for easy module installation
- ELB30R works in 4", 6", and 8" Commercial Frames, Remodel and Retrofit applications
- ELB50R works with 6" & 8" Commercial Frames, Remodel and Retrofit applications Only. Only for use with ELB610 and ELB810 trims
- 120/277V input with 0-10V dimming
- Excellent color rendering 93+ CRI
- Meets Energy Star Requirements
- ETL listed for damp location
- Life span of 50,000 hours L70

## Technical Details

**Optics:** Frosted polycarbonate module lens diffuses light evenly throughout while reducing glare with LED technology.

**Construction:** Integrated driver and light engine with Encased Quick Connect. Diecast aluminum body with heat fins allows for efficient cooling.

**Installation:** Twist-On design for tool-less trim installation, for use with Birch™ Trims. ELB30R can be used in 4", 6", and 8" Commercial Frames and Remodel/Retrofit applications with Encase Quick Connect base. ELB50R can be used in 6", and 8" Commercial Frames and Remodel/Retrofit applications with Encase Quick Connect base and only for use with ELB610 and ELB810 trims. For use in non-IC applications.

**Electrical:** Module connects to 120/277V power supply. High-efficiency driver with a power factor >0.9. Start time of less than 0.75 seconds.

**LED Technology:** Extremely accurate Color Rendering Index of 93+. Lumen Maintenance of 50,000 hours L70 Life span. Superior Thermal Management by utilizing integrated heat sink. Instant On to Full Brightness technology. No LED pixelation.

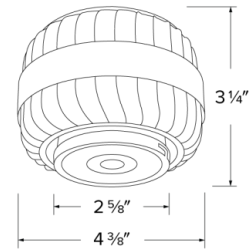
**Dimmability:** 0-10V dimmable. Dims down to 5%. For a full list of dimmers, refer to the Dimmer Compatibility List. Industry-leading dimming that dims smoothly with no hot spots or flickering.

**Listings:** ETL Listed for Damp Location.

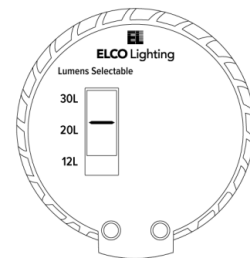
## Specifications

|                      |                             |
|----------------------|-----------------------------|
| <b>Wattage</b>       | 32W / 40W / 55W             |
| <b>Lumens</b>        | 3200 lm / 4000 lm / 5000 lm |
| <b>Voltage</b>       | 120/277V                    |
| <b>Color Temp.</b>   | 4000K                       |
| <b>Dimmable</b>      | 0-10V                       |
| <b>Lamp Type</b>     | LED                         |
| <b>Beam Angle</b>    | 22° to 50°                  |
| <b>CRI</b>           | 93+                         |
| <b>Damp Location</b> | Listed                      |

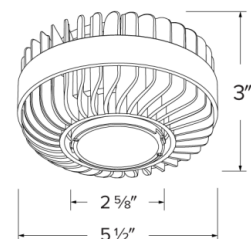
## ELB30 - Dimensions



## ELB30 Lumen Select

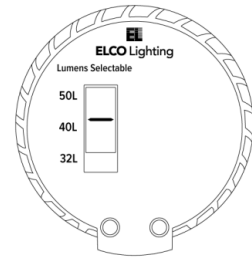


## ELB50 - Dimensions



**Warranty:** ELCO Products are built to last with a 5-year Limited Warranty.

## ELB50 Lumen Select



### Product Number

| Item     | Lamp type | Lumens                      | CCT   | Watts          | Voltage  | Dimming | Beam Angle |
|----------|-----------|-----------------------------|-------|----------------|----------|---------|------------|
| ELB50R40 | LED       | 3200 lm / 4000 lm / 5000 lm | 4000K | 32W / 40W / 55 | 120/277V | 0-10V   | 22° to 50° |

## Product Number Builder Example: ELB30R30

Birch High Lumen LED Module

Lumens

Color Temperature

**ELB**

**30R** 1250 lm / 2000 lm / 3000  
**50R** 3200 lm / 4000 lm / 5000 <sup>1</sup>

**30** 3000K  
**35** 3500K  
**40** 4000K

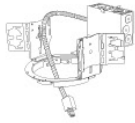
<sup>1</sup> For use with 6" & 8" Only. Only for use with ELB610 and ELB810 trims.

# Compatible Products



For use with **Birch™ LED Modules**

## 4", 6", & 8" Birch™ Architectural Frames



4" Architectural Commercial Frame  
**New Construction**



6" Architectural Commercial Frame  
**New Construction**



8" Architectural Commercial Frame  
**New Construction**

| CAT NO.    | SPECIFICATIONS               |
|------------|------------------------------|
| ELB4EH     | Frame (hanger bars required) |
| ELB4EH-EM5 | with Emergency Backup        |

| CAT NO.    | SPECIFICATIONS               |
|------------|------------------------------|
| ELB6EH     | Frame (hanger bars required) |
| ELB6EH-EM5 | with Emergency Backup        |

| CAT NO.    | SPECIFICATIONS               |
|------------|------------------------------|
| ELB8EH     | Frame (hanger bars required) |
| ELB8EH-EM5 | with Emergency Backup        |

Hanger Bars for **Birch™** Architectural Frames

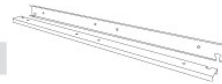
27" **Flat Hanger Bars** for Wood Construction

| CAT NO. | SPECIFICATIONS |
|---------|----------------|
| FB27    | Set of 2       |

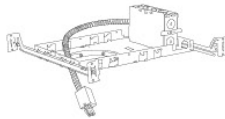


26" **C-Channel Hanger Bars** for T-Bar Ceilings

| CAT NO. | SPECIFICATIONS |
|---------|----------------|
| CH26    | Set of 2       |



## 4", 6", & 8" Birch™ Plaster Frames



4" Plaster Commercial Frame  
**New Construction**



6" Plaster Commercial Frame  
**New Construction**



8" Plaster Commercial Frame  
**New Construction**

| CAT NO.    | SPECIFICATIONS        |
|------------|-----------------------|
| ELB4PF     | Frame                 |
| ELB4PF-EM5 | with Emergency Backup |

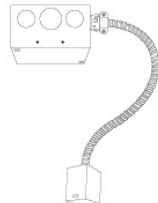
| CAT NO.    | SPECIFICATIONS        |
|------------|-----------------------|
| ELB6PF     | Frame                 |
| ELB6PF-EM5 | with Emergency Backup |

| CAT NO.    | SPECIFICATIONS        |
|------------|-----------------------|
| ELB8PF     | Frame                 |
| ELB8PF-EM5 | with Emergency Backup |

## Remodel & Retrofit Birch™ Applications

**Remodel/Retrofit**

| CAT NO.    | SPECIFICATIONS        |
|------------|-----------------------|
| ELBRMD     | Remodel               |
| ELBRMD-EM5 | with Emergency Backup |



**Retrofit**

| CAT NO. | SPECIFICATIONS |
|---------|----------------|
| ELBRT   | Retrofit       |



# Compatible Products

For use with Birch™ LED Modules

## 4", 6", & 8" Birch™ Twist-On Trims



4" Round Reflector



6" Round Reflector



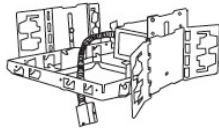
6" Round Adjustable Reflector



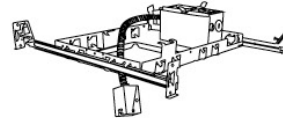
8" Round Reflector

| CAT NO.  | SPECIFICATIONS           | CAT NO.  | SPECIFICATIONS           | CAT NO. | SPECIFICATIONS   | CAT NO. | SPECIFICATIONS           |
|----------|--------------------------|----------|--------------------------|---------|--|---------|--------------------------|
| ELB410W  | All White                | ELB610W  | All White                | ELB629W | All White  | ELB810W | All White                |
| ELB410BB | All Black                | ELB610BB | All Black                | ELB629B | All Black  | ELB810H | All Haze (Semi-Specular) |
| ELB410H  | All Haze (Semi-Specular) | ELB610H  | All Haze (Semi-Specular) | ELB629H | All Haze (Semi-Specular)   |         |                          |
| ELB410HW | Haze with White Trim     | ELB610HW | Haze with White Trim     |         | <ul style="list-style-type: none"> <li>Not compatible with ELB50R Module Series</li> </ul> |         |                          |

## 4" Birch™ Square Frames • Not compatible with ELB50R Module Series



4" Square Architectural Frame  
New Construction



4" Square Plaster Frame  
New Construction

| CAT NO.       | SPECIFICATIONS      | CAT NO.       | SPECIFICATIONS   |
|---------------|---------------------|---------------|------------------|
| ELB44SQEH     | Architectural Frame | ELB44SQPF     | Plaster Frame    |
| ELB44SQEH-EM5 | Emergency Backup    | ELB44SQPF-EM5 | Emergency Backup |

## 4" Square Birch™ Twist-On Trims • Not compatible with ELB50R Module Series



4" Square Reflector Trim

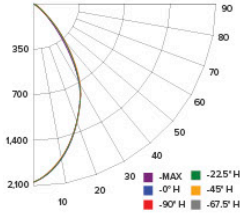
| CAT NO.  | SPECIFICATIONS       |
|----------|----------------------|
| ELB440W  | All White            |
| ELB440H  | All Haze             |
| ELB440HW | Haze with White Trim |
| ELB440BB | All Black            |

# Photometric Report

## Birch™ High Lumen LED Module

### PHOTOMETRIC REPORT

Product #: ELB30R30 (1250 lm, 3000K)  
 Wattage / Lumens: 13.6W / 1463.3 lm  
 Luminaire LPW: 107.5 lm/W



### CANDLE POWER SUMMARY

| Degress Vertical | 0°   |
|------------------|------|
| 0                | 2063 |
| 5                | 1957 |
| 15               | 1438 |
| 25               | 826  |
| 35               | 387  |
| 45               | 163  |
| 55               | 59   |
| 65               | 25   |
| 75               | 11   |
| 85               | 3    |
| 90               | 0    |

### ILLUMINANCE AT A DISTANCE

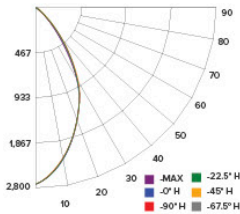
| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 4'                       | 178.2                   | 3.1'          |
| 6'                       | 62.7                    | 4.7'          |
| 8'                       | 32.2                    | 6.4'          |
| 10'                      | 21.6                    | 7.9'          |

### ZONAL LUMEN SUMMARY

| Zone  | Lumens  | %Luminaire |
|-------|---------|------------|
| 0-30° | 963.3   | 65.8       |
| 0-40° | 1,212.8 | 82.9       |
| 0-60° | 1,401.5 | 95.8       |
| 0-90° | 1,443.4 | 98.6       |

### PHOTOMETRIC REPORT

Product #: ELB30R30 (2000 lm, 3000K)  
 Wattage / Lumens: 18.8W / 1932 lm  
 Luminaire LPW: 102.7 lm/W



### CANDLE POWER SUMMARY

| Degress Vertical | 0°   |
|------------------|------|
| 0                | 2702 |
| 5                | 2567 |
| 15               | 1891 |
| 25               | 1093 |
| 35               | 513  |
| 45               | 217  |
| 55               | 79   |
| 65               | 34   |
| 75               | 15   |
| 85               | 3    |
| 90               | 0    |

### ILLUMINANCE AT A DISTANCE

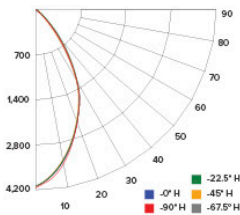
| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 4'                       | 233.6                   | 3.2'          |
| 6'                       | 82.2                    | 4.7'          |
| 8'                       | 42.2                    | 6.4'          |
| 10'                      | 28.4                    | 8.0'          |

### ZONAL LUMEN SUMMARY

| Zone  | Lumens  | %Luminaire |
|-------|---------|------------|
| 0-30° | 1,268.3 | 65.7       |
| 0-40° | 1,599.2 | 82.8       |
| 0-60° | 1,850.1 | 95.8       |
| 0-90° | 1,905.4 | 98.6       |

### PHOTOMETRIC REPORT

Product #: ELB30R30 (3000 lm, 3000K)  
 Wattage / Lumens: 32.6W / 2946.5 lm  
 Luminaire LPW: 90.3 lm/W



### CANDLE POWER SUMMARY

| Degress Vertical | 0°   |
|------------------|------|
| 0                | 4067 |
| 5                | 3872 |
| 15               | 2870 |
| 25               | 1660 |
| 35               | 789  |
| 45               | 334  |
| 55               | 122  |
| 65               | 52   |
| 75               | 23   |
| 85               | 5    |
| 90               | 0    |

### ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 4'                       | 351.5                   | 3.2'          |
| 6'                       | 123.9                   | 4.8'          |
| 8'                       | 63.6                    | 6.4'          |
| 10'                      | 42.7                    | 8.0'          |

### ZONAL LUMEN SUMMARY

| Zone  | Lumens  | %Luminaire |
|-------|---------|------------|
| 0-30° | 1,926.7 | 65.4       |
| 0-40° | 2,434.1 | 82.6       |
| 0-60° | 2,821.0 | 95.7       |
| 0-90° | 2,905.7 | 98.6       |



**ELCO Lighting**

# Dimmer Compatibility Chart

## 0-10V Dimming

For Birch™ System LED Modules

### For Reference Only

Testing conducted by ELCO Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification. Refer to manufacturer specifications for more detailed information on product certifications and standards. Consult the dimmer manufacturer prior to installation to ensure compatibility.

| Manufacturer | Product  | Part Number       | Dimmed Light Output Range |
|--------------|--|-------------------|---------------------------|
| Lithonia     | Slide Dimmer, 0-10V DC, 1500W for LED and CFL Lighting, Single Pole, 3-Way Wiring, Allows on/off switching without disturbing light level, Fits Standard Single or Multi-gang switch boxes       | ISD BC 120/277 WH | 5% - 100%                 |
| Cooper       | Slide Dimmer, 0-10V, 120/277VAC 60Hz, 1200/1600W for LED and CFL Lighting, Single Pole, 3-Way Operation, Commercial/Residential Application, Title 24 Compliant                                  | SF10P-W           | 5% - 100%                 |
| Lutron       | Diva Dimmer, 0-10V, 120 to 277VAC 50/60Hz, 8 Amp, 2216W for LED and CFL Lighting, Single Pole, 3-Way Operation, Commercial/Residential, Indoor Application                                       | DVSTV-WH          | 5% - 100%                 |
| Leviton      | IllumaTech Mark 7 Dimmer, 0-10V, 120/277VAC 60Hz, 1200/1500W for LED and CFL Lighting, Electro Mechanical Preset On/Off Switch, Single Pole, 3-Way Operation, Commercial/Residential Application | IP710-DLZ         | 5% - 100%                 |

**\*NOTE: Refer to dimmer manufacturer’s documentation for installation instructions and circuit details**

Disclaimer: Minimum and maximum loads for LEDs and CFLs are given in number of lamps and may vary depending on the lamp being used. Testing conducted by ELCO Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification. Refer to manufacturer specifications for more detailed information on product certifications and standards.

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