

# The Merritt Series

BLRT-M - Architectural Recessed Metric Troffer

Project

Date

Part

Type



## About The Merritt Series

This family of BLRT products is designed as a recessed lay-in fixture for use in T-bar ceilings. It is well suited for office spaces, schools, and hospitals, and is available with an RGBW/RGBWW full-spectrum color and tunable-white engine for dynamic architectural and medical lighting. This luminaire is also available in all common imperial size formats (1x4', 2x2', 2x4') and has a wide variety of options including passive and active air handling.

## Specifications

Supported Voltage	120-277V, 347V, 120-347V
Available Sizes	600x600mm, 750x750mm, 500x1500mm, 300x1200mm, 600x1200mm
Lifetime	L70 of 150,000+ hours, L90 of 45,000+ hours
Operating Temperature	-20°C/+25°C (-40°/+40°C upgrade)
Lumens	2L (2000lm) to 10L (10000lm)
CCT	2700K, 3000K, 3500K, 4000K, 5000K, 6500K
CRI	80+ standard, 90+ and 95+ available
Dimming	0-10V Standard
Mounting	Holes provided for chain or hanger, and wire mounting support for T-Bar ceilings
Room-Side Serviceability	Standard on all models
RGBW / RGBWW	Full-spectrum color and tunable white

## Approvals

- DLC Listed
- ETL Listed
- Made with UL Listed components
- Designed and Manufactured in Canada


## Warranty

- | 5 Year Comprehensive, 10 Year LED



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Architectural Lighting by 

## Documentation and Resources

All files and resources are available on our website for download. Files and resources are also embedded as links in this document, listed below. Additional files may be available upon request.






Please contact your local sales agent [here](#) or contact [sales@bjtake.com](mailto:sales@bjtake.com) for more information.

 [BLRT-M - Installation Instructions](#)

 [BLRT-M - Photometry.zip](#)

## Certifications and Listings

Certifications that apply to this fixture and its possible configurations are listed here. More information available upon request.

Icon	Description
	ETL Listed
	DLC Listed
	Wireless Controls Available
	90 and 95+ CRI Options Available
	120-347V(UN3) Available

## Usage Applications

This fixture can be used in a variety of applications, and is ideal for the following:

Usage Application
Hospitals
Offices
Schools

## Warranty Statement

BJ Take products are tested and/or inspected prior to being packaged for shipment and are guaranteed from the day the product is shipped for a period of ten-year LED chip warranty and a five-year comprehensive component warranty. This can be upgraded to a ten-year comprehensive warranty on request.

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## Wattage Information

Below are the wattage tables for all metric size formats of the BLRT-M.

### BLRT-M 500x1500 Wattage

Size	Lumen Output	Actual Lumen Output	Wattage
2x4	3.0	3254	21.7
2x4	3.5	3780	25.3
2x4	4.0	4300	29.0
2x4	4.5	4812	32.7
2x4	5.0	5316	36.3
2x4	6.0	6304	43.7
2x4	7.0	7263	51.0
2x4	8.0	8192	58.4
2x4	9.0	9093	65.7
2x4	10.0	9966	73.0

### BLRT-M 600x1200 Wattage

Size	Lumen Output	Actual Lumen Output	Wattage
2x4	3.0	3254	21.7
2x4	3.5	3780	25.3
2x4	4.0	4300	29.0
2x4	4.5	4812	32.7
2x4	5.0	5316	36.3
2x4	6.0	6304	43.7
2x4	7.0	7263	51.0
2x4	8.0	8192	58.4
2x4	9.0	9093	65.7
2x4	10.0	9966	73.0

### BLRT-M 300x1200 Wattage

Size	Lumen Output	Actual Lumen Output	Wattage
1x4	2.0	2009	14.8
1x4	2.5	2508	18.4
1x4	3.0	3005	22.1
1x4	3.5	3500	25.8
1x4	4.0	3994	29.5
1x4	4.5	4486	33.2
1x4	5.0	4977	36.8

### BLRT-M 500x500 / 600x600 Wattage

Size	Lumen Output	Actual Lumen Output	Wattage
2x2	2.0	1989	14.8
2x2	2.5	2483	18.4
2x2	3.0	2975	22.1
2x2	3.5	3465	25.8
2x2	4.0	3954	29.5
2x2	4.5	4441	33.2
2x2	5.0	4927	36.8

### BLRT-M 750x750 Wattage

Size	Lumen Output	Actual Lumen Output	Wattage
2x2	2.0	1989	14.8
2x2	2.5	2483	18.4
2x2	3.0	2975	22.1
2x2	3.5	3465	25.8
2x2	4.0	3954	29.5
2x2	4.5	4441	33.2
2x2	5.0	4927	36.8

### BLRT-M Light Loss Factor (LLF)

CCT	Output%
2700K	92.95
3000K	95.51
3500K	96.80
4000K	100.00
5000K	101.28
90CRI	84.72

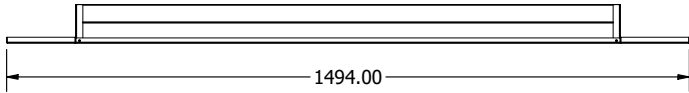
\* Actual lumen output may vary

# The Merritt Series

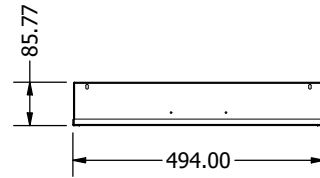
BLRT-M - Architectural Recessed Metric Troffer

Architectural Lighting by **BJTAKE**  
LIGHTING

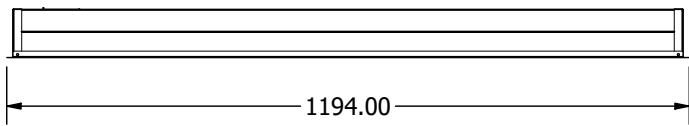
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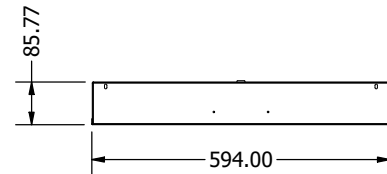
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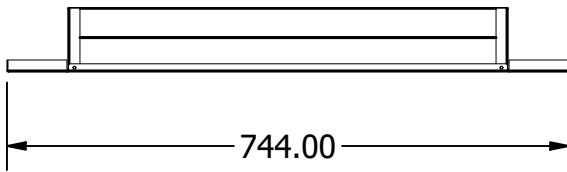
BLRT-M 600x1200mm



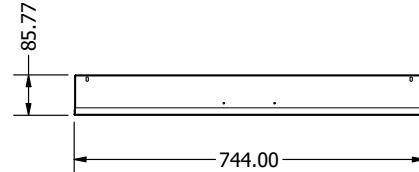
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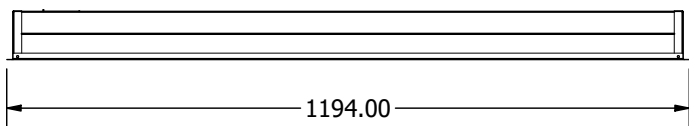
BLRT-M 750x750mm



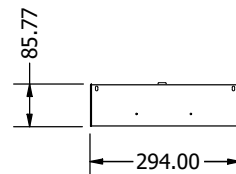
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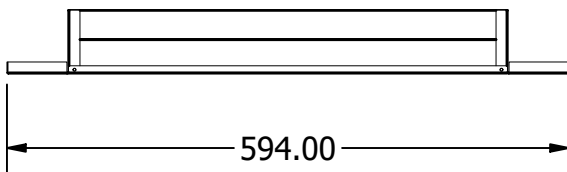
BLRT-M 300x1200mm



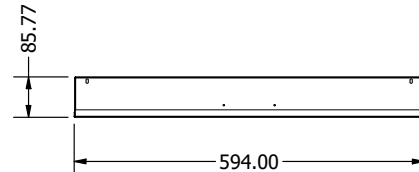
End Dimensions



BLRT-M 600x600mm



End Dimensions



\* Drawings not to scale

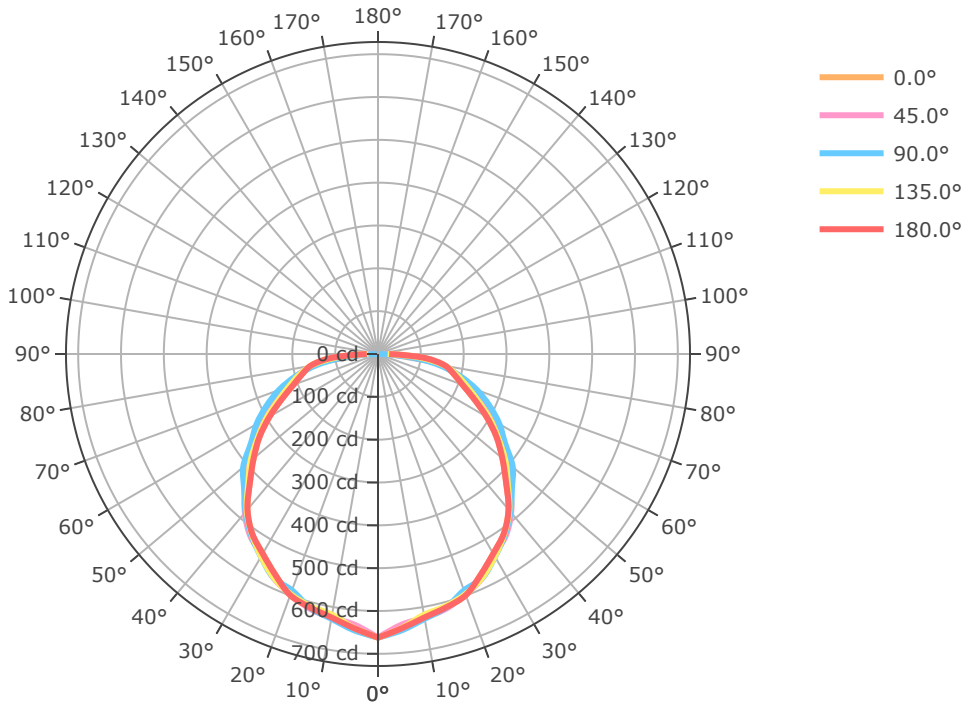
\* Standard tolerances apply

\* Specifications may change without notice

# The Merritt Series

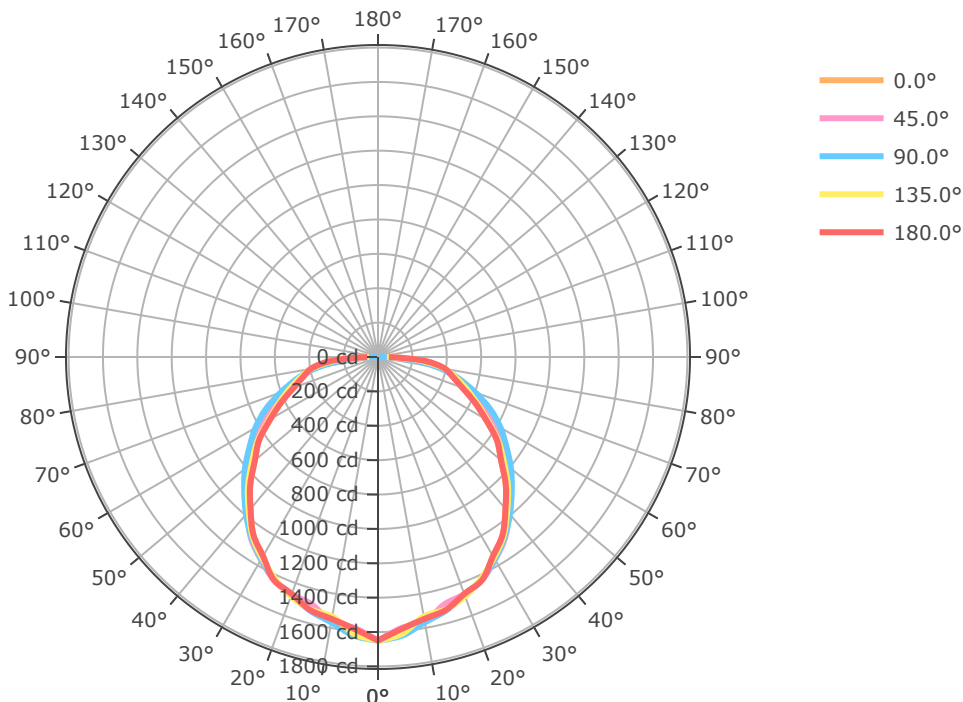
BLRT-M - Architectural Recessed Metric Troffer

BLRT-M-300X1200-2L-840



Mtg Height	Light Level	Beam Diameter
6.0 ft	18.4 fc	17.6 ft
8.0 ft	10.3 fc	23.5 ft
10.0 ft	6.6 fc	29.4 ft
12.0 ft	4.6 fc	35.2 ft
14.0 ft	3.4 fc	41.1 ft
16.0 ft	2.6 fc	47.0 ft
24.0 ft	1.1 fc	70.5 ft
32.0 ft	0.6 fc	94.0 ft
40.0 ft	0.4 fc	117.5 ft
48.0 ft	0.3 fc	141.0 ft
56.0 ft	0.2 fc	164.5 ft
64.0 ft	0.2 fc	188.0 ft

BLRT-M-300X1200-5L-840

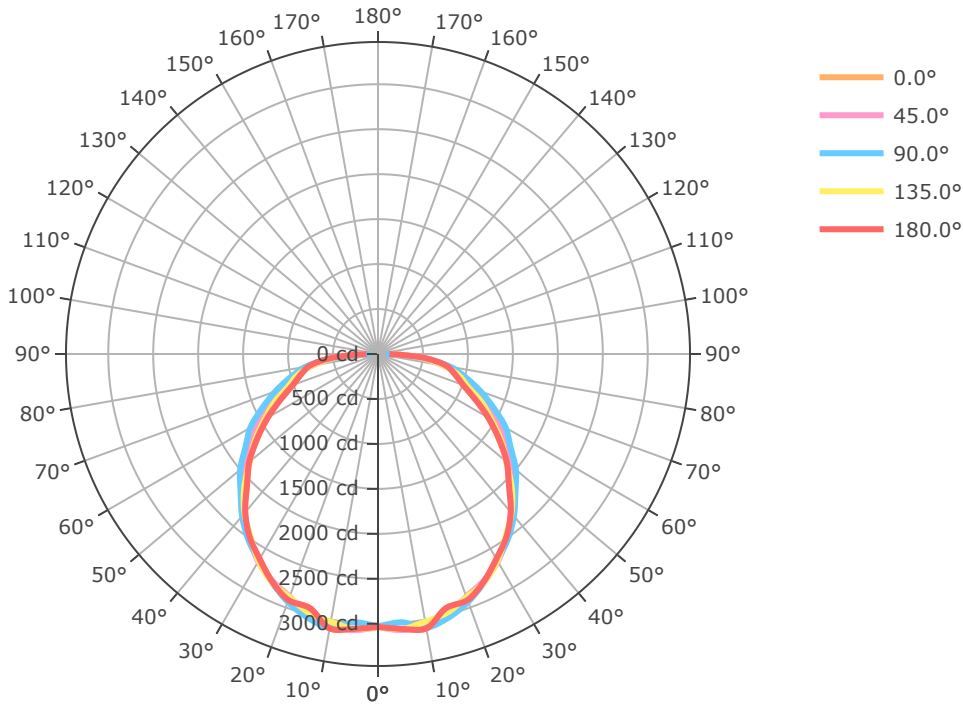


Mtg Height	Light Level	Beam Diameter
6.0 ft	45.8 fc	17.7 ft
8.0 ft	25.8 fc	23.6 ft
10.0 ft	16.5 fc	29.4 ft
12.0 ft	11.5 fc	35.3 ft
14.0 ft	8.4 fc	41.2 ft
16.0 ft	6.4 fc	47.1 ft
24.0 ft	2.9 fc	70.7 ft
32.0 ft	1.6 fc	94.2 ft
40.0 ft	1.0 fc	117.8 ft
48.0 ft	0.7 fc	141.3 ft
56.0 ft	0.5 fc	164.9 ft
64.0 ft	0.4 fc	188.4 ft

# The Merritt Series

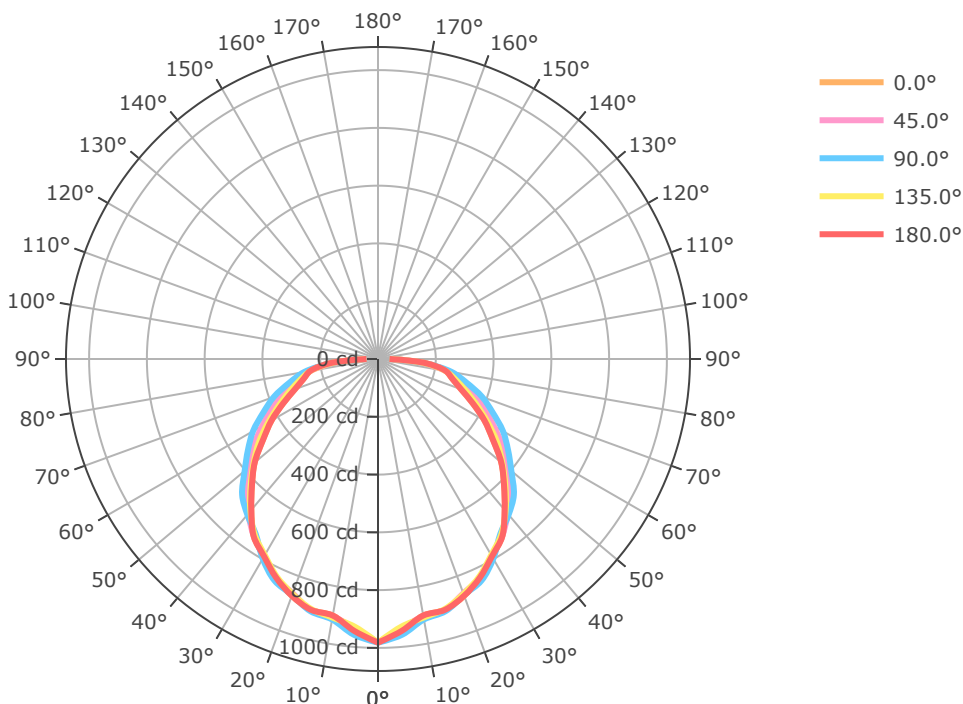
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## BLRT-M-600X1200-500X1500-10L-840



Mtg Height	Light Level	Beam Diameter
6.0 ft	84.3 fc	19.0 ft
8.0 ft	47.4 fc	25.4 ft
10.0 ft	30.3 fc	31.7 ft
12.0 ft	21.1 fc	38.0 ft
14.0 ft	15.5 fc	44.4 ft
16.0 ft	11.9 fc	50.7 ft
24.0 ft	5.3 fc	76.1 ft
32.0 ft	3.0 fc	101.4 ft
40.0 ft	1.9 fc	126.8 ft
48.0 ft	1.3 fc	152.1 ft
56.0 ft	1.0 fc	177.5 ft
64.0 ft	0.7 fc	202.8 ft

## BLRT-M-600X1200-500X1500-3L-840

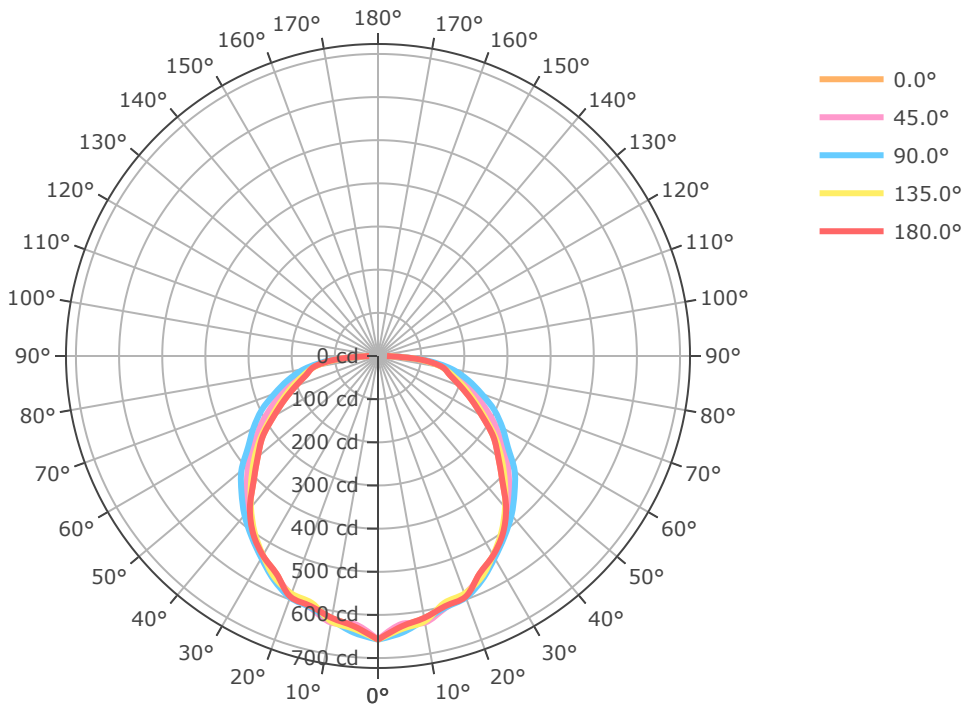


Mtg Height	Light Level	Beam Diameter
6.0 ft	27.3 fc	16.9 ft
8.0 ft	15.3 fc	22.5 ft
10.0 ft	9.8 fc	28.2 ft
12.0 ft	6.8 fc	33.8 ft
14.0 ft	5.0 fc	39.4 ft
16.0 ft	3.8 fc	45.0 ft
24.0 ft	1.7 fc	67.6 ft
32.0 ft	1.0 fc	90.1 ft
40.0 ft	0.6 fc	112.6 ft
48.0 ft	0.4 fc	135.1 ft
56.0 ft	0.3 fc	157.6 ft
64.0 ft	0.2 fc	180.2 ft

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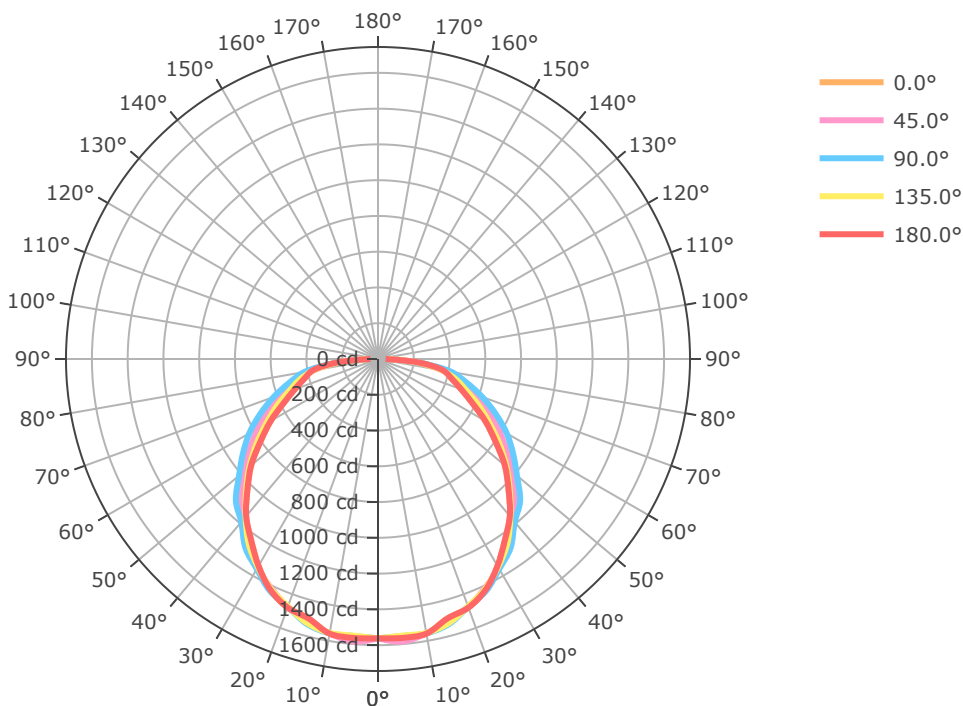
BLRT-M - Architectural Recessed Metric Troffer

BLRT-M-750X750-600X600-2L-840



Mtg Height	Light Level	Beam Diameter
6.0 ft	18.3 fc	17.0 ft
8.0 ft	10.3 fc	22.6 ft
10.0 ft	6.6 fc	28.3 ft
12.0 ft	4.6 fc	33.9 ft
14.0 ft	3.4 fc	39.6 ft
16.0 ft	2.6 fc	45.2 ft
24.0 ft	1.1 fc	67.8 ft
32.0 ft	0.6 fc	90.4 ft
40.0 ft	0.4 fc	113.1 ft
48.0 ft	0.3 fc	135.7 ft
56.0 ft	0.2 fc	158.3 ft
64.0 ft	0.2 fc	180.9 ft

BLRT-M-750X750-600X600-5L-840



Mtg Height	Light Level	Beam Diameter
6.0 ft	43.4 fc	17.8 ft
8.0 ft	24.4 fc	23.7 ft
10.0 ft	15.6 fc	29.6 ft
12.0 ft	10.8 fc	35.5 ft
14.0 ft	8.0 fc	41.4 ft
16.0 ft	6.1 fc	47.3 ft
24.0 ft	2.7 fc	71.0 ft
32.0 ft	1.5 fc	94.7 ft
40.0 ft	1.0 fc	118.4 ft
48.0 ft	0.7 fc	142.0 ft
56.0 ft	0.5 fc	165.7 ft
64.0 ft	0.4 fc	189.4 ft

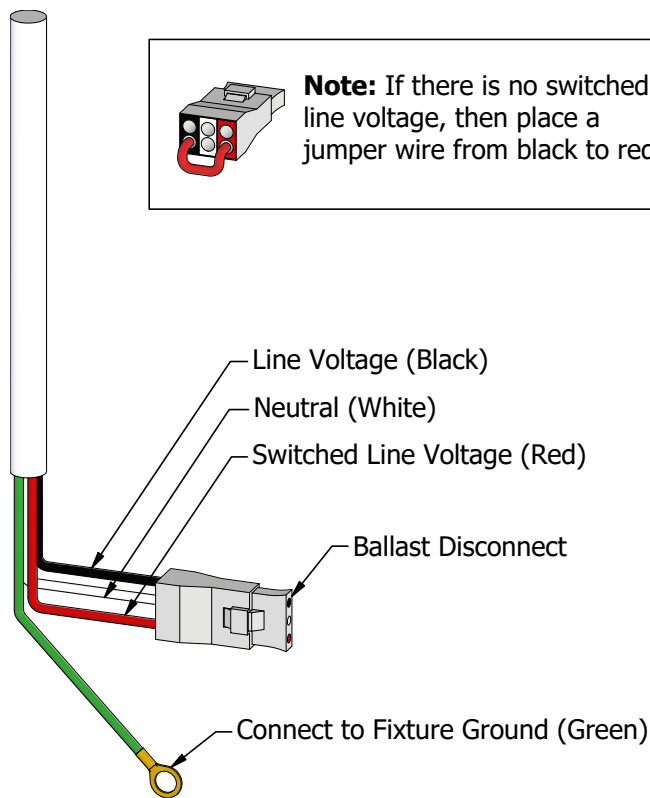
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## Emergency Battery Plan - 10W

Emergency Lighting	Solution System Components	System Operation
Option Code 'B17' - UL 924 listed components that are factory installed in the luminaire	UL 924 listed 10-watt battery integral to the luminaire	Loss of normal power is detected by the B17 emergency light solution and the power supply is switched automatically to the 10-watt integral battery pack which powers the emergency LED lighting driver.
	UL 924 listed LED emergency lighting driver integral to the luminaire	The battery pack and emergency LED driver are UL 924 certified to provide a minimum of 90-minutes of emergency lighting.
	Wiring options for both switched and unswitched emergency lighting	

## Emergency Lighting Wiring



## Important Information

More information on emergency lighting options and configurations available on request.

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Architectural Lighting by **BJTAKE** LIGHTING

THRIVE™ is an **optional** natural daylight technology replacing typical CRI order codes.



## THRIVE™ Human-Centric Lighting

Order Code	Option	Use-case
8	80 CRI	Energy-efficient, lower cost, acceptable colour rendering for general lighting applications.
9	90 CRI	More accurate, natural and vibrant colour appearance. Suitable for retail, offices, and applications where colour accuracy is of higher importance.
1	95+ CRI	Near-perfect colour fidelity, excellent for architectural, medical, retail, and other premium applications.
0	THRIVE	Human-centric lighting engineered to provide the most accurate recreation of natural daylight. Highly beneficial for healthcare, office environments, schools and other applications where all-day comfort and general well-being are top priorities.

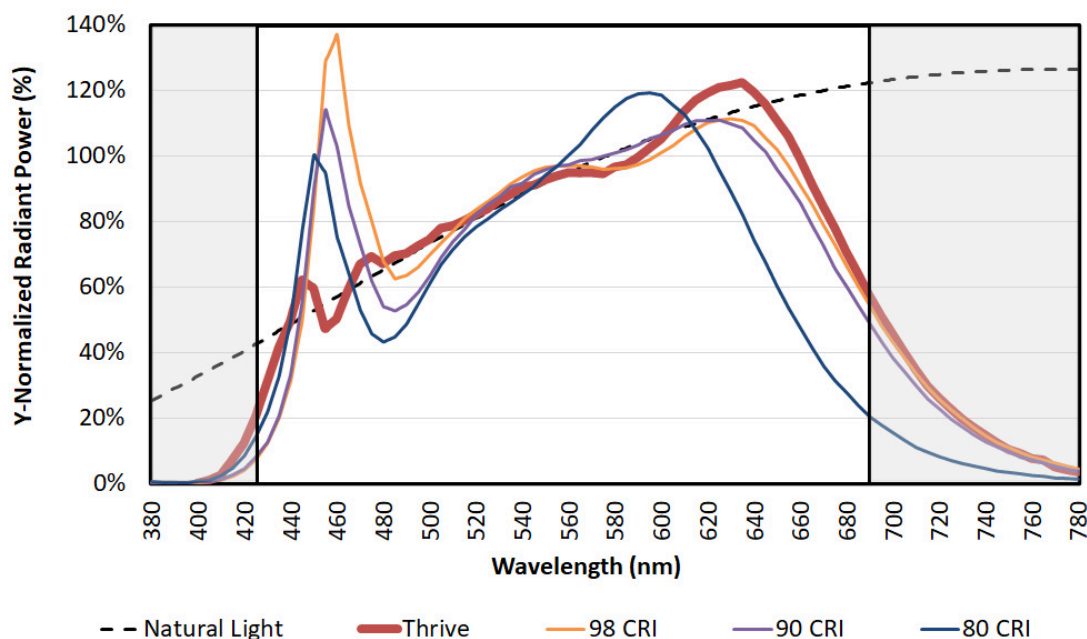
Engineered to provide the closest match to natural light available using proprietary chip, phosphor, and packaging technology, Thrive can be used in constant colour point luminaires to bring full spectrum natural light indoors, or in tunable white luminaires to incorporate circadian elements that may impact human well-being.

The high-fidelity spectral output of Thrive creates stunning environments with excellent colour rendering and outstanding TM-30 metrics. Target applications include office, education, healthcare, retail, hospitality, architectural, museums, and residential lighting.

 [Bridgelux White Paper - Average Spectral Difference.pdf](#)

The effect of the THRIVE™ spectral power distributions at a CCT of 4000K (typical for interior lighting in commercial, office, and education settings) is shown in the figure below. The reference light source at this colour temperature is firelight, represented diagrammatically as the blackbody curve (BBC) and referenced in the below figure as natural light. LEDs offering a CRI of 90 or 98 have a closer match to the blackbody curve than the 80 CRI light source. Nevertheless, across the entire visual spectrum, both light sources show a substantial deviation from the natural light BBC. This is shown in the spectral spikes (deviations above the blackbody curve) and valleys (deviations below the blackbody curve).

Spectral power distributions of LED light sources at 4000K against the blackbody curve.



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## Gallery Information

Below you will find images of relevant products and configurations for the BLRT-M.

