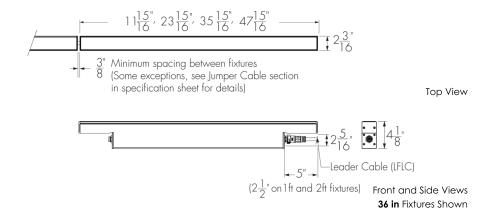
Project Name Bennett Bridge **Qty** 608

Catalog / Part Number LFM CR UL 120\_277 48 6W MRGBWP 10x90 HFR DMX/RDM VRBO





MRGBWP Configuration Shown

# Photometric Summary (22 W/ft, Opticolor+ MRGBWP)

#### **Symmetric**

	Delivered Output (lm)	Intensity (Peak cd)
10°x10°	3,821	50,958
10°x30°	3,610	18, <i>75</i> 3
10°x60°	3,634	11,521
10°x90°	3,634	7,856
30°x30°	3,566	8,433
30°x60°	3,538	4,615
30°x90°	3,213	3,275
60°x60°	3,496	2,878
90°x90°	3,417	1,978
30°x10°	3,418	16,842
60°x10°	3,511	10,648
60°x30°	3,503	5,209
90°x10°	3,115	6,252
W (120°)	2,694	950
Asymmetri	c	
NAS	3,763	22,970
WW	3,631	5,969
CAS	2,938	4,013

 $<sup>^{\</sup>mbox{\scriptsize 1}}\cdot$  Based on MRGBWP full output, white set to 3000K, 48 in.

Refer to the Lumenfacade Max Color Changing Photometric Guide on Lumenpulse website for information on other color temperatures.

#### **Description**

The Lumenfacade Max made history as the first linear fixture to feature Opticolor™, Lumenpulse's groundbreaking mixed-atsource technology. Today, it continues to lead the way with Opticolor+™, delivering even greater color precision, flexibility, and performance. Powered by Optidrive™, Lumenfacade Max ensures maximum output, maximum consistency, and the unmistakable brilliance that defines Lumenpulse innovation.

#### **Features**

Length (Nominal)	12: 12 in, 24: 24 in, 36: 36 in, 48: 48 in  MRGBA: Opticolor™ Mix-at-Source Red, Green, Blue, PC	
Colors and Color Temperature		
(Opticolor™)	Amber	
	$\mathbf{MRGB:}$ Opticolor $^{TM}$ Mix-at-Source Red, Green, Blue	
Colors and Color Temperature	MRGBWP: Opticolor+™ Mix-at-Source Red, Green, Blue Plus	
(Opticolor+™)	White Settable Range 24K to 65K	
	MRGBWP Typical Color Rendering:	
	2700K-5000K: 90+ CRI	
	2500K-6500K: 80+ CRI	
	MRGRBWP: Opticolor+™ Mix-at-Source Red, Green, Royal	
	Blue Plus White Settable Range 24K to 65K	
Vibration Rating	NVR: Buildings and Fixed Structures	
	VRN: Pole-Mounts	
	VRBO: Bridges and Overpasses	
Fixed Mounting Ontions	<b>FX:</b> Fixed Mounting (0° Pivot Limit)	

Fixed Mounting Options

**FX:** Fixed Mounting (0° Pivot Limit)

 $<sup>^{\</sup>hbox{\scriptsize 2.}}$  Photometric performance is measured in compliance with IESNA LM-79-24.

 $<sup>^{3\</sup>cdot}\ 10x10,\ 10x30,\ 10x60,\ 10x90,\ 30x30,\ 30x60,\ 30x90,\ 60x60,\ 90x90,\ 30x10,$ 60x10, 60x30, 90x10, W, NAS and CAS optics tested with CL lens. WW optic tested with HFR lens.

Opticolor, MRGBA)

COLOR CHANGING

# Résumé photométrique (22 W/ft,

Symmetric		
	Delivered Output (lm)	Intensity (Peak cd)
10°x10°	3,480	46,417
10°x30°	3,289	1 <i>7</i> ,082
10°x60°	3,310	10,494
10°x90°	3,311	7,156
30°x30°	3,248	<i>7</i> ,682
30°x60°	3,223	4,204
30°x90°	2,927	2,983
60°x60°	3,184	2,622
90°x90°	3,113	1,802
30°x10°	3,114	15,341
60°x10°	3,198	9,699
60°x30°	3,191	4,745
90°x10°	2,838	5,695
W (120°)	2,454	865
Asymmetri	c	

CA3	2,0/0	

<sup>&</sup>lt;sup>1.</sup> Based on MRGBA full output, {mm}[1218mm].  $^{2\cdot}$  Photometric performance is measured in compliance with IESNA IM-79-24.

3,428

3,307

2 676

20,923

5.437

3.656

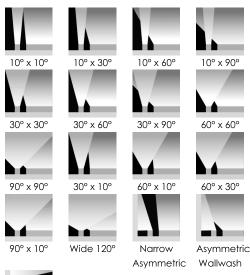
Refer to the Lumenfacade Max Color Changing Photometric Guide on Lumenpulse website for information on other color temperatures.

# Optic

NAS

ww

CAS



# **Continuously Adjustable Mounting Options**

SM: Slim Adjustable Mounting Continuously Adjustable (110° Pivot Limit)

WMC3: Wall Mounting Continuously Adjustable, 3.5 in to Optical Center (130° Pivot Limit)

WMC12: Wall Mounting Continuously Adjustable, 12 in to Optical Center (180° Pivot Limit) WMC24: Wall Mounting

Continuously Adjustable, 24 in to Optical Center (180° Pivot Limit)

WMC1: Wall Mounting Continuously Adjustable, 1.5 in to Optical Center (180° Pivot Limit)

WMC6: Wall Mounting Continuously Adjustable, 6 in to Optical Center (170°

WMC18: Wall Mounting Continuously Adjustable, 18 in to Optical Center (180° Pivot Limit)

Pivot Limit)

#### Incrementally Adjustable Mounting **Options**

WMi1: Wall Mounting Incrementally Adjustable by 6°, 1.5 in to Optical Center (180° Pivot Limit) WMi6: Wall Mounting Incrementally Adjustable by

6°, 6 in to Optical Center (170° Pivot Limit)

WMi18: Wall Mounting Incrementally Adjustable by 6°, 18 in to Optical Center (180° Pivot Limit)

WMi3: Wall Mounting Incrementally Adjustable by 6°, 3.5 in to Optical Center (130° Pivot Limit) WMi12: Wall Mounting

Incrementally Adjustable by 6°, 12 in to Optical Center (180° Pivot Limit)

WMi24: Wall Mounting Incrementally Adjustable by 6°, 24 in to Optical Center (180° Pivot Limit)

#### **Optical Accessories**

LV: Radial Louver

5-year limited warranty

LVAS: Radial Louver Asymmetric

VS: Visor SH: Shield

#### Warranty

# **Performance**

Maximum Delivered Output (Opticolor)

1.012 lm

(6 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) 1,790 lm

(10 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) 3,480 lm

(22 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.

#### Maximum Delivered Output (Opticolor+)

1.145 lm

(6 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) 1.917 lm

(10 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens,

DMX/RDM) 3.821 lm

(22 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens,

DMX/RDM1

Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.



Asymmetric

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 $<sup>^{3.}\ 10</sup>x10,\ 10x30,\ 10x60,\ 10x90,\ 30x30,\ 30x60,\ 30x90,\ 60x60,\ 90x90,\ 30x10,$ 60x10, 60x30, 90x10, W, NAS and CAS optics tested with CL lens. WW optic tested with HFR lens.

# **Color and Color Temperature**

			Roa
opticolor+	opticolor+	opticolor"	opticolor"
Opticolor+™	Opticolor+™	Opticolor™	Opticolor**
Mix-at-	Mix-at-	Mix-at-	Mix-at-
Source	Source	Source	Source
Red,	Red,	Red,	Red,
Green,	Green,	Green,	Green,
Blue Plus	Royal Blue	Blue, PC	Blue
White	Plus White	Amber	
Settable	Settable		
Range	Range		
24K to 65K	24K to 65K		

#### Control

DMX/RDM







Illuminance at Distance (Opticolor)

#### **Finish**

11111311				
Black	Bronze	Silver	Smooth	Textured
$Sandtex \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	${\tt Sandtex @}$	$Sandtex \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	White	Black
Textured	Textured	Textured	Textured	Custom
Bronze	Medium	Green	White	Color &
Non-	Gray			Finish

# Certifications



Metallic

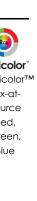












Maximum Delivered Intensity (Opticolor)	13,499 cd at nadir (6 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL Lens, DMX/RDM) 23,874 cd at nadir (10 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) 46,417 cd at nadir (22 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.
Maximum Delivered Intensity (Opticolor+)	15,271 cd (6 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) 25,575 cd (10 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens,

DMX/RDM) 50,958 cd (22 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.

Minimum 1 fc at 116 ft (6 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) Minimum 1 fc at 155 ft (10 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) Minimum 1 fc at 215 ft (22 W/ft, 48 in fixture, MRGBA, 10° x 10°, CL lens, DMX/RDM) Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.

Illuminance at Distance (Opticolor+) Minimum 1 fc at 124 ft (6 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) Minimum 1 fc at 160 ft (10 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) Minimum 1 fc at 226 ft (22 W/ft, 48 in fixture, MRGBWP, 10° x 10°, CL lens, DMX/RDM) Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.

 $L70 (15K) > 90,000 \text{ hrs Ta } 25 ^{\circ}\text{C} (TM-21 \text{ reported})$ L70 > 150,000 hrs Ta 25 °C (projected)\* L90 (15K) = 55,400 hrs Ta 25 °C (TM-21 reported) L90 = 55,400 hrs Ta 25 °C (projected)\* \*Estimated based on in-situ case temperature and LM-80 report

# **Physical**

Lumen Maintenance

Housing Material	Low copper content extruded aluminum
Lens Material	Tempered glass
Hardware Material	Stainless steel
End Cap Material	Die cast aluminum
Gasket Material	Silicone
Surface Finish	<b>XD:</b> Luminaire treated with extra-durable, multi-step finish: zirconium pretreatment completed with corrosion-resistant primer and electrostatically-applied, powder coat paint finish



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COLOR	CHANGING
COLOR	CHANGING

Weight	4.5 lbs (12 in fixture) 7.5 lbs (24 in fixture) 11.5 lbs (36 in fixture) 14.5 lbs (48 in fixture)
Electrical and Control	
Voltage	120 to 277 Volts (UL Certification) 220 to 240 volts (CE certification, Class I) 100 to 200 volts (PSE Certification)
	Note: For 208V, 220V, 240V, and 277V systems, the voltage drop must not fall below 195V.  For 200V system with PSE Cerification, the voltage drop must not fall below 160V.
Wattage	<b>6W:</b> 6 W/ft, <b>10W:</b> 10 W/ft, <b>22W:</b> 22 W/ft
Control	DMX/RDM: DMX/RDM Enabled Dimming DALIT8: DALI 2 T8 Enabled Dimming 0.1% LT: Lumentalk ETX: ExtendX <sup>TM</sup>
Inrush Current (Peak)	Meets NEMA-410 requirements (Based on voltage and control specifications, consult factory for details)
<u>Environmental</u>	
Storage Temperature	-40 °F to 185 °F
Start-up Temperature	-40 °F to 122 °F
Operating Temperature	For 6 W/ft fixtures: -40 °F to 122 °F For 10 W/ft fixtures: -40 °F to 122 °F For 22 W/ft fixtures, UL Certification: -40 °F to 122 °F For 22 W/ft fixtures, CE Certification: -40 °F to 104 °F
Ingress Protection Rating	IP66 IP67 (suitable for applications with temporary immersion in water only (no permanent immersion), proper drainage around the fixture is required). Consult factory for details
Impact Resistance Rating	IK07 (CL lens), IK07 (HFR lens), IK06 (FR lens) Consult factory for IK08 lens option
Application Wind Speed	Luminaires were designed based on AASHTO 2013 standard to ensure highest quality and safety. Installation should be validated by a local project engineer to ensure the luminaires are suitable for the wind speed and exposure of the specific application
Environment	Wet location rating
Accessories (Order Separately	/)
Cables	LFLC: Lumenfacade Leader Cable LFJC: Lumenfacade Jumper Cable LFTJ: Lumenfacade T-Junction



# **Important**

#### Virtual Patent Marking Notice

This website (https://www.lmpg.com/patents-trademarks) is provided to satisfy the virtual patent marking provisions of applicable jurisdictions. Some products listed may be covered by additional patents not referenced here.

# **Photometric Information**

# 6 W/ft (MRGBWP)

### **Symmetric**

	Delivered Output (lm)	Intensity (Peak cd)
10°x10°	1,145	15,271
10°x30°	1,082	5,620
10°x60°	1,089	3,452
10°x90°	1,089	2,354
30°x30°	1,069	2,527
30°x60°	1,060	1,383
30°x90°	963	981
60°x60°	1,048	862
90°x90°	1,024	593
30°x10°	1,024	5,047
60°x10°	1,052	3,191
60°x30°	1,050	1,561
90°x10°	934	1,874
W (120°)	807	285
Asymmetri	c	
NAS	1,128	6,884
WW	1,088	1,789
CAS	880	1,203

Based on MRGBWP full output, white set to 3000K, 48 in.

# 10 W/ft (MRGBWP)

# Symmetric

	Delivered Output (lm)	Intensity (Peak cd)
10°x10°	1,917	25,575
10°x30°	1,812	9,412
10°x60°	1,824	5,782
10°x90°	1,824	3,943
30°x30°	1,790	4,232
30°x60°	1 <i>,77</i> 6	2,316
30°x90°	1,612	1,644
60°x60°	1,754	1,444
90°x90°	1,715	993
30°x10°	1,716	8,453
60°x10°	1 <i>,7</i> 62	5,344
60°x30°	1,758	2,614
90°x10°	1,564	3,138
W (120°)	1,352	477
Asymmetri	c	

NAS	1889	11,529
WW	1822	2,996
CAS	1475	2,014

Based on MRGBWP full output, white set to 3000K,

# 22 W/ft (MRGBWP)

#### Symmetric

	Delivered Output (lm)	Intensity (Peak cd)
10°x10°	3,821	50,958
10°x30°	3,610	18, <i>75</i> 3
10°x60°	3,634	11,521
10°x90°	3,634	7,856
30°x30°	3,566	8,433
30°x60°	3,538	4,615
30°x90°	3,213	3,275
60°x60°	3,496	2,878
90°x90°	3,417	1,978
30°x10°	3,418	16,842
60°x10°	3,511	10,648
60°x30°	3,503	5,209
90°x10°	3,115	6,252
W (120°)	2,694	950
A		

#### Asymmetric

NAS	3,763	22,970
WW	3,631	5,969
CAS	2,938	4,013

Based on MRGBWP full output, white set to 3000K, 48 in.

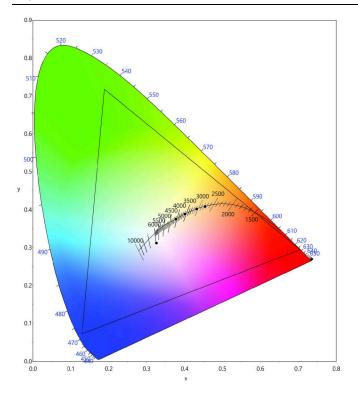
Photometric performance is measured externally in compliance with IESNA LM-79-24.

10x10, 10x30, 10x60, 10x90, 30x30, 30x60, 30x90, 60x60, 90x90, 30x10, 60x10, 60x30, 90x10, W, NAS and CAS optics tested with CL lens. WW optic tested with HFR lens.

Refer to Photometric Guide on Lumenpulse website for information on other color temperatures.

# **Color Point Information**

#### **MRGBWP**



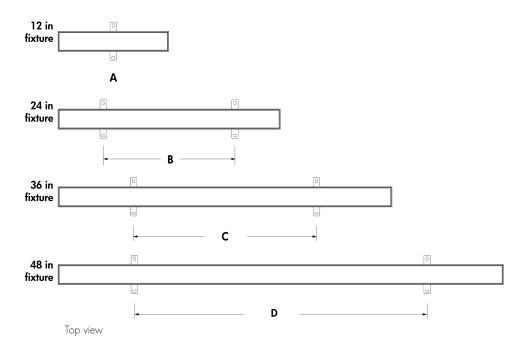
#### **Dominant Wavelength and Chromaticity**

	Dominant	Chron	naticity
	Wavelength	Cx	Су
Red	~628nm	n 0.7050 0.:	
Green	~531nm	0.1885	0.7178
Blue	~471nm	0.1298	0.0726
Amber	~591nm	0.5755	0.4126

	Cx	Су
MRGBWP Full On	0.3261	0.3121
27K Optidrive	0.4545	0.4081
30K Optidrive	0.4318	0.4017
35K Optidrive	0.4010	0.3883
40K Optidrive	0.3773	0.3747

Values measured from Steady State Full on Optidrive @ 25°C ambient conditions.

# Mounting Bracket Placement (Minimum and Maximum Distances)



- A Bracket in the center of the fixture
- **B** Minimum 14 in to maximum 17 in
- C Minimum 20 1/2 in to maximum 23 1/2 in
- **D** Minimum 30 1/2 in to maximum 33 1/2 in

FX mounting brackets shown.

The mounting bracket(s) must be centered on fixture and as symmetrical as possible. Distances must be respected for all installations.

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### **Mounting Options**

One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.

Weight of one FX Mounting Bracket: 0.11 lbs. Weight of two FX Mounting Brackets: 0.22 lbs.

For proper hardware selection, use the dimensions of the mounting option, the weight and EPA values of the mounting option, and the weight and EPA values of the fixture and accessories for your engineering calculations.

Not suitable when fixture is exposed to wind.

One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.

Weight of one SM Mounting Bracket: 0.26 lbs. Weight of two SM Mounting Brackets: 0.53 lbs.

Not suitable for pole-mounted or bridge and overpass applications.

For proper hardware selection, use the dimensions of the mounting option, the weight and EPA values of the mounting option, and the weight and EPA values of the fixture and accessories for your engineering calculations.

One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.

For proper hardware selection, use the dimensions of the mounting option, the weight and EPA values of the mounting option, and the weight and EPA values of the fixture and accessories for your engineering calculations.

One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.

For proper hardware selection, use the dimensions of the mounting option, the weight and EPA values of the mounting option, and the weight and EPA values of the fixture and accessories for your engineering calculations.

One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.

For proper hardware selection, use the dimensions of the mounting option, the weight and EPA values of the mounting option, and the weight and EPA values of the fixture and accessories for your engineering calculations.

#### **Accessories**

### **Lens and Optics Combinations Table**

Lens/Optics	10x10	10x30	10x60	10x90	30x30	30x60	30x90	60x60	90x90	30×10	60x10	60x30	90x10	w	NAS	ww	CAS
<b>CL</b> Clear Lens	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	$\otimes$	•
HFR Half-Frosted Lens	•	•	•	•	$\otimes$	•	•	$\otimes$									
<b>FR</b> Frosted Lens	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Lens option

⊗ Not available

# **Half-Frosted Lens Details**

# **Ceiling Asymmetric Optic Details**

- · Always position Lumenpulse logo on lens along the wall.
- Fixture's feeding side is based on uplight installations. Feeding sides are reversed when fixture is used in a downlight application.
- Ceiling Asymmetric optic guidelines: 18 in minimum setback, 1:5 setback/canopy depth ratio (based on CL lens).

# Narrow Asymmetric and Asymmetric Wallwash Optics Details

- Position frosted side of the lens and Lumenpulse logo along the wall.
- Fixture's feeding side is based on uplight installations. Feeding sides are reversed when fixture is used in a downlight application.
- Narrow Asymmetric optic guidelines: 12 in minimum setback, 1:10 setback ratio (based on HFR lens).
- Asymmetic Wallwash optic guidelines: 6 in minimum setback, 1:8 setback ratio (based on HFR lens).



# **EPA Guide - Fixture**

#### **Fixture**

	12 in	24 in	36 in	48 in
EPA Top (sq ft)	0.237	0.476	0.715	0.954
EPA Front (sq ft)	0.339	0.784	1.124	1.569
EPA Side (sq ft)	0.082	0.082	0.082	0.082

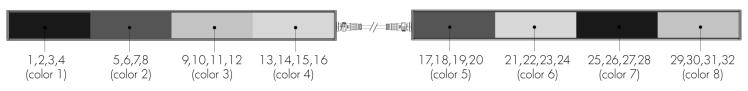
# **EPA Guide - Fixture with Accessory**

# **EPA Guide - Mounting Option**

	EPA Top/S	Side (sq ft)
FX	N/A	
SM	0.01	
WMC1 WMi1	0.05	
WMC3 WMi3	0.04	
WMC6 WMi6	0.06	
WMC12 WMi12	0.14	
WMC18 WMi18	0.21	
WMC24 WMi24	0.29	

# **Resolution Details**

# DMX/RDM Control, Resolution Per Segment: Each 12 in Segment is Addressed Independently **DMX Addresses:**



MRGBA, MRGBWP and MRGRBWP color mixing options.

#### DMX/RDM Control, Resolution Per Fixture: Each Fixture is Addressed Independently **DMX Addresses:**



MRGBA, MRGBWP and MRGRBWP color mixing options.

- 48 in fixtures shown.
- Applicable for DMX/RDM control option only. Fixture resolution can be configured on-site within the LumenID V3 software. A DMX/RDM enabled CBX is required.

# Wiring Color Code

### DALIT8 and LT Control (XC3P2D)

UL Color Code	Use
Green	Ground
Black	Line
White	Neutral
Purple	0-10V + / Data +
Orange	0-10V - / Data -

### DMX/RDM and ExtendX Controls (XC3P3D)

UL Color Code	Use
Green	Ground
Black	Line
White	Neutral
Red	Data +
Orange	Data -
Gray	Signal Common

#### Maximum Fixture Run Length Table

#### DMX/RDM Control (DMX/RDM)

### Lumenfacade Max 6W/ft

Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Length	Per Foot	128ft	128ft	128ft	128ft

# Lumenfacade Max 10W/ft

Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Length	Per Foot	1 20ft	128ft	128ft	128ft

## Lumenfacade Max 22W/ft

Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Length	Per Foot	64ft	124ft	128ft	128ft

Based on 48 in fixtures, per foot resolution, DMX/RDM control, 10 ft Leader Cable for an end-to-end run with 1 ft Jumper Cables between fixtures. Refer to Typical Wiring Diagrams for Control Protocol specific run length rules.

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#### ExtendX Control (ETX)

#### Lumenfacade Max 6W/ft

Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Length	Per Foot	184ft	424ft	464ft	512ft

#### Lumenfacade Max 10W/ft

	Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Leng		Per Foot	144ft	264ft	288ft	336ft

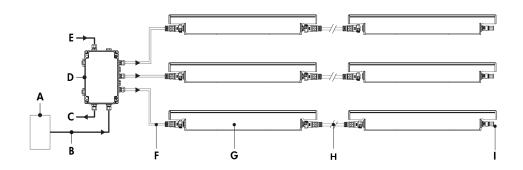
#### Lumenfacade Max 22W/ft

Voltage	Resolution	120V	220V	240V	277V
Maximum Fixture Run Length	Per Foot	68ft	124ft	136ft	156ft

Based on 48 in fixtures, per foot resolution, ETX control, 10 ft Leader Cable for an end-to-end run with 1 ft Jumper Cables between fixtures. Refer to Typical Wiring Diagrams for Control Protocol specific run length rules.

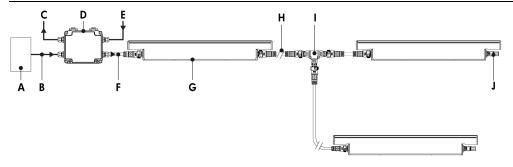
# **Typical Wiring Diagrams**

#### Star Layout (DMX/RDM)



- A Third-party DMX/RDM controller
- **B** Data input (Belden 9841 or equivalent, by others)
- **C** Data output to next CBX (optional, not isolated/not boosted)
- D CBX-ST
- **E** Power input (120 to 277V, wiring by others)
- **F** Leader Cable (LFLC XC3P3D)
- G Lumenfacade Max Continuous Run (LFM-CR)
- **H** Jumper Cable (LFJC XC3P3D)
- I DMX/RDM Terminator

#### Daisy Chain Layout (DMX/RDM)

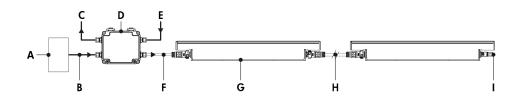


- A Third-party DMX/RDM controller
- $\boldsymbol{B}$  Data input (Belden 9841 or equivalent, by others)
- **C** Data output to next CBX (optional, not isolated/not boosted)
- D CBX-DS
- E Power input (120 to 277V, wiring by others)
- **F** Leader Cable (LFLC XC3P3D)
- G Lumenfacade Max Continuous Run (LFM-CR)
- **H** Jumper Cable (LFJC XC3P3D)
- I Lumenfacade T-Junction (LFTJ XC3P3D, optional)
- J DMX/RDM Terminator

Refer to installation instructions for additional wiring details.

- Consult CBX installation instructions for additional wiring details.
- 50 ft maximum DMX/RDM "Stub" length.
- Maximum of 1 luminaire per "Stub".
- 1 DMX universe = 128 @ 4-channel controllable segments.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 6 outputs per CBX-ST; maximum of 1 output per CBX-DS.
- Maximum of 64 DMX/RDM enabled fixtures per CBX output.
- Maximum DMX/RDM cable length of 800 ft ("Bus" and "Stubs").

#### Daisy Chain Layout (ExtendX)



- A Third-party sACN/ArtNet controller
- **B** Data input (Cat5e or better, by others)
- C Optional Ethernet connection to next CBX
- D CBX-DS-ETX
- **E** Power input (120 to 277V, wiring by others)
- **F** Leader Cable (LFLC XC3P3D)
- G Lumenfacade Max Continuous Run (LFM-CR)
- **H** Jumper Cable (LFJC XC3P3D)
- I DMX/RDM Terminator

Refer to installation instructions for additional wiring details.

Maximum of 4 outputs per CBX-ST ENET; maximum of 1 output per CBX-DS ENET.

Consult CBX installation instructions for additional wiring details.

Lumenfacade T-Junction accessory is not compatible with ExtendX Control.

#### Refer to installation instructions for additional wiring details and wiring diagram with Lumenfacade T-Junction accessory.

- 64 DALI addressable device limitation (each fixture is an addressable device).
- DALI does not allow for control by foot, only by fixture.
- Commissioning may be required based on the selection of 3rd party DALI controller. Controller and commissioning provided by others.
- Less than 1% minimum dimming value.

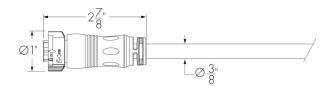
#### Refer to installation instructions for additional wiring details and wiring diagram with Lumenfacade T-Junction accessory.

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- For DMX applications: 1 DMX controller per Lumentalk network, maximum of 48 DMX channels per Lumentalk network (minimum step transition update rate is 1 second, minimum fade time between two colors is 1 minute). Consult factory for applications that require additional capabilities.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third-party fixtures allowed on the same circuit.
- Consult factory for DALI Lumentalk applications.

# Leader Cable (Order Separately)

#### LFLC - Lumenfacade Leader Cable (XC3P2D)

#### LFLC - Lumenfacade Leader Cable (XC3P3D)



UL version shown. Consult European specification sheet for CE cable details.

UL version shown. Consult European specification sheet for CE cable details.

### LFLC-TYPE-CERTIFICATION-VOLTAGE-LENGTH-CONNECTOR/CABLE TYPE-CONNECTOR SHAPE-CABLE/CONNECTOR COLOR

Please specify:

DALIT8, LT applications:

TYPE: CR/CH (Continuous Run or Continuous Horizontal); CERTIFICATION: UL or CE; VOLTAGE: 120\_277; LENGTH: 10 ft, 25 ft, 50 ft, 100 ft, 150 ft or 200 ft;

CONNECTOR/CABLE TYPE: XC3P2D (5x 16AWG X-lock size); CONNECTOR SHAPE: 180D (Straight Connector) or 90D (90° Angle Connector);

CABLE/CONNECTOR COLOR: BK (Black) or WH (White) (connectors are the same color as the specified cable color).

A waterproof sealing end cap is mandatory for any unused connector. One (1) included with every CR/CH XC3P2D Leader Cable.

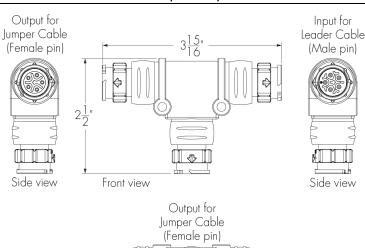
#### DMX/RDM applications:

TYPE: CR/CH (Continuous Run or Continuous Horizontal); CERTIFICATION: UL or CE; VOLTAGE: 120\_277; LENGTH: 10 ft, 25 ft, 50 ft, 100 ft, 150 ft or 200 ft; CONNECTOR/CABLE TYPE: XC3P3D (3x14AWG + 3x24AWG X-lock C-size); CONNECTOR SHAPE: 180D (Straight Connector); CABLE/CONNECTOR COLOR: BK (Black) or WH (White) (connectors are the same color as the specified cable color).

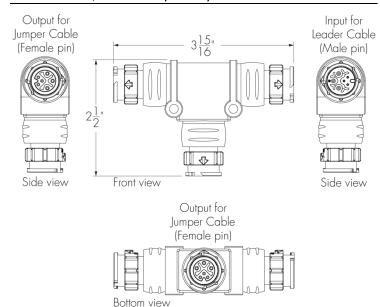
Consult Lumenfacade Leader cable specification sheet for all available cable lengths and additional information.

# T-Junction (Order Separately)

# LFTJ - Lumenfacade T-Junction (XC3P2D) Available For DALIT8 and LT Control Options Only



# LFTJ - Lumenfacade T-Junction (XC3P3D) Available for DMX/RDM Control Option Only



#### LFTJ-CONNECTOR/CABLE TYPE-CABLE/CONNECTOR COLOR

Bottom view

Please specify:

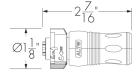
CONNECTOR/CABLE TYPE: XC3P2D (5x 16AWG X-lock size) or XC3P3D (3x 14AWG + 3x24AWG) X-lock size; CABLE/CONNECTOR COLOR: BK (Black) or WH (White).

- Suitable for dimming/data and non-dimming applications with LFM fixtures.
- Consult factory for guidelines on the use of T-Junctions in a fixture run.
- Consult Lumenfacade T-Junction specification sheet for additional information.
- The T-Junction accessory can be used to connect a feed input, with a throughput to a localized run of fixtures and an output to the rest of your installation.
- Waterproof sealing end cap is mandatory for any unused connector. One (1) included with every T-Junction accessory.
- For DMX/RDM applications, an installation must not exceed 64 fixtures and 800 ft of cable. Additionally, each stub must not exceed 50 ft.

Lumenfacade T-Junction accessory is not compatible with ExtendX Control.

### DMX/RDM Terminator (Included with Leader Cable)

# 148161 (Black) or 150394 (White) - DMX/RDM Terminator



DMX/RDM terminator is mandatory at the end of a fixture run with T-junction for DMX/RDM applications

Please specify:

148161: Black (BK) or 150394: White (WH)

# Control Systems (Order Separately)

#### PHAROS - Pharos® Designer Lighting Control Kit



The Pharos Designer Lighting Contol Kit, available for 1 or 2 DMX universes, allows for complete control of large lighting installations.

# **Control Boxes (Order Separately)**

#### CBX-DMX/RDM - DMX/RDM Enabled (Daisy Chain or Star Configuration)





DMX/RDM control box. Up to six power and data outputs to fixtures or fixture runs. Consult CBX specification sheet and installation instructions for details. Lumenterminators provided with CBX (2x for Daisy Chain configuration, 6x for Star configuration), consult factory to order spares.

#### CBX-ENET - Ethernet Enabled (Daisy Chain or Star Configuration)





Ethernet control box. Up to four power and data outputs to fixture or fixture runs. Consult Ethernet CBX specification sheet and installation instructions for details.

# Diagnostic And Addressing Tools (Order Separately)

LFM	CR	UL	120_277	48	6W	MRGBWP	10×90	HFR	Unselected
Housing	Туре	Certification	Voltage	Length	Wattage	Color and Color Temperature	Optic	Lens	Feeding Side
Lumenfacade Max	CR Continuous Run	UL UL Compliant (1) CE CE Compliant (Class I ) (2) PSE PSE Certification (3) (4) (5)	120 277 120 Volts to 277 Volts (6) 230 1220 to 240 volts (7) 100 200 100 to 200 volts (PSE Certification) (6)	12 12 in 24 24 in 36 36 in 48 48 in	6W/ff (9) (10) 10W 10 W/ff 22W 22 W/ft	MRGBWP Opticolor+™ Mix-at-Source Red, Green, Blue Plus White Settable Range 24K to 65K (11) (12) MRGRBWP Opticolor+™ Mix-at-Source Red, Green, Blue Plus White Settable Range 24K to 65K (11) (12) (13) (14) MRGBA Opticolor	10x10 10° x 10° (15) 10x30 10° x 30° 10x60 10° x 60° 10x90 10° x 90° 30x30 30° x 30° (16) 30x60 30° x 60° (16) 40x60 60° x 60° (16) 90x90 90° x 90° (16) 60x10 60x10 60x10 90x10° (16) 60x30 60° x 30° (16) 90x10 90x10° (16)  W Wide 120° (16)  NAS Narrow Asymmetric WW Asymmetric Wallwash (17) CAS Ceiling Asymmetric (16)	CL Clear Lens (18) HFR Half-Frosted Lens (19) FR Frosted Lens (20)	NF No Feed Information Required  LF Left Feeding Side  RF Right Feeding Side

#### Notes:

- Available for 120\_277 voltage option only.
   Available for 230 voltage option only.
- 3. Available for the Japanese market only.
  4. Available for 100\_200V voltage option only.
- 5. Consult your local Sales Representative for PSE certification.
- Available for UL certification only.
   Available for CE certification only.

- 8. Available for PSE Certification only.
  9. Consult factory for applications with 12 in fixtures.
- 10. Consult factory for applications with PSE Certification.

- 11. Fixtures are shipped from the factory in Optidrive™ Mode. Normal Mode can be activated onsite for DMX/RDM and LT fixtures. For DMX/RDM applications, Optidrive Mode requires a LumenID, LumenID software and onsite commissioning. For LT applications, Optidrive Mode requires a LumenID, LumentalkID software and onsite commissioning. Additionally, with Opticolor+TM the white CCT is configurable in the field from 2200K-8000K.
- 12. Consult factory for DALIT8 applications with MRGBWP or MRGRBWP and a CCT other than 3000K.
- 13. Longer lead time of 10-12 weeks.14. Consult factory for photometric performance.
- 15. For best results use a miminum 6 in setback from surface. Contact factory for application support.

  16. Can be combined with a CL or FR lens only.

- 17. Can be combined with a HFR or FR lens only.18. When CL lens is combined with NAS or CAS optic, LF or RF feeding side must be specified.
- When HFR lens is specified, LF or RF feeding side must be specified.
   When FR lens is combined with WW, NAS or CAS optic, LF or RF feeding side must be specified.

# **How to Order**

DMX/RDM	VRBO	Unselected	XD	Unselected	Unselected	
Control	Vibration Rating (27)	Mounting Options (32)	Environment	Finish	Accessories (43) (44)	Buy America.n Act
DMX/RDM DMX/RDM Enabled Dimming (21) (22)  DALITB DALI 2 T8 Enabled Dimming 0.1% (12) (23)  LT Lumentalk (22) (24)  ETX ExtendXTM (22) (25) (28)	NVR Buildings and Fixed Structures (28) VRN Pole-Mounts (29) WRBO Bridges and Overpasses (31)	SM Slim Adjustable Mounting Continuously Adjustable (110° Pivot Limit) (39) (34)  FX Fixed Mounting (0° Pivot Limit) (39)  WMC1  Wall Mounting Continuously Adjustable, 1.5 in to Optical Center (180° Pivot Limit) (34) (36)  WMI)  Wall Mounting Incrementally Adjustable by 6°, 1.5 in to Optical Center (180° Pivot Limit) (35)  WMC3  WMC3  WMI3  Wall Mounting Continuously Adjustable, 3.5 in to Optical Center (130° Pivot Limit) (36)  WMI3  Wall Mounting Incrementally Adjustable by 6°, 3.5 in to Optical Center (130° Pivot Limit) (34) (36)  WMC6  Wall Mounting Incrementally Adjustable by 6°, 3.5 in to Optical Center (170° Pivot Limit) (34) (37)  WMC6  Wall Mounting Continuously Adjustable, 6 in to Optical Center (170° Pivot Limit) (38)  WMI6  Wall Mounting Incrementally Adjustable by 6°, 6 in to Optical Center (170° Pivot Limit) (38)  WMC12  Wall Mounting Continuously Adjustable, 12 in to Optical Center (180° Pivot Limit) (34) (37)  WMI2  Wall Mounting Incrementally Adjustable by 6°, 12 in to Optical Center (180° Pivot Limit) (34) (37)  WMC18  Wall Mounting Continuously Adjustable, 18 in to Optical Center (180° Pivot Limit) (34) (37)  WMC18  Wall Mounting Continuously Adjustable by 6°, 18 in to Optical Center (180° Pivot Limit) (38)  WMC14  Wall Mounting Incrementally Adjustable, 24 in to Optical Center (180° Pivot Limit) (33) (34)  WMC24  Wall Mounting Incrementally Adjustable by 6°, 24 in to Optical Center (180° Pivot Limit) (33) (34)  WMC24  Wall Mounting Incrementally Adjustable by 6°, 24 in to Optical Center (180° Pivot Limit) (33) (34)  WMC24  Wall Mounting Incrementally Adjustable by 6°, 24 in to Optical Center (180° Pivot Limit) (33) (34)	Extra durable multi-step finish (59)	BK Black Sandtex®  BRZ Bronze Sandtex®  SI Silver Sandtex®  WH Smooth White  BKTX Textured Black  BRZIX Textured Bronze Non-Metallic  GRATX Textured Medium Gray  GRNTX Textured Green  WHTX Textured White  CC Custom Color & Finish (40) (41) (42)	NA No Accessory LV Radial Louver (33) LVAS Radial Louver Asymmetric (33) VS Visor (33) SH Shield (33) (46)	BAA Buy America.n (6)

## Notes:

- 6. Available for UL certification only.
- 12. Consult factory for DALI T8 applications with MRGBWP or MRGRBWP and a CCT other than 3000K.
  21. A Control Box (CBX) and LumenID (LID) must be specified.
- 22. Minimum dimming value is less than 1%.
- 23. DALI 2 T8 controller required, provided by others. DALI 2 T8 control uses a single DALI short address.
- 24. A Lumentranslator 2 (LTL2) and LumenID (LID) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.
- 25. An Ethernet CBX is required. Refer to the ETX configuration in the Ethernet CBX Specification Sheet for details.
- 26. ETX Control Option is not compatible with LFTJ T-Junction Accessory.

  27. Consult factory for vibration rating requirements on vertical installations

needed for approval. Consult factory.

- 28. Available for all mounting options.
  29. Available for FX, WMC1, WMC1, WMC3 and WMi3 mounting options when combined with VRN vibration rating. All other mounting options may have installation limitations, and a review is needed for approval. Consult factory. 30. Consult factory for pole mounting accessories.
- 31. Available for FX, WMi1, and WMi3 mounting options when combined with VRBO vibration rating. All other mounting options may have installation limitations, and a review is needed for approval. Consult factory.
- 32. One mounting bracket provided for 12 in fixtures. Two mounting brackets provided for 24 in, 36 in and 48 in fixtures.  $\textbf{33.} \ \text{Available with NVR vibration rating only. Installation limitations may apply for other vibration rating options, and a review is}$

- 34. Not suitable for bridge and overpass applications
- **35.** Vibration tested in accordance with ANSI 136.31 2018 at 3Gv. **36.** Vibration tested in accordance with ANSI 136.31 2018 at 1.5Gv.
- 37. Vibration tested in accordance with ANSI 136.31 2018 at 2.3GV.
- 38. Vibration tested in accordance with ANSI 136.31 2018 at 4.6Gv.
- 39. Zirconium pretreatment completed with corrosion-resistant primer and electrostatically-applied powder coat paint finish.
- 40. Lumenpulse offers a wide selection of RAL CLASSIC (K7) colors with a smooth texture and high-gloss finish. Please consult
- factory for a list of available K7 colors, other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.

  41. Setup charges apply for RAL colors. Consult factory for details.
- 42. Longer lead times can be expected for custom RAL color finishes.
  43. SH accessory can be combined with LV, LVAS or VS accessories. All other combinations are not possible.
- 44. The exterior finish of the accessory will match the finish specified in the fixture order code (interior surface painted matte black). **45.** Available for 10x10, 10x30, 10x60, 10x90, 30x30, 30x60, 30x90, 60x60, 90x90, 30x10, 60x10, 60x30, 90x10 and W optics only.
- **46.** Not suitable for bridge and overpass applications. The Shield can be installed in zones with wind speeds up to 120 mph. Consult factory for zones with wind speeds higher than 120 mph.
- 47. Contact your Lumenpulse Sales Representative for more information on order volume details