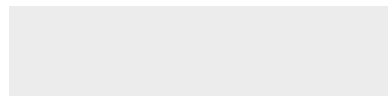
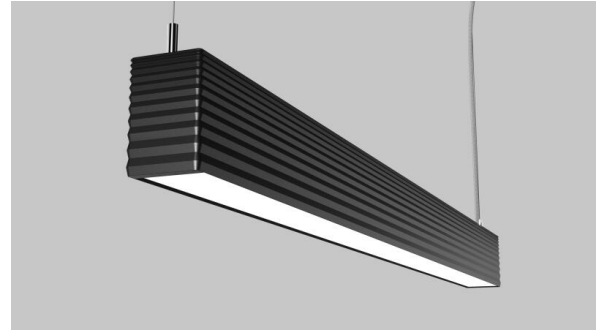


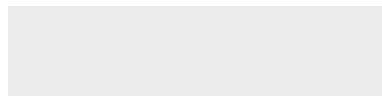


BELLOWS

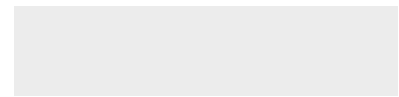
FULL SPECIFICATION SHEET



FIXTURE TYPE



FIXTURE CODE

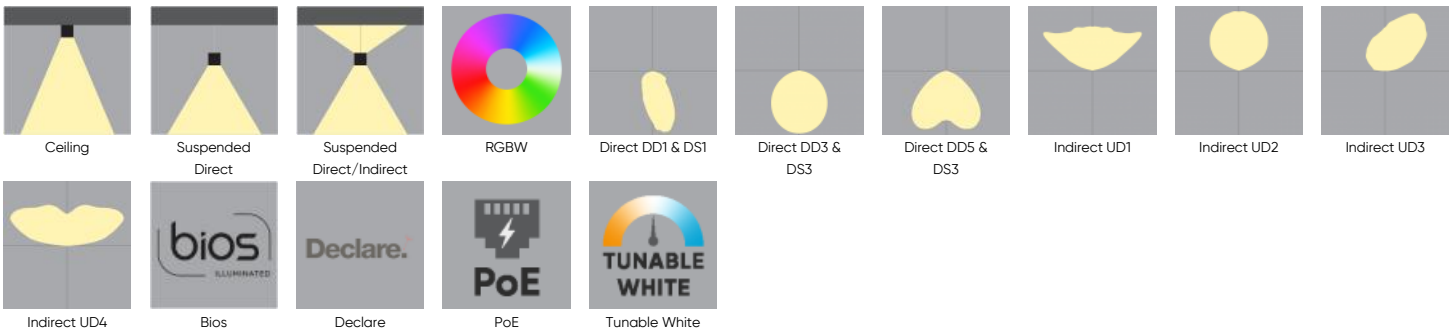


QUANTITIES

1 DESCRIPTION

BELLOWS takes the standard linear system in a new direction, its sculptural pleated form introducing rhythm, depth, and character to the ceiling plane. Inspired by the ridged profile of fireplace bellows, this 2.5" aperture luminaire combines bold architectural presence with the reliable performance of a proven workhorse. Its seamless rollout lens delivers smooth, uniform illumination, while Diffused, Batwing, and Asymmetric distributions support a broad range of lighting applications. With multiple lumen packages, high-efficacy performance, BIOS integration for circadian support, and 13 distinctive finishes, **BELLOWS** brings together technical precision and a refined, tactile design language in one expressive architectural fixture.

2 OPTICS & FEATURES



3 APPROVALS



4 GENERAL SPECIFICATION

BODY

Aluminum.

SUSPENSION

Steel cables.

DRIVERS

HPF electronic drivers for 120-277V, 347 (EU-240V). The driver is integral to the fixture housing.

BIOS

For circadian lighting, consult factory.

TUNABLE WHITE

Tunable White range from 2700K to 6500K is available.

MECHANICAL

Luminaires mount directly over J box (by others).

REPORTED L70 @25°C (77°F)

> 60,000 hrs @ 2000 lumens/ft (6000 lumens/m)

LENS

Opal acrylic lens in 2 versions: roll-out or snap-in. The snap-in version is provided with standalone luminaires, while the roll-out lens is designed for continuous systems. When an order includes both standalone and continuous units, the roll-out lens will be provided for all.

LUMINAIRE LEVEL LIGHTING CONTROLS

Designed for integration with luminaire-level lighting controls from Cooper, Lutron, and Wattstopper. Standard options are listed on this specification sheet. Additional control solutions are available upon factory request.

DESIGNED BY

Mirko Rotondi

FINISH

Powder coated.

POWER CABLE

Silver braided.

POE

Can be integrated into your data network via Power over Ethernet (PoE) connectivity.

JUNCTIONS

X and T junctions available, consult factory.

DELIVERED LUMENS

Delivered lumens & LPW based on 4000K CRI 80+

FIXTURE LENGTHS

Available in 1" increments. Contact the factory for details.

ESTIMATED L70 @25°C (77°F)

> 165,000 hrs @ 2000 lumens/ft (6000 lumens/m)

INTEGRAL EMERGENCY SYSTEM

Emergency option provides a 1.5 hour (3 hours for EU) emergency lighting facility. The self contained system includes the inverter module, NiCad batteries, LED charge indicator and test switch (NA only). Not available with a 347V supply.

APPROVALS

Damp Rated.

DESIGN

US Design Patent Pending.

SEISMIC BRACING

Seismic bracing kits are available to meet compliance requirements. Consult the factory for details.

SUSTAINABILITY

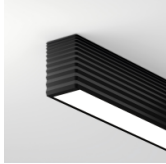
Designed for on-site LED board, driver, and optic replacement.
Contact the factory for maintenance documentation.

5 DESIGN OPTIONS

LUMINAIRE



Pendant

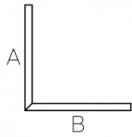


Ceiling

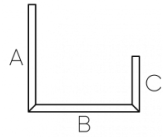
RUN TYPE



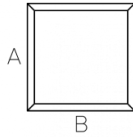
Straight



L shape



U shape



Quad

Custom
Shape
Required

* T junction available, consult factory.

* There is one power cable for an overall max length of 50ft (15240mm), extra power cables are required beyond that. Consult factory.

END CAP PROFILE



Not required

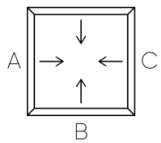


Flat

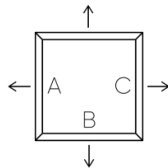
ASYMMETRIC DIRECTION



Not required



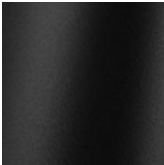
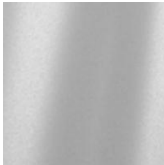
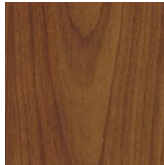
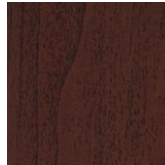
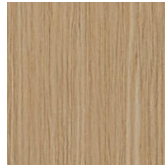
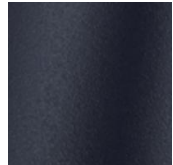
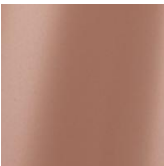
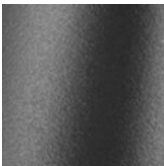
Inward¹



Outward¹

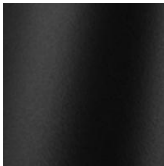
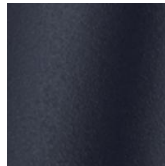
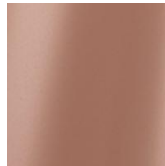
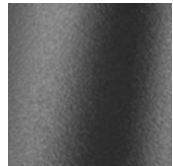
¹ Only required when the run type is not straight (TR01). If an asymmetric distribution is required with the straight run type (TR01), the asymmetric distribution will be directed away from the wall.

FIXTURE FINISH

							
White - Textured	Black Metallic - Textured	Silver Metallic - Textured	Gold Metallic - Textured	Wood grain - Light Cherry ¹	Wood grain - Dark Walnut ¹	Wood grain - White Oak ¹	Midnight Blue Metallic - Textured
							
Copper Metallic	Charcoal Metallic - Textured	Bronze Metallic - Textured	Champagne Metallic	Red Metallic - Textured			

¹ Wood grain finishes may incur longer lead times and setup charges. Consult factory for details.

CANOPY FINISH

							
Not required	White - Textured	Black Metallic - Textured	Silver Metallic - Textured	Gold Metallic - Textured	Midnight Blue Metallic - Textured	Copper Metallic	Charcoal Metallic - Textured
							
Bronze Metallic - Textured	Champagne Metallic	Red Metallic - Textured					

6 HOW TO ORDER

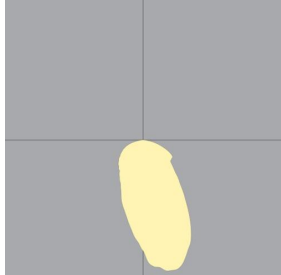
LUMINAIRE TYPE BLLP Pendant BLLC Ceiling	DIRECTION DT1 Direct DT2 Direct/Indirect DT3 Indirect One power cord for every 50 linear ft.	RUN TYPE TR01 Straight TR02 L shape TR03 U shape TR04 Quad CST01 Custom Shape Required * T junction available, consult factory. * There is one power cable for an overall max length of 50ft (15240mm), extra power cables are required beyond that. Consult factory.	LENGTH - A The minimum length to order is 2ft and orders are to be in 2ft increments. The maximum is 90ft. Examples: 4ft = SFA0400, 10ft = SFA1000, 50ft = SFA5000 SFA_ _ _ _
LENGTH - B The minimum length to order is 2ft and orders are to be in 2ft increments. The maximum is 90ft. Examples: 4ft = SFB0400, 10ft = SFB1000, 50ft = SFB5000 SFB_ _ _ _	LENGTH - C The minimum length to order is 2ft and orders are to be in 2ft increments. The maximum is 90ft. Examples: 4ft = SFC0400, 10ft = SFC1000, 50ft = SFC5000 SFC_ _ _ _	MAX LENGTH PER SECTION SL02 2ft ¹ SL04 4ft SL06 6ft SL08 8ft SL10 10ft SL12 12ft ¹ The dimming curves on the 2ft section length (SL02) will differ from the other sizes. You can select the preferred maximum length per segment, to account for transportation and building constraints. Example: If a 40ft run is required and SL12 (12ft) is selected, we would provide 4 10ft segments. For special requirements, please contact sales@betacalco.com.	
END CAP PROFILE EP00 Not required EP01 Flat	LM/FT (DIRECT) LPF000 Not required LPF020 200 lm/ft LPF040 400 lm/ft LPF060 600 lm/ft LPF080 800 lm/ft LPF100 1000 lm/ft LPF120 1200 lm/ft LPF140 1400 lm/ft	LM/FT (INDIRECT) LPG000 Not required LPG020 200 lm/ft LPG040 400 lm/ft LPG060 600 lm/ft LPG080 800 lm/ft LPG100 1000 lm/ft LPG120 1200 lm/ft LPG140 1400 lm/ft ¹ LPG165 1650 lm/ft ^{1 2} ¹ Not available with Assymetric Indirect Lens (UD3). ² Not available with Extra Wide Batwing Indirect Lens (UD4).	
CRI CR80 CRI 80+ CR90 CRI 90+	CCT DIRECT CTA00 Not required CTA27 2700K CTA30 3000K CTA35 3500K CTA40 4000K CTA50 RGBW ¹ CTA60 Tunable White ¹ RGBW is supplied with an extra power cable and is available with DMX dimming only. Not available with V3. Consult factory. * If RGBW or Tunable White is required, it needs to be selected for both direct and indirect. For other combinations, consult factory.	CCT INDIRECT CTB00 Not required CTB27 2700K CTB30 3000K CTB35 3500K CTB40 4000K CTB50 RGBW ¹ CTB60 Tunable White ¹ RGBW is supplied with an extra power cable and is available with DMX dimming only. Not available with V3. Consult factory. * If RGBW or Tunable White is required, it needs to be selected for both direct and indirect. For other combinations, consult factory.	

DIRECT LENS DD0 Not required DD1 Asymmetric ¹ DD3 Diffused DD5 Widespread DS1 Asymmetric – Seamless ^{1 2} DS3 Diffused – Seamless ² DS5 Widespread – Seamless ² ¹ For straight run type (TR01), when standing at the end view of the profile on the side where the power cord is installed, the asymmetric beam will aim to the right. Not available with 1400 lm/ft. ² Available with straight run type (TR01) only. Seamless diffusers available up to 32ft. Longer fixtures will have at least one seam. Consult factory if seamless lens is required for other run types. [*] Fixed Length available upon request.		INDIRECT LENS UD0 Not required UD1 Batwing UD2 Diffused UD3 Asymmetric ¹ UD4 Extra Wide Batwing ² ¹ Available up to 1200 lm/ft. For straight run type (TR01), when standing at the end view of the profile on the side where the power cord is installed, the asymmetric beam will aim to the right. ² Available up to 1400 lm/ft.	ASYMMETRIC DIRECTION ASD0 Not required ASD1 Inward ¹ ASD2 Outward ¹ ¹ Only required when the run type is not straight (TR01). If an asymmetric distribution is required with the straight run type (TR01), the asymmetric distribution will be directed away from the wall.
BLACKOUT PLATE UB00 Not required UB_ _ Blackout plate ¹ ¹ Available on a per foot basis. May be required to prevent lighting up of duct work in loft type applications.	VOLTAGE V1 120/277V V2 240V ¹ V3 347V ² V4 Low Voltage ³ ¹ Not available in North America. ² Only available with DA01 dimming. ³ Only available with DA45 dimming.	DIMMING DA01 0–10V Dimming 1.0% DA02 0–10V Dimming 0.1% ¹ DA20 DALI Dimming 0.1% ¹ DA21 DALI Dimming 1.0% ¹ DA23 DALI DT8 Dimming 0.1% – Tunable White ^{1 2} DA40 DMX Dimming ³ DA45 PoE ⁴ DA03 0–10V Dimming, Dim–To–Off (Controls) ^{1 5} DA04 DALI Dimming 1.0% (Controls) ^{1 5} ¹ Not available with V3. ² Only available with Tunable White. ³ Only available with RGBW. ⁴ Only available with V4. Not available with RGBW. ⁵ Select this option if sensors or controllers are required.	
CEILING TYPE G1 Grid ceiling ¹ H1 Hard ceiling ² The cost for the canopies, power cables, connections mechanisms and endcaps for the fixture has been added to these items. ¹ Combo kit provided includes installation to T–bar and through tile mount. ² Designed for drywall ceilings.	SUSPENSION HLA00 Not required HLA03 3ft cable suspension HLA06 6ft cable suspension HLA09 9ft cable suspension [*] Note: Special order available on lengths over 13ft and may be subject to longer lead times, consult factory.	FIXTURE FINISH FA01 White – Textured FA02 Black Metallic – Textured FA20 Silver Metallic – Textured FA25 Gold Metallic – Textured FA27 Wood grain – Light Cherry ¹ FA28 Wood grain – Dark Walnut ¹ FA30 Wood grain – White Oak ¹ FA44 Midnight Blue Metallic – Textured FA45 Copper Metallic FA46 Charcoal Metallic – Textured FA47 Bronze Metallic – Textured FA52 Champagne Metallic FA53 Red Metallic – Textured ¹ Wood grain finishes may incur longer lead times and setup charges. Consult factory for details.	CANOPY FINISH CF00 Not required CF01 White – Textured CF02 Black Metallic – Textured CF20 Silver Metallic – Textured CF25 Gold Metallic – Textured CF44 Midnight Blue Metallic – Textured CF45 Copper Metallic CF46 Charcoal Metallic – Textured CF47 Bronze Metallic – Textured CF52 Champagne Metallic CF53 Red Metallic – Textured

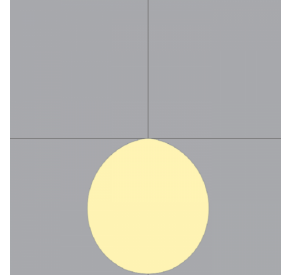
QUANTITY OF EMERGENCY SECTIONS E0 Not required E1 Emergency system - Integral ¹ E3 Emergency generated circuit - Remote ¹ ¹ Specify quantity of emergency sections or emergency generator circuits required based off total length of run. ¹ Available upon request, consult factory for details. Not available with 347V. Note: a drawing will be required at time of ordering to determine the required location of the emergency sections or generator circuits.	CIRCUITS CS1 Single circuit CS2 Dual circuit ¹ ¹ To control direct and indirect independently.
SENSORS AND CONTROLLERS SNCN00 Not required SNCPRA_ _ Cooper WaveLinX PRO Sensor ^{1 3} SNLGRA_ _ Legrand Wattstopper Sensor ^{1 2 3} SNLGRB_ _ Legrand Wattstopper PLUS Sensor ^{1 2 3} SNLUTA_ _ Lutron Athena Sensor ^{1 2 3} SNLUTC_ _ Lutron Vive Sensor ^{2 3} SNLGRC_ _ Legrand Standalone Occupancy Sensor ^{1 3} SNLGRD_ _ Legrand Standalone Daylight Sensor ^{1 3} CNLGRB Legrand Wattstopper PLUS Controller ^{1 2 3} CNLUTA Lutron Athena Controller ^{1 2 3} CNLUTC Lutron Vive Controller ^{2 3} ¹ Available with 0-10V dim-to-off dimming (DA03). ² Available with DALI dimming 1.0% (DA04). ³ Only available with single circuit (CS1). [*] If 0-10V dimming is required, only available with the dim-to-off option (DA03). For other sensors and controllers, consult factory. [*] Refer to the Controls Configurations document for locations and quantities based on linear length.	

7 PERFORMANCE DATA

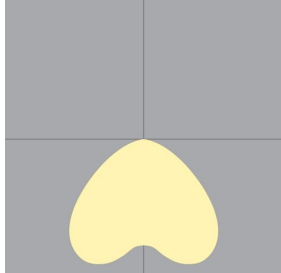
DIRECT DIFFUSED (DD1 AND DS1)

	LUMEN/FT	WATT/FT	LPW
	1200	13	98
	1000	10	103
	800	8	106
	600	5	111
	400	3	115
	200	2	121

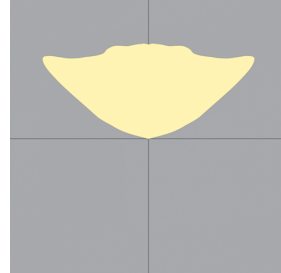
DIRECT DIFFUSED (DD3 AND DS3)

	LUMEN/FT	WATT/FT	LPW
	1400	13	122
	1200	11	126
	1000	9	131
	800	7	132
	600	5	136
	400	3	141
	200	2	143

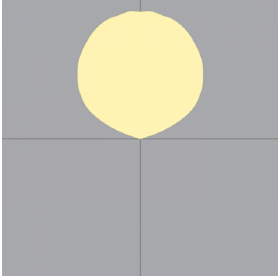
DIRECT DIFFUSED (DD5 AND DS5)

	LUMEN/FT	WATT/FT	LPW
	1400	13	112
	1200	11	116
	1000	9	119
	800	7	122
	600	5	126
	400	3	130
	200	2	131

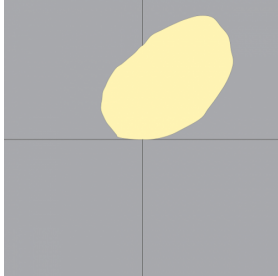
INDIRECT BATWING (UD1)

	LUMEN/FT	WATT/FT	LPW
	1650	13	132
	1400	10	137
	1200	9	140
	1000	7	144
	800	6	146
	600	4	150
	400	3	153
	200	1	153

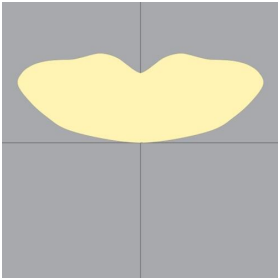
**INDIRECT OPAL DIFFUSER
(UD2)**

	LUMEN/FT	WATT/FT	LPW
	1650	13	128
	1400	10	132
	1200	9	135
	1000	7	139
	800	6	141
	600	4	144
	400	3	147
	200	1	150

**INDIRECT ASYMMETRIC
(UD3)**

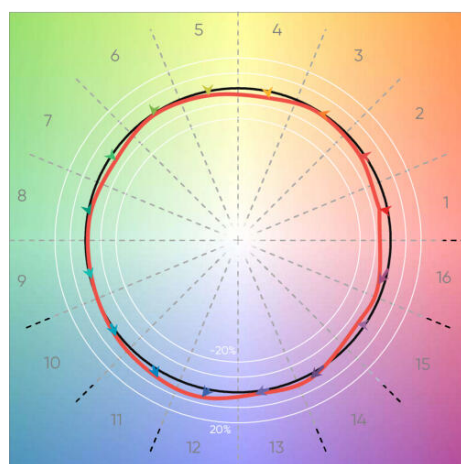
	LUMEN/FT	WATT/FT	LPW
	1200	13	97
	1000	10	100
	800	9	102
	600	6	107
	400	4	109
	200	2	112

**EXTRA WIDE INDIRECT
BATWING (UD4)**

	LUMEN/FT	WATT/FT	LPW
	1400	13	113
	1200	10	116
	1000	9	119
	800	7	123
	600	5	127
	400	3	129
	200	2	131

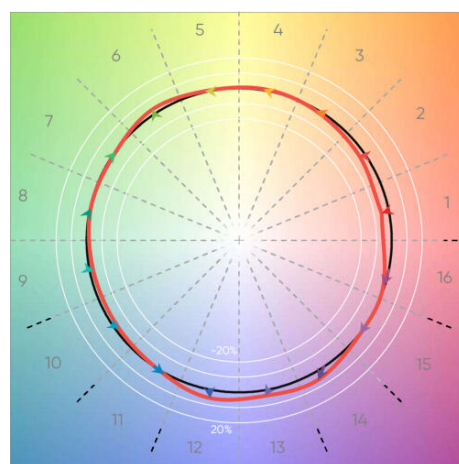
8 TM-30 DATA

CCT 2700K



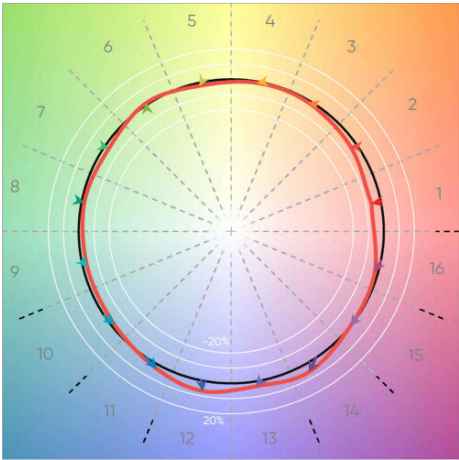
CRI (Ra)	93
CRI (R9)	61
TM30 Rf	91
TM30 Rg	98
Duv	-0.0022

CCT 3000K



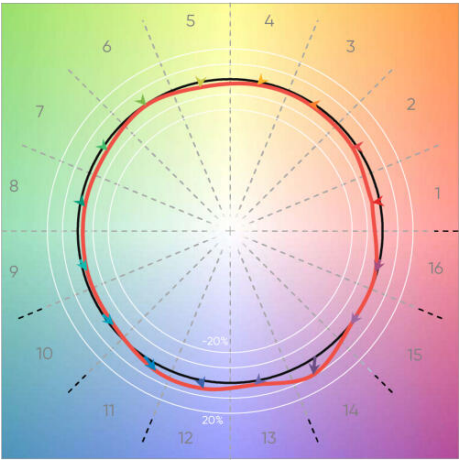
CRI (Ra)	92
CRI (R9)	58
TM30 Rf	92
TM30 Rg	100
Duv	-0.0003

CCT 3500K



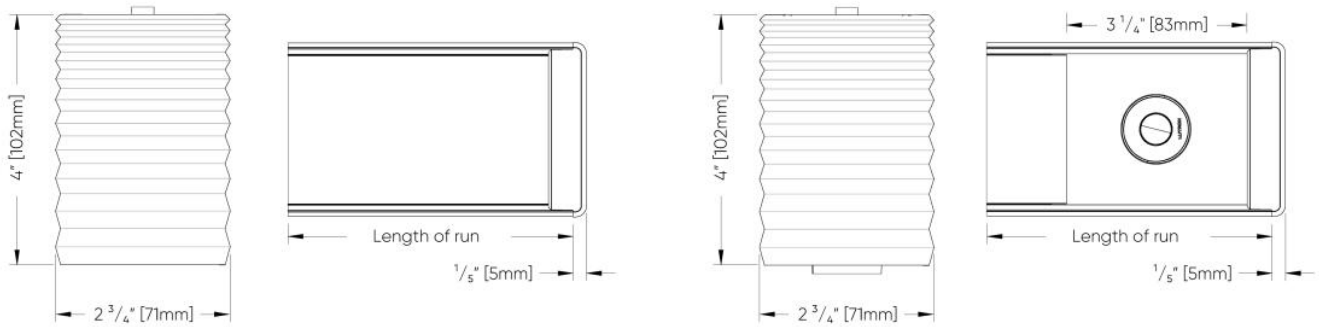
CRI (Ra)	91
CRI (R9)	53
TM30 Rf	90
TM30 Rg	99
Duv	-0.0007

CCT 4000K

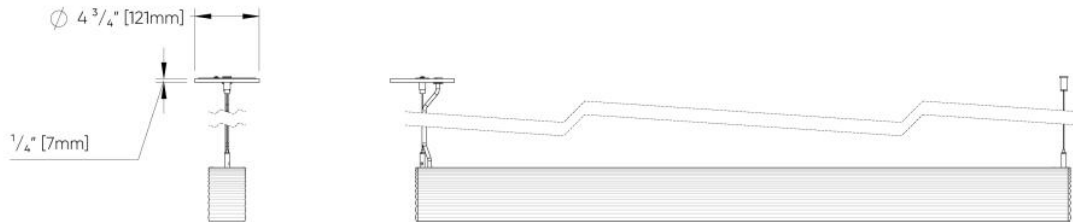


CRI (Ra)	93
CRI (R9)	64
TM30 Rf	90
TM30 Rg	98
Duv	0.0000

9 DIMENSIONAL DIAGRAMS



PENDANT



SURFACE



BELLOWS SYSTEM

