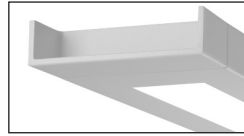
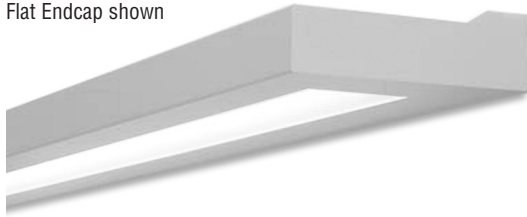




Flat Endcap shown



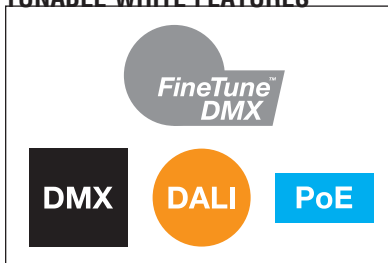
Extended Endcap

Signal White is standard finish

DESCRIPTION

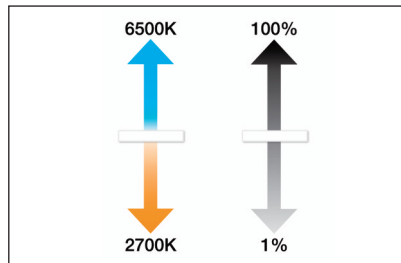
Series 16 LED WM is a low profile rectilinear form scaled to blend into any interior architecture and is available with two light engine models - 2E and 3E. The luminaire uses mid-power LEDs for long life and enhanced performance. This Product is enrolled in the International Living Future Institute (ILFI) Declare 2.0 Program and is third-party verified with options achieving Red List Approved and Red List Declared status.

TUNABLE WHITE FEATURES



MULTIPLE CONTROL ARCHITECTURES

Finelite's FineTune™ DMX, qualified DMX, DALI (open and proprietary), or PoE (Power over Ethernet).



TUNABLE WHITE

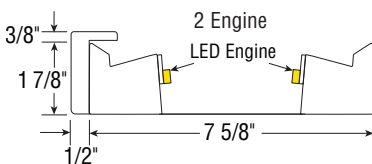
Any CCT between 2700K and 6500K with excellent CRI and R9 values; dimming from 100% to 1%.



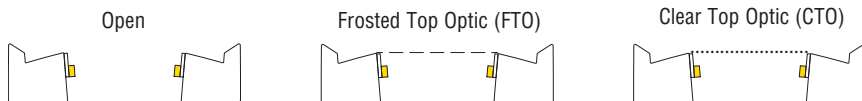
FINETUNE SYSTEM

Award-winning control system, which includes intuitive wall mounted controller, power control center, driver, and mobile app to easily tailor lighting to match user preference.

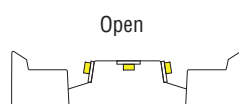
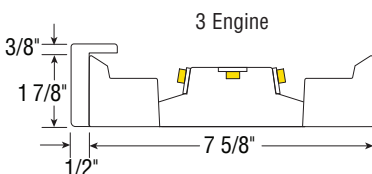
LIGHT ENGINES



OPTIC & DISTRIBUTION RATIO OPTIONS



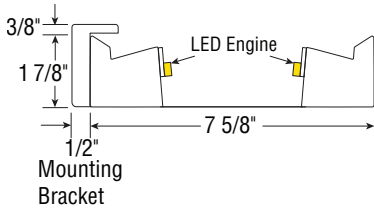
10%↑/ 90%↓ 30%↑/ 70%↓
20%↑/ 80%↓ 40%↑/ 60%↓



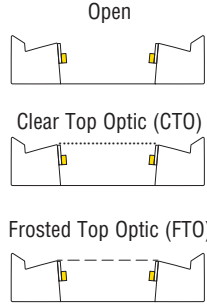
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2E FEATURES

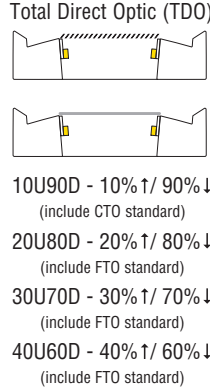
DIMENSIONS & LIGHT ENGINE



OPTIC OPTIONS



DISTRIBUTION RATIO OPTIONS



Date

Project

Type

Comments

ORDERING GUIDE:

Sample Number: S16 LED WM ID - DCO - 8' - 2E - B - 8TW - 20U80D - 120V - SC - MB - FE - OBO - RLA

Series 16 LED WM ID	Shielding (DCO) ²	Length / Pre-qualified Controls by Others (4', 8', multiples standard)	Light Engine System (2E - 2 Light Engines)	LED CRI/CCT (8TW - 80 CRI min, Tunable White; 9TW - 90 CRI min, Tunable White. See below for Tunable White controls options)	Optic or Distribution Ratio (OPEN - standard, FTO - Frosted Top Optic, CTO - Clear Top Optic, TDO - Total Direct Optic, 10U90D - 10% up / 90% down, 20U80D - 20% up / 80% down, 30U70D - 30% up / 70% down, 40U60D - 40% up / 60% down)	Voltage (120V, 277V)	Circuiting (SC - Single Circuit) ³	Mounting (MB - Mounting Bracket)	Endcap (FE - Flat Endcap (standard), EE - Extended Endcap)	Integrated Sensors (OBO - Occupancy, OBD - Daylight, W601 - Wattstopper Wireless Sensor ⁴ , OBE - Enlighted ⁵ , CLM - Encelium Sensor, RE7 - nLight Air Sensor, AOCC-W - Lutron Athena Sensor (Device Color White) ⁶ , AOCC-B - Lutron Athena Sensor (Device Color Black) ⁶ , ARF-W - Lutron Athena RF (Device Color White) ⁶ , ARF-B - Lutron Athena RF (Device Color Black) ⁶)	Special Options (RLA - Red List Approved, RLD - Red List Declared)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

¹ Indirect luminaires available on 2E.
² Contact factory for WGB options.
³ Contact factory for switching options.

⁴ LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connected / LMFS-601 w/ DALI driver, only 1 driver can be connected.
⁵ Enlighted components installed by Finelite, provided by others.
⁶ Only available with DALI drivers - AOCC & ARF up to 4 drivers can be connected.

When selecting FineTune or pre-qualified DMX drivers made by others choose one of the following feed lengths below.

DMX Pendant Feed Length (5 ft., 12 ft., 30 ft.)

TUNABLE WHITE CONTROLS OPTIONS: SELECT ONE



FineTune controller with FineTune DMX Driver

OR

- Controls by others with pre-qualified DMX driver
- Controls by others with pre-qualified DALI driver
- Controls by others with pre-qualified PoE setup
- Controls by Lutron with pre-qualified Lutron driver

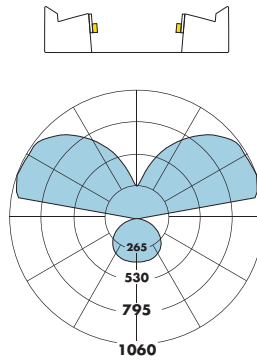
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2E OPEN AND FTO PHOTOMETRY - 4 ft. Luminaire

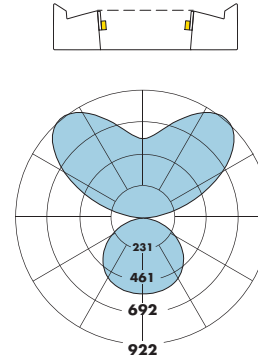
Series 16-LED-ID-DCO-2E-V-835-OPEN
Distribution: 76% up / 24% down
Efficacy: 115 lumens per watt
Total Luminaire Output: 4722 lumens (1181 lumens/foot)
41 watts (10.3 watts/foot)
ITL LM79 Report 85120.900 (Family Correlated)
Applies to Pendant and Wall Mount

Series 16-LED-ID-DCO-2E-V-835-FTO
Distribution: 63% up / 37% down
Efficacy: 108 lumens per watt
Total Luminaire Output: 4442 lumens (1111 lumens/foot)
41 watts (10.3 watts/foot)
ITL LM79 Report 85121.900 (Family Correlated)

2E OPEN - REPORT 85120



2E FTO - REPORT 85121



Refer to LM-79 reports for candlepower summaries

2E OPEN AND FTO

2E Total Light Output, 3500K, 80 CRI (Lumens) - 4 ft. Luminaire		
	B*	V**
OPEN	2430	4722
FTO	2286	4442

2E Light Output, 3500K, 80 CRI (Lumens Per Foot)		
	B*	V**
OPEN	608	1181
FTO	571	1111

2E Power (Watts Per Foot)		
	B*	V**
OPEN	5.1	10.3
FTO	5.1	10.3

2E Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
	B*	V**
OPEN	119	115
FTO	112	108

* Family Correlation based on 4 ft. luminaire 3500K Very High Output (V) test - 120V.
** Based on ITL reports above.

B - Boosted Standard Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI

2700K	0.968
3000K	0.985
3500K	1.000
4000K	1.032
6500K	1.032

Lumen Adjustment Factors - 90 CRI

2700K	0.731
3000K	0.746
3500K	0.760
4000K	0.789
6500K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

SAMPLE LUMEN ADJUSTMENT CALCULATION

Boosted Standard Output (B),
Open, 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
2430 lm x 0.789 = 1917 lm

Total Light Output per Foot =
608 lm/ft x 0.789 = 480 lm/ft

watts/foot = 5.1 W/ft

$$\text{Efficacy} = \frac{480 \frac{\text{lm}}{\text{ft}}}{5.1 \frac{\text{W}}{\text{ft}}} = 94 \text{ lm/W}$$

2E DISTRIBUTION RATIO PHOTOMETRY - 4 ft. Luminaire

Series 16-LED-ID-DCO-2E-V-835-10U90D

Efficacy: 77 lumens per watt
Total Luminaire Output: 3138 lumens (785 lm/ft)
40.9 watts (10.2 w/ft)
ITL LM79 Report 87819.900 (Family Correlated)

Series 16-LED-ID-DCO-2E-V-835-30U70D

Efficacy: 86 lumens per watt
Total Luminaire Output: 3506 lumens (877 lm/ft)
40.9 watts (10.2 w/ft)
ITL LM79 Report 87821.900 (Family Correlated)

Series 16-LED-ID-DCO-2E-V-835-TDO

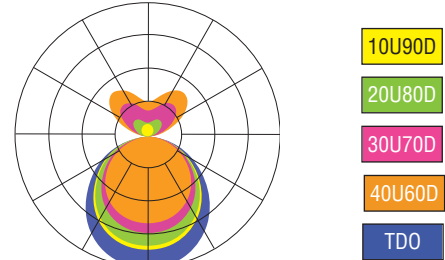
Efficacy: 80 lumens per watt
Total Luminaire Output: 3261 lumens (815 lm/ft)
40.9 watts (10.2 w/ft)
ITL LM79 Report 87823.900 (Family Correlated)

Series 16-LED-ID-DCO-2E-V-835-20U80D

Efficacy: 80 lumens per watt
Total Luminaire Output: 3291 lumens (823 lm/ft)
40.9 watts (10.2 w/ft)
ITL LM79 Report 87820.900 (Family Correlated)

Series 16-LED-ID-DCO-2E-V-835-40U60D

Efficacy: 90 lumens per watt
Total Luminaire Output: 3675 lumens (919 lm/ft)
40.9 watts (10.2 w/ft)
ITL LM79 Report 87822.900 (Family Correlated)



Refer to LM-79 reports for candlepower summaries



2E DISTRIBUTION RATIOS

↑ Indirect ↓ Direct

Total Light Output, 3500K, 80 CRI (Lumens) - 4 ft. Luminaire

	B*	V**
10U90D	1615 [↑110% 90%↓]	3138 [↑110% 90%↓]
20U80D	1694 [↑117% 83%↓]	3291 [↑117% 83%↓]
30U70D	1804 [↑130% 70%↓]	3506 [↑130% 70%↓]
40U60D	1891 [↑140% 60%↓]	3675 [↑140% 60%↓]
TDO	1678 [↑10% 100%↓]	3261 [↑10% 100%↓]

Light Output, 3500K, 80 CRI (Lumens Per Foot)

	B*	V**
10U90D	404	785
20U80D	423	823
30U70D	451	877
40U60D	473	919
TDO	420	815

Power (Watts Per Foot)

	B*	V**
10U90D	5.1	10.2
20U80D	5.1	10.2
30U70D	5.1	10.2
40U60D	5.1	10.2
TDO	5.1	10.2

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

	B*	V**
10U90D	79	77
20U80D	83	80
30U70D	89	86
40U60D	93	90
TDO	82	80

* Family Correlation based on 3E 4 ft. luminaire 3500K Very High Output (V) test - 120V.

** Based on ITL reports above.

B - Boosted Standard Output, V - Very High Output

Wattage is Real Power. If you would like additional details to calculate Apparent Power, please contact your local Finelite representative.

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Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for the most current data.

Page 4

Lumen Adjustment Factors - 80 CRI

2700K	0.968
3000K	0.985
3500K	1.000
4000K	1.032
6500K	1.032

Lumen Adjustment Factors - 90 CRI

2700K	0.731
3000K	0.746
3500K	0.760
4000K	0.789
6500K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

SAMPLE LUMEN ADJUSTMENT CALCULATION

Boosted Standard Output (B), 20U80D,
4000K, 90 CRI

Lumen Adjustment Factor = 0.789

Total Light Output =
1694 lm x 0.789 = 1337 lm

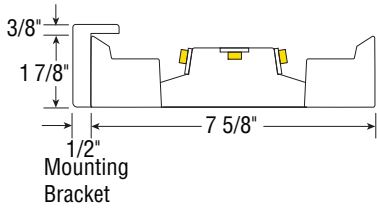
Total Light Output per Foot =
423 lm/ft x 0.789 = 334 lm/ft

watts/foot = 5.1 W/ft

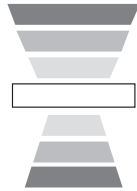
$$\text{Efficacy} = \frac{334 \frac{\text{lm}}{\text{ft}}}{5.1 \frac{\text{W}}{\text{ft}}} = 65 \text{ lm/W}$$

3E FEATURES

DIMENSIONS & LIGHT ENGINE

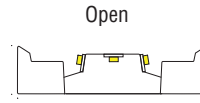


DIMMING



The uplight and downlight can be dimmed together or separately. 0-10V controls with a range of 10-100%. Dimming to 1% available.

OPTIC OPTION



Date

Project

Type

Comments

ORDERING GUIDE:

Sample Number: S16 LED WM ID - DCO - 8' - 3E - B/V - 8TW - OPEN - 120V - SC - MB - FE - OBO - RLA

Series 16 LED WM ID

Finelite **Series 16 LED WM ID**¹ _____

Shielding (**DCO**, **WCB**) _____

Length / Pre-qualified Controls by Others (**4'**, **8'**, multiples standard) _____

Light Engine System (**3E** - 3 Light Engines) _____

Light Output Up ↑ (**B** - Boosted Standard, **V** - Very High) _____

DN ↓ (**B** - Boosted Standard, **V** - Very High) _____

LED CRI/CCT (**8TW** - 80 CRI min, Tunable White; _____

9TW - 90 CRI min, Tunable White.

See below for Tunable White controls options)

Optic (**OPEN** - standard) _____

Voltage (**120V**, **277V**) _____

Circuiting (**SC** - Single Circuit, **DC** - Dual circuit)² _____

Mounting (**MB** - Mounting Bracket) _____

Endcap (**FE** - Flat Endcap (standard), **EE** - Extended Endcap) _____

Integrated Sensors (**OBO** - Occupancy, **OBD** - Daylight, **W601** - Wattstopper Wireless Sensor⁴, **OBE** - Enlighted⁵, _____

CLM - Encelium Sensor, **RE7** - nLight Air Sensor, **AOCC-W** - Lutron Athena Sensor (Device Color White)⁶, _____

AOCC-B - Lutron Athena Sensor (Device Color Black)⁶, **ARF-W** - Lutron Athena RF (Device Color White)⁶, _____

ARF-B - Lutron Athena RF (Device Color Black)⁶)

Special Options (**RLA** - Red List Approved, **RLD** - Red List Declared) _____


¹ Indirect luminaires available on 3E.
² Contact factory for switching options.

³ LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connected / LMFS-601 w/ DALI driver, only 1 driver can be connected.
⁴ Enlighted components installed by Finelite, provided by others.
⁵ Only available with DALI drivers - AOCC & ARF up to 4 drivers can be connected.

When selecting FineTune or pre-qualified DMX drivers made by others choose one of the following feed lengths below.

DMX Pendant Feed Length (5 ft., 12 ft., 30 ft.) _____

TUNABLE WHITE CONTROLS OPTIONS: SELECT ONE



FineTune controller with FineTune DMX Driver

OR

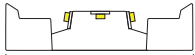
Controls by others with pre-qualified DMX driver

Controls by others with pre-qualified DALI driver

Controls by others with pre-qualified PoE setup

Controls by Lutron with pre-qualified Lutron driver

3E OPEN PHOTOMETRY - 4 ft. Luminaire



Series16-LED-ID-DCO-3E-V-V-835-OPEN

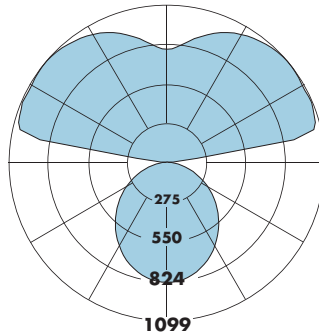
Distribution: 67% Up / 33% Down

Efficacy: 107 Lumens per watt

Total Luminaire Output: 6657 lumens (1664 lumens/foot)
62.5 watts (15.6 watts/foot)

CCT: 3500K

ITL LM79 Report 85122.900 (Family Correlated)



CANDLEPOWER SUMMARY						
	0	22.5	45.0	67.5	90.0	Flux
0	839	839	839	839	839	
5	835	834	834	835	834	79
15	800	795	798	798	794	224
25	728	720	723	722	719	332
35	629	623	624	620	618	389
45	515	510	510	505	503	393
55	394	389	387	383	383	346
65	266	263	261	257	257	258
75	138	137	135	134	133	144
85	30	31	31	31	31	36
90	0	0	0	0	0	
95	46	271	139	80	76	236
105	202	408	779	1000	1075	740
115	351	528	833	1021	1091	770
125	479	630	884	1045	1097	749
135	583	709	912	1046	1090	677
145	667	761	920	1023	1056	559
155	728	788	899	976	999	408
165	768	793	850	893	907	240
175	786	789	797	807	809	77
180	789	789	789	789	789	

3E OPEN

	↑ Indirect	↓ Direct
--	------------	----------

Total Light Output, 3500K, 80 CRI (Lumens) - 4 ft. Luminaire		
	↑B*	↑V**
↓B*	3426 [↑67% 33%↓]	5588 [↑80% 20%↓]
↓V*	4495 [↑51% 49%↓]	6657 [↑67% 33%↓]

Light Output, 3500K, 80 CRI (Lumens Per Foot)		
	↑B*	↑V**
↓B*	856	1397
↓V*	1124	1664

Power (Watts Per Foot)		
	↑B*	↑V**
↓B*	7.9	12.9
↓V*	10.6	15.6

Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
	↑B*	↑V**
↓B*	109	108
↓V*	106	107

* Family Correlation based on 4 ft. luminaire 3500K Very High Output (V) test - 120V.
** Based on ITL report: 85122

B - Boosted Standard Output, V - Very High Output

Lumen Adjustment Factors - 80 CRI	
2700K	0.968
3000K	0.985
3500K	1.000
4000K	1.032
6500K	1.032

Lumen Adjustment Factors - 90 CRI	
2700K	0.731
3000K	0.746
3500K	0.760
4000K	0.789
6500K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

$$\frac{\text{Boosted Standard Output (B)}}{\text{Boosted Standard Output (B),
Open, 4000K, 90CRI}}$$

$$\text{Lumen Adjustment Factor} = 0.789$$

$$\text{Total Light Output} = 3426 \text{ lm} \times 0.789 = 2703 \text{ lm}$$

$$\text{Total Light Output per Foot} = 856 \text{ lm/ft} \times 0.789 = 675 \text{ lm/ft}$$

$$\text{watts/foot} = 7.9 \text{ W/ft}$$

$$\text{Efficacy} = \frac{675 \frac{\text{lm}}{\text{ft}}}{7.9 \frac{\text{W}}{\text{ft}}} = 85 \text{ lm/W}$$

Wattage is Real Power. If you would like additional details to calculate Apparent Power, please contact your local Finelite representative.

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SPECIFICATIONS

CONSTRUCTION: Body is 20-gauge die-formed steel with an 18-gauge die-formed internal joiner system. Plug-together wiring standard. All components are hard-tooled to tolerances of +/- 0.010".

ENDCAPS: The Flat Endcap (**FE**) is standard and made of 20-gauge die-formed steel adding 1/8" at each end. The optional Extended Endcap (**EE**) is an aluminum die-cast endcap with a 1/8" reveal adding 2-1/2" at each end.

OPTICS & DISTRIBUTION RATIOS:

Open	Standard (2E, 3E)
FTO	Frosted Top Optic (2E)
CTO	Clear Top Optic (2E)
TDO	Total Direct Optic (2E)
10U90D	10% up / 90% down (2E)
20U80D	20% up / 80% down (2E)
30U70D	30% up / 70% down (2E)
40U60D	40% up / 60% down (2E)

SHIELDING: Diffuse Center Optic, 73% transmissive, 99% diffusion. Visible diffuser: UV-stabilized and impact-resistant frosted virgin acrylic, 1/8" thick. Inner diffuser: 1/8" thick with 40% round perforations white/white. White Cross Baffle (**WCB**), 87 cell baffles spaced 1/2" apart and finished with 96% reflective white paint.

LIGHT OUTPUT: Two lumen packages available, Boosted Standard (**B**) and Very High (**V**). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

TUNABLE WHITE DRIVER: Replaceable LED driver. Driver is accessible from below the ceiling. 120/277V. Power Factor: ≥ 0.90. Total Harmonic Distortion

TUNABLE WHITE PRE-QUALIFIED DRIVERS BY OTHERS (THD): < 20%. Dimming Range: 100 - 1%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: LUTDTW (1% T-Series 2-Channel Digital Tunable White (PSQ Series)).

REFLECTORS: (91W) Die-formed pre-painted aluminum, 91% reflective white.

ELECTRICAL:

Emergency Option DMX: Battery backup only.

Emergency Option DALI: Battery backup, optional emergency-to-generator/inverter wiring

Emergency Option LUTRON: Battery backup, optional emergency-to-generator/inverter wiring.

Emergency Option PoE: Contact factory.

Battery Backup: Factory-choice battery pack available; (8 ft. minimum fixture length). Backup batteries deliver 2361 lumens for 2E and 2202 lumens for 3E. A 4 ft. section will be illuminated in emergency mode. Backup battery will operate at 6500K in emergency.

MOUNTING: The standard mount is a hidden bracket constructed of 14-gauge steel mounted to the luminaire using #10 screws. Two brackets are provided for every luminaire section. A leveling screw is included to ensure the luminaire is perpendicular to the vertical wall surface.

DMX MOUNTING: For grid ceiling applications, the dual GridBox™ mounting is supplied (standard). For hard ceiling applications the ceiling mounting box is supplied (standard). For details, see Mounting Features (page 2). DMX feeds cannot be cut or spliced. DMX feeds should be ordered based on fixed lengths. Available DMX pendant feed lengths are 5 ft., 12 ft., and 30 ft. (5 ft. standard).

DMX INTERCONNECTION CABLES: Luminaires are prewired with plug-and-play interconnection cables to support easy plug-together joining of fixture runs. If a non-FineTune DMX system has been specified, a DMX to RJ45 converter is provided.

FINISHES: Finelite Signal White (**SW**) powder coat, Finelite Black (**RAL 9005**) with semi gloss fine texture (**FB**), and Satin Aluminum (**SA**) are standard. Optional Adders: 179 RAL colors.¹

FEED: Standard with one 18-gauge single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. DMX and power feed at same location (standard). DMX feeds cannot be cut or spliced. DMX feeds should be ordered based on fixed lengths.

LENGTHS: Standard 4 ft., and 8 ft., sections lengths can be combined to make longers runs.

LABELS: Fixture and electrical components are ETL listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.130 (G), this luminaire contains an internal driver disconnect. UL 924 and UL 2108 - PoE options available on request. Damp Location. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2015/863. Finelite makes the specification process easy when putting healthier products on your projects. Simply add – **RLA** (Red List Approved) or – **RLD** (Red List Declared) to your part number.

WEIGHT: With Flat Endcaps (**FE**) - 2.0 lb/ft; with Curved Endcaps (**CE**) – 2.6 to 3.6 lb/ft.

WARRANTY: 10-year performance-based warranty on all standard components. Qualified drivers by others and optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

DMX	DALI	POE set up	LUTRON
EldoLED	EldoLED, Crestron	Contact Factory	LUTRON

¹ 20 business days lead time for color