## FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 2E & 3E

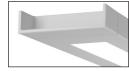








Flat Endcap shown		
		-
	-	



Extended Endcap

Date	

**Project** 

Type

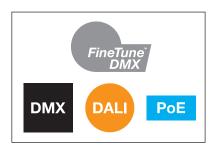
**Comments** 

Signal White is standard finish

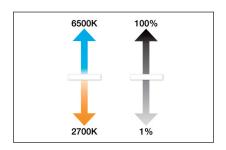
## **DESCRIPTION**

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 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** 

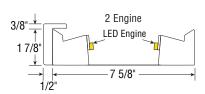
Any CCT between 2700K and 6500K with excellent CRI and R9 values; dimming from 100% to 1%.



#### **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**

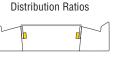


#### **OPTIC & DISTRIBUTION RATIO OPTIONS**

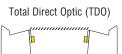


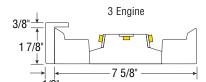


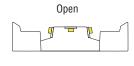




10%1/90%1 30%1/70%1 20% 1/80% 1 40% 1/60% 1







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# **FINELITE**

## Tunable White Series 16 LED Wall Mount Indirect/Direct - 2E

<b>2E FEATURES</b>			Date		
DIMENSIONS & LIGHT ENGINE	OPTIC OPTIONS		Date		
0.001	Open	Frosted Top Optic (FTO)	Project		
3/8" LED Engine					
1 7/8"			Type		
→ 7 5/8" →	Clear Top Optic (CTO)		L		
1/2" Mounting Bracket			Comments		
	DISTRIBUTION RATIO (	OPTIONS			
		Total Direct Optic (	TDO)		
	10%↑/90%↓ 20U80D - 20% CTO standard) (include FTO st				
	30%↑/70%↓ 40U60D - 40% FTO standard) (include FTO st				
ORDERING GUIDE: Sample Number: S16 LED WM ID - DCO - 8	' - 2E - B - 8TW - 20U80D	- 120V - SC - MB - FE - Ri	LA		
	Series 16 LED WM ID		Т	$\neg$	$\neg$
Finelite Series 16 LED WM ID*			┯╹┖┯┯╸┖	┯╜┖┯╜┖	┯┚┖┯┚┖┑
Shielding (DCO, WCB)					
Length / Pre-qualified Controls by Others (4'	. <b>8'</b> . multiples standard) —				
Light Engine System ( <b>2E</b> - 2 Light Engines) -					
LED CRI/CCT (8TW - 80 CRI min, Tunable W			]		
<b>9TW</b> - 90 CRI min, Tunable W					
See below for Tunable White o					
Optic or Distribution Ratio (OPEN - standard	. ,	CTO - Clear Top Optic,—			
	ct Optic, <b>10U90D</b> - 10% up	• • •			
	up / 80% down, <b>30U70D</b> - 3				
<b>40U60D</b> - 40% u		•			
Voltage (120V, 277V)	·			_	
Circuiting ( <b>SC</b> - Single Circuit)**					
Mounting (MB - Mounting Bracket)					_
Endcap (FE - Flat Endcap (standard), EE - Ex	tended Endcap) ———				
Special Options (RLA - Red List Approved, R	<b>ILD</b> - Declared Label) ——				
* Indirect luminaires available on 2E.					
** Contact factory for switching options.					
When selecting FineTune or pre-qualified DN		choose one of the following	ng feed lengths belo	W.	
DMX Pendant Feed Length (5 ft., 12 ft., 30 ft	l.)				
TUN	NABLE WHITE CONT	ROLS OPTIONS: SE	ELECT ONE		
☐ FineTune contro	oller with FineTune DMX Dr	river $\square$ Co	ontrols by others wit	h pre-qualified Γ	)MX driver
Fine			entrols by others wit		
TÜNE		un —	entrols by others wit		

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Controls by Lutron with pre-qualified Lutron driver

## FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 2E

#### 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-FT0

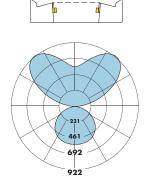
Distribution: 63% up / 37% down Efficacy: 108 lumens per watt

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 530



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		
FT0	2286	4442		

2E Light Output, 3500K, 80 CRI (Lumens Per Foot)				
B* V**				
OPEN	608	1181		
FT0	571	1111		

2E Power (Watts Per Foot)				
B* V**				
OPEN	5.1	10.3		
FT0	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				
<b>2700K</b> 0.968				
3000K	0.985			
<b>3500K</b> 1.000				
<b>4000K</b> 1.032				
<b>6500K</b> 1.032				

Lumen Adjustment Factors - 90 CRI				
<b>2700K</b> 0.731				
<b>3000K</b> 0.746				
<b>3500K</b> 0.760				
<b>4000K</b> 0.789				
<b>6500K</b> 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 =  $2430 \text{ Im } \times 0.789 = 1917 \text{ Im}$ 

Total Light Output per Foot =  $608 \text{ Im/ft} \times 0.789 = 480 \text{ Im/ft}$ 

watts/foot = 5.1 W/ft

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

# FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 2E

#### 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-TD0 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

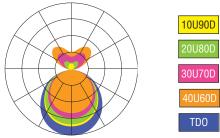
↑ Indirect

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)

**↓ Direct** 



Refer to LM-79 reports for candlepower summaries



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

Lumen Adjustment Factors - 90 CRI				
<b>2700K</b> 0.731				
<b>3000K</b> 0.746				
<b>3500K</b> 0.760				
<b>4000K</b> 0.789				
<b>6500K</b> 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 =  $1694 \text{ Im } \times 0.789 = 1337 \text{ Im}$ 

Total Light Output per Foot =  $423 \text{ Im/ft} \times 0.789 = 334 \text{ Im/ft}$ 

watts/foot = 5.1 W/ft

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

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## **2E DISTRIBUTION RATIOS**

Total Light Output, 3500K, 80 CRI (Lumens) - 4 ft. Luminaire				
B* V**				
10U90D	1615 [↑10%   90%↓]		3138 [†10%	I 90%↓]
20U80D	<b>1694</b> [↑17%   83%↓]		3291 [†17%	I 83%↓]
30U70D	1804 [†30% I 70%↓]		3506 [†30%	170%↓]
40U60D	1891 [↑40%   60%↓]		3675 [†40%	I 60%↓]
TD0	1678 [†0% l 100%↓]		3261 [†0%	100%↓]

Light Output, 3500K, 80 CRI (Lumens Per Foot)			
	B*	V**	
10U90D	404	785	
20U80D	423	823	
30U70D	451	877	
40U60D	473	919	
TD0	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	
TD0	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	
TD0	82	80	

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

<sup>\*\*</sup> Based on ITL reports above.

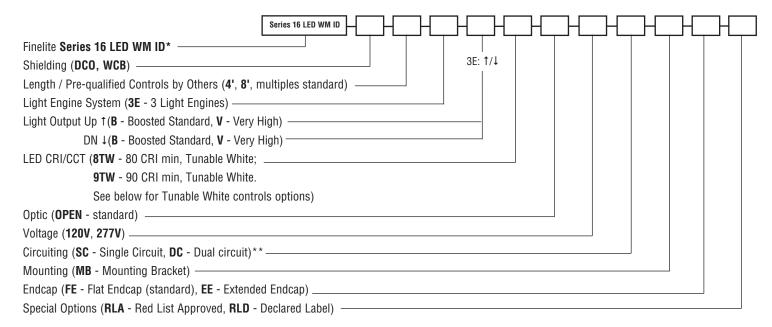
B - Boosted Standard Output, V - Very High Output

# FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 3E

## **3E FEATURES** Date **DIMENSIONS & LIGHT ENGINE** DIMMING **Project** 3/8"= 17/8 7 5/8" **Comments** Mounting Bracket OPTIC OPTION The uplight and downlight can be dimmed Open together or separately. 0-10V controls with a range of 10-100%. Dimming to 1% available.

#### **ORDERING GUIDE:**

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



- \* Indirect luminaires available on 3E.
- \*\* Contact factory for switching options.

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	S OPTIO	NS: SELECT ONE
Fine TUNE TUNABLE WHITE SYSTEM	☐ FineTune controller with FineTune DMX Driver	OR	<ul> <li>□ Controls by others with pre-qualified DMX driver</li> <li>□ Controls by others with pre-qualified DALI driver</li> <li>□ Controls by others with pre-qualified PoE setup</li> <li>□ Controls by Lutron with pre-qualified Lutron driver</li> </ul>

# FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 3E

#### 3E OPEN PHOTOMETRY - 4 ft. Luminaire



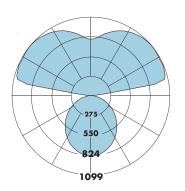
Series16-LED-ID-DCO-3E-V-V-835-OPEN

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)



1 Direct

↑ Indirect

	C.A	NDLEP	OWER S	UMMAF	RΥ	
	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

		1 manout	▼ Dilott	
Total Light Output, 3500K, 80 CRI (Lumens) - 4 ft. Luminaire				
	↑ <b>B</b> *	<b>↑V</b> *	**	
↓B*	3426 [†67%   33%1]	5588 [†80	% I 20%↓]	
↓ <b>V</b> *	4495 [†51%   49%↓]	6657 [†67	% I 33%↓]	

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

Power (Watts Per Foot)		
	↑ <b>B</b> *	↑ <b>V</b> **
↓B*	7.9	12.9
↓ <b>V</b> *	10.6	15.6

Efficacy, 3500K, 80 CRI (Lumens Per Watt)		
	↑ <b>B</b> *	↑ <b>V</b> **
↓B*	109	108
↓ <b>V</b> *	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

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

Lumen Adjustment Factor = 0.789

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

Total Light Output per Foot = 856 lm/ft x 0.789 = 675 lm/ft

watts/foot = 7.1 W/ft

$$Efficacy = \frac{675 \frac{lm}{ft}}{7.1 \frac{W}{ft}} = 95 \text{ Im/W}$$

## FINELITE Tunable White Series 16 LED Wall Mount Indirect/Direct - 2E & 3E

#### 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)
FT0	Frosted Top Optic (2E)
CT0	Clear Top Optic (2E)
TD0	Total Direct Optic (2E, 4E)
10U90D	10% up / 90% down (2E, 4E
20U80D	20% up / 80% down (2E, 4E)
30U70D	30% up / 70% down (2E, 4E)
40U60D	40% up / 60% down (2E, 4E)

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 (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)).

#### **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 powder coat standard. Optional Adders: 185 RAL colors.

**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 ETLlisted conforming to UL 916, 1598, 8750, 924 in the U.S.A. and CAN/CSA C22.2 No. 205, 250, and 141 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. 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 2011/65/EU. Finelite makes the specification process easy when putting healthier products on your projects. Simply add - RLA (Red List Approved) or - RLD (Declared Label) 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.

#### TUNABLE WHITE PRE-QUALIFIED DRIVERS BY OTHERS

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

NOTE: For a complete list of system option/limitations please click here.

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