

DESCRIPTION

ArcLine is a premium grade specification lensed troffer series. This innovative, high quality luminaire is dedicated to the latest lamp and micro electronic ballast technology for optimal performance and energy efficiency. The ArcLine is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for application versatility.

The ArcLine series features efficiency, quality and performance. The series is an excellent choice for commercial office spaces, schools, hospitals or retail merchandising areas.

SPECIFICATION FEATURES

Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length dieformed stiffeners and unibody endplate for added strength. Side flanges are hemmed. Innovative design provides superior lens brightness uniformity and visual comfort. Micro ballast cover*** reduces ballast shadow for superior lens brightness uniformity and is easily removed without tools. Die formed captive lampholder brackets fully enclose lampholder wiring permitting easy lampholder replacement. Unibody endplates are securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. Ample KOs are provided for continuous row wiring. Endplates have integral Grid-lock feature for safety and convenience.

Electrical

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolts. Rotor-lock lampholders ensure positive lamp retention. UL/CUL listed. Suitable for damp locations.

Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Housing and ballast cover finished with new 90% reflective white enamel for superior performance.

Hinging/Latching

Positive cam action steel latches with baked white enamel finish. Safety-lock T-hinges allow hinging and latching either side. Door assembly hinges down for easy access from below without tools.

Frame/Shielding

Die formed, heavy gauge, flat steel door with reinforced mitered corners and paint after fabrication, baked matte white enamel finish. Positive light seals. Light stabilized, acrylic frosted lens.

Controls

Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energysaving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.

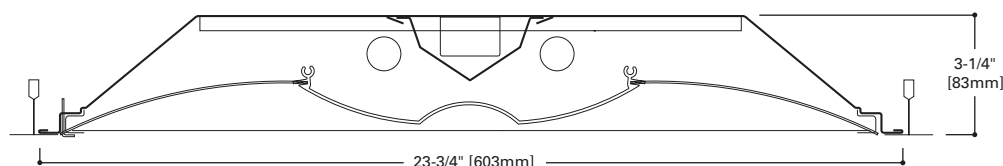


2ALN
214T5
224T5

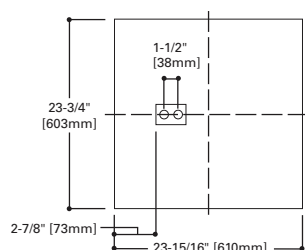
2' X 2' TROFFER
2 T5 LAMPS

Specification Architectural
Troffer

For Use In Insulated
Ceilings



MOUNTING DATA

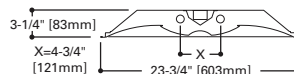


DOOR FRAMES

ALN
Flat, White Steel



LAMP CONFIGURATIONS



CEILING COMPATIBILITY

G
Grid/Lay-in
Standard



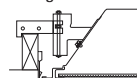
G
Concealed T



G
Slot Grid



F
Flange Trim
With Supporting
Swing Gates



**Ceiling
Type**

Exposed Grid
Concealed T
Slot Grid
Flange

**Trim
Type**

G
G
G
F

(Verify compatibility/ consult factory.)

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
214T5 (33), 224T5 (52)

*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

**Consult Pre Sales Technical Support.

***Low profile emergency unit option only.

****When ordering Flange Kit for installation in drywall ceilings, see options and accessories compatibility section and ordering logic.

LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

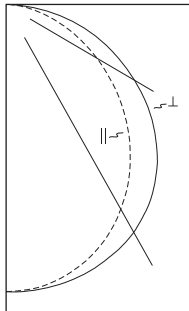
LINEAR DISCONNECT

Safe and convenient means of
disconnecting power.



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PHOTOMETRICS

**2ALN-224T5-UNV-EB81-U**

Electronic Ballast

(2) F24W/T5/841

Lamps, 1750 Lumens

Spacing criterion:

(II) 1.2 x mounting

height, (⊥) 1.3 x

mounting height

Efficiency 80.4%

Test Report: 2ALN-224T5-UNV-EB81-U.IES

LER = FL55

Yearly Cost of 1000

lumens, 3000 hrs at

.08 KWH = \$4.36

Candlepower

Angle	Along II	45°	Across ⊥
0	968	968	968
5	963	965	968
10	947	954	962
15	920	935	950
20	884	908	931
25	838	874	907
30	782	832	875
35	721	782	833
40	651	723	781
45	578	659	721
50	502	586	652
55	422	509	576
60	347	430	494
65	272	351	411
70	202	274	328
75	139	202	245
80	83	131	154
85	34	56	64
90	0	0	0

Coefficients of Utilization

Effective floor cavity reflectance																		20%								
rc	80%								70%				50%				30%				10%				0%	
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	96	96	96	96	93	93	93	93	89	89	89	86	86	86	82	82	82	80								
1	87	83	80	77	85	81	78	75	78	75	73	75	73	71	72	70	69	67								
2	79	72	67	62	77	71	66	61	68	64	60	65	62	59	63	60	57	56								
3	72	64	57	52	70	62	56	51	60	55	50	58	53	49	56	52	48	47								
4	66	56	49	44	64	55	48	43	53	47	43	51	46	42	49	45	42	40								
5	61	50	43	38	59	49	42	37	48	42	37	46	41	36	44	40	36	34								
6	56	45	38	33	54	44	38	33	43	37	32	42	36	32	40	35	32	30								
7	52	41	34	29	51	40	34	29	39	33	29	38	32	28	37	32	28	26								
8	48	37	30	26	47	37	30	26	36	30	25	35	29	25	34	29	25	24								
9	45	34	28	23	44	34	27	23	33	27	23	32	27	23	31	26	23	21								
10	42	32	25	21	41	31	25	21	30	25	21	30	24	21	29	24	21	19								

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	758	21.7	26.9
0-40	1245	35.6	44.3
0-60	2200	62.9	78.2
0-90	2813	80.4	100.0
0-180	2813	80.4	-100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2805	3198	3499
55	2525	3045	3466
65	2208	2850	3337
75	1843	2678	3248
85	1339	2205	2520

ORDERING INFORMATION

SAMPLE NUMBER: 2ALNG-214T5-UNV-EBT1-U

Rating Blank = Standard ATW-SW4 = Chicago Rated	Number of Lamps 2=2 Lamps (Not included)	Voltage ⁽²⁾ 347V =347 Volt UNV =Universal Voltage 120-277 ⁽³⁾	Ballast Type ⁽²⁾ EBT __=T5/T5HO Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor=1.0 Ballast/FactorType EBT _N=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Normal Ballast Factor=.90 EBT _H=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor=1.15 ⁽⁶⁾ EBT _NDIM=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, Normal Ballast Factor=.95-1.0 ^{(5), (8)} EBT _HDIM=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, High Ballast Factor=1.15 ^{(5), (8)} 0-10V Dimming Ballasts ⁽¹⁰⁾ 5LTV5 _ =T5 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LTVS5 _ =T5 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹¹⁾ 5LTV5H _ =T5HO 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹³⁾ 5LTVS5H _ =T5HO 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ^{(11), (12)} Fifth Light DALI Ballasts ⁽⁹⁾ 5LT5 _ =T5 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LT5H _ =T5HO DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	Options G1 =Gasket, Door Frame and Housing G2 =G1 plus Gasket between Lens and Door G3 =G1 and G2 plus Gasketing on Mounting Surface of Fixture Trims Packaging U =Unit Pack PALC =Job Pack, in carton
Width 2=2' Width	Wattage (Length) 14T5 =14W T5 (24") 24T5 =24W T5HO (24")	Options GL =Single Element Fuse GM =Double Element Fuse Lamps =Lamps Installed (see options and accessories) Flex =Flex Installed (Reference Flex ordering information) EL =Emergency Installed ⁽⁷⁾		
Series ALN =ArcLine Series	Shielding Blank =Smooth Frosted Acrylic (standard)			
Trim Type G =Grid/Lay-in (Standard) ⁽¹⁾ G =Concealed T G =Slot Grid F =Flange Trim	Option – Aluminum Flange Trim ⁽⁴⁾ Blank =SW (Single White) Type Color 'S' Single 'N' Natural 'R' In Row 'W' White 'E' End of Row			
Door Frame Standard =Flat White Steel Door (Leave Blank)				

Number of Ballasts
1=1 Ballast

NOTES: ⁽¹⁾ An EQ Grid Clip is recommended for all 9/16" ceiling systems. ⁽²⁾ Products also available in non-US voltages and frequencies for international markets. ⁽³⁾ Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾ Specify row configuration, type in catalog number when ordering complete fixture. ⁽⁵⁾ 1-Lamp step dimming ballast in a Normal Ballast factor not available. 2-Lamp ballast will not operate 1-Lamp. ⁽⁶⁾ 1-Lamp ballast in a High Ballast factor not available. ⁽⁷⁾ Low profile emergency unit only. Short T5 ballast only (GE). No access plate. Wire through end plate. Please specify voltage. ⁽⁸⁾ Step dimming ballast available for 2 14W T5 lamps only. ⁽⁹⁾ For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽¹⁰⁾ 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽¹¹⁾ Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. ⁽¹²⁾ Specification Grade 0-10V ballast not available for 24W T5HO lamps. ⁽¹³⁾ Standard 0-10V ballast not available for 24W T5HO lamps.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

ACCESSORIES

EQ-CLIP-U=T-BAR Safety Earthquake Clips ⁽¹⁾
FCTKA-22W-U=Field Installed Flange Kit

FCTK	A	- 24	R	W	- U
Trim Kit Field Convertible	22=2' x 2' 24=2' x 4'		N=Natural W=White		
Aluminum	Blank=Single R=In Row E=End Row		U=Unit Pack		

SHIPPING DATA

Catalog No.	Wt.
2ALNG-214T5	10 lbs.
2ALNG-224T5	10 lbs.