

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. KOs 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. 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

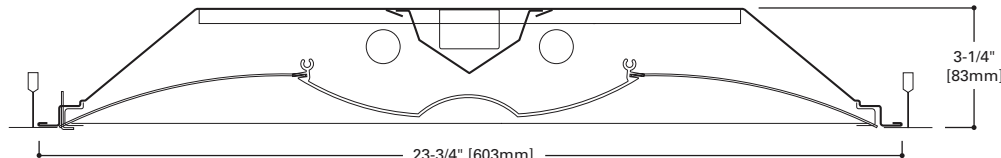
Positive cam action steel latches with baked white enamel finish. Safety-lock T-hinges allow hinging and latching either side. Door assembly hinges down for easy access from below without tools.

Frame/Shielding

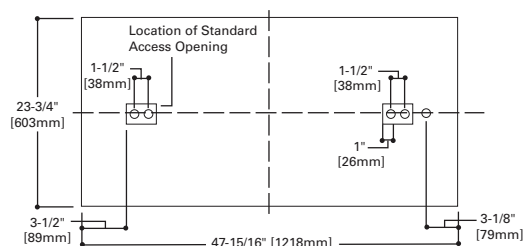
Die formed, heavy gauge, flat steel door with reinforced mitered corners and paint after fabrication, baked matte white enamel finish. Positive light seals. Light stabilized, acrylic frosted lens.

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.

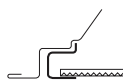


MOUNTING DATA

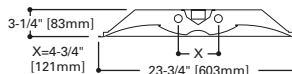


DOOR FRAMES

ALN
Flat, White Steel

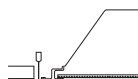


LAMP CONFIGURATIONS



CEILING COMPATIBILITY

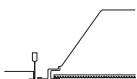
G
Grid/Lay-in
Standard



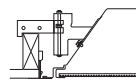
G
Concealed T



G
Slot Grid



F
Flange Trim
With Supporting
Swing Gates



**Ceiling
Type**

Exposed Grid
Concealed T
Slot Grid
Flange

(Verify compatibility/ consult factory.)

**Trim
Type**

G
G
G
F



**2ALN
228T5
254T5**

**2' X 4' TROFFER
2 T5 LAMPS**

Specification Architectural
Troffer

For Use In Insulated
Ceilings

powered by
fifthlight
technology

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
228T5 (62), 254T5 (117)

*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.

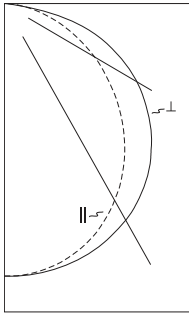
**LAMPS CONTAIN MERCURY. DISPOSE ACCORDING
TO LOCAL, STATE OR FEDERAL LAWS**

LINEAR DISCONNECT

Safe and convenient means of
disconnecting power.



PHOTOMETRICS


2ALNG-228T5-UNV-EB81-U

Electronic Ballast
(2) F28W/T5/835/ECO
Lamps, 2900 Lumens
Spacing criterion:
(II) 1.2 x mounting
height, (⊥) 1.3 x
mounting height

Efficiency 81.4%

Test Report: 2ALNG-
228T5-UNV-EB81-U.IES

LER = FL79

Yearly Cost of 1000
lumens, 3000 hrs at
.08 KWH = \$3.04

Candlepower

Angle	Along II	45°	Across ⊥
0	1581	1581	1581
5	1576	1575	1582
10	1552	1559	1571
15	1512	1531	1552
20	1457	1488	1524
25	1383	1435	1482
30	1295	1369	1434
35	1197	1289	1370
40	1087	1201	1296
45	968	1100	1205
50	844	988	1106
55	715	873	996
60	594	747	880
65	467	622	745
70	352	494	604
75	239	368	429
80	141	221	190
85	61	65	51
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%															
	80%				70%				50%				30%			
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
RCR	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30
0	97	97	97	97	95	95	95	95	90	90	90	87	87	87	83	83
1	88	84	81	78	86	83	79	76	79	76	74	76	74	72	73	71
2	80	73	68	63	78	72	66	62	69	64	61	66	62	59	64	61
3	73	64	57	52	71	63	57	51	60	55	51	58	54	50	56	52
4	67	57	49	44	65	56	49	44	54	48	43	52	46	42	50	45
5	61	51	43	38	59	50	43	37	48	42	37	46	41	37	45	40
6	56	45	38	33	55	45	38	33	43	37	32	42	36	32	40	36
7	52	41	34	29	51	40	34	29	39	33	28	38	32	28	37	32
8	49	37	30	26	47	37	30	26	36	30	25	35	29	25	34	29
9	45	34	28	23	44	34	27	23	33	27	23	32	27	23	31	26
10	43	32	25	21	42	31	25	21	30	25	21	30	24	21	29	24

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1244	21.4	26.4
0-40	2050	35.3	43.4
0-60	3666	63.2	77.7
0-90	4719	81.4	100.0
0-180	4719	81.4	-100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2196	2495	2733
55	1999	2441	2785
65	1772	2361	2828
75	1481	2281	2269
85	1123	1196	939

ORDERING INFORMATION

SAMPLE NUMBER: 2ALNG-228T5-UNV-EBT1-U

Rating Blank =Standard ATW-SW4 =Chicago Rated Width 2=2' Width Series ALN =ArcLine Series Trim Type G =Grid/Lay-in (Standard) ⁽¹⁾ G =Concealed T G =Slot Grid F =Flange Trim Door Frame Standard =Flat White Steel Door (Leave Blank)	Number of Lamps 2=2 Lamps (Not included) Wattage (Length) 28T5 =28W T5 (48") 54T5 =54W T5HO (48") Shielding Blank =Smooth Frosted Acrylic (standard) Option – Aluminum Flange Trim ⁽⁴⁾ Blank =SW (Single White) <table border="1"> <tr> <th>Type</th> <th>Color</th> </tr> <tr> <td>'S' Single</td> <td>'N' Natural</td> </tr> <tr> <td>'R' In Row</td> <td>'W' White</td> </tr> <tr> <td>'E' End of Row</td> <td></td> </tr> </table>	Type	Color	'S' Single	'N' Natural	'R' In Row	'W' White	'E' End of Row		Voltage ⁽²⁾ 347V =347 Volt UNV =Universal Voltage 120-277 ⁽³⁾ 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 ⁽⁹⁾	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 ⁽⁵⁾ EBT_H =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor=1.15 ^{(5), (8)} EBT_NDIM =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, Normal Ballast Factor=.95-1.0 ^{(6), (7)} EBT_HDIM =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, High Ballast Factor=1.15 ⁽⁶⁾ 0-10V Dimming Ballasts ⁽¹¹⁾ 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 ⁽¹²⁾ 5LTV5H __=T5HO 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LTVS5H __=T5HO 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹²⁾ Fifth Light DALI Ballasts ⁽¹⁰⁾ 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 Number of Ballasts 1=1 Ballast 2=2 Ballasts	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
Type	Color											
'S' Single	'N' Natural											
'R' In Row	'W' White											
'E' End of Row												

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⁾.90 and 1.15 ballast factor available for 2 28W T5 lamps only. ⁽⁶⁾Step Dimming ballast available for 2 28W T5 lamps only. ⁽⁷⁾1-Lamp step dimming ballast in a Normal Ballast factor not available. 2-Lamp ballast will not operate 1-Lamp. ⁽⁸⁾1-Lamp ballast in a High Ballast factor not available. ⁽⁹⁾Low profile emergency unit only, must specify voltage. ⁽¹⁰⁾For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽¹¹⁾0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽¹²⁾Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving 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-24W-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-228T5	20 lbs.
2ALNG-254T5	20 lbs.