

COOPER LIGHTING - METALUX®

DESCRIPTION

The ArcLine 1' x 4' Series features a deep para-contoured fixture housing, high reflectivity and optimum lamp to lens spacing. The series produces total uniformity of light in the luminous area and is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for application versatility.

The specification luminaire is designed to offer maximum efficiency and performance for today's unique interior specifications. The ArcLine Series is an excellent choice for commercial office spaces, schools, hospitals or retail merchandising areas.

SPECIFICATION FEATURES

Construction

5-5/8" deep, para-contoured housing, die formed code gauge, prime cold rolled steel. Die embossed housing has full length die formed stiffeners for added strength. Ballast/ wireway cover easily removed without tools. Die formed captive lampholder bracket fully encloses lamp-holder wiring permitting easy lampholder replacement. Heavy 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. Pressure lock lampholders. UL/CUL listed. Suitable for damp locations.**

Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibitor. Lighting grade, baked white enamel finish.

Hinging/Latching

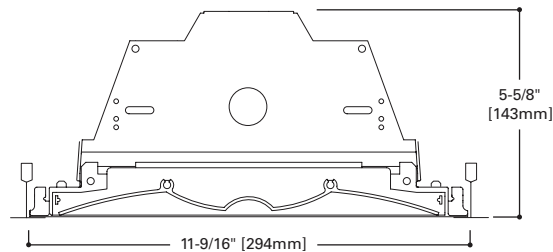
Positive cam action steel latches with baked white enamel finish. Safety-lock T-hinges allow hinging and latching either side. Door assembly hinges down for easy access from below without tools.

Frame/Shielding

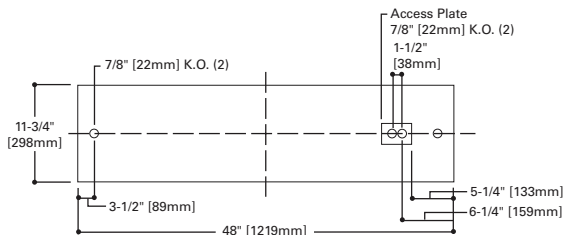
Die formed heavy gauge, flat, steel door with reinforced mitered corners and paint after fabrication, baked matte white enamel finish. Quadrasealed to prevent light spillage. Frosted acrylic profile lenses provide a soft but effective distribution of light.

Controls

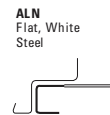
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energysaving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.



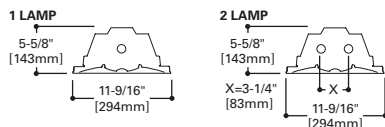
MOUNTING DATA



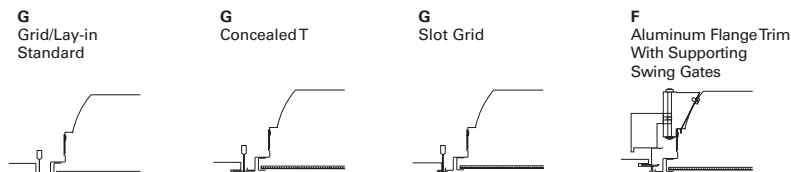
DOOR FRAMES



LAMP CONFIGURATIONS



CEILING COMPATIBILITY



Ceiling Type	Trim Type
Exposed Grid	G
Concealed T	G
Slot Grid	G
Flange	F

(Verify compatibility/ consult Pre Sales Technical Support.)

Cooper Lighting
by **F.T.N**



ALN
128T5
228T5
154T5
254T5

1' X 4' TROFFER
1 OR 2 T5 LAMPS

Specification Architectural
Troffer

ArcLine

powered by
fifthlight
technology

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
128T5 (31), 228T5 (62),
154T5 (62), 254T5 (117)

*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.
**Consult Pre Sales Technical Support.

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

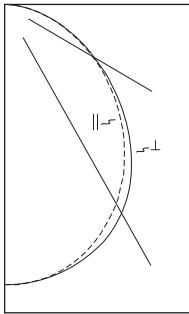
LINEAR DISCONNECT

Safe and convenient means of disconnecting power.



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PHOTOMETRICS

**ALN-154T5-UNV-EBT1-U**

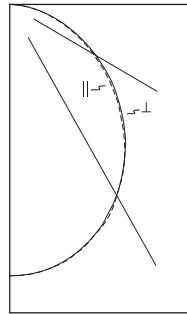
Electronic Ballast

(1) F54W-T5-835 Lamp
4800 LumensSpacing criterion:
(H) 1.2 x mounting
height, (V) 1.3 x
mounting height

Efficiency 64.4%

Test Report: ALN-
154T5-UNV-EBT1-U.IES
LER = FL105Yearly Cost of 1000
lumens, 3000 hrs at
.08 KWH = \$2.29**Candlepower**

Angle	Along H	45°	Across V
0	1182	1182	1182
5	1178	1173	1178
10	1160	1157	1164
15	1126	1128	1140
20	1079	1089	1105
25	1019	1038	1061
30	953	978	999
35	875	906	924
40	785	821	832
45	694	730	734
50	603	630	631
55	512	536	530
60	419	440	428
65	332	348	340
70	250	263	256
75	173	189	176
80	106	115	103
85	47	48	44
90	0	0	0

**ALN-254T5-UNV-EBT1-U**

Electronic Ballast

(2) F54W-T5-835-ECO
Lamps, 4800 LumensSpacing criterion:
(H) 1.2 x mounting
height, (V) 1.2 x
mounting height

Efficiency 60.6%

Test Report: ALN-
254T5-UNV-EBT1-U.IES
LER = FL56Yearly Cost of 1000
lumens, 3000 hrs at
.08 KWH = \$4.29**Candlepower**

Angle	Along H	45°	Across V
0	2290	2290	2290
5	2280	2272	2279
10	2242	2232	2240
15	2175	2168	2171
20	2078	2073	2077
25	1976	1959	1956
30	1827	1826	1826
35	1680	1674	1676
40	1507	1507	1523
45	1325	1342	1351
50	1151	1169	1176
55	974	994	1001
60	805	820	824
65	634	655	659
70	482	493	491
75	337	351	349
80	203	213	210
85	94	92	84
90	0	0	0

Coefficients of Utilization

rc rw RCR	Effective floor cavity reflectance 20%											
	80%				70%				50%			
	70	50	30	10	70	50	30	10	50	30	10	0
0	77	77	77	77	75	75	75	75	72	72	72	64
1	70	67	65	62	68	66	63	61	63	61	59	54
2	64	59	55	51	62	58	54	50	55	52	49	46
3	59	52	47	43	57	51	46	42	49	45	42	39
4	54	46	41	36	52	45	40	36	44	39	36	33
5	49	41	36	31	48	41	35	31	39	35	31	29
6	46	37	32	28	45	37	31	27	36	31	27	25
7	42	34	28	24	41	33	28	24	32	28	24	23
8	40	31	26	22	39	31	25	22	30	25	21	20
9	37	28	23	20	36	28	23	20	27	23	20	18
10	35	26	21	18	34	26	21	18	25	21	18	16

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	910	19.0	29.5
0-40	1473	30.7	47.7
0-60	2502	52.1	81.0
0-90	3089	64.4	100.0
0-180	3089	64.4	-100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3633	3822	3843
55	3304	3459	3421
65	2908	3048	2978
75	2474	2703	2517
85	1996	2039	1869

Coefficients of Utilization

rc rw RCR	Effective floor cavity reflectance 20%											
	80%				70%				50%			
	70	50	30	10	70	50	30	10	50	30	10	0
0	72	72	72	72	70	70	70	70	67	67	67	61
1	66	63	61	58	64	62	60	57	59	57	56	51
2	60	55	51	48	59	54	51	47	52	49	46	43
3	55	49	44	40	54	48	43	40	46	42	39	36
4	51	43	38	34	49	43	38	34	41	37	34	31
5	47	39	34	30	45	38	33	29	37	33	29	27
6	43	35	30	26	42	35	30	26	33	29	26	24
7	40	32	27	23	39	31	26	23	31	26	23	21
8	37	29	24	21	36	29	24	21	28	24	20	19
9	35	27	22	19	34	26	22	19	26	21	18	17
10	33	25	20	17	32	24	20	17	24	20	17	16

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1732	18.0	29.8
0-40	2780	29.0	47.8
0-60	4699	49.0	80.8
0-90	5813	60.6	100.0
0-180	5813	60.6	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	6937	7026	7073
55	6286	6415	6460
65	5553	5737	5772
75	4820	5020	4992
85	3993	3908	3568

ORDERING INFORMATION

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

Rating Blank = Standard ATW-SW4 = Chicago Rated	Number of Lamps 1 or 2 lamps	Voltage ⁽²⁾ 120V =120 Volt 277V =277 Volt 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 ⁽⁷⁾ EBT_H =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor=1.15 ^{(7), (10)} EBT_NDIM =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, Normal Ballast Factor=.95-1.0 ^{(8), (9)} EBT_HDIM =T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, High Ballast Factor=1.15 ⁽⁸⁾ 0-10V Dimming Ballasts ⁽¹²⁾ SLTV5 __=T5 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 SLTVS5 __=T5 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹³⁾ SLTV5H __=T5HO 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 SLTVS5H __=T5HO 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹³⁾ Fifth Light DALI Ballasts ⁽¹¹⁾ SLT5 __=T5 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 SLT5H __=T5HO DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	Packaging U =Unit Pack PALC =Job Pack, in carton
Width Blank =1' Width	Wattage (Length) 28T5 =28W T5 (48") 54T5 =54W T5HO (48")	Options GL =Single Element Fuse GM =Double Element Fuse Lamps =Lamps Installed (see options and acces- sories) Flex =Flex Installed (Reference Flex ordering information) EL =Emergency Installed ⁽⁶⁾	ACCESSORIES EQ-CLIP-U =T-BAR Safety Earthquake Clips ⁽¹⁾ F2M-14S-W-U =Field Installed Flange Kit	
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 =Aluminum Flange Trim ⁽⁴⁾		
Trim Type G =Grid/Lay-in – Standard ⁽¹⁾ G =Concealed T G =Slot Grid F =Aluminum Flange Trim ⁽⁴⁾	Option – Aluminum Flange Trim ⁽⁴⁾ Blank =SW (Single White) Type Color 'S' Single 'N' Natural 'R' In Row 'W' White 'E' End of Row			
Number of Ballasts 1 =1 Ballast 2 =2 Ballasts				

NOTES: ⁽¹⁾An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. ⁽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⁾When utilizing 28W T8 lamps, HPT8 Ballast must be specified. ⁽⁶⁾Must specify voltage (120-277V) when selecting EL option. ⁽⁷⁾.90 and 1.15 ballast factor available for 2 28W T5 lamps only. ⁽⁸⁾Step Dimming ballast available for 2 28W T5 lamps only. ⁽⁹⁾1-Lamp step dimming ballast in a Normal Ballast factor not available. 2-Lamp ballast will not operate 1-Lamp. ⁽¹⁰⁾1-Lamp ballast in a High Ballast factor not available. ⁽¹¹⁾For a complete listing of FifthLightTechnology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽¹²⁾0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽¹³⁾Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps.

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

SHIPPING DATA

Catalog No.	Wt.
ALNG-128T5	19 lbs.
ALNG-228T5	19 lbs.
ALNG-154T5	19 lbs.
ALNG-254T5	19 lbs.