

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 lampholder wiring permitting easy lampholder replacement. Heavy endplates are securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. KO's 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

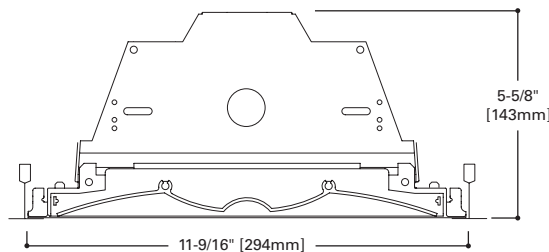
Positive cam action steel latches with baked white enamel finish. Safetylock T-hinges allow hinging and latching either side. Door assembly hinges down for easy access from below without tools.

Frame/Shielding

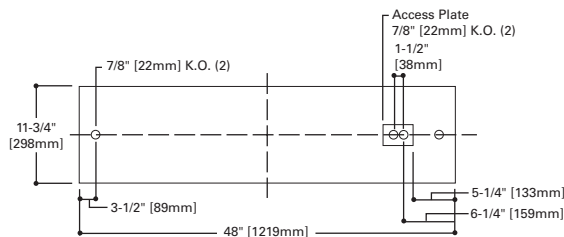
Die formed heavy gauge, flat, steel door with reinforced mitered corners and baked white enamel finish. Quadrasealed to prevent light spillage. Frosted acrylic profile lenses provide a soft but effective distribution of light.

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

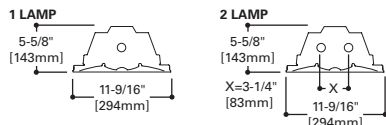


DOOR FRAMES

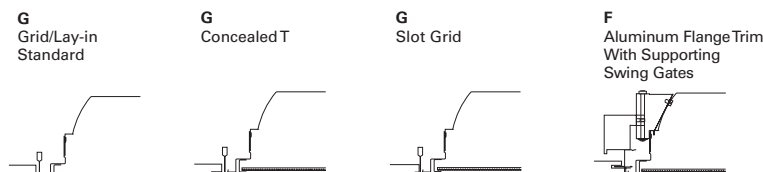
ALN
Flat, White
Steel



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.)



ALN
128T8
228T8
132
232

1' X 4' TROFFER
1 OR 2 T8 LAMPS

Specification Architectural Troffer

ArcLine



ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
128T8 (31), 228T8 (47),
132 (35), 232 (55)

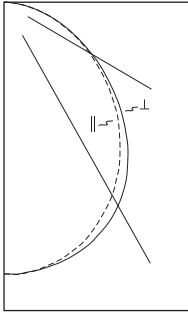
*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.
**Consult Pre Sales Technical Support.

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

LINEAR DISCONNECT

Safe and convenient means of disconnecting power.

PHOTOMETRICS

**ALN-132-UNV-EB81-U** **Candlepower**

Electronic Ballast

(1) F32T8/SPX35/ECO

Lamp, 3100 Lumens

Spacing criterion:

(H) 1.2 x mounting

height, (V) 1.3 x

mounting height

Efficiency 69.1%

Test Report: ALN-132-

UNV-EB81-U.IES

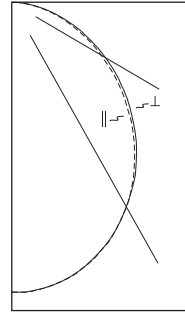
LER = FL124

Yearly Cost of 1000

lumens, 3000 hrs at

.08 KWH = \$1.94

Angle	Along H	45°	Across V
0	817	817	817
5	816	812	815
10	801	800	806
15	778	782	791
20	747	754	769
25	704	721	737
30	658	678	695
35	604	627	643
40	542	568	580
45	483	506	509
50	416	440	438
55	351	371	367
60	291	305	298
65	231	242	237
70	173	182	176
75	121	130	122
80	74	81	71
85	34	32	30
90	0	0	0

**ALN-232-UNV-EB81-U** **Candlepower**

Electronic Ballast

(2) T8 Lamps

3100 Lumens

Spacing criterion:

(H) 1.2 x mounting

height, (V) 1.2 x

mounting height

Efficiency 65.8%

Test Report: ALN-232-

UNV-EB81-U.IES

LER = FL65

Yearly Cost of 1000

lumens, 3000 hrs at

.08 KWH = \$3.69

Angle	Along H	45°	Across V
0	1599	1599	1599
5	1593	1588	1593
10	1564	1562	1565
15	1518	1515	1517
20	1451	1449	1452
25	1372	1368	1372
30	1280	1273	1279
35	1171	1173	1184
40	1053	1062	1072
45	933	942	951
50	806	820	834
55	681	699	711
60	558	580	586
65	439	460	464
70	332	349	353
75	233	246	249
80	140	151	148
85	64	63	59
90	0	0	0

Coefficients of Utilization

Effective floor cavity reflectance													20%			30%			10%			0%
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	0	
RCR																						
0	82	82	82	82	80	80	80	80	77	77	77	73	73	73	70	70	70	69				
1	75	72	69	67	73	71	68	66	68	65	64	65	63	62	62	61	60	58				
2	69	63	59	55	67	62	58	54	59	56	53	57	54	52	55	53	50	49				
3	63	56	50	46	61	55	49	45	53	48	45	51	47	44	49	46	43	42				
4	58	49	44	39	56	49	43	39	47	42	38	45	41	38	44	40	37	36				
5	53	44	38	34	52	44	38	34	42	37	33	41	36	33	39	36	32	31				
6	49	40	34	30	48	39	34	29	38	33	29	37	32	29	36	32	29	27				
7	46	36	30	26	44	36	30	26	35	30	26	34	29	26	33	29	26	24				
8	42	33	27	23	41	33	27	23	32	27	23	31	26	23	30	26	23	22				
9	40	31	25	21	39	30	25	21	29	24	21	29	24	21	28	24	21	20				
10	37	28	23	19	36	28	23	19	27	22	19	27	22	19	26	22	19	18				

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	631	20.3	29.4
0-40	1021	32.9	47.7
0-60	1735	56.0	81.0
0-90	2142	69.1	100.0
0-180	2142	69.1	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2529	2649	2665
55	2265	2394	2369
65	2023	2120	2076
75	1731	1859	1745
85	1444	1359	1274

Coefficients of Utilization

rc	Effective floor cavity reflectance												20%								
	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	0
RCR																					
0	78	78	78	78	77	77	77	77	73	73	73	70	70	70	67	67	67	66			
1	72	69	66	63	70	67	65	62	64	62	60	62	60	59	59	58	57	55			
2	65	60	56	52	64	59	55	51	57	53	50	54	52	49	52	50	48	47			
3	60	53	48	44	58	52	47	43	50	46	42	48	45	42	47	44	41	40			
4	55	47	41	37	53	46	41	37	45	40	36	43	39	36	42	38	35	34			
5	51	42	36	32	49	41	36	32	40	35	32	39	35	31	38	34	31	30			
6	47	38	32	28	46	37	32	28	36	31	28	35	31	28	34	30	27	26			
7	43	35	29	25	42	34	29	25	33	28	25	32	28	25	31	27	24	23			
8	40	32	26	22	39	31	26	22	30	26	22	30	25	22	29	25	22	21			
9	38	29	24	20	37	29	24	20	28	23	20	27	23	20	27	23	20	19			
10	36	27	22	18	35	27	22	18	26	21	18	25	21	18	25	21	18	17			

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1210	19.5	29.7
0-40	1944	31.4	47.7
0-60	3294	53.1	80.7
0-90	4079	65.8	100.0
0-180	4079	65.8	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	4884	4932	4979
55	4395	4511	4589
65	3845	4029	4064
75	3333	3518	3561
85	2718	2676	2506

ORDERING INFORMATION

SAMPLE NUMBER: ALNG-132-UNV-EB81-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⁾ EB8_ =T8 Electronic Start. Total Harmonic Distortion < 10% EB8_/_PLUS =T8 Electronic Start. Total Harmonic Distortion < 10%. High Ballast Factor > 1.15. ER8_ =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% High Performance T8 Ballasts HB8_ =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 HB8_L =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Low Ballast Factor .77 – .82 HB8_N =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Normal Ballast Factor 1.0 HB8_H =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Normal Ballast Factor 1.15 – 1.20 HR8_ =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 HR8_DIM =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming. Ballast Factor .88 HR8_L =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Low Ballast Factor .71 – .79 HR8_H =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20 0-10V Dimming Ballasts ⁽⁸⁾ 5LTV8_ =T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 5LTVS8_ =T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 ⁽⁹⁾ Fifth Light DALI Ballasts ⁽⁷⁾ 5LT8_ =T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	Options PAF =Painted After Fabrication RLS =Rotor-Lock Socket (T8 Lamps Only) (See options & accessories) Packaging U =Unit Pack PALC =Job Pack, in carton
Width Blank =1' Width	Wattage (Length) 28T8 =28W T8 (48") 32=32W T8 (48")	Options GL =Single Element Fuse GM =Double Element Fuse Flex =Flex Installed (Reference Flex ordering information) EL =Emergency Installed ⁽⁴⁾ Lamps Installed Blank =No Lamps Installed L8835 =T8 Lamp, 28W and 32W, 3500K ⁽⁵⁾ L8841 =T8 Lamp, 28W and 32W, 4100K ⁽⁵⁾ L8835HL =T8 Lamp, 32W, 3500K, 3100 Lumens L8841HL =T8 Lamp, 32W, 4100K, 3100 Lumens	Shielding Blank =Smooth Frosted Acrylic (Standard) Option – Aluminum Flange Trim ⁽⁴⁾ Blank =SW (Single White) Type Color 'S' Single 'N' Natural 'R' In Row 'W' White 'E' End of Row	Trim Type G =Grid/Lay-in – Standard ⁽¹⁾ G =Concealed T G =Slot Grid F =Aluminum Flange Trim ⁽⁴⁾

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⁾For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽⁸⁾0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽⁹⁾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.

ACCESSORIES

EQ-CLIP-U=T-BAR Safety Earthquake Clips⁽¹⁾
F2M-14S-W-U=Field Installed Flange Kit

SHIPPING DATA

Catalog No.	Wt.
ALNG-128T8	19 lbs.
ALNG-228T8	19 lbs.
ALNG-132A	19 lbs.
ALNG-232A	19 lbs.