

A-51™ Incandescent Factory Sealed Luminaires

Explosionproof

Suitable for use in Wet Locations. UNILETS® for use with Threaded Metal Conduit.

NEC/CEC — For Group A and B:
Class I, Division 1 and 2, Groups A, B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC — For Group C and D:
Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III

Applications

- A-51 Series Incandescent Class I, Groups A, B, C and D; and Class II, Groups E, F and G applications (see listings and area suitability chart).
- Ideal for use in chemical and petrochemical plants, and in other heavy process areas where ignitable vapors, dust, moisture and corrosive atmospheres may be present.
- Suitable for use in wet locations.
- Wide range of wattages – 60 W through 300 W incandescent lamps.
- Choice of units with or without guard, as well as choice of porcelain, polyester or aluminum reflectors.
- Choice of mountings: pendant, ceiling, 25° stanchion, long bracket and 15° short bracket.
- Porcelain reflectors for standard applications and fiberglass reinforced polyester reflectors for installations where fixture is subject to exceptionally severe corrosive atmospheres. High bay reflector for installations where mounting height from work plane ranges from 762 mm (20 to 30 ft/508 in).
- Class I, Groups A and B fixtures have special UL-approved sintered metal flame arrester.

Features

- All A-51 fixtures are factory-sealed; no external sealing fittings required.
- New high temperature phenolic connection block in mounting hood has rugged leaf spring contacts – loosen two screws, rotate and remove for quick wiring.
- Safe, easy servicing or relamping without disconnecting any wiring. “Wireless” fixture unit easily threads off mounting hood for convenient servicing or for immediate exchange with “stand-by” unit.
- All joints are flame-tight.
- Specially formulated two-coat baked epoxy enamel provides superior protective finish to resist corrosion. Applied to all mounting hoods, fixture units and guards.
- New high temperature glass-reinforced phenolic socket block in fixture unit has collector ring and pin that automatically make electrical contact as fixture unit is threaded onto mounting hood.
- Globes in A-51 fixtures are explosionproof and heat- and impact-resistant glass. Prismatic configuration on globe interior provides light control while allowing smooth exterior surface for cleaning.
- A-51 fixture units have standardized threads to fit all A-51 and mounting hoods.
- All fixtures have aluminum inner reflector for increased lumen efficiency.
- A-51 fixture guards to protect globe are of rugged copperfree aluminum construction and double epoxy coated. Easily mount to globe ring with 3 screws.

Standard Materials

- Fixtures and guards: copperfree (4/10 of 1% max.) aluminum.
- Pendant mounting hoods: copperfree (4/10 of 1% max.) aluminum.
- Ceiling and bracket mounting hoods: malleable iron with aluminum adapters.
- Reflectors: porcelain-enameled steel, aluminum or fiberglass reinforced polyester.

Group A and B



Polyester Reflector



Porcelain Reflector



Group C and D



Polyester Reflector



Porcelain Reflector



Standard Finishes

- Fixtures, guards and mounting hoods: two-coat epoxy-clad finish. Epoxy powder coat finish, electrostatically applied for complete, uniform surface protection.
- Steel reflectors: white porcelain enamel.
- Polyester and aluminum reflectors: natural finish.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 844
- UL Listed: E10444
- CSA Standard: C22.2 No. 250, C22.2 No. 137
- CSA Certified: 025428

A-51™ Incandescent Factory Sealed Luminaires

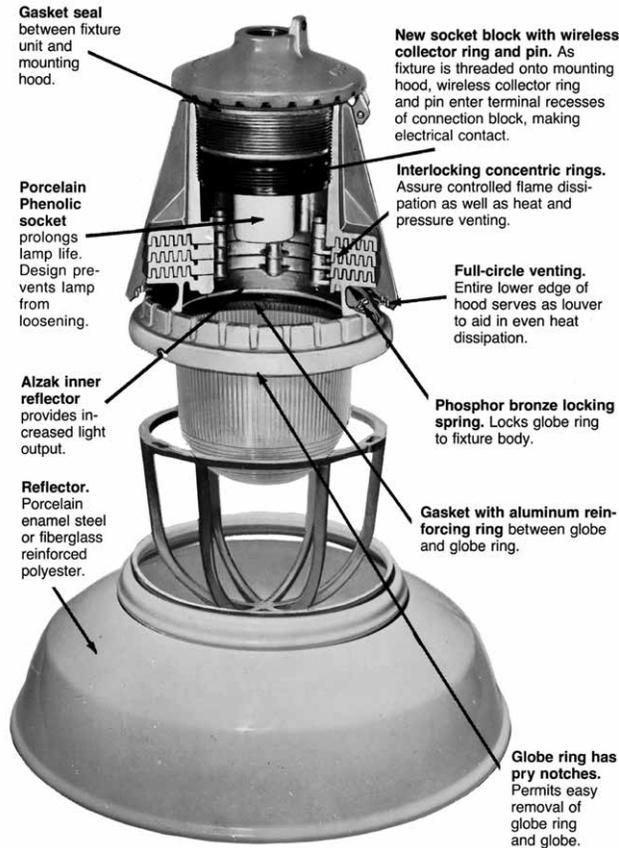
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NEC/CEC:

Class I, Division 1 and 2, Groups A, B, C, D.
Class II, Division 1 and 2, Groups E, F, G
Class III

Illustrated Features



Alzak® is a proprietary term of the Aluminum Company of America.

Weights

Fixture Units		
Wt. kg (lbs)		Catalog Number
3.4 (7.6)		AAU-1N
3.4 (7.6)		AAU-15N
4.9 (10.7)		AAU-2NS
9.2 (20.3)		AAU-5NS
6.8 (15.0)		AAUA-15
8.2 (18.0)		AAUA-2

Mounting Hoods		
Type		Wt. kg (lbs)
Pendant		0.6 (1.3)
Ceiling		2.2 (4.8)
Stanchion		0.7 (1.6)
Long Bracket		4.0 (8.9)
Short Bracket		2.2 (4.8)

Guards		
Wt. kg (lbs)		Catalog Number
0.2 (0.4)		AAGU-1
0.4 (0.8)		AAGU-2
0.9 (1.9)		AAGU-5
0.2 (0.5)		AAGUA-15

Standard Reflectors		
Wt. kg (lbs)		Catalog Number
1.3 (2.8)		AARP-2ST
1.0 (2.1)		AARW-15ST
1.3 (2.9)		AARW-2ST
2.0 (4.3)		AARW-5ST
1.0 (2.1)		AARW-15ST

30° Angle Reflectors		
Wt. kg (lbs)		Catalog Number
1.5 (3.3)		AARP-2AN
1.0 (2.1)		AARW-15AN
1.1 (2.4)		AARW-2AN
3.2 (7.0)		AARW-5AN
1.0 (2.1)		AARW-15AN

High Bay Reflectors		
Wt. kg (lbs)		Catalog Number
1.3 (2.9)		AARE-2HB
1.8 (3.9)		AARE-5HB

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NEC/CEC:

Class I, Division 1 and 2, Groups A, B, C, D

Class II, Division 1 and 2, Groups E, F, G

Class III

Fixture Unit	Lamp Watts	Without Reflectors	Standard Dome	30° Angle	High Bay	Supply Wire °C (°F)
Class I Division 1 and Division 2 Groups C and D						
AAU1N	100 W A19	T5	T5	T5	—	125 (257)
	100 W A21	T5	T5	T5	—	125 (257)
AAU15N	150 W A23	T3C	T3C	T3C	—	125 (257)
	200 W A25	T3C	T3C	T3C	—	125 (257)
	200 W PS25	T3C	T3C	T3C	—	125 (257)
	300 W PS25	T3C	T3A	T3A (D)	—	125 (257)
AAU2NS	200 W PS25	T3C	T3C	T3C	—	110 (230)
	200 W PS30	T3C	T3C	T3C	—	110 (230)
	300 W PS25	T3C	T3C	T3C	—	110 (230)
	300 W PS30	T3C	T3C	T3C	—	110 (230)
Class I Division 1 and Division 2 Groups A ①, B, C and D						
AAUA15	150 W A23	T3C	T3C	T3C	—	110 (230)
	150 W A25	T3C	T3C	T3C	—	110 (230)
	200 W A25	T3C	T3C	T3C	—	110 (230)
	200 W PS25	T3C	T3C	T3C	—	110 (230)
AAUA2	200 W PS25	T3C	T3C	T3C	—	110 (230)
	200 W PS30	T3C	T3C	T3C	—	110 (230)
	300 W PS25	T3C	T3C	T3C	—	110 (230)
	300 W PS30	T3C	T3C	T3C	—	110 (230)
Class II Division 1 and Division 2 Groups E, F and G						
AAU1N	100 W A19	T3C	T3C	T3C	—	125 (257)
	100 W A21	T3C	T3C	T3C	—	125 (257)
AAU15N	150 W A23	T3C	T3C	T3C	—	125 (257)
	200 W A25	T3C	T3C	T3C	—	125 (257)
	200 W PS25	T3	T3	T3	—	125 (257)
	300 W PS25	T3	—	—	—	125 (257)
AAU2NS	200 W PS25	T3C	T3C	T3C	—	110 (230)
	200 W PS30	T3C	T3C	T3C	—	110 (230)
	300 W PS25	T3C	T3C	T3A (EF)	—	110 (230)
	300 W PS30	T3C	T3C	T3A (EF)	—	110 (230)

NOTE: Ambient suitability of these incandescent fixtures: +40 °C (+104°F)

① For Group A, use Pendant Mount only.

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For Group C and D Locations. Explosionproof

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NEC/CEC:

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Class II, Division 1 and 2, Groups E, F, G
Class III

Type		Hub Size (Inches)	Catalog Number ②
Pendant — One Hub, Rigid or Flexible Mounting			
	60-100 W (AAU-1N) A-21	1/2	AP1050
		3/4	AP1075
		1	AP10100
	150-300 W (AAU-15N) A-23 PS-25	1/2	AP1550
		3/4	AP1575
		1	AP15100
	200-300 W (AAU-2NS) PS-30	1/2	AP2050
		3/4	AP2075
		1	AP20100
Ceiling — Four Hubs, Three Close-up Plugs			
	60-100 W (AAU-1N) A-21	1/2	AC1050
		3/4	AC1075
		1	AC10100
	150-300 W (AAU-15N) A-23 PS-25	1/2	AC1550
		3/4	AC1575
		1	AC15100
	200-300 W (AAU-2NS) PS-30	1/2	AC2050
		3/4	AC2075
		1	AC20100
25° Stanchion — One Hub — Not UL Listed			
	60-100 W (AAU-1N) A-21	1-1/2 ②	AN10150
		1-1/2 ②	AN15150
	150-300 W (AAU-15N) A-23 PS-25	1-1/2 ②	AN15150
		1-1/2 ②	AN20150
	200-300 W (AAU-2NS) PS-30	1-1/2 ②	AN20150
		1-1/2 ②	AN20150

① See A-51™ Incandescent Factory Sealed Luminaire Classified Area Suitability page for suitability of specific fixtures.

② 1-1/2" tapped hub furnished with a 1-1/2" to 1-1/4" reducer.

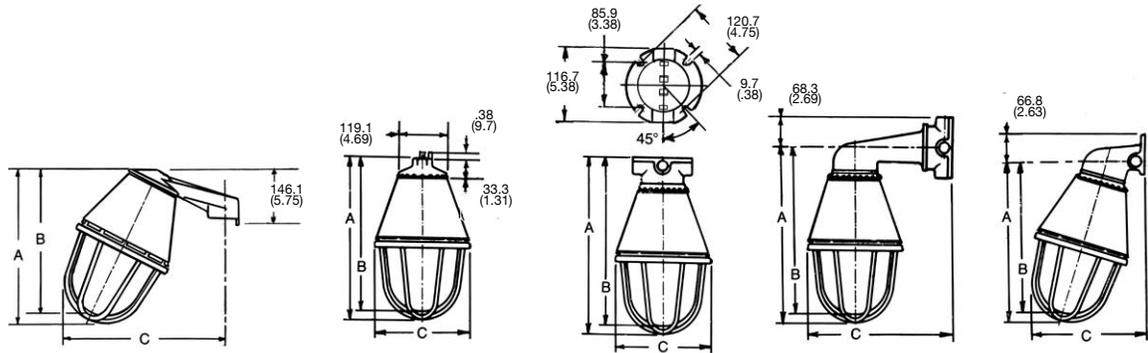
A-51™ Incandescent Factory Sealed Luminaires

For Group C and D Locations. Explosionproof

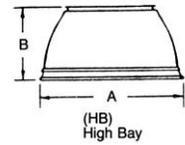
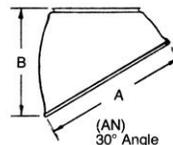
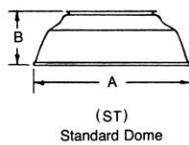
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NEC/CEC — For Group C and D:
 Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III

Dimensions in Millimeters (Inches)



Size (Watts)	Stanchion mm (in)			Pendant ① mm (in)			Ceiling mm (in)			Long Bracket mm (in)			Short Bracket mm (in)		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
60-100	291.3 (11.47)	275.6 (10.85)	292.1 (11.50)	311.2 (12.25)	295.4 (11.63)	179.3 (7.06)	349.3 (13.75)	333.5 (13.13)	179.3 (7.06)	349.3 (13.75)	333.5 (13.13)	314.5 (12.38)	344.4 (13.56)	328.7 (12.94)	231.9 (9.13)
150-300	291.3 (11.47)	275.6 (10.85)	292.1 (11.50)	311.2 (12.25)	295.4 (11.63)	179.3 (7.06)	349.3 (13.75)	333.5 (13.13)	179.3 (7.06)	349.3 (13.75)	333.5 (13.13)	314.5 (12.38)	344.4 (13.56)	328.7 (12.94)	231.9 (9.13)
200-300	332.0 (13.07)	314.5 (12.38)	322.8 (12.71)	354.1 (13.94)	336.6 (13.25)	223.8 (8.81)	392.2 (15.44)	374.7 (14.75)	223.8 (8.81)	392.2 (15.44)	374.7 (14.75)	336.6 (13.25)	385.8 (15.19)	363.8 (14.50)	257.3 (10.13)



Size (Watts)	A ②	B ②	A	B	A	B
60-100	304.8 (12.00)	114.3 (4.50)	254.0 (10.00)	193.8 (7.63)	-	-
150-200	355.6 (14.00)	111.3 (4.38)	254.0 (10.00)	193.8 (7.63)	-	-
200-300	406.4 (16.00)	131.8 (5.19)	304.8 (12.00)	200.2 (7.88)	304.8 (12.00)	153.9 (6.06)

① For dimensions of fixture unit only, subtract pendant hood dimension 3.3 cm (1.31") from dimensions A and B as listed.

② Dimensions illustrated are for porcelain steel (dome and angle) and etched aluminum (high bay).

Overall dimensions for fiberglass reinforced polyester reflectors are: standard dome – 419.1 mm (16-1/2") dia., (6") (152.4) high;
 30° Angle – 374.7 mm (14-3/8") dia., 254 mm (10") high.

A-51™ Incandescent Factory Sealed Luminaires

For Group C and D Locations. Explosionproof

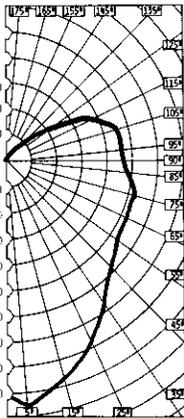
Photometric data shown here is based on a 200-watt type PS-30 lamp and is representative of the performance for all A-51 incandescent fixtures using 60-watt to 300-watt lamps. For candlepower values of fixtures with other lamps, use the following multipliers: 60 W A-19 - 0.23; 100 W A-19 - 0.47; 150 W A-21 - 0.75; 200 W A-23 - 1.07; 200 W A-25 - 1.02; 200 W PS-25 - 1.03; 300 W PS-25 - 1.70; W PS-30 - 1.63. To determine candlepower values of fixtures with a guard, multiply by value shown with each curve.

NEC/CEC — For Group C and D:
 Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III

Photometric Data

Effective Floor Cavity Reflectance (Rfc) is 20%

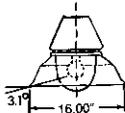
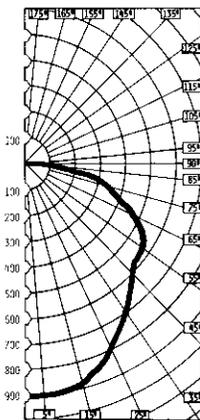
A-51 Incandescent Fixture without Reflector
 Spacing to Mtg. Ht.
 Ratio 1.25:1
 Guard .877



% Ceiling Rcc	Effective Floor Cavity Reflectance (Rfc) is 20%																
	80		70		50		30		10		0						
% Walls	Rw	50	30	10	50	30	10	50	30	10	50	30	10	0			
ROOM CAVITY RATIOS	1	.735	.690	.651	.695	.655	.618	.622	.590	.561	.554	.530	.506	.493	.473	.454	.422
	2	.621	.558	.503	.588	.530	.481	.525	.478	.437	.467	.430	.396	.413	.384	.357	.327
	3	.540	.468	.411	.512	.446	.394	.457	.404	.359	.406	.363	.327	.360	.325	.294	.267
	4	.474	.400	.342	.450	.381	.328	.402	.346	.301	.359	.312	.274	.318	.280	.248	.223
	5	.415	.341	.284	.394	.325	.272	.354	.295	.251	.316	.266	.229	.280	.240	.207	.184
	6	.372	.297	.245	.352	.284	.233	.316	.258	.215	.283	.234	.197	.252	.210	.178	.157
	7	.334	.262	.213	.317	.249	.203	.285	.227	.187	.255	.207	.170	.228	.187	.155	.136
	8	.300	.231	.182	.285	.221	.175	.256	.202	.162	.231	.183	.148	.206	.165	.135	.117
	9	.271	.204	.157	.258	.195	.152	.233	.178	.140	.209	.162	.128	.187	.146	.117	.100
	10	.246	.181	.139	.234	.175	.135	.212	.160	.124	.191	.145	.113	.172	.132	.102	.087

Effective Floor Cavity Reflectance (Rfc) is 20%

A-51 Incandescent Fixture with Standard Dome Reflector
 Spacing to Mtg. Ht.
 Ratio 1.25:1
 Guard .890



% Ceiling Rcc	Effective Floor Cavity Reflectance (Rfc) is 20%																
	80		70		50		30		10		0						
% Walls	Rw	50	30	10	50	30	10	50	30	10	50	30	10	0			
ROOM CAVITY RATIOS	1	.757	.727	.700	.740	.713	.689	.709	.686	.667	.681	.663	.646	.656	.641	.627	.612
	2	.660	.613	.572	.647	.603	.567	.621	.585	.552	.598	.568	.540	.577	.551	.528	.512
	3	.580	.524	.478	.570	.516	.475	.549	.504	.466	.529	.490	.458	.511	.478	.449	.434
	4	.514	.452	.403	.504	.446	.400	.486	.436	.395	.469	.425	.390	.454	.415	.384	.368
	5	.451	.385	.336	.442	.380	.334	.427	.372	.332	.413	.364	.327	.399	.357	.323	.308
	6	.402	.336	.291	.394	.333	.286	.381	.326	.285	.369	.319	.282	.358	.313	.279	.264
	7	.361	.296	.254	.355	.293	.250	.343	.286	.247	.332	.282	.245	.323	.278	.243	.229
	8	.323	.261	.216	.318	.258	.216	.308	.254	.215	.299	.249	.213	.290	.245	.211	.197
	9	.291	.230	.187	.287	.227	.187	.278	.223	.186	.269	.219	.184	.262	.216	.182	.169
	10	.264	.204	.166	.259	.204	.166	.253	.200	.164	.245	.197	.162	.240	.194	.161	.149

A-51™ Incandescent Factory Sealed Luminaires

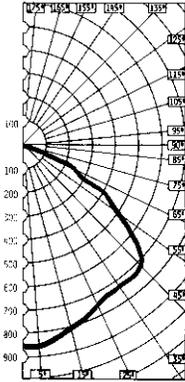
For Group C and D Locations. Explosionproof

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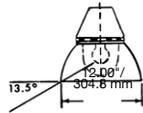
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Effective Floor Cavity Reflectance (Rfc) is 20%

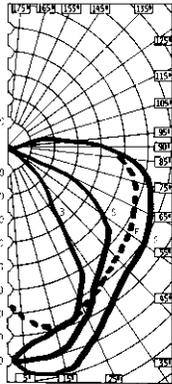


A-51 Incandescent Fixture with High Bay Reflector

Spacing to Mtg.
 Ht. Ratio 1.40:1
 Guard .865



% Ceiling Rcc	Effective Floor Cavity Reflectance (Rfc) is 20%																
	80		70			50			30			10			0		
% Walls	Rw	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
ROOM CAVITY RATIOS	1	.686	.644	.645	.671	.651	.634	.644	.628	.614	.620	.607	.595	.598	.588	.577	.566
	2	.614	.580	.549	.603	.571	.545	.581	.555	.531	.562	.540	.520	.544	.525	.508	.496
	3	.550	.508	.473	.542	.501	.470	.524	.490	.461	.507	.478	.454	.492	.467	.446	.434
	4	.493	.445	.408	.486	.441	.404	.470	.431	.400	.456	.422	.395	.443	.413	.389	.377
	5	.439	.387	.349	.432	.383	.347	.420	.376	.344	.407	.369	.340	.396	.383	.336	.324
	6	.393	.340	.304	.387	.338	.300	.376	.331	.298	.366	.326	.296	.356	.320	.293	.281
	7	.352	.299	.264	.347	.296	.261	.337	.290	.258	.327	.287	.256	.320	.283	.254	.242
	8	.313	.261	.224	.309	.259	.223	.300	.255	.222	.293	.251	.220	.285	.247	.219	.207
	9	.280	.228	.191	.276	.225	.191	.268	.222	.190	.261	.219	.189	.254	.216	.187	.176
	10	.252	.201	.168	.248	.201	.168	.242	.197	.167	.236	.195	.165	.231	.192	.164	.153



A-51 Incandescent Fixture with 30° Reflector



B—
 Back
 S—Side
 F—Front
 G—Front W.Guard



INCANDESCENT/AREA: NEC/CEC EXPLOSIONPROOF