

# 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.

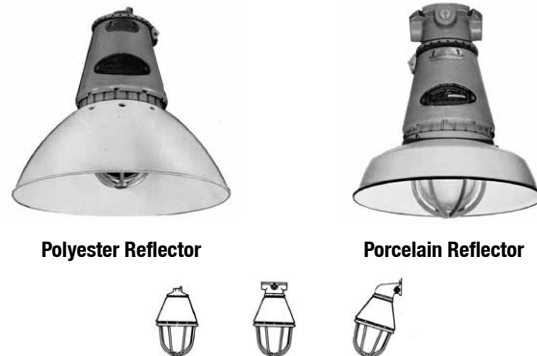
### Features

- 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.

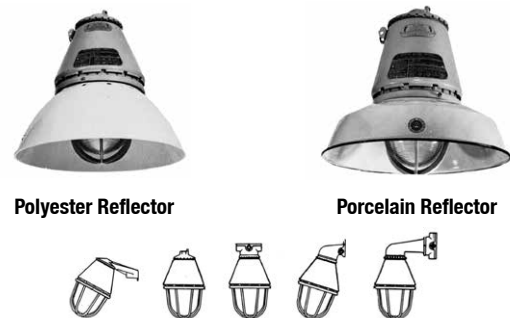
### Standard Materials

- 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



#### Group C and D



### 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

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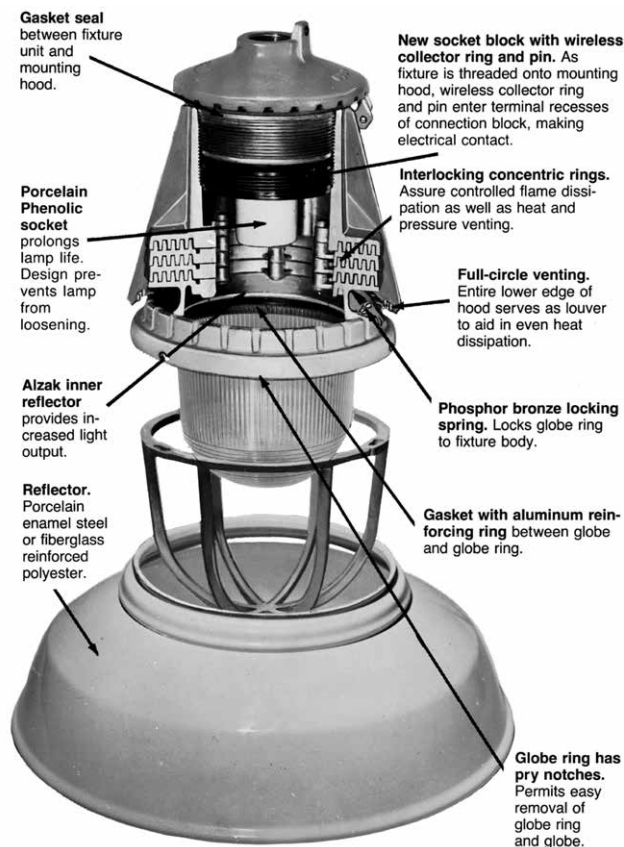
### NEC/CEC:

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)
<b>Class I Division 1 and Division 2 Groups C and D</b>						
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)
<b>Class I Division 1 and Division 2 Groups A ①, B, C and D</b>						
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)
<b>Class II Division 1 and Division 2 Groups E, F and G</b>						
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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Mounting Hoods		
Type	Hub Size (Inches)	Catalog Number
Pendant — One Hub, Rigid or Flexible Mounting		
	1/2	AAP-50
	3/4	AAP-75
	1	AAP-100
Ceiling — Four Hubs, Three Close-up Plugs		
	1/2	AAC-50
	3/4	AAC-75
	1	AAC-100
25° Stanchion — Not UL Listed — One Hub		
	1-1/2	AAN-150 ①
Long Bracket — Four Hubs, Three Close-up Plugs		
	1/2	AALB-50
	3/4	AALB-75
	1	AALB-100
15° Short Bracket — Two Hubs, One Close-up Plug		
	1/2	AASB-50
	3/4	AASB-75
Type	Catalog Number	
Fixture Units		
	60-100 W A-21	AAU-1N
	150-300 W A-23 and PS-25	AAU-15N
	200-300 W PS-30	AAU-2NS
Prismatic Glass Globes		
	60-100 W (AAU-1N)	AAGL-1PR
	150-300 W (AAU-15N)	AAGL-1PR
	200-300 W (AAU-2NS)	AAGL-2PR
Aluminum Guards		
	60-100 W (AAU-1N)	AAGU-1
	150-300 W (AAU-15N)	AAGU-1
	200-300 W (AAU-2NS)	AAGU-2

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

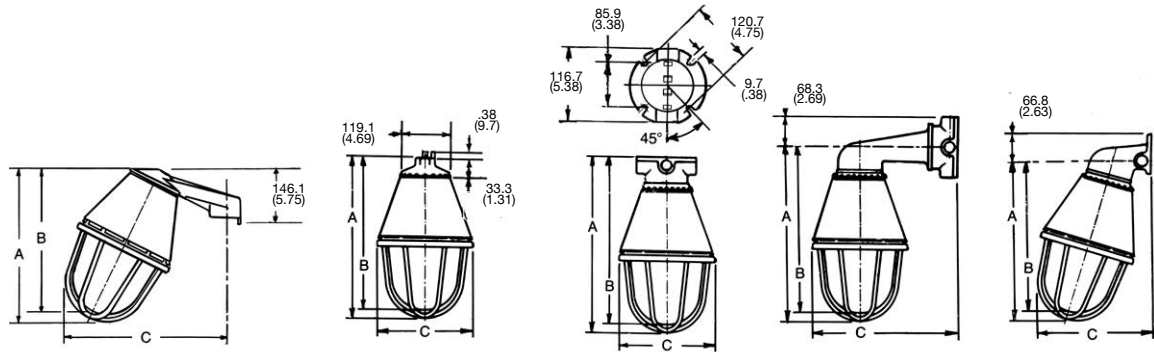
# A-51™ Incandescent Factory Sealed Luminaires

## For Group C and D Locations. Explosionproof

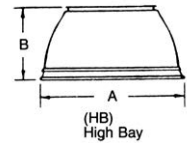
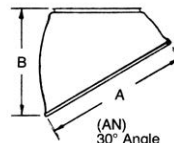
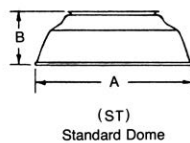
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Class III

### 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.

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## 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.

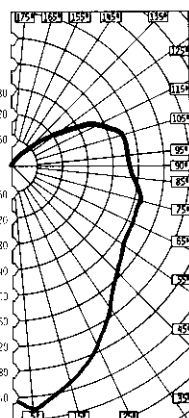
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**Class I, Division 1 and 2, Groups C, D**

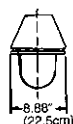
**Class II, Division 1 and 2, Groups E, F, G**

**Class III**

### Photometric Data

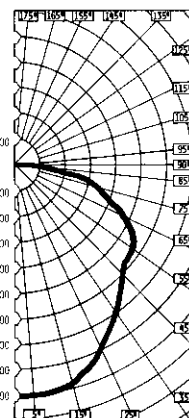


**A-51 Incandescent  
Fixture without Reflector**  
Spacing to Mtg. Ht.  
Ratio 1.25:1  
Guard .877

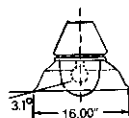


#### Effective Floor Cavity Reflectance (Rfc) is 20%

% Ceiling Rcc	% Walls	Rw	80			70			50			30			10			0		
			50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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			



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



#### Effective Floor Cavity Reflectance (Rfc) is 20%

% Ceiling Rcc	% Walls	Rw	80			70			50			30			10			0		
			50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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			

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## For Group C and D Locations. Explosionproof

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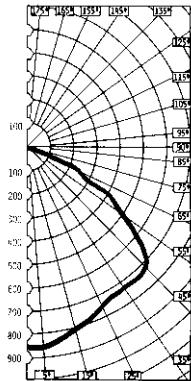
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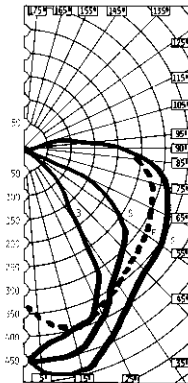
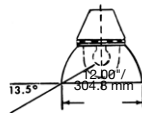
**Class III**

### Photometric Data



**A-51 Incandescent Fixture with High Bay Reflector**

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



**A-51 Incandescent Fixture with 30° Reflector**



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

B—

Effective Floor Cavity Reflectance (Rfc) is 20%

% Ceiling Rcc	% Walls	Rw	80			70			50			30			10			0
			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	.363	.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

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INCANDESCENT/AREA: NEC/CEC EXPLOSIONPROOF