

The
DUPLEX
LIGHTING SYSTEM

AS APPLIED TO
COMMERCIAL REQUIREMENTS

CATALOG D. P. 154

The
DUPLEX LIGHTING
SYSTEM

As Applied To
COMMERCIAL REQUIREMENTS

THE purpose of this book is to provide assistance to those who appreciate the value of good illumination, and are desirous of securing information by means of which this may be obtained through the Duplex Lighting System.

DUPLEX-A-LITE DIVISION
of THE MILLER COMPANY

Meriden, Conn.

BOSTON
832 PARK SQUARE BUILDING

NEW YORK
68-70 PARK PLACE

CHICAGO
190 NORTH STATE STREET

PHILADELPHIA
16TH AND CHESTNUT STREETS

ENGLAND
30-35 DRURY LANE
KINGSWAY, LONDON, W. C. 2

The Requirements of Good Illumination

THE EXTREME IMPORTANCE OF LIGHT becomes obvious when we consider that without light, the most important of the five human senses—SIGHT—is lost. On the other hand, the manner in which light is used determines the amount of service our eyes may perform. And through improper distribution of light, our eyes may become impaired and defective. Close your eyes, and you will appreciate how much you depend upon light. Look at the sun and you realize how damaging a glaring light may be!

We see an object by the light reflected from its surface to the retina or sensitive plate of our eye. The pupil through which all light passes to the retina may be compared to the shutter of a camera, controlling by its breadth the amount of light entering the eye—that we may enjoy the clearest vision in varying degrees of intensity, while protecting the delicate organism from the strain of too bright a light. The breadth of the pupil is automatically controlled by the brightest light within range of vision. If we increase the brightness of source within range of vision, to increase the light on our work, the breadth of pupil is automatically reduced so that actually no more and possibly less light from the work enters the eye than before. By this action, we not only fail to improve vision, but set up a cause for strain on the eye due to increased contrast in brightness or glare.

Good illumination is the result of the correct use of the proper amount of light. Progress toward perfection of lighting installations parallels the development of ability to control light distribution. Intensity or quantity of light is dependent upon the type of lamp and current consumption. Correct use of light depends upon the control and direction of light to secure even distribution, with an absence of contrast in brightness yet with just enough shadow to define the form and distance of objects.

Having well-controlled light, we can read comfortably with three or thirty foot candles. While quantity or intensity of light determines the speed of vision its correct distribution not only assures accuracy of vision but enables the eye to hold its efficiency over a continuous period of time.

Therefore, the efficiency of a lighting system should not be measured by total light output of any special fixture. Rather, it should be measured by the ability of the eye to function. Low intensity with good distribution is often better than high intensity when accompanied by increased surface brightness of the light source.

No system of lighting will long maintain its initial usefulness unless it is kept clean. And, obviously, the cost of regular maintenance of a good lighting system is more than offset by the continued health and unimpaired efficiency of employees and by the absence of waste of electric current.

FOR IDEAL ILLUMINATION

How Duplex-a-lite Provides Good Illumination

THE DUPLEX-A-LITE was designed to conform to the theory of best lighting practice based on the law of optics, and for the particular use of the most efficient of modern lamps in all sizes from 100 to 1500 watts. The construction is such that an even distribution of light is provided with just sufficient shadow to insure a clear and distinct vision over a continuous period of time.

Duplex-a-lite has a very low surface brightness which makes it inconspicuous in a room. Yet, being self-illuminated, it satisfies the psychological demand for an apparent source of light. The light is distributed in so perfect a balance that its actual accomplishment is not immediately obvious—and appreciation grows with its use.

The construction is extremely simple and the mechanical details are handled with minute care and precision. Because our extensive manufacturing facilities include foundries and brass rolling mill, formula, gauge and weight of metal are controlled to meet exacting requirements.

The standard Duplex-a-lite fastens to a ceiling with a specially designed Z hickey, $\frac{3}{8}$ " running thread, nipple and brass hook with screw ring supporting canopy. This construction simplifies installation and assures perfect alignment of fixtures. (See Page 16)

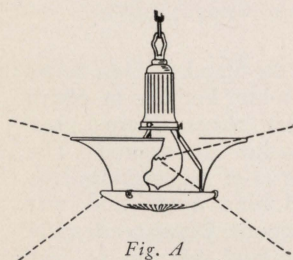


Fig. A

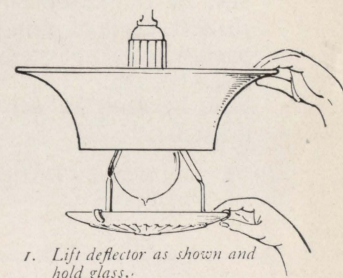
The length of chain pendant may be adjusted to support the fixture in the proper relation to ceiling. Properly focused around the lamp is a steel deflector, finished inside in white and outside in cream vitreous enamel, which forms a circular eyeshield totally insulating the eye from the direct rays of the lamp which are diffused in useful directions. (See Fig. A)

The dense glass disc at the bottom of deflector, acting as a filter for downward light, also diffuses light over the exterior of the deflector, thus avoiding contrast in brightness.

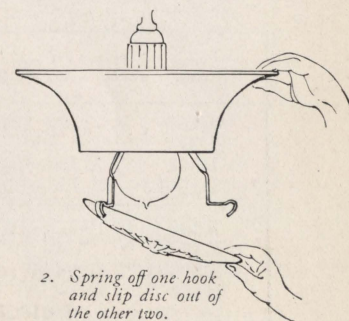
Both the deflector and disc are supported from three flat metal hooks. The disc is easily removed for relamping and cleaning.

The porcelain deflector may be dusted or wiped out with a damp cloth while in position; or, it may easily be removed and washed without touching any screws. Duplex-a-lites are most economical from standpoint of upkeep and maintenance with lowest cleaning costs and minimum number of breakable parts.

Duplex-a-lites of special design, as shown on some of the following pages, embody all the lighting principles of the standard Duplex-a-lite.

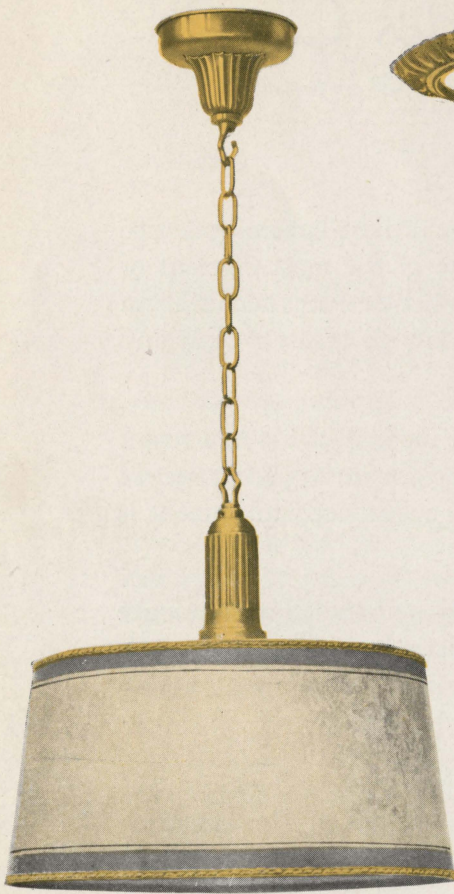


1. Lift deflector as shown and hold glass.

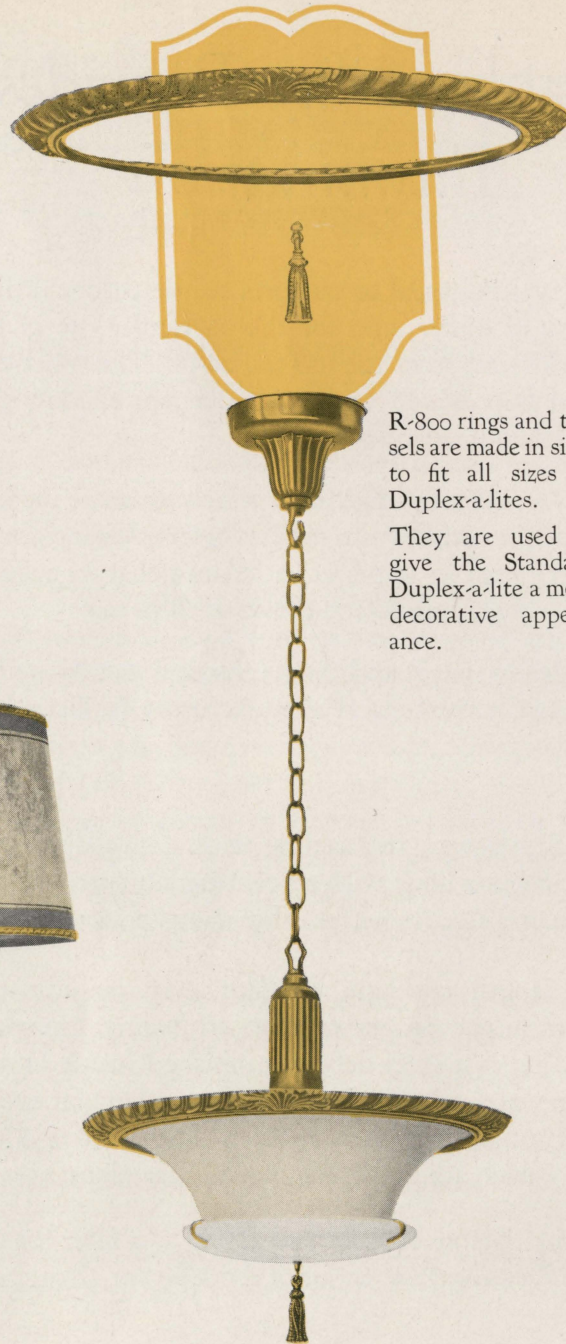


2. Spring off one hook and slip disc out of the other two.

DUPLEX LIGHTING

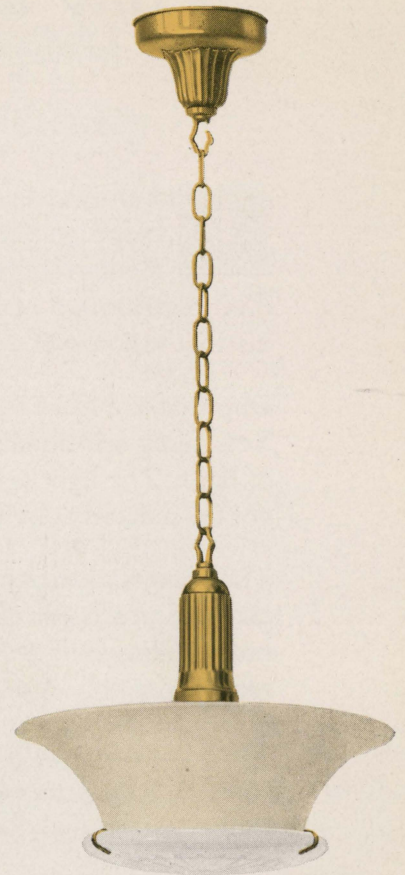


Parchment shade S-5059 on the Standard Duplex-a-lite. Furnished to fit the three sizes of Duplex-a-lites. This shade is made of plain parchment with colored stripes top and bottom. The stripes may be had in any color desired.



R-800 rings and tassels are made in sizes to fit all sizes of Duplex-a-lites.

They are used to give the Standard Duplex-a-lite a more decorative appearance.



This is the Standard D-61 Series Duplex-a-lite. For use in offices and other places where a plain Duplex-a-lite is desired. The deflector is of porcelain enamel, polished white inside and mat Ivory outside. Dense white glass diffusing disc.

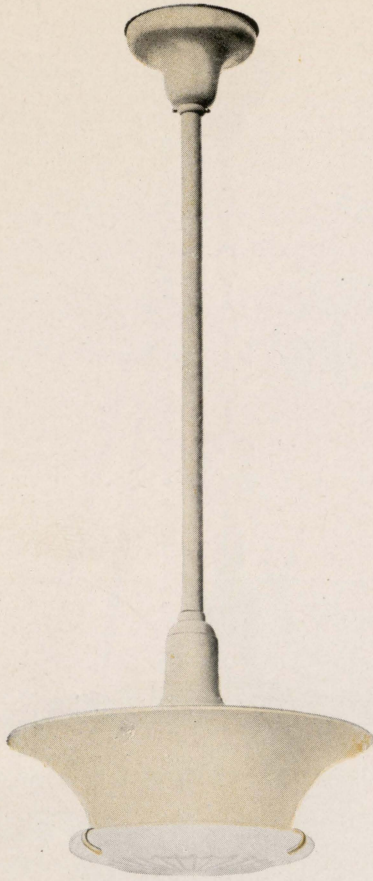
The Standard Duplex-a-lite shown with R-800 ring and tassel.

CATALOG No.	LAMP WATTAGE	DIAMETER	OVERALL LENGTH	STANDARD FINISH	STANDARD PACKAGE QUANTITY	PACKAGE WEIGHTS
D161	100-150	12 in.	36 in.	Antique Brass	5	34 lbs.
D261	200	14 in.	36 in.	" "	5	40 lbs.
D561	300-500	16 in.	48 in.	" "	5	55 lbs.
D1061	750-1500	22½ in.	60 in.	" "	1	80 lbs.
R800	to fit 100-150 Watt Duplex-a-lite	"	"	Antique Brass	5	16 lbs.
R800	" 200 "	"	"	" "	5	21 lbs.
R800	" 300-500 "	"	"	" "	5	26 lbs.
R800	" 750-1500 "	"	"	" "	1	10 lbs.

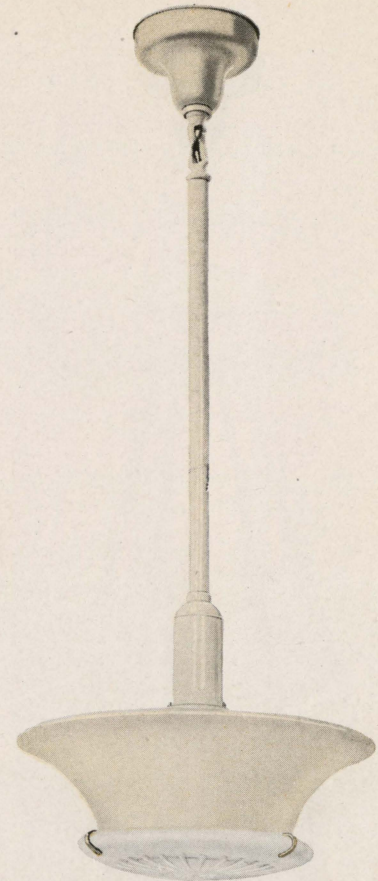
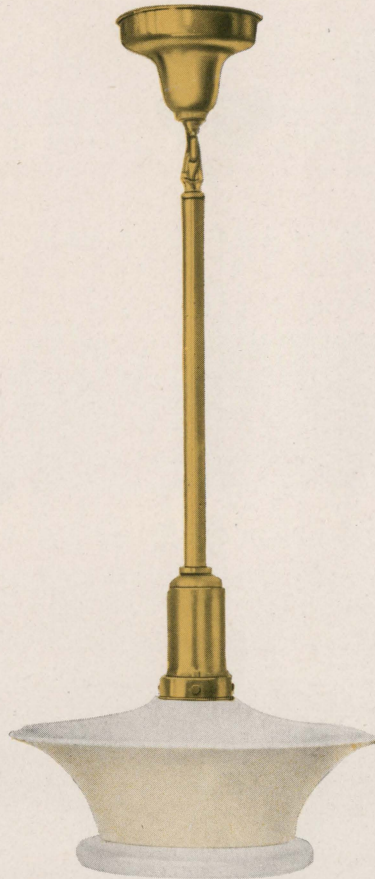
S5059 Parchment shade fits D161, D261, D561 Duplex-a-lites

FOR IDEAL ILLUMINATION

Duplex-a-lites for Hospital Lighting



The D-21 series is made with a rigid stem.



The D-21½ series is made with a semi-rigid stem.

When furnished with a stem as on the D-21 series, the enclosed type Duplex-a-lite is known as the D-29 series.

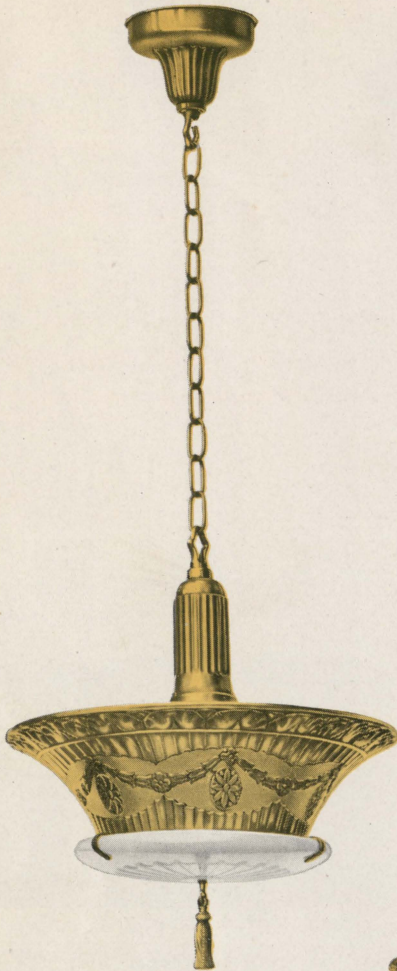
The D-29½ series is made with a rigid stem and loops as shown. This type is furnished complete with enclosing glass that fits tight over the top and on bottom of the deflector. The enclosing glass is only supplied in the 200 and 500 watt sizes of Duplex-a-lites.

When furnished with a stem as on the D-61 series, the enclosed type Duplex-a-lite is known as the D-69 series.

CATALOG No.	LAMP WATTAGE	DIAMETER	OVERALL LENGTH	STANDARD FINISHES	STANDARD PACKAGE QUANTITY	WEIGHT OF FIXTURE
D121	100-150	12 in.	36 in.	Ivory, White Enamel, Bronze or Antique Brass	Packed Bulk	5 lbs.
D221	200	14 in.	36 in.	" " " " " " " "	"	8½ lbs.
D521	300-500	16 in.	48 in.	" " " " " " " "	"	9 lbs.
D121½	100-150	12 in.	36 in.	" " " " " " " "	"	8 lbs.
D221½	200	14 in.	36 in.	" " " " " " " "	"	8½ lbs.
D521½	300-500	16 in.	48 in.	" " " " " " " "	"	9 lbs.
D1021½	750-1500	22½ in.	60 in.	" " " " " " " "	"	10 lbs.
*D229	200	14 in.	36 in.	" " " " " " " "	"	8½ lbs.
*D529	300-500	16 in.	48 in.	" " " " " " " "	"	9 lbs.
*D229½	200	14 in.	36 in.	" " " " " " " "	"	8½ lbs.
*D529½	300-500	16 in.	48 in.	" " " " " " " "	"	9 lbs.
*D269	200	14 in.	36 in.	Antique Brass " " Old Ivory	5	PKG. WT. 42 lbs.
*D569	300-500	16 in.	48 in.	" " " " " "	5	57 lbs.

*When ordered in enamel finishes the socket cover will be in nickel.

DUPLEX LIGHTING



Decorated D-71 series Duplex-a-lite of conventional design that harmonizes with any interior decorative scheme. The white porcelain enameled deflector has an outer cover of brass. Ivrine glass disc of a warm ivory tone with decorative tassel.



The D-1052 Duplex-a-lite was especially designed for banks, large stores, etc., and will harmonize with more decorative interiors as well as do a real lighting job. The regular ivory deflector is overlaid with an attractive metal design and the Ivrine disc is also overlaid with metal.

This Duplex-a-lite accommodates 750, 1000 and 1500 watt lamps which, with their greater efficiency, develop twice as much light as a group of smaller units of equal current consumption.



D-551-1051—A Duplex-a-lite with decorative hanger and includes R-800 ring and tassel as shown. The deflector is of porcelain enamel, polished white inside and mat Ivory outside. Dense white glass diffusing disc. This is an ideal unit for lighting large spaces. Made in two sizes.

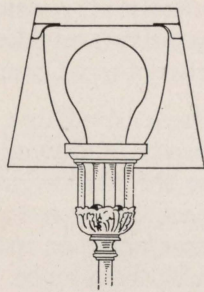
CATALOG No.	LAMP WATTAGE	DIAMETER	OVERALL LENGTH	STANDARD FINISHES	STANDARD PACKAGE QUANTITY	PACKAGE WEIGHTS
D171	100-150	12 in.	36 in.	Antique Brass, Silver & Black or Old Ivory	5	34 lbs.
D271	200	14 in.	36 in.	" " " " " " " "	5	40 lbs.
D571	300-500	16 in.	48 in.	" " " " " " " "	5	55 lbs.
D1052	750-1500	26 in.	60 in.	Antique Brass, Silver & Black or Bronze	1	80 lbs.
D551	300-500	19 in.	48 in.	" " " " " " " "	1	22 lbs.
D1051	750-1500	26 in.	60 in.	" " " " " " " "	1	80 lbs.

FOR IDEAL ILLUMINATION

New ornamental units used effectively in banks, hotels, clubs and auditoriums. The bowl and bottom disc are made of amber-tinted glass covered with a rich cast metal grill, presenting a very pleasing appearance. The regular Duplex-a-lite deflector is used inside and develops ideal illumination.



No. D-1056



Nos. D-729 and D-730 brackets have an opal glass reflector around the lamp which supports the parchment shade and diffuses the light evenly through the parchment and upward for indirect illumination. 150 watt lamps are recommended.



D-555-1055



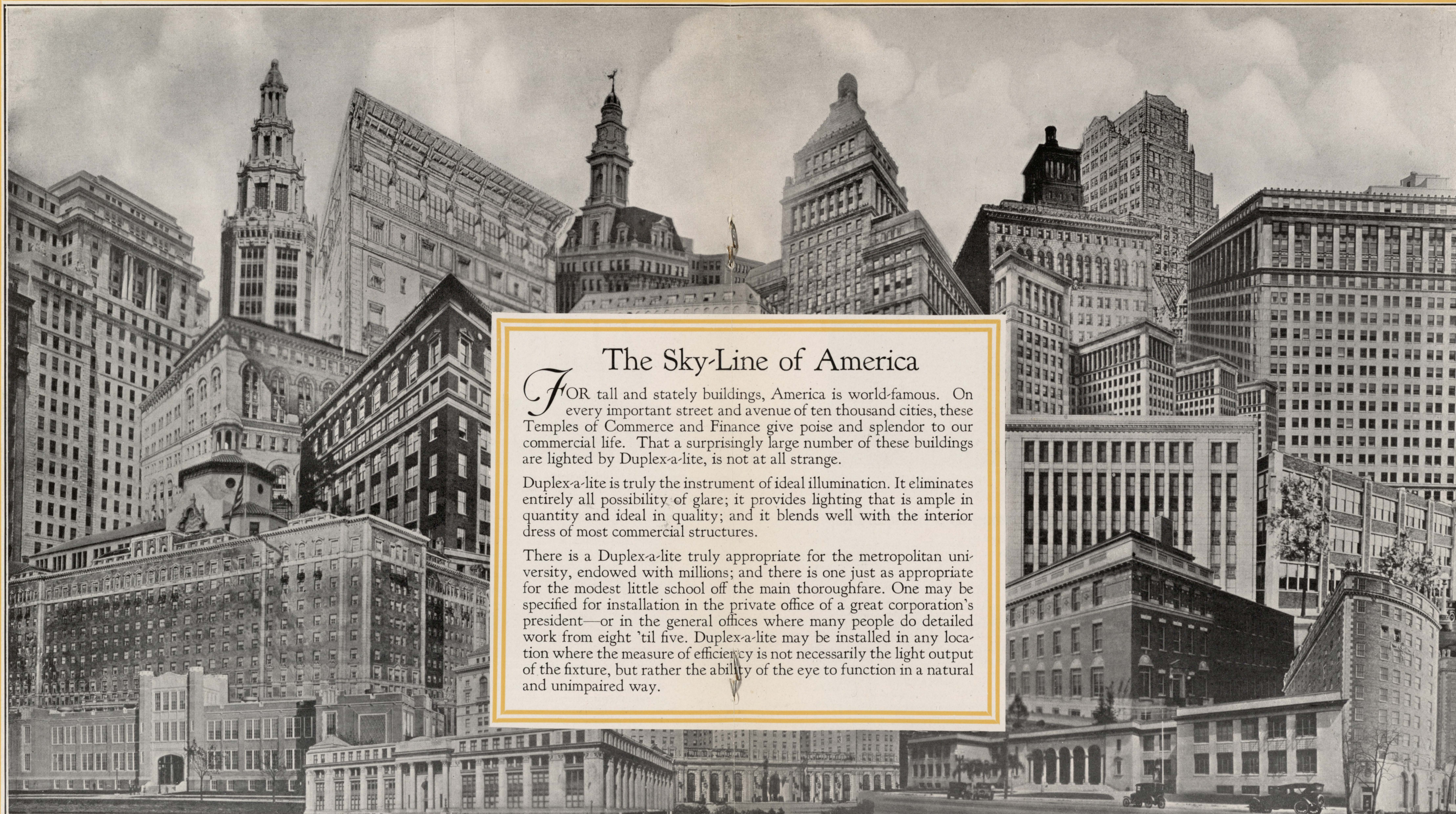
No. D-1057



No. D-730

Also made in one light No. D-729

CATALOG NO.	LAMP WATTAGE	DIAMETER	OVERALL LENGTH	STANDARD FINISHES	STANDARD PACKAGE QUANTITY	PACKAGE WEIGHTS
D555	300-500	22 in.	48 in.	Antique Brass, McKinley Gold & Brown, Silver and Black or Bronze	1	100 lbs.
D1055	750-1500	26 in.	60 in.	" " " " " " " "	1	125 lbs.
D1056	750-1500	40 in.	60 in.	" " " " " " " "	1	150 lbs.
D1057	750-1500	49 in.	60 in.	" " " " " " " "	1	150 lbs.
D729	100-150	Projection	9 in.	" " " " " " " "	2	15 lbs.
D730	100-150	Backplate	6x18½ in.	" " " " " " " "	2	18 lbs.
		Spread	11¾ in.			
		Backplate	6x18½ in.			



The Sky-Line of America

FOR tall and stately buildings, America is world-famous. On every important street and avenue of ten thousand cities, these Temples of Commerce and Finance give poise and splendor to our commercial life. That a surprisingly large number of these buildings are lighted by Duplex-a-lite, is not at all strange.

Duplex-a-lite is truly the instrument of ideal illumination. It eliminates entirely all possibility of glare; it provides lighting that is ample in quantity and ideal in quality; and it blends well with the interior dress of most commercial structures.

There is a Duplex-a-lite truly appropriate for the metropolitan university, endowed with millions; and there is one just as appropriate for the modest little school off the main thoroughfare. One may be specified for installation in the private office of a great corporation's president—or in the general offices where many people do detailed work from eight 'til five. Duplex-a-lite may be installed in any location where the measure of efficiency is not necessarily the light output of the fixture, but rather the ability of the eye to function in a natural and unimpaired way.

HERSHEY HIGH SCHOOL.....HERSHEY, PA.
 ATLANTA BILTMORE HOTEL.....ATLANTA, GA.
 AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA.....LOS ANGELES, CALIF.
 PHOENIX MUTUAL LIFE INSURANCE COMPANY.....HARTFORD, CONN.
 CUNARD BUILDING.....NEW YORK
 BUFFALO GENERAL ELECTRIC COMPANY.....BUFFALO, N.Y.
 JOHN HANCOCK MUTUAL LIFE INSURANCE BUILDING.....BOSTON, MASS.

INDEPENDENCE INDEMNITY BUILDING.....PHILADELPHIA, PA.
 SEVILLE BILTMORE HOTEL.....HAVANA, CUBA
 INTERNATIONAL MERCANTILE MARINE BUILDING.....NEW YORK
 CITY SAVINGS BANK BUILDING.....ALBANY, N.Y.
 LOS ANGELES BILTMORE HOTEL.....LOS ANGELES, CALIF.
 STRAUSS BUILDING.....CHICAGO, ILL.
 ALHAMBRA HIGH SCHOOL.....ALHAMBRA, CALIF.
 MASONIC MEMORIAL HOSPITAL.....UTICA, N.Y.

THE MACMILLAN COMPANY.....NEW YORK
 GENERAL MOTORS BUILDING.....DETROIT, MICH.
 MATSON NAVIGATION BUILDING.....SAN FRANCISCO, CALIF.
 NATIONAL ASSOCIATION BUILDING.....NEW YORK
 MAYFLOWER HOTEL.....WASHINGTON, D.C.
 LA SALLE INSTITUTE.....CHICAGO, ILL.
 UNION TRUST COMPANY.....CLEVELAND, OHIO

DUPLEX LIGHTING

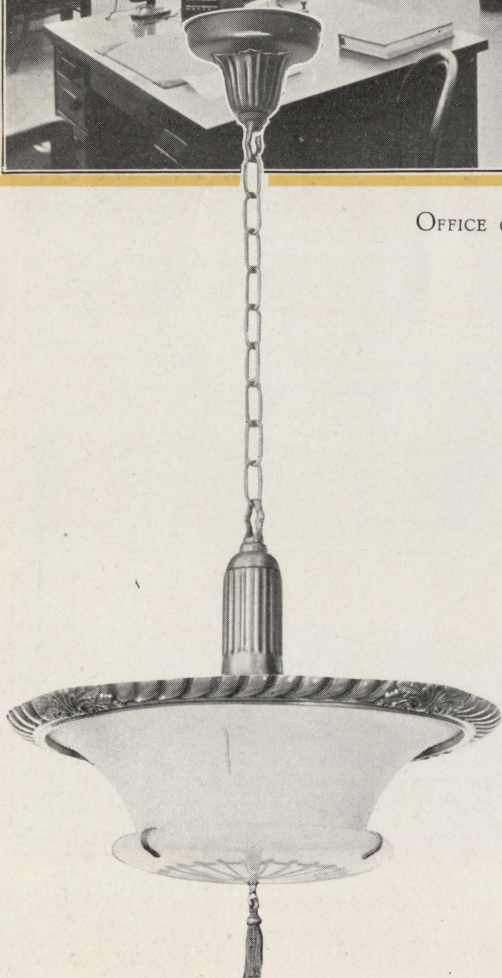
Offices and Drafting Rooms



OFFICE OF THE AMERICAN STORES COMPANY, PHILADELPHIA, PA.

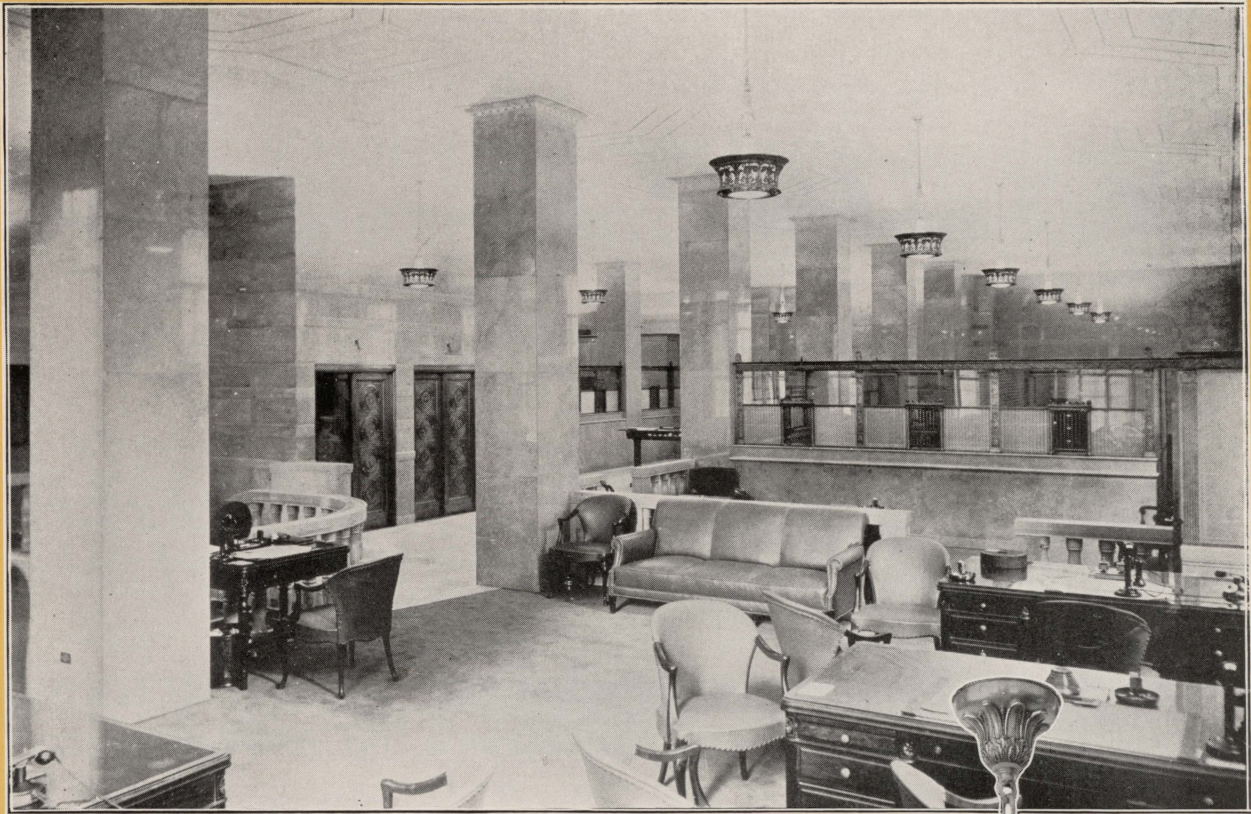
A Partial List of Prominent Installations

JOHN HANCOCK MUTUAL LIFE INSURANCE CO.	Boston, Mass.
3200 Duplex-a-lites	Parker, Thomas & Rice, Architects
PHOENIX MUTUAL LIFE INSURANCE CO.	Hartford, Conn.
500 Duplex-a-lites	Benjamin Wister Morris, Architect
GENERAL MOTORS BUILDING.	Detroit, Mich.
4300 Duplex-a-lites	Albert Kahn, Architect
UNION TRUST BUILDING.	Cleveland, Ohio
4800 Duplex-a-lites	Graham, Anderson, Probst and White, Architects
HARTFORD FIRE INSURANCE CO.	Hartford, Conn.
800 Duplex-a-lites	Edwin Shirrell Dodge, Architect
JEFFERSON STANDARD LIFE INSURANCE CO.	Greensboro, N. C.
400 Duplex-a-lites	Chas. C. Hartmann, Architect
LINCOLN NATIONAL LIFE INSURANCE CO.	Fort Wayne, Ind.
500 Duplex-a-lites	Benjamin Wister Morris, Architect
MATSON NAVIGATION BLDG.	San Francisco, Calif.
1000 Duplex-a-lites	Bliss & Faville, Architects
TRAVELERS INSURANCE CO.	New York—Chicago—Milwaukee
905 Duplex-a-lites	
INTERNATIONAL MERCANTILE MARINE BLDG.	New York City
800 Duplex-a-lites	Walter B. Chambers, Architect
MacMILLAN PUBLICATION CO.	New York City
400 Duplex-a-lites	Carrere & Hastings, Architects
ARMSTRONG CORK CO.	Lancaster, Pa.
250 Duplex-a-lites	Henry Boettcher, Architect
STANDARD OIL CO. OF N. Y.	Albany, N. Y.
450 Duplex-a-lites	H. I. Best Company, Architects
CUNARD BLDG.	New York City
4200 Duplex-a-lites	Benjamin Wister Morris, Architect
NATIONAL LIFE INSURANCE CO.	Montpelier, Vt.
500 Duplex-a-lites	Cram & Ferguson, Architects
STRAUSS BLDG.	Chicago, Ill.
3000 Duplex-a-lites	Graham, Anderson, Probst & White, Architects
INDEPENDENCE INDEMNITY BLDG.	Philadelphia, Pa.
500 Duplex-a-lites	Ritter & Shay, Architects
ALABAMA POWER CO. BLDG.	Birmingham, Alabama
150 Duplex-a-lites	
NEW ORLEANS PUBLIC SERVICE CO.	New Orleans, La.
300 Duplex-a-lites	
GENERAL ELECTRIC CO.	New York, Cleveland, Chicago, Schenectady, Etc.
1000 Duplex-a-lites	
BOARD OF TRADE BLDG.	Los Angeles, Calif.
1000 Duplex-a-lites	Curllett & Beelman, Architects
HANNA BLDG.	Cleveland, Ohio
2000 Duplex-a-lites	Charles A. Platt, Architect
SECURITY INSURANCE CO. BLDG.	New Haven, Conn.
200 Duplex-a-lites	Henry Killam Murphy, Architect
COLUMBUS DISPATCH BLDG.	Columbus, Ohio
200 Duplex-a-lites	Snyder & Babbitt, Architects
CHAMBER OF COMMERCE BLDG.	Indianapolis, Ind.
1000 Duplex-a-lites	Robert Frost Daggett, Architect
CONN. GENERAL LIFE INSURANCE CO.	Hartford, Conn.
800 Duplex-a-lites	James Gamble Rodgers, Architect
PACIFIC BUILDING	Portland, Oregon
900 Duplex-a-lites	A. E. Doyle, Architect



FOR IDEAL ILLUMINATION

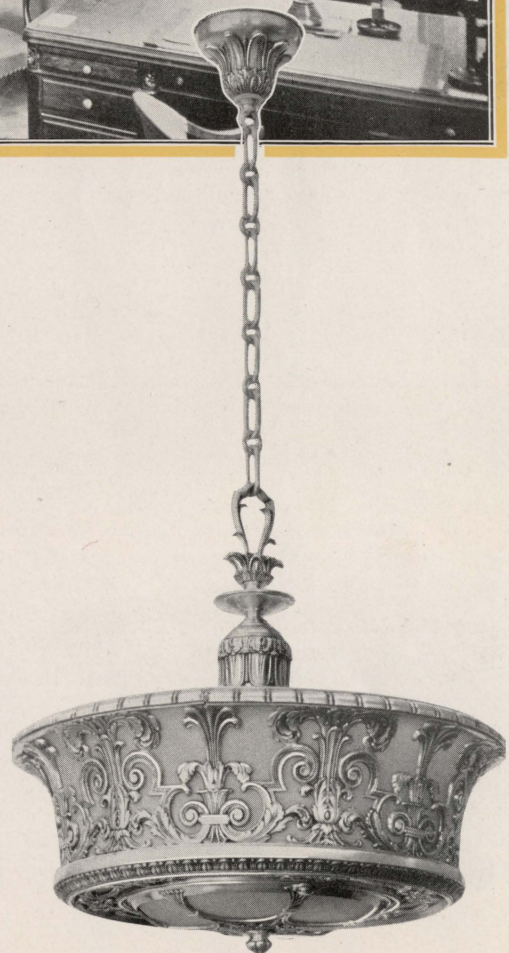
Banks and Public Buildings



BANK OF MANHATTAN, NEW YORK CITY

A Partial List of Prominent Installations

UNION TRUST CO. BRANCH.....	Cleveland, Ohio
PACIFIC FINANCE CO.....	Los Angeles, Calif.
BRISTOL TRUST CO.....	Bristol, Conn.
TITLE GUARANTEE & TRUST CO.....	Brooklyn, N. Y.
TITLE GUARANTEE & TRUST CO.....	Jamaica, N. Y.
MUTUAL BANK & TRUST CO.....	Hartford, Conn.
MUNICIPAL BLDG.....	Akron, Ohio
MASONIC TEMPLE.....	North Akron, Ohio
BANK OF AMERICA.....	Hollywood, Calif.
PRUDENCE BONDS CORP.....	New York, N. Y.
BANK OF MANHATTAN.....	New York, N. Y.
HALL OF RECORDS.....	Raleigh, N. C.
METROPOLITAN MUSEUM.....	New York, N. Y.
BANK OF ITALY.....	Los Angeles—San Francisco—Taft, Calif.



DUPLEX LIGHTING

Hotels and Clubs



BEDROOM IN THE PALMER HOUSE, CHICAGO, ILL.

A Partial List of Prominent Installations

WESTCHESTER BILTMORE COUNTRY CLUB	Westchester, N. Y.
400 Duplex-a-lites	Warren & Wetmore, Architects
LOS ANGELES BILTMORE HOTEL	Los Angeles, Calif.
1100 Duplex-a-lites	Schultze & Weaver, Architects
HOTEL CLEVELAND	Cleveland, Ohio
1000 Duplex-a-lites	Graham, Anderson, Probst & White, Architects
RITZ CARLTON HOTEL	New York City, Philadelphia, Atlantic City
1600 Duplex-a-lites	Warren & Wetmore, Architects
MAYFLOWER HOTEL	Washington, D. C.
350 Duplex-a-lites	Warren & Wetmore, Architects
NEW WILLARD HOTEL	Washington, D. C.
300 Duplex-a-lites	Walter G. Peter, Architect
ATLANTA BILTMORE HOTEL	Atlanta, Georgia
700 Duplex-a-lites	Schultze & Weaver, Architects
AUTOMOBILE CLUB OF SOUTHERN CALIF.	Los Angeles, Calif.
200 Duplex-a-lites	Hunt & Burns, Architects
LOTOS CLUB	New York City
200 Duplex-a-lites	Don Barber, Architect
HOTEL BOND	Hartford, Conn.
600 Duplex-a-lites	Pennington & Lewis, Architects
THE COPLEY-PLAZA HOTEL	Boston, Mass.
250 Duplex-a-lites	H. J. Hardenbergh, Architect
THE PLAZA HOTEL	New York City
250 Duplex-a-lites	H. J. Hardenbergh, Architect
BOOK CADILLAC HOTEL	Detroit, Mich.
1485 Duplex-a-lites	Louis Camper, Architect
CLIFT HOTEL	San Francisco, Calif.
300 Duplex-a-lites	Schultze & Weaver, Architects
PALMER HOUSE	Chicago, Ill.
2500 Duplex-a-lites	Holabird & Roche, Architects
MIAMI BILTMORE HOTEL	Miami, Florida
500 Duplex-a-lites	Schultze & Weaver, Architects
WHITEHALL HOTEL	Palm Beach, Florida
205 Duplex-a-lites	Martin L. Hampton, Architect
RONEY PLAZA HOTEL	Miami Beach, Florida
300 Duplex-a-lites	Schultze & Weaver, Architects
ANSONIA HOTEL	New York City
1000 Duplex-a-lites	McKim, Meade & White, Architects
LORRAINE HOTEL	New York City
400 Duplex-a-lites	Herbert R. Stone, Decorator
THE BREAKERS HOTEL	Palm Beach, Florida
850 Duplex-a-lites	Schultze & Weaver, Architects
THE BREAKERS HOTEL	Long Beach, Calif.
325 Duplex-a-lites	Walker & Eisen, Architects
MARK-HOPKINS HOTEL	San Francisco, Calif.
370 Duplex-a-lites	Weeks & Day, Architects

FOR IDEAL ILLUMINATION

Stores and Fine Shops



SHOWROOM OF ILLINOIS POWER CO., SPRINGFIELD, ILL.

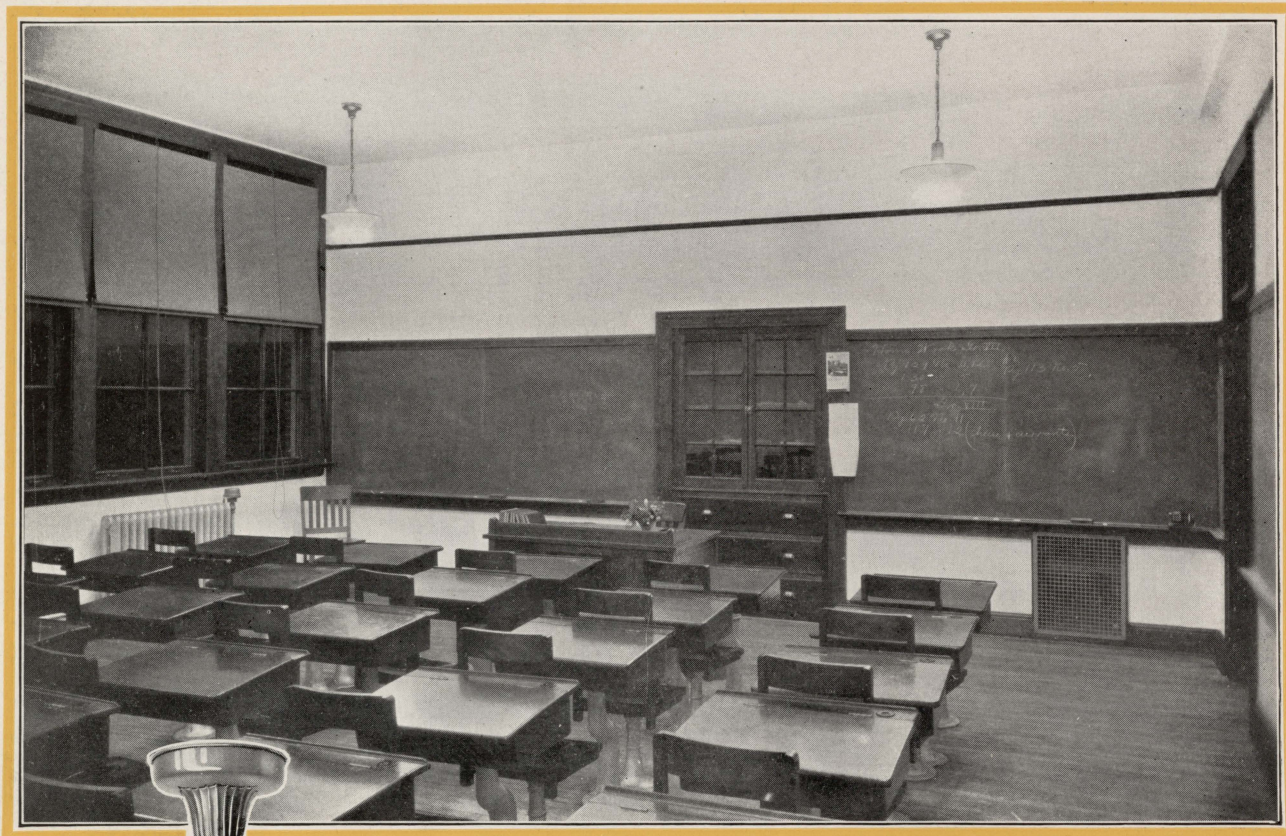
A Partial List of Prominent Installations

- | | |
|----------------------------------|--------------------------------------|
| BEST & CO. | New York City |
| 250 Duplex-a-lites | |
| PASADENA FURNITURE CO. | Pasadena, Calif. |
| 400 Duplex-a-lites | Curlett & Beelman, Architects |
| BARKER BROS. | Los Angeles, Calif. |
| 300 Duplex-a-lites | Curlett & Beelman, Architects |
| | McNeal Swasey, Associate Architect |
| MONTGOMERY & WARD CO. | Chicago—Kansas City—Baltimore |
| 2500 Duplex-a-lites | Portland—Fort Worth—Oakland |
| ROCHESTER GAS & ELEC. CORP. | Rochester, N. Y. |
| 600 Duplex-a-lites | Gordon & Kaelber, Architects |
| EDISON ELECTRIC ILL. CO. | Boston, Mass. |
| 500 Duplex-a-lites | Parker, Thomas & Rice, Architects |
| BUFFALO GENERAL ELEC. CO. | Buffalo, N. Y. |
| 600 Duplex-a-lites | Edw. B. Green & Son, Architects |
| WURLITZER CO. | New York City |
| FURNITURE EXHIBITION BLDG. | Grand Rapids, Mich. |
| FRENCH, SHRINER & URNER. | Chicago, Detroit, Kansas City |
| DES MOINES ELEC. LIGHT CO. | Des Moines, Iowa |
| LORD & TAYLOR. | New York City |
| | Starrett & Van Vleck, Architects |
| WALK-OVER SHOE CO. | New York City |
| I. MILLER SHOE CO. | New York City |
| OHIO PUBLIC SERVICE CO. | Alliance, Warren and Cleveland, Ohio |
| McCREERY'S DEPT. STORE. | Pittsburgh, Pa. |
| W. P. SOUTHWORTH CO. | Cleveland, Ohio |
| DAVID SPENCER & CO., Ltd., | Vancouver, B. C. |
| | McCarter & Nairn, Architects |
| ILLINOIS POWER COMPANY. | Springfield, Ill. |



DUPLEX LIGHTING

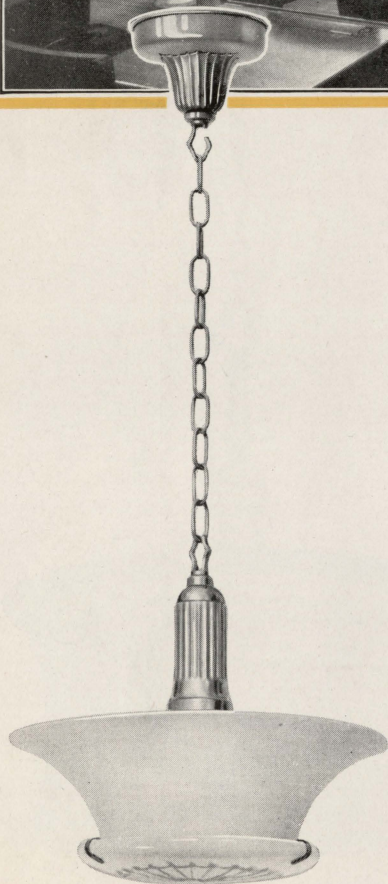
Schools and Libraries



THE MILLDALE SCHOOL, MILLDALE, CONN.

A Partial List of Prominent Installations

GLENDALE HIGH SCHOOL.....	Glendale, Calif.
700 Duplex-a-lites	
COLUMBIA UNIVERSITY.....	New York City
300 Duplex-a-lites	
OREGON STATE COLLEGE.....	Corvallis, Oregon
EDISON HIGH SCHOOL.....	Harrisburg, Pa.
BABSON STATISTICAL LABORATORY.....	Wellesley, Mass.
NEWTON VOCATIONAL SCHOOL.....	Newton, N. J.
POLYTECHNIC INSTITUTE.....	Brooklyn, N. Y.
UNIVERSITY OF WISCONSIN.....	Madison, Wis.
JOHN CRERAR LIBRARY.....	Chicago, Illinois
HERSHEY HIGH SCHOOL.....	Hershey, Pa.
225 Duplex-a-lites	
LA SALLE EXTENSION UNIVERSITY.....	Chicago, Ill.
350 Duplex-a-lites	
WEST HARTFORD SCHOOLS.....	West Hartford, Conn.
550 Duplex-a-lites	
NEW YORK UNIVERSITY.....	New York City
800 Duplex-a-lites	
SOUTHINGTON SCHOOLS.....	Southington, Conn.
PUBLIC SCHOOLS.....	New York City
ALHAMBRA HIGH SCHOOL.....	Alhambra, Calif.
500 Duplex-a-lites	
SANTA MARIA HIGH SCHOOL.....	Santa Maria, Calif.
500 Duplex-a-lites	
SELMA HIGH SCHOOL.....	Selma, Calif.
300 Duplex-a-lites	
REEDLEY HIGH SCHOOL.....	Reedley, Calif.
400 Duplex-a-lites	
SANTA ANA HIGH SCHOOLS.....	Santa Ana, Calif.



FOR IDEAL ILLUMINATION

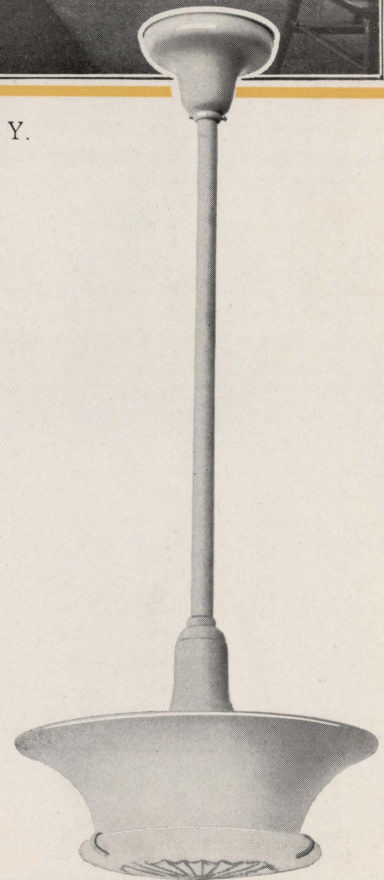
Hospitals and Similar Institutions



MASONIC SOLDIERS AND SAILORS MEMORIAL HOSPITAL, UTICA, N. Y.

A Partial List of Prominent Installations

SOUTHERN CALIFORNIA-LUTHERAN HOSPITAL	Los Angeles, Calif.
PROVIDENCE HOSPITAL	Kansas City, Kansas
DERBY HOSPITAL	Derby, Conn.
STATE HOSPITAL	Rome, N. Y.
CALIFORNIA STATE HOSPITAL	Sacramento, Calif.
MERCY HOSPITAL	Denver, Colo.
MEDINA MEMORIAL HOSPITAL	Medina, N. Y.
MASONIC SOLDIERS & SAILORS MEMORIAL HOSPITAL	Utica, N. Y.
LAKELAND CITY HOSPITAL	Lakeland, Fla.
HENRY FORD HOSPITAL—NURSES' HOME	Detroit, Mich.
ELLIS HOSPITAL	Schenectady, N. Y.
ROCHESTER GENERAL HOSPITAL	Rochester, N. Y.
HIGHLAND HOSPITAL	Oakland, Calif.



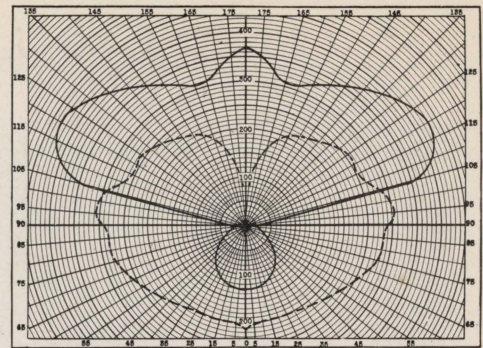
Engineering Data

BRIGHTNESS

Location	90°	65°	45°	0°
Millilamberts	100	780	930	1200
Cp. per sq. inch21	1.6	1.9	2.5

LIGHT DISTRIBUTION

Zone	0-45	45-90	0-90	90-180	0-180
Percentage of clear lamp lumens	6.6	6.1	12.7	62.7	75.4



INSTALLATION DATA

The following table indicates the watts per square foot to obtain various intensities with Duplex-a-lite (using average lamp efficiency of 200 watt size).

Foot Candles	Small Rooms (16 ft. x 16 ft.) 9 to 10 ft. Ceilings	Medium Rooms (35 ft. x 100 ft.) 10 to 12 ft. Ceilings	Large Rooms (100 ft. x 100 ft.) Ceiling Height 10. ft or more
4	1.16	.86	.72
5	1.53	1.14	.96
6	1.72	1.27	1.07
8	2.32	1.71	1.44
10	2.88	2.12	1.80
12	3.44	2.52	2.15
16	4.60	3.38	2.88

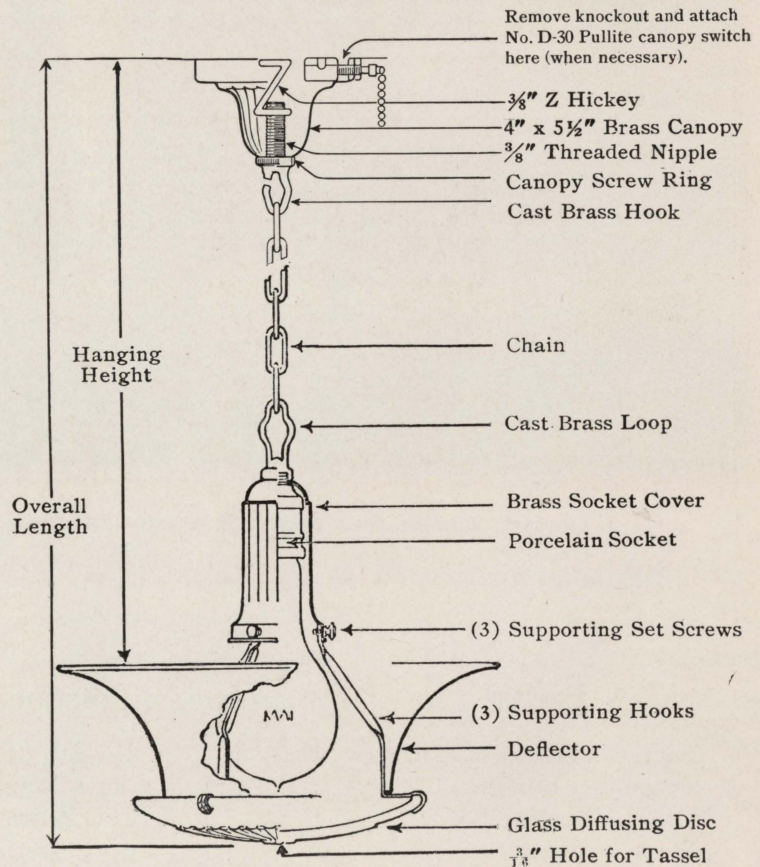
Light Ceilings (70%) Medium Walls (40%)

Sufficient allowance has been made to cover depreciation under average conditions.

The following table indicates the spacing and mounting heights for Duplex-a-lites.

Ceiling Height	Permissible Distance Between Outlets	Permissible Distance Between Outlets and Sidewalls	Best Hanging Ht. Ceiling to Top of Deflector
9 Feet	9½ Feet	5 Feet	18 Inches
10 "	11 "	5½ "	20 "
11 "	12½ "	6½ "	22 "
12 "	14 "	7 "	25 "
13 "	15½ "	8 "	28 "
15 "	18½ "	9½ "	32 "
18 "	23 "	11½ "	43 "
20 "	26 "	13 "	54 "

Construction and Names of Parts



By consulting the following table, you will note the economy of using the Duplex-a-lite with a large single lamp rather than a fixture with a group of smaller size lamps.

LUMEN OUTPUT AND ACTUAL COST OF LIGHT—(Ratings and Prices as of 1926)

110-115-120 volt standard clear Mazda Lamps

Size of Lamp in Watts	Lumen Output	List Price Cost of Lamp (1000 hrs. life)	Current Cost per Hr. at 5c rate	Total Cost 1 Lumen of Light for 1000 hrs.	Size of Lamp in Watts	Lumen Output	List Price Cost of Lamp (1000 hrs. life)	Current Cost per Hr. at 5c rate	Total Cost 1 Lumen of Light for 1000 hrs.
25	223	\$.27	\$.0013	\$.007	200	3200	\$.80	\$.010	\$.0034
40	380	.27	.002	.006	300	5100	1.25	.015	.0031
60	666	.32	.003	.005	500	9400	2.00	.025	.0029
100	1320	.45	.005	.0041	750	14400	3.50	.038	.0028
150	2200	.60	.0075	.0037	1000	20000	3.75	.05	.0027

