DESIGN REVIEW GUIDELINES
POLARIS CENTERS OF COMMERCE®

The Declaration of Protective Covenants dated August 20, 1992 and recorded on August 28, 1992 in Volume 548, Page 720 of the official deed records of the Delaware County, Ohio Recorder's Office and its various amendments ("Declaration") binds all land within POLARIS and requires the submission of plans to the Design Review Committee ("Committee") prior to commencement of any construction of any Improvements on any Building Site (including alterations to existing Improvements). Terms and words not herein expressly defined, to the extent same are defined in the Declaration, shall have the same meaning and application ascribed thereto in the Declaration.

There are seven (7) Committee members. The Committee may hire a non-voting consultant to review and advise on design issues and applications. The Committee currently meets monthly on the 3rd Thursday at 2:00 p.m. at the Colliers Offices located 8800 Lyra Drive, Suite 650, Columbus, Ohio 43240. Colliers, who manages the Polaris Owners Association, Inc., will appoint a person ("Committee Manager") to manage the Committee and the Design Review process. The meetings will begin promptly at 2:00 p.m. and conclude by no later than 5:00 p.m. If the agenda items cannot be fully heard during the regularly scheduled meeting, then a special meeting may be called by the Committee Manager to continue the meeting at a time acceptable to all Committee members. Applicants will be afforded a reasonable time but no longer than twenty (20) minutes (if there is a larger agenda) to present their applications. The Committee will review the applications and ask questions as needed. After the applicant's presentation, the Committee will review the application and decide whether to approve, approve with conditions or disapprove the application. All meetings will be conducted on a consensus basis. The goal is for the Committee to act unanimously. If unanimity is not reached, then the affirmative vote of a (minimum of four (4)) Committee members is required for the approval of the application. The Committee may dispose of an application by vote via email under the following circumstances: (i) when a final decision is not reached at a meeting; (ii) a decision is made with conditions; or (iii) the application is a simple matter not warranting additional in person discussion; and complies with the prior conditions of the Committee. First submissions of applicants will need to be reviewed in person.

An application in the form attached hereto as Exhibit A along with plans shall be submitted in advance fourteen (14) days prior to the meeting date. Applications can be obtained from the Committee Manager. Signage plans only shall be submitted seven (7) days prior to the meeting date. Applicants may wish to attend with their architect and/or builder to answer questions regarding their plans. Eight (8) sets of plans should be submitted. Plans in the size of a minimum of 11" x 17" are required in addition to one large set. The final approved set of plans shall also be provided electronically to the Committee. Please call (614) 436-9800 to confirm a time if you wish to attend. Submission of preliminary plans prior to final submission is encouraged.

No work, whether new construction or any alteration of an existing building or other Improvement, including but not limited to signage and landscaping, may begin until the Committee has approved the plans and use for a Building Site. Site work including foundation

work may commence prior to final plan approval, provided that preliminary concept plans have been approved. There is no assurance that subsequent submissions departing from preliminary plans will be approved. Owners should proceed with this understanding clearly in mind. A Design Review Committee Checklist is attached as Exhibit B and provides a summary list of items to be included and reviewed with each submittal.

All submissions must include the following or some variation thereof depending upon the type of Improvement proposed for a Building Site:

1. Evidence of Landlord approval if the applicant is a tenant.

2. Check made payable to **Polaris Owners Association, Inc.** in the amount of $1,000 for review of complete set of plans. A complete set of plans will be required for new Building Sites and redevelopment of any existing Building Sites.

3. Check made payable to **Polaris Owners Association, Inc.** in the amount of $250 for review of new or modification to signage plans, modification to a site plan or landscape plan that is not part of an overall redevelopment. Temporary signage submitted as part of the overall original permanent signage plan will be included in the fee. Any special event or temporary signage not part of the original permanent signage application will require a separate fee.

4. The proposed use for the Building Site must be presented in detail.

5. A site plan showing zoning use category, lot coverage, Improvements, items required for a zoning clearance plan with the City of Columbus and conformity with all required setbacks and parking in accordance with the City of Columbus and the Declaration.

6. Erosion control plan for all sites over one acre showing construction drive entrance detail and sequence of construction.

7. Exterior building elevations including materials and colors for all exterior elements. Color and material boards are required.

8. Details for screening of mechanical equipment, loading areas, dumpsters, transformers, rooftop equipment, etc. Sectional sight line study should be provided to show screening and assure compliance that trucks, dumpsters, roof top equipment and HVAC units, etc. are not visible.

9. Exterior lighting plans including cut sheets on fixtures, materials and photo metrics.

10. Plans for any exterior graphics and signage with an elevation drawing, photograph and detailed sign manufacturer's shop drawings showing sign construction and installation, including mounting devices, shall be submitted to the Committee for approval. Dimensions and area of the letters, sign and area where the sign is to be placed including leased premises frontage for multitenant centers shall be provided. If the signage is part of a multi-tenant shopping center, then a panoramic photograph or

drawing of nearby signage should be provided along with a depiction to scale on the storefront. If plans for a Building Site are part of new development or redevelopment, an overall sign plan and/or sign criteria shall be included as part of the application. Sign Standards are detailed below and in Exhibit C.

11. Landscape plans in accordance with the Landscape Standards listed on Exhibit D and the Street Tree Planting requirements are listed on Exhibit E.

12. A written commitment from the Owner that it will have the contractor and site superintendent for the job meet with the Committee Manager prior to commencement of construction. The written commitment will contain an agreement that a plan will be presented which will provide for construction access to the site from day one to completion which will eliminate the tracking of mud and dirt onto the public streets or adjacent property during construction.

    To accomplish this goal, typically all Building Sites must initially install an adequate amount of gravel to accommodate access, parking, and the site construction trailer(s).

    As soon as underground utility work is completed, all parking areas must be graded and at least the first lift of base gravel installed. It is strongly urged that up to the base course of paving be installed as well to provide construction parking and material storage that will preclude tracking of mud and dirt onto public streets. If only gravel is installed initially and tracking occurs, the Committee reserves the right to require the installation of additional gravel up to and if necessary, including base paving courses. Large construction projects will be required to provide at least 50' of onsite paving or stone base at all access points.

    The type of improvement, change or alteration to the Building Site will dictate whether all or some variation of the foregoing items are required for submission. (i.e., change in signage only, may not require a landscape plan).

STANDARDS

FLAGS

The flag or insignia of any nation, state, city or other political subdivision may be permitted if approved by the Committee, subject to the following:

Flag poles shall not exceed 28′ in height as measured from established grade line to the top of the pole, with a maximum flag size of 4′ x 6′. Shorter poles should have smaller flags, such as 3′ x 5′.

CORPORATE FLAGS: FOR OFFICE BUILDINGS ONLY

No more than one (1) corporate flag may be flown per parcel of land; the flag shall not exceed 3′ x 5′; pole size shall not exceed 28′ as measured from established grade line to top of the pole. If multiple flags are approved, flag protocol shall be followed with the U.S. flag higher than all other flags. Flags may display only the name of the corporation,

emblem and/or logo of a corporation. No reference to products, tag lines or slogans are permitted.

DUMPSTERS/SERVICE AREA/UTILITY BANKS

If possible, dumpster enclosure doors and service areas should not face public streets. They should be screened from all public streets and parking areas and sidewalks by adequate height landscaping, mounding and or walls. The dumpster enclosures should be built out of the primary material used on the building.
All utility banks attached to the building should be painted to match the field color of the building elevation.

STORAGE CONTAINERS/PODS

The use and placement of storage containers/pods must be approved by the Committee prior to installation. A site plan shall be submitted with the proposed location of the storage container located on the site plan. If the applicant is a tenant, the tenant must provide evidence of the Building Site Owner and Landlord approval with its application. Storage containers or pods are not permitted except for short periods of time not exceeding seven (7) days at a time for the delivery of goods. Any pods remaining beyond that time must be removed by Owner. Owners may not have pods on their Building Site for more than a sixty (60) day period in the aggregate over a calendar year. Time periods may be extended under extenuating circumstances by the Committee.

ARCHITECTURAL STANDARDS

POLARIS is a premier development in which great attention should be given to the design of buildings and Improvements. Monolithic looking structures and surfaces are discouraged. Buildings should be consistent on all four sides. While flat roofs are permitted, use of parapet detailing is encouraged to maintain a consistent level of architectural detail on all four sides of a building. Exterior wall finishes shall return over all parapets and exposed wall returns above the roof line. Service doors should be painted to match the color of the back of the building. Natural and masonry materials are preferred and encouraged. Earth tones, muted and natural tones are encouraged and preferred. Exterior bright surfaces on dominant elevations are discouraged. Reflective glass is discouraged. Exterior wall planes shall be varied in both height and plan plane. Building facades shall be detailed with necessary pilasters and offsets to reduce the overall scale of the building façade. The use of accent brick details and stone accents is encouraged. Use of EIFS at the water table of a building is discouraged. If a Building Site has more than one building or accessory building, then the buildings should have a common plan and be architecturally compatible in design, materials and colors within the Building Site, with the adjacent sites and POLARIS generally. For gasoline station canopies, the pillars and canopy design (i.e., materials and colors) should relate to each other and be coordinated with the other buildings on the site. The fuel pumps should match the canopy color scheme and design. Building design should be in harmony with other first class, mixed-use business parks in Central Ohio.

SITE DESIGN

Setback lines for parking and maneuvering, building, rear and side yards, shall comply with zoning and the Declaration. Site coverage shall also be considered by the Committee. Provisions for pedestrian access to a public sidewalk are encouraged. Careful consideration shall be given to site circulation, site access, pedestrian circulation and access parking and compatibility of uses where multiple buildings exist on a Building Site or single parcel. The Building Site shall be considered a single unit and have a common plan. "De Facto" subdivisions of the Building Sites without legally splitting the parcel are prohibited unless part of a master planned shopping center and approved by the Committee.

LANDSCAPE

Landscape Standards are listed on Exhibit D.

OUTDOOR PATIOS/SEATING AREAS

Applicants shall comply with the Declaration, these Design Review Guidelines and Standards and all relevant state, municipal or local laws, regulations, rules or ordinances applicable to any planned outdoor seating, and obtain all necessary permits or licenses for the same. Patio plans should be submitted to the Committee for approval. Any patio area or outdoor seating area shall be identified on a site plan. Patio specifications, dimensions and materials should be included on the plans. Patios should be compatible with the adjacent architecture and incorporate base building materials including light fixtures into the design. The patios should contain some buffer of either hardscape and/or landscape from all parking areas. Furniture and umbrellas should be uniform and well kept. Umbrellas should not contain graphics other than the logo of the business operating the patio. Sidewalk areas should be maintained either around or through the patio area.

LIGHTING STANDARDS

All site lighting shall be consistent and coordinated on a Building Site. Site lighting will be directed to minimize glare to street traffic. All exterior lighting should use fixtures which preclude the creating of any glare visible off site. All light fixtures should emit uniform color on a Building Site. "Wall Packs" that are not hooded are not allowed. Lighting under the gasoline or building canopies should be recessed. The mounting height of parking lot lights shall be twenty-eight (28') feet above grade to the bottom of the light fixture. Site poles located in parking areas should be mounted on a thirty-six (36") inch concrete base. Certain areas of POLARIS require specific parking lot light fixtures. There are three standard parking lot fixtures permitted at Polaris: Specform and Greenbriar for designated areas and D-Series Size 2 for any unimproved Building Site. Please see Exhibit F as to Parking Lot Lighting Specifications and where each fixture is permitted. Color of poles for both new and replacement lights should be white or green

depending on designated location. When a Building Site has a prior approved parking lot light fixture or is located in a shopping center with another approved color and/or style light fixture, any changes or upgrades to the fixtures and/or poles need to match the prior approved, prevailing light fixture and/or pole within the shopping center or Building Site as approved by the Committee. Use of fixtures and poles consistent with the Polaris specifications in LED is required. Lighting should not exceed 4000 Kelvin. Seasonal lighting is permitted if it is white, nonflashing and is a similar type of fixture to Tokista lighting specifications attached hereto as Exhibit G that is a warm white and does not exceed 2500 Kelvin.

SIGNAGE AND GRAPHICS

Generally, only one wall mounted identification sign is permitted per elevation on a single use building. Signage must be compatible with a Class A corporate office park and/or high-quality retail development. One monument sign not larger than six feet (6') in height is generally allowed per building. Notwithstanding the foregoing, the Committee reserves the right to limit the quantity and size of such signage and eliminate monument signage if significant wall signage is approved and/or a unified plan for more than one building is planned. Co-branded signage (two (2) names of distinct businesses on one (1) monument sign or one (1) building wall sign) is encouraged when two distinct businesses/uses exist in a building that typically share a common wall or when two freestanding buildings are adjacent to each other. Signage that has taglines or slogans generally is not permitted and signage used to describe products being sold on a Building Site is prohibited. Signage must have dimension with either raised or recessed copy. Additional details including style, size, content, design, fabrication and location are further described in Exhibit C attached hereto and incorporated herein.

USES

Like building design, uses should be consistent with a first class, high end, mixed-use business park and compatible with adjacent uses and must be approved by the Committee. Because uses may evolve over time, the Committee has the authority to determine whether a use is permissible at the time of the application. Further, while a general use category such as retail may be acceptable, not all retail uses are acceptable.

NONCONFORMING ISSUES / GRANDFATHERED IN

A nonconforming Improvement ("Non-Conforming Improvement") is any Improvement that was:

1. Lawfully constructed in accordance with the Declaration (including without limitation the approval of the plans therefor and use thereof by the Committee) and all applicable laws and regulations, and all applicable private restrictions, prior to the effective date of these Guidelines or any of its amendments, that does not conform to these Guidelines as currently established, or

2. Lawfully constructed in accordance with the Declaration and all applicable laws and regulations, and all applicable private restrictions, which existed at the time the Building Site on which it is situated was subjected to the Declaration, that does not conform to these Guidelines as currently established.

Any Non-Conforming Improvement or an Improvement that becomes non-conforming upon the adoption of any amendment to these Guidelines may remain upon a Building Site so long as it remains otherwise in compliance with the provisions of the Declaration and these Guidelines; provided, however that in the event the there is a modification, expansion, remodeling, rebuilding after casualty or redevelopment of the Building Site which results in material modification of the Non-Conforming Improvement, such Non-Conforming Improvement shall no longer be permitted as a Non-Conforming Improvement and the same shall be required to conform in all respects with the requirements of the Declaration and these Guidelines. This Section shall not be interpreted as authorizing the continued existence of any Improvement that was not an actual Non-Conforming Use as defined above.

VARIANCES

The Committee, at its sole discretion, has the authority to grant variances to any of the Design Review Guidelines and Standards and the uses permitted under the Declaration as it deems appropriate. In general, the Committee will consider the overall design, location, size, economic impact and/or other items that may apply to the specific design or use.

APPROVAL EXPIRATION

The Committee's approval shall remain in effect for no longer than one (1) year after the date of approval by the Committee. In the event the construction/alterations or changes have not occurred within the aforementioned time-period, such application approval shall expire and must be resubmitted for the Committee's approval.

List of Exhibits:

1. Exhibit A - Application;
2. Exhibit B – DRC Checklist;
3. Exhibit C – Sign Standards
4. Exhibit D – Landscape Standards;
5. Exhibit E - Street Tree Plan;
6. Exhibit F – Polaris Parking Lot Lighting Specifications;
7. Exhibit G – Seasonal Lighting Standards;

EXHIBIT A

DESIGN REVIEW APPLICATION
POLARIS CENTERS OF COMMERCE®

Applicant Name: _____ **Date of Application:** _____

☐ Property Owner ☐ Tenant

Contact Information for Applicant Representative:

Name: _____

Phone Number: _____

Email Address: _____

Notification Address: _____

_____

Location of Building Site: _____

Summary of Request: _____

_____

_____

Anticipated Construction Date: _____

Have you reviewed the Declaration and DRC Guidelines prior to your submittal? Yes No

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Application and Plans should be submitted to 8800 Lyra Drive, Suite 650, Columbus, OH 43240
For questions regarding this application, please contact (614) 436-9800.

EXHIBIT B

DESIGN REVIEW COMMITTEE CHECK LIST

PROJECT: _____

		DATE SUBMITTED	DATE REVIEWED	DATE APPROVED	DATE ADD'L SUBMISSION REQUESTED
1	SITE PLAN * Proposed Use * Set Backs Shown/Sidewalk Plan/Parking * Lot Coverage Area/Circulation	_____	_____	_____	_____
2	EROSION CONTROL PLAN (if applicable)	_____	_____	_____	_____
3	EXTERIOR BUILDING ELEVATIONS, MATERIALS AND COLORS * Color and Material Board/Natural Building Materials * Compatibility/Coordination/Breakup of facade	_____	_____	_____	_____
4	SCREENING OF ROOFTOP EQUIPMENT, MECHANICAL EQUIPMENT, TRANSFORMERS, ETC. * Site Line Study/Building Meters, etc. - match building	_____	_____	_____	_____
4(a)	DUMSPTER LOCATION/SCREENING * Use Materials on Building/Doors/Landscaping	_____	_____	_____	_____
5	EXTERIOR SITE LIGHTING * Cut Sheet Provided - no floodlight wallpaks * Photometrics * Compliance with location standard	_____	_____	_____	_____
6	SIGNAGE * Shop Drawings/Dimensionalized/ Size/Use * Size of Monument Sign/Sign Base Match Building Materials * Existing Sign - New vs. Refresh, Use in Multitenant Center * Panoramic View	_____	_____	_____	_____
7	LANDSCAPING * Compliance with Street Tree Plan * Screen parking/grass in landscaped beds/landscape around building foundation/Winter green/Irrigation	_____	_____	_____	_____
8	PARKING	_____	_____	_____	_____
9	WRITTEN COMMITMENT FROM CONTRACTOR FOR PRE-CONSTRUCTION MEETING WITH DRC REPRESENTATIVE	_____	_____	_____	_____
10	POST CONSTRUCTION REVIEW	_____	_____	_____	_____

EXHIBIT C

SIGNAGE

Part One – General Requirements

A. Definitions and Measurements:

1. "Sign" means a name, identification, description, graphic, display or illustration which is affixed to, painted or represented, directly or indirectly upon a building, window, improvement, structure, parcel or lot and which directs attention to an object, product, place, activity, person, institution, organization or business and as further defined and regulated in the City of Columbus Graphics Code.

2. The word "sign(s)" as used throughout these Guidelines means sign(s) that are externally visible from adjacent properties or streets. Signage that is placed internally within a structure or building that is not externally visible shall be excluded from these sign standards.

3. There is not a uniform sign size or signage size formula automatically permitted at Polaris. However, all methods of measurement should be consistent with the following: Generally, signage should be restrained and the size will be dictated by the type of signage and location of signage.

a) Sign Area shall include the face of all the display area of the sign and any backer boards, bracing, framing and structural supports of the sign. For internally illuminated signs or internally illuminated awnings, canopies or marquees, the entire lighted surface shall be considered the sign area. The lighted surface area of internally illuminated canopies, awnings or marquees may be counted as signage regardless of whether it contains graphics.

b) Where a sign has two or more display faces, the area of all faces of the sign shall be included to determine the area of the sign by enclosing the entire perimeter of all faces within a single, basic geometric figure and calculating the area contained therein unless two display faces join back to back, are parallel to each other and not more than 24 inches apart, or form a V-angle of less than 45 degrees. For spherical signs, the sphere shall be dissected by an imaginary line through the center of the sphere and the surface area of the half sphere shall be counted as the sign face. If cubical signs are permitted, the area of all display faces shall be included in determining the area of the sign

c) The area of letters, numbers or emblems mounted on a building wall or wall extension shall be computed by enclosing such sign with the smallest single continuous perimeter around the letters, numbers or emblems and determining its area.

d) The term frontage as used in calculating ground signs shall refer to the dimension of the lot along the street. The term frontage as used in calculating

wall signs shall refer to the building wall dimension facing the street or parking lot and for multitenant buildings from lease line to lease line.

e) For structures and uses having no direct frontage on public roads, as within shopping centers, frontage shall be counted as the intersection of the building line onto adjacent drives or parking areas.

f) Freestanding Ground Sign. The graphics on a freestanding ground sign shall be measured the same as in 3b) above. The height of the supporting structure shall be measured from the base of the sign at its point of attachment to the ground to its topmost element.

g) Sign Location. In determining the location of signs in relation to lot lines, distances shall be measured from the vertical projection of the lot line to the closest point on the sign.

B. Prohibited Signage

1. Prohibited graphic types shall include but not be limited to the following:

a) Boxed or cabinet type;
b) Cloth, paper, cardboard, vinyl and similar stickers or decals (unless applied to full window height for safety reasons) around or on the surface of the storefront (including interior and exterior surfaces or doors and/or windows except for hours of operation placed on a storefront);
c) Digital, moving or rotating signs;
d) Signs employing luminous, vacuum formed type, plastic letters;
e) Signs painted directly on the storefront sign band;
f) Signs employing unedged or uncapped plastic letters or letters with no returns and/or exposed fastenings;
g) Signs employing flashing, flickering, changing, digital reader boards or moving lights (electronic message centers) of any kind except as provided for theater/entertainment complexes;
h) Roof mounted signs;
i) Sidewalk or curb signage, portable displays, vehicle or truck advertising parked on the Building Site or mobile signs;
j) Signage projecting above sign band or parapet of the buildings;
k) Externally visible neon and neon look-alike signs including neon like edge or trim lighting that are either mounted to either the exterior face of the building or that is mounted within the building that is visible from the exterior;
l) Search lights unless used as part of grand opening for a temporary basis;
m) Pennants, streamers, spinners, flags, banners, balloons or inflatable signs;
n) Billboards;
o) Changeable copy or reader boards (except for pre-approved gasoline station price signs and drive-through boards);
p) Flashing signs;
q) Projected images and animated signs;
r) Homemade lettered signs;
s) Paper signs and/or stickers utilized as signs;
t) Painted or printed signs; and

u) Outrigger, pylon, rooftop or moving signs;
v) Open Signs are discouraged. Only one sign per Building Site or per leased space in a multitenant building is permitted and can't exceed 1.5 square feet in size. Signs should be off when a store is closed;
w) Raceway mounted signage unless there is an overriding architectural consideration;
x) Inflatable signage;
y) Signs on natural features or fences
z) Any look-alike version of any of these prohibited sign types

C. Sign Content

1. Sign content shall be restrained and limited as follows:

a) To facilitate information legibility, traffic safety and general economic vitality, signs must be designed in a manner compatible with the character and style of the buildings on which they are located, and with adjoining buildings and neighboring signs, in terms of color, materials used and size. Signs and their location should be considered in relationship to their surrounding environment and if seen in series, should have a continuity of design. The sign shall be in harmony with the buildings on the site and shall not detract from the appearance of the general neighborhood in which it is located. All signage requires some sort of dimension with either raised or recessed copy.

b) Signs shall be limited to the name and logo of the business;
c) Generic, comparative aspirational names and/or singular names i.e., "ABC" Liquor or "Liquor" for liquor store, "Nail Spa" for a nail spa, "Store" for a retail establishment, "Food" for a grocery store or use of "A1" or "A+" as examples are not permitted;
d) Taglines or secondary copy are not allowed unless they describe a business, what a business does or business function, not what it sells or how it conducts its business. Slogans used to promote a business are prohibited unless the slogan is commonly known as part of the name or interchangeable with the name. In the event a tagline is permitted, it shall be the same color as the primary sign, significantly smaller in scale and only allowed on one sign face or entry elevation and/or on a monument sign, if any;
e) The style(s) of a sign(s) should be generally consistent throughout a Building Site or project. The Committee may limit the number of colors used on a sign. Signage shall be limited to a color scheme that is compatible or relates to or is coordinated with the architecture or other signage on a Building Site. Owners of multitenant Building Sites and/or shopping centers or multiple buildings on a Building Site are encouraged to create sign criteria for a site.
f) Signs on vending machines, trash bins, or other devices serving any property shall be fully screened from view of any street and adjoining property.

PART TWO – SIGNAGE TYPES

A. Wall Mounted Identification – General: All signage shall be considered permanent unless the signage is clearly meant to be temporary.

1. Wall signs may be placed on all buildings and generally are limited to one sign per elevation except as provided herein. Only individual channel letters, projecting and marquee wall signs are permitted. Box cabinets are not permitted. The signs shall be located on the business being identified unless otherwise provided herein. A flat wall sign shall be mounted directly to the wall, or any architecturally designed extension thereof, with the surface parallel to the wall and not extending over its edges.

2. No signs shall extend above the building roof or line of the parapet construction.

3. Sign operation: All signage may be illuminated continuously at night or controlled by photocell and time clock controlled and uniformly illuminated during normal business hours unless otherwise determined by the Committee. Businesses with longer hours or that are open for business 24 hours may be permitted to have their signs illuminated beyond the normal business hours.

4. Use of individually mounted letters shall be limited to the fronts of stores relative to each tenant's space. In all instances the message area letters and/or its sign panel shall be mounted directly to the building face. If a backer panel is used, it shall be considered as part of the sign area and it shall be no more than 1 inch thick and non-illuminated. Signs on the rear of stores will be considered on a case by case basis.

5. Signage mounted on raceways will not be accepted.

6. No sign shall contain or consist of pennants, ribbons, streamers, balloons or similar devices unless the Committee otherwise approves.

7. Illumination shall be from a concealed or indirect light source and shall not flash, blink, fluctuate, travel, move or in any manner fail to provide constant illumination and shall not create a hazard or visibility problem or interfere with or impair vehicular movement on any street from which the sign may be viewed. Illuminated signs shall be constructed and maintained so that the source of illumination is shielded or otherwise prevented from beaming directly onto adjacent properties or streets. Illumination of each individual mounted letter to be installed in one of the following manners:
   a) Internally illuminated individual, face lit, channel letter,
   b) "Halo" illuminated letter
   c) Externally illuminated individual acrylic letter or metal letters on a sign panel;
   d) Internally illuminated individual, face lit pin mounted letters;
   e) Internally illuminated logos (i.e., trademarked graphic images) that are subordinate to the primary signage text .

8. A tenant may be permitted to install projecting signs in compliance with the size, construction type and area and protection limitations listed in B. 6. below. Committee

approval for all projecting signs is required. No projecting wall signs shall extend above the building parapet or below 10 feet above finish floor.

B. Sign Types:

1. Internally Illuminated Channel Letters:

a) Illumination of individual channel letters may be of neon tubing or LED within each letter unit with remote transformers or self-contained low voltage power supply for each letter unit located within the storefront soffit or ceiling.

b) Letter returns shall be minimum .040" aluminum.

c) It is recommended that letters be mounted ½ inch to 1 inch off the face of the exterior wall to permit drainage. In no event, shall the letter returns be more than 6 inches from the face of the building.

d) In some instances, internally illuminated individual letters may be mounted to prefinished metal signage background panel that is mounted over the building exterior face material if approved by the Committee.

2. Halo-Illuminated Letters:

a) Illumination of individual channel letters with neon tubing or LED within each letter unit with remote transformers located within the storefront soffit or ceiling.

b) Color of the outside face of channel letter shall be approved by the Landlord.

c) Provide fully enclosed UL-listed plastic backed faced letters with ground.

d) Letters shall be mounted ½ inch to 2 inch off the face of exterior wall to permit drainage and illumination of facade.

3. Pin Mounted Letters: Pin mounted individual letter may be mounted to exterior walls if they meet the following conditions:

a) All letters in an individual sign must be the same color.

b) The power source to each letter is concealed.

c) The letters do not extend above the building parapet.

d) The attachment of each letter must be concealed.

e) The area of pin mounted letters will be applied to the overall allowable sign area for a tenant wall area.

4. Logos: Logo image signs may be provided with specific approval of the Committee if they meet the following conditions:

a) Illumination shall be internal to the graphic with concealed remote transformers located within the storefront soffit or ceiling.

b) The size and shape for the Logo with dimension shall be appropriate to the architectural feature to which it is attached.

c) The area of the Logo shall be included within the allowable sign areas and heights as prescribe below.

d) Sign shall be mounted 1 inch off the face of exterior wall to permit drainage.

e) The Logo sign shall not project more than 6 inches from the face of the exterior wall.

f) The Logo sign shall be subordinate to the Tenant's primary wall sign.

g) The Logo sign area will be included in the overall allowable sign area.

h) Trademark logos shall be prohibited.

5. Vacuum formed wall signs may be approved if they meet the following conditions:
a) Illumination shall be internal to the graphic with concealed remote transformers located within the storefront soffit or ceiling.
b) The background to the vacuum formed sign shall be opaque.
c) The size and shape for the sign shall be appropriate to the architectural feature to which it is attached.
d) The area of the sign shall be included within the allowable sign areas and heights as prescribe below.
e) Sign shall be mounted 1 inch off the face of exterior wall to permit drainage.
f) The sign shall not project more than 6 inches from the face of the exterior wall.
g) Each vacuum formed sign shall have individual dimensions for each shape and shall not be a single or flat plane face.
h) The vacuum formed wall sign area shall be calculated based on a rectangular shape that outlines the perimeter edges of the sign.

6. Projecting Wall Signs: Such signs may be provided with specific approval of the Committee if they meet the following conditions:
a) Illumination shall be internal to the graphic with concealed remote transformers located within the storefront soffit or ceiling. No exterior illumination of the projecting sign shall be permitted.
b) The size and shape for the sign shall be appropriate to the architectural feature to which it is attached. Simple sign shapes are preferred (i.e. round, oval, square or rectangular). Complex or compound shapes shall be discouraged.
d) The area of the sign shall not exceed thirty-six (36) square feet.
e) Sign shall be mounted a minimum of four (4) inches off the face of exterior wall. The sign bracket shall be engineered to be self-supporting without the use of diagonal supports. The bracket color/finish shall match the sign frame.
f) The sign shall not project more than 4′-8″ from the face of the exterior wall.
g) The sign face should have letters/graphics that are individually pushed through or recessed/routed out and have some dimension, with each element a maximum of one inch.

C. Single Occupied Building Signage: Owned or Leased

1. Only one wall sign per elevation shall be permitted.
2. Sign areas shall be in proportion to building face and generally follow the measurements outline herein.

D. Multi-tenant Office Buildings – a maximum of two wall signs may be permitted if:

1. Buildings must be over 40,000 square feet
2. Signage on the building is permitted with a maximum of two (2) tenant names on the face of the building facing a public right-of-way.
3. If one tenant sign exists on a building, an additional sign is permitted if it resembles as closely as possible the existing sign in color, size of letters, total area, sign style, illumination, brightness, width of face plates, and depth of returns.
4. On a building where signage does not exist as of the effective date of these standards, the building signage should be uniform in size, style, color, area and illumination.

5. Sign area shall be in proportion to the building and as approved by the Committee.

E. Multi-Tenant Signage – In-Line Tenants – Primary Facade:

1. Sign area – Primary Facade: Generally, signage shall be compatible in size and scale with the building architecture. Size shall range from 16″ to 36″ in height for smaller in-line tenants and 37″ to 60″ in height for larger tenants depending on the lineal frontage and storefront façade of an individual tenant subject to the additional limitations herein. There should be adequate negative space on all sides of signage within the sign band so signage does not appear to be "corked" into the façade.
2. Inline Tenants signage shall fit within the sign band defined and graphically shown on a building's drawings. The horizontal width of each Tenant's copy (i.e. logo, name, etc.) shall be a maximum of seventy percent (70%) of the width of the tenant's storefront width, with a maximum width generally of 30′. The entire storefront is the sign field from lease line to lease line.

3. If a tenant has two primary building facades (i.e., corner unit) then that tenant may be permitted a primary sign on each façade if signs are the same size.

4. Each tenant shall be permitted one primary sign on the parking lot side of the building in which they are located.

5. The Committee shall review tenant signage in the context of the other existing and approved signage for the shopping center.

6. Each tenant sign shall be located generally above or in front of its leased storefront. For tenant leased premises that occupy more than one exterior storefront bay of a building, the tenant sign shall be in the bay that contains the tenant's primary entrance with the intent that the sign be logically placed on the façade with the entrance and within the boundaries of the premises. It is not intended to limit signage to just the area directly above the entry doors.

7. Sign height: The maximum mounting height of any sign shall generally not exceed twenty feet (20′) above grade, or as appropriate to the building architecture and shall not extend above the roof or line of the parapet construction.

8. Generally, for inline tenants with less than ten thousand square feet (10,000 SF), maximum letter height of message area shall be 39″, except that maximum height of the individual letters may be 36″. Special attention to descent letters will be considered (i.e. j, g, p, q). Any descent element of the letter shall be included in the sign area calculation. This descent would be in addition to the area of a rectangle that encloses the remaining letters. However, the Committee may allow larger signage based upon distance from the public right of way and building architecture.

9. The sign area must terminate a minimum of twenty-four inches (24″) inside the corner of a building.

F. Tenant Signage – In-Line Tenants – Rear Lot (Secondary) Facade:

1. Where permitted rear building tenant signs shall be internally illuminated individual channel letters and significantly smaller than the primary façade signage.

2. Letter height shall generally not be more than 20 inches in total height.

3. No sign cabinets shall be permitted.

4. Rear building signage shall be uniform in color, scale, size, font and height from grade. Rear signage is allowed when facing an access drive and there must be a signage plan for an entire Building Site or project.

5. Signs on rear service doors – Tenants may install one (1) identification sign on service doors, there (3) inches high with a font uniformly used at a shopping center and as approved by the Committee, all capital characters indicating the business as on the storefront sign band and the address of the space.

G. Tenant Signage – Anchor Store Tenants (10,000 SF or Larger in Area or 20% of total GLA):

1. Individual Tenants that are ten thousand square feet (10,000 SF) or larger in area shall comply with the following requirements as defined below.

2. Sign area: Generally, signage shall be compatible in size and scale with the building architecture. Size shall range from 30" to 84" in height depending on the lineal frontage and storefront façade of an individual tenant subject to the additional limitations herein. A maximum lineal frontage may be considered by the Committee. There should be adequate negative space on all sides of signage within the sign band so signage does not appear to be "corked" into the façade.

3. Sign height: The maximum mounting height of any sign shall generally not exceed twenty-six feet (26'-0") above grade and shall not extend above the roof or line of the parapet construction.

4. The sign area must terminate twenty-four inches (24") inside the corner of a building.

5. Overall sign area shall comply with the mounting height and graphic areas defined above.

6. "Tag-line" signs are generally not permitted as noted herein. Notwithstanding the foregoing, special consideration may be given to anchor stores and any approvals shall be consistent with Part 1 C. 1. C)

H. Tenant Blade Signs:

1. Any building mounted "blade" signage shall follow strict criteria to create a uniform appearance at near eye level for pedestrians.

2. Each tenant shall be permitted one (1) projecting blade sign option indicated at a maximum of three (3) square feet of sign area and must be erected perpendicular to the building wall.
(a) Each blade sign shall be of the same color and name as the tenant's main sign wall sign letters. The mounting system and construction shall be as approved by the Committee.
(b) The tenant's name is to be no greater than 6 inches in height and to have a ¾" wide decorative border on the blade sign painted in a uniform color per Building Site.

3. No part of any blade sign shall be less than 8 feet above the sidewalk or ground level and extend above the roof line.

4. Owners of multitenant Building Sites are encouraged to develop blade sign standards and specifications.

I. Window Signs:

1. A window sign is a sign, graphic, poster, symbol or other identification that is physically affixed to or painted on the glass or other structural component of the window or a sign, graphic, poster, symbols, or other identification or information about the use or premises erected on the inside of the building within two (2) feet of the window and intended to be viewed through the window from the exterior of the premises. This signage is not intended to be used as a substitute to more formal exterior signage. "Informational window sign" means window signage with a total area of two square feet or less and bearing only information about entry and exit, business hours, authorized service representative information and/or discount and credit systems accepted in that establishment (i.e. American Express, MasterCard, Visa, Golden Buckeye Card, etc.).

2. Permanent window signs shall be limited to signs denoting the identification of the occupant, the address of the premises and its use. For the purposes of these criteria, a window shall be defined as a single wall opening regardless of the number of individual panes or subdividing mullions.

3. Any approved business operating as an owner or business may utilize windows for temporary signs that advertise products or services offered to the public, not the actual name of the business. Temporary informational window signs shall be limited in size to nine (9) square feet per sign. They shall not be handmade or painted directly onto the window. Such signs shall be professionally prepared and shall be interior to the window and hung a minimum of four (4) inches from the window and not lower than four (4) feet above finished floor.

4. Maximum window coverage for the combined area of informational, permanent and temporary window signs shall be 25% of the window area.

J. Service and Address Signage:

1. Each service/loading dock area is permitted to have the following message area on building elevation centered directly above door access: "Service Entrance", "Exit", etc. maximum letter height to be three (3) inches.

K. Murals: Murals are considered an additional graphic and will be considered by the Committee on an individual basis. Murals may only be approved in extraordinary circumstances and only when the mural is an integral part of the design of the building and is compatible in color and style with the overall theme of the architecture. Murals must be professionally prepared in a material that will not fade. They must be diligently maintained.

PART THREE – GROUND SIGN TYPES (Permanent)

A. Freestanding Ground Signs:

Freestanding permanent ground signs may be located on the Building Site to which they refer provided the location, height and other characteristics of the signs meet the other requirements of these Guidelines and are approved by the Committee and meet the following:

1. Freestanding ground signs should have letters that are individually pushed through or recessed/routed out and have some dimension. The signs including above ground base, foundation, or any other structural elements cannot exceed six feet (6') in height and be more than 60 square feet, with 48 square feet preferable for Building Sites less than 4 acres. The Committee may allow ground signs ten feet (10') high one hundred fifty (150) square feet of area if such sign is for a building area of more than 100,000 square feet on a site of at least 4 acres.

2. Only one (1) freestanding sign per Building Site shall be permitted.

3. Sign panels on freestanding signs shall face not more than two directions, and such panels shall be in parallel arrangement. The distance between parallel, back-to-back sign panels shall be not greater than three feet.

4. The base or structure of all monument signs shall match and be built out of the same materials used on the building with a preference for masonry products and shall be landscaped around the base of the sign structure. The materials shall be of good quality, good durability and complementary to the building of which they become part.

5. The base of all permanent ground signs externally illuminated with ground lighting shall be effectively landscaped with living plant materials and maintained in good condition at all times. The minimum landscaped area shall extend at least three feet beyond all faces or supporting structures in all directions This landscaped area shall be comprised of a variety of earth mounds, annual and perennial flowers, and groundcovers. The use of evergreen materials is strongly recommended. Improvements should be designed with low cost maintenance as a goal. All shrubs, trees, turf, groundcovers, and other planting shall be well maintained, properly installed, weeded, mulched and kept free of trash and other unsightly material and/or debris.

B. Multi-tenant Retail Buildings-

Freestanding ground signs for multi-tenant retail buildings are limited to the name of the shopping center only. Nevertheless, multi-tenant freestanding ground signs may be permitted to individual tenant panels when the following apply:

1. The Shopping center project is more than 100,000 square feet and signage package is submitted via a uniform plan for a unified development;

2. Nameplates for individual tenants are only allowed if tenants are more than 15,000 square feet;

3. No more than four (4) tenant names are allowed on a freestanding sign;

4. Uniform color, font and size are maintained; and

5. Tenant names can be seamlessly changed (meaning that a new tenant name matches the color of existing sign. The entire sign may have to be redesigned to achieve this goal).

6. Tenant panels shall be internally illuminated.

C. Office Buildings- a freestanding sign is limited to:

1. Four (4) tenant panels of equal size per sign;
2. Uniform color, font and size, unless a tenant name is used to identify a business that provides "emergency" medical services. If emergency medical services are provided to the public, red and white colors may be used as approved by the Committee; and
3. Tenant name can be seamlessly changed.
4. Tenant panels shall be internally illuminated.

D. Parking Control, Traffic,Directional, and Curbside Pickup Signage. On site traffic and directional signs indicating points of entry or exit for a facility or off-street parking area, provided such signs are limited to a maximum of four (4) square feet in area are permitted and three and one-half (3-1/2) feet in height from grade to top of sign and do not interfere with safe vehicular or pedestrian traffic circulation or obstruct the view of drivers entering or exiting roadways. Such signs may contain information such as "in", "enter", "entrance", "out", "exit", "do not enter", or similar language as approved by the Committee. Arrows indicating desired traffic movement may also be used for directional signage. Such signs shall not contain the business name, advertising, but may include logos and must be of a rectangular shape. Such signs must be on the property to which they refer and may not be placed within a public right-of-way. Only one parking control sign is permitted per entry or exit drive serving a parking lot. Shopping centers or building sites that share common access may have directional signage containing the names of individual tenants if such signage is internal to a site, there is a common theme and place for the signage and the size is approved by the Committee. Curbside pickup and on-stie parking control signage should have a common theme and size as approved by the Committee.

E. Drive – Through Menu Board Signs. Drive-through menu board signs include freestanding, pole, pylon, and monument menu board signs. A drive-through menu board sign is permitted only when all the following conditions are fulfilled:

1. The sign is located on the property to which it refers;
2. The sign is not visible from the public right-of-way;

3. The sign is single-face only and does not exceed forty y (40) square feet in size; and
4. The sign is not placed in front of the building setback line.

PART FOUR – SPECIAL CATEGORY SIGNAGE

A. Joint Identification or Co-Brand Signs:

Joint identification or co-brand signs (two (2) names of distinct businesses on one (1) monument sign or one (1) wall sign) shall be limited to wall or freestanding signs, and to premises where there are two or more distinct businesses on one Building Site i.e., gas station and restaurant typically with a common wall or where there are two (2) freestanding buildings or Building Sites adjacent to each other. Signage used to describe products being sold within a property is not permitted. For all buildings or complexes designed and/or intended for multi-tenant usage, a total sign plan conforming to all the requirements of these rules must be submitted to the Committee before any sign approval for the complex or an individual tenant will be issued. Any joint identification sign shall not exceed the maximum permitted height of any ground sign identifying the individual occupants.

B. Directory Signs:

All directory signs shall be wall-mounted signs, and are subject to the restrictions for wall signs.

C. Mixed-Use Developments:

On Building Sites in which a mixed-use plan is submitted, a coordinated signage plan is encouraged where generally signage for the multitenant retail portion of the building shall follow the in-line tenant sign standards. The office portion of the building shall follow the office standards unless otherwise approved by the Committee. A mixed-use development is a coherent plan for a dense, self-contained development project that: 1) provides three or more significant revenue-producing uses (such as retail/entertainment, office, residential, hotel, and/or civic/cultural/recreation); 2) fosters integration, density and compatibility of land uses, 3) presents a uniform or coherent architectural theme or relationship among buildings in style, color, scale or materials; and 4) creates a walkable community with uninterrupted pedestrian connections. The mix of occupancy group types alone in a single building does not create a mixed-use development.

D. Theater/Entertainment Signage:

It is acknowledged that theater and/or entertainment complexes require special consideration because of what is customary with those uses. Such signage for such uses may deviate from the standards herein if the following apply:

1. The signage except for brightness and size meets the criteria and quality required herein; and
2. The signage is not any brighter or more prominent than any similar venues located in comparable commercial developments to POLARIS in Central Ohio; and

3. The signage is in scale or in proportion to the building and surrounding d development.

E. ATMs:

Signage for all ATM/s (automated teller machines) shall be limited to one square foot of sign area and utilize no more than three colors. ATM signage must have an opaque background. If the ATM contains a logo, it may be internally illuminated. In addition, monochromatic, non-illuminated logos of accepted credit systems (VISA, MasterCard, etc.) are limited to less than one square foot in area.

F. Automotive Fuel Stations:

Mechanical or electronic changeable copy signs, flashing signs, moving signs and the animation of signs are not permitted. Electronic changeable copy signs displaying one gas price at gas stations may be permitted but only if reviewed and approved by the Design Review Committee. The electronic changeable copy must be static, shall contain font with 12" character for regular gas and 8" for diesel, 3 stroke font with LED illumination with 633 wavelength in either a red or green. Regular and diesel can be either red or green and the prices should be consistent in color. Each sign shall have a light sensing device that automatically adjusts brightness as ambient light conditions change in order to ensure that the message meets the standard for maximum brightness. The maximum brightness shall be 0.2 foot candle above ambient light measured 150 feet perpendicular from the sign face area from a height of 6 feet. No sign shall display light of such intensity to cause glare or otherwise impair the vision of a driver, or interferes with the effectiveness of an official traffic sign, signal or device.

Matter appearing on gasoline pumps as purchased or installed shall not be considered as signs for purposes of this section. In addition to all other signs permitted by this section, an automotive fuel station may display one (1) sign, not larger than two (2) square feet, above each pump island stating whether the area is a "self-service" or "full-service" area and the current price per gallon of the gasoline sold at the station. The pillars and canopy design (i.e., materials and colors) should relate and be coordinated with the other buildings on the site. The fuel pumps should match the canopy design. Canopy signage should be limited and should not extend outside of the limits of the canopy elevations. Lighting under the canopy shall be recessed or from a concealed source.

G. Permanent Business Park Signs:

Signs describing the Polaris development shall be permitted in a size approved by The Committee and not limited to the size restrictions herein. However, they are subject to all other requirements.

H. Street Address Signs for Office Buildings:

These signs may contain only the street address of the properties on which they are located. Maximum numeral height varies per the front setback. If the setback is less than 100 feet, the maximum numeral height is twelve inches (12"). For setbacks between 100

and 200 feet, the maximum height is eighteen inches (18″). For setbacks over 200 feet, the maximum height is twenty-four inches (24″). All street address signs shall contrast to the color of the surface on which they are mounted, shall be clearly identifiable from the street, and be attached to the building or mailbox. Every building is required to post its street numerical address.

I. Government Signs:

Signs required or authorized for a public purpose by any law, statue or ordinance, including traffic control devices, provided that such signs contain no supplementary advertising. These signs must conform to the applicable government standards for text, color, size, etc.

PART FIVE – TEMPORARY SIGNAGE GENERAL REQUIREMENTS

Temporary Signage is signage that does not have a footer and is intended to be displayed on a non-permanent basis. The following are temporary signs subject to the rules herein:

A. Political Signs:

Political signs having reference to a candidate for elective office or a public question or an issue to be submitted to the voters at a general, special or primary election may be erected or displayed subject to the following limitations:

The signs may be displayed only during a period of time beginning thirty (30) days before the election at which the candidacy, question or issue is to be submitted to the voters, and must be removed no later than three (3) days after such election. Such signs shall not exceed three (3) square feet in area, shall not be illuminated, shall not exceed four (4) feet in height above the ground level and shall not create a safety or visibility hazard nor be affixed to any public utility pole or tree or be located within a public right-of-way. Only one sign for each candidate, question or issue shall be permitted for each Building Site on which the sign is located.

B. Commercial and Industrial for Sale/For Lease Signs:

Signs indicating the sale, rental, or lease of commercial or industrial real estate are limited to thirty-two (32) square feet in area and five (5) feet in height for lots with less than 100 feet of street frontage and thirty-six (36) square feet in area and eight (8) feet in height for lots with street frontage of 100 feet or more. Individual tenant spaces within a parcel are allowed one (1) window or wall sign no larger than sixteen (16) square feet in area. Such sign may only be located on the property offered for sale or lease. Free-standing signs must be located so that they do not interfere with the safe movement of vehicular and pedestrian traffic and must be removed within thirty (30) days after the sale, rental, or lease has occurred. Only one such sign per 200 feet of street frontage is permitted.

C. Grand Opening Signs:

A sign advertising a grand opening may not exceed a maximum of thirty-two (32) square feet in area unless it is a sign covering all portions of the existing permitted sign. The sign

must be located on the premises of the grand opening. No business shall display such sign for more than thirty (30) days. The date that the sign is first displayed shall be legibly marked on the sign.

D. Construction Signs:

Construction signs shall not be erected until construction begins, and trailers shall be removed within seven (7) days after construction is complete, or occupancy, whichever occurs first. Such sign may identify the owner's name, the architect, the contractors, the financial arrangements, and the purpose for which the project is intended. No products or services may be advertised on construction signs.

The sign(s) shall be located only on the Building Site being improved. Not more than one such sign shall be permitted for each building being constructed. No sign shall exceed thirty-two (32) square feet in total area or display surface, and shall not extend more than eight (8) feet above the grade of the lot on which it is located. The sign shall not be located nearer the right-of-way line than fifteen (15) feet, and on corner lots shall not be nearer the right-of-way line of either street than thirty (30) feet.

Construction trailers may be placed on a building site during the period of construction. The construction trailer may identify the general contractor if the size of the signage complies with this section.

E. Freeway Oriented Leasing Signs:

"Freeway Oriented Business Park" signs are limited to a maximum of four (4) per business park and the area of each sign shall not exceed 320 square feet. Such signs shall be located behind the right-of-way. Illumination is generally not permitted but may considered by the Committee in special circumstances.

PART SIX – LOCATION, MAINTENANCE & ABANDONMENT

A. Sign Location:

Signs may not be installed in any of the following locations:

1. In any public easement, right-of-way, or no build zone except publicly owned signs, such as traffic control signs and directional signs. Any variance from this section must be specifically authorized by the Committee;
2. In any common area maintained by the Polaris Owners Association, Inc., without written authority of Polaris Owners Association, Inc.;
3. On any traffic control signs, construction signs, fences, retaining walls (without written permission from owner), utility poles, street signs, trees or other natural objects;

4. In any location where the view of approaching and intersecting traffic would be obstructed. No sign shall be located to interfere with the safe movement of vehicles or pedestrians entering, leaving, or crossing a public right-of-way; or
5. On any property without the prior authorization of the owner of the property on which any sign is to be placed.

B. Maintenance:

All signs and components thereof shall be subject to the following conditions:

1. The sign owner shall be solely responsible for maintaining the appearance, safety and structural integrity of the sign at all times; and
2. Whenever the Committee Manager finds a sign in need of repair, support, replacement, cleaning, or repainting, or that other action is necessary to maintain reasonable and proper appearance or public safety, the Committee Manager shall issue a notice to the owner allowing thirty (30) days to affect needed repairs, maintenance or action. If the Committee determines that the existing condition of the sign creates an immediate hazard to the health or safety of the public, it shall issue a request to the owner requiring that the sign be removed immediately.

Failure of an owner to comply with the provisions listed above shall be cause for the Committee to revoke prior approval of the sign and issue an order for the sign to be removed. If the sign is not removed by the deadline established by the Committee, the Committee Manager may cause the sign to be removed and the cost assessed to the property owner. If the property owner refuses to pay for removal of the sign, the cost of such removal shall be assessed to the property owner's real property under the Declaration.

C. Abandonment:

Use of an existing sign shall terminate and a sign will be considered abandoned when any of the following conditions exist:

1. When the sign is associated with an abandoned use;
2. When the sign remains after a business has ceased operations. A business has ceased operations if it is closed to the public for at least thirty (30) consecutive days, or the business has vacated the site, whichever comes first; or
3. When the sign is neither properly maintained nor kept in a proper state of repair or safe condition:

Abandoned signs shall be removed by the property owner. Upon determination by the Committee or Committee Manager that a sign has been abandoned, but not removed, the Committee Manager shall issue a request for its removal by the property owner within fifteen (15) days. Any abandoned sign still standing after fifteen (15) days following an order for removal may be removed by the Committee Manager at the property owner's expense. If the property owner refuses to reimburse the Polaris Owner's Association, Inc. for removal of the

sign, the cost of such removal, as determined by the Committee Manager, will be assessed to the owner's real property in accordance with the Declaration.

EXHIBIT D

POLARIS LANDSCAPE STANDARDS

Budget: At least 1.5% of the total project cost should be dedicated to landscape. This figure is strictly for plantings and is not to include landscape lighting, water features, or sod and seed. However, an applicant may get credit where unique hardscape is used.

Mounding/Beds: A minimum two-foot (2') landscape mound is required along and abutting all parking areas or in the alternative a hedge row may be used. The purpose is to minimize large expanses of vehicles. Dense or large landscaped areas may eliminate need for mounds. Foundation plantings around any building patio area or structure is encouraged. Beds or foundation plantings are encouraged around any building, patio area or structure. As an alternative, sidewalk planters may be used if they are prominent and well maintained.

Parking: Large parking areas shall include islands including trees. The islands shall also contain grass or some foundation plant material. Any islands within a parking lot must be grass or have a minimum coverage of 75% coverage of plant material. The use of mulch should be minimal and primarily around a drip line of a tree.

Screening: Service structures/areas shall be screened with structural materials like the building and with plants on all sides except the access side. The plants should be at a height to adequately screen the structures. The access shall be from the side opposite the nearest property line(s). Service structures shall include but not be limited to loading docks, propane tanks, grease receptacles, dumpsters, generators, electrical transformers, utility vaults and other equipment providing service to the building.

Trees: The Street Tree Plan as attached hereto must be followed. Owners are responsible to maintain and replace all trees within the right of way (planted as part of a roadway improvement project).

Irrigation: All landscaping and planting areas are required to be irrigated. Irrigation should extend into the right of way to the curb line of any road.

Materials: The landscape design should mix vertical and ground hugging plant material. Shade trees shall be a minimum 10' in height or 2.5" of caliper. All trees to be plantation grown and conform to the standards of the American Association of Nurseryman and passed all State inspection. No field run or park grade material shall be accepted.

Flowering trees shall be a minimum of 6' in height. No white pine is to be planted along roadways with excessive wind or salt spray in winter. (See recommended plant material listed below).

At the time of installation, shrubs and hedges shall be a minimum of 18-24" spread or 3-gallon container.

Grass of fescue or bluegrass family shall be planted in species normally grown as permanent lawn in Central Ohio. An 85% stand of turf shall be apparent within 6 months of completion or replacement will be required.

Temporary excess land permitted to be cover crop until final phase of construction.

Vines shall be installed in properly amended soils with 2.25" peat pots minimum size.

Outdoor picnic and recreation areas are strongly encouraged. All such areas will require an appropriate amount of screening and landscape.

Maintenance: Landscaped areas shall be properly maintained, properly installed, weeded, mulched and kept free of trash, with regular fertilization and irrigation.

All dead plant materials shall be promptly removed and replaced with new material. The Committee may maintain or replace any landscaped areas that are not corrected by the Owner within forty-five (45) days notice from the Committee. The Owner shall reimburse the Committee for all expenses incurred to maintain landscaping. Any alterations to landscape plans shall be submitted to the Committee.

RECOMMENDED TREES FOR POLARIS

DECIDUOUS TREES

NORWAY MAPLE
SKYLINE HONEYLOCUST
STATE STREET MAPLES
RED MAPLE (NATIVE)
SUGAR MAPLE
FREEMANT MAPLE
HEDGE MAPLE
AMUR MAPLE
CRIMSON KING MAPLE
PAPERBARK MAPLE
SWEETGUM
SAWTOOTH OAK
CRABAPPLE
SERVICEBERRY
THORNLESS HONEYLOCUST
ARISTOCRAT PEAR
RED OAK
SHINGLE OAK
SWAMP WHITE OAK
SILVER LINDEN
HOMESTEAD/FRONTIER ELM
EUROPEAN HORNBEAM
GINKO
KOUSA DOGWOOD
EASY STREET MAPLES

EVERGREEN TREES

WHITE SPRUCE
NORWAY SPRUCE
BLUE SPRUCE
GREEN SPRUCE
SERBIAN SPRUCE
WHITE PINE
AUSTRIAN PINE
CONCOLOR FIR

EXHIBIT E

STREET TREE PLAN

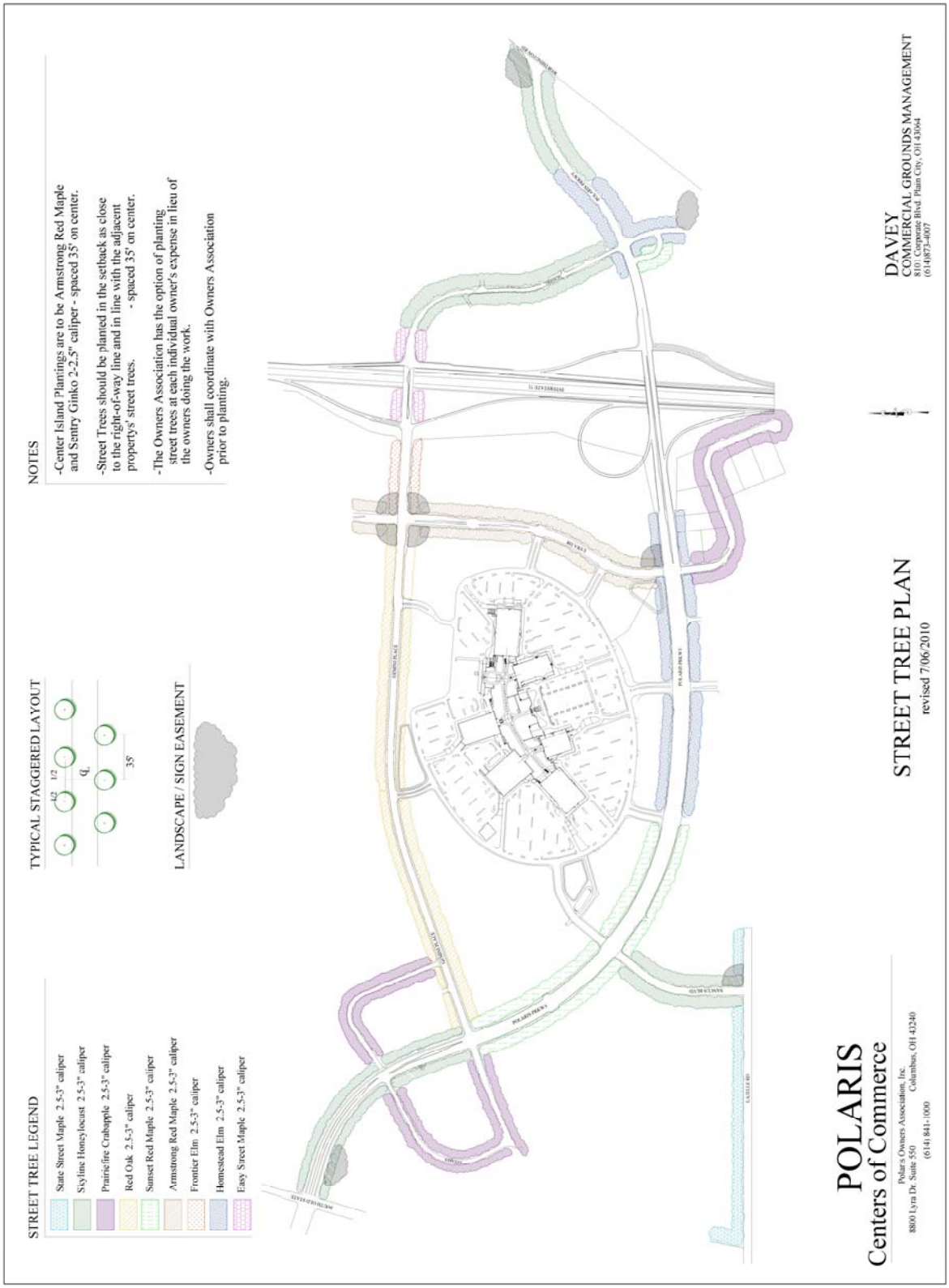
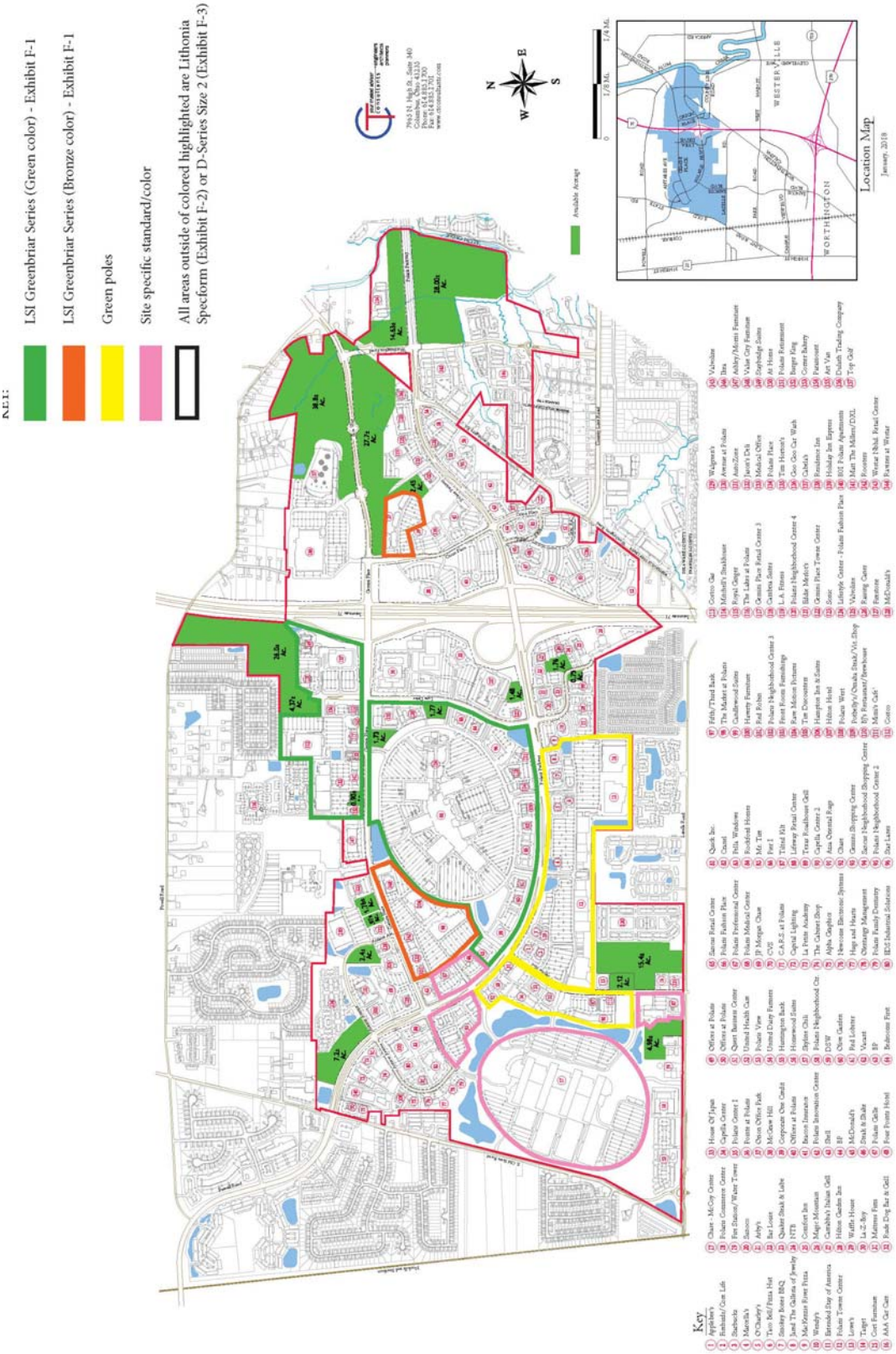


EXHIBIT F

POLARIS PARKING LOT LIGHTING SPECIFICATIONS



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GREENBRIAR SERIES
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POLARIS, COLUMBUS, OHIO

- POLE HEIGHT — 24 Feet
- BASE — 36″ Concrete Base

Exhibit
F-1

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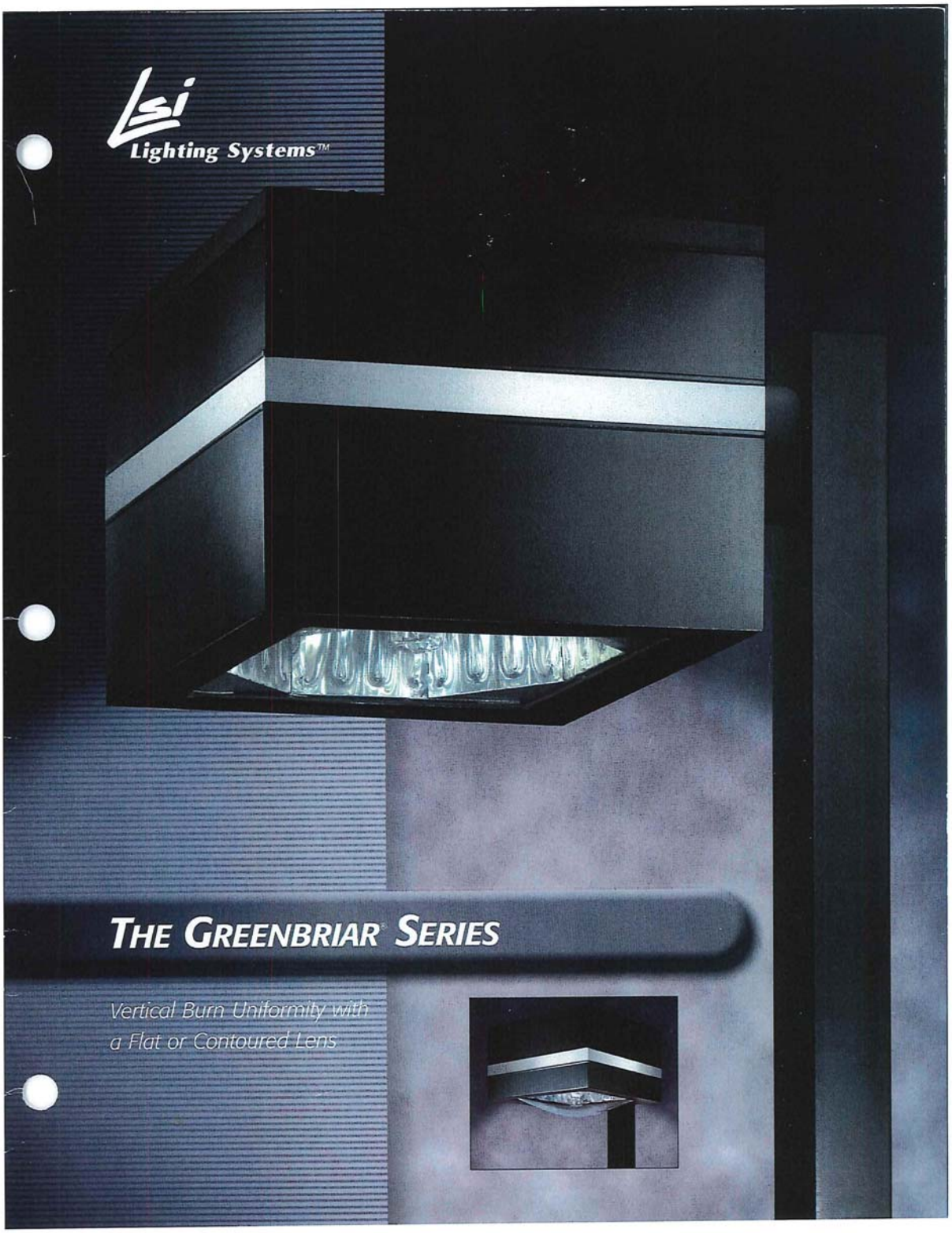
Lsi
Lighting Systems™
THE GREENBRIAR® SERIES
Vertical Burn Uniformity with
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Medium
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Medium
Pole-Top
Reduced
Arm-Mount
Reduced
Pole-Top
Flat
MEETS IESNA
FULL CUT-OFF
CLASSIFICATION
IESNA FULL CUT-OFF GUIDELINES
A light fixture with a light distribution where no candela (light) occurs at or above an angle of 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10%) at a vertical angle 80° above nadir. This applies to all lateral angles around the luminaire.
COMMUNITY FRIENDLY
Community-friendly lighting is intended to eliminate unnecessary uplight, minimize light trespass, glare and wasted energy, and still provide quality lighting as required in today's society.

THE GREENBRIAR® FLAT LENS – WHEN FULL CUT-OFF IS REQUIRED

With the Greenbriar Flat Lens, you can enjoy naturally uniform illumination for increased safety, savings and "see-ability."

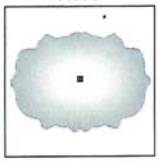
Outdoor fixtures that can reduce light spill are necessary for meeting today's ever-stricter zoning requirements for light pollution. The Greenbriar Flat Lens is designed to meet the Illuminating Engineering Society of North America's (IESNA) requirements for acceptable full cut-off classification.

Greenbriar Flat Lens Vertical Burn fixtures combine the benefits of traditional Vertical Burn technology with the cut-off advantages of a flat lens. The reflector system totally surrounds the vertically oriented lamp to control the lamp output, while optimizing light distribution and energy consumption. The lamp is positioned within the reflector system to produce sharp cut-off lighting required in strict zoning areas. In addition, the lamp's arc tube is perpendicular to the lens, minimizing arc image and maximizing the distance to the lens surface. This helps to reduce any perceived glare.

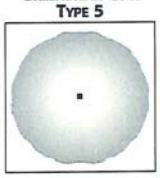
REFLECTOR OPTIONS

The Greenbriar Series offers a wide variety of flat lens reflector systems to meet your needs, including these high-performance options:

GREENBRIAR MEDIUM TYPE 2

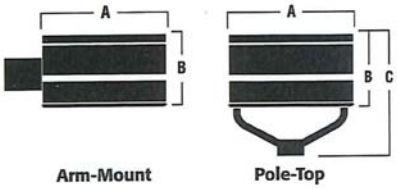


GREENBRIAR GFR TYPE 5



GREENBRIAR GFR AUTOMOTIVE FORWARD THROW

DIMENSIONS



	A	B	C
GFR Arm-Mount	21-5/8"	16"	—
GFPR Pole-Top	21-5/8"	16"	25"
GFM Arm-Mount	21-5/8"	12-3/4"	—
GFPM Pole-Top	21-5/8"	12-3/4"	21-15/16"

Large
Arm-Mount
Large
Pole-Top
Medium
Arm-Mount
Medium
Pole-Top
Reduced
Arm-Mount
Reduced
Pole-Top

THE GREENBRIAR® CONTOURED LENS – WHEN WIDE COVERAGE IS PREFERRED

When your site design calls for lighting a larger space using higher poles, choose the Greenbriar Contoured Lens. Like the Greenbriar Flat Lens, the Greenbriar Contoured Lens features a reflector system which completely surrounds a vertically oriented lamp to maximize light distribution and uniformity.

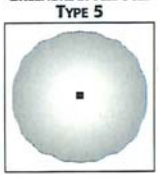
The contoured lens allows for broader lighting coverage from every fixture in an even, uniform distribution pattern. This results in enhanced visibility and security. In addition, fewer poles and fixtures can be used to improve cost efficiency.

REFLECTOR OPTIONS

The Greenbriar Series offers a wide variety of contoured lens reflector systems to meet your needs, including these high-performance options:

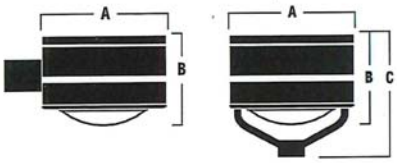
GREENBRIAR REDUCED PERIMETER FORWARD THROW

GREENBRIAR REDUCED TYPE 5



GREENBRIAR REDUCED AUTOMOTIVE FORWARD THROW

DIMENSIONS



Arm-Mount Pole-Top

	A	B	C
GBR Arm-Mount	21-5/8"	15-5/8"	—
GBPR Pole-Top	21-5/8"	15-5/8"	21-15/16"
GBM Arm-Mount	21-5/8"	15-5/8"	—
GBPM Pole-Top	21-5/8"	15-5/8"	21-15/16"
GBL Large Arm-Mount	26-1/8"	19-1/2"	—
GBPL Large Pole-Top	26-1/8"	19-1/2"	26-13/16"

The Greenbriar® Series – Broad Selection. Unbeatable Value.

The Greenbriar Series has always been regarded as a high-performance Vertical-Burn family of fixtures that provides excellent uniform lighting and incredible value.

And now, to meet the growing demands of stricter zoning requirements, LSI has added high-performance flat lens fixtures to the Greenbriar family. Greenbriar Flat Lens fixtures deliver high-performance lighting, uniformity, and cost-efficiency recognized in LSI's traditional Greenbriar fixtures, in addition to full cut-off as defined by the Illuminating Engineering Society of North America (IESNA).

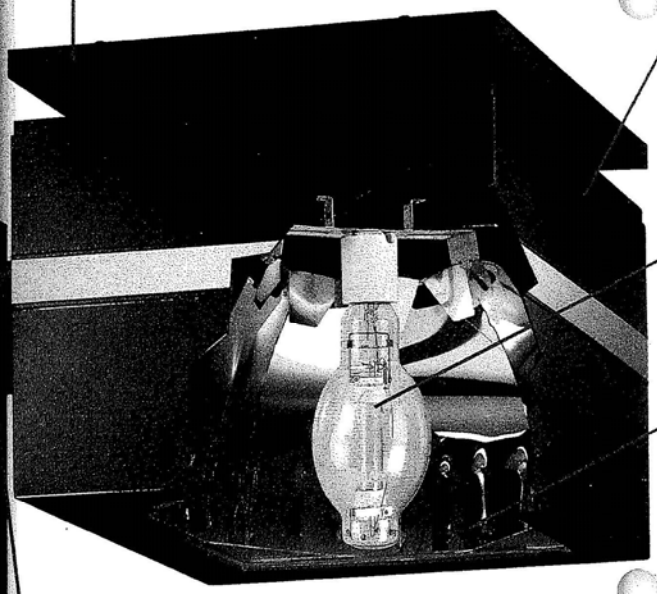
With the Greenbriar Series, you can choose from:

- **A Variety of Housing Sizes**
- **Arm or Pole-Top Mounting**
- **Five Reflector Systems**
- **Flat or Contoured Lenses**
- **An Assortment of Finishes and Color Decals**

Whether your lighting requirements call for sharp cut-off or broad lighting coverage, the Greenbriar Series offers a fixture to meet your needs.

Top-Access

The Greenbriar's Top-Access housing and sealed lens makes maintenance easy and internal cleaning virtually unnecessary. Top-Access cover is secured to the housing with four stainless steel, captive door fasteners.



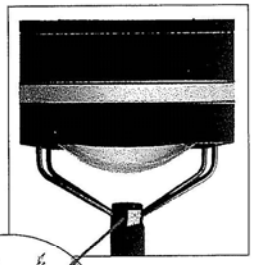
Arm Mounting

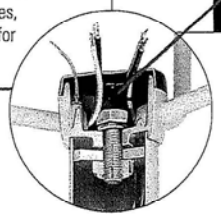
A one-piece, extruded arm with internal bolt tracks offers easy mounting. Standard arm is compatible with all fixture mounting configurations.

Pole-Top Mounting

The cast aluminum mounting hub conceals the wiring compartment and mounts directly to LSI's unique "pole-top mounting plate" via a high-strength, grade five steel bolt with nylon insert and split-lock washer for double locking. The fixture is pre-wired for ease of installation.

Support arms consist of four 11/16" O.D. aluminum rods for Greenbriar Medium and Greenbriar Reduced fixtures, and 7/8" O.D. aluminum rods for Greenbriar Large fixtures.





Housing

Greenbriar fixtures are available in three sizes to best complement your site design and lighting requirements (see Dimensions Chart). All fixtures are finished to provide a clean, sharp appearance and weather-tight construction.

The Greenbriar Reduced is designed around a 1000 Watt Metal Halide Reduced Envelope lamp, allowing for a more compact housing. This results in reduced windloads for lower EPAs, and permits the use of existing poles for retrofitting or lighter-gauge, less expensive poles for new construction.

Light Sources

Clear lamps are supplied as standard. Choose High-Pressure Sodium, Metal Halide, Pulse-Start Metal Halide, Super Metal Halide or Metal Halide Reduced Envelope lamps to meet your specific lighting requirements.

Reflectors/Distribution Patterns

The Greenbriar Series offers five high-performance, high-tech reflectors which are completely rotatable for flexible, uniform light distribution. Available reflector systems include: Type II, Type III, Type FA, Type FP, and Type V.

Lenses

Flat lenses are available for sharp cut-off lighting, while contoured lenses provide broad lighting coverage. All flat and contoured lenses are sealed to the aluminum housing with an EDPM gasket to prevent entry of dust, moisture and insects.

Finish Colors & Accent Striping

Each Greenbriar fixture is finished with DuraGrip,® LSI's baked-on, polyester-powder coat finishing process. LSI's DuraGrip finish withstands weather changes without cracking or peeling, and is guaranteed for 5 full years.

POWDER COATED TOUGH™

Finish Colors

- Buff
- Black
- Bronze
- White
- Platinum Plus
- Green

Accent Striping

- White
- Black
- Dark Red
- Tomato Red
- Dark Green
- Charcoal Metallic
- Light Gold Metallic
- Blue Metallic

Vertical Burn –
Total Uniformity for Safety, Savings and "See-Ability"

Vertical Burn lighting creates increased visibility through uniform lighting performance, reduced hot spots and reduced pockets of darkness. This uniform "see-ability" heightens your customers' and employees' sense of security.

- Reflector completely surrounds vertically positioned lamp to control light output and maximize light distribution
- Maximum light coverage and uniformity prevent glaring hot spots
- Fewer fixtures burn up to 30% less energy annually
- Maximum lamp life lowers long-term maintenance costs
- Fewer poles and fixtures lower overall costs

Flat Lens Vertical Burn

Contoured Lens Vertical Burn

Pulse-Start Metal Halide –
For High Performance and Efficiency

Pulse-Start Metal Halide delivers the white light of Metal Halide along with the energy efficiency and lumen maintenance of High-Pressure Sodium.

- Available in 250, 320, 400, 750 and 1000 Watt versions
- Longer lamp life (up to 30,000 hours)
- More lumens per watt
- Better lumen maintenance with more light output over time
- Improved color stability with less color shift
- Faster warm-up
- Quicker restrike

General Comparison of Metal Halide, High-Pressure Sodium and Pulse-Start Metal Halide Technology*

Feature	Standard M.H.	Pulse-Start Metal Halide	H.P.S.
Color	White	Whiter	Yellow
Efficiency (L/W)	60-85	90-110	100-125
Lumen Maint.	65%	80%	90%
Lamps	175-1000	35-1000	35-1000
Lamp Life (kHrs)	6-16	10-30	24+

*Reprinted with permission from Advance Transformer Co.

GREENBRIAR ORDERING INFORMATION *(Select appropriate choice from each column to formulate order code. Refer to example below.)*

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage[3]	Luminaire Finish	Options
CONTOURED LENS							
Medium GBM – Arm-Mount GBPM - Pole-Top[1]	2 – Type II 3 – Type III FP – Perimeter Forward Throw 5 – Type V	250 320 400	PSMV – Pulse-Start Metal Halide 250, 320, 400 Watt HPS – High-Pressure Sodium 250, 400 Watt SMV – Super Metal Halide (Vertical) 400 Watt	CT – Contoured Clear Tempered Glass	480V MT – Multi-Tap[2] TT – Tri-Tap[4]	BRZ – Bronze BLK – Black PLP – Platinum Plus BUF – Buff WHT – White GRN – Green	8BK – 8" Bracket[3] PCI120V – Button-Type Photoelectric Control PCI208V – Button-Type Photoelectric Control PCI240V – Button-Type Photoelectric Control PCI277V – Button-Type Photoelectric Control LL – Less Lamp NO – No Options **Color Decals** 45 – Light Gold Metallic 20 – Charcoal Metallic 94 – Blue Metallic 59 – Dark Green 21 – Tomato Red 55 – Black 50 – White 51 – Dark Red
		250 400	MH – Metal Halide 250, 400 Watt				
Reduced GBR – Arm-Mount GBPR – Pole-Top[1]	2 – Type II 3 – Type III FP – Perimeter Forward Throw 5 – Type V FA – Automotive Forward Throw	1000	MHR – Metal Halide Reduced Envelope 1000 Watt PSMV – Pulse-Start Metal Halide 1000 Watt[4]				
Large GBL – Arm-Mount GBPL – Pole-Top[1]	2 – Type II FP – Perimeter Forward Throw FA – Automotive Forward Throw 5 – Type V	750 1000	HPS – High-Pressure Sodium 750, 1000 Watt[5]				
	5G – Type V	1000	HPSR – High-Pressure Sodium Reduced Envelope Lamp 1000 Watt				
FLAT LENS							
Medium GFM – Arm-Mount GFPM – Pole-Top[1]	2 – Type II 3 – Type III FP – Perimeter Forward Throw 5 – Type V	250 320 400	HPS – High-Pressure Sodium 250, 400 Watt MH – Metal Halide 250 Watt MHR – Metal Halide Reduced Envelope Lamp 400 Watt PSMV – Pulse-Start Metal Halide 250, 320 Watt	F – Flat Tempered Glass	480V MT – Multi-Tap[2] TT – Tri-Tap[4]	BRZ – Bronze BLK – Black PLP – Platinum Plus BUF – Buff WHT – White GRN – Green	8BK – 8" Bracket[3] PCI120V – Button-Type Photoelectric Control PCI208V – ButtonType Photoelectric Control PCI240V – Button-Type Photoelectric Control PCI277V – Button-Type Photoelectric Control LL – Less Lamp NO – No Options **Color Decals** 45 – Light Gold Metallic 20 – Charcoal Metallic 94 – Blue Metallic 59 – Dark Green 21 – Tomato Red 55 – Black 50 – White 51 – Dark Red
Reduced GFR – Arm-Mount GFPR – Pole-Top[1]	FP – Perimeter Forward Throw 5 – Type V FA – Automotive Forward Throw 3 – Type III	750 1000	MHR – Metal Halide Reduced Envelope 1000 Watt PSMV – Pulse-Start Metal Halide 750, 1000 Watt[4]				

Example of Typical Order **GFR 5 1000 MHR F MT BRZ NO**

1) When ordering pole-top fixtures for tenon mounting, a pole-top adaptor must be ordered.
2) MT – Multi-Tap is shipped standard unless otherwise specified. Multi-Tap consists of 120V, 208V, 240V, and 277V. Multi-Tap is pre-wired for highest voltage. Alternate voltages will require field re-wiring.
3) An 8" bracket can only be ordered with single and D180° configurations.
4) Tri-Tap is shipped standard for C-UL applications. Tri-Tap consists of 120V, 277V, and 347V. Tri-Tap is pre-wired for highest voltage. Alternate voltages will require field re-wiring. When ordering 1000 Watt Pulse-Start Tri-Tap, specify voltage.
5) When ordering 750 Watt High-Pressure Sodium, specify voltage.

Note: Consult factory for replacement arms. **Note:** Various reflector models are protected by U.S. Patent 6,152,579.

c UL us LISTED
Listed for wet locations.

LUMINAIRE EPA CHART

Includes Bracket.

Medium	Pole-Top Mount	Single	D90°	D180°	T90°	TN120°	Q90°
Greenbriar – 12" Arm-Mount Bracket (GBM)	—	3.3	5.9	6.6	9.1	9.3	11.7
Greenbriar – Pole-Top (GBPM)	3.4	—	—	—	—	—	—
Greenbriar Flat – 12" Arm-Mount Bracket (GFM)	—	3.2	5.7	6.3	8.8	9.0	11.3
Greenbriar Flat – Pole-Top (GFPM)	3.2	—	—	—	—	—	—
Large							
Greenbriar – 14" Arm-Mount Bracket (GBL)	—	4.7	8.8	9.3	13.3	13.7	17.5
Greenbriar – Pole-Top (GBPL)	5.0	—	—	—	—	—	—
Reduced							
Greenbriar – 12" Arm-Mount Bracket (GBR)	—	3.3	5.9	6.6	9.1	9.3	11.7
Greenbriar – Pole-Top (GBPR)	3.4	—	—	—	—	—	—
Greenbriar Flat – 12" Arm-Mount Bracket (GFR)	—	3.8	7.6	7.6	11.4	11.4	15.2
Greenbriar Flat – Pole-Top (GFPR)	4.0	—	—	—	—	—	—

LSI Industries™
LSI LIGHTING SYSTEMS
10000 Alliance Road
Cincinnati, Ohio 45242
(513)793-3200 FAX (513)984-1335
www.lsi-industries.com

THE POWER OF IMAGE

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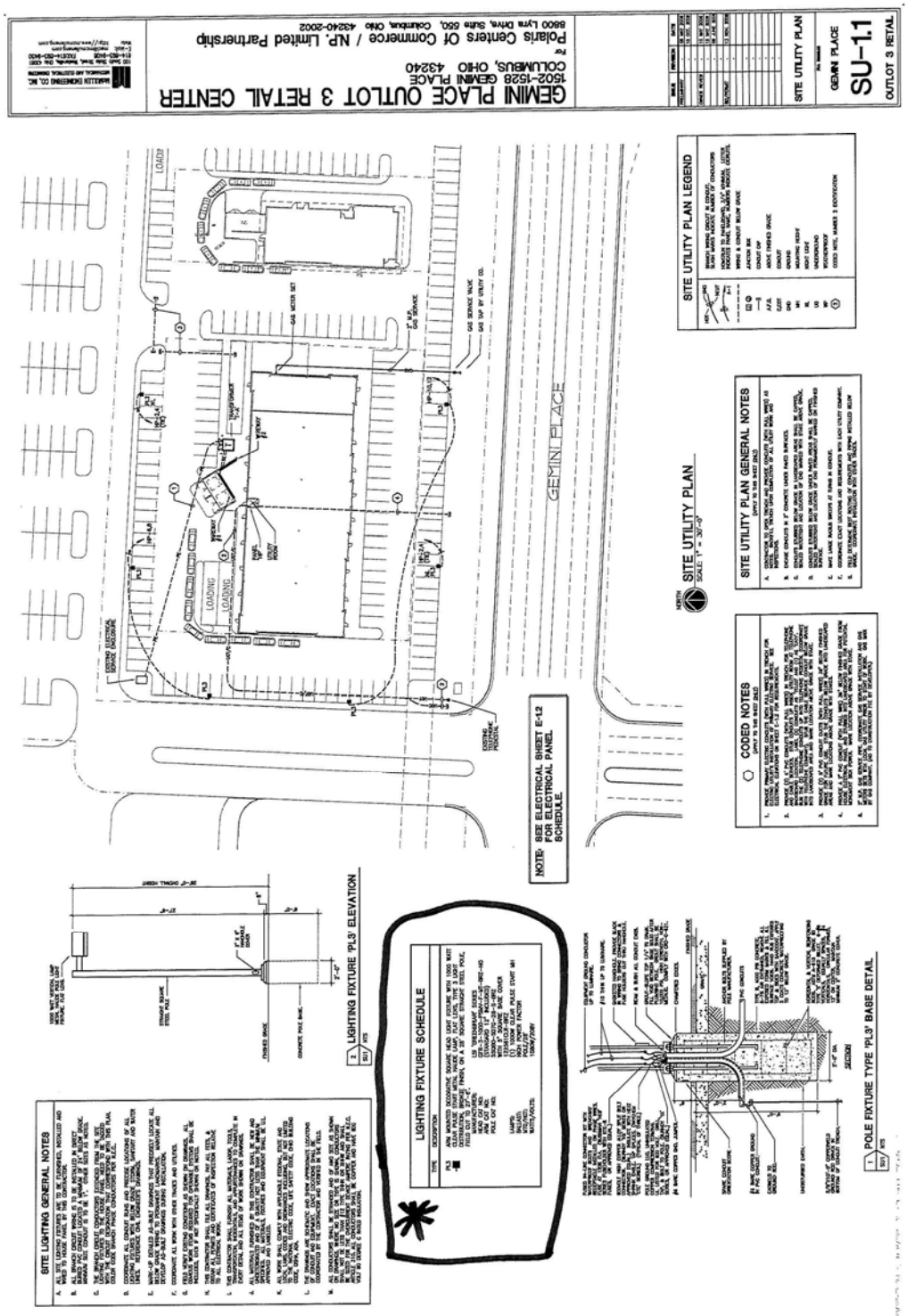
1/01-10M


GEMINI PLACE OUTLOT 3 RETAIL CENTER
1502-1528 GEMINI PLACE
COLUMBUS, OHIO 43240
Polaris Centers Of Commerce / NP. Limited Partnership
6500 Lyra Drive, Suite 550, Columbus, Ohio 43240-2002
SITE UTILITY PLAN
GEMINI PLACE
SU-1.1
OUTLOT 3 RETAIL
SITE UTILITY PLAN
SITE UTILITY PLAN LEGEND
SITE UTILITY PLAN GENERAL NOTES
CODED NOTES
SITE LIGHTING GENERAL NOTES
LIGHTING FIXTURE SCHEDULE
LIGHTING FIXTURE 'PL3' ELEVATION
POLE FIXTURE TYPE 'PL3' BASE DETAIL
GEMINI PLACE
LOADING
NOTE: SEE ELECTRICAL SHEET E-1.2 FOR ELECTRICAL PANEL SCHEDULE.

POLARIS
CENTERS OF COMMERCE®

Lithonia
KSF Cutoff Luminaire
Spec Form

PARKING LOT LIGHTING GUIDELINES

POLARIS, COLUMBUS, OHIO

- LUMINAIRE — Metal Halide
- COLOR — DWH White (Pole & Fixture)
- POLE HEIGHT — 25 Feet
- BASE — 36" Concrete Base

8800 Lyra Drive • Suite 550 • Columbus, OH • 43240-2002
614/841-1000 • FAX 614/841-0840

A development of N.P. Limited Partnership, an Ohio Limited Partnership
Represented by POLARIS Real Estate Company, Member Columbus Board of Realtors

Exhibit F-2

SPEC-FORM SERIES

SPECIFICATION CUTOFF LIGHTING

LITHONIA LIGHTING

STATE-OF-THE-ART OPTICS

For The Specifier Who Demands Precise, Efficient Lighting.

The KSF from Lithonia features the latest technology in optical design that produces consistent, uniform, glare-free lighting. The Spec-Form Series uses a combination of segmented and hydroformed reflectors to achieve superior light distribution and efficiency. This is accomplished by multi-layered, high-quality reflective segments that are precisely located in the optical chamber. The segmented reflectors are interchangeable and rotatable, offering flexibility in any application.

Type II (R2)

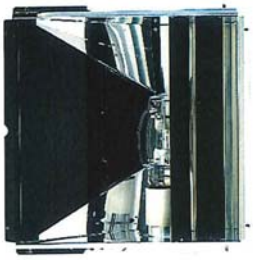
Main concentration of light is symmetrical side to side. Typically, the distribution produced will be used on an area that is long and narrow where back light is not required. USE FOR: walkways and roads.

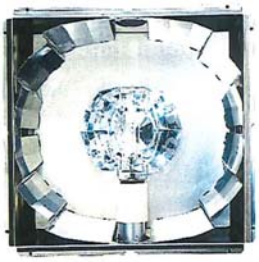
Type III (R3)

The most flexible and popular distribution offered. It is an asymmetrical light pattern with light concentrated left, right and streetside to produce maximum spacing of luminaires while maintaining excellent uniformity. USE FOR: entrances, exits and general area lighting.

Type IV (R4)

The light is confined to the streetside with sharp cut-off to the house-side while maintaining excellent fixture spacings and lighting uniformity. Use when light trespass is a concern and lighting uniformity cannot be compromised. USE FOR: perimeter and sports lighting.





TypeV (R5S)

Distribution of light is symmetrically square. It should be used in an area where the fixtures are evenly spaced and consistent lighting uniformity is desired. USE FOR: large area lighting such as mall parking lots.

The Forward-Throw Photometric Story

The traditional forward-throw reflector has a limited ability to control light behind the pole and instead generates spill light on adjacent properties. The Lithonia KSF1 and KSF2 (R4) reflector is designed to block and absorb any illumination which might escape to the rear of the luminaire. This leading technology utilizes specially designed louvers and angled glass that absorb and block inner reflected light, virtually eliminating rear spill light and glare. The forward-throw design also improves uniformity by capturing the light that would traditionally fall directly under the luminaire.

LITHONIA LIGHTING

Ordering Information

Catalog Number Example: **KSF2 400S R5S 120 SP04 PER**

KSF2 400S	R5S	120	SP04	PER
Designation	**IES Type Distribution (Select One)**	**Voltage**	**Mounting**	**Options**

HIGH PRESSURE SODIUM

70W	KSF1	70S	R2	R3	R4	—
100W	KSF1	100S	R2	R3	R4	—
150W	KSF1	150S	R2	R3	R4	—
200W	KSF1	200S	R2	R3	R4	—
250W	KSF2	250S	R2	R3	R4	R5S
400W	KSF2	400S	R2	R3	R4	R5S
1000W	KSF3	1000S	—	R3	R4	R5S

METAL HALIDE

100W	KSF1	100M	R2	R3	R4	—
175W	KSF1	175M	R2	R3	R4	—
250W	KSF1	250M	R2	R3	R4	—
250W	KSF2	250M	R2	R3	R4	R5S
400W	KSF2	400M	R2	R3	R4	R5S[2]
1000W	KSF3	1000M	—	R3	R4	R5S[2]

Voltage

120
208[4]
240[4]
277
347
480[4]
TB[1]

Mounting

KSF1/KSF2

SP04[3]	Square Pole Arm (4"arm)
SP09	Square Pole Arm (9"arm)
RP04[3]	Round Pole Arm (4"arm)
RP09	Round Pole Arm (9"arm)
WW04	Wood Pole or Wall (4" arm)
WB04	Wall Bracket (4" arm)
WW09	Wood Pole or Wall (9" arm)
WB09	Wall Bracket (9" arm)
MB	Mounting Bracket (KSF1 only)

KSF3

SP12	Square Pole Arm
RP12	Round Pole Arm
WW12	Wood Pole or Wall
WB12	Wall Bracket

(Optional)

KMA	Mast Arm Adapter (KSF2/3)
DA12P	Degree Arm Pole
DA12WB	Wall
KTMB	Twin Mounting Bar

Options

SHIPPED INSTALLED

SF	Single Fuse (120, 277, 347V) n/a TB
DF	Double Fuse (208, 240, 480V) n/a TB
QRS	Quartz Restrike System
PER	NEMA Twist-lock Receptacle only
EC	Emergency Circuit
CR	Corrosion-resistant Finish
LS	Lamp Support (KSF3 only)
CSA	Listed and labeled to comply with Canadian Standards

Architectural Colors (powder finish)[5]

Standard Colors

DDB	Dark Bronze (standard)
DWH	White
DBL	Black

Classic Colors

DMB	Medium Bronze
DNA	Natural Aluminum
DSS	Sandstone
DGC	Charcoal Grey
DTG	Tennis Green
DBR	Bright Red
DSB	Steel Blue

SHIPPED SEPARATELY

PE1	NEMA Twist-lock Photocontrol (120, 208, 240V)
PE3	NEMA Twist-lock Photocontrol (347V)
PE4	NEMA Twist-lock Photocontrol (480V)
PE7	NEMA Twist-lock Photocontrol (277V)
SC	Shorting Cap for PER Option
KSF1VG	Vandal Guard
KSF2VG	Vandal Guard
KSF1HS	House-Side Shield (R2, R3 only)
KSF2HS	House-Side Shield (R2, R3 only)
KSF3HS	House-Side Shield (R3, R4 only)

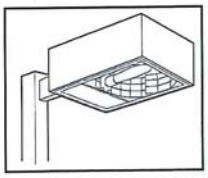
House Side Shield

Vandal Guard

Tenon Mounting Slipfitter is ordered as separate line item. Must use RP04, RP09 (90°orientation) or DA12P with the fixture.

Tenon Size	1 fixtures	2 fixtures at 180°	2 fixtures[3] at 90°	3 fixtures at 120°	3 fixtures[3] at 90°	4 fixtures[3] at 90°
2 3/8" OD	T20-190	T20-280	T20-290	T20-320	T20-390	T20-490
2 7/8" OD	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4" OD	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

[1] Optional multi-tap ballast (120, 208, 240, 277V).
[2] Reduced jacket lamp required.
[3] The SP09, RP09 or WW09 must be used when two or more luminaires are oriented on a 90° drilling pattern.
[4] Consult factory for availability in Canada.
[5] Additional colors available. See Architectural Colors Brochure (form no. 794.3).



DIMENSIONS

Housing	KSF1	KSF2	KSF3
EPA* +	1.6 ft² (.17m²)	2.0ft² (.28m²)	3.0 ft² (.28m²)
Length	23-1/4" (59.1 cm)	25-5/16" (64.3 cm)	30-5/16" (77.0 cm)
Width	16-3/16" (41.1 cm)	18-1/2 (47.0 cm)	24-5/16 (61.8 cm)
Weight	26.8 lbs (12.1 kg)	57 lbs (28.9 kg)	77 lbs (34.9 kg)
Depth	7 -1/4" (18.4 cm)	8-5/16" (21.1 cm)	10-1/2" (26.7 cm)
Arm Length	4" (10.2 cm)	4" (10.2 cm)	12" (30.5 cm)

* Includes Mounting Arm
\+ For MA deduct 0.6 ft.²/0.06m² from above values

PREMIUM-GRADE CONSTRUCTION

Mechanical Design

For Longer Life, Easier Service and Improved Versatility.

MOUNTING — Available with extruded 4" aluminum arm for pole or wall mounting. Other options availal

DOOR HINGE — Door hinge securely held in place by two steel hinge pins that can be quickly removed by loosening one set screw and sliding one pin back.

POWER DOOR — Electrical components mounted on unitized removable power door. Positive-locking quick-disconnect plugs furnished. The combination of these features creates easy servicing of all electrical components.

OPTICS

Size 1

Anodized seg
Reflectors are

Size 2

Anodized seg
Reflectors cor

Size 3

Anodized hyd

Power door

Gasketing

Quick-release fastener

le.

HOUSING — Traditional and timeless design to blend with many styles of architecture. Housing constructed of rugged aluminum, can be painted a variety of baked-on polyester powder colors.

QUICK-RELEASE FASTENER — Door frame secured to housing with a single quick-release, stainless steel, quarter-turn fastener for fast relamping and servicing.

LENS — KSF lens is impact-resistant, tempered glass with durable, thermally applied, silk-screened mask providing attractive shield for the internal components.

DOOR FRAME — The KSF offers a crisp look to cutoff lighting with natural anodized aluminum finish door frame with mitered corners. Complements any luminaire color selection.

GASKETING — The housing is sealed from contaminants by a continuous, extruded tubular silicone gasket that is secured to the door frame without adhesives. Silicone does not degrade with use and thus provides a lasting, superior seal.

nented reflectors for superior uniformity and control allow for flexibility to mix distributions without compromising overall uniformity. completely rotatable and interchangeable. Three cutoff distributions are available: Type II, III, IV.

nented reflectors for superior uniformity and control allow for flexibility to mix distributions without compromising overall uniformity. ıpletely rotatable and interchangeable. Four cutoff distributions available: Type II, III, IV and V Square.

roformed reflectors produce consistent quality, performance and lamp life. Three cutoff distributions available: Type III, IV and V Square.

STATE-OF-THE-ART OPTICS

For The Specifier Who Demands Precise, Efficient Lighting.

The KSF from Lithonia features the latest technology in optical design that produces consistent, uniform, glare-free lighting. The Spec-Form Series uses a combination of segmented and hydroformed reflectors to achieve superior light distribution and efficiency. This is accomplished by multi-layered, high-quality reflective segments that are precisely located in the optical chamber. The segmented reflectors are interchangeable and rotatable, offering flexibility in any application.

Type II (R2)

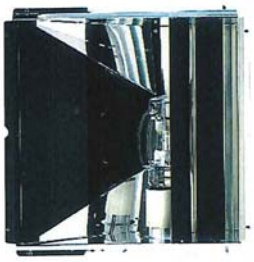
Main concentration of light is symmetrical side to side. Typically, the distribution produced will be used on an area that is long and narrow where back light is not required. USE FOR: walkways and roads.

Type III (R3)

The most flexible and popular distribution offered. It is an asymmetrical light pattern with light concentrated left, right and streetside to produce maximum spacing of luminaires while maintaining excellent uniformity. USE FOR: entrances, exits and general area lighting.

Type IV (R4)

The light is confined to the streetside with sharp cut-off to the house-side while maintaining excellent fixture spacings and lighting uniformity. Use when light trespass is a concern and lighting uniformity cannot be compromised. USE FOR: perimeter and sports lighting.



TypeV (R5S)

Distribution of light is symmetrically square. It should be used in an area where the fixtures are evenly spaced and consistent lighting uniformity is desired. USE FOR: large area lighting such as mall parking lots.

The Forward-Throw Photometric Story

The traditional forward-throw reflector has a limited ability to control light behind the pole and instead generates spill light on adjacent properties. The Lithonia KSF1 and KSF2 (R4) reflector is designed to block and absorb any illumination which might escape to the rear of the luminaire. This leading technology utilizes specially designed louvers and angled glass that absorb and block inner reflected light, virtually eliminating rear spill light and glare. The forward-throw design also improves uniformity by capturing the light that would traditionally fall directly under the luminaire.

LITHONIA LIGHTING

P.O. BOX A

CONYERS, GEORGIA 30012

TELEPHONE (770) 922-9000

FACSIMILE (770) 483-2635

IN CANADA

1100 50TH AVENUE

LACHINE, QUEBEC H8T 2V3

A UNIT OF

N.S.I. HOLDINGS, INC.

LITHONIA LIGHTING

BEST VALUE IN LIGHTING

ARCHITECTURAL OUTDOOR LIGHTING

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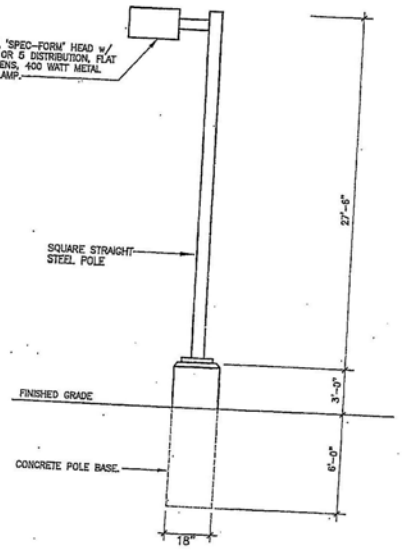
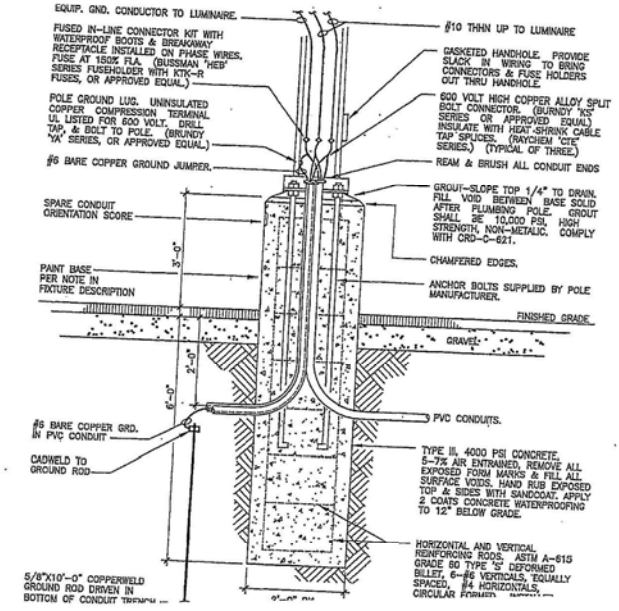
Form No. 794.41

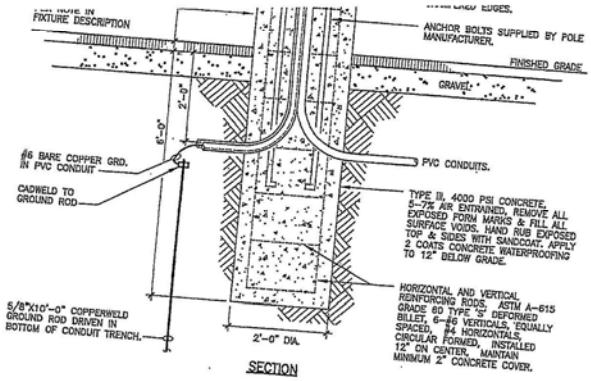


FIXTURE TYPE 'PL5'
NOTE: TYPE 5 LIGHT DISTRIBUTION

FIXTURE TYPE 'PL3'
NOTE: TYPE 3 LIGHT DISTRIBUTION

1 / SU1.1 **LIGHT FIXTURE DETAILS**
NO. SCALE





FIXTURE TYPE 'PL3' & 'PL5'

2 / SU1.1 **POLE BASE DETAIL**

NO SCALE

LIGHTING FIXTURE SCHEDULE

PL3

SINGLE ARM MOUNTED SQUARE POLE LIGHT WITH HORIZONTAL 400 WATT METAL HALIDE LAMP, TYPE 3 LIGHT DISTRIBUTION, ON A 27'-6" SQUARE STEEL POLE w/ 36" CONCRETE BASE.

MANUFACTURER:	LITHONIA OR EQUAL BY SPAULDING OR US ARCHITECTURAL
FIXTURE CAT. NO:	KSF2-400M-R3-208V-SP04-DF-DWH
POLE CAT. NO:	SSS-27.5-4C
LAMPS:	400 WATT METAL HALIDE
BALLAST:	ELECTRONIC
MTG/ HGT:	POLE/30'-6"
WATTS/VOLTAGE:	455/208

PL5

SINGLE ARM MOUNTED SQUARE POLE LIGHT WITH HORIZONTAL 400 WATT METAL HALIDE LAMP, TYPE 5 LIGHT DISTRIBUTION, ON A 27'-6" SQUARE STEEL POLE w/ 36" CONCRETE BASE.

MANUFACTURER:	LITHONIA OR EQUAL BY SPAULDING OR US ARCHITECTURAL
FIXTURE CAT. NO:	KSF2-400M-R5S-208V-SP04-DF-DWH
POLE CAT. NO:	SSS-27.5-4C
LAMPS:	400 WATT METAL HALIDE
BALLAST:	ELECTRONIC
MTG/ HGT:	POLE/30'-6"
WATTS/VOLTAGE:	455/208

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LIGHTING SYSTEMS OF COLUMBUS		Catalog Number DSX2 LED 80C 1000 40K T3M MVOLT SPA DWHXD Notes	Type P3

EXHIBIT F-3

D-Series Size 2
LED Area Luminaire

Catalog Number

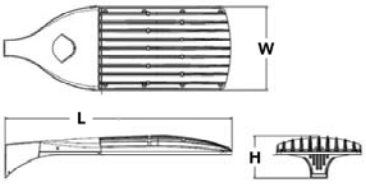
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.1 ft² (0.10 m²)
Length:	40" (101.6 cm)
Width:	15" (38.1 cm)
Height:	7-1/4" (18.4 cm)
Weight (max):	36 lbs (16.3 kg)



White color required

Pole height - 25' recommended, max 28' from grade

Concrete base - 3' required from grade unless in landscape bed, then maximum 28' pole height from grade.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM®2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX2 LED 80C 1000 40K T4M MVOLT SPA DDBXD

DSX2 LED	80C	1000	40K	T3M	MVOLT	SPA
Series	**LEDs**	**Drive current**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**
DSX2 LED	**Forward optics** 80C 80 LEDs (four engine) 100C 100 LEDs (four engines) **Rotated optics** [1] 90C 90 LEDs	530 530 mA 700 700 mA 1000 1000 mA (1 A) 1200 1200 mA[2,3] (1.2 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2,4]	T1S Type I Short T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium T5VS Type V Very Short T5S Type V Short T5M Type V Medium T5W Type V Wide BLC Backlight control[2,5,6] LCCO Left corner cutoff[2,5,6] RCCO Right corner cutoff[2,5,6]	MVOLT [7] 120 [7] 208 [7] 240 [7] 277 [7] 347 [7] 480 [8]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [9] RPUMBA Round pole universal mounting adaptor [9] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [10]

Control options		Other options	Finish (required) DWHXD
Shipped installed PER NEMA twist-lock receptacle only (no controls) [11] PER5 Five-wire receptacle only (no controls) [11,12] PER7 Seven-wire receptacle only (no controls) [11,12] DMG 0-10V dimming extend out back of housing for external control (no controls) [13] DCR Dimmable and controllable via ROAM® (no controls) [14] DS Dual switching [15,16] PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enable at 5fc [17] PIRH1FC3V Bi-level, motion sensor, 15'-30' mounting height, ambient sensor enabled at 1fc [17] BL30 Bi-level switched dimming, 30% [16,18] BL50 Bi-level switched dimming, 50% [16,18] PNMTDD3 Part night, dim till dawn [19] PNMT5D3 Part night, dim 5 hrs [19] PNMT6D3 Part night, dim 6 hrs [19] PNMT7D3 Part night, dim 7 hrs [19] FAO Field Adjustable Output [19]	**Shipped installed** HS House-side shield [21] SF Single fuse (120, 277, 347V) [7] DF Double fuse (208, 240, 480V) [7] L90 Left rotated optics [22] R90 Right rotated optics [22] BS Bird spikes	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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LIGHTING SYSTEMS OF COLUMBUS		Catalog Number DSX2 LED 80C 1000 40K T3M MVOLT SPA DWHXD Notes	Type P3

EXHIBIT F-3

Ordering Information

Accessories

Ordered and shipped separately.

Controls & Shields

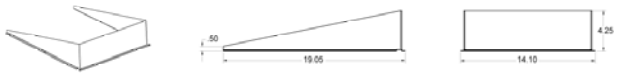
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [23]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [23]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [23]
DSHORT SBK U	Shorting cap [23]
DSX2EGS DDBXD U	External glare shield
DSX2HS 80C U	House-side shield for 80 LED unit [22]
DSX2HS 90C U	House-side shield for 90 LED unit [22]
DSX2HS 100C U	House-side shield for 100 LED unit [22]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) [24]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [10]

For more control options, visit DTL and ROAM online.

NOTES

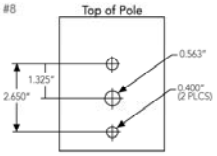
1 Rotated optics option (L90 or R90) required for 90C.
2 Not available in AMBPC, BLC, LCCO or RCCO.
3 Not available with BLC, LCCO or RCCO distributions.
4 Only available with 530mA or 700mA.
5 Not available with HS.
6 Not available with 1200mA.
7 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
8 Not available with BL30, BL50 or PNMT options.
9 Existing drilled pole only. Available as a separate combination accessory; for retrofit use only: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
10 Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
11 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting Cap be order for correct operation when photocontrol is present.
12 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR. Node with integral dimming.
13 DMG option for 347V or 480V requires 1000mA.
14 Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A with DS, PER5, PER7, BL30, BL50 or PNMT options. Node without integral dimming. PIR and PIRH options are used with PER5 and PER7, additional leads from receptacle are terminated and non-functioning. When PIR and PIRH options are selected with DCR, old style ROAM node must be used or PIRH and PIRH will not function correctly.
15 Provides 50/50 luminaire operation via two independent drivers on two separate circuits. N/A with 80C 530, 90C 530, PER, PER5, PER7, DCR, BL30, BL50 or PNMT options.
16 Requires an additional switched circuit.
17 PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Outdoor Control Technical Guide for details. Dimming driver standard. Ambient sensor disabled when ordered with DCR. Separate on/off required. PIR and PIRH options are used with PER5 and PER7, additional leads from receptacle are terminated and non-functioning. When PIR and PIRH options are selected with DCR, old style ROAM node must be used or PIRH and PIRH will not function correctly.
18 Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7 or PNMT options. Not available with PIRH1PFC3V.
19 Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7, BL30 or BL50. Not available with PIRH1FC3V. Separate on/off required.
20 Dimming driver standard. Not available with PER5, PER7, DMG, DCR, DS, BL30, BL50 or PNMT options, PIRH or PIRH1FC3V.
21 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
22 90 LEDs (90C option) only.
23 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.
24 For retrofit use only.

External Glare Shield



Drilling

Template #8



DSX2 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.
**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (R9A) only.*

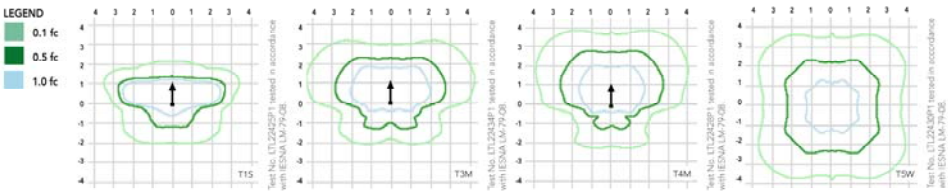
Tenon Mounting Slipfitter **

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').



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LIGHTING SYSTEMS OF COLUMBUS		Catalog Number DSX2 LED 80C 1000 40K T3M MVOLT SPA DWHXD Notes	Type P3

EXHIBIT F-3

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSX2 LED 80C 1200			
	1.0	0.98	0.95	0.90
	DSX2 LED 100C 1000			
	1.0	0.98	0.95	0.90
	DSX2 LED 100C 1200			
	1.0	0.97	0.94	0.88

Electrical Load

			Current (A)					
LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
80	530	137W	1.15	0.66	0.53	0.51	0.39	0.28
	700	188W	1.58	0.92	0.81	0.73	0.55	0.41
	1000	282W	2.37	1.35	1.18	1.04	0.83	0.61
100	530	175W	1.47	0.86	0.76	0.68	0.51	0.38
	700	232W	1.95	1.13	0.99	0.88	0.67	0.49
	1000	360W	3.03	1.72	1.49	1.3	1.05	0.77

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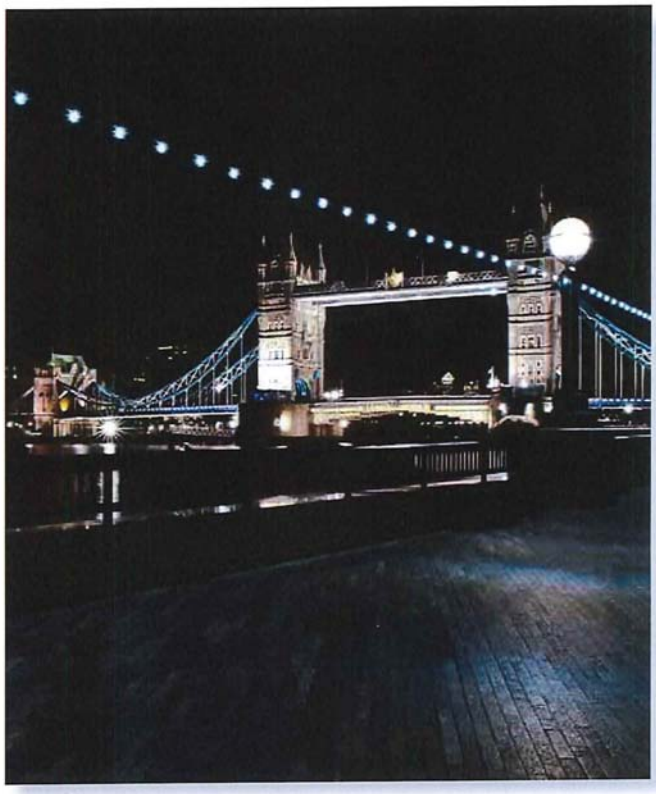
EXHIBIT G

SEASONAL LIGHTING STANDARDS

Exhibitor



TOKISTAR LIGHTING

* Standard Specs are highlighted hereafter

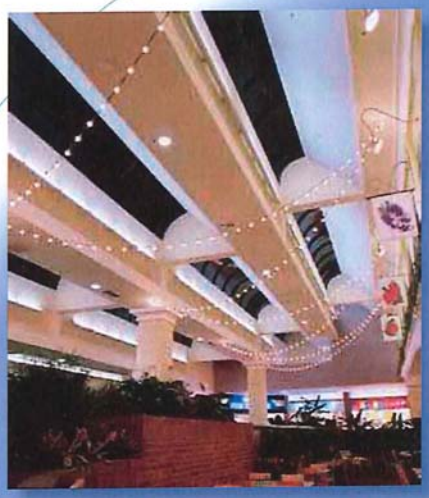
Exhibit G

Exhibitor™

Tokistar® Exhibitor Series is a wet-location festoon lighting system used in amusement parks, shopping centers, street decorations and promenades. Exhibitor fixtures may also be incorporated into signs, surface mounted to accent rooflines or other architectural features.

A wide selection of light sources including various colors of LEDs allow you to create a system to complement any theme or setting.

Light sources are individually replaceable, ensuring the system is easily maintained for years to come.



Exhibitor festoon lighting spans large areas of open-air space.

Exhibitor attached to wire rope between these masts creates a sparkling display.

Contents

Introduction | 2 - 3

Light Sources | 4

How to Specify / Specifications | 5

Accessories | 6

Sizes & Lengths / Transformers | 7

Cover:
Exhibitor with LEDs along the River Thames.

Exhibitor on the ribs of this structure creates an attractive lighting sculpture.

Architectural features are highlighted with surface-mounted Exhibitor.

Exhibitor provides an attractive accent on this ceiling.

Light Sources

Exhibitor light sources include solid-state LEDs available in a variety of colors, and two types of incandescent xenon lamps.

These light sources are enclosed within shatterproof polycarbonate globes. The globes are injection blow-molded for a seamless appearance.

Clear globes provide excellent clarity for all light sources, while frosted globes evenly disperse light. Each globe includes two o-rings for a secure and weatherproof seal to the socket.

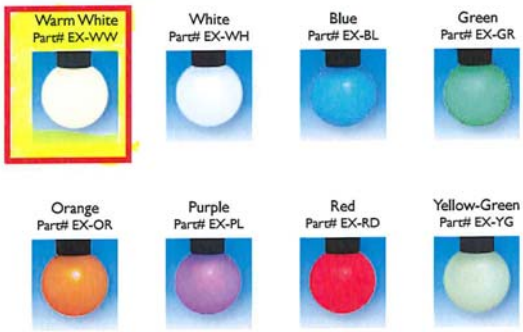
LEDs

Tokistar LEDs operate at 24 VAC and consume only 0.48 Watts. This makes them our most energy-efficient light source and dramatically increases the maximum run length of each fixture. With incredible life ratings, LEDs are ideally suited for continuous operation in commercial applications.

Xenon Lamps

For a traditional incandescent look, our wedge-base lamps create distinct pin-points of light when specified with transparent globes. These xenon-gas lamps have the apparent brightness of much higher wattage standard incandescent lamps, and significantly longer life.

LEDs Shown Below with Frosted Globes



Lamp	Watts/Volts	Hours	Lumens	Color
EX-212	4.2 Watts / 12VAC	10,000	35	2550K
EX-124	7.5 Watts / 24VAC	10,000	65	2500K

Globes are available in clear, frosted, transparent green, amber, blue, red, and violet.

How to Specify

Three key considerations in specifying an Exhibitor Lighting System are:

1) Socket Spacing

Consider viewing distance and perspective when deciding on socket spacing. Wider spacings (18"-24") are the best choice for most festooning applications. Closer spacings (6"-12") are appropriate for applications at closer viewing range.

2) Light Source

LEDs create a softer lighting effect and are the most energy-efficient choice. Since LEDs consume so little energy, they can run much greater distances from a single feed point. Xenon lamps will produce brighter distinct points of light.

3) Globe Selection

Clear globes have excellent clarity and will emphasize the distinct points of incandescent or LED light. Frosted globes will diffuse light on their entire surface. Transparent colored globes create vibrant color.

EXBK - 12 - WW - F

Cable / Socket Color		Socket Spacing		LED			Globe	
Code	Color	Code	Inches (mm)	Code	Color	Watts/Volts	Code	Globe Color
BK	Black	**6**	6" (150 mm)	**WW**	2500K White	0.48 W / 24 VAC	**C**	Clear
WH	White	**12**	12" (300 mm)	**WH**	5500K White	0.48 W / 24 VAC	**F**	Frosted
		18	18" (450 mm)	**BL**	Blue	0.48 W / 24 VAC	**G**	Green
		24	24" (600 mm)	**GR**	Green	0.48 W / 24 VAC	**A**	Amber
		(Custom Spacing is Available)		**OR**	Orange	0.48 W / 24 VAC	**B**	Blue
				PL	Purple	0.48 W / 24 VAC	**R**	Red
				RD	Red	0.48 W / 24 VAC	**V**	Violet
				YG	Yellow-Green	0.48 W / 24 VAC	**M**	Multi-Colors
				(Any Combination of Colors is Possible)				
				Xenon Lamp				
				212	2550K	4.2 W / 12VAC		
				124	2500K	7.5 W / 24VAC		

Specifications

All plastic components comply with UL746C in respect to Ultraviolet Light and Water Absorption testing.

Wet Location Listed

Light Sources include LEDs and xenon lamps

Polycarbonate Globe with flammability rating UL 94V-2

Flexible Conductors #12 AWG stranded and plated wire

Two O-Rings on each globe for weatherproof seal

Sockets permanently fastened to cable with sealant

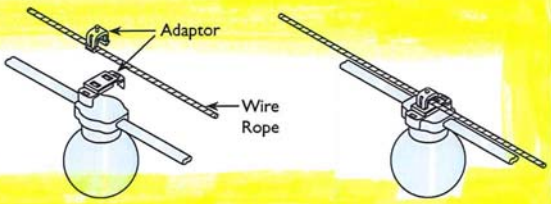
Insulation is flexible PVC with flammability rating UL 94 HB

Mounting Options

Festoon Mounting

Part# EX-MDA-WH (White)
Part# EX-MDA-BK (Black)

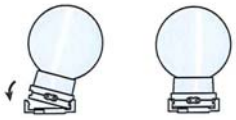
For festoon applications to a catenary cable, our wire-rope adaptors securely hold each socket in place to a 1/16" or 1/8" diameter wire rope. Wire rope and all of its associated mounting hardware is not provided with the system.



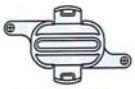
Surface Mounting with Disks

Part# EX-MD-WH (White)
Part# EX-MD-BK (Black)

Exhibitor Series can be surface mounted to structures using mounting disks. One disk is required for each mounting socket. The socket can be snapped into the disk first, and then the entire assembly screwed in place to the structure.



Exhibitor fixture snaps directly into the Mounting Disk and locks in place.



Mounting Disks attach with screws.

Surface Mounting with Straps

Part# EX-MS-WH (White)
Part# EX-MS-BK (Black)

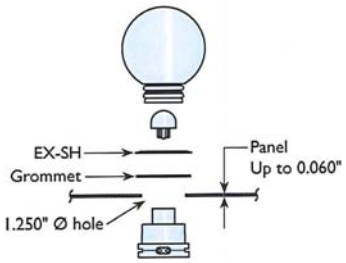
Exhibitor Series may also be surface mounted to structures using our mounting straps. Two straps are required for each mounting socket. Straps are positioned on either side of the socket, and then screwed securely to the structure.

Mounting Straps attach with screws.

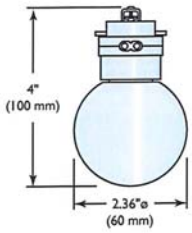
Panel-Extrusion Mounting

Part# EX-SH

For installations to flat panels or extrusions up to 0.060", Tokistar offers stainless-steel panel fasteners. The socket assembly is inserted from below, then the panel fastener and grommet are pressed in place from above.



Sizes and Lengths

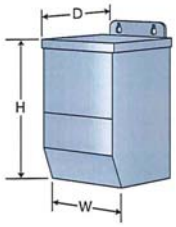


To minimize voltage drop and keep conductors safely within their ratings, do not exceed the maximum lengths shown for each independent fixture.

	Maximum Run Lengths		
	LED	Xenon Lamps	
Socket Spacing	.48 Watt / 24VAC	4.2 Watt / 12VAC	7.5 Watt / 24VAC
6" (150 mm)	250' (76 M)	24' (7 M)	32' (10 M)
12" (300 mm)	350' (106 M)	36' (11 M)	56' (17 M)
18" (450 mm)	426' (130 M)	45' (14 M)	72' (22 M)
24" (600 mm)	492' (150 M)	50' (15 M)	80' (24 M)

Transformers

Tokistar transformers operate from a 120 VAC/60 Hz input and are fully dimmable. They are provided in a Nema 3R enclosure suitable for wet locations. The secondary outputs are protected by circuit breakers. Transformers should be installed in an accessible location where there is free air circulation.

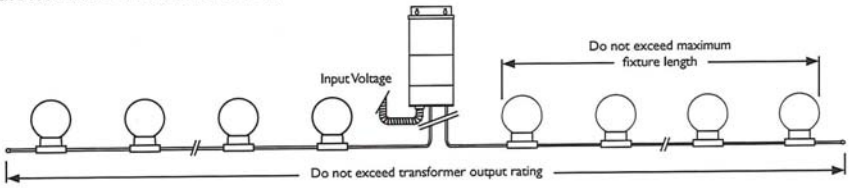


Consult factory for transformers with input voltages of 230 or 277 VAC. Sizes and weights shown are approximate and subject to change without notice.

T12 Series Transformers					
Number	Outputs	D	H	W	Weight
T12-100	1 @ 100 Watt / 12 VAC	3.0"	9.0"	3.0"	5 lbs
T12-150	1 @ 150 Watt / 12 VAC	3.0"	9.0"	3.0"	5 lbs
T12-250	1 @ 250 Watt / 12 VAC	3.5"	9.5"	4.5"	8 lbs
T12-300	1 @ 300 Watt / 12 VAC	3.5"	9.5"	4.5"	8 lbs
T12-500	2 @ 250 Watt / 12 VAC	4.5"	10.5"	4.5"	12 lbs
T12-600	2 @ 300 Watt / 12 VAC	4.5"	10.5"	4.5"	15 lbs
T12-750	3 @ 250 Watt / 12 VAC	4.5"	10.5"	4.5"	15 lbs
T12-1000	4 @ 250 Watt / 12 VAC	5.0"	11.5"	7.0"	28 lbs
T12-1200	4 @ 300 Watt / 12 VAC	5.0"	11.5"	7.0"	28 lbs

T24 Series Transformers					
Number	Outputs	D	H	W	Weight
T24-100	1 @ 100 Watt / 24 VAC	3.0"	9.0"	3.0"	5 lbs
T24-150	1 @ 150 Watt / 24 VAC	3.0"	9.0"	3.0"	5 lbs
T24-250	1 @ 250 Watt / 24 VAC	3.5"	9.5"	4.5"	8 lbs
T24-300	1 @ 300 Watt / 24 VAC	3.5"	9.5"	4.5"	8 lbs
T24-500	1 @ 500 Watt / 24 VAC	4.5"	10.5"	4.5"	12 lbs
T24-600	1 @ 600 Watt / 24 VAC	4.5"	10.5"	4.5"	15 lbs
T24-750	2 @ 375 Watt / 24 VAC	4.5"	10.5"	4.5"	15 lbs
T24-1000	2 @ 500 Watt / 24 VAC	5.0"	11.5"	7.0"	28 lbs
T24-1200	2 @ 600 Watt / 24 VAC	5.0"	11.5"	7.0"	28 lbs

Transformers with multiple outputs can be centrally located and feed fixtures in either direction.



Interior mount - on face of east faced at existing pilaster, in line w/ (1) of the j-boxes

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