GE
Lighting

Tetra® MAX

LED Lighting System

Our **brightest** solution for
medium channel letters

imagination at work

Tetra® MAX

Maximized Output. Minimized Expense.

Created specifically for medium channel letters the **Tetra MAX** LED system is **28%** brighter than our previous product, delivers incredibly uniform light, installs easily and operates efficiently. Working closely with sign builders and owners, we've refined our design to improve performance while reducing the amount of product required, further reducing installation and material costs.

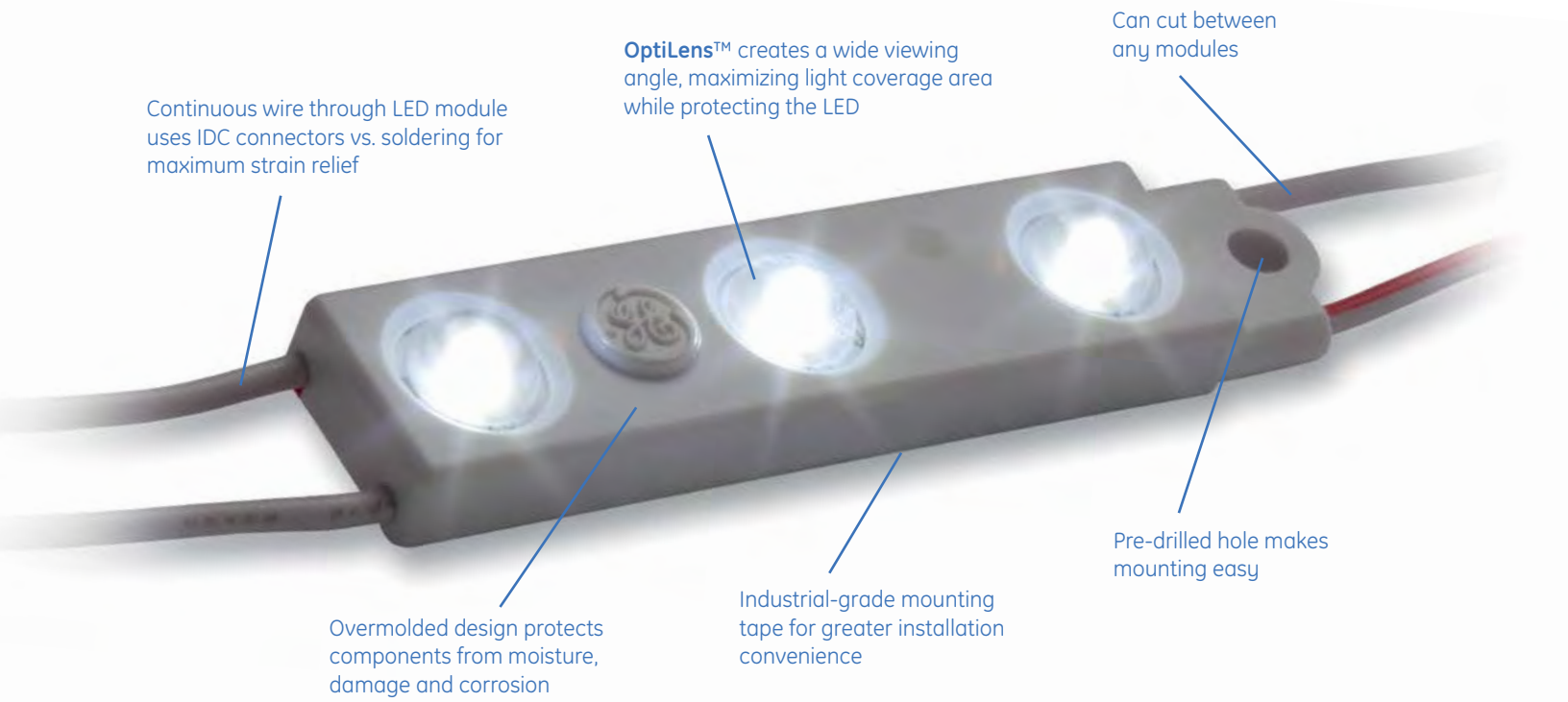
28% Brighter!

Powerful OptiLens™

Tetra MAX features **OptiLens**™ a patented technology that captures otherwise wasted light and redirects it towards the illuminated surface with remarkable uniformity. It optimizes each LED—which enables wider stroke spacing—reducing the amount of material needed per sign while helping protect the LED against moisture, humidity, damage and corrosion.

6% Greater loading is a competitive advantage

Our system can now operate 64 feet of product per 60W power supply (up from 60 feet in our previous design) for even greater material and installation labor savings.



a product of
ecomagination℠

Can cut product required almost in half

Many LED systems use about 15 LED modules in 2 rows to fill a capitol "T" channel letter that's 2.5 feet high.

Improved **Tetra MAX**, requires just 8 LED modules to fill the exact same letter (giving up some brightness) while providing outstanding uniformity. That's **46%** **fewer modules.**

Use one row, not two. **Tetra MAX** stretches stroke spacing to an impressive 9 inches in a 4-inch depth channel while maintaining impressive light uniformity on the sign face. It protects your customers' brand image while reducing product costs and saving you installation time.

Tetra® MAX High Output

30% Brighter!

When extreme brightness is desired, **Tetra MAX High Output** delivers with White and Red options. This super bright system is now **30%** brighter than our previous product.

Total GE Reliability

To ensure every **Tetra MAX** installation will operate brilliantly for years, we perform the most extensive, stringent testing in the industry. Rather than rely solely on test data from LED suppliers, we test the LED, sub-system and complete system at our in-house and independent laboratories around the world. Validation of our designs, components, products and processes include high-temperature, high-humidity and accelerated life testing.

Components

SKU	Description	Package Quantity
GEMX71-2	Tetra MAX 7100K	100 ft (30.48 m)/box (200 modules)
GEMX50-2	Tetra MAX 5000K	100 ft (30.48 m)/box (200 modules)
GEMX41-2	Tetra MAX 4100K	100 ft (30.48 m)/box (200 modules)
GEMX32-2	Tetra MAX 3200K	100 ft (30.48 m)/box (200 modules)
GEMXH71-2	Tetra MAX High Output 7100K	100 ft (30.48 m)/box (200 modules)
GEMXH50-2	Tetra MAX High Output 5000K	100 ft (30.48 m)/box (200 modules)
GEMXH41-2	Tetra MAX High Output 4100K	100 ft (30.48 m)/box (200 modules)
GEMXH32-2	Tetra MAX High Output 3200K	100 ft (30.48 m)/box (200 modules)
GEMXHRD-1	Tetra MAX High Output Red	100 ft (30.48 m)/box (200 modules)
GEMXRD-1	Tetra MAX Red	100 ft (30.48 m)/box (200 modules)
GEMXGL-1	Tetra MAX Green	100 ft (30.48 m)/box (200 modules)
GEMXBL-1	Tetra MAX Blue	100 ft (30.48 m)/box (200 modules)
GEMXPO-1	Tetra MAX Orange	100 ft (30.48 m)/box (200 modules)
GEMXRC-1	Tetra MAX Red-Orange	100 ft (30.48 m)/box (200 modules)
GEMXYG-1	Tetra MAX Amber	100 ft (30.48 m)/box (200 modules)
9409	18 AWG Supply Wire (0.82 mm^2)	500 ft /spool (152.4 m)
191600041	22-14 AWG Twist-On Wire Connectors (0.33 - 2.08 mm^2)	500/ PK
192160004	18-14 AWG In-line Connectors (IDC) (0.82-2.08 mm^2)	500/ PK

Technical Specifications

Color	Wavelength	Typical Brightness (lumens/module)	Typical Brightness (lumens/ft.)	Energy Consumption (Strip/Module)	Energy Consumption (System/Module)	Power Supply Loading	Viewing Angle
Tetra MAX White	7100K, 5000K	52	105	0.46	0.54	64ft (128 modules)	150
Tetra MAX Warm White	4100K, 3200K	47, 43	95, 86	0.46	0.54	64ft (128 modules)	150
Tetra MAX High Output White	7100K, 5000K	82	165	0.72	0.85	40ft (80 modules)	150
Tetra MAX High Output Warm White	4100K, 3200K	75,68	150, 136	0.72	0.85	40ft (80 modules)	150
Tetra MAX High Output Red	625nm	16	31	0.41	0.49	71ft (142 modules)	150
Tetra MAX Red	625nm	14	27	0.48	0.59	60ft (120 modules)	150
Tetra MAX Blue	467nm	10	20	0.48	0.59	60ft (120 modules)	150
Tetra MAX Green	530nm	30	60	0.48	0.59	60ft (120 modules)	150
Tetra MAX Orange	606nm	13	25	0.36	0.44	80ft (160 modules)	150
Tetra MAX Red-Orange	618nm	12	23	0.29	0.36	100ft (200 modules)	150
Tetra MAX Amber	589nm	16	21	0.54	0.66	53ft (106 modules)	150

Specification Item	Specification		
LEDs/Module	MAX & MAX HO White: 3 MAX HO Red: 4		
Modules/ft.	2		
Cutting Resolution	Cut on wire between every module		
Power Supply	GEPS12-20 Input: 90-264VAC; Output: 12VDC GEPS12-60U-NA Input: 108-305VAC; Output: 12VDC GEPS12-60U-GL Input: 108-305VAC; Output: 12VDC GEPS12W-60 Input: 90-264VAC; Output: 12VDC GEPS12D-60U Input: 90-305VAC; Output: 12VDC		
Maximum Supply Wire Limits	**60W,80W, 100W,180W**	**20W**	**Supply Wire Gauge**
	20 ft. (6.1 m)	120 ft. (36.6 m)	18AWG/0.82mm^2 supply wire - 9409
	25 ft. (7.6 m)		16AWG/1.31mm^2 supply wire
	35 ft. (10.6 m)		14AWG/2.08mm^2 supply wire
	40 ft. (12.1 m)		12AWG/3.31mm^2 supply wire
	Wiring to be installed in accordance with Article 725 of the National Electric code (NEC).		
Operating Environment	-40 °C to +60 °C		
Module Dimensions (h x l x w)	Max White & Max HO White .0.31" x 2.56" x 0.55"	Max HO Red 0.24" x 3.06" x 0.55"	
Sign Dimensions	For best results, recommended sign depth is 4 inches (102mm) or greater	For best results, recommended sign depth is 4 inches (102mm) or greater	
Warranty	GE offers a limited system warranty of up to five (5) years		
System Certifications	UL Recognized #E219167, UL Classified #E229508, CSA Approved #216319, CE, C-tick, RoHS, IP66 rated: separate enclosure required, damp location rated		

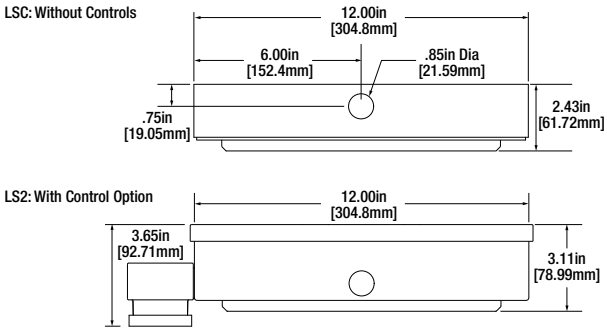
GE Lighting • 1-888-MY-GE-LED **(1-888-69-43-533)** • www.gelighting.com

PermaLED® Outdoor Luminaires

Low Profile Canopy Luminaire

Catalog #
Type
Project
Notes
Date

Dimensions



Universal voltage option

Product Features

PermaLED Low Profile LED Canopy luminaires are environmentally preferable, LED alternatives to traditional high-intensity discharge luminaires with up to 250W HID leading to energy savings of up to 74% compared to HID. The nominal 2.4" height of these extremely durable luminaires is less obtrusive making them ideal for entryways, parking garages and stairwells. The luminaires provide up to 10kV surge protection for effective suppression of most transient AC line surges. Luminaires are ETL listed in the United States and Canada, and backed by a 5 year warranty.

Specifications

Weight: LSC: 8 lbs./LS2: 9.6 lbs./LS2 with controls: 10.6lbs/347V: 11lbs.

Construction: One-piece cast, low copper (<0.4%CU) aluminum alloy. TGIC thermoset polyester powder coat paint finish, 2.5-mil nominal thickness; standard colors are bronze, silver and white.

LED System: LED system with a life rating at 100,000 hours at L_{93}. Luminaire efficacy up to 117.

Electrical: Offered in 25, 40, 55 and 72 watts, the luminaire is designed to operate through the 120-277 or 347 V_{AC} universal voltage range and includes lightning surge protection in each unit, which is effective at suppressing most transient surges on the AC line. The 0-10V driver is control ready. The fixture power factor is ≥90% and THD is ≤20%. The THD for 25W, 347V is less than or equal to 25%.

Color Characteristics: CRI >70; CCT of 4000K and 5000K.

Optics: Light distribution is Type V for garage application or canopy applications with a single-piece, UV stabilized clear polycarbonate refractor lens.

Installation: Fixture mounts to recessed outlet box. Pendant mount option available (accessories not included).

Operating Temperature: -20°C to +45°C

Listings: LSC - IP 65 Rated optical chamber; LS2 - IP66 Rated; UL1310; FCC Part 15 for Class A for conducted and radiated emissions; DLC qualified; RoHS Compliant and ETL listed according to UL1598 for wet locations for the US and Canada; and tested in accordance with IEEE C62.41-2002 Category C low (10kV/5kA).

Warranty: Standard OSRAM 5-year luminaire warranty (LED152).

Note: Specifications subject to change without notice. IES files available upon request.

Ordering Guide

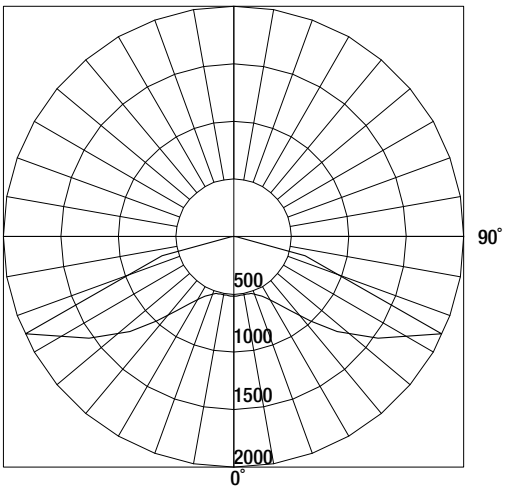
Item Number:

XXX	L	XX	7	XX	XX	XXX	Optional Controls (only available in LS2)	XX	Optional Accessories
Product Name	Lamp Type	Wattage	CRI	Color Temp	Photometric	Voltage	DX/OSP=(0-10V dimmable)	Finish/ Color	__=No Accessories
LSC=	LED	25	7=70+	40=4000K	T5=Garage	UNV=120-277V	Integral Occ Sensor/Photocell	BZ=Bronze	Bird Guard (BG-BZ)
Low Profile Canopy		40		50=5000K	Type V Optics	347=347V	DX/IWC=(0-10V dimmable)	WH=White	Bird Guard (BG-WH)
LS2=		55			C5=Canopy	(only available	Internal Wireless Control	SV=Silver	Bird Guard (BG-SV)
Low Profile Canopy		72			Type V Optics	in LS2)	__=No Integrated Control		FSIR Remote Control
(IP66 housing)					D5=Canopy				for Sensors
					Type V Drop Lens				

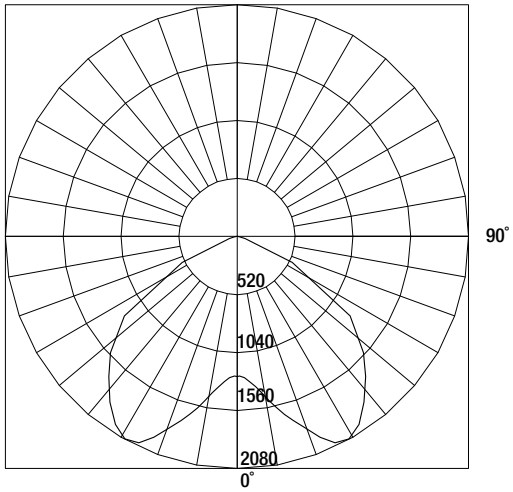
Note: Accessories purchased separately.

Photometric Data

Low Profile Canopy; 55W, 4000K, Garage Optic
Maximum Candela = 1995



Low Profile Canopy; 55W, 4000K, Canopy Optic
Maximum Candela = 2074



	Lumen Maintenance Factor Operating Hours				L_{70} Calculated Hours
40°C	25,000	50,000	75,000	100,000	
PermaLED® Low Profile Canopy	0.95	0.95	0.94	0.93	1,080,644

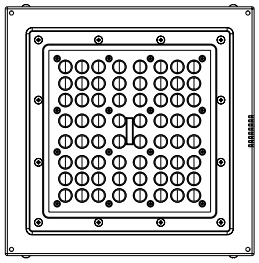
Note: Projected LED Lumen Maintenance
Data references the extrapolated performance projections for the PermaLED Low Profile Canopy in a 40°C ambient, based on 10,080 hours of LED testing (tested per 80-08 and projected per IESNA TM-21-11).

For complete photometric reports or to download IES files, visit www.osramamericas.com

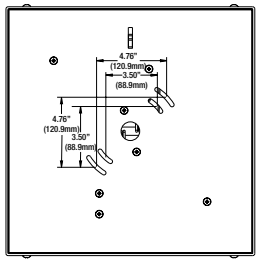
Additional Diagrams/Mounting Details/Performance Comparisons

LSC: Without controls

Front View

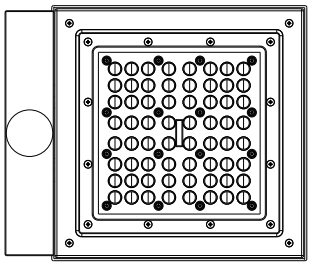


Back View

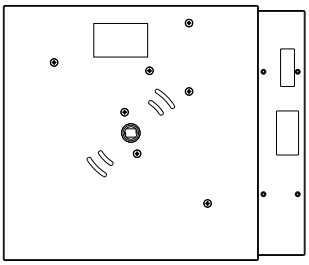


LS2: With control option

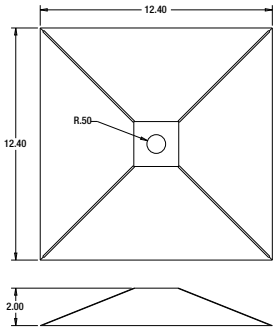
Front View



Back View



Accessory: Bird Guard



CL Series Canopy Bird Guard
1.5mm Powder Coated Aluminum Sheet Metal

Item Number	Ordering Abbreviation	Finish Color
72672	LSX-BG-WH Bird Guard	White
72673	LSX-BG-SV Bird Guard	Silver
72674	LSX-BG-BZ Bird Guard	Bronze
72909	FSIR-100 Remote Control for Sensor	—

Ordering Information

Item Number				Wattage							Input
White	Silver	Bronze	Ordering Abbreviation	(W)	CRI	CCT	Distribution	Lumens	(LPW)	BUG	Voltage
Garage Optic - UL Wet Rated Housing											
—	71942	71944	LSC-L-40-740-T5-UNV-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
—	71940	71942	LSC-L-40-750-T5-UNV-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	120-277
71939	71943	71947	LSC-L-55-740-T5-UNV-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
		71945	LSC-L-55-750-T5-UNV-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	120-277
Garage Optic - IP66 Housing											
73085	73087	73089	LS2-L-25-740-T5-UNV-XX	25	70+	4000K	Type V	2300	92	B2-U0-G1	120-277
73084	73086	73088	LS2-L-25-750-T5-UNV-XX	25	70+	5000K	Type V	2600	104	B2-U0-G1	120-277
72775	72779	72783	LS2-L-40-740-T5-UNV-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72773	72777	72781	LS2-L-40-750-T5-UNV-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	120-277
72776	72780	72784	LS2-L-55-740-T5-UNV-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72774	72778	72782	LS2-L-55-750-T5-UNV-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	120-277
73091	73093	73095	LS2-L-72-740-T5-UNV-XX	72	70+	4000K	Type V	7400	103	B3-U0-G1	120-277
73090	73092	73094	LS2-L-72-750-T5-UNV-XX	72	70+	5000K	Type V	8300	115	B3-U0-G2	120-277
73383	73385	73387	LS2-L-25-740-T5-347-XX	25	70+	4000K	Type V	2350	94	B1-U0-G0	347
73382	73384	73386	LS2-L-25-750-T5-347-XX	25	70+	5000K	Type V	2600	104	B1-U0-G0	347
72799	72803	72807	LS2-L-40-740-T5-347-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
72797	72801	72805	LS2-L-40-750-T5-347-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	347
72800	72804	72808	LS2-L-55-740-T5-347-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
72798	72802	72806	LS2-L-55-750-T5-347-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	347
73389	73391	73393	LS2-L-72-740-T5-347-XX	72	70+	4000K	Type V	8400	117	B3-U0-G1	347
73388	73390	73392	LS2-L-72-750-T5-347-XX	72	70+	5000K	Type V	8400	117	B3-U0-G1	347
Garage Optic - IP66 Housing with Occupancy Sensor											
72643	72647	72651	LS2-L-40-740-T5-UNV-DX-OSP-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72641	72645	72649	LS2-L-40-750-T5-UNV-DX-OSP-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	120-277
72644	72648	72652	LS2-L-55-740-T5-UNV-DX-OSP-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72642	72646	72650	LS2-L-55-750-T5-UNV-DX-OSP-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	120-277
72828	72832	72836	LS2-L-40-740-T5-347-DX-OSP-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
72826	72830	72834	LS2-L-40-750-T5-347-DX-OSP-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	347
72829	72833	72837	LS2-L-55-740-T5-347-DX-OSP-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
72827	72831	72835	LS2-L-55-750-T5-347-DX-OSP-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	347
Garage Optic - IP66 Housing with Wireless Control											
72745	72749	72753	LS2-L-40-740-T5-UNV-DX-IWC-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72743	72747	72751	LS2-L-40-750-T5-UNV-DX-IWC-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	120-277
72746	72750	72754	LS2-L-55-740-T5-UNV-DX-IWC-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72744	72748	72752	LS2-L-55-750-T5-UNV-DX-IWC-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	120-277
72840	72844	72849	LS2-L-40-740-T5-347-DX-IWC-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
72838	72842	72847	LS2-L-40-750-T5-347-DX-IWC-XX	40	70+	5000K	Type V	4600	115	B2-U0-G1	347
72841	72845	72850	LS2-L-55-740-T5-347-DX-IWC-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
72839	72843	72848	LS2-L-55-750-T5-347-DX-IWC-XX	55	70+	5000K	Type V	6100	111	B3-U0-G1	347
Canopy Optic - UL Wet Rated Housing											
72583	72587	72591	LSC-L-40-740-C5-UNV-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72581	—	72589	LSC-L-40-750-C5-UNV-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	120-277
—	72586	72590	LSC-L-55-750-C5-UNV-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	120-277
Canopy Optic - IP66 Housing											
73073	73075	73077	LS2-L-25-740-C5-UNV-XX	25	70+	4000K	Type V	2350	94	B1-U0-G0	120-277
73072	73074	73076	LS2-L-25-750-C5-UNV-XX	25	70+	5000K	Type V	2600	104	B1-U0-G0	120-277
72865	72869	72873	LS2-L-40-740-C5-UNV-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72863	72867	72871	LS2-L-40-750-C5-UNV-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	120-277
72866	72870	72874	LS2-L-55-740-C5-UNV-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72864	72868	72872	LS2-L-55-750-C5-UNV-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	120-277
73078	73080	73082	LS2-L-72-750-C5-UNV-XX	72	70+	5000K	Type V	8400	117	B3-U0-G1	120-277
73407	73409	73411	LS2-L-25-740-C5-347-XX	25	70+	4000K	Type V	2350	94	B1-U0-G0	347
73406	73408	73410	LS2-L-25-750-C5-347-XX	25	70+	5000K	Type V	2600	104	B1-U0-G0	347
75387	75391	75395	LS2-L-40-740-C5-347-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
75385	75389	75393	LS2-L-40-750-C5-347-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	347
75388	75392	75396	LS2-L-55-740-C5-347-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
75386	75390	75394	LS2-L-55-750-C5-347-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	347
73413	73415	73417	LS2-L-72-740-C5-347-XX	72	70+	4000K	Type V	8400	117	B3-U0-G1	347
73412	73414	73416	LS2-L-72-750-C5-347-XX	72	70+	5000K	Type V	8400	117	B3-U0-G1	347
Canopy Optic - IP66 Housing with Occupancy Sensor											
72787	72791	72795	LS2-L-40-740-C5-UNV-DX-OSP-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72785	72789	72793	LS2-L-40-750-C5-UNV-DX-OSP-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	120-277
72788	72792	72796	LS2-L-55-740-C5-UNV-DX-OSP-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72786	72790	72794	LS2-L-55-750-C5-UNV-DX-OSP-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	120-277
72853	72857	72861	LS2-L-40-740-C5-347-DX-OSP-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
72851	72855	72859	LS2-L-40-750-C5-347-DX-OSP-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	347
72854	72858	72862	LS2-L-55-740-C5-347-DX-OSP-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
72852	72856	72860	LS2-L-55-750-C5-347-DX-OSP-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	347

Ordering Information

Item Number				Wattage						Input	
White	Silver	Bronze	Ordering Abbreviation	(W)	CRI	CCT	Distribution	Lumens	(LPW)	BUG	Voltage
Canopy Optic - IP66 Housing with Wireless Control											
72816	72820	72824	LS2-L-40-740-C5-UNV-DX-IWC-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	120-277
72814	72818	72822	LS2-L-40-750-C5-UNV-DX-IWC-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	120-277
72817	72821	72825	LS2-L-55-740-C5-UNV-DX-IWC-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	120-277
72815	72819	72823	LS2-L-55-750-C5-UNV-DX-IWC-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	120-277
72878	72882	72886	LS2-L-40-740-C5-347-DX-IWC-XX	40	70+	4000K	Type V	4300	108	B2-U0-G1	347
72876	72880	72884	LS2-L-40-750-C5-347-DX-IWC-XX	40	70+	5000K	Type V	4500	113	B2-U0-G1	347
72879	72883	72887	LS2-L-55-740-C5-347-DX-IWC-XX	55	70+	4000K	Type V	5400	98	B3-U0-G1	347
72877	72881	72885	LS2-L-55-750-C5-347-DX-IWC-XX	55	70+	5000K	Type V	6100	111	B2-U0-G1	347
Canopy Optic with Drop Lens - IP66 Housing											
73588	73590	73592	LS2-L-25-740-D5-UNV-XX	25	70+	4000K	Type V - Drop Lens	1950	86	B1-U2-G1	120-277
73587	73589	73591	LS2-L-25-750-D5-UNV-XX	25	70+	5000K	Type V - Drop Lens	2400	102	B1-U2-G1	120-277
73627	73375	73629	LS2-L-40-740-D5-UNV-XX	40	70+	4000K	Type V - Drop Lens	3700	88	B2-U2-G1	120-277
73626	73373	73628	LS2-L-40-750-D5-UNV-XX	40	70+	5000K	Type V - Drop Lens	4200	98	B2-U2-G1	120-277
73635	73376	73637	LS2-L-55-740-D5-UNV-XX	55	70+	4000K	Type V - Drop Lens	4700	86	B2-U2-G1	120-277
73634	73374	73636	LS2-L-55-750-D5-UNV-XX	55	70+	5000K	Type V - Drop Lens	5300	94	B2-U2-G1	120-277
73615	73617	73619	LS2-L-72-740-D5-UNV-XX	72	70+	4000K	Type V - Drop Lens	6600	90	B2-U3-G2	120-277
73614	73616	73618	LS2-L-72-750-D5-UNV-XX	72	70+	5000K	Type V - Drop Lens	7000	94	B2-U3-G2	120-277
Canopy Optic with Drop Lens - IP66 Housing with Occupancy Sensor											
73594	73596	73598	LS2-L-25-740-D5-UNV-DX-OSP-XX	25	70+	4000K	Type V - Drop Lens	1950	78	B1-U2-G1	120-277
73593	73595	73597	LS2-L-25-750-D5-UNV-DX-OSP-XX	25	70+	5000K	Type V - Drop Lens	2400	96	B1-U2-G1	120-277
73631	73377	73633	LS2-L-40-740-D5-UNV-DX-OSP-XX	40	70+	4000K	Type V - Drop Lens	3700	93	B2-U2-G1	120-277
73630	73379	73632	LS2-L-40-750-D5-UNV-DX-OSP-XX	40	70+	5000K	Type V - Drop Lens	4200	105	B2-U2-G1	120-277
73639	73378	73641	LS2-L-55-740-D5-UNV-DX-OSP-XX	55	70+	4000K	Type V - Drop Lens	4700	85	B2-U2-G1	120-277
73638	73381	73640	LS2-L-55-750-D5-UNV-DX-OSP-XX	55	70+	5000K	Type V - Drop Lens	5300	96	B2-U2-G1	120-277
73621	73623	73625	LS2-L-72-740-D5-UNV-DX-OSP-XX	72	70+	4000K	Type V - Drop Lens	6600	92	B2-U3-G2	120-277
73620	73622	73624	LS2-L-72-750-D5-UNV-DX-OSP-XX	72	70+	5000K	Type V - Drop Lens	7000	97	B2-U3-G2	120-277

OSRAM

Americas Headquarters

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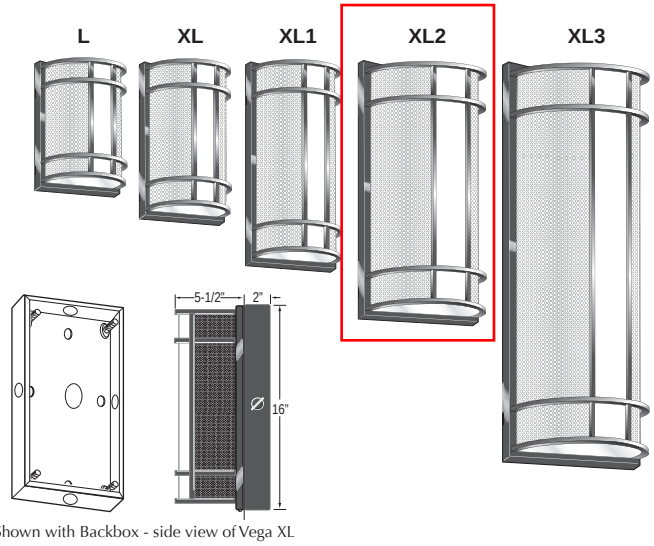
100 Endicott Street
Danvers, MA 01923 USA
Phone 1-800-LIGHTBULB (1-800-544-4828)
www.osram-americas.com

Vega

GALILEO SIGNATURE SERIES

ROUND DIFFUSER with PERFEX, NO SHIELD

Wall Mount Indoor/Outdoor Sconce; CFL, HID, LED



Shown with Backbox - side view of Vega XL

We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		

MADE IN USA ARRA Compliant

SPECIFICATIONS

- BALLAST — For Compact Fluorescent Electronic Cold Weather HPF is Standard. For HID HPF is Standard. For MH Pulse Start is Standard.
- BACKPLATE — 16 Ga. aluminum (AL)
- BACKBOX — 16 Ga. aluminum (AL) with wire access on four sides and back through 7/8" dia. KO flattened water tight (Optional for surface conduit entry or standard with emergency battery, H.I.D. and some fluorescent models)
- CAGE — Modular design using 3/8" or 1/2" Square extruded aluminum bars (SQB) permanently secured by hidden means to the frame. Standard configurations shown. Custom spacing is available.
- DIFFUSER — White translucent, fully enclosed non-yellowing 100% virgin acrylic, .125 Thick (1/8"). Optional Clear (CTB) top and/or bottom — CTB is Standard with Uplight or /and Downlight; Opaque (OQTB) top and/or bottom; or Open (ONTB) top and/or bottom — Dry Location Only.
- FINISH — Corrosion and Weather resistant pre-treated extremely durable oven baked polyester powder finish
- GASKETING — High temp, non-aging black epdm and/or neoprene rubber around the entire lens perimeter & rear wire entrance hole to protect against dust, moisture & outside contaminants
- FASTENERS — Stainless steel tamperproof screws (2) to secure lens in place
- MOUNTING — Use (4) 5/16" dia. holes for 1/4" diameter bolts for outdoor or indoor (no center access hole for J-box mount). Must derate lamping for horizontal.
- UL/ULC Listed to U.S. and Canadian safety standard. Suitable for wet locations.
- PERFEX — Perforated Aluminum Panel Insert with 1/16" diameter holes (23% open). Specify Finish.
- WALL WASH — CTB is Standard with Uplight or/and Downlight. For wall wash patterns specify: Uplight, Downlight or both: **MHU** (Uplight) or **MHD** (Downlight) or **MHUD** (Up and Downlight) **LEDU** (Uplight) or **LEDD** (Downlight) or **LEDUD** (Up and Downlight)

LAMP TYPE/QTY/WATTAGE (1)

Visit www.eclipselightinginc.com for available IES files

Fixture Size		M	L	XL	XL1	XL2	XL3
Dimensions - W x H x D		8¼" x 11⅛" x 4"	**8¼" x 13¼" x 4"**	**8¼" x 16" x 5½"**	**9¼" x 21" x 5½"**	**12¼" x 26¼" x 7¼"**	**14" x 41" x 8½"**
Compact Fluorescent *Twin Tube*	**TT** *(2G11)*	N/A	(2)18w	(2)18w; (1 or 2(2))24/27w	(2)18/24w	(2)36/39/40/55w	(2-3)36w (2 or 3(2))39/40/50/55w; (1)80w
Compact Fluorescent *Double Twin Tube*	**DTT** *(G24Q)*	(1 or 2)13w; (1)18w	(2)13w; **(1 or 2(2))26w**	(2)13/18/26w	(2)13/26w **(3)13w(2)**	(3 or 4(2))26w	(3 or 4)26w
Compact Fluorescent *Triple Twin Tube*	**TTT** *(GX24Q)*	N/A	(1 or 2(2))26w; (1)32/**42(2)**w	(2)26/**32(2)**w; (1)42w	(2)32w; **(2)42w(2)**	(3)26/32/42w; (1-2)57/70w	(4)26/**32(2)**w; (3)32/**42(2)**w; (2)57/70w
Linear Fluorescent	**T5/T5-HO**	N/A	N/A	N/A	N/A	(1 or 2)14/24w	(1 or 2)21/39w
Linear Fluorescent	**T8**	N/A	N/A	N/A	N/A	(1, 2 or 3)17w	(1, 2 or 3)25w
Pulse Start Metal Halide: ED17	**MH**	N/A	**(1)50w(2)**	**(1)50/70w(2)**	(1)50; **(1)70/100w(2)**	(1)50/70/100w; (2)50/**70(2)**w	(2)50/**70(2)**w; (1)100w
PAR Metal Halide(48) *Uplight/Downlight*	**PARMHU PARMHD**	N/A	N/A	N/A	N/A	PAR20–39w; PAR30–39w	PAR30–39w; PAR38–70w
Light Emitting Diode	**LED**	10w	10w	15w	15/30w	40/60w	60w
Light Emitting Diode(48) *Uplight/Downlight*	**LEDU LEDD**	N/A	5w/5w	5w/5w	5w or 10w	5w or 10w or **25w(2)**	5w or 10w or **25w(2)**

ORDERING GUIDE:

Series	Size	Lamp/Qty/Watt	Color Temp	Voltage: Primary/Emergency	Finish	Options
VA	XL2	60W LED	-	120	BK	-

NOTES:

1. Consult Factory for lamp sources, including LED, color temp, wattages or voltages not shown.
2. Backbox (BB) Required *(where text bold and note# shown)*
3. Consult Factory for additional Emergency Battery options not shown
6. Consult Factory: May Require Lower Wattage or Backbox
8. 2EB or 2EBU required
20. Max mounting height of fixture is 10' (10 feet)
48. Clear Top and Bottom (CTB) is Standard with Uplight and/or Downlight (PAR Metal Halide, LEDU/LEDD)
52. Consult Factory for other Voltage.
53. Battery Available as Integral or Remote - Specify REL for Remote option (ie. EL1 = Integral; REL1 = Remote)
54. Motion Sensor available as: Single circuit-all on, all off (MSI = Integral, MSE = External) or Dual circuit, half on half off (MSI2 = Integral; MSE2 = External)
55. Due to form and fit, final selection of the Battery Pack under discretion of Factory

SERIES
VA = Vega Series

SIZE
L = Large 13-1/4"
XL = 16"
XL1 = 21"
XL2 = 26"
XL3 = 41"

LAMP TYPE/LAMP QUANTITY/WATTAGE
Refer to Chart Above

COLOR TEMP (IND & LED ONLY)
3K = 3000K range
4K = 4000K range
5K = 5000K range

VOLTAGE
120 = 120 Volts EB
277 = 277 Volts EB
347 = 347 Volts EB
2EB = Two Electronic Ballasts
EBMH = Electronic Ballast for Metal Halide
EBU = High Temp Universal Volt (120-277V) Programmable Start Electronic Ballast for CFL (L-XL3 Only)

STANDARD PAINTED FINISH
BK = Black Finish
BZ = Bronze Finish — Standard
PNA = Painted Natural Aluminum
SGR = Silver Gray
WH = White Finish

CUSTOM ORDER PAINTED FINISH
CC = Custom Color (Provide Specs)
CH = Corvel Chrome
HBA = Hand Brushed Aluminum w/ Clear Coat

EMERGENCY BATTERY OPTIONS(2)(3)(53)
No onsite Emergency Power (AC or DC) is provided
Specify Fixture Voltage: 120V or 277V Power Feed
A = 120V; B = 277V
Fluorescent Emergency Battery
EL1(53) = Integral: T8; 1 Lamp - 600 Lms
EL7(53) = Integral: (1-2) T8/DTT/TTT; 1400 Lms) (Not available in M & L—Remote Only)
EL31 = Integral: (1) T8/T8HO/T5/T5HO; 700 Lms
EL32 = Integral: (1) T8/T8HO/T5/T5HO; 1325 Lms
EL52 = Integral: Cold Weather (Bodine) DTT/TTT; 1-2 Lamp; up to 1250 Lms
EL49 = Integral: Cold Weather (1-2) T8; 1200 Lms
REL2 = Remote: (1-2) DTT/TTT; (1-2) T8; 650 Lm
REL35 = Remote: Cold Weather, (1) TT/DTT/TTT; 1250 Lms
LED Emergency Battery
EL61 = Integral: LED 12W, ±720 Lms (by Iota)
EL63 = Integral: LED 23W, ±1290 Lms (Bodine)
EL67 = Integral, Cold Weather: LED 23W, approx. 1290 Lms (Iota)
EL82 = Integral: LED 4W (Fulham) —Factory Recommended
EL85 = Integral: LED 20W (Fulham) —Factory Recommended
EL88 = Integral: LED 16W (Fulham) —Factory Recommended

LED EMERGENCY CIRCUIT(52)
Onsite Generator Power (AC) or Battery Power (DC) is provided via separate circuit to the fixture
EC1A = (1) 5W LED for Line Voltage **(120VAC)**
EC2A = (1) 5W LED for Line Voltage **(277VAC)**
EC3A = (2) 5W LED for Line Voltage **(120VAC)**
EC4A = (2) 5W LED for Line Voltage **(277VAC)**
EC1D = (1) 5W LED for Low Voltage **(12VDC)**
EC2D = (1) 5W LED for Low Voltage **(24VDC)**
EC3D = (2) 5W LED for Low Voltage **(12VDC)**
EC4D = (2) 5W LED for Low Voltage **(24VDC)**

OPTIONS
9002 = Tamperproof Screwdriver
9206 = Photocell 120V (2)
9221 = Photocell 277V (2)
ATBS = Aluminum Top & Bottom Shield (No Light)
BB = Backbox (2" depth), Included where lamping shown with **note#**(2)
BL = Dual Circuit for Bi-Level Light (High/Low)
CM = Ceiling Mount(6)
CR = Custom Requirements
CTB = Clear Top & Bottom (Std with Up/Downlight)
D1 = Linear Fluorescent Dimming Ballast(2)
D3 = Compact Fluorescent Dimming Ballast(2)
D7 = 0-10V low-voltage dimming (100-30% Standard, Consult Factory for Other)
FUS = Single Fusing
DFUS = Double Fusing
GTD = Generator Transfer Device (Bodine)
GV = Gravura Custom Engraving (Consult Factory)
HM = Horizontal Mount(6)
MSE; MSE2 = Motion Sensor External(2)(54) for LED Specify Finish: White (WH) or Bronze (BZ)
MSI; MSI2 = Motion Sensor Integral(20)(54) for LED
OQTB = Opaque Top & Bottom (reduces light transmission)
ONTB = Open Top & Bottom (indoor only)

ECLIPSE® LIGHTING
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LED XGBM

LED Area Lighting

Energy-efficiency and high performance in a conventionally styled LED Area Light

RoHS COMPLIANT IP65 ETL Intertek

- **Lighting Performance, Outstanding Uniformity** - Exceptional high-brightness LEDs result in both higher light levels and significant energy savings; with cool white and neutral white LED color temperatures

  XGBM LW replaces up to 400 watt, XGBM SS replaces up to 750 watt, XGBM HO replaces up to 1000 watt

- **Super High Efficiency –** Up to 120 lumens per watt (LPW)
- **IP67 Rated Field-rotatable Optical Assembly –** Sealed optical unit can be easily field rotated enabling generous flexibility in distribution patterns without removing the fixture.
- **Top Access Housing –** Tethered top-access cover provides easy installation
- **Minimum 60,000 –** 100,000 hours expected life
- **Sophisticated controls such as dimming, bi-level switching and LSI wireless controls and information systems translate to tremendous energy savings**
- **Optional Color Decals –** Color coordinate the fixture to the site design scheme by adding color decals.
- **Maintenance-free**
- **5 year warranty**

LSI LED XGBM

Designed to Perform - Built to Last

Designed and built around LSI's own Crossover LED lighting technology and SmartTec intelligence platforms, our LED solutions are second to none. This ensures optimum fixture performance, energy efficiency, delivered lumens per watt, longevity and an impressive ROI.

REVOLUTIONARY THERMAL MANAGEMENT SYSTEM
LSI's unique patented heat-sink design is integrated into the external surfaces of the luminaire, in place of fins found frequently in traditional fixtures, to effectively dissipate heat and ensure a cool-running fixture. Suitable for high ambient temperatures (50°C).

INNOVATIVE DRIVER DESIGN
Unique high-power driver, 90+% efficient, ensures the highest attainable levels of energy efficiency and surge protection. Available Low Watt, Super Saver and High Output.

EXCEPTIONAL OPTICAL DESIGN
Tremendous lighting performance specifically designed for area lighting and automotive dealership applications. Available with Type 3, 5, FT and FTA distributions with field rotatable optics.

Available for New Construction & Retrofit Projects

Choose from LSI's Wide Offering of Poles for a Complete Fixture Assembly Steel or aluminum poles are available with round, round tapered or square shafts.

Each pole is finished with a baked-on polyester-powder finishing giving the pole an exceptionally attractive appearance. The process electrostatically applies and thermally fuses a polyester powder to the pole. This unique protection process provides an extremely smooth and uniform finish to withstand extreme weather changes without cracking or peeling.

Steel poles are finished with LSI's patented DuraGrip® finish process and carry a five-year limited warranty. When LSI's DuraGrip Plus finish is used a seven-year warranty applies.

Ordering your LED fixtures and poles from LSI guarantees a continuous color match for the assemblies.

LSI LIGHTING SOLUTIONS 10000 Alliance Road Cincinnati, Ohio 45242 (513)793-3200 www.lsi-industries.com

LED AREA LIGHTS - (XGBM)

Crossover® LED LIGHTING TECHNOLOGY

US patent D574994 & 7,828,456 and MX patent 29631 and US & Int'l. patents pending

SMARTTEC™ THERMAL CONTROL - LSI drivers feature integral sensor which reduces drive current when ambient temperatures exceed rated temperature.

OCCUPANCY SENSING (IMS) – Optional integral passive infrared motion sensor activates switching of luminaire light levels. High level light is activated and increased to full bright in 1-2 seconds upon detection of motion. Low light level (30% maximum drive current) is activated when target zone is absent of motion activity for ~2 minutes and ramps down (10-15 seconds) to low level to allow eyes time to adjust. Sensor is located on the front of optical assembly and rotates with the optic. Sensor optic has a detection cone of approximately 45°. Examples of detection – occurs 30' out from a 30' mounting height pole; occurs 20' out from a 20' mounting height pole.

ENERGY SAVING CONTROL OPTIONS – DIM – 0-10 volt dimming enabled with controls by others. BLS – Bi-level switching responds to external line voltage signal from separate 120-277V controller or sensor (by others), with low light level decreased to 30% maximum drive current.

EXPECTED LIFE - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

LEDS - Select high-brightness LEDs in Cool White (5000K) or Neutral White (4000K) color temperature, 70 CRI.

DISTRIBUTION/PERFORMANCE - Types 3, 5, FT and FTA available - field rotatable reflectors.

HOUSING - Square, die-formed aluminum. Fully enclosed weather-tight housing contains factory prewired drivers and field connections.

TOP-ACCESS COVER - Gasketed, tethered top-access cover provides ease of installation and allows for easy driver access. Four captive stainless-steel fasteners secure the top-access cover to the housing.

OPTICAL UNIT - Clear tempered optical grade flat glass lens sealed to aluminum housing creates an IP67 rated, sealed optical unit (includes pressure stabilizing breather). Optical unit can be easily field rotated in 90o increments. Directional arrow on optics allows alignment without the unit being energized.

MOUNTING - 2-1/2" x 5-3/8" x 12" extruded aluminum arm mounting bracket shipped standard. Use with 5" traditional drilling pattern. Round Pole Plate (RPP2) required for mounting to 3"– 5" round poles. (See Accessory Ordering Information chart.)

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (UE - 50/60Hz input), and 347-480VAC.

DRIVERS - Available in Low Watt (LW), Super Saver (SS) and High Output (HO) drive currents (Drive currents are factory programmed). Components are fully encased in potting material for moisture resistance. Driver complies with FCC 47 CFR part 15 RFI/EMI standard.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F).

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

DECAL STRIPING - LSI offers optional color-coordinated decals in 9 standard colors to accent the fixture. Decals are guaranteed for five years against peeling, cracking, or fading.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (IN CARTON) - Fixture - 44.5 lbs (20 kg) Arm - 5 lbs. (2kg) arm

LISTING - UL listed to U.S. and Canadian safety standards. Suitable for wet locations. For a list of the specific products in this series that are DLC listed, please consult the LED Lighting section of our website or the Design Lights website at www.designlights.org.

DOE LIGHTING FACTS

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XGBM

		Lumens (Nominal)				Watts
		Type 3	Type 5	Type FT	Type FTA	(Nominal)
Cool White	LW	14080	13840	15020	16560	140
	SS	20180	18040	20700	23030	187
	HO	26750	25460	29070	31810	300
Neutral White	LW	11450	11290	12220	13470	136
	SS	16390	15170	17230	18750	188
	HO	22240	20550	23510	25410	288

LED Chips are frequently updated therefore values may increase.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · FC · CE · c UL us LISTED wet location · ARRA Funding Compliant · IP67 · DLC · ida

Fixtures comply with ANSI C136.31-2010 American National Standard for Roadway Lighting Equipment - Luminaire Vibration 3G requirements.

LSI Industries™

Project Name _____ Fixture Type _____

Catalog # _____

06/09/15

LED AREA LIGHTS - (XGBM)

Crossover® LED LIGHTING TECHNOLOGY

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XGBM 5 LED HO CW UE WHT PCM**

Prefix	Distribution	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XGBM[1] - LED Greenbriar	FT - Forward Throw FTA - Forward Throw Automotive 3 - Type III 5 - Type V	LED	LW - Low Watt SS - Super Saver HO - High Output	CW - Cool White (5000K) NW - Neutral White (4000K)	UE - Universal Voltage (120-277) 347-480	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White **Optional Color Decals** 45 – Light Gold 20 – Charcoal Metallic 55 – Black 94 – Blue Metallic 59 – Dark Green 51 – Dark Red 21 – Tomato Red 50 – White 700 – Aztec Silver Metallic	**Wireless Control System[2,3]** (blank) - None PCM - Platinum Control System PCMH - Host/Satellite Platinum Control System GCM - Gold Control System GCMH - Host/Satellite Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) **Stand-Alone Control** (blank) - None DIM - 0-10 volt dimming[4] (from external signal) BLS - Bi-level Switching[5] (from external signal - required 120-277V controls system voltage)	**Sensor** IMS - Integral Motion Sensor[6] PCI120 - 120V Button-Type Photocell PCI208 - 208V Button-Type Photocell PCI240 - 240V Button-Type Photocell PCI277 - 277V Button-Type Photocell PCI347 - 347V Button-Type Photocell **Options** 8BK - 8" Bracket (S and D180 only) TB - Terminal Block

LUMINAIRE EPA CHART[2] - XGBM

	8" Bracket	12" Bracket
Single	2.3	2.4
D180°	4.7	4.8
D90°	12" Bracket Required	4.7
T90°		7.2
TN120°		7.3
Q90°		8.8

Note: House Side Shield adds to fixture EPA. Consult Factory.

ACCESSORY ORDERING INFORMATION[2]

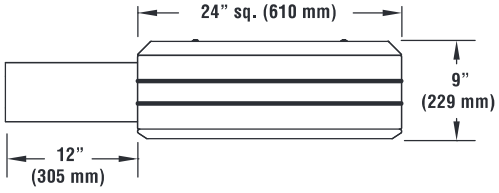
(Accessories are field installed)

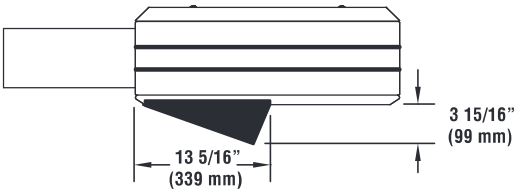
Description	Order Number	Description	Order Number
XGBM-HSS House Side Shield (Black only)	482002 BLK[7]	DFK208, 240 Double Fusing (208V, 240V)	DFK208,240[8]
RPP2 - Round Pole Plate	162914BLK	DFK480 Double Fusing (480V)	DFK480[8]
BKS-BO-WM-*-CLR - Wall Mount Plate	123111CLR	FK347 Single Fusing (347V)	FK347[8]
BKA-BO-RA-8-CLR - Radius Arm	169010CLR	PMOS120 - 120V Pole-Mount Occupancy Sensor	518030CLR[9]
BKU-BO-S-19-CLR - Upsweep Bracket for round or square poles	144191CLR	PMOS208/240 - 208, 240V Pole-Mount Occupancy Sensor	534239CLR[9]
FK120 Single Fusing (120V)	FK120[8]	PMOS277 - 277V Pole-Mount Occupancy Sensor	518029CLR[9]
FK277 Single Fusing (277V)	FK277[8]	PMOS480 - 480V Pole-Mount Occupancy Sensor	534240CLR[9]

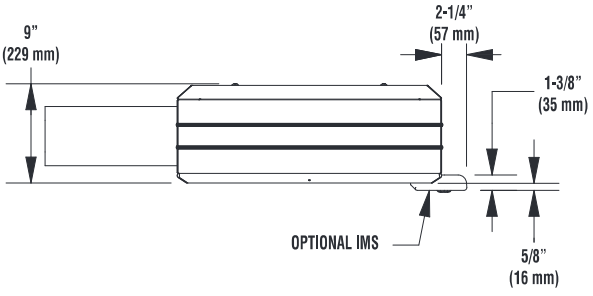
FOOTNOTES:

1- Use with 5" traditional drilling pattern.
2- For wireless controls information and accessories, see Controls section.
3- Requires a SiteManager and override switch. Not compatible with BLS or IMS option.
4- Not compatible with IMS or BLS option.
5- Not compatible with wireless controls system, DIM or IMS option.
6- Not compatible with wireless controls system, DIM or BLS option.
7- House Side Shields add to fixture EPA. Consult factory.
8- Fusing must be located in the hand hole of pole.
9- To be used with any of the PCM/GCM wireless controls systems in the fixture. Consult factory.

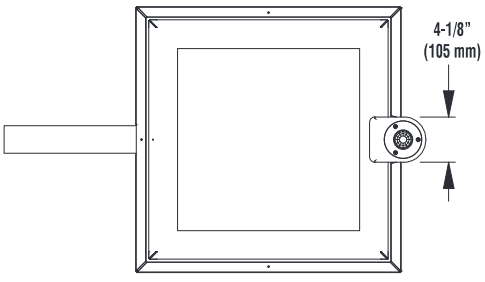
DIMENSIONS







House Side Shield (482002BLK)



LSI Industries™

Project Name _____ Fixture Type _____

Catalog # _____

06/09/15

McNICHOLS
ECO-MESH® MODULAR SYSTEMS

The Hole Story®

Inspire Serv!™

866.754.5144 | mcnichols.com

The Hole Story

Bob McNichols, Founder
(1922 - 1981)

McNICHOLS CO. has grown from a small family business to an industry leader, while the spirit of Founder Bob McNichols lives on.

During his service in World War II, Bob made a solemn vow that if he came out of the war alive, he would put God first and make Him his partner.

The bombardier of a Boeing B-17 Flying Fortress, Bob was the only member of the plane's nine-man crew to survive an attack by Nazi fighters on October 6, 1944. He spent months in a German prisoner-of-war camp before he and fellow POWs were liberated on May 1, 1945. Bob returned to America and united with his wife, Phyllis, and his six-month-old daughter, Barbara.

Bob began **McNICHOLS** with Phyllis on May 1, 1952.

He trademarked "The Hole Story" as a tribute to the perforated and expanded metal products he carried. The slogan's debut in the **McNICHOLS**® Master Catalog in 1975 initiated a legacy of "Hole" references, such as "Hole Products" and "The Hole Team."

The company suffered the unexpected loss of Bob in 1981. By this time, **McNICHOLS** had built a national base of customers and relocated its headquarters to Tampa, FL, from Cleveland, OH.

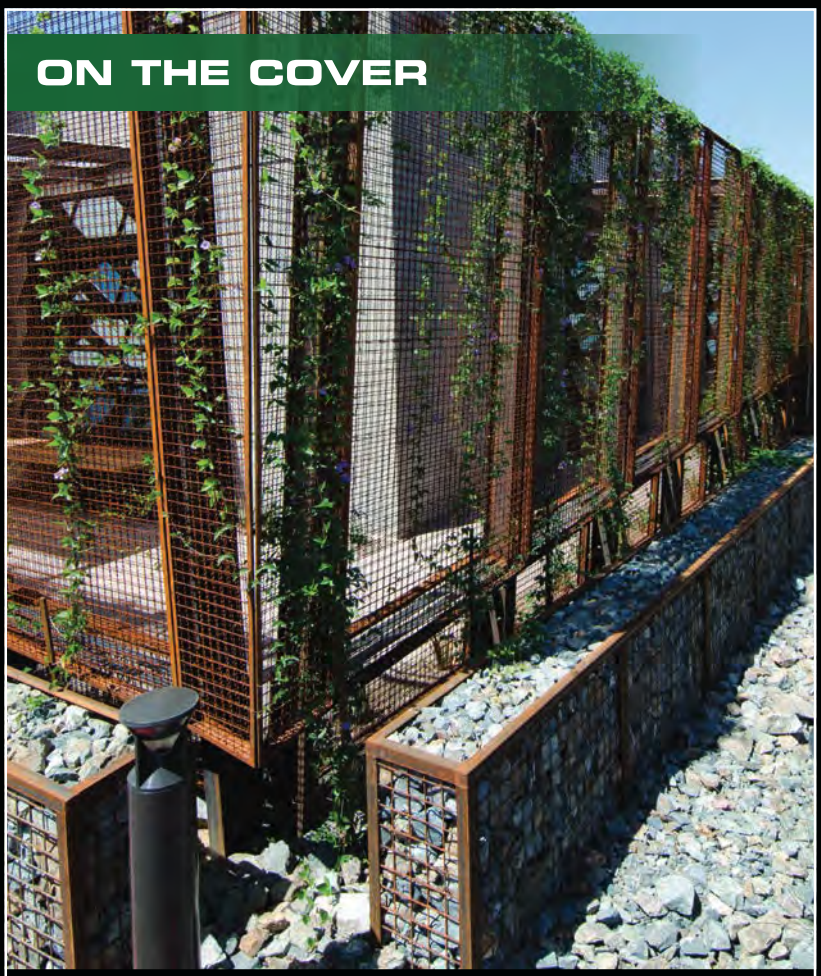
Bob's son, Gene, took over leadership and opened a new chapter of "The Hole Story."

In 1990, Gene made "Service, Quality and Performance" **McNICHOLS**' official mission. The words embody the spirit of the organization. They represent the highest level of customer service, quality worthy of the International Organization for Standardization's 9001:2008 Certification, and performance that surpasses customer expectations.

McNICHOLS will celebrate its 63rd anniversary this year. Led by Scott McNichols, President, members of the family's third generation are ready to advance the legacy of their father and grandfather.

Service, Quality and Performance… that's The Hole Story®!

ON THE COVER



CUSTOMER VISION:

DPR Construction intended to convert an old retail space into a modern, sustainable hub for their Phoenix location. DPR chose to find ways to work within the building's shell and conserve energy in the extreme desert climate.

HOLE SOLUTION:

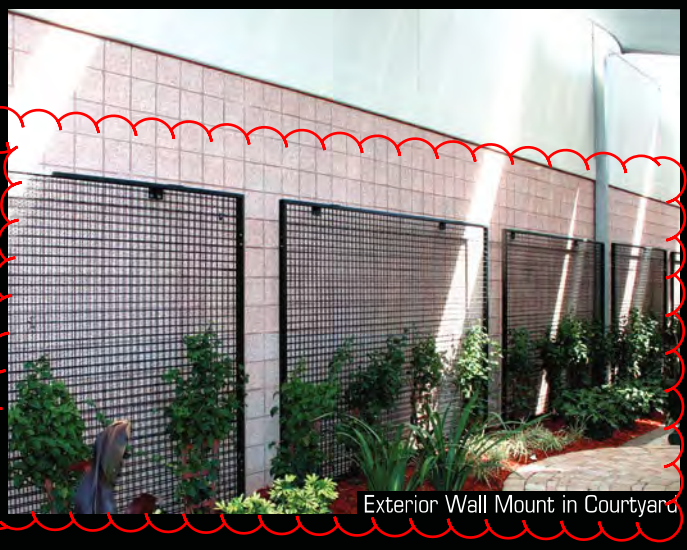
McNICHOLS ECO-MESH® is a signature element of DPR's energy-efficient Phoenix office. Surrounding the building on two sides, **ECO-MESH**® panels ward off the sun and reduce solar heat gain inside. The panels facilitate upward-climbing plants, which provide an additional cooling layer. Durable **ECO-MESH**® will withstand elements over many years as the plants continue to grow. In front of the panels are **ECO-ROCK**™ boxes containing decorative rock. The building has earned LEED Platinum Certification, Energy Star Certification and Net Zero Energy Building Certification.

The Hole Story®

McNICHOLS ECO-MESH® WALL MOUNT SYSTEMS

McNICHOLS ECO-MESH® is a custom modular framework grid typically wall mounted to exterior structures creating aesthetic living green facades. Modular grids are commonly used for screen walls, canopies, arbors, partitions and column covers for exterior and interior applications.

These high quality eco-panels are constructed to accommodate a growing space for various plants and vines. The woven wire mesh flexes to allow for increasing vine load as plants grow, while providing years of beauty and low maintenance.



Exterior Wall Mount in Courtyard

Photo by AECOM, Robb Williamson

Parking Structure

Attached Plant Trellis

ECO-MESH® QUALITY ADVANTAGES

- Woven wire - no welds to break
- Galvannealed frame and wire - superior corrosion resistance over G90 coated metals
- .135" wire diameter standard - much thicker than .080" found in competitive products
- LEED opportunities - 95% recycled metal, no VOC concerns in field, SRI Index-rated coatings and more
- Fully custom panel sizes - up to 8' wide and 30' long
- Top-quality super durable powder coating - 3,000 hour salt spray rating, high UV resistance, available in 13 stock colors
- Install-ready product - complete with drawings, Galvannealed mounting clips and powder coated hardware

McNICHOLS CASE STUDY

CHIHULY GARDEN AND GLASS, SEATTLE, WASHINGTON

Green roof over exhibition hall

Facade panel construction

CUSTOMER VISION:

Seattle planners and designers were asked to convert an amusement park under Seattle's Space Needle into the Chihuly Garden and Glass exhibition.

Their challenge was to showcase the works of renowned artist Dale Chihuly in an environment that would transform the building into an exhibition hall and the asphalt surface into a garden for displaying Chihuly's most popular work and architectural installations. Blending the building's exterior with the outdoor garden was a critical part of the task. Because the east exterior wall would face the garden and Glasshouse, which is the exhibition's centerpiece, it was clear that the building needed a significant element of green.

HOLE SOLUTION:

With LEED certification in mind, the design and construction team from the Seattle area - comprised of Owens Richards Architects, Seattle; AHBL, Seattle; Schuchart Corp., Seattle; and Cobra Building Envelope Contractors, Spokane, WA - took a unique approach that, in addition to its aesthetic appeal, would reduce heat gain and lower the carbon dioxide impact.

In concert with planning the green roof, a living wall was added on the east and west sides of the hall using **McNICHOLS ECO-MESH®**, with the largest installation on the east (garden) side. Incorporating **ECO-MESH®** with the green roof influenced the project's energy efficiency and helped the project achieve a LEED Silver rating through the U.S. Green Building Council.

The **ECO-MESH®** system specified in the Chihuly Garden and Glass exhibition project consists of 95 panels that average 4' by 12' in size. The units are made of two layers of 12-gauge crimped woven wire mesh in a 10-gauge frame.

Today, **ECO-MESH®** co-exists with the exhibition hall's green roof, achieving the type of living envelope envisioned by the design team. **McNICHOLS** is honored to be part of this Hole Solution!

Hospital Outdoor Seating Area

Residential Partition

Restaurant Outdoor Seating

Freestanding with Arched Top

Equipment Enclosure

McNICHOLS CASE STUDY

STREETSCAPE RENOVATION, TAMPA, FLORIDA

CUSTOMER VISION:

For many cities the beautification of downtown pedestrian areas is both an aesthetic decision as well an economical one. The City of Tampa, Florida, saw **McNICHOLS ECO-MESH®** as an answer for both.

HOLE SOLUTION:

In an attempt to create a pedestrian-friendly street with a focus on incorporating public art, approximately $1.2 million was invested in a downtown Tampa corridor spanning three city blocks.

Susan Gott, commissioned by the City of Tampa, working with Graham-Booth Landscape Architecture, designed and created glass art as part of the streetscape renovation. Her artwork consists of multiple panels of cast glass tiles incorporated into vertical panels with a series of **ECO-MESH®** panels. The large-scale cast glass panels (8-½ foot tall) line the street as part of the Promenade of the Arts, offering glimpses of the city's narrative embedded in glass.

McNICHOLS is pleased to be part of this innovative Hole Solution!

PRODUCT OPTIONS

Panel height: 2' to 25' (30' Custom)
Panel width: 2' to 8'
Wire: .135"
Weave: Woven Intercrimp .120 and .135 standard, other weaves and diameters available
Bridge wire: .105 standard
Mesh openings: 1" x 1" to 3" x 3" (2" & 3" is standard)
Frame depth: 2" or 3", 16 gauge standard
Material: Galvannealed, steel, aluminum or stainless steel
Finishes: Mill, sandblasted, eco-friendly powder coatings in 13 standard colors below
Planter boxes (custom): Galvannealed 3/16" gauge standard (Custom brackets available)

Texture Black Color In Stock and Ready to Ship!

Galvannealed .135 Wire

2" x 2" Mesh

Texture Black Color

4'x8' Panel

Item: 34EMTB2348

ECO-FRIENDLY POWDER COATING COLORS

Red Brick | **Red Orange** | **Moss Green** | **Reed Green** | **Forest Green Texture**

Aged Copper | **Jet Black** | **Texture Black** | **Light Gray** | **Gray**

Brown | **Tan** | **Rust**

McNICHOLS offers eco-friendly powder coating for **ECO-MESH®** and **ECO-ROCK™** in 13 standard colors. Due to the printing process, color swatches may vary from actual colors. Please inquire about **our custom colors** and our paint matching capabilities!


Round Column


Round Column


Round Columns


Custom Columns


Square Column


Round Column

Custom Panels Cut to Match Angle of Wall

Panels Arched for Sculptures

Wall with Custom Window

Custom Panels for Gazebo

Freestanding with Arched Top

McNICHOLS ECO-ROCK™

McNICHOLS ECO-ROCK™ creates decorative boundaries with an eco-friendly twist. The gabion-style wire work containers hold natural rock, recycled concrete, glass and other materials. In indoor and outdoor settings **ECO-ROCK™** containers add a sustainable design element.

Whether it's an outdoor partition or a vertical entryway, we can craft a custom gabion-style design to meet your needs.

Commercial Partition

PRODUCT OPTIONS

Panel size: 4"-12" thickness; 3' to 8' height maximum, 3' to 5' width

Wire diameter: .148 (9 gauge), .192 (6 gauge)

Bulge wire diameter: .105 (12 gauge) to .148 (9 gauge)

Bulge wire spacing: 12"

Wire centers: 2" x 2", 3" x 3"

Weave: Intercrimp

Material: Plain steel, Galvannealed, 304 Stainless Steel - mill finish

Finish: Mill, bare (sandblasted to be weathered), powder coated (see page 6 for available colors)

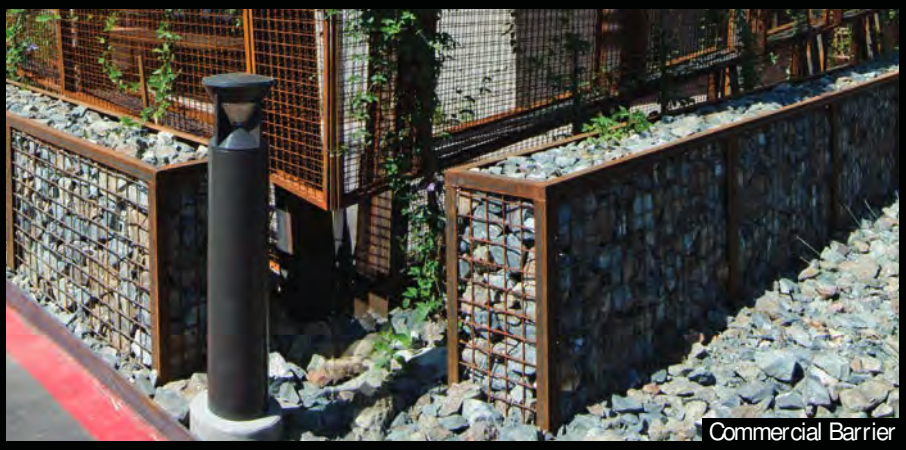
Building Facade

Commercial Partition

Wall Mounted

Residential Partition

Residential Partition



Commercial Barrier

ECO-MESH® APPLICATIONS

McNICHOLS ECO-MESH® provides structural support that is superior to other systems. ECO-MESH® offers architects, designers, contractors and property owners many aesthetic, sustainable and functional green-build opportunities.


ECO-MESH®
Column Cover


ECO-MESH®
Shading


ECO-MESH®
Freestanding

ECO-MESH®
Security

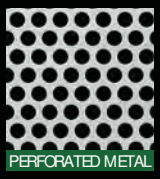

ECO-MESH®
Trellis

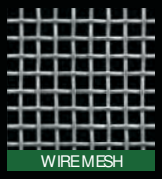

ECO-MESH®
Plant Screen

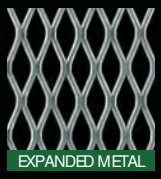
Headquarters based in Tampa, Fla., McNICHOLS CO. provides perforated metal, expanded metal, wire mesh and designer metals, as well as grating and flooring products. McNICHOLS serves builders, fabricators, architects and other customers through a network of service centers across 18 U.S. cities. Customers choose McNICHOLS for our vast supply of Hole Products, as well as our high quality standards, fast shipping and superior customer service.

Locations:

Atlanta - Baltimore - Boston - Charlotte - Chicago - Cincinnati - Cleveland - Dallas - Denver - Houston
Kansas City - Los Angeles - Minneapolis - NY/ NJ Area - Phoenix - San Francisco - Seattle - Tampa


PERFORATED METAL


WIRE MESH


EXPANDED METAL


BAR GRATING


PLANK GRATING


FIBERGLASS


MATTING

Inspired to Serve™

866.754.5144 | mcnichols.com

Please note that product photographs are not actual size. Application photos reflected are typical of Hole Products in use that can be supplied or have been supplied by McNICHOLS CO. Some illustrations may depict uses designed, manufactured, fabricated or installed by others. McNICHOLS is ISO9001:2008 Certified.