Commercial Lighting Services, Systems, & Solutions

Enlighten Solutions

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2/18/2020

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Summary

Enlighten is a full-service Lighting supplier, installer, and consultant. This guide provides an overview of services offered as well as information on some of the products carried. The products shown in this guide are just a few of the available solutions. Simply provide a brief description of what is needed for your project and we can send you many more possibilities. In addition to the fixture categories highlighted in this brochure, Enlighten carries standard lamps, retrofit kits, and controls. This guide is divided into four sections.

Table of Contents

Summary	1
Services	2
Systems	6
Exterior Luminaires	13
Interior Luminaires	22



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Services

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Illumination Analysis



Auto Dealership Facade & Entry

Careful planning and review is the only method to successful and predictable outcomes. Moreover, lighting "brightness" is a very subjective measure. Numerical illuminance and luminance analysis are the best methods for bringing objectivity to a lighting design effort. The complexity of how various luminaires work together within a certain space is beyond the predictability of simple guesswork based on luminaire lumen values. From halls to facades to parking lots to lobbies, Enlighten can provide layouts and analysis to ensure the planned system is the desired one. Lighting layouts help tremendously in value engineering exercises as well to check the reduced cost system is providing adequate illumination for the space needs and local code requirements.



Illuminance & Luminance Analysis for Facade & Entry Area

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Controls Configuration & Commissioning

More and more localities are requiring significant indoor lighting control systems on new builds. Similarly, many financiers are tying implementation of these green measure systems to existing building financing. Like lighting layouts, controls implementation should always begin with careful planning. Detection zones, false triggers, and space occupancy dynamics are all aspects that need to be considered when planning a lighting control system. Furthermore; cost, performance, and maintainability all need to be balanced. Enlighten can provide the analytic review and education on a lighting control system to ensure a proper fit to the project. Finally, Enlighten can also provide configuration and system education to ensure optimal initial and long-term operation.



Zone Detection For Outdoor Infrared Motion Sensors



Hallway Motion Sensor Detection Analysis

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Supply

Enlighten is a wholesale supplier for more than 40 lighting fixture and lamp manufacturers. From decorative to industrial to retrofit, there is virtually no solution we can't provide. In addition, we have several lighting controls offerings including systems which fulfill **ASHRAE 90.1 2013 requirements** and higher. Finally, we supply a range of outdoor poles for several fabricators including decorative arms and bases. Enlighten's line card is balanced in order to be able to provide wide ranges in performance and value. Please explore the Systems and Luminaires sections of this Product & Service Guide to learn more about the breadth of our offering.

Install

For building renovation and retrofit projects, Enlighten can provide installation services in converting the existing lighting system to LED. Enlighten always works to minimize interruption to client operations and prioritizes safety and job site cleanliness above all.

Strategic Value Engineering

Value Engineering is to some a dirty term and to others, the holy grail of business. We won't allow them to overspend. Nor will we allow them to accept inadequate equipment. The Enlighten suite of services – Layouts, Controls, Supply, and Install – positions us excellently to provide thorough value engineering services. From our Illumination Analysis experience, we know the minimum, maximum, and ideal lighting requirements for every space type. From our Controls experience we know the practicality, applicability, and impact of various controls systems. From our Supply experience, we have intimate knowledge of cost ranges and performance-price tradeoffs. Finally, from our Install experience we know where materials savings may simply be offset by increases in labor. In all, we help clients find value where others cannot while at the same time help them avoid "get -what-you-pay-for" situations.



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Systems

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Light Surface System

This Light Surface product is a highly customizable lighting system. Its almost infinite configurability lends itself to a myriad of space defining architectural applications. The base system is an acoustic panel with integrated LED lights. A PVC membrane provides for uniform diffusion. The system can come in various shapes and can be scaled to almost any size. Both ceiling and wall mounts can be designed as well as surface, gypsum mud-in, gypsum flange, pedant, and T-Grid mounts. From its tunable white light to dim to dark to natatorium rating, the potential applications for this system are countless. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.



Lumens	Efficacy	ССТ
170 – 700 LM / SF	100 LM / W	2700K–6000K, Tunable WHT, RGBW
CRI	Dimming	Voltage
80, 90	0 – 10V, Dim to Dark, DMX	120 - 277
L70 Hours	Warranty	Finishes
50,000	10 Years	White, RAL Match

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Radial Strip System

This curved system is principled on four components: A 31.5" diameter curved strip, a 59" diameter curved strip, a 118" diameter curved, and a straight line strip. From these components, countless number of shapes and designs can be created. Furthermore, the system offers inward lighting, downward lighting, outward lighting, or upward lighting by configuring which side of the strip light is emitted from. Pendant, flush, recess, and wall mounting are all possible. CCTs offered include 1900K, 2300K, 2700K, 3000K, 35000K, 4000K, and 5000K and output averages about 330 lumens per foot. Remote drivers and power over cable creates a floating appearance in pendant configurations. An L70 of over 200,000 hours ensures the final designed system can be an integrated part of the space for decades to come. The product comes standard in a silver, black, or white finish. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.



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Acoustic Baffle + Lighting System

The open ceiling concept has taken over the design world in the last decade. From restaurants to galleries to offices, exposed ceilings and hard surfaces have become defining elements in current interior space buildouts. One of the unintended side effects of this trend has been harsh acoustics. This system provides off the shelf linear lights shelled in a sound-absorbing acoustic material. **Direct, indirect,** and **direct/indirect** configurations are available as well as a myriad of casing colors and end caps. Mounting includes **pendant, surface,** and **T-Bar.** What's more **custom shaped fixtures** and **non-illumination baffles** are available as well. In short, this solution acts as the ultimate architectural solution fulfilling form and function. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.



Lumens	Efficacy	ССТ
625 – 1,150 LM / LF	100 LM / W	3000K, 3500K, 4000K, 5000K
CRI	Dimming	Fire Rating Options
80, 90	0 – 10V, TRIAC, ELV	Class A, Class B
Lengths	Heights	Illumination
2' - 8'	6" – 24"	Direct, Indirect, Direct/Indirect
L70 Hours	Warranty	Noise Reduction Coeff.
50,000	5 Years	0.9

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Acoustic Baffle + Lighting System Con't



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Linear Pendant System

The system pictured below has numerous points of configurability. To start, it can be configured into L, T, X, Y shapes. Miters can create hexagonal and other geometric shapes as well. Widths from 2.2" to 4.0" and heights from 2.7" to 5.85" are available. Continuous lensing or unlit joints adds another element of customization. 750 lumens per linear foot are output and some of configurations can add RGBW. Custom colors and wood finishes further expand the scenes the system can help set. 3000K, 3500K, and 4000K are the standard CCTs offered. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.









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Silicone Optic Exterior Light System

One of the disappointing elements of some slated LED long-life luminaires has been the poor glare and longevity performance plastic optics. Yellowing in these fixtures is the result of UV and heat exposure. This silicone optic system takes advantage of the materials **superior heat**, **UV resistance**, **transmission clarity**, and **longevity performance** compared to the more commonly used acrylic material. Careful shaping of the lens creates **superior glare performance**. In addition, the micro optic platform creates a highly specifiable system that can be incorporated into a host of different fixture types and a myriad of lumen packages and distribution types (II, III, IV, V, NEMA 2x2, NEMA 3x3). Luminous flux outputs for various luminaire types range from **800 lumens** for path lights to upwards of **50,000 lumens** for area lights. **3,000K**, **4,000K**, and **5,000K** are the standard CCT's available. For more information on Enlighten, products and services contact <u>info@enlightensolns.com</u>.



Lumens	Efficacy	ССТ
800 – 50,000	100 - 130 LM / W	3000K, 4000K, 5000K
L70 Hours	Dimming	Distribution Types
80, 90	0-10V	II, III, IV, V, NEMA 2x2, NEMA 3x3
L70 Hours	Warranty	Voltage
100,000	5 - 10 Years	120-277, 347-480
Finishes		
Bronze, White, Silver, Black, Graphite, Grey, Custom, Marine Grade		
Additional Options		
7-Pin Receptacle, Photocell, IR Motion Sensor, Surge Protection, Rotated Optics, House Side Shield		

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Exterior Luminaires JENLIGHTEN

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Area Lights

From high powered models designed to optimize vertical surface illumination to low lumen small foot print models to high specifiable series, Enlighten offers a wide gamut of area lights. A few are pictured below. Many area lights are available in **Type II through Type V including Type IV**. All standard colors are available as well as custom colors and marine-grade finishes. A range of pole types (aluminum, steel, fiberglass) and diameters are also available to accompany. Lumens range from 2,000 up to 87,000. L70s ranged between 50,000 hours to 200,000 hours and **Warranties** range between 5 to 10 Years Standard kelvin temperatures of 3,000K, 4,000K, and 5,000K are available as well as wildlife friendly Amber. For more information on Enlighten products and services contact info@enlightensolns.com.



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Post Tops

Enlighten offers a wide range of post top sizes, lumen ranges, and distribution patterns. A few are pictured below. Many Post tops are available in **Type II** and **Type III distributions** in addition to the traditional **Type V**. All standard colors are available (**Black, Dark Bronze, Silver, White, etc.**) as well as **custom colors, custom textures, and marine-grade finishes**. A range of pole types (aluminum, steel, fiberglass) and diameters are also available to accompany. **Lumens range from 1600 up to 30,000**. Standard kelvin temperatures of **3,000K**, **4,000K**, **and 5,000K** are available as well as wildlife friendly **Amber** and **RGB** in certain models. For more information on Enlighten products and services contact info@enlightensolns.com.



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Decorative Ceiling

Flush mounts and pendants can provide a key touch to an entry or outdoor gathering area. Enlighten offers a wide range of architectural ceiling luminaires rated for outdoor use. A few are pictured below. All standard colors (Black, Dark Bronze, Silver, White, etc.) are available as well as custom colors, custom textures, and marinegrade finishes. Sizes range from 5" to 30" in diameter and outputs range from 800 lumens in smaller models to 20,000 lumens in larger. Models include color temperatures of amber, 2700K – 5000K, and RGB. Features such as emergency backup, -40°F operating temp, photocontrol, and motion control are possible options. We also have more basic outdoor flush mount vapor tights and utility lights available. Custom designs are available as well. For more information on this and other Enlighten products and services, contact info@enlightensoIns.com.



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Wall Lights

Exterior wall lights are sometimes overlooked in the design element of many buildings. However, they can drastically impact both the look, feel, and function of the nearby space surrounding a building. Enlighten offers a wide range of architectural wall fixtures. A few are pictured below. From basic **wall packs** to **full cutoffs** to **bulkheads** to **sconces** to **narrow beam cylinders**, almost any need can be met. All standard colors are available as well as **custom colors**, **custom textures**, and **marine-grade finishes**. Lumen outputs range from **several hundred lumens** for **wall grazing** upwards of **20,000 lumens** for area lighting. Color temperatures offered include **amber**, **2700K** – **5000K**, and **RGB**. Features such as **emergency backup**, **-40°F operating temp**, **photocontrol**, and **motion control** are possible options. Custom designs are available as well. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.



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Wall Lights Con't



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Bollards

Bollards are an excellent way to provide ambience and functional pedestrian lighting. Enlighten offers a wide range of architectural bollards. A few are pictured below. Some models offer **Type 2-5 Distribution** options for targeted lighting. All standard colors are available as well as custom colors, custom textures, and marine-grade finishes. CCTs range from **2700K to 5000K** and some models are available in **Amber** and **RGB** as well. Sizes range from **26" to 42" in height** and lumens range from **800 lumens to 6,500 lumens**. For more information on Enlighten products and services, contact <u>info@enlightensolns.com</u>.



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Path Lighting

More used as accent than wayfinding light, path lights are similar to bollards but typically lower in lumen output. Enlighten offers a wide range of architectural bollards. A few are pictured below. **Dark Bronze, Black, Brass, Copper, and Stainless Steel Finishes** are available as well as custom colors, custom textures, and marine-grade finishes. Low voltage as well as standard voltage systems are available as well as **2700K** and **3000K CCT**. Sizes range from **22**" to **30**" in height and lumens range from **95 lumens to 450 lumens**. For more information on Enlighten products and services, contact <u>info@enlightensolns.com</u>.



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Façade Lighting

Façade lighting can transform a structure from a building into an event. Enlighten carries a host of façade luminaires. Linear products range in output from 225 lumens per foot to 2,350 lumens per foot, flood products up to 16,000 lumens. A range of beam angles including 4.5°, 6°, 15°, 30°, 45°, 60°, 60° x 10°, 40° x 10°, 40° x 20°, 60° x 20° provides a wide range of mounting and coverage abilities, and shields and direct-view lensing broaden the potential applications for these lights. CCTs are available from 2,700K to 6,500K in addition to RGB and DMX compatibility. For more information on Enlighten products and services, contact info@enlightensolns.com.



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Interior Luminaires JENLIGHTEN

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Downlights

Downlights are often the foundation to space illumination commercial applications. Enlighten carries a host of single recessed downlight and a few are pictured below. From **flangeless** to **sloped ceiling** to **IC rated** to **outdoor rated**, any application can be covered. Square, wall wash and **wet shower** trims are available as well **tilt-able** and **361**° **rotatable** options. For more information on Enlighten products and services, contact info@enlightensolns.com.



Lumens	Beam	Diameter	
400 - 7000	18º - 70º	2"-8"	
CRI	ССТ	L70 Hours	
80, 90, 97	2700K – 5000K	50,000 - 100,000	
	Dimming		
0 – 10V (10%), DMX (1%), DAL (1%), Lutron (1%), TRIAC (5%), ELV (5%)			
Flange Finishes			
Black, White, Nickel, Copper, Antique Bronze, Custom			
Cone Finishes			
White, Black, Nickel, Wheat, Haze, Copper, Bronze, Gold, Custom			
Lensing			
Clear, Frosted, Amber, Red, Spread, Beam Elongating, Honeycomb			

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Cylinders

Cylinders are can often provide a base layer of lighting in commercial space. They are a dynamic design tool that can disappear into the background or punctuate certain areas in a space. Enlighten caries several lines of cylinder and box pendant lights in a wide range of sizes, lumen outputs, and beam angles. The table below details the performance specifications offered. For more information on Enlighten products and services, contact info@enlightensolns.com.



Lumens	Beam Angles	Diameter
1,500 - 7,000	18 º - 60º	4", 6", 8", 12"
CRI	ССТ	L70 Hours
80, 90	2700K, 3000K, 3500K, 4000K, RGB	50,000
Finishes	Targeting	Shapes
Black, White, Silver, Bronze, Custom	Direct, Direct/Indirect, Indirect	Cylinder, Box
Dimming		
0 – 10V (10%), DMX (1%), DAL (1%), Lutron (1%), TRIAC (5%), ELV (5%)		
Mounting		
Surface, Pendant, Sloped Ceiling, Rod		

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Chandeliers

From hotel lobbies to restaurant entries, chandeliers can be a defining element of any interior space. Enlighten carries a myriad of chandeliers in a host of different finishes. From specifiable systems to stocking items, we will likely have an excellent fit for any design goal. Sizes range from **36**" to **108**" width for single fixtures and larger for system-based fixtures. Provide Enlighten with an architectural rendering, design concept, or finish portfolio, and we can provide several options to consider. Custom fixtures are also available where needed. For more information on Enlighten products and services, contact info@enlightensolns.com



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Chandeliers Con't



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Flush Mounts

From halls to reception areas to landings, the flush mount balances cost with décor with function. Enlighten carries a myriad of chandeliers in a host of different finishes. Nickel, brushed aluminum, oil rubbed bronze, matte black, white, and aged brass are just a few of the finishes available. Sizes run from 6" in diameter up to 40" in diameter. Some models up to 108" in diameter are also available. Provide Enlighten with an architectural rendering, design concept, or finish portfolio, and we can provide several options to consider. Restorations are also available for historic fixtures. For more information on Enlighten products and services, contact info@enlightensolns.com



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Flush Mounts Con't

















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Linear Recessed

2x4s, 2x2's, linear channels, miters, edge lit, trim-less, mud-in, wall wash, indirect, outdoor: we have pretty much any linear recessed feature available. See the table below for range of lumen outputs, dimming features, and sizes. For more information on Enlighten products and services, contact <u>info@enlightensolns.com</u>



Lumens	ССТ	Dimming
2,000 - 6,500	3000K, 3500K, 4000K, 5000K	0 – 10V, DALI, Bluetooth
CRI	Warranty	L70 Hours
80, 90	5 – 10 years	50,000 - 100,000
Sizes		
1'x4', 2'x2', 2'x4', 2"x4' (continuous run), 4"x4' (continuous run), 6" x 4' (continuous run)		

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Wall Sconces

Wall lights can be a defining feature to the illumination and general décor of an interior space. They can provide whole space lighting or simple accent lighting. From vintage to traditional to modern to contemporary; Enlighten carries a host of wall lights. A few are pictured below. For more information on this and other Enlighten products and services, contact info@enlightensolns.com.



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Wall Sconces Con't



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End of Guide

For more information on Enlighten products and services, contact <u>info@enlightensolns.com</u> 313-300-2843 21580 Garfield Rd; Northville, MI 48167