



General Purpose LED Conversion Guide

THE TRANSITION TO LED

Why Purchase LED Lighting Fixtures?



Dispelling the Myths of LED

MYTH:

All LEDs are created equal.

FACT:

Not all LEDs are created equal.



The quality of LEDs in a fixture matter. Acuity Brands partners with the most reputable and reliable LED suppliers to deliver the highest quality LED lighting fixtures. Our supplier partners meet tight specifications, which prevents noticeable variation in the color of light produced.



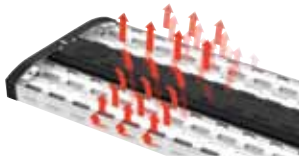
This is an example of an application where tight color specifications were not met.

MYTH:

Fixture design doesn't matter.

FACT:

Fixture design is essential when purchasing LED lighting fixtures.



- **Thermal management is critical.** Acuity Brands uses software models and extensive physical testing to ensure that our LED fixtures dissipate heat away from the LEDs – ensuring years of maintenance-free illumination.

- **Fixture optics are important.** Delivered lumens are vital to replacement ranges, not initial lumens.
 - **Initial lumens** – the measure of light emitted from an LED (no fixture optics applied)
 - **Delivered lumens** – the measure of light output from the fixture into the desired application. If the fixture is not designed to accurately direct the light where it needs to be, much of the light can be lost to the fixture itself or to the ceiling plane/night sky.



Before (250W Metal Halide)



After (144W LED)

MYTH:

The more lumens, the brighter the space.

FACT:

Increasing the number of lumens does not always make the space brighter.

Yes, more lumens does mean more light output, but it does not mean there is more light where you need it. With the right optical control, LEDs can improve the overall site-wide illumination with fewer total lumens, increasing efficiency and performance.

Learn more at:

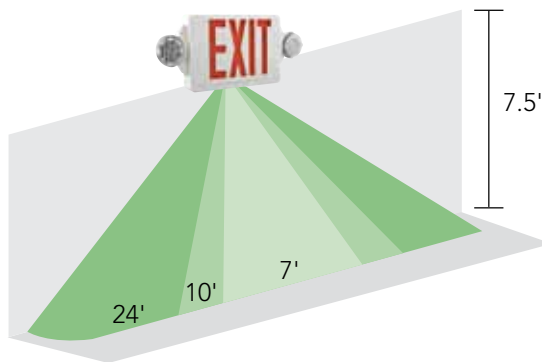


Indoor LED Lighting: Converting from Traditional Sources

LED	Fixture	Delivered Lumens	Input Watts	Replaces Up To	Voltage	LPW	CCT	DLC Qualified	Energy Star	Contractor Select
COMMERCIAL										
TROFFERS 	GTL2	3,700	43	2- to 4-lamp T8	MVOLT	89	3500-4000K	✓		✓
	GTL4	4,000	43	2-lamp T8	MVOLT	93	3500-4000K	✓		✓
WRAPAROUNDS  	STL	4,800	50	2-lamp T8	MVOLT	94	3500-4000K	✓		
	LBL2 LBL4	2,000 4,000	26 50	2-lamp T8 2-lamp T8	MVOLT MVOLT	84 86	3500-4000K 3500-4000K	 ✓		 ✓
DRY LOCATION STRIPLIGHT 	MNSL MV M6	2,100	24	1-lamp T8	MVOLT	88	4000K			✓
UNDERCABINET  	UCLD	226-504	5-12	(2) 8W T5	120V	43	2700-3000K		✓	
	Rayzer	175-441	5-13	(2) 8W T5	120V	33	3000K		✓	
INDUSTRIAL										
BAY LIGHTS  	IBH 11L MVOLT	11,200	150	250W MH, 3-lamp T5HO, or 4-lamp T8	MVOLT	75	4000K	✓		✓
	IBL 18L WD LP740 DLC	18,000	207	400W MH, 4-lamp T5HO or 6-lamp T8	MVOLT	87	4000K	✓		
	IBL 24L WD LP740 DLC	24,000	265	6-lamp T5HO or 8-lamp T8	MVOLT	92	4000K	✓		
WET LOCATION STRIPLIGHT 	XWMLD	1,800	24	1-lamp T8	MVOLT	75	4000K			✓
DOWNLIGHTING										
P SERIES 	6BPMW LED M6	620	8.9	65W INC	120V	70	3000K		✓	✓
L SERIES   	4BLMW LED M6	400	9	50W INC	120V	44	3000K		✓	
	5BLMW LED M6	600	13	65W INC	120V	46	3000K		✓	
	6BLMW LED M6	620	13	65W INC	120V	48	3000K		✓	
REALITY 	REAL6 D6MW 1000L 30K .60SC ESL U	1,000	11	100W INC	120V	89	3000K		✓	
	REAL6 D6MW 600L 30K .60SC ESL U	600	8	75W INC	120V	80	3000K		✓	
REALITY COMMERCIAL 	REAL6C D6A 1000L 35K .65SC ESL U	1,000	14	26W 1-lamp INC/ 13W 2-lamp CFL	120V or 277V	75	3500K		✓	
	REAL6C D6A 1500L 35K .65SC ESL U	1,500	19	32W 1-lamp INC/ 26W 2-lamp CFL	120V or 277V	85	3500K		✓	

When it comes to emergency products, the center-to-center spacing is much more critical to the design and safety of the space than the recommended replacement range. Below are key components to consider when selecting an emergency product for your application.

LED	Fixture	Center-to-Center Spacing	Warranty	Options	Remote Capability
QUANTUM® LED EMERGENCY COMBOS & UNITS					
EMERGENCY COMBOS	LHQM LED R / LHQM LED G LHQM LED R HO	24' 24'	5 years 5 years	Self-diagnostics (SD) and Wireless (WRS) Self-diagnostics (SD) and Wireless (WRS)	- Powers 6 additional LED heads
EMERGENCY UNITS	ELM2 LED ELM2 LED HO	24' 24'	5 years 5 years	Self-diagnostics (SD) and Wireless (WRS) Self-diagnostics (SD) and Wireless (WRS)	- Powers 4 additional LED heads
Extended-life nicad battery included with Quantum					
CONTRACTOR SELECT LED EMERGENCY COMBOS & UNITS					
EMERGENCY COMBOS	ECR LED / ECG LED ECR LED HO / ECG LED HO	10' 10'	2 years 2 years	- -	- Powers 2 additional LED heads
	ECBR LED / ECBG LED	10'	2 years	-	Powers 2 additional LED heads
EMERGENCY UNITS	EU2 LED	10'	2 years	-	-



- 7' Typical Import Emergency Combo/Unit
- 10' Contractor Select Emergency Combos & Units
- 24' Quantum® Emergency Combos & Units

Cost Savings Example

Converting from traditional sources to LED lighting can help your customers realize substantial energy and maintenance savings over the life of the fixture.

See the chart below, which walks through an example of how much money customers can save by converting to LED. We've used the GTL LED 2x4 fixture as our example...

GTL LED Lay-In Troffer (2x4) - Savings Chart					
Fixture	Watts	Life	Est. Energy Cost/Year	Est. Lamp Replacement Cost/Year	Total Average Savings over Life of Fixture
T12 2-lamp	80	9,000 hours	\$32.12	\$3.50	Save \$240.38 with LED*
T8 2-lamp	58	15,000 hours	\$23.29	\$1.92	Save \$97.82 with LED*
GTL LED Lay-In Troffer	45	50,000 hours	\$18.07	\$0.00	-

*Based on operating 10 hrs/day, 365 days/yr at \$.11/kWh

Energy savings can be further enhanced by pairing LED luminaires with a lighting controls solution from Acuity Brands. Visit www.acuitybrands.com/controls for more information.

Outdoor LED Lighting: Converting from Traditional Sources

LED		Fixture	Delivered Lumens	Input Watts	Replaces Up To	Voltage	LPW	CCT	DLC Qualified	Photocell	Motion Sensor	Contractor Select
BUILDING MOUNTED		OLW14*	1,337	26	175W MH	MVOLT	65	5000K	✓	✓		
		OLW 23	2,252	35	250W MH	MVOLT	64	5000K	✓	✓		
		OLW 31*	3,073	48	250W MH +	MVOLT	64	5000K	✓	✓		
		TWH LED 10C 50K	2,559	39	175W MH	MVOLT	65	5000K				
		TWH LED 20C 50K	4,910	72	250W MH	MVOLT	67	5000K				
		TWH LED 30C 50K	6,728	105	400W MH	MVOLT	60	5000K				
		TWP LED 10C 50K	1,614	26	100W MH	MVOLT	61	5000K				
		TWP LED 20C 50K	3,149	45	175W MH	MVOLT	68	5000K				
		TWP LED 30C 50K	4,377	67	250W MH	MVOLT	64	5000K				
		TWS LED 1 50K 120 PE M4	1,017	19	42W CFL/70W MH	120V	54	5000K		✓		✓
		TWR1 LED 1 50K MVOLT M2	2,126	35	175W MH	MVOLT	62	5400K				✓
		TWR1 LED 2 50K MVOLT M2	3,527	41	250W MH	MVOLT	86	5000K				✓
		TWR1 LED 3 50K MVOLT M2	4,875	59	320W MH	MVOLT	83	5000K				✓
		TWR2 LED 1 50K MVOLT M2	6,979	79	400W MH	MVOLT	89	5000K				✓
		OLWP 11 PE BZ	1,096	20	42W CFL/100W MH	120V	75	4000K		✓		
SECURITY		OFLR 6LC 120 MO BZ*	1,222	22	2-head PAR 38 60W Halogen	120V	55	5000K			✓	
		OFLR 9LC 120 MO BZ*	1,719	31	2-head PAR38 90W Halogen	120V	55	5700K			✓	
		OFLR 6LC 120 P BZ*	1,096	20	2-head PAR38 60W Halogen	120V	55	5000K		✓		
		OFLR 9LC 120 P BZ*	1,636	30	2-head PAR38 90W Halogen	120V	54	5700K		✓		
		OLFL 14	1,351	18	300W Quartz Halogen	120V	75	4000K		✓		
		OLAW23	2,304	35	100W MH/175W MV	120V	65	5000K	✓	✓		
		TDD LED	1,402	20	100W MH/175W MV	120V	69	4000K				✓
CANOPY		OLWCM 36	3,634	56	175W MH	MVOLT	64	5000K				
		OLWCM 46	4,558	70	250W MH	MVOLT	65	5000K				
		OLWCM 57	5,700	99	250W MH +	MVOLT	57	5000K				
		VRC LED 1 50K	3,400	41	250W MH	MVOLT	84	5000K				✓
		DSXPG	2,336-6,647	25-74	70-175W MH	MVOLT	84-108	4000K-5000K	✓		✓	

LED	Fixture	Delivered Lumens	Input Watts	Replaces Up To	Voltage	LPW	CCT	DLC Qualified	Photocell	Motion Sensor	Contractor Select
	DSXF1 LED 1 40K	1,927	22	100W MH	120V	87	4000K	✓			
	DSXF1 LED 1 50K	2,112	22	100W MH	120V	95	5000K	✓			
	DSXF1 LED 2 40K	3,866	41	175W MH	120V	95	4000K	✓			
	DSXF1 LED 2 50K	4,008	41	175W MH	120V	96	5000K	✓			
	DSXF2 LED 3 40K	5,493	59	250W MH	120V	93	4000K	✓			
	DSXF2 LED 3 50K	5,696	59	250W MH	120V	97	5000K	✓			
	DSXF2 LED 4 40K	7,041	79	250W MH +	120V	89	4000K	✓			
	DSXF2 LED 4 50K	7,526	79	250W MH +	120V	94	5000K	✓			
	OLBF 8 30K	592	11	100W PAR38 Halogen	120V	56	3000K				✓
	OLBF 8 50K	835	11	100W PAR38 Halogen	120V	76	5000K				✓
	OLBS 8 30K	638	11	100W PAR38 Halogen	120V	58	3000K				✓
	OLBS 8 50K	857	11	100W PAR38 Halogen	120V	78	5000K				✓
	OLVTCM M6	600	15	26W CFL/150W INC	120V	39	4000K				✓
	OLVTWM M6	600	15	26W CFL/150W INC	120V	39	4000K				✓
	OLSS DDB M6*	330	9	13W CFL/60W INC	120V	38	4000K				✓
	OLSR DDB M6*	370	9	13W CFL/60W INC	120V	41	4000K				✓
	OLLWU DDB M6*	500	14	26W CFL/150W INC	120V	34	4000K				
	OLLWD DDB M6*	270	9	13W CFL/60W INC	120V	30	4000K				
*also available in white											

Cost Savings Example

Converting from traditional sources to LED lighting can help your customers realize substantial energy and maintenance savings over the life of the fixture.

See the chart below, which walks through an example of how much money customers can save by converting to LED. We've used the TWH/TWP LED fixture as our example...

TWH/TWP LED - Savings Chart				
Fixture	Watts	Est. Energy Cost/Year	Est. Lamp Replacement Cost/Year	Total Avg. Savings Over Life of Fixture
400W MH (456W)	456	\$200	\$15	Save \$3,375 with LED*
105W TWH LED	105	\$46	-	-
250W MH (295W)	295	\$129	\$33	Save \$2,656 with LED*
66W TWP LED	66	\$29	-	-

*Based on operating 12 hrs/day for 20 years at \$.10/kWh

Energy savings can be further enhanced by pairing LED luminaires with a lighting controls solution from Acuity Brands. Visit www.acuitybrands.com/controls for more information.

Why Acculamp?

Acculamp's patented technology and unique design allow for one-for-one replacement for traditional sources. Additional benefits include:



- Energy savings up to 80%
- High center beam candle power delivers light where you want it
- Extended life, up to 50,000 hours
- Lower maintenance and re-lamping costs
- High color rendering up to Ra92
- Controlled beam angles
- Mercury free production
- 5-year limited warranty



Look

The advanced reflector design of Acculamp produces efficient, indirect lighting that maintains the overall aesthetics of traditional sources.

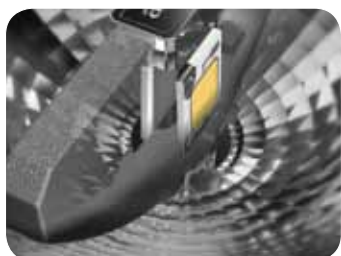
Performance

Acculamp's patented Thermal Conductive Highway (TCH) effectively pushes heat away from the ceramic Chip on Board (COB) LED packages to provide extra protection. In addition, our efficient thermal management keeps the LEDs and electronic drives cool to ensure a long and stable life.



The patented Thermal Conductive Highway (TCH) effectively manages heat. TCH technology present an ingenious highway design across the reflector to dissipate heat efficiently away from the LED's.

Our unique Chip on Board (COB) design allows for back to back vertically mounted LEDs allowing us to produce brilliant, directional light. The LEDs are mounted on a ceramic board. This goes a long way in preventing color shift.



Confidence

Acculamp is backed by Acuity Brands, a leader in the lighting industry.



	Base Type	Beam Angle	Watts	Lumens	CBCP	Voltage	Efficacy	CRI	Dimmable	Lifetime (hr)	Energy Star	Replaces Up To (INC)
MR 16												
ALSMR16 140L M60	GU5.3	24	4.0	140	650	12	35	80		50,000	✓	20W
ALSMR16 140L 40K M60	GU5.3	24	4.0	140	650	12	35	80		50,000	✓	20W
ALSMR16 240L M60	GU5.3	24	6.0	240	1300	12	40	82		50,000		35W
ALSMR16 240L 40K M60	GU5.3	24	6.0	240	1300	12	40	85		50,000		35W
ALSMR16 240L 36 M60	GU5.3	36	6.0	240	650	12	40	82		50,000		35W
ALSMR16 240L 36 40K M60	GU5.3	36	6.0	240	650	12	40	85		50,000		35W
PAR 16												
ALSP16 320L 40K M60	GU10	35	7.0	320	700	110-120	45.71	85		50,000		35W
ALSP16 320L M60	GU10	35	7.0	320	700	110-120	45.71	82		50,000		35W
PAR 20												
ALSP20 480L DIM M60	E26	30	8.0	480	1400	110-120	60	82	✓	50,000	✓	50W
ALSP20 480L 40K DIM M60	E26	30	8.0	480	1400	110-120	60	85	✓	50,000	✓	50W
ALSP20 530L 45 DIM M60	E26	45	8.0	530	650	110-120	66.25	82	✓	50,000	✓	50W
ALSP20 530L 45 40K DIM M60	E26	45	8.0	530	650	110-120	66.25	85	✓	50,000	✓	50W
PAR 30												
ALSP30 530L DIM M24	E26	25	15.0	530	3200	110-120	35.33	82	✓	50,000		75W
ALSP30 530L 40K DIM M24	E26	25	15.0	530	3200	110-120	35.33	85	✓	50,000		75W
PAR 30S												
ALSP30S 500L DIM M24	E26	25	11	500	2000	110-120	50	82	✓	50,000	✓	60W
ALSP30S 500L 40K DIM M24	E26	25	11	500	2000	110-120	50	85	✓	50,000	✓	60W
PAR 38												
ALSP38 900L R9 M24	E26	25	20.0	900	5000	110-120	45	94/ R9: ≥ 75		50,000	✓	25W (Mh)
ALSP38 900L 40K R9 M24	E26	25	20.0	900	5000	110-120	45	94/ R9: ≥ 75		50,000	✓	25W (Mh)
ALSP38 900L GU24 R9 JP24	GU24	25	20.0	900	5000	110-120	45	94/ R9: ≥ 75		50,000	✓	25W (Mh)
ALSP38 1200L DIM M24	E26	45	20.0	1200	6800	110-120	60	82	✓	50,000	✓	25W (Mh)
ALSP38 1200L 40K DIM M24	E26	25	20.0	1200	6800	110-120	60	85	✓	50,000	✓	25W (Mh)
ALSP38 1200L 45 DIM M24	E26	45	20.0	1200	2200	110-120	60	82	✓	50,000	✓	25W (Mh)
ALSP38 1200L 45 40K DIM M24	E26	45	20.0	1200	2200	110-120	60	85	✓	50,000	✓	25W (Mh)
AR 111												
ALSAR111 530L M24	GU10	24	15.0	530	3600	110-120	35.33	82		50,000		50W
ALSAR111 530L 40K M24	GU10	24	15.0	530	3600	110-120	35.33	85		50,000		50W
ALSAR111 570L M24	GU10	45	15.0	570	1400	110-120	38	82		50,000		50W
ALSAR111 570L 40K M24	GU10	45	15.0	570	1400	110-120	38	85		50,000		50W
ALSAR111 450L M24	GU10	8	15.0	450	16000	110-120	30	82		50,000		50W
ALSAR111 450L 40K M24	GU10	8	15.0	450	16000	110-120	30	85		50,000		50W
ALSAR111 530L G53 R9 M24	G53	24	11.0	530	3600	12.0	48.18	94/ R9: ≥ 75		50,000		50W
ALSAR111 530L 40K G53 R9 M24	G53	24	11.0	530	3600	12.0	48.18	94/ R9: ≥ 75		50,000		50W
ALSAR111 450L G53 R9 M24	G53	8	11.0	450	12000	12.0	40.91	94/ R9: ≥ 75		50,000		50W
ALSAR111 450L 40K G53 R9 M24	G53	8	11.0	450	12000	12.0	40.91	94/ R9: ≥ 75		50,000		50W
ALSAR111 570L G53 R9 M24	G53	45	11.0	570	1400	12.0	51.82	94/ R9: ≥ 75		50,000		50W
ALSAR111 570L 40K G53 R9 M24	G53	45	11.0	570	1400	12.0	51.82	94/ R9: ≥ 75		50,000		50W
GX 53												
ALSGX53 350L 30 40K M60	GX53	30	5	350	850	110-120	70	85		50,000		n/a
ALSGX53 350L 30 M60	GX53	30	5	350	850	110-120	70	82		50,000		n/a
ALSGX53 350L 60 40K M60	GX53	60	5	350	350	110-120	70	85		50,000		n/a
ALSGX53 350L 60 M60	GX53	60	5	350	350	110-120	70	82		50,000		n/a
A LAMPS												
ALGP 420L DIM M60 (frosted glass)	E26	n/a	8.0	420	n/a	110-120	52.5	80	✓	50,000	✓	40W
ALGP 250L DIM M60 (frosted glass)	E26	n/a	5.0	250	n/a	110-120	50	80	✓	50,000	✓	30W
ALGP 620L DIM M60 (frosted glass)	E26	n/a	11.0	620	n/a	110-120	56.36	80	✓	50,000	✓	50W
CANDLE LAMPS												
ALCND 250L CSG DIM M60 (clear glass)	E12	n/a	5.0	250	n/a	110-120	50	80	✓	50,000	✓	35W
ALCND 250L FSG DIM M60 (frosted glass)	E12	n/a	5.0	250	n/a	110-120	50	80	✓	50,000	✓	35W

Quick Ship



www.acuitybrands.com/quickship

Product when you need it from Acuity Brands. You can count on it.

Acuity Brands is pleased to offer you the most comprehensive Quick Shipment offering in the business. Through a combination of local stock, local assembled product and local manufactured-to-order product, we have the products to meet even your most discriminating customers' needs.

Regional Distribution & Manufacturing

- For items stocked in the Distribution Center, product is available for will call or shipment same day or next day
- For items produced in the Regional Manufacturing Center, product will ship within 48 hours from receipt of order, depending on quantity

Acuity Distributor Center



Utilize the Acuity Distributor Center to enhance your ease of doing business with Acuity Brands! You can do the following, plus more:

- View Order Status
- View Credit Memos
- View Product Availability
- Stay Up-to-Date on the Latest Product & Marketing Announcements
- Submit Freight Claims
- View Invoices
- Experience Mobile Capability

Visit www.lithoniadistributorcenter.com to get started today!

Visual Design Tools

Web-based tools developed to quickly answer your lighting design questions anywhere, anytime.

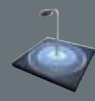


Economic Tool

Other Valuable Resources



Interior Tool



Photometric Tool



Template Tool



Area Tool



Floodlight Tool



Wallwash Tool



Visual Economic Tool™

Why use the tool?

The Visual Economic Tool allows users to develop realistic costs over the lifetime of a lighting system, offering a more meaningful business evaluation than simple payback calculators.

Benefits

CALCULATE

- Perform simple energy-only simple payback estimates or create estimates that include maintenance, controls, or HVA

CHOOSE

- Choose products from the entire Acuity Brands indoor and outdoor lighting products portfolio
- The tool will also accept non-Acuity Brands lighting product data

COLLABORATE

- Save time and promote consistency by loading data from the Visual Economic Tool into Visual's other design tool

CONCLUDE

- Data presented in vivid, easy-to-follow charts

COMPARE

- Compare using various lighting controls methods and common light sources

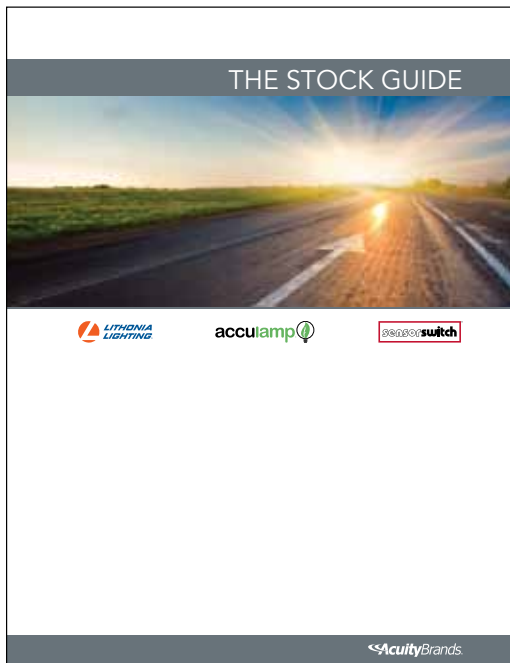
Don't stop at Simple Payback - start comparing total Life Cycle Cost for your designs!

<http://www.visual-3d.com/software/designtools.aspx>

The Stock Guide

Looking for a reference to Acuity Brands' most common distributor stock items? Consult The Stock Guide for full product information.

With an expanded product offering that now includes more than 150 indoor and outdoor LED products, The Stock Guide is designed to help you win more stock business.



The Stock Guide now includes:

- **Expanded LED section** – providing replacement ranges, number of lumens, color temperature, etc.
- **Enhanced Contractor Select program** – featuring more LED products such as the GTL, LBL, MNSL, IBH and TWS/TWR
- **Focused Supplemental Stock section** – streamlined to the most popular stock products from our broader project portfolio
- **New Acculamp section** – highlighting the newly launched line of distributor stock LED lamps
- **Sensor Switch section** – offering a range of low and line voltage sensors, photo controls and timer switches
- **Emphasis on Design Tools & Renovation Opportunities** – including the visual economic tool and applications from the Look Up, Look Around guide

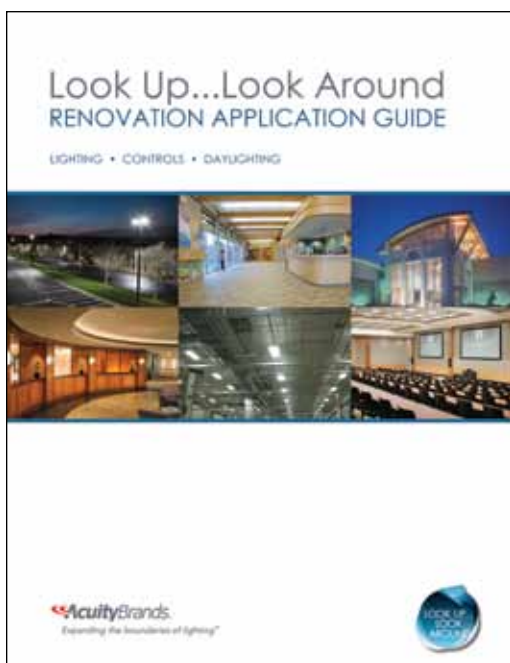
Visit www.lithonia.com/thestockguide for more information.

Look Up...Look Around

Did you know that renovation opportunities now represent approximately 40% of the US Lighting Market? Want to learn about how you can capitalize on this opportunity?

Consult the Look Up...Look Around Renovation Application Guide by Acuity Brands, where we'll walk you through a series of applications and recommend lighting and controls solutions to suit your customers' needs.

www.acuitybrands.com/lula.aspx



For more information on the latest LED products from Acuity Brands, please contact your local sales representative or visit our website at www.acuitybrands.com



LIGHTING



CONTROLS



DAYLIGHTING



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