

High Art Meets High Performance

T5/T5HO LED

Peerless



"We strive first to create the highest possible performing lighting fixture and trust that a beautiful form will follow.

Origami exemplifies this guiding principle. Thanks to our talented team of designers, engineers and fabricators, we've created the most energy efficient and visually distinctive luminaire we've ever offered."

Frank Friedman Design Director

UNFOLD THE POSSIBILITIES. ▼

Overview & T5/T5HO Details – 4-17 LED Details – 18-27





FOLD IN ORIGAMI. >

HIGH ART MEETS HIGH PERFORMANCE

Influenced by modern architecture, art and design,
Origami features advanced lighting optics that
allow for increased fixture spacing, fewer units per
installation and, ultimately, significant energy savings.



Open Offices

Individual Offices

Conference Rooms

Schools & Classrooms

Design Firms

Advertising Agencies

Children's Museums

Dotcoms & Startups

Fashion Retailers

Theater Lobbies

Speciality Supermarkets

Auto Dealerships

Modern Homes

Theme Restaurants

Science Labs

Public Libraries

Wine Bars

Yoga Studios

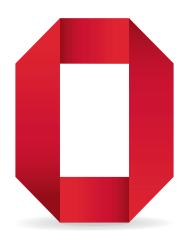
Art Galleries

Court Houses

Medical Offices

Stadium Clubs

Airport Terminals

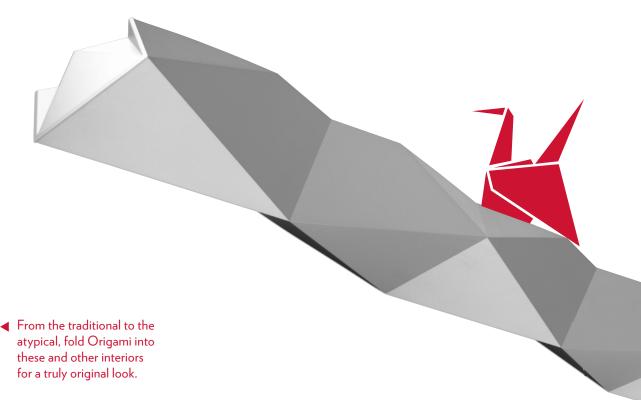


ORIGINALITY

Neither straight nor narrow, Origami is a suite of luminaires unlike any other. A true original.

Designed to appeal to highly imaginative, über-creative architects, designers and specifiers, Origami is perfect for illuminating interior spaces where flair is favorable and where a little pizzazz and a lot of panache are paramount.

Playful, yet practical, Origami stands out and makes a singularly bold statement.



atypical, fold Origami into these and other interiors



RHYTHM

Origami springs to life in a rhythmic dance of color.

With its angular facets and articulated surfaces, Origami's oblique form captures the light and reflects it across the length of the fixture.

The visual effect is a stunning kinetic interplay of shadow and light that varies as one views the luminaire from different angles within a space.

Origami's remarkable reflectivity sets it apart from other indirect luminaires which may appear dark in contrast to a well-illuminated ceiling.











ILLUMINATION

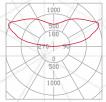
Origami is the highest performing indirect luminaire Peerless has ever created.

And it's no accident.

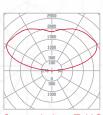
Though Origami's extraordinary aesthetics may steal the show, designing an ultra-efficient, energy-saving fixture with a remarkably broad distribution of light was our top-priority.

To achieve this lofty goal, Origami is a 100% indirect fixture – one that bathes the ceiling with an expansive, smooth gradient of light and, in turn, illuminates the work plane uniformly.

Now that's brilliant.



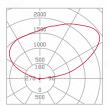
Suspended – 1 T5HO 91.3% Efficiency 4567 Delivered Lumens



Suspended – 2 T5HO 91.6% Efficiency 9164 Delivered Lumens



Wall – 1 T5HO 58.6% Efficiency 2931 Delivered Lumens



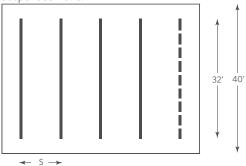
Wall – 2 T5HO 69.8% Efficiency 6978 Delivered Lumens



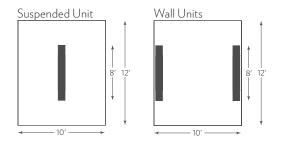
T5/T5HO PERFORMANCE

CONTINUOUS RUNS IN OPEN OFFICE APPLICATIONS





CONFERENCE ROOM OR PRIVATE OFFICE APPLICATIONS



Calculation Notes:

- 9' ceilings 80/50/20 ceiling/walls/floor reflectance
- T5: 2900 lumens/30 input watts T5HO: 5000 lumens/62 input watts
- .74 LLF (light loss factor) includes:
 .95 LLD (lamp lumen depreciation)
 .86 LDD (luminaire dirt depreciation)
 .90 RSDD (room surface dirt depreciation)
 1.0 BF (ballast factor)

	lated in the	o ^{ze} cie	Qersion Deriving	10 10 10 10 10 10 10 10 10 10 10 10 10 1	15.9:1	Portal Solution of the Solutio
	(2) T5	15"	5	46	15.9:1	1.00
	(2) T5	18"	5	48	10.3:1	1.00
	(2) T5	21"	5	49	6.9:1	1.00
12' spacing	(2) T5	24"	5	49	5.0:1	1.00
12' sp	(1) T5HO	15"	5	42	8.0:1	1.03
_	(1) T5HO	18"	5	44	5.2:1	1.03
	(1) T5HO	21"	5	43	3.7:1	1.03
	(1) T5HO	24"	5	43	2.9:1	1.00 1.00 1.03 1.03
	(2) T5	18"	4	39	16.0:1	.80
_	(2) T5	21"	4	39	10.9:1	.80
acinç	(2) T5	24"	4	40	7.9:1	.80
15' spacing	(1) T5HO	18"	4	34	8.2:1	.83
-	(1) T5HO	21"	4	35	5.9:1	.83
	(1) T5HO	24"	4	35	4.5:1	.83

	landing.	distance distance	cilinos o	dilidies of the state of the st	inarce indi	race interior	tich der
pendant	(2) T5	18"	1	27	33	1.7:1	1.00
benc	(2) T5HO	18"	1	46	58	1.7:1	2.07
wall	(2) T5	18"	2	32	38	1.4:1	2.00
				2.5′	work p	lane	



GEOMETRY

Origami is cool and calculated. Stylish, yet systematic.

It takes its visual cues from the repetitive, angular and naturally derived patterns – such as crystalline and molecular structures – currently in vogue in modern architecture, industrial design, fine art and high fashion.

Not just a chic façade, Origami's geometric facets solve the dilemma created by completely indirect luminaires: low source recognition in a space. With Origami, light reflects off the facets conveying movement and energy.

Using advance mathematical algorithms, the ancient art of paper folding has evolved from toys to technology. Where once there were only little folded creatures, today there are automobile airbags, space telescopes, solar arrays and, now, high performance luminaires.









Origami's die-cast aluminum end caps share the same triangular facets and folded paper aesthetic of the housing.

Fixtures with painted aluminum finish come standard with gloss white end caps. All other fixtures (gloss white, red and black) come standard with painted aluminum end caps.



Origami / Origami Extended End Cap



Origami Wall End Cap



ARTISTRY

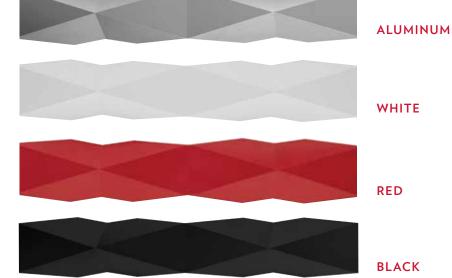
When Origami adorns the walls and ceilings of interior spaces, rooms are transformed into modern masterpieces.

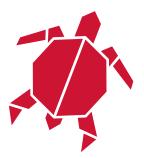
Think illuminated sculpture.

In environments built with modern architectural features such as acute angled walls, exposed steel beams, floor-to-ceiling glass windows and/or other unique elements, Origami complements the architecture, enhances the design aesthetic and adds a perfect finishing touch.

In more traditional settings devoid of distinguishing architectural features, Origami supplies an instant splash of modernity and creative flourish.

Origami is available in four standard paint colors and can also be custom ordered in any color imaginable.







MODULARITY

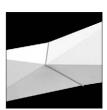


Mix, match and modulate.

With two unique facet patterns available in both suspended and wall-mount 4' and 8' options, Origami folds into a myriad of spaces and configurations.

The more intricate Origami with 1' repetitions, for instance, may be best utilized in short runs or as individual pendants in private offices and conference rooms.

For T5/T5HO luminaires, a die cast aluminum joiner connects sections in continuous runs. The joiner finish always matches the end caps.



Origami Extended (T5/T5HO only), with its more subtle 2' repetitions, may be best suited for long continuous runs in large open areas.

Origami and Origami Extended can also be connected to one another to form wildly unique continuous runs.

ORIGAMI

Facets repeat every 1 foot. Available in suspended or wall units.

ORIGAMI EXTENDED (T5/T5HO only)

Facets repeat every 2 feet. Available in suspended units.



INTELLIGENCE

Peerless is committed to producing increasingly ecosensitive and impact-reducing lighting. And while you can't plant our luminaires at the end of their life and harvest corn, we're proud of the many environmental advances we're making.

For starters, Origami was conscientiously designed with a less-is-more-sustainable credo.

Its thin gauge aluminum bodies use roughly 50% less metal than traditional extruded fixtures. Plus, the housings, end caps and joiners all contain recycled material.

More impressive still, Origami is a fixture one simply needs less of.

With its high-efficiency and wide uniform distribution, installing Origami provides the opportunity to increase overall fixture spacing, reduce total fixture quantity and, ultimately, save energy.

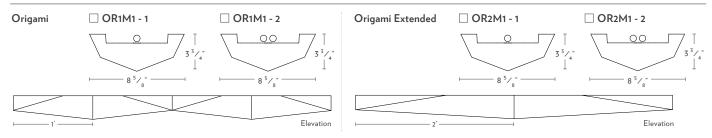
Origami is also delivered responsibly. All luminaires are packaged with 100% recycled cardboard and molded paper pulp supports. No foam packing peanuts here.







AVAILABLE FIXTURES



SPECIFICATIONS

Construction

Formed aluminum housing creates a 8 $^5/_8$ " x 3 $^3/_4$ " body and die-cast aluminum end caps mechanically attached with no exposed fasteners.

Reflectors

Premium specular aluminum reflector with white optic enhancer.

Finish

Aluminum powder paint housing with white end caps and joiners OR white, red or black housings with aluminum powder paint end caps and joiners. Consult factory for custom color requirements.

Flectrical

Specify 120V, 277V or 347V. Pre-wired with 16AWG fixture wires. Consult factory for special circuiting

or wire gauge. Ballast disconnect plug and cord manager are standard. Plug-in electrical connectors included. UL and C-UL listed.

Fixture Length

4' and 8' nominal fixture sections. Add $^5 / ^{\circ}_8$ for each end cap to determine total fixture length. Using joiners, 4' and 8' sections can be joined to form longer rows.

ORDERING LOGIC

Fixture OR1M1 OR2M1	# of Lamps in Cross Section				al ngth¹	Maximum Section Length R4 4' section R8 8' section	Voltac 120 277 347	je	Ballast Type GEB10 <10% THD Ele Dimning ballasts availab	ole:	# of Emerger Modules (Blank) None	-	Emergency Type ⁴ (Blank) None EL ²	
	2					vo o section	OSDIN S5 ² Referen		ADEZ ^{2.3} Advance Mark 10 OSDIM ^{2.3} Osram 0-10V dim S5 ² SIMPLY5 ⁵⁶ Reference Ballast Chart on website or consult factory for other options.		2SE XSE		EN ² EC	
>>														
Switching	3	Lamp	Color		Moun	iting Type		Ove	rall Suspension	Finish		Opti	ons	
	gle circuit al circuit	LP830F LP835F LP841P Referen	No lamp 3000K 80+ CRI 3500K 80+ CRI 4100K 80+ CRI 9 3500K 80+ CRI 9 4100K 80+ CRI 10 410K	Premier Premier vebsite or	F1A F2 F3 F4A	T-bar ceiling (universal mounting bra T-bar ceiling (UMB with integrated J Hard ceiling (horizontal Stem mount IDS clip ¹⁸ / ₁₆ tee IDS clip ² / ₁₆ tee IDS clip screw slot	-box)	12 15 18 21 24 XX	12" overall suspension 15" overall suspension 18" overall suspension 21" overall suspension 24" overall suspension XX" overall suspension	C210 T (I C202 T (I C303 T (I	extured aluminum extured white white low gloss) extured black low gloss) extured red low gloss) extured red low gloss) custom finish	ACG APF BLK CP DL DU ELH ELS	Adjustable cable grippers Alternate power feed Black cord, cord manager and canopies (not avail. w/F3) Chicago plenum (w/F1A only) Damp location label Dust cover EM through wire harness with separate feed EM through wire harness with single feed Normal feed w/EM separate neutra	
2 Not ava	e in 4' increme ailable in 347 v ailable with 287	olt.	2 .	in las Sepa	t 4' of fixt	pe is installed rure sections. required unless dd.				:		GLR GMF MCS NYC OJB	Fast blow fuse Slow blow fuse Matching feed canopy at support New York City code Offset junction box	

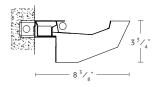


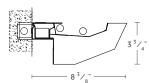


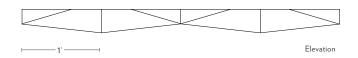
AVAILABLE FIXTURES



☐ OR1W1 - 2







SPECIFICATIONS

Construction

Formed aluminum housing creates a 8 $^3/_8$ " x 3 $^3/_8$ " body and die-cast aluminum end caps mechanically attached with no exposed fasteners.

Reflectors

White, high-reflectance reflector and hammer tone aluminum reflector with prismatic acrylic kicker lens.

Finish

Aluminum powder paint housing with white end caps and joiners OR white, red or black housings with aluminum powder paint end caps and joiners. Consult factory for custom color requirements.

Electrical

Specify 120V, 277V or 347V. Pre-wired with 16AWG fixture wires. Consult factory for special circuiting

or wire gauge. Ballast disconnect plug and cord manager are standard. Plug-in electrical connectors included. UL and C-UL listed.

Fixture Length

4' and 8' nominal fixture sections. Nominal 4' lamp modules are $46\frac{1}{2}$ ". Add $\frac{3}{4}$ " for each end cap to determine total fixture length. Using joiners, 4' and 8' sections can be joined to form longer rows.

ORDERING LOGIC

Fixture OR1W1	# of Lan Cross Se 1 2		Lamp Type 54T5HO 28T5	Nomina Row Le X FT		Maximum Section Length R4 4'section R8 8'section	Voltage 120 277 347	Dimming b ADEZ ^{2,3} OSDIM ^{2,3} S5 ²	And the state of t	# of Emergency Modules (Blank) None 1SE 2SE XSE	Emergency Type ⁴ (Blank) None EL ² EN ² EC	
	J gle circuit al circuit	LP830I LP835F LP841F Referen	Color No lamp 3000K 80+ CRI 3500K 80+ CRI 4100K 80+ CRI 4100K 80+ CRI 2 3000K 80+ CRI 4 4100K 80+ CRI 4 4100K 80+ CRI 6 cc Lamp Charton factory for other op	Premier Premier vebsite or	C210 C202 C303	Textured aluminum Textured white (li Textured black (low glo Textured black (low gloss Custom finish	oss)	DU Dust or ELH EM thr separa ELS EM thr single t ELS2 Norma GLR Fast bl GMF Slow bl	rough wire harness with te feed rough wire harness with	ral		
2 Not ava	e in 4' increme ailable in 347 v ailable with 28]	olt.	4	mergency t d' of fixture s equired unle	ections. S	eparate feed		:				









LIGHT

Peerless is proud to offer Origami with state-of-art LED illumination for use in interior architectural environments.

Origami features an innovative LED light engine designed to deliver L80 performance for 12 to 15 years (or roughly 50,000 hours) of normal use.

Available in three color temperatures, Origami LED luminaires emit remarkably color consistent light by utilizing only LEDs within a narrow color range.







EFFICIENCY

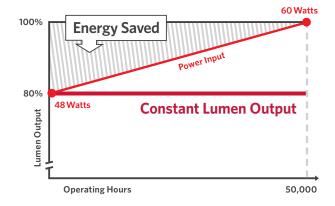
Maximize energy savings and increase system life by specifying Origami LED as nLight®-enabled to provide network controls connectivity, digital lumen management or both.

When the suspended Origami LED model is ordered as nLight-enabled, an embedded nLight nIO module is pre-installed inside the housing. An accessible, topside network port allows for easy CAT-5e "plug and play" connectivity with nLight control and sensor systems. For Origamil LED Wall, a standalone nIO module can be ordered from Sensor Switch.

The digital lumen management options (N80 or LM) deliver constant lumen output, extend the longevity of the LEDs and save roughly 10% in energy use over Origami LEDs lifetime.



Smart is saving energy by specifying an integrated daylight dimming photocell.



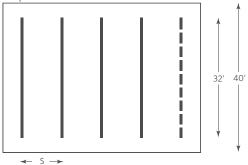




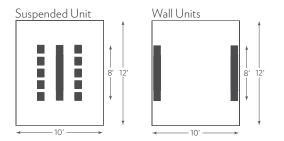
LED PERFORMANCE

CONTINUOUS RUNS IN OPEN OFFICE APPLICATIONS

Suspended Rows:



CONFERENCE ROOM OR PRIVATE OFFICE APPLICATIONS



Calculation Notes:

- 9' ceilings •80/50/20 ceiling/walls/floor reflectance 3500K
- •56-57 input watts .70 LLF (light loss factor) includes:
 - .80 LLD (lamp lumen depreciation)*
 - .95 LDD (luminaire dirt depreciation)
 - .98 RSDD (room surface dirt depreciation)
- 1.0 BF (ballast factor)
- *LLD is based on N80 which maintains LEDs at 80% of maximum lumen output over their lifetime.

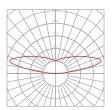
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12' spacing	12"	5	36	7.5:1	.95
	15"	5	36	5.0:1	.95
	18"	5	36	3.3:1	.95
-	24"	5	36	2.2:1	.95
	15"	4	29	8.8:1	.76
acinç	18"	4	29	5.3:1	.76
15' spacing	21"	4	29	3.7:1	.76
ı	24"	4	29	2.8:1	.76

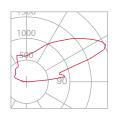
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pendant	4100L	18"	1	19	23	1.6:1	0.95	
ben	LP835	18"	2	35	44	1.6:1	1.9	
wall	3500L LP835	18"	2	29	34	1.5:1	1.87	



LED Suspended – 41L 71-75 lumens per watt 4025-4208 delivered lumens



LED Wall – 35L 61-65 lumens per watt 3425-3643 delivered lumens





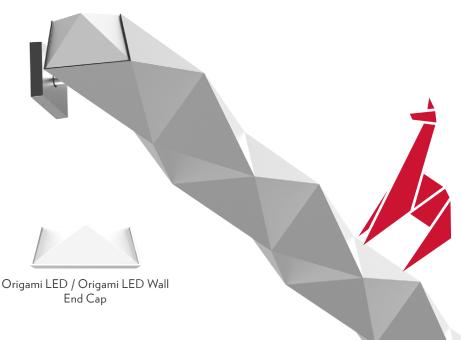
DISTINCTION

Origami LED is an original's original. Though it shares many of the physical attributes and options of its fluorescent counterpart, Origami LED is its own distinct luminaire.

At 5 3/8" wide, the Origami LED housing is slimmer than that of the T5/T5HO body by roughly 3 inches. Origami LED end caps feature a three-facet angular design for both suspended and wall models. When installing Origami LED in continuous runs, luminaires are connected by internal joiners that cannot be seen from the exterior.

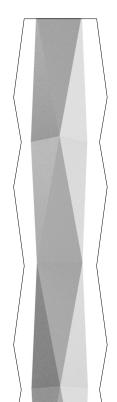
Origami LED Wall extends 7 $^{1}/_{8}$ " from wall surfaces connected by two arms and canopies.

The LED luminaires do, however, share a repeatingevery-one-foot facet design with the standard Origami fluorescent.





Origami LED and Origami LED Wall are narrower than their fluorescent kin.



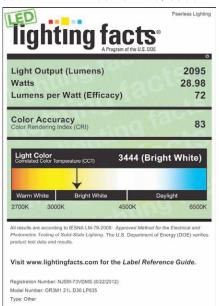


LED LIGHTING FACTS



Lighting Facts labels for Origami LED were issued by the U.S. Department of Energy based on LM-79 photometric test results.

SUSPENDED - 2100 LUMENS, 3500K



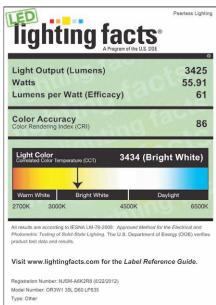
WALL - 1800 LUMENS, 3500K



SUSPENDED - 4100 LUMENS, 3500K



WALL - 3500 LUMENS, 3500K



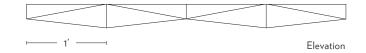




AVAILABLE FIXTURES

☐ OR3M1





SPECIFICATIONS

Construction

Formed aluminum housing creates a 5 $^{1}/_{2}$ " x 3 $^{3}/_{8}$ " body. Formed aluminum end caps are mechanically attached with no exposed fasteners.

Source

Two LED lumen packages (2100 lumens, 4100 lumens) and three available color temperature options (3000K, 3500K and 4000K).

Optics

Optical system consists of injection-molded primary optic and painted metal reflector.

Finish

Aluminum paint housing with gloss white end caps OR gloss white, red or black housing with aluminum paint end caps. Consult factory for custom color requirements.

Controls

Optional nLight-embedded controls allow for constant lumen management (N80) and facilitate simple "plug-and-play" networking and control via CAT-5e cable.

Electrical

LED light engine consists of modular LED boards and 0-10V dimming driver rated for 50,000 hours (L80) at 25° C ambient temperature. Driver input wattage is 30W for 2100 delivered-lumen package and 60W for 4100 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

Environment

Damp location label optional. Ambient operating temperature between 0° C and 25° C.

Luminaire Length

4' and 8' nominal luminaire sections. Add 1" for each end cap to determine total luminaire length. Using joiners, 4' and 8' sections can be joined to form longer rows.

Warranty

Five-year limited warranty includes luminaire construction, LED light engine, driver and optional nLight control device. Terms and conditions apply.

Packaging

Packaging is 100% post-consumer recycled cardboard box. Biodegradable foam insert and protective luminaire bag. Recycled kraft paper tape.

ORDERING LOGIC

	Light Output 21L 2100 nominal delivered-lumens 41L 4100 nominal delivered-lumens	(4' increment	R4 4' section	120 on(s) 277		N maximum (210) N maximum (410)		# of Emergency Modules (Blank) None 1SE 1 section 2SE 2 sections XSE X sections	Emergency Type¹ (Blank) None EC Emergency circuit	••
Switching	Lamp Color	Мои	nting Type /	Overall Suspension	on Finis	h	Options			
SCT Single ci	ircuit LP830 3000K LP835 3500K LP840 4000K	0+ CRI	T-bar ceiling (universal mounting bracket) T-bar ceiling (UMB with integrated J-box) Hard ceiling (horizontal J-box)	24 24" 36 36" 48 48" 72 72" XX XX" Overall suspension is measured from ceiling bottom of luminaire.	C110	(3 /	CP Chic DL Dam ELH ² Eme GLR Fusi GMF Fusi LM 80%	k cord, cord manager and can cago plenum (available with F- np location label ergency through wiring w/sepa ng (fast blow) ing (slow blow) lumen management without ching feed canopy at support	networking	
luminaire se unless ELS o	type is installed in last 4' of ctions. Separate feed requi or ELS2 is specified g control on emergency fee	red F4C/	IDS clip 15/16" tee IDS clip 9/16" tee IDS clip screw slot	socioni of idininane.			N80 nLig N100 nLig OJB Offs SLP Slop	ght nIO with 80% lumen mana ght nIO without lumen manag set junction box	gement per row/zone ement per row/zone e specified with F2, ACG and OJE	3 option

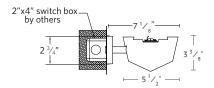


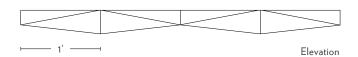




AVAILABLE FIXTURES

OR3W1





SPECIFICATIONS

Construction

Formed aluminum housing creates a 5 1 / $_{2}$ "x 3 3 / $_{8}$ " body. Formed aluminum end caps are mechanically attached with no exposed fasteners.

Source

Two LED lumen packages (1800 lumens, 3500 lumens) and three available color temperature options (3000K, 3500K and 4000K).

Optics

Optical system consists of injection-molded primary optic and painted metal reflectors.

Finish

Aluminum paint housing with white end caps OR white, red or black housing with aluminum paint end caps. Consult factory for custom color requirements.

Electrical

LED light engine consists of modular LED boards and 0-10V dimming driver rated for 50,000 hours (L80) at 25° C ambient temperature. Driver input wattage is 30W for 1800 delivered-lumen package and 60W for 3500 delivered-lumen package per 4' section.

Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

Luminaire Length

4' and 8' nominal luminaire sections. Add 1" for each end cap to determine total luminaire length. Using joiners, 4' and 8' sections can be joined to form longer rows.

Environment

Damp location label optional. Ambient operating temperature between 0° C and 25° C.

Warranty

Five-year limited warranty includes luminaire construction, LED light engine and driver. Terms and conditions apply.

Packaging

Packaging is 100% post-consumer recycled cardboard box. Biodegradable foam insert and protective luminaire bag. Recycled kraft paper tape.

ORDERING LOGIC

Luminaire OR3W1	18L 35L	Output 1800 nominal delivered-lumens 3500 nominal delivered-lumens	Luminaire Row Length XFT (4' increments)	Maximum Section Length R4 4' section(s) R8 8' section(s)	Voltage 120 277	Driv D30 D60	er 30W maximum (1800L package) 60W maximum (3500L package)	# of Emergency Modules (Blank) None 1SE 1 section 2SE 2 sections XSE X sections	Emergency Type¹ (Blank) None EC Emergency circuit			
**	>>											
Switching		Lamp Color		Finish			Options					
SCT Single circuit LP830 3000K 80+ CRI LP835 3500K 80+ CRI LP840 4000K 80+ CRI			C110 Textured aluminu C210 Textured white wl C202 Textured black (lo C303 Textured red (low C099 Custom finish	nite (low gloss) ow gloss)	ELH² GLR GMF	Damp location label Emergency through wiring w/separate f Fusing (fast blow) Fusing (slow blow) 80% lumen management without netwo						
Notes: 1 Emergency type is installed in last 4' of luminaire sections. Separate feed required unless ELS or ELS2 is specified 2 No dimming control on emergency feed			l									



