Lusio Essentials Series - Performance Line

6 LED MODULES (6M)



Fixture shown with optional cable kit. (sold separately)

ABOUT THE PRODUCT

From the award-winning Essentials family of LED fixtures, the *Performance Line* delivers superior performance, quality and versatility for high bay applications. With up to 155 lm/W efficacy and up to 70% lower power consumption compared to traditional fluorescent and HID light sources, these fixtures from Flextronics Lighting Solutions are designed to lower your total cost of ownership (TCO). Dedicated heat sinks ensure superior performance and extended useful life.

INTENDED USE

Manufacturing, Aircraft Hangars, Warehouses, Convention Centers and Other Large Indoor Spaces							
Target	Comparable	Reduction in Power Consumption					
Mounting Heights	Traditional Light Source	over Traditional Light Source					
20-40 Feet (6-12m)	8-Lamp T5HO or 750W Metal Halide	45-67%					

FIXTURE PERFORMANCE

		Y		
	WATTAGE ¹	LUMENS ¹	EFFICACY ¹	CRI ²
CA - CLEAR LENS				
4000K, LV	256	36,566	143	80
4000K, HV	257	37,257	145	80
5000K, LV	260	40,140	152	80
5000K, HV	257	40,140	156	80
FP - FROSTED LENS	5			
4000K, LV	256	33,232	130	80
4000K, HV	257	33,860	132	80
5000K, LV	258	36,480	142	80
5000K, HV	258	36,480	142	80

 $^{^{1}}$ Typical at 120V and 77°F (25°C). $\,^{2}$ Typical CRI.

DIMENSIONS

in (cm) • lb (kg)

LENGTH ¹	WIDTH ¹	DEPTH ¹	WEIGHT	WEIGHT WITH BATTERY BACK-UP
43-5/8 (110.8)	18-3/4 (47.6)	2-1/4 (5.7)	18 (8.1)	28 (12.7)

 $^{^{1}}$ Dimensions listed are for the fixture only. See dimensional drawings for measurements with mounting hardware

TOTAL HARMONIC DISTORTION

	LV	HV
120V	5.1%	8.1%
277V	11.6%	9.7%
347V	5.1%	8.1%
480V	11.6%	9.7%

POWER FACTOR

	LV	HV
120V	1.00	0.99
277V	0.95	0.98
347V	1.00	0.99
480V	0.95	0.98

FEATURES & SPECIFICATIONS

POWER AND CONTROL

- **POWER INPUT:** 120-480V (50/60Hz)
- **DIMMING:** 0-10V dimming standard. Capable of dimming down to 10%.
- OCCUPANCY SENSORS: Optional factory installed occupancy sensors are available. See accessories for ordering information.
- EMERGENCY BATTERY BACK-UP (EMB): Ordered separately as optional accessory, EMB is available, producing 2000-2200 lumens for a minimum of 90 minutes. Fixtures are manufactured EMB ready and EMB is installed in the field.

LUMEN MAINTENANCE

• L70 LIFE: 95% lumen maintenance at 60,000 hours (77°F/25°C ambient); L70 predicted life is more than 200,000 hours.

FIXTURE

- **ENVIRONMENT:** Dry/Damp. For interior applications (IP30).
- HEAT SINKS: Extruded aluminum heat sinks provide optimal thermal management, decreasing LED junction temperature and ensuring long life.
- POWER SUPPLY ACCESS: Center channel cover is hinged for easy access to power supplies and quick wiring.
- MOUNTING: Fixture is cable ready and has a center opening to accept a 3/4" stem mount. Cable, stem or surface mount options.
- LENSES: UV stable clear or frosted polymeric material. Consult chemical resistance chart for guidance in selecting appropriate lens for your application.
- WIRE GUARDS: Optional wire guards can be field installed. See accessories for ordering information.
- WARRANTY: Limited 5-year warranty.
- AMBIENT OPERATING TEMPERATURES: (Refer to ordering guide.)
 CRM and HOOK fixtures: -41° to 131°F (-40° to 55°C)
 MBR and EMB fixtures: -31° to 122°F (-35° to 50°C)
 (Temperatures below -20°C have limited switch cycles. Consult factory for details.)

LISTINGS AND CERTIFICATIONS

- UL | cUL listed for safety (UL 1598)
- UL | cUL dry/damp location listed
- UL | CSA UL 1598 and CSA C22.2 No. 250.0
- FCC Class B
- U.S. Department of Energy Lighting Facts Partner
- DesignLights[™] Consortium Approved













Lusio® Essentials Series - Performance Line 6 LED MODULES (6M)

ORDERING EXAMPLE:

ES3P-UL-6M-50-WIDE-CA-LV-CRM-10V-OCCN-CORDN-EMBN

ES3P	UL	6M		WIDE	
SERIES	COMPLIANCE	MODEL	— COLOR TEMP	DISTRIBUTION	LENS
ES3P Essentials Series - Performance Line	UL UL Listed	6M 6 Modules	40 4000K	WIDE Wide Distribution	CA Clear Acrylic Lens
renormance Line			50 5000K		FP Frosted Polycarbonate Lens
		10V			
VOLTAGE	MOUNTING	DIMMING	OCC SENSORS	CORD & PLUG	BATTERY BACK-UP
LV 120-277V HV 347-380V	CRM ⁶ Cable-ready (standard) and has center opening to accept a 3/4" stem. MBR ¹ Field installed mounting kit, including fixture mounting box and bracket for surface mount applications HOOK ¹ Field installed mounting kit, including fixture mounting box with hook, fixture mounting box with hook, fixture mounting bracket, and one pair of leveling cables. For hook/loop applications	10V 0-10V Interface (standard)	OCCN No Sensor (standard) OCC201.2 Occ Sensor, on/off 20' Mounting Height OCC401.2 Occ Sensor, on/off 40' Mounting Height OCCDIM201.4.5 Occ Sensor, dimmable 20' Mounting Height OCCDIM401.4.5 Occ Sensor, dimmable 40' Mounting Height OCCDIM401.4.5 Occ Sensor, dimmable 40' Mounting Height DAINTR1.3,4,8,10 Fixture is factory-wired for easy integration of Daintree Wireless controls	CORDN No cord/plug (standard) C6W ^{1,9} 6ft cord, 15A, no plug C15W ^{1,9} 15ft cord, 15A, no plug C515 ^{1,9} 6ft cord, 15A, straight plug 120V (5-15P) CL515 ^{1,9} 6ft cord, 15A, locking plug 120V (L5-15P) CL715 ^{1,9} 6ft cord, 15A, locking plug 120V (L7-15P) CL710 ^{1,9} 6ft cord, 15A, locking plug 277V (L7-20P)	EMBN No emergency battery back-up (standard) EMBR ^{1, 4, 7, 10} Fixture is EMB-Ready, with test button, indicator lamp and wiring harness factory installed
ntact factory for pricing and lead intree options do not include Dai nsult Daintree for more informati- tional add-on available in 120-27 reless programmer required for fir tional CABLEKIT ordered separate	High voltage options available as special order v time. ntree ControlScope Software TM , wireless connec on and ordering assistance. 7V only. nal field setup. See ACCESSORIES.	-	ld commissioning.	CL2420 ^{1,9} 6ft cord, 20A, locking plug 347V (L24-20P) CL820 ^{1,9} 6ft cord, 20A, locking plug 480V (L8-20P)	

⁷ Field installed EMB KIT must be ordered with this option. See ACCESSORIES.

8 Field installed Daintree Wireless Control kit must be ordered with this option. See ACCESSORIES.

ACCESSORIES: Must be ordered separately. Packaged separately.

Туре	Part Number	Description
CABLE KIT	CABLEKIT	Kit includes 10 ft Gripple aircraft "Y" cables and snap hooks (one pair).
SAFETY CABLE	SAFETYCABLE	Kit includes (one) 5 ft Gripple aircraft cable with single snap hook.
WIRELESS PROGRAMMER FOR	OCCUMPNOC	Handheld wireless programmer for setup OCCDIMXX dimmable occupancy sensors.
DIMMABLE OCCUPANCY SENSOR(S)	OCCDIMPROG	Required with OCCDIM20 and OCCDIM40 selection.
DAINTREE WIRELESS	ES3-DAINT	Kit includes Daintree Wireless Fixture Adapter, wiring harness and screws.
CONTROL KITS	ES3-DAINTOCC	Kit includes Daintree Wireless Controller with integral occupancy sensor and (2) lens options (20' or 40' ceiling height).
WIREGUARDS	ES3-WG-XX	Wire guard protects LED modules from impact. Kit includes mounting hardware.
		XX = Indicate fixture model (Ex. 2MS, 2M. 4MS, 4M, 6MS, 6M).
	ES3-PS-UL-LV-75W	Field replaceable power supply, 120/277V, 75W, for 2MS model only.
REPLACEMENT POWER SUPPLY	ES3-PS-UL-LV-150W	Field replaceable power supply, 120/277V, 150W, for 2M, 4M, 4MS, 6M, and 6MS models.
REPLACEIVIEINT POWER SUPPLY	ES3-PS-UL-HV-75W	Field replaceable power supply, 347/480V, 75W, for 2MS model only.
	ES3-PS-UL-HV-150W	Field replaceable power supply, 347/480V, 150W, for 2M, 4M, 4MS, 6M, and 6MS models.
EMERGENCY BATTERY BACKUP KIT	ES3-EMBLV	Emergency battery backup suitable for a minimum 90 minutes of emergency operation, when normal power is unexpectedly interruped. Required with "EMBR" selection.

⁹All cords are 16/3 AWG, 600V, and white.

 $^{^{\}rm 10}\textsc{Consult}$ factory for orders requiring DAINTR and EMBR.

CLEAR ACRYLIC LENS

DESCRIPTION

Wide distribution maximizes spacing, provides high uniformity and LED protection. Typically used for mounting heights of 20-40 feet (6-12m).

FIXTURE DATA

Part Number: ES3P-UL-6M-50-WIDE-CA

CCT: 5000K, LV

Fixture Lumen Output: 40,140 lm

Fixture Wattage: 260W

Fixture Efficacy Rating: 154lm/W

Spacing Criteria

Diagonal

Lateral Plane 0°-180° 90°-270°

1.30 1.34

CCT LIGHT OUTPUT CONVERSIONS

4000K, LV: 0.911 4000K, HV: 0.928 5000K, LV: 1.000 5000K, HV: 1.000

Test date: 29-JANUARY-2015

Tests done in accordance with LM79. Consult factory for LM79

and IES files.

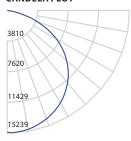
ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0° - 30°	12014	30%
0° - 40°	19954	50%
0° - 60°	35133	88%
0° - 90°	40140	100%
0° - 180°	40140	100%

CANDELA DISTRIBUTION ARRAY

		0°	45°	90°
_	0°	15220	15220	15220
AVERAGE LUMINANCE	10°	15024	14979	14985
Ã	20°	14338	14351	14370
E	30°	13235	13325	13567
Ĭ	40°	11684	12040	11698
Ã	50°	9629	9653	9168
Œ	60°	7003	6484	2945
: ANGLE	70°	3872	1336	882
E	80°	985	289	334
	90°	0	0	0

CANDELA PLOT



COEFFICIENTS OF UTILIZATION

	RC 80				7	0			50			30			10		0		
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
	1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
	2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
	3	93	83	75	69	90	81	74	69	78	73	68	76	71	66	73	69	65	63
	4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
RCR	5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
20	6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
	7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
	8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
	9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
	10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

RCR=Room Cavity Ratio RC=Effective Ceiling Cavity Reflectance RW=Wall Reflectance Effective Floor Cavity Reflectance = 20%

FROSTED POLYCARBONATE LENS

DESCRIPTION

Semi-diffused frosted lens provides glare control and LED protection. Typically used for mounting heights of 20-40 feet (6-12m).

FIXTURE DATA

Part Number: ES3P-UL-6M-50-WIDE-FP

CCT: 5000K,LV

Fixture Lumen Output: 36,480 lm

Fixture Wattage: 258W

Fixture Efficacy Rating: 142 lm/W

Spacing Criteria

Diagonal

Lateral Plane 0°-180° 90°-270°

1.24

CCT LIGHT OUTPUT CONVERSIONS 4000K, LV: 0.911

4000K, HV: 0.928 5000K, LV: 1.000 5000K, HV: 1.000

Test date: 29-JANUARY-2015

Tests done in accordance with LM79. Consult factory for LM79

and IES files.

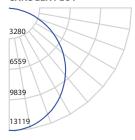
ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0° - 30°	10085	28%
0° - 40°	16460	45%
0° - 60°	28936	79%
0° - 90°	36480	100%
0° - 180°	36480	100%

CANDELA DISTRIBUTION ARRAY

		0°	45°	90°	
_	0°	13096	13096	13096	
ΑVE	10°	12800	12802	12868	
RAG	20°	12043	12038	12090	
Ë	30°	10920	10911	10930	
≧	40°	9393	9373	9365	
AVERAGE LUMINANCE ANGLE	50°	7599	7589	7561	
Ē	60°	5576	5566	5513	
ΑNO	70°	3425	3404	3343	
Ë	80°	1391	1360	1331	
	90°	0	0	0	

CANDELA PLOT

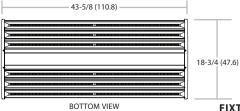


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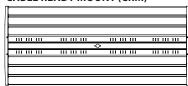
	RC	C 80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
	1	109	104	100	96	106	102	98	95	98	94	91	94	91	89	90	88	86	84
	2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
	3	90	80	71	65	88	78	70	64	76	69	63	72	67	62	70	65	61	59
	4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50
	5	76	63	54	47	74	62	53	47	60	52	47	58	51	46	56	50	46	43
	6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
	7	65	51	43	37	63	51	42	36	49	42	36	48	41	36	46	40	36	34
	8	60	47	38	33	59	46	38	32	45	38	32	44	37	32	42	36	32	30
	9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
	10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

RCR=Room Cavity Ratio RC=Effective Ceiling Cavity Reflectance RW=Wall Reflectance Effective Floor Cavity Reflectance = 20%

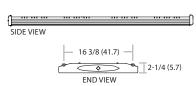
DIMENSIONS: in (cm)



CABLE READY MOUNT (CRM)



TOP VIEW



FIXTURE MOUNTING BOX (MBR) or (EMB)

