



Fixture shown with optional cable kit.
(sold separately)

ABOUT THE SERIES

The award winning Lusio® Essentials Series is a family of high efficacy LED fixtures for high and medium bay applications that provide premium performance, quality and versatility. With nearly 50% lower power consumption compared to traditional fluorescent and HID light sources, these fixtures are designed to lower your total cost of ownership (TCO). Separated finned aluminum heat sinks promote heat transfer from the LEDs and extend their useful life.

INTENDED USE

Manufacturing, Aircraft Hangars, Warehouses, Convention Centers and Other Large Indoor Spaces		
Target Mounting Heights	Comparable Traditional Light Source	Reduction in Power Consumption over Traditional Light Source
20-40 Feet (6-12m)	2-Lamp T5HO, 4-Lamp T8 or 175W Metal Halide	40%

FIXTURE PERFORMANCE

	WATTAGE ¹	LUMENS ¹	EFFICACY ¹	CRI ²
NL - NO LENS				
4000K/5000K	60	6,467	106	75
CA - CLEAR ACRYLIC LENS				
4000K/5000K	60	6,422	106	75
FP - FROSTED POLYCARBONATE LENS				
4000K/5000K	61	5,807	95	75

¹ Typical at 120V and 77°F (25°C). ² Typical CRI.

DIMENSIONS

INS (CMS) • LBS (KGS)

LENGTH ¹	WIDTH ¹	DEPTH ¹	WEIGHT	WEIGHT WITH BATTERY BACK-UP
23-1/4 (59.1)	9-3/4 (24.8)	2-1/4 (5.7)	8 (3.6)	12 (5.4)

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

POWER FACTOR

120V	0.990
277V	0.881
347V	0.972
480V	0.923

TOTAL HARMONIC DISTORTION

120V	9.7%
277V	15.9%
347V	14.8%
480V	17.2%

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 ordering information.
- **EMERGENCY BATTERY BACK-UP:** For 120-277V fixtures only, optional factory installed battery back-ups are available that produce 1,900-2,100 lumens for a minimum of 90 minutes.

LUMEN MAINTENANCE

- **L70 LIFE:** 90% lumen maintenance at 70,000 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 1/2" stem mount. Cable, stem or surface mount options.
- **LENSES:** Recommended UV stable clear acrylic or frosted polycarbonate. Also available without a lens. Consult acrylic/polycarbonate chemical resistance chart for guidance in selecting the appropriate lensing material for your application.
- **WIRE GUARDS:** Optional wire guards can be field installed. See accessories ordering information.
- **WARRANTY:** Limited 5-year warranty.
- **AMBIENT OPERATING TEMPERATURES:** Cable, Loop/Hook, and Stem Mounted Fixtures -31° to 131°F (-35° to 55°C)
Fixtures with Emergency Battery Back-ups and Surface Mounted Fixtures -31° to 122°F (-35° to 50°C)

LISTINGS AND CERTIFICATIONS

- UL | cUL listed for safety (UL 1598)
- UL | cUL dry/damp location listed
- RoHS Compliant
- FCC Class B
- Lighting Facts (U.S. Department of Energy) Certified
- DesignLights™ Consortium Approved



ORDERING EXAMPLE:

ES2-UL-2MS-40-WIDE-CA-CRM-120-10V-OCCN-CORDN-EMBN

ES2	UL	2MS		WIDE	
SERIES	COMPLIANCE	MODEL	COLOR TEMP	DISTRIBUTION	LENS
	UL UL Listed	2MS 2 Modules Short	40 4000K 50 5000K	WIDE Wide Distribution	CA Clear acrylic lens FP Frosted polycarbonate lens NL No lens
		10V			
MOUNTING	VOLTAGE	DIMMING	OCC SENSORS	CORD & PLUG	BATTERY BACK-UP
CRM Fixture is cable-ready and has a center opening to accept a 1/2-inch stem mount.	120 120V	10V 0-10V Interface	OCCN No OCC Sensor	CORDN No cord. No plug	EMBN No EMB
MBR¹ Kit includes bracket for surface or stem mounting. Attaches to junction box for surface mounting. Accepts 3/4" rigid conduit for single-point stem mounting.	208 208V		OCC20¹ 20' Mounting Heights	C6W¹ 6ft cord, 15A, no plug	EMB¹ Emergency battery back-up for a minimum of 90 minutes when power is interrupted. Test button and MBR features are included with EMB.
HOOK¹ Hook for 1/2" opening in center channel of fixture and one pair of cables for leveling.	220 220V		OCC40¹ 40' Mounting Heights	C15W¹ 15ft cord, 15A, no plug	
	240 240V		OCCDIM20¹ 20' Mounting Heights	C515¹ 6ft cord, 15A, straight plug 120V (5-15P)	
	277 277V		OCCDIM40¹ 40' Mounting Heights	CL515¹ 6ft cord, 15A, locking plug 120V (L5-15P)	
	347 347V			CL715¹ 6ft cord, 15A, locking plug 277V (L7-15P)	
	480 480V			CL720¹ 6ft cord, 20A, locking plug 277V (L7-20P)	
				CL2420¹ 6ft cord, 20A, locking plug 347V (L24-20P)	
				CL820¹ 6ft cord, 20A, locking plug 480V (L8-20P)	
	<i>Note: If specific voltage is unknown, select 120 for low voltage and 480 for high voltage.</i>		<i>Note: Dimmable occupancy sensors only available for 120-277V and require a Wireless Programmer for set up. See accessories.</i>		<i>Note: EMB only available for 120-277V.</i>

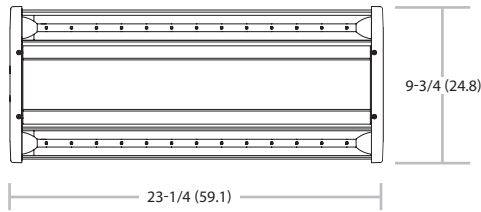
¹Optional add-on. See price list for pricing.

ACCESSORIES: Must be ordered separately. Packaged separately.

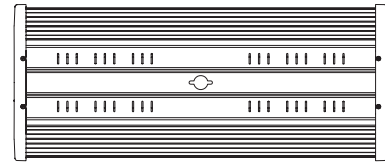
Type	Part Number	Description
WIRELESS PROGRAMMER FOR DIMMABLE OCCUPANCY SENSOR(S)	OCCDIMPROG	Handheld wireless programmer required to setup 120-277V dimmable occupancy sensor(s).
CABLE KIT	CABLEKIT	Kit includes 10 ft Gripple aircraft cable and "Y" snap hook (one pair).
CABLE KIT	SAFETYCABLE	Kit includes 5 ft Gripple aircraft cable with single snap hook.
WIRE GUARDS	ES2-WG-2MS	Wire guard protects light modules from impact. Kit includes mounting hardware.

DIMENSIONS: INS (CMS)

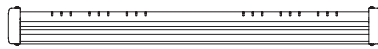
BOTTOM VIEW



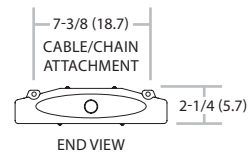
TOP VIEW



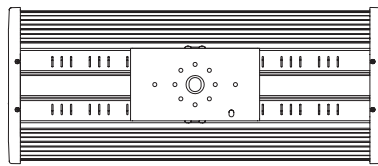
CABLE READY MOUNT (CRM)



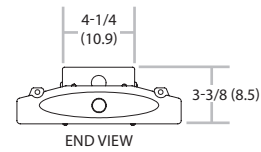
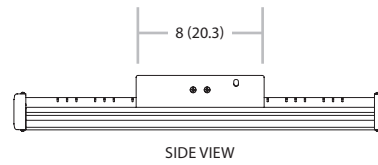
SIDE VIEW



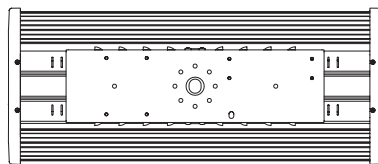
WITH OPTIONAL MBR FOR SURFACE/STEM MOUNT



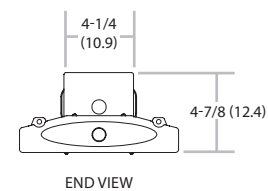
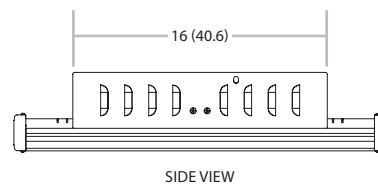
TOP VIEW



WITH OPTIONAL MBR FOR EMERGENCY BATTERY BACK-UP



TOP VIEW



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: ES2-UL-2MS-50-WIDE-CA
CCT: 5000K

Fixture Lumen Output: 6,422 lms

Fixture Wattage: 60.8W

Fixture Efficacy Rating: 106 lm/W

Spacing Criteria

Diagonal	1.46	
Lateral Plane	0°-180°	90°-270°
	1.3	1.3

CCT LIGHT OUTPUT CONVERSIONS

4000K: 1.00
Test date: 28-JUNE-2013
Tests done in accordance with LM79. Consult factory for LM79 and IES files.

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0° - 30°	1,727.9	28.8%
0° - 40°	2,884.6	48.1%
0° - 60°	5,217.4	87%
0° - 90°	6,000.1	100%
0° - 180°	6,000.1	100%

CANDELA DISTRIBUTION ARRAY

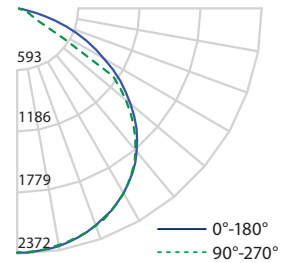
	0°	45°	90°
0°	2362	2362	2362
10°	2331	2327	2324
20°	2229	2236	2236
30°	2060	2082	2062
40°	1801	1837	1784
50°	1438	1465	1378
60°	982	954	204
70°	509	112	113
80°	87	42	41
90°	20	20	20

COEFFICIENTS OF UTILIZATION

RC	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		
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73		
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62	62		
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54	54		
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46	46		
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41	41		
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36	36		
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32	32		
9	58	45	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29	29		
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26	26		

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

CANDELA PLOT



Clear acrylic lens

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: ES2-UL-2MS-50-WIDE-FP
CCT: 5000K

Fixture Lumen Output: 5,807 lms

Fixture Wattage: 61W

Fixture Efficacy Rating: 95 lm/W

Spacing Criteria

Diagonal	1.24	
Lateral Plane	0°-180°	90°-270°
	1.14	1.16

CCT LIGHT OUTPUT CONVERSIONS

4000K: 1.00
Test date: 28-JUNE-2013
Tests done in accordance with LM79. Consult factory for LM79 and IES files.

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0° - 30°	1,853.3	32%
0° - 40°	2,919.5	50%
0° - 60°	4,693.0	81%
0° - 90°	5,806.8	100%
0° - 180°	5,806.8	100%

CANDELA DISTRIBUTION ARRAY

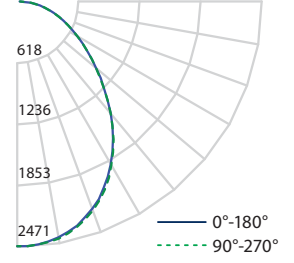
	0°	45°	90°
0°	2,466	2,466	2,466
10°	2,396	2,413	2,422
20°	2,191	2,222	2,239
30°	1,852	1,893	1,907
40°	1,429	1,467	1,471
50°	1,017	1,043	1,041
60°	689	707	707
70°	438	452	457
80°	227	234	245
90°	19	24	31

COEFFICIENTS OF UTILIZATION

RC	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		
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84	84		
2	100	91	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71	71		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61		
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52	52		
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46	46		
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41	41		
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36	36		
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33	33		
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	30	30		
10	55	42	34	29	54	41	34	29	41	34	29	40	33	29	39	33	29	27	27		

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

CANDELA PLOT



Frosted polycarbonate lens

NO LENS

DESCRIPTION

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

FIXTURE DATA

Part Number: ES2-UL-2MS-50-WIDE-NL
CCT: 5000K

Fixture Lumen Output: 6,467 lms

Fixture Wattage: 60.8W

Fixture Efficacy Rating: 106 lm/W

Spacing Criteria

Diagonal	1.48	
Lateral Plane	0°-180°	90°-270°
	1.3	1.3

CCT LIGHT OUTPUT CONVERSIONS

4000K: 1.00
Test date: 28-JUNE-2013
Tests done in accordance with LM79. Consult factory for LM79 and IES files.

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0° - 30°	1862.48	28.8%
0° - 40°	3109.21	48.1%
0° - 60°	5623.54	87.0%
0° - 90°	6467.13	100%
0° - 180°	6467.13	100%

CANDELA DISTRIBUTION ARRAY

	0°	45°	90°
0°	2,329	2,329	2,329
10°	2,294	2,289	2,283
20°	2,193	2,190	2,203
30°	2,026	2,043	2,037
40°	1,781	1,822	1,792
50°	1,451	1,505	1,450
60°	1,039	1,078	210
70°	627	102	106
80°	114	59	60
90°	21	21	21

COEFFICIENTS OF UTILIZATION

RC	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		
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73		
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62	62		
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54	54		
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46	46		
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41	41		
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36	36		
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32	32		
9	58	45	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29	29		
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26	26		