

**LED**

create**change**



**PROJECT INFORMATION**

Project Name \_\_\_\_\_

Type \_\_\_\_\_

Catalog No. \_\_\_\_\_

Date \_\_\_\_\_

**FEATURES**

- Quick and simple aircraft cable hanging system or pendant mount bracket available
- Long-life, 60,000 hour LEDs at L80 reduce life cycle maintenance costs
- Four LED color choices and 83 CRI
- Diffuse Wrap Lens available
- Utilizes TIR directional linear optics for optimal aisle lighting performance
- Available in narrow or wide distribution
- Fixed output or 0-10V dimming drivers; 1% dimming optional
- Drivers include minimum 2.5kV surge protection
- ControlScope® compatible
- Easy access to LED boards and drivers
- CSA listed and suitable for damp locations
- Available with factory installed On/Off or Dimming Occupancy Sensors with wide or aisle lens option
- DLC® (DesignLights Consortium) Qualified - see [www.designlights.org](http://www.designlights.org)
- Five year warranty

**CONSTRUCTION**

Luminaire housing, and end caps are die-formed code-gauge cold-rolled steel. LED modules mounted to housing surface and drivers mounted in separate compartment to minimize heat.

**FINISH**

All metal parts processed with a multi-stage phosphate bonding treatment and finished with a high reflectance baked white enamel.

**SHIELDING**

TIR-LAL optics available for aisle distribution. Acrylic lens available for wide distribution to minimize glare.

**MOUNTING**

Fixture must be suspended a minimum of 22" from solid surface. Mounting options include 2 point aircraft cable, 4 point hook and cable or bracket for pipe/pendant hanger. Recommended mounting heights of 12' to 30' for optimum performance.

**PERFORMANCE**

LWS provides high efficacy, reduced input wattage compared to HID or fluorescent while also providing exceptional lighting quality needed in industrial and retail applications.

**CERTIFICATION**

All luminaires are built to UL 1598 and 2108 standards, and bear appropriate CSA labels. Damp location labeling is standard. Emergency equipped fixtures labeled UL924. Adheres to LM79, LM80 and TM21 industry standards. DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at [www.designlights.org](http://www.designlights.org).

**WARRANTY**

Five year-warranty standard. (Terms and Conditions Apply). Additional terms negotiable.

**ORDERING INFORMATION**

**EXAMPLE LWS-40HL-AC-EDU-SFA**

LWS - - - - -						
MODEL	COLOR TEMP	LUMEN OUTPUT	DISTRIBUTION	DRIVER	VOLTAGE	OPTIONS
LWS LED Suspended High Bay	30 3000K 35 3500K 40 4000K 50 5000K	LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen XL Xtra High Lumen	AC Aisle-Clear Optics AD Aisle-Diffuse Optics W Wide (SFA option recommended with W distribuion)	E Fixed Output ED 0-10V Dimming ED1 0-10V Dimming to 1% <sup>1,2</sup>	U 120V-277V 347 347V 480 480V	<b>C6TL15</b> 6' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277) <b>C6TL20</b> 6' Cord and Twist-Lock™ Plug 20A (Add Voltage 1=120, 2=277) <b>C6P151</b> 6' Cord and Straight Blade Plug 15A (Add Voltage: 1=120V, 2=277V) <b>F3CX</b> 3-Conductor Cord (add length for X: 5=5', 10=10', 15=15') <b>F4CX</b> 4-Conductor Cord (add length for X: 5=5', 10=10', 15=15') <b>F5CX</b> 5-Conductor Cord (add length for X: 5=5', 10=10', 15=15') <b>ELL14</b> Emergency Battery Pack Installed, 1400 Lumens <sup>2,3</sup> <b>SFA</b> Smooth Frosted Acrylic Wrap Lens <b>GLR</b> Fast Blow Fuse <b>PM</b> Pendant Mounting Bracket 3/4" (pendant not included) <b>OS1360</b> Factory Installed Occupancy/Daylight, Sensor, 1-relay, 360° lens 120/277 <b>OS2360</b> Factory Installed Occupancy/Daylight, Sensor, 2-relay, 360° lens 120/277 <b>OS1A</b> Factory Installed Occupancy/Daylight Sensor, 1-relay, Aisle lens, 120/277 <b>OS2A</b> Factory Installed Occupancy/Daylight Sensor, 2-relay, Aisle lens, 120/277 <b>ODS1360</b> Factory Installed Dimming Occupancy/Daylight Sensor, 1-relay, 360° lens 120/277 <b>ODS1A</b> Factory Installed Dimming Occupancy/Daylight Sensor, 1-relay, Aisle lens 120/277 <b>ZRE</b> ControlScope® compatible <sup>5</sup>
<b>ACCESSORIES (ORDER SEPARATELY)</b> <b>LWSQM5</b> Aircraft Cable 5' (Pair) <b>LWSQM10</b> Aircraft Cable 10' (Pair) <b>C6TL15-120</b> Cord & Plug Kit, 6 ft, Twist Lock NEMA L5-15P, 15 amp, 120V, White <b>C6TL15-277</b> Cord & Plug Kit, 6 ft, Twist Lock NEMA L7-15P, 15 amp, 277V, White <b>C6P15-120</b> Cord & Plug Kit, 6 ft, Straight Blade NEMA 5-15P, 15 amp, 120V, White <b>LWS-WG</b> Wire Guard, white, field installed						

<sup>1</sup> ED1 available with LW and HL only  
<sup>2</sup> Not available in 347V or 480V  
<sup>3</sup> For compatibility with Dual-Lite LiteGear® inverters, contact Hubbell Lighting Representative  
<sup>4</sup> Only available with 0-10V Dimming (ED, ED1) Driver Options.  
<sup>5</sup> Registered trademark of Daintree Networks, used by permission.  
 For questions about configuration options, contact Hubbell Representative



Product Availability						
Lumen Package	Distribution	Optics	Lens	Lumens	Watts	LPW
LWS-30LW-AD-EU	Aisle	Diffuse		7,361	58.8	125.2
LWS-30LW-AC-EU	Aisle	Clear		7,575	59.2	128.0
LWS-30LW-W-EU-SFA	Wide		SFA	7,367	59.2	124.4
LWS-30LW-W-EU	Wide			7,909	58.8	134.5
LWS-35LW-AD-EU	Aisle	Diffuse		7,611	58.8	129.4
LWS-35LW-AC-EU	Aisle	Clear		7,833	59.2	132.3
LWS-35LW-W-EU-SFA	Wide		SFA	7,618	59.2	128.7
LWS-35LW-W-EU	Wide			8,178	58.8	139.1
LWS-40LW-AD-EU	Aisle	Diffuse		7,729	58.8	131.4
LWS-40LW-AC-EU	Aisle	Clear		7,954	59.2	134.4
LWS-40LW-W-EU-SFA	Wide		SFA	7,736	59.2	130.7
LWS-40LW-W-EU	Wide			8,304	58.8	141.2
LWS-50LW-AD-EU	Aisle	Diffuse		7,935	58.8	134.9
LWS-50LW-AC-EU	Aisle	Clear		8,166	59.2	137.9
LWS-50LW-W-EU-SFA	Wide		SFA	7,942	59.2	134.2
LWS-50LW-W-EU	Wide			8,526	58.8	145.0
LWS-30ML-AD-EU	Aisle	Diffuse		10,964	82.8	132.4
LWS-30ML-AC-EU	Aisle	Clear		11,241	82.7	135.9
LWS-30ML-W-EU-SFA	Wide		SFA	10,914	82.8	131.8
LWS-30ML-W-EU	Wide			11,812	82.9	142.5
LWS-35ML-AD-EU	Aisle	Diffuse		11,337	82.8	136.9
LWS-35ML-AC-EU	Aisle	Clear		11,623	82.7	140.5
LWS-35ML-W-EU-SFA	Wide		SFA	11,285	82.8	136.3
LWS-35ML-W-EU	Wide			12,214	82.9	147.3
LWS-40ML-AD-EU	Aisle	Diffuse		11,512	82.8	139.0
LWS-40ML-AC-EU	Aisle	Clear		11,803	82.7	142.7
LWS-40ML-W-EU-SFA	Wide		SFA	11,459	82.8	138.4
LWS-40ML-W-EU	Wide			12,403	82.9	149.6
LWS-50ML-AD-EU	Aisle	Diffuse		11,819	82.8	142.7
LWS-50ML-AC-EU	Aisle	Clear		12,117	82.7	146.5
LWS-50ML-W-EU-SFA	Wide		SFA	11,765	82.8	142.1
LWS-50ML-W-EU	Wide			12,734	82.9	153.6
LWS-30HL-AD-EU	Aisle	Diffuse		13,683	112.2	122.0
LWS-30HL-AC-EU	Aisle	Clear		14,081	112.3	125.4
LWS-30HL-W-EU-SFA	Wide		SFA	13,064	112.2	116.4
LWS-30HL-W-EU	Wide			14,813	112.5	131.7
LWS-35HL-AD-EU	Aisle	Diffuse		14,148	112.2	126.1
LWS-35HL-AC-EU	Aisle	Clear		14,560	112.3	129.6
LWS-35HL-W-EU-SFA	Wide		SFA	13,508	112.2	120.4
LWS-35HL-W-EU	Wide			15,317	112.5	136.1
LWS-40HL-AD-EU	Aisle	Diffuse		14,367	112.2	128.0
LWS-40HL-AC-EU	Aisle	Clear		14,785	112.3	131.7
LWS-40HL-W-EU-SFA	Wide		SFA	13,717	112.2	122.3
LWS-40HL-W-EU	Wide			15,554	112.5	138.3
LWS-50HL-AD-EU	Aisle	Diffuse		14,750	112.2	131.5
LWS-50HL-AC-EU	Aisle	Clear		15,179	112.3	135.2
LWS-50HL-W-EU-SFA	Wide		SFA	14,083	112.2	125.5
LWS-50HL-W-EU	Wide			15,968	112.5	141.9

Product Availability						
Lumen Package	Distribution	Optics	Lens	Lumens	Watts	LPW
LWS-30VL-AD-EU	Aisle	Diffuse		16,680	136.9	121.8
LWS-30VL-AC-EU	Aisle	Clear		17,059	137	124.5
LWS-30VL-W-EU-SFA	Wide		SFA	16,740	136.7	122.5
LWS-30VL-W-EU	Wide			18,099	137.1	132.0
LWS-35VL-AD-EU	Aisle	Diffuse		17,247	136.9	126.0
LWS-35VL-AC-EU	Aisle	Clear		17,639	137	128.8
LWS-35VL-W-EU-SFA	Wide		SFA	17,309	136.7	126.6
LWS-35VL-W-EU	Wide			18,714	137.1	136.5
LWS-40VL-AD-EU	Aisle	Diffuse		17,514	136.9	127.9
LWS-40VL-AC-EU	Aisle	Clear		17,912	137	130.7
LWS-40VL-W-EU-SFA	Wide		SFA	17,577	136.7	128.6
LWS-40VL-W-EU	Wide			19,004	137.1	138.6
LWS-50VL-AD-EU	Aisle	Diffuse		17,981	136.9	131.3
LWS-50VL-AC-EU	Aisle	Clear		18,389	137	134.2
LWS-50VL-W-EU-SFA	Wide		SFA	18,045	136.7	132.0
LWS-50VL-W-EU	Wide			19,511	137.1	142.3
LWS-30XL-AD-EU	Aisle	Diffuse		21,061	173.5	121.4
LWS-30XL-AC-EU	Aisle	Clear		21,553	173.4	124.3
LWS-30XL-W-EU-SFA	Wide		SFA	21,230	173.5	122.4
LWS-30XL-W-EU	Wide			22,994	174	132.1
LWS-35XL-AD-EU	Aisle	Diffuse		21,777	173.5	125.5
LWS-35XL-AC-EU	Aisle	Clear		22,286	173.4	128.5
LWS-35XL-W-EU-SFA	Wide		SFA	21,951	173.5	126.5
LWS-35XL-W-EU	Wide			23,776	174	136.6
LWS-40XL-AD-EU	Aisle	Diffuse		22,114	173.5	127.5
LWS-40XL-AC-EU	Aisle	Clear		22,631	173.4	130.5
LWS-40XL-W-EU-SFA	Wide		SFA	22,291	173.5	128.5
LWS-40XL-W-EU	Wide			24,144	174	138.8
LWS-50XL-AD-EU	Aisle	Diffuse		22,704	173.5	130.9
LWS-50XL-AC-EU	Aisle	Clear		23,234	173.4	134.0
LWS-50XL-W-EU-SFA	Wide		SFA	22,885	173.5	131.9
LWS-50XL-W-EU	Wide			24,787	174	142.5

Test #17765 Test Date 11/3/2016

**PHOTOMETRIC DATA**

**LUMINAIRE DATA**

Luminaire	LWS-40ML-AD-EU LWS LED Specification Grade, Highbay/Lowbay 16" x 24" LED with white reflector and diffuse aisle optic
Ballast	XI095C275V054BSS1
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	11513
Watts	82.80
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.24 90° = 0.72
Luminous Opening in Feet	Length: 2.00 Width: 1.33 Height: 0.00

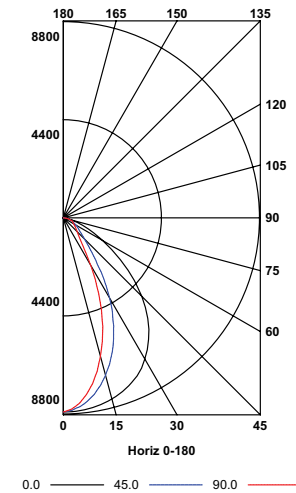
**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	5412	47.0	47.0
0-40	7616	66.2	66.2
0-60	10329	89.7	89.7
0-90	11481	99.7	99.7
0-180	11513	100.0	100.0

**ENERGY DATA**

Total Luminaire Efficiency	100.0%
Total Lumens per Watt	139
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$1.73 based on 3000 hrs. and \$0.08 per KWH

**INDOOR CANDELA PLOT**



Test #17625 Test Date 11/3/2016

**LUMINAIRE DATA**

Luminaire	LWS-40VL-W-EU LWS LED Specification Grade, Wraps 16" x 24" LED with white reflector
Ballast	XI075C200V054BST1
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	19004
Watts	137.10
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.27 90° = 1.27
Luminous Opening in Feet	Length: 2.00 Width: 1.08 Height: 0.00

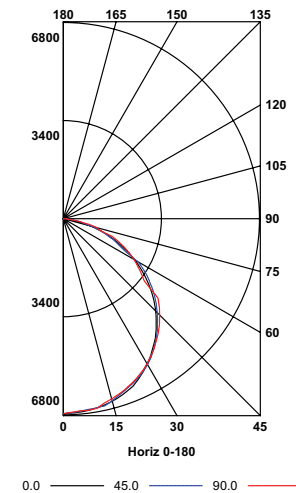
**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	5300	27.9	27.9
0-40	8717	45.9	45.9
0-60	15375	80.9	80.9
0-90	18953	99.7	99.7
0-180	19004	100.0	100.0

**ENERGY DATA**

Total Luminaire Efficiency	100.0%
Total Lumens per Watt	139
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$1.73 based on 3000 hrs. and \$0.08 per KWH

**INDOOR CANDELA PLOT**



Test #17768 Test Date 11/7/2016

**LUMINAIRE DATA**

Luminaire	LWS-40XL-W-EU-SFA LWS LED Specification Grade, Highbay/Lowbay 16" x 24" LED with white reflector and smooth frosted acrylic wrap lens
Ballast	XI095C275V054BSS1
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	22291
Watts	173.50
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.21 90° = 1.21
Luminous Opening in Feet	Length: 2.00 Width: 1.33 Height: 0.00

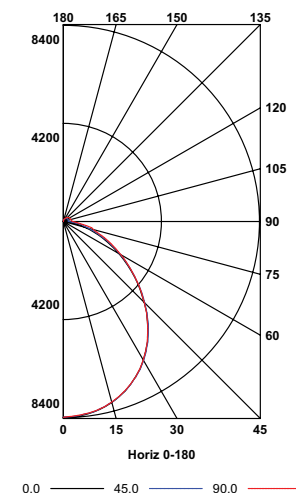
**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	6437	28.9	28.9
0-40	10367	46.5	46.5
0-60	17297	77.6	77.6
0-90	21204	95.1	95.1
0-180	22291	100.0	100.0

**ENERGY DATA**

Total Luminaire Efficiency	100.0%
Total Lumens per Watt	128
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$1.88 based on 3000 hrs. and \$0.08 per KWH

**INDOOR CANDELA PLOT**



CALCULATED HOURS	LWS PREDICTED LIFE			LUMEN MAINTENANCE		
	LUMEN PACKAGE	NOMINAL LUMENS	AMBIENT OPERATING TEMPERATURE	L70	L80	L90
	LW	8,000	25	393,000	245,000	115,000
			55	318,000	196,000	89,000
	ML	12,000	25	393,000	245,000	115,000
			65	239,000	148,000	67,000
	HL	15,000	25	393,000	245,000	115,000
			45	266,000	164,000	74,000
VL	18,000	25	393,000	245,000	115,000	
		45	246,000	152,000	69,000	
XL	24,000	25	264,000	163,000	74,000	
		40	183,000	110,000	45,000	

LUMEN PACKAGE	MAX. AMBIENT OPERATING TEMP.			
	NO SFA LENS		SFA LENS	
	No ELL14	ELL14	No ELL14	ELL14
LW	55	45	55	45
ML	65	45	65	45
HL	45	40	45	40
VL	45	40	45	40
XL	40	35	40	35

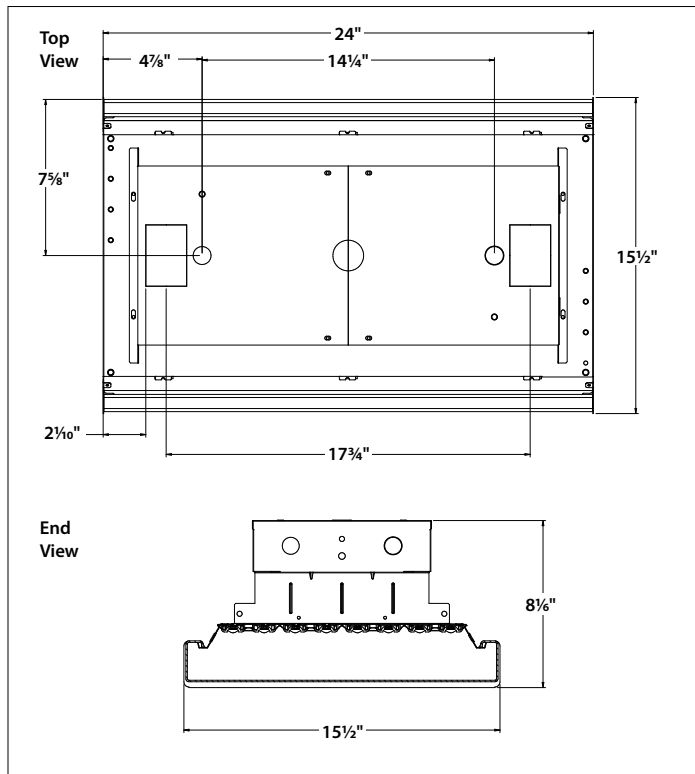
ELL14: Factory installed emergency battery pack, 1400 lumens

LUMEN PACKAGE	MAX. AMBIENT OPERATING TEMP. (347V/480V)			
	NO SFA LENS		SFA LENS	
	No ELL14	ELL14	No ELL14	ELL14
LW	65	NA	65	NA
ML	60	NA	60	NA
HL	60	NA	60	NA
VL	50	NA	50	NA
XL	40	NA	40	NA

ELL14: Factory installed emergency battery pack, 1400 lumens

DRIVER GENERATION COMPARISON		
OUTPUT	PREVIOUS DRIVER QTY	CURRENT DRIVER QTY
LW	N/A	1
ML	2	1
HL	2	2
VL	2	2
XL	2	2

### DIMENSIONAL DATA



**NOTE:** All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

### AIRCRAFT CABLE MOUNTING

