

FEATURES

- Compact, open body linear high bay offers energy efficient performance
- Easy center-ballast cover allows tool-less access without lamp or reflector removal
- Extremely low profile—only 2" overall height allows fixture to be installed without concern about obstructions
- Reflector options include upright (recommended) or solid top with either narrow or wide distribution
- Rotary locking lampholders secure lamp in position and conceal contacts
- Easy field-installed accessories or factory-installed options for sensors, wire guards, lenses
- Quick and simple hanging systems including chain, tong, pipe hanger, or aircraft mounting
- Suitable for operation in up to a 45°C (113°F) ambient environment

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Code gauge steel construction for a durable construction to withstand shipping and job site handling. End caps include hemmed edges for ease of handling. Fixture includes easy access to electrical components via removal channel cover. Tool-less access with one quarter-turn fastener. Oversized access plate conveniently mounted on back of channel for easy access to wiring compartment.

REFLECTOR

Your choice of multi-faceted specular aluminum which provides precise control for aisle lighting, high mounting heights, white aluminum for general area, or lower mounting heights. Includes a 25-year reflector warranty. Reflectors are available in solid top or with upright component. Silver reflectors provided with a narrow distribution. White reflectors provided with a wide distribution. Reflectors are securely mounted to fixture housing with screws. Reflector removal is not required to gain access to electrical components.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, magnetic or electronic ballasts. CEE NEMA Premium compliant.

ELECTRICAL

Standard class "P", thermally protected, autoresetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

FINISH

Steel surfaces are painted with high-gloss baked white enamel, applied over iron phosphate pre-treatment for maximum adhesion and rust resistance.

MOUNTING

Mounting options include aircraft cable, tong hanger, pipe hanger, or chain.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard.

ORDERING INFORMATION

EXAMPLE LHA4-454-NU-4EPU

LHA 4 - 4									
SIZE	LAMP TYPE	UPLIGHT	BALLAST FACTOR	VOLTAGE	OPTIONS				
4 4'	32 4', T8 54 4', T5HO	ST Solid Top U Uplight	BLANK 0.88BF for T8, 1.0BF for T5HO HL 1.18BF High Lumen T8, N/A for T5HO Lamp Type	U 120V-277V 347 347V 480 480V					
MODEL	NO. OF LAMPS IN CROSS SECTION	REFLECTOR	BALLAST	LAMPS INSTALLED					
LHA Industrial Fluorescent High Bay	4 Four	N Narrow Distribution W Wide Distribution	LHA4-454 EP (2) 2-Lamp Electronic T5HO, Programmed Start 4EP (1) 4-Lamp Electronic T5HO, Programmed Start	T8 F0835 32 Watt, 82 CRI, 3500K F0841 32 Watt, 82 CRI, 4100K F0850 32 Watt, 82 CRI, 5000K T5HO F554835 54 Watt, 85 CRI, 3500K F554841 54 Watt, 85 CRI, 4100K F554850 54 Watt, 85 CRI, 5000K					
ACCESSORIES (ORDER SEPARATELY)									
LHVTH ³	Tong Hanger (Pair)								
LHVW64	Wire Guard Cage, 4-Lamp, White								
LHVW66	Wire Guard Cage, 6-Lamp, White								
LHVQMS	Aircraft Cable, 5' (Pair)								
LHVQM10	Aircraft Cable, 10' (Pair)								
LHVSPPMS	Single Point Mounting, includes pair of 5' aircraft cables								
LHVO51360	Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V								
LHVO52360	Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V								
LHVO5480360	Occupancy/Daylight Sensor, with a 360° lens, 480V								
G6TL15-120	Cord and Plug Kit (white), 6 ft., Twist Lock NEMA L5-15P, 15 amp, 120V								
G6TL15-277	Cord and Plug Kit (white), 6 ft., Twist Lock NEMA L7-15P, 15 amp, 277V								
C6P15-120	Cord and Plug Kit (white), 6 ft., Straight Blade NEMA 5-15P, 15 amp, 120V								
					GLR Fast Blow Fuse F3C5 3-Conductor Cord F4C5 4-Conductor Cord G6TL15_ 6' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277 G6TL20_ 6' Cord and Twist-Lock™ Plug 20A (Specify Voltage 1=120, 2=277) G6P151 6' Cord and Straight Blade Plug 15A, 120V SP Side Panels Installed ² EL141 1100-1400 Lumens, T8 1-Lamp EL5H 725-1250 Lumens, T5HO 1-Lamp WG Flat Wire Guard ² CA Clear Acrylic Lens ² CP Clear Polycarbonate Lens ² CAWG Clear Acrylic Lens and Flat Wire Guard CPWG Clear Polycarbonate Lens and Flat Wire Guard TC Steel Top/Side Cover Installed ² OS1360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 120/277/347V, 1 Relay OS2360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 120/277/347V, 2 Relay OS1A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V, 1 Relay OS2A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V, 2 Relay OS480360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 480V, 1 Relay OS480A Factory Installed Occupancy/Daylight Sensor, with a Aisle lens, 480V, 2 Relay				

¹ Use programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.
² Side panels/top covers or shielding options increase height to 27/8".
³ Not available with EL141 or EL5H.



Test ITL68013 Test Date 3/26/11

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	LHA4-454-NU-4EP LHA Fluorescent High Bay, Industrial 16" x 48" 4-lamp with specular reflector and upright
Ballast	B454PUNVHB-E
Ballast Factor	1.00
Lamp	F54T5
Lumens per Lamp	4450
Watts	235
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.23 90° = 0.86
Luminous Opening in Feet	Length: 3.99 Width: 1.31 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	5075	28.5	31.7
0-40	7726	43.4	48.3
0-60	12387	69.6	77.4
0-90	14915	83.8	93.2
0-180	16011	90.0	100.0

ENERGY DATA

Total Luminaire Efficiency	90.0%
Luminaire Efficacy Rating (LER)	68
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.53 based on 3000 hrs. and \$0.08 per KWH

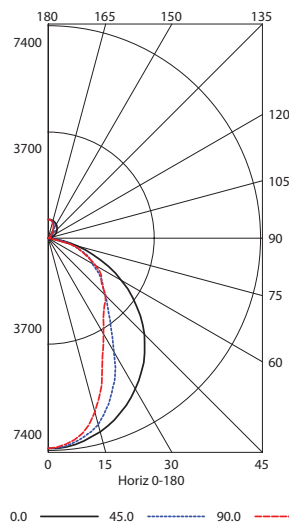
COEFFICIENTS OF UTILIZATION (%)

RCR	80		70				50				0		
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	97	93	90	87	84	94	91	88	85	86	83	81	72
2	89	82	77	72	68	86	80	75	71	76	72	68	61
3	82	73	66	61	57	79	71	65	60	68	62	58	52
4	75	65	58	52	47	73	64	57	51	61	55	50	45
5	69	59	51	45	40	67	57	50	45	55	49	44	40
6	64	53	46	40	35	62	52	45	40	50	44	39	35
7	60	48	41	36	31	58	47	40	35	46	39	35	32
8	56	44	37	32	27	54	44	37	32	42	36	31	29
9	52	41	34	29	24	51	40	34	29	39	33	29	26
10	49	38	31	27	22	48	37	31	27	36	30	26	24

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

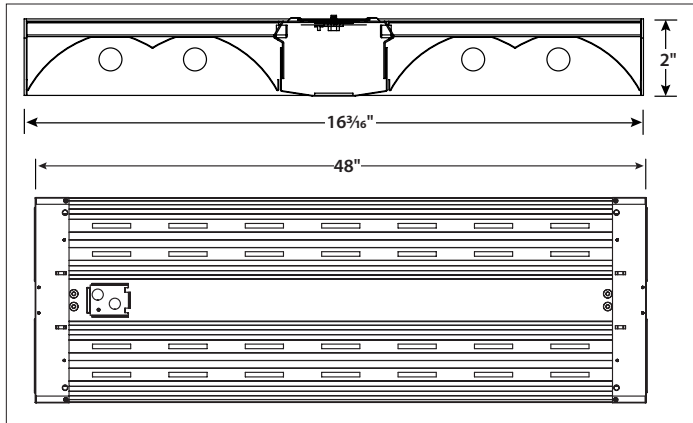
INDOOR CANDELA PLOT



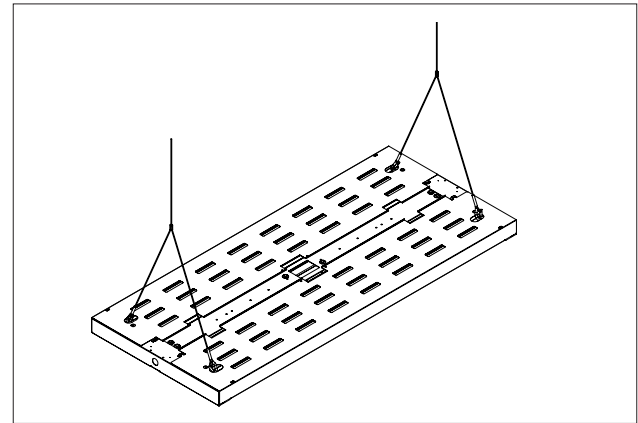
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	15072	15072	15072	15072	15072
30	14405	13663	10903	9424	9129
40	14033	11949	8742	8175	8197
45	13784	10784	8169	8181	8204
50	13398	9409	7900	7811	7747
55	12868	8351	7795	7823	8111
60	12097	7447	7282	7953	7854
65	11281	6944	7602	7368	7231
70	9899	6581	6966	7015	6966
75	8442	6254	6540	6763	6286
80	6250	5396	4779	1850	1139
85	2835	2457	0	0	0

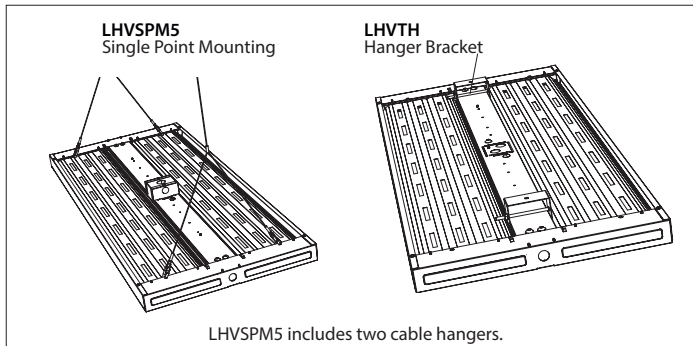
DIMENSIONAL DATA



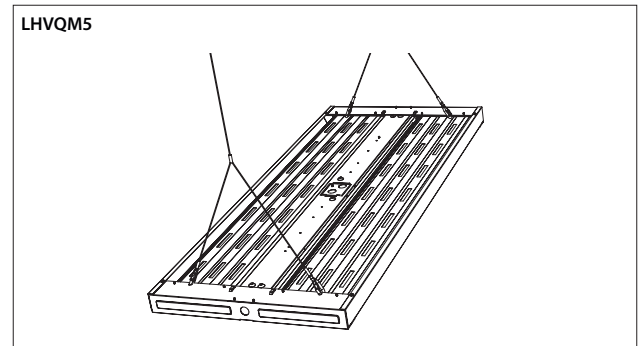
LHA TOP COVER



OPTIONAL HANGER BRACKETS



LHA AIRCRAFT CABLE



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