

PHILIPS
Day-Brite
CFI

Recessed

HP90 LED 1x4

2800, 3500, or 3900 lumens



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

The Philips Day-Brite / Philips CFI HP90 LED recessed family is one of our popular soft light collection of luminaires. This is the first introduction of LED with a direct/indirect appearance utilizing highly reflective paint on the soft contoured reflectors and high light transmission linear prismatic lens to enclose the LEDs.

Ordering guide

Example: HLS14GLR28L40ULAG

Family	Air Function	Fixture Size	Ceiling Type	Diffuser	Lumen Package	Color Temp.	Voltage	Driver Type	Options
<input type="text" value="HL"/>	<input type="text" value="S"/>	<input type="text" value="14"/>	<input type="text" value="G"/>	<input type="text" value="LR"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="-"/>	<input type="text"/>
HL HP90 direct-indirect recessed	S Static	14 1'x4'	G Fits both standard and slot grid Consult factory for other ceiling systems.	LR Linear prismatic lens	28L 2800 lumens 35L 3500 lumens 39L 3900 lumens 4000K represented (Approximate delivered values. Consult IES file)	35 3500K 40 4000K 50 5000K Consult representative for other color temperature options. (Approximate values. Consult IES file.)	U Universal voltage 120-277V 3 347V	LAG Standard driver DZT 0-10V dimming SZT Step dimming to 40% input power	F1 3/8" flex, 3 wire 18 gauge 6' F2 3/8" flex, 4 wire 18 gauge 6' F1/D 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires F2/5W 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires GLR Fusing, fast blow EMLED Integral emergency battery pack CHIC Chicago Plenum rated

Accessories (order separately)

- **FMA14** – 1'x4' "F" mounting frame for NEMA "F" installations

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Features

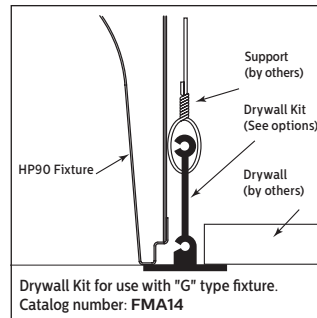
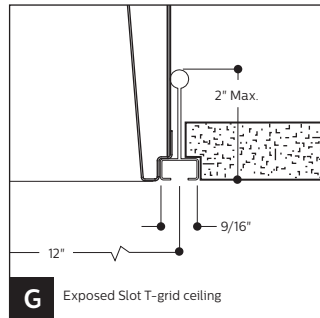
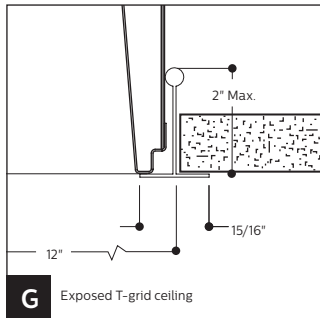
- Direct/indirect appearance with soft contoured interior.
- Translucent DR acrylic high light transmission linear prismatic lens.
- Field replaceable LED array and driver accessible from below.
- Integrated thermal management system conducts heat away from LEDs and transfers it to the surrounding environment.
- High efficiency LEDs have 50,000 hour rated life at L70.
- Predicted L70 lifetime is based on LED manufacturer's supplied LM-80 data and in-situ laboratory testing.
- Lens encloses light source compartment.
- Lamp shield opens from either side.
- Tension screws secure ends to body.
- Same fixture fits both G and Slot T ceiling types.
- Fits flush to face of slot grid (T) ceiling types.
- Suitable for continuous row mounting.
- Five-year warranty on luminaire, LED boards and driver.
- DLC Listed. Please check the DLC Qualified Products List to confirm (www.designlights.org/QPL).

- Many luminaire components, such as reflectors, refractors, lenses, sockets, lamp holders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

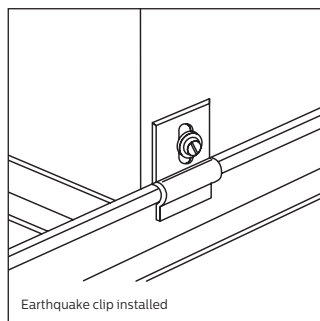
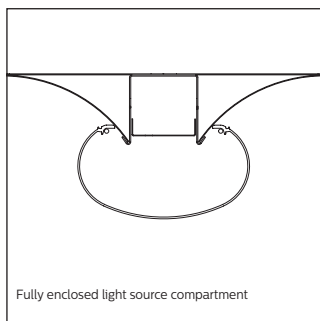
Specifications

- **Materials:** Chassis parts—Die-formed code gauge cold rolled steel.
- **Finish:** Chassis exterior—White baked polyester enamel. Cavity—White baked polyester enamel. Rust preventative undercoating.
- **Lens:** LR—Linear prismatic translucent DR acrylic lens.
- **Electrical:** LED boards and drivers are RoHS (Restriction of Hazardous Substances) compliant.
- **Labels:** cULus listed for damp locations.

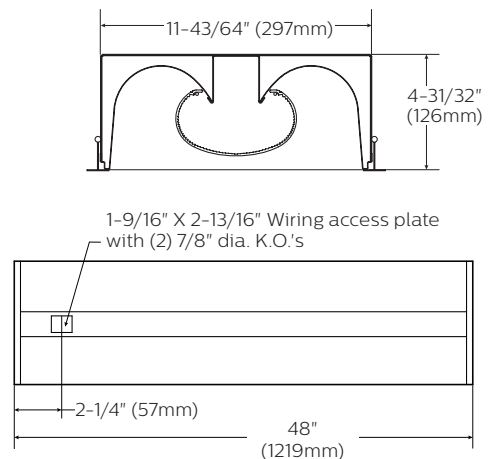
Mounting methods



* For flush mounting when using 9/16" Exposed T-Grid ceiling system consult factory



Dimensions



HLS HP90 LED recessed 1x4

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Additional ordering information

Catalog Number	Delivered Lumens	Input Watts	Lumens per Watt	Average initial 8'X8' footcandles	8'X8' Watts per sq. foot	Average initial 8'X10' footcandles	8'X10' Watts per sq. foot
HLS14GLR28L40ULAG	2804	30.8	91.0	44	0.48	35	0.38
HLS14GLR35L40ULAG	3471	39.9	87.0	54	0.62	43	0.50
HLS14GLR39L40ULAG	3872	46.1	84.0	60	0.72	48	0.58
HLS14GLR28L35ULAG	2778	31.2	89.0	43	0.49	35	0.39
HLS14GLR35L35ULAG	3453	40.4	85.5	53	0.63	43	0.50
HLS14GLR39L35ULAG	3864	46.6	82.9	60	0.73	48	0.58

Photometry – 4000K CCT

Report number¹: G2012125
 Catalog number: HLS14GLR39L40ULAG
 Delivered lumens: 3872
 Color²: 3967K
 Input watts: 45.0
 Efficacy: 84.0 lm/w
 CRI: 84.5
 Lamp: LED
 Luminaire: HP90 recessed LED
 1' x 4' fixture with linear prismatic lens.

CIE Type: Direct
 Plane: 0-Deg. 90-Deg.
 Spacing criteria: 1.2 1.3
 Plane: 0-Deg. 90-Deg.
 Luminous length: 47.040 11.040

Candela distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0°	45°	90°	
0	1370	1370	1370	
5	1348	1363	1375	130
15	1284	1312	1335	371
25	1164	1213	1255	560
35	999	1075	1140	673
45	807	910	992	699
55	603	724	802	638
65	400	512	540	487
75	203	266	243	262
85	41	42	43	53
90	5	5	5	

Coefficients of utilization

Ceiling	80% 50% 30%									
	70	50	30	50	30	10	50	30	10	
Wall	Zonal Cavity Method									
RC	Effective Floor Reflectance = 20%									
RW										
Room Cavity Ratio	1	109	104	100	98	95	92	94	91	89
	2	99	91	84	85	80	75	82	78	74
	3	90	80	71	75	69	63	72	67	62
	4	83	70	62	67	59	54	64	58	53
	5	76	63	54	60	52	46	58	51	46
	6	70	57	48	54	46	41	52	45	40
	7	65	51	43	49	41	36	48	41	36
	8	60	47	38	45	37	32	44	37	32
	9	56	43	35	41	34	29	40	33	29
	10	53	40	32	38	31	26	37	31	26

Zonal lumen summary*

Zone	Lumens	% Lamp	% Fixt.
0-30	1060	27.4	27.4
0-40	1733	44.8	44.8
0-60	3070	79.3	79.3
0-90	3872	100.0	100.0

*Total Efficiency

¹ Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
² Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

Avg. Luminance (cd/m²)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
45	3405.	3840.	4186.
55	3137.	3766.	4172.
65	2824.	3615.	3812.
75	2340.	3066.	2801.
85	1404.	1438.	1472.

Photometry – 3500K CCT

Report number¹: G2012120
 Catalog number: HLS14GLR39L35ULAG
 Delivered lumens: 3864
 Color²: 3439K
 Input watts: 45.0
 Efficacy: 82.9 lm/w
 CRI: 83.7
 Lamp: LED
 Luminaire: HP90 recessed LED
 1' x 4' fixture with linear prismatic lens.

CIE Type: Direct
 Plane: 0-Deg. 90-Deg.
 Spacing criteria: 1.2 1.3
 Plane: 0-Deg. 90-Deg.
 Luminous length: 47.040 11.040

Candela distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0°	45°	90°	
0	1351	1351	1351	
5	1330	1344	1356	128
15	1266	1294	1318	366
25	1147	1198	1243	553
35	984	1064	1132	665
45	793	902	990	693
55	593	721	808	636
65	394	516	553	490
75	200	277	265	273
85	41	47	44	60
90	6	5	5	

Coefficients of utilization

Ceiling	80% 50% 30%									
	70	50	30	50	30	10	50	30	10	
Wall	Zonal Cavity Method									
RC	Effective Floor Reflectance = 20%									
RW										
Room Cavity Ratio	1	109	104	100	97	94	91	94	91	88
	2	99	90	84	85	80	75	82	77	73
	3	90	79	71	75	68	63	72	66	62
	4	82	70	61	66	59	53	64	58	53
	5	76	63	54	59	52	46	57	51	46
	6	70	56	47	54	46	40	52	45	40
	7	65	51	42	49	41	36	47	40	35
	8	60	47	38	45	37	32	43	37	32
	9	56	43	34	41	34	29	40	33	28
	10	53	39	31	38	31	26	37	30	26

Zonal lumen summary*

Zone	Lumens	% Lamp	% Fixt.
0-30	1046	27.1	27.1
0-40	1711	44.3	44.3
0-60	3041	78.7	78.7
0-90	3864	100.0	100.0

*Total Efficiency

¹ Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
² Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

Avg. Luminance (cd/m²)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
45	3346.	3806.	4177.
55	3085.	3750.	4203.
65	2782.	3643.	3904.
75	2306.	3193.	3055.
85	1404.	1609.	1506.

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Philips Lighting, North America Corporation
 200 Franklin Square Drive, Somerset, NJ 08873
 Tel. 855-486-2216

Imported by: Philips Lighting
 A division of Philips Electronics Ltd.
 281 Hillmount Rd, Markham, ON, Canada L6C 2S3
 Tel. 800-668-9008