

Commercial LED Lighting Fixture

HL Series

HL4 / HL4R

High Lumens LED Downlight

Feature

- New construction and remodel series
- Apply for office / healthcare / institution / retail market
- Narrow and Medium distributions beam angle
- 5-selectable / 3-selectable / 2700K - 5000K C.C.T
- CRI > 90, high color clarity
- Universal voltage 120V-277V; Standard 0-10V driver dims to 1%



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Certification



Series instruction

HL4 Recessed Series



HL4 Remodel Series



HL4 Trim type and surface treatment



Matte White



Matte Black



Specular Clear



Semi-Specular



Matte White
Baffle Trim



Matte Black
Baffle Trim

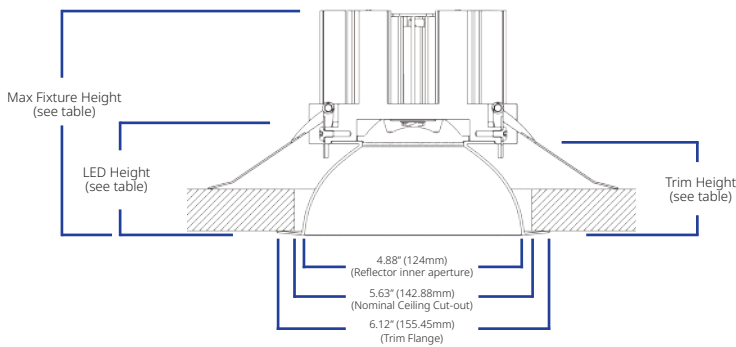
Ordering Information

Ordering example: HL4940294F4NNHDU10

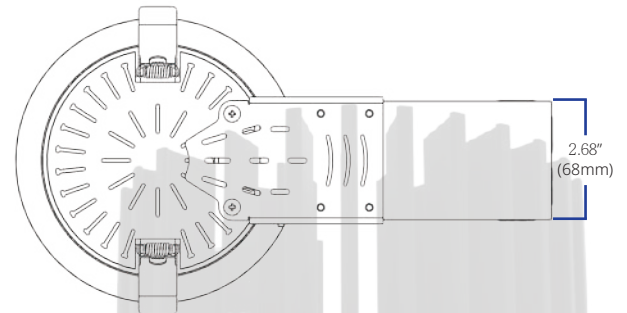
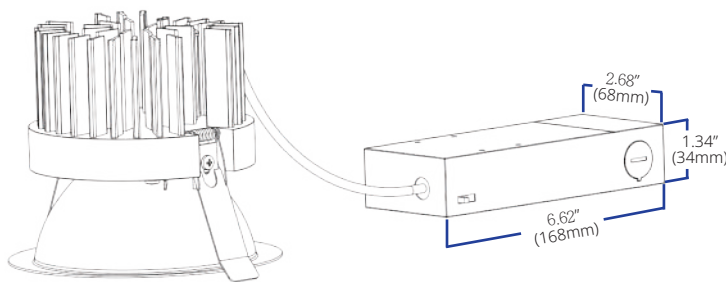
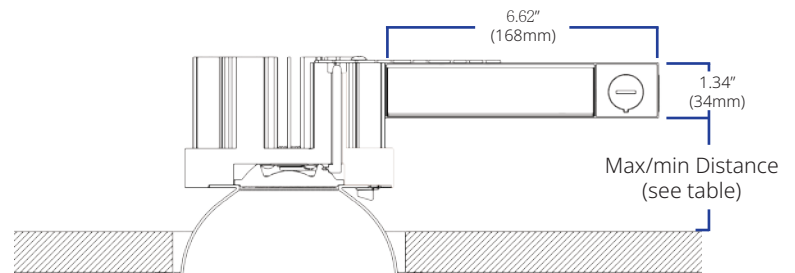
Series	CRI	C.C.T	Lumens	Reflector	Distribution	Finish	Driver
HL4 = 4 inch Recess light	9 = 90 CRI	27 = 2700K	21 = 2100lm	4F = 4" conical reflector	4NN = 4inch · narrow beam · UGR<10	A = Specular Clear (for 4F reflector only)	DU10 = universal 100-277v,50/60Hz, 0-10V dimming to 1%
HL4R = 4 inch remodel recess light		30 = 3000K 35 = 3500K 40 = 4000K 50 = 5000K 60 = 6000K 65 = 6500K 3S = 3CCT selectable (3000K-4000K-5000K) 5S = 5CCT selectable (30K-35K-40K-50K-65K)	24 = 2400 lm 29 = 2900 lm (Nominal lumen under 3000K)	4B = 4" baffle reflector	4MN = 4inch · medium beam · UGR<10 4MW = 4inch · medium beam · UGR<20	H = Semi-Specular (for 4F reflector only) W = Matte White B = Matte Black	

Dimensional and Mounting Details

HL4 Fixture Dimension



HL4R Driver Dimension (remodel type)



	Max Fixture Height	Trim Height	LED Height	Max/min Distance
Narrow	5.32" (135mm)	2.23" (56.6mm)	2.74" (69.6mm)	3.34" (84.8mm)
Medium	5.32" (135mm)	2.23" (56.6mm)	2.74" (69.6mm)	3.34" (84.8mm)

Product Specifications

LED Module

- High quality and uniform proximity phosphors COB
- 90 color rendering index (CRI) , R9 great than 50
- Available in 2700K, 3000K, 3500K, 4000K, 5000K and 6000K correlated color temperature (CCT)
- 3-steps and 5-steps CCT control in optional driver selected.
- 50,000 hours at 80% lumen maintenance (LM80)
- Lumen options from 500 to 5500 lumens (nominal)
- Thermal management in insulated ceiling (IC) and non-IC applications.

Driver

- Universal 100-277Vac 50/60Hz input voltage
- Constant current driver with overload safety current design.
- Low noise and EMI safety operation Continuous, down to 1% dimming with 0-10V dimmer.
- Power factor (PF) great than 0.9.
- Total harmonic distortion (THD) less than 20%
- 3-steps or 5-steps CCT switch in optional.

Reflector

- Aluminum reflectors available in narrow, medium and wide distribution patterns.
- Anti-glare design in narrow and medium distribution patterns.
- Slightly oversized ring expands coverage of Ceiling cut-out errors
- Variety surface treatments available in matte-white, specular-clear and semi specular.
- Conical and baffle reflector with easy-install clamps.
- Well adapts to hot, humid environments and areas using manufacturing and cleaning chemicals solutions.

Warranty

- Five year limited warranty, consult website for details. www.amline-lighting.com

Junction Box

- Galvanized steel junction box
- 20 in³ internal volume excluding voltage barrier.
- Voltage barrier for 0-10V dimming wires.
- Listed for eight #12AWG (four-in, four-out) 90°C conductors and feed-thru branch wiring.
- Three 1/2" and two 3/4" trade size knock-outs available.
- Three 4-port push wire nuts for mains voltage with 1-port for fixture connection.

Compliance

- ETL Certified to UL 1598 / C22.2 No. 250.0, suitable for damp and wet locations in covered ceilings only.
- IP20 - Above finished ceiling.
- Insulated ceiling (IC) rated for 500, 750, 1000, 1500, 2000 lumen models and suitable for direct contact with air permeable insulation* (IC models are also suitable for Non-IC installations)
- Non-Insulated ceiling (Non-IC) rated for 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 lumen models (insulation must be kept 3" from top and sides)
- Non-IC marked spacing required for 4500, 5000, 5500, 6000 lumen models. Marked Spacing Center to Center of Adjacent Luminaires = 36"
Center of Luminaire to Building Member = 18"
Minimum overhead = 0.5" .
- Air tight compliance with ASTM-E283-04.
- EMI/RFI emissions FCC CFR Title 47 Part 15 ClassA at 120/277V.
- Contains no mercury or lead and RoHS compliant.
- Photometric testing completed in accordance of IES LM-79-08
- Lumen maintenance projection in accordance of IES LM-80-08 and TM-21-11.
- ENERGY STAR® certified, reference certified light fixtures database
Not for use in direct contact with spray foam insulation, consult NEMA LSD57-2013

Photometrics

HL4 - 90 CRI - 3500K - Conical Reflector - Narrow Distribution -Specificular Clear Finish

Narrow (26° beam)

Model: HL4935294F4NNADU10

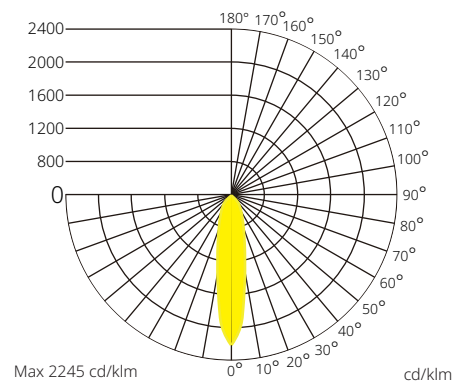
Lumens: 2916 lm

UGR: < 11.3 SC: 0.81

Room Dimension : X=4H Y=8H

Reflection : 50/50/20

Candle Power Distribution



Luminance (Average cd/m²)

Average Candela Degrees	Average 0-90°
45°	33960
55°	1225
65°	0
75°	0.01
85°	0.34

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	2052	70.1
0-40°	2662	91
0-50°	2917	99.6
0-60°	2926	100
0-90°	2927	100

Candlepower Distribution

Degrees Vertical	0°
0	6571
5	5720
15	2841
20	2131
25	1715
35	932
45	287
55	11
65	0
75	0
85	0
90	0

Initial Footcandles

Distance (feet)	Footcandles Beam Center	Beam Diameter
4'	409.2	1.80
6'	181.9	2.72
8'	102.3	3.61
10'	65.4	4.59
12'	45.4	5.58

HL4 - 90 CRI - 3500K - Baffle Reflector - Narrow Distribution -Specificular Clear Finish

Narrow (24° beam)

Model: HL4935294B4NNADU10

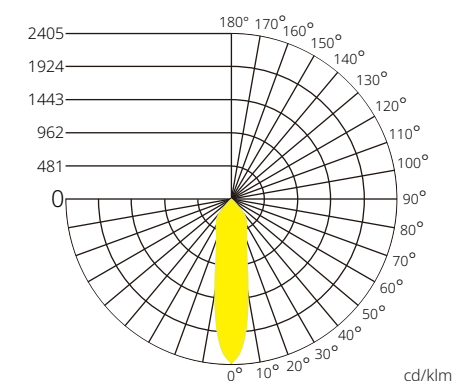
Lumens: 2921 lm

UGR: < 11.6 SC: 0.81

Room Dimension : X=4H Y=8H

Reflection : 50/50/20

Candle Power Distribution



Luminance (Average cd/m²)

Average Candela Degrees	Average 0-90°
45°	35106
55°	1015
65°	26.92
75°	38
85°	0.6

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	1970	67.2
0-40°	2654	90.5
0-50°	2922	99.6
0-60°	2931	100
0-90°	2932	100

Candlepower Distribution

Degrees Vertical	0°
0	7056
5	6179
15	2588
20	1857
25	1517
35	1140
45	297
55	9.02
65	0.24
75	0.34
85	0.01
90	0

Initial Footcandles

Distance (feet)	Footcandles Beam Center	Beam Diameter
4'	439.2	1.67
6'	195.3	2.53
8'	109.8	3.28
10'	70.2	4.27
12'	48.8	4.92

Photometrics

HL4 - 90 CRI - 3500K - Conical Reflector - Medium Distribution - Specificular Clear Finish

Medium (41° beam)

Model: HL4935294F4MNADU10

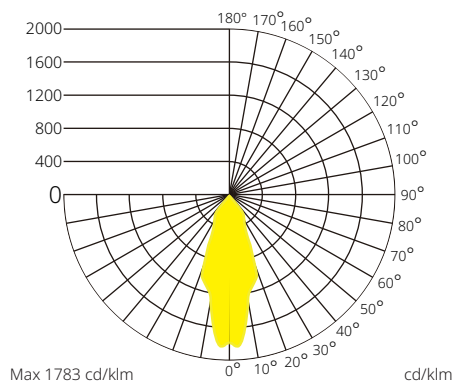
Lumens: 2915 lm

UGR: < 11.5 SC: 0.81

Room Dimension : X=4H Y=8H

Reflection : 50/50/20

Candle Power Distribution



Luminance (Average cd/m²)

Average Candela Degrees	Average 0-90°
45°	34561
55°	1215
65°	21.81
75°	1.61
85°	0.02

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	2080	71.2
0-40°	2651	90.7
0-50°	2911	99.6
0-60°	2921	100
0-90°	2922	100

Candlepower Distribution

Degrees Vertical	0°
0	5163
5	5211
15	3252
20	2811
25	1353
35	913
45	788
55	10.7
65	0.2
75	0.01
85	0
90	0

Initial Footcandles

Distance (feet)	Footcandles Beam Center	Beam Diameter
4'	322.0	3.02
6'	143.1	4.59
8'	80.5	5.91
10'	51.5	7.55
12'	35.8	9.18

HL4 - 90 CRI - 3500K - Baffle Reflector - Medium Distribution - Specificular Clear Finish

Medium (40° beam)

Model: HL4935214B4MNADU10

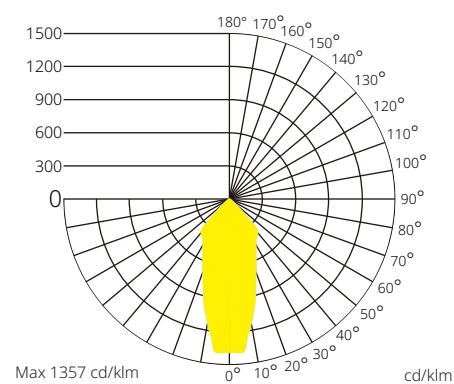
Lumens: 2113 lm

UGR: < 13 SC: 0.81

Room Dimension : X=4H Y=8H

Reflection : 50/50/20

Candle Power Distribution



Luminance (Average cd/m²)

Average Candela Degrees	Average 0-90°
45°	36506
55°	1202
65°	6.78
75°	17.05
85°	3.15

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30°	1292	61
0-40°	1838	86.7
0-50°	2108	99.5
0-60°	2118	99.9
0-90°	2119	100

Candlepower Distribution

Degrees Vertical	0°
0	2851
5	2876
15	1847
20	1401
25	1166
35	865
45	308
55	10.6
65	0.06
75	0.15
85	0.03
90	0

Initial Footcandles

Distance (feet)	Footcandles Beam Center	Beam Diameter
4'	177.7	2.82
6'	79.1	4.27
8'	44.4	5.58
10'	28.4	7.22
12'	19.8	8.53