

DESCRIPTION - H4 LED ADJUSTABLE GIMBALS

Halo H4 LED Adjustable Gimbals, ELG4058xxxx series, combine an adjustable gimbal trim and LED light engine. The H4 LED adjustable gimbal family features 35° tilt and offers interchangeable optics with three beam distributions of 25°, 35°, and 50°; in addition the choice of four color temperatures 2700°K, 3000°K, 3500°K, 4000°K. Three high-quality trim finishes of White, Satin Nickel, and Tuscan Bronze are offered. Halo LED offers high quality, fit, finish, and performance in an energy-efficient, high-efficacy gimbal.

SPECIFICATION FEATURES

MECHANICAL

Heat Sink

- Durable aluminum construction.
- Conducts heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling housings.

Gimbal

- Precision designed fit and finish
- Die-cast aluminum with snap-in front loading ring allowing interchange of beam forming reflectors
- Gimbal front ring holds one lens media. Clear glass lens is included. Optional lens media such as L111 soft focus may be used in place of clear glass lens.
- 35° tilt adjustment with friction fit to heat sink.
- Smooth travel from nadir to 35°
- Works with the upper heat sink for thermal conduction away from the LED

MOUNTING

Friction Blades

- Precision formed steel spring blades provide retention of the ELG4058xxxx series of light engines in the H4 LED series housings.
- Friction blade design allows the light engine to be installed in any position within the housing aperture (360 degrees).
- Tether security cable included on the light engine for attachment to the housing during installation, as recommended and when required by code.

ELECTRICAL

LED Connection

- LED connector is a non-screw base plug-in connector offering easy installation with any of the H4 LED series housings.
- LED connector meets California Title-24 high-efficacy luminaire requirement for a non-screw base socket, and where required to qualify as a high-efficacy luminaire.

Finish Options

ELG405827WH	White
ELG405827SN	Satin Nickel
ELG405827TBZ	Tuscan Bronze

OPTICS

- Three beam distribution options with interchangeable round beam forming reflectors
- Reflector options: 25°, 35°, 50° beam angle
- Gimbal is supplied with 25° reflector pre-installed
- Clear glass cover lens included with gimbal. One optional accessory lens may be used in place of clear lens.
- Reflector and lens are accessible behind the gimbal's snap-in front ring.

Optical Accessory Reflector Kit -- TL412RK

- Includes all three reflector options
- 25° beam angle reflector (one is included with gimbal)
- 35° beam angle reflector
- 50° beam angle reflector

COLOR SPECIFICATION & QUALITY STANDARDS

- Halo employs a tight chromaticity specification and LED color binning process to ensure LED color uniformity, sustainable Color Rendering Index (CRI) and Correlated Color Temperature (CCT) consistency over the useful life of the LED
- Halo LED chromaticity specification exceeds ENERGY STAR® SSL color standards (as per ANS IC78.377-2008).
- Every Halo LED Module is quality tested and performance measured on the production line, and then serialized to register lumens, wattage, CRI and CCT.
- Halo LED serialized testing and measurement process further ensures color and lumen consistency to meet stringent Cooper Lighting specifications and exceed ENERGY STAR® SSL standards.

Catalog #		Type
Project		
Comments		Date
Prepared by		

- Halo LED Modules and light engines include Color Rendering Index and Correlated Color Temperature in the model number.

Example: ELG405827WH

8 **27**
>80 CRI 2700°K nominal CCT

QUALIFICATION

- Up to 598 lumens (with 2700°K color temperature) - Refer to Photometric and Compliance Summary Chart
- Halo LED offers the widest choice of four correlated color temperatures in recessed LED downlighting, including: 2700°K, 3000°K, 3500°K, 4000°K
- 80 CRI
- L70/50 Lumen Maintenance 70% lumens / 50,000 hours
- Up to 43.7 Lumens per Watt
- LED consists of multiple LED die in a chip-on-board array to create one virtual source that provides a uniform and productive "cone of light"
- Can be used to meet State of California Title 24 and International Energy Conservation Code – IECC High Efficacy requirements
- LED emits no ultraviolet and minimal infrared wavelengths
- H4 LED is ROHS compliant

Dimming

- The HALO H4 LED luminaires are dimmable. Refer to housing specifications for dimming notes, and refer to dimmer manufacturers for compatibility.

Warranty

Cooper Lighting provides a three year limited warranty on Halo LED Luminaires which includes the LED Recessed Housing, LED Light Engine, and LED trims. (Subject to all of the limitations set forth in Cooper Lighting Terms and Conditions of sale. Refer to www.cooperlighting.com.)



Qualified and Compliant as designated. Refer to Photometric and Compliance Summary Chart.



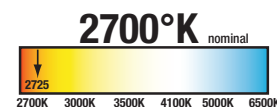
H4 LED Gimbal – 2700°K

ELG405827WH
ELG405827SN
ELG405827TBZ

4-Inch LED Adjustable Gimbal Trim & Light Engine

FOR USE WITH H455 and H456 Series 4" LED Housings

High Efficacy LED



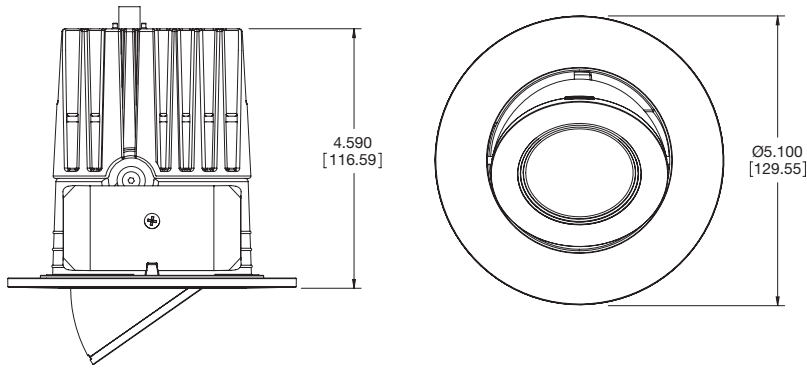
ELG405827WH
ELG405827SN
ELG405827TBZ

4" Gimbal Light Engine - 2700°K

Typical 2700°K Performance Values

Lumens: up to 598
Lumens per watt: up to 43.7
Color Rendering Index (CRI, Ra): 80

DIMENSIONS

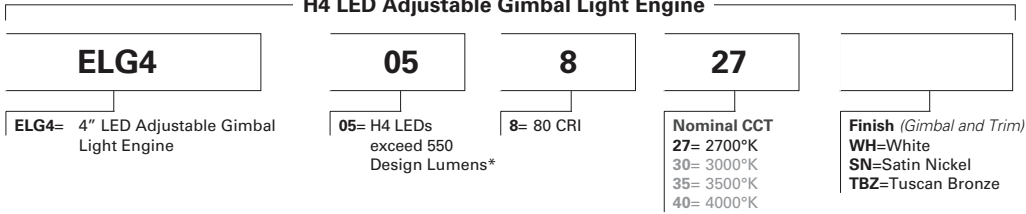


ORDERING INFORMATION

SAMPLE NUMBER: ELG405827TBZ

Complete unit includes H4 LED housing, Adjustable Gimbal and optional Reflector Kit; ordered separately.
Housing: Refer to housing specification sheets for selection and details.
(Note H4 LED TL4xx Downlight Trims are not compatible with H4 LED ELG4xx Adjustable Gimbals.)

H4 LED Adjustable Gimbal Light Engine



* Lumen output of 598 lumens based upon 2700°K color temperature.

Optional Accessory Reflector Kit (ordered separately)

TL412RK includes:

- 25° reflector (one is included with gimbal)
- 35° reflector
- 50° reflector

TL412RK is for use with ELGxx and ELSGxx Gimbals only.

Optional Lens Media (ordered separately)

One lens media may be used in place of clear lens.

Optical Lenses

- L110 Diffuse Sand Blasted Lens
- L111 Soft Focus Textured Lens
- L113 Prismatic Lens
- L115 Linear Spread Lens

Dichroic Color Films

- L114 UV Filter
- L120 Red
- L121 Amber
- L122 Yellow
- L123 Green
- L124 Daylight
- L125 Blue
- L127 Cosmetic Color Filters
- L130 Yellow

GIMBAL SUMMARY



ELG405827WH



ELG405827TBZ

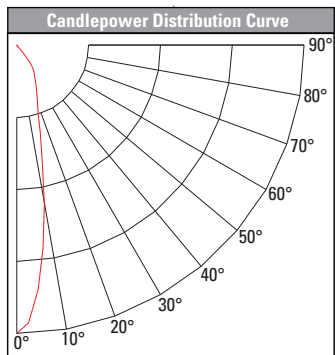


ELG405827SN

PHOTOMETRY

**4" Adjustable Gimbal - 2700K
ELG405827xx (25° Beam-0° tilt)**

**Spacing Criteria = 0.38
Lumens per Watt = 43.7 LpW
Test No. P85057
Test Model: ELG405827TBZ (25° reflector)**



Luminance (Average Candela/M ²)	
Degrees	Avg. 0° Luminance
45	3670
55	1043
65	305
75	177
85	237

Candela Distribution	
Degrees Vertical	Candela
0*	1886
5	1605
15	596
25	300
35	181
45	29
55	7.5
65	1.9
75	0.9
85	0.9
90	0

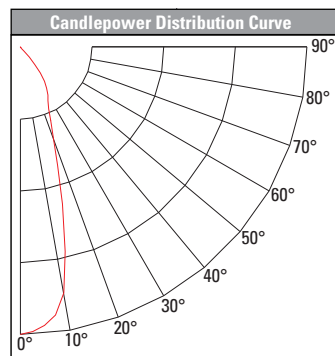
Cone of Light Horizontal Footcandles		
Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	62	2.1
7' 0"	39	2.6
8' 0"	29	3.0
9' 0"	23	3.4
10' 0"	19	3.8

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	449.03	75.1	75.1
0-40	557.72	93.3	93.2
0-60	594.78	99.5	99.4
0-90	598.21	100	100

Cone of Light Vertical Footcandles on Wall			
35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	106	2.1	1.2
3' 0"	47	3.1	1.8
4' 0"	26	4.2	2.4
5' 0"	17	5.2	3.0
6' 0"	12	6.3	3.6
8' 0"	7	8.4	4.9
10' 0"	4	10.5	6.1
12' 0"	3	12.6	7.3

**4" Adjustable Gimbal - 2700K
ELG405827xx (35° Beam-0° tilt)**

**Spacing Criteria = 0.56
Lumens per Watt = 41.8 LpW
Test No. P85060
Test Model: ELG405827TBZ (35° reflector)**



Luminance (Average Candela/M ²)	
Degrees	Avg. 0° Luminance
45	2724
55	389
65	144
75	0
85	0

Candela Distribution	
Degrees Vertical	Candela
0*	1212
5	1178
15	684
25	286
35	177
45	22
55	2.8
65	0.9
75	0
85	0
90	0

Cone of Light Horizontal Footcandles		
Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	40	3.0
7' 0"	25	3.9
8' 0"	19	4.4
9' 0"	15	5
10' 0"	12	5.5

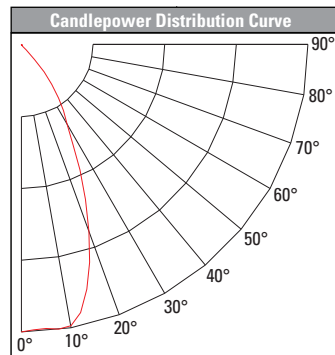
Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	435.77	76.3	76.4
0-40	542.02	94.9	95
0-60	569.36	99.7	99.8
0-90	570.61	99.9	100

Cone of Light Vertical Footcandles on Wall			
35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	92	2.1	1.5
3' 0"	41	3.1	2.2
4' 0"	23	4.1	2.9
5' 0"	15	5.2	3.7
6' 0"	10	6.2	4.4
8' 0"	6	8.3	5.9
10' 0"	4	10.4	7.4
12' 0"	3	12.4	8.8

Refer to Optional Accessory Reflector Kit TL412RK for 35° reflector.

**4" Adjustable Gimbal - 2700K
ELG405827xx (50° Beam-0° tilt)**

**Spacing Criteria = 0.80
Lumens per Watt = 41.8 LpW
Test No. P85063
Test Model: ELG405827TBZ (50° reflector)**



Luminance (Average Candela/M ²)	
Degrees	Avg. 0° Luminance
45	2484
55	264
65	144
75	177
85	0

Candela Distribution	
Degrees Vertical	Candela
0*	778
5	772
15	687
25	375
35	178
45	20
55	1.9
65	0.9
75	0.9
85	0
90	0

Cone of Light Horizontal Footcandles		
Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	26	4.4
7' 0"	16	5.6
8' 0"	12	6.3
9' 0"	10	7.1
10' 0"	8	7.9

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fixture
0-30	435.92	76.2	76.2
0-40	544.27	95.2	95.1
0-60	570.64	99.8	99.7
0-90	572.24	100	100

Cone of Light Vertical Footcandles on Wall			
35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	77	2.0	1.9
3' 0"	34	3.0	2.8
4' 0"	19	4.0	3.7
5' 0"	12	5.0	4.7
6' 0"	9	6.0	5.6
8' 0"	5	8.0	7.5
10' 0"	3	10.0	9.4
12' 0"	2	12.1	11.2

Refer to Optional Accessory Reflector Kit TL412RK for 50° reflector.

Photometric tests are per IES measurement standards. Tests represent typical SSL fixture performance. Field results may vary.

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Note: Specifications and Dimensions subject to change without notice.

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