MAXILUME
ARCHITECTURAL LIGHTING
By Elite Lighting

Tunable White — **HH4-LED** — **4"**
4" Architectural High Lumen LED Downlight

HH4-4501
Flanged Downlight

HH4-4507
Flanged Wall Wash

HH4-4577
Flanged Double Wall Wash

HH4-TL-4501
Trimless Downlight

HH4-TL-4507
Trimless Wall Wash

REFLECTOR/FLANGE COLORS

CL-WH | SHZ-WH | MB-WH | BZ-BK | WT-WH | W-WH
CL-SCH | SHZ-BK | MB-BK | BZ-BZ | WT-WT
CL-BK | SHZ-SHZ
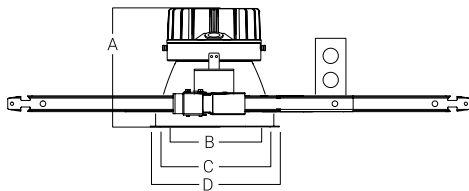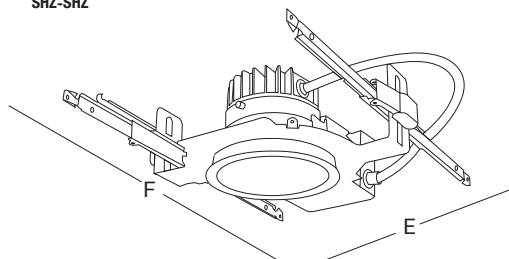CL-BZ

A: Height = 5-3/4"
B: Trim Aperture = 4"
C: Cut-Out = 4-1/2"
D: Trim Outside Dia = 5-3/8"
E: Width = 16"
F: Length = 12-1/2"

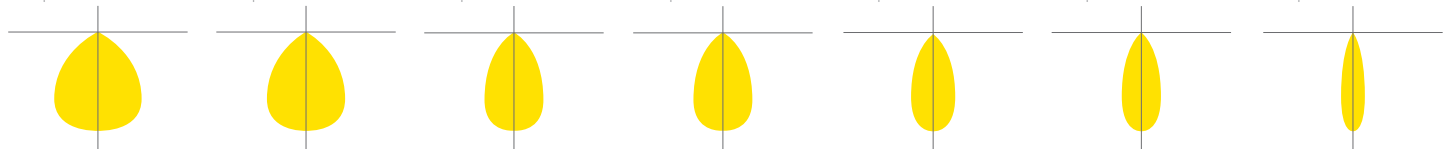| LUMENS	WATTAGES
2000L	24 W
1500L	18 W
1200L	14 W
900L	10 W

Based on 4000K, 90CRI with semi-specular chrome reflector.
Actual wattage may vary +/-5%

DYNAMIC PLATFORM

SMART WHITE - Tunable White with Smart White technology allows the tuning of luminaires to mimic the natural color patterns throughout the day, enhancing interior office spaces, hospitality, and architectural elements. Tuning of intensity and color in classrooms enables a diversification in student activities, while the use of tunable white technology in healthcare stimulates circadian rhythm, accelerating the healing process. Complementing colors and textures in retail merchandising also has an impact on sales, utilizing the technology to adjust colors throughout the season. A CRI of 90+ is standard, and available on all three platforms. Elite Platform (50K-27K).

LUMENS	Elite Platform: 900, 1200, 1500, 2000
TUNABLE WHITE PLATFORM	TWH-50K-27K (50K to 27K) TWH-65K-27K (65K to 27K)
CRI	90+ Standard
COLOR QUALITY	2 Step MacAdam Ellipse
DISTRIBUTIONS	VWD, WD, MWD, MD, ND, SPD, NSPD
TRIM OPTIONS	Downlight, Wall Wash, Double Wall Wash, Wet Location
REFLECTOR COLORS	CL (Semi-Specular Chrome), SHZ (Low Iridescent Satin Haze), WT (Wheat), W (White), MB (Black). BZ (Bronze)
FLANGE COLORS	Self-Flanged WH (White), SCH (Semi-Specular Chrome), SHZ (Low Iridescent Satin Haze), BK (Black), BZ (Bronze)
DIMMING	1% Dimming Standard, 0-10V (DIM10), DMX-512 DMX-RDM, BLE, LUTH, DALI
EMERGENCY	10W - Up to 1000L Output (Bodine BSL310) 20W - Up to 2000L Output (Bodine BSL20)
LIFETIME	L70 at 102,000 Hours
PHOTOMETRIC TESTS	In Accordance with IES LM79-08, LM80 and TM-30, TM-21

VWD: Very Wide — Candlepower Distribution Curve
WD: Wide — Candlepower Distribution Curve
MWD: Medium Wide — Candlepower Distribution Curve
MD: Medium — Candlepower Distribution Curve
ND: Narrow — Candlepower Distribution Curve
SPD: Spot — Candlepower Distribution Curve
NSPD: Narrow Spot — Candlepower Distribution Curve

Reference IES files for additional distribution curve information.

c UL us LISTED | PROUDLY ASSEMBLED in AMERICA | SAMEDAY SHIPPING Consult with Factory | 5 YEARS LIMITED WARRANTY | CHICAGO APPROVED

Due to the changes of constant improvement in LED technology, all details are subject to change without notice. Consult factory for up to date information.
RS190627/NS190711/ BB190711/AS210316

FEATURES

A highly sustainable and ultra-efficient architectural LED downlight that provides even, glare-free illumination. Available in a range of finishes, distributions, and lumen packages, it is ideally suited for use in corporate office space, hospitality, healthcare, commercial, academic, churches and retail.

OPTICS AND REFLECTOR

The reflector has a 45° visual cutoff, and is shipped standard with a Solite lens in a smooth frosted finish. Spun from 0.05" thick aluminum, with a 1-step anodized finish, and available in different colors or custom RAL finishes. Reflector flange options include self-flanged and white painted flange. Various distribution options are available, and all optics are field changeable.

THERMAL MANAGEMENT SYSTEM

Passive cooling Diecast Aluminum Heat Sink, LED light engine and driver are replaceable, upgradeable, and can be accessed from below the ceiling. The consistency in the quality of light is delivered with precision performance by the use of a unique locking mechanism that aligns the reflector with the light engine.

MOUNTING FRAME & BRACKET

The downlight mounting frame is a fabricated assembly constructed of 16-gauge steel, with C-channel mounting brackets, included. The versatility of the mounting bracket allows for an adjustability of up to 28" horizontally, and 2-3/4" vertically, locking into place. With the added die-formed construction of the mounting frame, it provides maximum heat dissipation and rust protection.

DRIVER ELECTRICAL INFORMATION

The LED driver is rated for 50 to 60Hz at 120V/277V, input, produces less than 20%THD, has a power factor between 90% and 100%, and is thermally protected for additional safety. Junction box and Driver can be accessed from below the ceiling and above the ceiling. Junction Box is Listed for through branch circuit wiring.

DIMMING & DRIVER INFORMATION

SMART WHITE High Performance platform with a tuning range of 5000K to 2700K (TWH-50K-27K) and 6500K to 2700K (TWH-65K-27K).
Control via DIM10 (0-10V), ELITE-CONNECT 0-10V, LUTRON, DMX512-RDM, DALI
Control via DIM10, ELITE-CONNECT 0 10V, DMX512, DMX-RDM, BLE, DALI
Junction box and Driver can be accessed from below the ceiling and above the ceiling. Junction Box is Listed for through branch circuit wiring.

WARRANTY

Five-year warranty for parts and components. (Labor not included)

LISTINGS

c-UL-us - Listed for Wet Location if used with HH4-4501 Trim.
c-UL-us - Listed for Feed Through Wiring.
All LED luminaires are rated and tested to LM-79 and LM-80 standards by an! independent laboratory.
U.S Patent No. - D685,118S
CP-City of Chicago Environmental Air (CCEA) marking for plenum applications.

Example: **HH4-LED-TWH-50K-27K-900L-DIM10-120-MD-90-HH4-4501-CL-WH**

SERIES	LUMENS	DRIVER	VOLTAGE	EMERGENCY	TRIM TYPE	REFLECTOR/TRIM- FINISH		WALL MOUNT CONTROLLER
HH4-LED-TWH-50K-27K	❏ 900L	❏ DIM10*	❏ 120	❏ EMG-LED-10W	❏ HH4-4501	❏ CL-WH	❏ SHZ-BK	❏ EC-WC-TWH-HW-MVOLT [1]
HH4-LED-TWH-65K-27K	❏ 1200L	❏ DMX-512	❏ 277	❏ EMG-LED-20W	*Flanged Downlight*	❏ CL-SCH	❏ WT-WH	
	❏ 1500L	❏ DMX-RDM	❏ MVOLT		❏ HH4-4507	❏ CL-BK	❏ WT-WT	
	❏ 2000L	❏ DALI		Typical lumen output of the luminaire is up to 1000L with EMG-LED-10W option & 2000L with EMG-LED-20W option in emergency mode. Contact the factory for details.	*Flanged Wall Wash*	❏ CL-BZ	❏ W-WH	
		❏ BLE			❏ HH4-4577	❏ SHZ-WH	❏ MB-WH*	
		❏ LUTH [2]			*Flanged Double Wall Wash*	❏ SHZ-SHZ	❏ MB-BK*	
				Remote mounted installation		❏ SHZ-BK	❏ BZ-BK	
							❏ BZ-BZ	

	OPTICS		CRI	OTHER OPTIONS	TRIMLESS	TRIMLESS FINISH	
	❏ VWD	70°	❏ 90+	❏ CP (Chicago Plenum)	❏ HH4-TL-4501	❏ CL	
	❏ WD	60°			*Trimless Downlight-*	❏ MB	
	❏ MWD	52°			❏ HH4-TL-4507	❏ SHZ	
	❏ MD	36°			*Trimless Wall Wash*	❏ WH	
	❏ ND	30°					
	❏ SPD	24°					
	❏ NSPD	15°					

* For 0-10V driver you must dedicate two control inputs, one for the Dimming Control and another for CCT Tuning.   ** For Details Consult Factory
[1] Compatible with Elite 0-10V Platform and LED Engin 0-10V Platform   [2] (Lutron T Series 2 Channel Tunable White)   * Black color trim is not ENERGYSTAR certified

elite LED LIGHTING
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HH4-LED-TWH-50K-27K-1500L-ND-HH4-4501-CL

TEST NO.: LM-63-2002

INPUT WATTS: **18**	LUMENS: **1543**	CRI: **90+**	EFFICACY: **85**	CCT: **4000K**	SPACING CRITERIA: **0.64**

Candle Power Distribution (Candelas)

792, 1583, 2375, 3166
90°, 80°, 70°, 60°, 50°, 40°, 30°, 20°, 10°

Cone of Light

Distance to Plane	Initial Footcandle at Nadir	Beam diameter
4.0	190	2.6 ft.
8.0	47.5	5.2 ft.
12.0	21.1	7.8 ft.
16.0	11.9	10.4 ft.
20.0	7.59	13.1 ft.
24.0	5.27	15.7 ft.
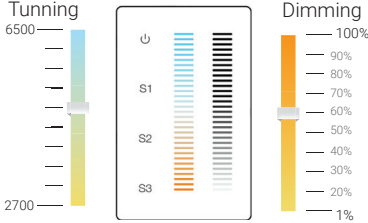
BEAM DIA. MEASURED AT 50% OF NADIR F.C.
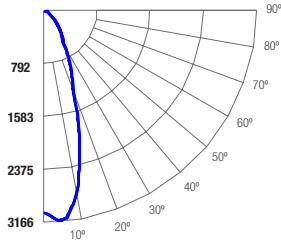
Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	812.35	52.60	52.60
0-30	1224.76	79.40	79.40
0-40	1419.04	91.90	91.90
0-60	1533.94	99.40	99.40
0-80	1542.56	99.90	99.90
0-90	1543.4	100.00	100.00

Luminance (Average candela/M^2)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	16286	18146	29899
55	2328	5561	7063
65	878	1148	3662
75	432	690	986
85	159	1529	1991

Lumens Per Zone

Zone	Lumens
0-10	277.64
10-20	534.71
20-30	412.41
30-40	194.28
40-50	91.62
50-60	23.27
60-70	6.93
70-80	1.70
80-90	0.83

Candela Tabulation

	0
0	3037.50
5	3054.56
15	1853.85
25	910.23
35	231.33
45	91.59
55	10.62
65	2.95
75	0.89
85	0.11
90	0.04

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

RC		80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%		70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119		116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107		111	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	104	101	97		107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	93	90		102	97	92	89	94	91	88	92	89	86	90	87	85	84
4	99	92	87	84		98	91	87	83	89	85	82	87	84	81	85	83	80	79
5	95	87	82	78		93	86	81	78	85	80	77	83	79	76	82	78	76	74
6	91	83	77	73		89	82	77	73	81	76	73	79	75	72	78	74	72	70
7	87	79	73	69		86	78	73	69	77	72	69	76	72	69	75	71	68	67
8	83	75	69	66		82	74	69	66	73	69	65	72	68	65	71	68	65	64
9	80	71	66	62		79	71	66	62	70	65	62	69	65	62	68	65	62	61
10	77	68	63	60		76	68	63	59	67	62	59	66	62	59	66	62	59	58

ROOM CAVITY RATIO

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

CONTROL OPTIONS

With the integration of controls, Elite Lighting now offers its products with controls-ready performance that increases energy efficiency, smarter space planning, and the enhancement of safety and productivity in the workplace. By utilizing these controls, Elite Lighting luminaires enable your customer's facility to run smarter, with the use of an easily controlled system through any platform.

CONTROL PROTOCOLS		SMART WHITE	LEDENGIN
❏ **ELITE-CONNECT** (EC-WC-TWH-HW-MVOLT) - Hard-wired, 0-10V, 120/277V wall mounted controller for CCT Tuning and Intensity Dimming through Simple Touch screen pad, provided by Elite Lighting. Programmable for up to 3-scenes, with a dimming range down to 1%. Applicable for office spaces, hospitality, educational, healthcare, and retail merchandising.		✔	✔
❏ **DIM10** (0-10V 1% Dimming Standard) In order to Control the Color Tuning and dimming option with 0-10V driver you must dedicate two control inputs, one for the Dimming Control and another for CCT Tuning. Can be dimmed and tuned with 2 wall box dimmers and compatible with most control systems and/or daylight harvesting systems. ❏ **DIM10-LUTRON** Compatible with Lutron GRAFIK Eye QS or GRAFIK Eye 3000 by using two GRX-TVI Lutron 0-10V Dimming interfaces; one to tune and another to control dimming. Also compatible with Lutron VIVE system by using two FCJS-010 PowPak or FCJS-ECO EcoSystem PowPak modules per fixture; one to tune and one to control dimming.		✔	✔
❏ **DMX** (Available on Elite, LED Engin) - Compatible with Digital Multiplex Controller, Available with two options: DMX-512: Standard DMX Controller and DMX-RDM: DMX Controller with Remote Device Management.		✔	✔
❏ **LUTECO** Compatible with Lutron EcoSystem. Compatible with Lutron GRAFIK Eye EcoSystem, Lutron Energi Saver node EcoSystem, or Lutron Quantum systems.		✔	N/A
❏ **DALI** Compatible with Digital Addressable Lighting Interface, available with two options: DT6 and DT8.		✔	✔