

# t4/t6

CERAMIC METAL HALIDE DOWNLIGHTING











ULTIMATE PERFORMANCE AND DESIGN SUSTAINABILITY



It's easy to see why design professionals favor ceramic metal halide for recessed downlighting in commercial, retail and institutional environments. These lighting systems have remarkable efficacy. High beam intensities add "punch" and "sparkle" to a space, with exceptional color rendering, color stability and lamp-to-lamp color consistency. The T4 or T6 lamp, properly applied in luminaire design, provides a superior alternative to halogen and HID PAR lamps.

Gotham's new family of T4/T6 luminaires makes it possible for a single lamp type to address general downlighting, accent and wallwash applications throughout a space, streamlining the design while allaying concerns that future relamping may compromise the lighting effect.

To satisfy a wide array of lighting applications in commercial and institutional scale environments, Gotham's T4/T6 family includes a complete line of advanced downlights, accent and lensed wallwash luminaires with 4" or 6" apertures. All are designed specifically for T6 (G12), T4 (G8.5) or Philips Mini MasterColor® ceramic metal halide lamps. Downlight and accent luminaires are available in narrow, medium or wide beam distributions.

		DOWNLIGHT			ACCENT			LENSED WALLWASH
								
		NARROW	MEDIUM	WIDE	NARROW	MEDIUM	WIDE	
	<b>4-INCH</b>	●	●	●	●	●	●	●
	39 WATT	●	●	●	●	●	●	●
	70 WATT	●	●	●	●	●	●	●
	<b>6-INCH</b>	●	●	●	●	●	●	●
	39 WATT	●	●	●	●	●	●	●
	70 WATT	●	●	●	●	●	●	●
T6 (G12)	150 WATT	●	●	●	●	●	●	●
	<b>4-INCH</b>	●	●	●	●	●	●	●
	39 WATT	●	●	●	●	●	●	●
	70 WATT	●	●	●	●	●	●	●
	<b>6-INCH</b>	●	●	●	●	●	●	●
	39 WATT	●	●	●	●	●	●	●
	70 WATT	●	●	●	●	●	●	●
T4 (G8.5)								
	<b>4-INCH</b>	●	●	●	●	●	●	●
	20 WATT	●	●	●	●	●	●	●
	39 WATT*	●	●	●	●	●	●	●
	<b>6-INCH</b>	●	●	●	●	●	●	●
	20 WATT	●	●	●	●	●	●	●
	39 WATT*	●	●	●	●	●	●	●
PHILIPS MINI MASTERCOLOR								

\*Consult factory for availability.

## REMARKABLE PLANNING EASE

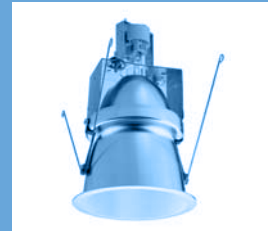
Gotham's new T4/T6 family gives rise to unprecedented flexibility in developing lighting plans for a broad range of public environments. Capitalizing on the unique performance characteristics and efficiency of advanced ceramic metal halide technology, these highly refined luminaires answer virtually every lighting need, even in architecturally complex applications such as convention centers, showrooms, arenas and retail spaces.

## AN INTEGRATED FAMILY: DOWNLIGHT, ACCENT, WALLWASH

For general lighting in areas with finished ceilings, the T4/T6 recessed downlight imparts a vivid punch of light, with excellent lamp-to-lamp color consistency and long-term color stability. Patented Gotham Bounding Ray™ optics available with narrow, medium and wide flood distributions in a choice of 4" or 6" apertures allow you to achieve uniform coverage throughout a space, no matter the variation in ceiling heights, utilizing the same lamp type.

To accentuate architectural features, artwork and product displays, T4/T6 accent luminaires produce clean, even beams of light – no striations, light spill or uneven patterns detract from the intended effect. 360° rotation and up to 40° tilt adjustments are easily made by hand, allowing beams to be precisely aimed and locked into place.

T4/T6 wallwash luminaires light vertical surfaces and retail displays with pleasing vibrancy. Proprietary convex spread lenses distribute a uniform wash of light from ceiling to floor. The combination of a compact, efficient ceramic source with Gotham performance optics gives designers increased light levels and crisper, brighter colors, allowing dramatic effects even in large scale environments such as two-story spaces, concourses, lobbies and atriums.



## DESIGN SUSTAINABILITY

Gotham's T4/T6 family lets you satisfy a wide range of lighting needs with a single lamp. This streamlines the design process, consolidates lamp inventories, and prevents inadvertent application errors by maintenance crews during future relampings.

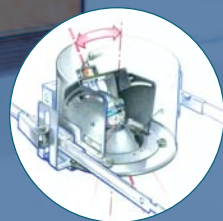
The low brightness apertures of T4/T6 downlight, accent and wallwash versions assure an exceptionally quiet ceiling, enhancing visual appeal and occupant comfort. Apertures and trims match those of other Gotham downlights in a space, reinforcing a sense of aesthetic continuity throughout.

Ask your lighting representative for detailed information on Gotham's new T4/T6 family and how it complements the full line of Gotham downlighting. Or visit our website at [www.gothamlighting.com](http://www.gothamlighting.com).

Gotham's new T4/T6 family of downlight, accent and wallwash luminaires produce light that is crisp and expressive, with excellent uniformity. Aperture brightness is minimized, resulting in greater occupant comfort. And T4/T6 luminaires meet USGBC (LEED) and EPACT 2005 criteria, providing energy savings that can't be matched by HID and incandescent PAR lamps. This is particularly important in applications where lighting operates for long periods of time.



**T4/T6 downlight luminaires** with 4" and 6" apertures and narrow, medium and wide flood distributions, allow a single ceramic metal halide lamp type to be applied at different ceiling heights with similar candlepower performance at the work plane.





**T4/T6 accent luminaires** bring attention to architectural features, artwork and product displays with clean, even beams – no striations, light spill or uneven patterns. This is achieved with narrow, medium, or wide flood distributions. 360° rotation and up to 40° tilt adjustments are easily accomplished and locked by hand for precision aiming of light beams.



**T4/T6 lensed wallwash luminaires** satisfy the need for smooth, uniform illumination of vertical surfaces – top to bottom, edge to edge. 360° horizontal rotation allows precision aiming without having to install the housing in any particular orientation.



**ECONOMIC ANALYSIS FOR COMPARABLE ILLUMINATION**  
(2400 ft<sup>2</sup> retail area. 24 hour operation)

Luminaire Type	Recessed Accent	Recessed Accent	Recessed Accent
Lamp	75W PAR 30	39W PAR 30	39W T6
Type	PAR Halogen	PAR Ceramic MH	T6 Ceramic MH
Mean Lamp Lumens <sup>1</sup>	1050	1430	2600
Luminaire Efficiency	86.1%	94.1%	67.7%
Delivered Lumens	904	1346	1760
Required Luminaires	100	67	51
Average Maintained Footcandles	42.5 FC	42.6 FC	42.5 FC
Approximate Initial Installed Cost <sup>2</sup>	\$19,800	\$25,460	\$20,961
Annual Cost of Energy and Maintenance <sup>3</sup>	\$10,600	\$5,798	\$3,817
Total 10 year Life Cycle Cost <sup>4</sup>	\$81,850	\$44,767	\$29,477
LCCBA (Life-cycle Cost/Benefit Analysis)	\$101,650	\$70,227	\$50,438
	(Good)	(Better)	(Best)
Lighting Power Density	3.1 w/ft <sup>2</sup>	1.1 w/ft <sup>2</sup>	.8 w/ft <sup>2*</sup>

\*this lighting power density is 55% better than ASHRAE/ IESNA 90.1 and thus eligible for maximum LEED points as determined by USGBC.

1. HID PAR and T6 input power equal 44 watts

2. Includes installation labor, lamp and luminaire costs

3. Considers fewer fixtures are required for the T6 application, longer lamp life and less consumed energy

4. Based on a 5% discount rate

Note: for more detailed information on this scenario/example please go to: [www.gothamlighting.com/technotes](http://www.gothamlighting.com/technotes)

## ORDERING INFORMATION

### DOWNLIGHT

SERIES	LAMP TYPE	LAMP WATTAGE	APERTURE	TRIM COLOR	DISTRIBUTION	FINISH	VOLTAGE	BALLAST
ATH	T4T <sup>1,2</sup>	20 MHC	4 <sup>5</sup>	AR Clear	N Narrow	(blank) Semi-specular	120	(blank) Electronic ballast
	T4 <sup>2,3</sup>	39 MHC	6	BR <sup>6</sup> Black	M Medium	LD Matte-diffuse	277	EMB Electro-magnetic ballast
	T6 <sup>4</sup>	70 MHC		PR Pewter	W Wide		347 <sup>7</sup>	
		150 MHC		UBR Umber WTR Wheat				

#### OPTIONS

- SF Single fuse
- TRW White painted flange
- TRBL Black painted flange
- L/LP Less lamp
- LRC<sup>8</sup> Provides compatibility with Lithonia Reloc<sup>®</sup> System can be installed less this option with connectors provided by others. Access above ceiling required.
- CP Chicago Plenum

### ACCENT

SERIES	LAMP TYPE	LAMP WATTAGE	APERTURE	TRIM COLOR	TYPE	DISTRIBUTION	FINISH	VOLTAGE
DTH	T4T <sup>1,2</sup>	20 MHC	4 <sup>5</sup>	AC Clear	T00 Cut for angles 0°-15°	N Narrow	(blank) Semi-specular	120
	T4 <sup>2,3</sup>	39 MHC	6	BC <sup>6</sup> Black	T20 Cut for angles 15°-25°	M Medium	LD Matte-diffuse	277
	T6 <sup>4</sup>	70 MHC		PC Pewter	T30 Cut for angles 25°-40°	W Wide		347 <sup>7</sup>
		150 MHC		UBC Umber WTC Wheat				

#### BALLAST

- (blank) Electronic ballast
- EMB Electro-magnetic ballast

#### ACCESSORIES

F700<sup>10,11</sup>

#### OPTIONS

- QRS<sup>9</sup> Quartz restrike system (uses 100W max. DC base quartz lamp by others)
- QRSTD<sup>9</sup> Quartz restrike system with time delay
- EC Emergency circuit (DC socket with leads for connection to external emergency power source; 100W max. lamp)
- SF Single fuse
- TRW White painted flange
- TRBL Black painted flange
- L/LP Less lamp
- LRC<sup>8</sup> Provides compatibility with Lithonia Reloc<sup>®</sup> System can be installed less this option with connectors provided by others. Access above ceiling required.
- CP Chicago Plenum

### LENSED WALLWASH

SERIES	LAMP TYPE	LAMP WATTAGE	APERTURE	TRIM COLOR	FINISH	VOLTAGE	BALLAST
DLWTH	T4T <sup>1,2</sup>	20 MHC	4 <sup>5</sup>	AR Clear	(blank) Semi-specular	120	(blank) Electronic ballast
	T4 <sup>2,3</sup>	39 MHC	6	BR <sup>6</sup> Black	LD Matte-diffuse	277	EMB Electro-magnetic ballast
	T6 <sup>4</sup>	70 MHC		PR Pewter		347 <sup>7</sup>	
		150 MHC		UBR Umber WTR Wheat			

#### OPTIONS

- SF Single fuse
- TRW White painted flange
- TRBL Black painted flange
- L/LP Less lamp
- LRC<sup>8</sup> Provides compatibility with Lithonia Reloc<sup>®</sup> System can be installed less this option with connectors provided by others. Access above ceiling required.
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#### NOTES

- 1 Philips Mini MasterColor<sup>®</sup>; available in 20W (120V only) and 39W (120V only). Consult factory for availability of 39W.
- 2 Available with electronic ballast only.
- 3 Available in 39W & 70W only.
- 4 Available in 39W, 70W & 150W only.
- 5 Maximum wattage: 70W.
- 6 Not available with finishes.
- 7 Available with 70W & 150W electro-magnetic ballast only.
- 8 For compatible Reloc systems, refer to Technical Bulletins tab.
- 9 Not available with electronic ballast.
- 10 Refer to Technical Bulletins tab for lens color availability.
- 11 F700 lens for use with 6" aperture.

gotham<sup>®</sup>

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