

Project	Wisconsin DOT Roadway Luminaire
Туре	LED A
Catalog No.	GCM2-30H-MV-NW-3R-GY-850-PCR7-WL-WISDOT-A-SC

# GreenCobra™ Midsize LED Street Light GCM H-Series Specification Data Sheet

# **Luminaire Data**

 Weight
 10 lbs [4.6 kg]

 EPA
 0.44 ft<sup>2</sup>







# **Ordering Information**

Sample Catalog No. GCM2 30H MV NW 2R GY 700 PCR7 WL

GCM2	30H	MV NW :		3R	GY	850	PCR7-WL-WISDOT-A-SC		
Product	LED Code	Voltage	Color Temperature	Distribution	Finish <sup>9</sup>	Finish <sup>9</sup> 30H Drive Current Code <sup>1</sup>		Options	
GCM2 GCM2	<mark>ЗОН</mark> 40Н	MV 120-277V HV 347-480V	WW 3000K NW 4000K CW 5000K	<ul> <li>2S Type 2 Short</li> <li>2R Type 2 Medium</li> <li>3R Type 3 Medium</li> <li>4 Type 4</li> <li>5 Type 5</li> </ul>	GY Gray DB Dark Bronze BK Black	530 610 700 850 1A 40H Drive Current Code <sup>1</sup> 575 700 850 950 1A	FDC <sup>2</sup> LPCR PCR7 <sup>3</sup> PCR7-CR <sup>4</sup> WL 4B RWG SWTB BBL	Fixed Drive Current Less Photocontrol Receptacle ANSI 7-wire Photo- control Receptacle Control Ready 7-wire PC Receptacle Utility Wattage Label 4-Bolt Mounting Bracket Rubber Wildlife Guard Straight Wire Terminal Block Bubble Level	

#### Notes:

- 1 Factory set drive current, field adjustable standard. Refer to Performance Data Table. Consult factory if wattage limits require a special drive current.
- 2 Non-field adjustable, fixed drive current. Specify required drive current. Not available with PCR7-CR option.
- 3 Field adjustable current selector included. Wireless node dimming is disabled, field changeable connectors included to enable dimming with PCR7.
- 4 Control-ready wiring at factory for wireless node dimming. Supplied at maximum drive current. If a lower drive current is required, consult factory.
- 5 Flush mounted house side shield. Shield cuts light off at 1/2 mounting height behind luminaire.
- 6 Flush mounted cul-de-sac shield. Shield cuts light off at 1/2 mounting height behind luminaire and 1-1/2 mounting height on either side of luminaire.
- 7 Specify Color (GY, DB, BK)
- 8 Specify MV (120-277V) or HV (347V-480V)
- 9 Gray, Black, and Dark Bronze standard. Consult factory for other finishes.

Accessories*
House Side Shield, Snap-On*
Cul-De-Sac Side Shield, Snap-On*
Square Pole Horizontal Arm Bracket
Round Pole Horizontal Arm Bracket
Pole Top Tenon Horizontal
Arm Bracket
Pole Top Tenon Horizontal
Arm Bracket (2@180°)
Wall Horizontal Arm Bracket
Bird Deterrent Spider Kit
Twist Lock Photocontrol
Long-Life Twist Lock Photocontrol
Twist Lock Shorting Cap

\*Accessories are ordered separately and not to be included in the catalog number. For factory installed HSS, CSS consult factory.





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# **Luminaire Specifications**

#### Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Four-bolt mounting bracket is available. Mounting provisions meet 3G vibration per ANSI C136.31-2001 Normal Application, Bridge & Overpass. Mounting has leveling adjustment from  $\pm 5^{\circ}$  in 2.5° steps. Electrical components are accessed without tools via a high-strength, non-conductive polycarbonate door with quick-release latches. Polycarbonate material meets UL 746C for outdoor usage. Available rubber wildlife guard (RWG option) conforms to mast arm with no gaps.

#### **Light Emitting Diodes**

High-flux/High-power white LEDs produce a minimum of 90% of initial intensity over 75,000 hours of life based on IES TM-21 (L90  $\ge$  75k hours). LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 3000K (WW), 4000K (NW), or 5000K (CW) and 70 CRI minimum. LEDs are 100% mercury and lead free.

# **Quality Control**

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

# **Optical Systems**

Micro-lens optical systems produce IESNA Type 2, Type 3, Type 4, or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. Both shields are field installable without tools.

#### Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quickdisconnect terminals. LED drive current can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

# Controls

3-Wire photocontrol receptacle is standard. ANSI C136.41 7-wire (PCR7) photocontrol receptacle is available. All photocontrol receptacles have tool-less rotatable bases. Wireless control module is provided by others.

#### Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Finish tested to withstand 5000 hours in salt spray exposure per ASTM B117. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

#### Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. DesignLights Consortium™ qualified product. Consult DLC QPL for Premium Classification Listings. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C.

#### Photometry

Luminaires photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

#### Warranty

10-year limited warranty is standard on luminaire and components.

# Standards

Luminaire complies with: ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77 Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598



# Performance Data: 3000K (WW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive System Current Code Wattage (W)		Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)
		530	48	5770	120
		610	58	6700	116
	30H	700	68	7620	112
		850	82	8800	107
GCM2		1A	101	10480	104
GCIVIZ	40H	575	73	8780	120
		700	88	10230	116
		850	107	11960	112
		950	121	13040	108
		1A	135	14080	104

Notes:

1 Nominal lumens. Normal tolerance ± 10% due to factors including distribution type, LED bin variance, and ambient temperatures.

#### Performance Data: 4000K (NW) and 5000K (CW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm) <sup>1</sup>	Efficacy (Lm/W)
		530	48	6330	132
		610	58	7440	128
	ЗОН	700	68	8550	126
		850	82	9830	120
GCM2		1A	101	11720	116
GCIVIZ		575	73	9590	131
	40H	700	88	11260	128
		850	107	13270	124
		950	121	14390	119
		1A	135	15430	114

Notes:

1 Nominal lumens. Normal tolerance ± 10% due to factors including distribution type, LED bin variance, and ambient temperatures.



# **BUG Ratings**

3000K (WW)			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
		530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B3 U0 G1
	30H	700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		850	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
GCM2		1A	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
GCIVIZ		575	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	40H	700	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2

4000K (NW)		Type 2S	Type 2R	Type 3R	Type 4	Type 5	
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
		530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
	<mark>30H</mark>	700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
GCM2		1A	B3 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B3 U0 G2
GCIVIZ	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

# 5000K (CW)

5000K (CW)		Type 2S	Type 2R	Type 3R	Type 4	Type 5	
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
		530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
	30H	700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
GCM2		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
GCIVIZ	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

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