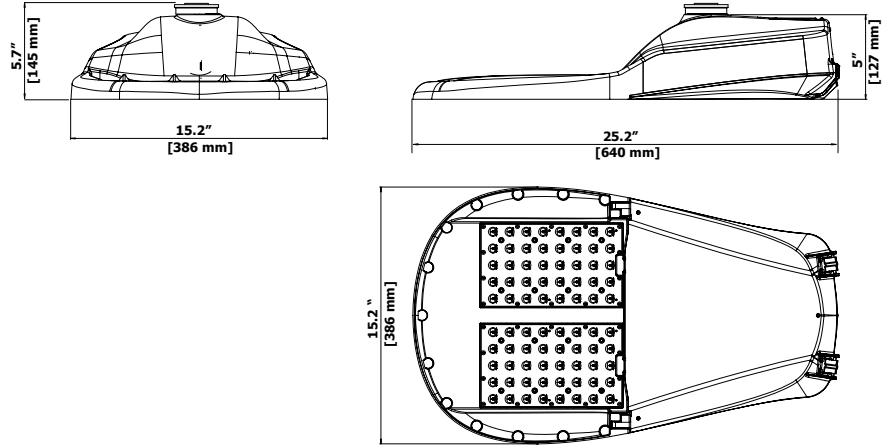


GreenCobra™ LED Streetlight

GCL J-Series Specification Data Sheet

Luminaire Data

Weight 19 lbs [8.7 kg]
EPA 0.52 ft.²



Ordering Information

Sample Catalog No. GCL1-80J-MV-30K-2S-GY-185-PCR7-RWG

Model*	LED Code	Voltage	Color Temperature	Distribution	Finish ¹	Output Code ²	Options
GCL1* GCL2* GCL3*	80J	MV 120-277V HV 347-480V	22K 2200K 27K 2700K 30K 3000K 40K 4000K 50K 5000K	2S Type 2 Short 2R Type 2 Medium 3R Type 3 Medium 3F Type 3F 4 Type 4 5 Type 5	GY Gray DB Dark Bronze BK Black	Refer to Page 3 to select the performance code.	FOC ³ Fixed Output Code LPCR Less Photocontrol Receptacle PCR7 ⁴ ANSI 7-wire Photocontrol Receptacle PCR7-CR ⁵ Control Ready 7-wire Photocontrol Receptacle 4B 4-Bolt Slip-Fitter RWG Rubber Wildlife Guard WL Utility Wattage Label BBL Bubble Level DSC Door Safety Cable CF ⁶ Coastal Paint Finish SP2 ⁷ Extreme Surge Protection, 20KV/10KA, Fail-to-on LSSP2 ⁷ Extreme Surge Protection, Fail-to-off, 20kv/10KA Rating

* Refer to performance data table on page 3 for specific model with corresponding output code

Notes:

- 1 Gray, Black and Dark Bronze standard. Consult factory for other finishes. See page 2 for RAL codes of Standard finishes.
- 2 Specified output code is the factory set lumen performance. Refer to performance data table on page 3 of this spec sheet. Field adjustable output selector enables fixture to be changed in the field to adjust light output for local conditions (not available with Fixed Output Code, FOC) or PCR7-CR option. Consult factory if wattage limits require a special drive current.
- 3 Non-field adjustable, fixed output code. Specify required output code. Not available with PCR7-CR option.
- 4 Includes output selector that enables field adjustability of light levels. Includes connectors to allow easy upgrade of wireless dimming via PCR7. Wireless node by others.
- 5 Control-ready wired at factory for wireless node dimming (node by others). Output selector not included in the fixture. Not able to adjust above specified output code.
- 6 Specify the CF Option for coastal installation. See warranty for details.
- 7 Standard surge protection, 10kV/5kA, fail-to-on, meets enhanced surge protection based on ANSI 136.25-2015 3-part test.
- 8 Flush mounted house side shield. Shield cuts light off at 1 mounting height behind luminaire. Same shield as H-Series product. Black color.
- 9 Flush mounted cul-de-sac shield. Shield cuts light off at 1 mounting height behind luminaire and 2 times the mounting height on either side of luminaire. Same shield as H-Series product. Black color.
- 10 Flush mounted front side shield cuts light off at approximately 1½ mounting height in front of luminaire (street side). Same shield as H-Series product. Black color.
- 11 Specify Color (GY, DB, BK). Refer to Leotek web site for specific mounting details and drawings at <https://leotek.com/lighting-library/>
- 12 Specify MV (120-277V) or HV (347V-480V)

Accessories*

HSSGCL ⁸	House Side Shield, Snap-On*
CSSGCL ⁹	Cul-De-Sac Side Shield, Snap-On*
FSSGCL ¹⁰	Front Side Shield, Snap-On*
SPB ¹¹	Square Pole Horizontal Arm Bracket
RPB ¹¹	Round Pole Horizontal Arm Bracket
PTB ¹¹	Pole Top Tenon Horizontal Arm Bracket
PTB2 ¹¹	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB ¹¹	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC ¹²	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

*Unless specified for field installation, Shields are installed and Shorting Cap is included in the box. All other options are shipped separately.

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 (4B option) is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass by independent test lab. Mounting has leveling adjustment from ± 5° in 2.5° steps. All hardware is stainless steel. Electrical components are accessed without tools via die cast aluminum door with stainless steel quick release latches. Provided standard with removable polycarbonate wild life guard. For additional protection, optional rubber wildlife guard (RWG) which conforms snugly to the mast arm is offered.

Light Emitting Diodes

LEDs produce minimal 90% of initial intensity at 60,000 hours of life per IES recommended lumen maintenance life projection based on 6 times the duration of the collected LM-80 data. For details on IESNA Position on LED Product Lifetime Prediction, PS-10-18. LEDs have correlated color temperature of 2200K (22K), 2700K (27K), 3000K (WW), 4000K (NW), or 5000K (CW) and 70 minimum CRI. LEDs are ROHS compliant, 100% mercury and lead free.

Field Adjustability

LED lumen output can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified output code will be the factory set output. Field adjustments can be made with the output selector included in the fixture. Field adjustable range shown in performance data table.

Quality Control

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

Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
GY	Gray	7040	429C
BK	Black	9004	426C
DB	Dark Bronze	6022	BLACK 2C

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. Front side shield cuts light off at approximately one mounting height in front of the luminaire (street side). Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. All 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 quick-disconnect terminals. 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, 10kV/5kA and ANSI C136.2-2015, 3-part test.

Power Supply

IP66 rated power power supply with high power factor of > 90%. Auto sensing universal AC input from 120 to 277VAC (MV model) and 347 to 480VAC (HV mode) rated for both line to line and line to neutral applications. Maximum THD rating of 20%. Class 1 or Class 2. Built-in overheating protection mechanism will reduce drive current to LEDs and electrical components if the driver experiences unusual internal overheating situation. Built-in short circuit, voltage overload, and current overload protection with automatic recovery after correction.

Controls

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

Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. 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 to confirm your specific fixture selection is DLC approved. All electronic components inside of the luminaire are NRTL damp location rated per ANSI 136.37-2011 Ingress Protection standard. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C. Assembled in the U.S.A

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. See Leotek.com for warranty details.

Vandal Resistance

Housing and optics rated to IK10

Certification and Compliance

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

TM21 Lumen Maintenance per IES TM21-11 Calculation

Model Number	60,000 Hours*	80,000 Hours	100,000 Hours
GCL1/2 80J	>98%	>98%	>98%
GCL3 80J	>95%	>94%	>93%

*Calculation based on IES position statement on Lumen Maintenance Life Projections

Performance Data: 2200K (22K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹	Field Adjustable Output Range
GCL1	80J	155	123	15499	126	↕
		165	132	16437	125	
		180	146	17810	122	
		185	153	18427	120	
		200	171	20155	118	
GCL2	80J	190	161	19123	119	↕
		200	173	20153	116	
		210	183	21086	115	
		220	193	21885	113	
		230	206	22847	111	
GCL3	80J	235	214	23399	109	↕
		245	230	24614	107	

Notes:

1. Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.
2. Maximum LED drive current is 1050mA.

Performance Data: 2700K (27K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹	Field Adjustable Output Range
GCL1	80J	175	123	17687	144	↕
		190	132	18758	142	
		205	146	20325	139	
		210	153	21029	137	
		230	171	23002	135	
GCL2	80J	220	161	21823	136	↕
		230	173	22999	133	
		240	183	24064	131	
		250	193	24975	129	
		260	206	26074	127	
GCL3	80J	270	214	27108	127	↕
		285	230	28516	124	
		300	248	29932	121	

Notes:

1. Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.
2. Maximum LED drive current is 1050mA.

Performance Data: 3000K (30K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹	Field Adjustable Output Range
GCL1	80J	185	123	18338	149	↕
		195	132	19448	147	
		210	146	21073	144	
		220	153	21803	143	
		240	171	23848	139	
GCL2	80J	225	161	22626	138	↕
		240	173	23845	138	
		250	183	24949	136	
		260	193	25894	134	
		275	206	27033	131	
GCL3	80J	285	214	28535	133	↕
		300	230	30017	131	
		315	248	31507	127	
		325	260	32603	125	

Notes:

1. Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.
2. Maximum LED drive current is 1050mA.

Performance Data: 4000K (40K) and 5000K (50K)

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

Product	LED Code	Output Code	System Wattage (W)	Delivered Lumens (Lm)	Efficacy (Lm/W) ¹	Field Adjustable Output Range
GCL1	80J	190	123	19209	156	↕
		205	132	20350	154	
		220	146	22216	152	
		230	153	23129	151	
		255	171	25504	149	
GCL2	80J	235	161	23667	147	↕
		250	173	25229	146	
		265	183	26444	145	
		275	193	27567	143	
		295	206	29252	142	
GCL3	80J	305	214	30689	143	↕
		325	230	32646	142	
		345	248	34372	139	
		355	260	35633	137	

Notes:

1. Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.
2. Maximum LED drive current is 1050mA.

BUG Ratings: 2200K (22K)

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

Product & LED Code	Output Code	Type 2R	Type 2S	Type 3F	Type 3R	Type 4	Type 5
		BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCL1 80J	155	B3-U0-G3	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2
	165	B3-U0-G3	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G2
	180	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	185	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	200	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
GCL2 80J	190	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	200	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	210	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	220	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	230	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
GCL3 80J	235	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	245	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G2

BUG Ratings: 2700K (27K)

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

Product & LED Code	Output Code	Type 2R	Type 2S	Type 3F	Type 3R	Type 4	Type 5
		BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCL1 80J	175	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	190	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	205	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	210	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	230	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
GCL2 80J	220	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	230	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	240	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G2
	250	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B5-U0-G3
	260	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G3	B4-U0-G3	B5-U0-G3
GCL3 80J	270	B3-U0-G3	B3-U0-G2	B3-U0-G4	B3-U0-G3	B4-U0-G3	B4-U0-G3
	285	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G3	B4-U0-G3	B5-U0-G3
	300	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G3	B4-U0-G3	B5-U0-G3

BUG Ratings: 3000K (30K)

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

		Type 2R	Type 2S	Type 3R	Type 3F	Type 4	Type 5
Product & LED Code	Output Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCL1 80J	185	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	195	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	210	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	220	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	240	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G2
GCL2 80J	225	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	240	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	250	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G3	B5-U0-G3
	260	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	275	B3-U0-G3	B4-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
GCL3 80J	285	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	300	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	315	B3-U0-G3	B4-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B5-U0-G3
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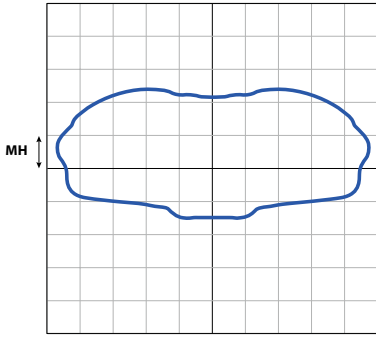
BUG Ratings: 4000K (40K) and 5000K (50K)

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

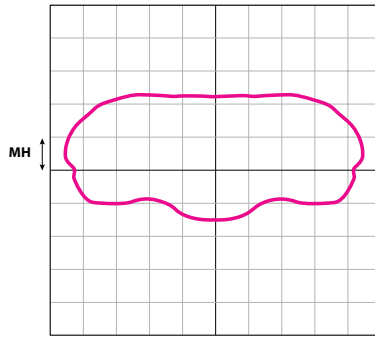
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	205	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	220	B3-U0-G3	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	230	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
	255	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
GCL2 80J	235	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G2
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	265	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	275	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3	B5-U0-G3
	295	B3-U0-G3	B4-U0-G3	B4-U0-G4	B3-U0-G4	B4-U0-G4	B5-U0-G3
GCL3 80J	305	B3-U0-G3	B4-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B5-U0-G3
	325	B3-U0-G4	B4-U0-G3	B4-U0-G4	B3-U0-G4	B4-U0-G4	B5-U0-G3
	345	B3-U0-G4	B4-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G3
	355	B3-U0-G4	B4-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G3

Optical Distribution

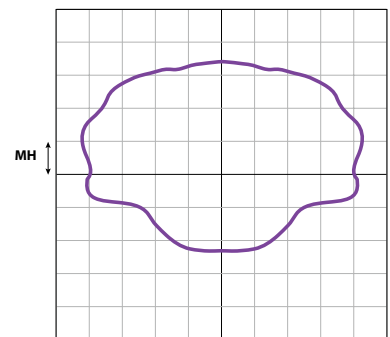
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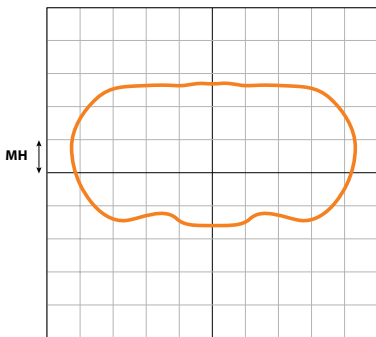
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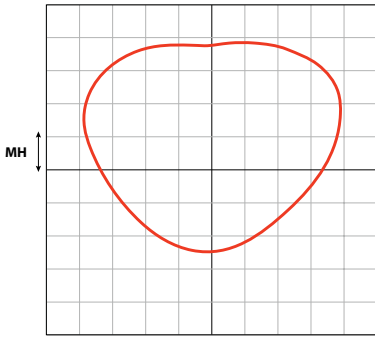
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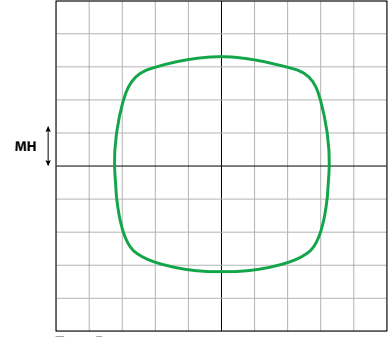
Type 3F



Type 3R



Type 4



Type 5