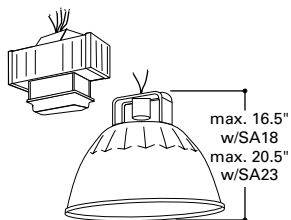
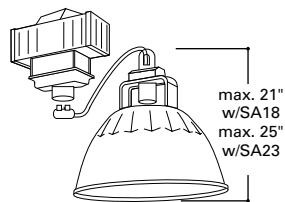


COOPER LIGHTING - LUMARK®

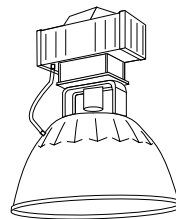
INDUSTRIAL OPTIONS



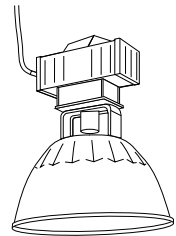
RM
Remote Mount



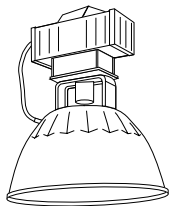
SS
Space Saver



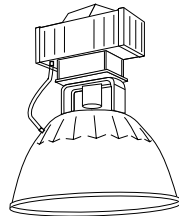
Q
Quartz Restrike



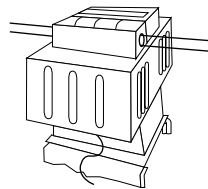
SCF
3' Safety Cable, Housing to Ceiling



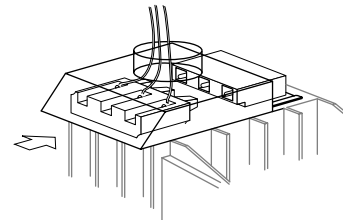
SCR
3' Safety Cable, Housing to Reflector



EM
Quartz Restrike

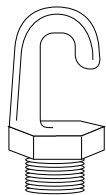


EM/SC
Emergency Circuit

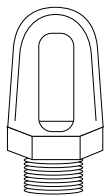


QD
Full Load Disconnect Die-cast Box

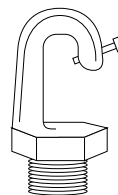
INDUSTRIAL ACCESSORIES



FH-1
Fixture Hook (2 1/2")



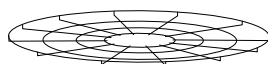
FL-1
Fixture Loop (2 1/2")



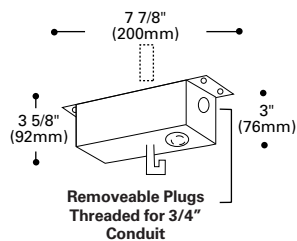
SHK
Fixture Hook with Safety Screw (2 1/2")



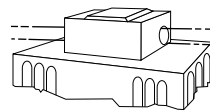
DB
Drop Acrylic Refractor



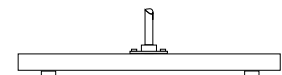
WG
Wire Guard



TPPH
Thru-Way Power Hook

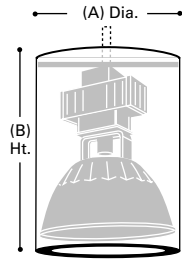


TWMBS
Thru-Way Mounting Box
(Must be Surface Mounted)



MBT
Twin Mount Bracket

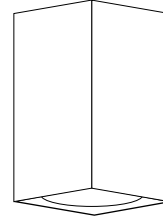
INDUSTRIAL ACCESSORIES



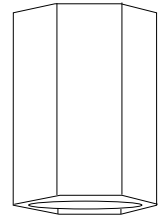
DIMENSIONS
See Chart Below



ROUND



SQUARE



HEXAGON

Catalog Number	Shade Description	(A) Inches	(A) Metric	(B) Inches	(B) Metric	Fixture Reflector Size
S51003	Round Decorative	17 1/2"	44.45 cm	17"	43.18 cm	15"
S51004	Round Decorative	17 1/2"	44.45 cm	27 1/2"	69.85 cm	15"
S51005	Round Decorative	20 1/2"	52.07 cm	27 1/2"	69.85 cm	18"
S51006	Round Decorative	25 1/2"	64.77 cm	34 1/2"	87.63 cm	23"
S51103	Square Decorative	17 1/2"	44.45 cm	17"	43.18 cm	15"
S51104	Square Decorative	17 1/2"	44.45 cm	27 1/2"	69.85 cm	15"
S51105	Square Decorative	20 1/2"	52.07 cm	27 1/2"	69.85 cm	18"
S51106	Square Decorative	25 1/2"	64.77 cm	34 1/2"	87.63 cm	23"
S51203	Hexagon Decorative	17 1/2"	44.45 cm	17"	43.18 cm	15"
S51204	Hexagon Decorative	17 1/2"	44.45 cm	27 1/2"	69.85 cm	15"
S51205	Hexagon Decorative	20 1/2"	52.07 cm	27 1/2"	69.85 cm	18"
S51206	Hexagon Decorative	25 1/2"	64.77 cm	34 1/2"	87.63 cm	23"

NOTE: Has to be installed when fixture is installed. Specify color.

COOPER LIGHTING - LUMARK®

OPTION DESCRIPTIONS

Lumark offers a full complement of options and accessories that allow the products to be customized to particular applications or installations. Options should be listed in the order shown at end of the part number and separated by dashes. See Steeler and Benchmark chart for housing/optical compatibility.

PS [Protective Starter] Thermal switch shuts off starter in case of overheating due to lamp cycling. Available in 1000W HPS only. For other wattages, consult factory.

P [Pre-set Socket Position from the factory] Shipped pre-set for specified distribution from factory.

OR [Open Rated Socket] Required in applications where open rated restricted base lamps must be used. Socket is "Pink" to denote open rated lamp base only. See lamp manufactures for additional information.

SS [Space Saver] Same as remote mount but optical shipped with loop and 3' cord with for easy connection to ballast housing.

QB [Quiet Ballast] Potted ballast eliminates ballast noise associated with traditional Magnetic Core and Coil ballast. Ideal for applications where elimination of secondary noise is needed such as gymnasiums and multi-purpose areas. Available on the Benchmark ballast housing only.

DL100 [100% Downlight] Available on SA18 or SA23 aluminum reflectors only.

QD [Quick Disconnect] Die-cast Pendant Mount Box—Specify Single Voltage (not compatible with PC3, PHC, C3, MWS, RM or HC). Full Load Disconnect module allows for removal of luminaire while circuit is still energized. U.L. listed as a load-break device.

RM [Remote Mount] Ballast and reflector mounting bracket can be hard wired and installed separate. Allows the ballast to be mounted at further distance or allow for overall reduction in luminaire height.

TE [Toolless Entry] Available for Benchmark ballast housing only.

HL [LumaWatt Fixture Control Module] Allows low voltage control wire to be daisy-chained between fixtures outside AC conduit run similar to low voltage intercom's, fire alarms and phone systems.

HC [LumaWatt Fixture Control Module] Low voltage leads pulled out of top connection box for areas requiring all wiring to be installed in conduit.

LC [Low Voltage Control] 0-10V DC Low voltage leads pulled out of top connection box for areas requiring all wiring to be installed in conduit. Available with Benchmark housing and electronic HID ballast only (MD lamp type).

Q [Quartz Restrike DC Bayonet Base] Lamp strikes after momentary power interruption that causes the main HID lamp to extinguish. Lamp will stay on until HID lamp restrikes. Quartz lamp will not come on at initial cold start.

EM [Quartz Restrike with "Delay Relay"] Same as "Q" option but lamp strikes at both hot and cold starts. Lamp stays on for two minutes to allow lamp to get to full brightness.

EM/SC [Quartz Restrike wired for Separate Circuit] Allow quartz lamp socket to be wired to separate emergency power system.

F1 [Single Fuse (120, 277 or 347V only)] In-line fusing isolates and inoperative luminaires from circuit protects luminaires from in-rush current flow. All fusing is external for easy access and maintenance.

F2 [Double Fuse (208, 240, or 480V only)] In-line fusing isolates and inoperative luminaires from circuit protects luminaires from in-rush current flow. All fusing is external for easy access and maintenance

FILT [Sintered Bronze Filter] Allows luminaire to breathe during start-up and shutdown times. Sintered bronze filter prevents the entrance of contaminants.

FH-1 [Die-cast Aluminum Fixture Hook] with 3/4" threads for easy installation.

FL-1 [Malleable Iron Plated Fixture Loop] with 3/4" threads for easy installation.

OPTION DESCRIPTIONS

SHK [Die-cast Aluminum Fixture Hook] with safety screw and 3/4" threads for easy installation.

PC3-XXXV [3' cord with NEMA plug] (120V-L5-15P, 208V-L6-15P, 240V-L6-15P, 347V-L37-20P, AND 480V-L8-20P) Other cord lengths are available by specifying length (PC6 for 6' cord). Requires FH-1 or FL-1. **EXAMPLE:** PC3-120V

PHC-XXXV [Power Cord and Plug] 18" Power Cord and Non-NEMA plug configuration. Must be used with FL-1 and TPPH (Thru-Way Pendant Power Hook). Must specify single voltage. **EXAMPLE:** PHC-120V-NEMA

PHC-XXX-NEMA [Power Cord and NEMA Plug] 18" Power Cord and 20 Amp NEMA plug configuration. Must be used with FL-1 and TPPH-NEMA (Thru-Way Pendant Power Hook). **EXAMPLE:** PHC-NEMA

C3 [3' Cord with no plug] Must use with FH-1 or FL-1.

MW [MWS Industrial components attached to the fixture at the factory] Standard cord length is 3 ft., 6 ft. and 11 ft. also available. Please refer to MWS Modular Wiring System section for additional information.

TS SYSTEM

Branch Circuit	<u>12/2G</u>	<u>12/3G</u>	<u>12/4G</u>
Cord	16/2G	16/2G	16/2G
	MWXXTS12/2G03	MWXXTS12/3G03BK	MWXXTS12/4G03BK
		MWXXTS12/3G03RD	MWXXTS12/4G03RD
			MWXXTS12/4G03BU

DS System

Branch Circuit	<u>12/2G</u>	<u>12/3G</u>	<u>12/4G</u>
Cord	16/2G	16/2G	16/2G
	MWXXDS16/2G03	MWXXDS16/2G03	MWXXDS16/2G03

XX = Voltage, 12=120V 27=277V 34=347V 20=208V 24=240V 48=480V

SCF 3' Aircraft Safety Cable secures housing to ceiling. Alternative lengths available. **EXAMPLE:** SCF6=6' Cable.

SCR Aircraft Safety Cable for housing to reflector.

L/TCB [Less Top Connector box] Housing shipped less top connector box. Used when using TWMB (Steel Family) and TW (Benchmark Family) accessories.

LL [Lamp Included] Specified for lamp to ship with order. Lamp is Cooper designated product based on luminaire requirements. Lamp is shipped separate from luminaire unless otherwise noted.

QLL [Quartz Lamp Included] Can be specified when Q, EM or EM/SC option is included. Specified for lamp to ship with order. Lamp is Cooper designated product based on luminaire requirements. Lamp is shipped separate from luminaire unless otherwise noted.

WL [Wet Location Listed Luminaires] U.L. listed and CSA certified for wet locations. Check chart for availability. Not available with all options and accessories. Consult product specification sheets for more details.

WG18 [Wire Guard] Wire Guard factory installed. Available on ENSA18 only.

WG23 [Wire Guard] Wire Guard factory installed. Available on ENSA23 only.

COOPER LIGHTING - LUMARK®

OPTIONS CAPABILITY MATRIX [ORDER SEPARATELY]

	PS	P	OR	SS	QB	DL100	QD	RM	TE	HL	HC	LC	Q	EM	EM/SC	F1 (120, 277 & 347V)	F2 (208, 240 & 480V)
STEELER HOUSING																	
SS Steeler Aluminum High-Bay	n ¹	n	n	n		n ²	n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SE E&G Aluminum High-Bay	n ¹	n		n			n ³	n ⁴		n ⁵	n ^{5,6}			n	n ⁸	n	n
SS Econoliter		n	n	n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
AR Aislelighter			n	n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
EP Enterprise 22			n	n			n ³			n ⁵	n ^{5,6}		n	n	n ⁸	n	n
EP Enterprise 28				n			n ³			n ⁵	n ^{5,6}		n	n	n ⁸	n	n
LM Apollo				n			n ³			n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SG Prismatic Glass High-Bay	n ¹	n	n	n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SE E&G Gasketed Glass	n ¹	n					n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SS Prismatic	n ¹	n	n	n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SE E&G Gasketed Acrylic		n		n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
SS Enhanced Refractor		n	n	n			n ³	n ⁴		n ⁵	n ^{5,6}		n	n	n ⁸	n	n
LX Prismatic Direct Mount				n			n ³			n ⁵	n ^{5,6}		n	n	n ⁸	n	n
BENCHMARK HOUSING																	
HB Benchmark	n ¹	n	n	n	n	n ²	n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
EB E&G Aluminum High-Bay	n ¹	n		n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
UB Benchmark Uplight		n		n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
AB Aisle Light			n	n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}		n	n	n ⁸	n	n
RB Low-Bay				n	n		n ³		n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
SB Low-Bay				n	n		n ³		n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
GB Prismatic Glass High-Bay	n ¹	n	n	n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
EB E&G Gasketed Glass	n ¹	n			n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
HB Prismatic Acrylic	n ¹	n	n	n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
HB Enhanced Refractor		n	n	n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
EB E&G Gasketed Acrylic		n		n	n		n ³	n ⁴	n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
XB Prismatic Direct-Mount			n	n	n		n ³		n	n ⁵	n ^{5,6}	n ⁷	n	n	n ⁸	n	n
VF Vertimark										n ⁵	n ^{5,6}		n	n	n ⁸	n	n

NOTES: 1 1000W HPS only

2 Available SA18 and SA23 only.

3 Not available with FH-1, FH-1 or SHK.

4 Not available with QD, W, WL option.

5 30 second time delay when switching from bright to dim. Consult individual lamp manufacturers recommendations for compatible lamps. For use with CWA ballast only.

6 Not available with QD PC3, C3, PHC or MWS. Not available with single circuit MWS special order.

7 Specify when using MD lamp type only.

8 Not available with HL or HC option.

9 Specify when using TWMBBS or TW accessories.

10 Hinged and latched reflector assembly required.

OPTIONS CAPABILITY MATRIX [ORDER SEPARATELY]

	FILT	FH-1	FL-1	SHK	PC3	PHC	C3	MWS	SCF	SCR	L/TCB	LL	QLL	WL	WG18	WG23
STEELER HOUSING																
SS Steeler Aluminum High-Bay		n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
SE E&G Aluminum High-Bay	n	n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n		n ¹	n ¹
SS Econoliter		n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
AR Aislelighter		n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
EP Enterprise 22	n	n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
EP Enterprise 28	n	n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
LM Apollo	n	n	n	n	n	n	n	n	n	n ¹	n ⁹	n	n			
SG Prismatic Glass High-Bay		n	n	n	n	n	n	n	n	n ^{STD}	n ⁹	n	n			
SE E&G Gasketed Glass	n	n	n	n	n	n	n	n	n	n ^{STD}	n ⁹	n	n			
SS Prismatic		n	n	n	n	n	n	n	n		n ⁹	n	n			
SE E&G Gasketed Acrylic	n	n	n	n	n	n	n	n	n		n ⁹	n	n			
SS Enhanced Refractor		n	n	n	n	n	n	n	n		n ⁹	n	n			
LX Prismatic Direct Mount		n	n	n	n	n	n	n	n		n ⁹	n	n			
BENCHMARK HOUSING																
HB Benchmark		n	n	n	n	n	n	n	n	n ¹	n ¹	n	n			
EB E&G Aluminum High-Bay	n ¹	n	n	n	n	n	n	n	n	n ¹	n ¹	n	n	n	n ¹	n ¹
UB Benchmark Uplight	n ¹	n	n	n	n	n	n	n	n	n ¹	n ¹	n	n			
AB Aisle Light		n	n	n	n	n	n	n	n	n ¹	n ¹	n	n			
RB Low-Bay	n ¹	n	n	n	n	n	n	n	n	n ¹	n ¹	n	n	n ¹⁰		
SB Low-Bay	n ¹	n	n	n	n	n	n	n	n	n ¹	n ¹	n	n			
GB Prismatic Glass High-Bay		n	n	n	n	n	n	n	n	n ^{STD}	n ¹	n	n			
EB E&G Gasketed Glass	n ¹	n	n	n	n	n	n	n	n	n ^{STD}	n ¹	n	n	n		
HB Prismatic Acrylic		n	n	n	n	n	n	n	n		n ¹	n	n			
HB Enhanced Refractor		n	n	n	n	n	n	n	n		n ¹	n	n			
EB E&G Gasketed Acrylic	n ¹	n	n	n	n	n	n	n	n		n ¹	n	n			
XB Prismatic Direct-Mount		n	n	n	n	n	n	n	n		n ¹	n	n			
VF Vertimark	n ¹	n	n	n	n	n	n	n	n			n	n	n		