Project		Catalog #		Type	
Prepared by		Notes		Date	

HM8 LED module

HC8 Remodel
(hangar bars removded)
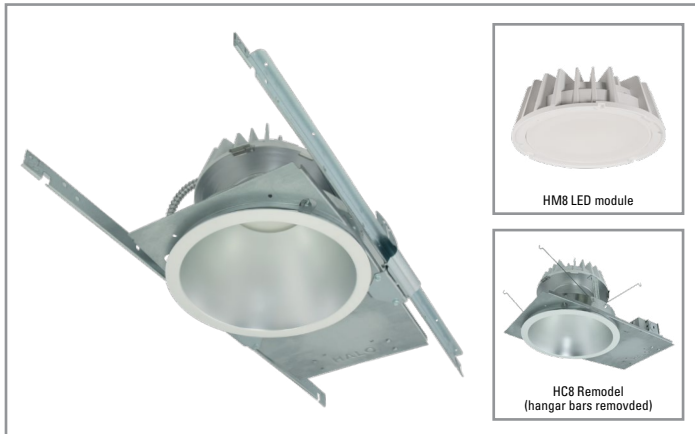
HALO Commercial
HC8 | HM8 | 81

8-inch downlight and wall wash

Typical Applications

Office • Education • Healthcare • Hospitality

Product Certification

ENERGY STAR

Efficiency Standards T24 Can be used to comply with California Title 24 Non-Residential
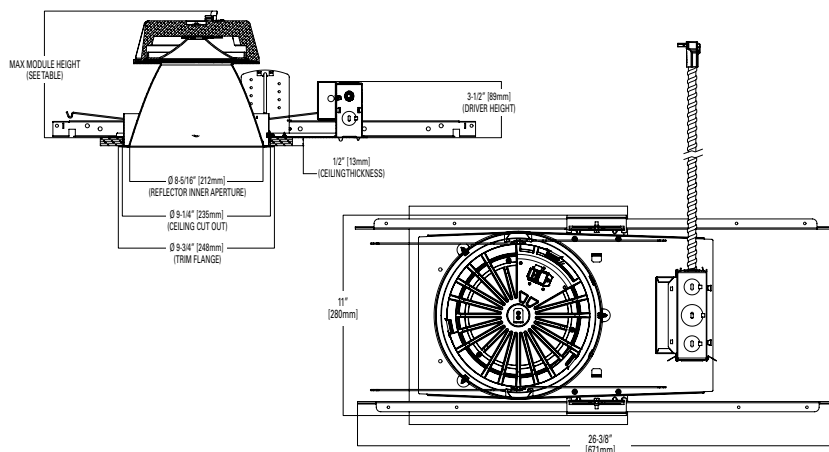
FC

RoHS COMPLIANT
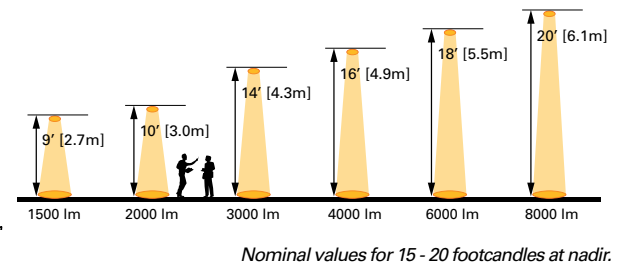
c UL us LISTED

🔖 Interactive Menu

Top Product Features

- Lumen output in 1500, 2000, 3000, 4000, 6000, 8000 lm
- Color temperature in 2700K, 3000K, 3500K, 4000K CCT
- CRI in 80 CRI or 90 CRI
- Reflector distributions in Narrow, Medium, Wide, and Wall Wash with rotatable linear spread lens
- Reflector finishes in Specular clear, semi-specular (haze), matte white, black baffle, and white baffle finishes

Dimensional and Mounting Details

MAX MODULE HEIGHT
(SEE TABLE)

3-1/2" [89mm]
(DRIVER HEIGHT)

1/2" [13mm]
(CEILING THICKNESS)

Ø 8-5/16" [212mm]
(REFLECTOR INNER APERTURE)

Ø 9-1/4" [235mm]
(CEILING CUT OUT)

Ø 9-3/4" [248mm]
(TRIM FLANGE)

11"
[280mm]

26-3/8"
[671mm]

Scale

20' [6.1m]

18' [5.5m]

16' [4.9m]

14' [4.3m]

10' [3.0m]

9' [2.7m]

| 1500 lm | 2000 lm | 3000 lm | 4000 lm | 6000 lm | 8000 lm |

Nominal values for 15 - 20 footcandles at nadir.

🔖 additional product diagrams

🔶 COOPER
Lighting Solutions

Order Information

SAMPLE ORDER NUMBER: **HC820D010REM7 – HM81520835 - 81MDC**

A complete luminaire consists of a mounting frame, LED module, and reflector; ordered separately

Icon Key: Δ Configurable Product

Mounting Frame	**Lumens (nominal)**	**Input / Control**	**Factory Installed Options**	**Accessories**
Mounting Frame	**Lumens (nominal)**	**Input / Control**	**Factory Installed Options**	**Accessories**
HC8 = 8" new construction and remodeler housing **HC8CP** = 8" new construction and remodeler housing, CCEA Chicago Plenum rated	**15** = 1500 lumens **20** = 2000 lumens **30** = 3000 lumens **40** = 4000 lumens **60** = 6000 lumens [1] **80** = 8000 lumens [1]	**D010** = 120-277VAC 50/60Hz, 0-10V analog, 1%-100% dimming **Canada option** **D010347** =347VAC 50/60Hz 0-10V analog 1%-100% dimming LED driver; for 1500, 2000, 3000, 4000 lumen models only (Canada only) [2] **D010X347** = step down transformer factory installed with the standard "D010" 120V-277V LED driver, for 6000 and 8000 lumen models only (Canada only) [2]	**REM7** = 7 watt emergency battery backup with remote test / indicator light, use with D010 only [2] [4] **REM14** = 14 watt emergency battery backup with remote test / indicator light, use with D010 only [2] [4] **IEM7** = integral 7 watt emergency battery backup with integral test / indicator light, use with D010 only [2] [4] **IEM14** = integral 14 watt emergency battery backup with integral test / indicator light, use with D010 only [2] [4] **B0D7ST** = 7.5 watt Bodine self-test diagnostic emergency module with remote test / indicator light, use with D010 only [2] **LWTPD1** = factory installed Enlighted wireless tile sensor kit, use with D010 only [2] **WTA** = Field installed WaveLinx Sensor Kit [2] [8]	**HB128APK** = L channel hanger bar, 26", pair (replacement part kit) **RMB22** = adjustable wood joist mounting bars, pair, extend to 22" **P0RLWTPD1** = Enlighted wireless sensor kit, field installed, use with D010 driver only [2] **WTA** = Field installed WaveLinx Sensor Kit [2] [8]
		DLV = Distributed low voltage dimming (1%-100%) driver. For use with Cooper Lighting Solutions' DLVP system only. Refer to DLVP low-voltage power module and DLVP specifications for details. [2]	**REMV7** = 7 watt emergency battery backup with remote test / indicator light, use with DLV only [2] [3] **REMV14** = 14 watt emergency battery backup with remote test / indicator light, use with DLV only [2] [3] **IEMV7** = integral 7 watt emergency battery backup with integral test / indicator light, use with DLV only [2] [3] **IEMV14** = integral 14 watt emergency battery backup with integral test / indicator light, use with DLV only [2] [3]	
Notes	**Notes** (1) Marked Spacing: Center to Center of Adjacent Luminaires = 36" Center of Luminaire to Building Member = 18" Minimum overhead = 0.5"	**Notes** (2) Not available with CP version	**Notes** (2) Not available with CP version (3) ULus for U.S. only (4) Emergency battery backup options are Non-IC only. (8) WTA = WaveLinx tile mount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only (Refer to WaveLinx system specifications)	**Notes** (2) Not available with CP version (8) WTA = WaveLinx tile mount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only (Refer to WaveLinx system specifications)

Module	**Lumens (nominal)**	**CRI / CCT (minimum)**	
Module	**Lumens (nominal)**	**CRI / CCT (minimum)**	
HM8 = 8" module	**1520** = 1500, 2000 lumens **3040** = 3000, 4000 lumens **6080** = 6000, 8000 lumens	**827** = 80 CRI, 2700K CCT **830** = 80 CRI, 3000K CCT **835** = 80 CRI, 3500K CCT **840** = 80 CRI, 4000K CCT	**927** = 90 CRI, 2700K CCT **930** = 90 CRI, 3000K CCT **935** = 90 CRI, 3500K CCT **940** = 90 CRI, 4000K CCT
Notes	**Notes**	**Notes**	

Reflector	**Distribution**	**Finish**	**Flange**	**Accessories**
Reflector	**Distribution** [6]	**Finish**	**Flange**	**Accessories**
81 = 8" conical reflector	**ND** = narrow reflector 13° beam angle, 0.24 SC **MD** = medium reflector 37° beam angle, 0.60 SC **WD** = wide reflector 71° beam angle, 1.08 SC **RWW** = rotatable wall wash with linear spread lens	**C** = Specular clear **H** = Semi-specular clear **W** = White	**Blank** = Polished flange standard with C & H reflectors **Blank** = White flange standard with W reflector **WF** = White flange option available with C & H reflectors	**81RWWPK** = Rotatable wall wash replacement kit [7]
81 = 8" baffle reflector	**WD** = wide baffle 71° beam angle, 1.08 SC **RWW** = rotatable wall wash with linear spread lens (wide beam baffle with lens wall wash)	**BB** = Black baffle **WB** = White baffle	**Blank** = White flange standard with BB & WB **BF** = Black flange option available with BB	
81PS = 8" non-conductive polymer conical reflector [5]	**MD** = medium reflector 37° beam angle, 0.60 SC	**W** = White	**Blank** = White flange standard with W reflector	
Integral Emergency				
81IEM = 8" conical reflector for integral emergency only	**ND** = narrow reflector 13° beam angle, 0.24 SC **MD** = medium reflector 37° beam angle, 0.60 SC **WD** = wide reflector 71° beam angle, 1.08 SC	**C** = Specular clear **H** = Semi-specular clear **W** = White	**Blank** = Polished flange standard with C & H reflectors **Blank** = White flange standard with W reflector **WF** = White flange option available with C & H reflectors	**IEM** = Reflector for IEM only
81IEM = 8" baffle reflector for integral emergency only	**WD** = wide baffle 71° beam angle, 1.08 SC	**BB** = Black baffle **WB** = White baffle	**Blank** = White flange standard with BB & WB **BF** = Black flange option with BB	**IEM** = Reflector for IEM only
Notes (5) 81PS reflector is for Non-IC environment only, and up to 4000 lumens only	**Notes** (6) Values are nominal, based on specular clear reflector, other may vary.	**Notes**	**Notes**	**Notes** (7) For use with 81RWW only.

Product Specifications

Frame
- Boat shaped galvanized steel plaster frame with adjustable plaster lip for 1/2" to 1-1/2" thick ceilings
- May be installed in new construction; or from below the finished (non-accessible) ceiling in remodeling.
- Provided with (2) old work clips to secure the frame to the ceiling when remodeling

Universal Mounting Bracket
- Mounting bracket adjusts 2" vertically from above the ceiling or thru the aperture
- Use with the included mounting bars or with 1/2" EMT (by others)
- Removable to facilitate installation from below the finished ceiling

Mounting Bars
- Captive preinstalled No Fuss™ mounting bars lock to tee grid with screwdriver or pliers
- Centering mechanism allows for consistent positioning of fixtures
- Accessory adjustable wood joist mounting bars option available to order separately (requires field replacement of No Fuss bars)

LED Module
- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- Available in 80 or 90 CRI minimum, provides accuracy within 3 SDCM color uniformity
- 90 CRI, R9>50 (refer to photometry section for colorimetric data)
- Correlated Color Temperature options
  - 2700K
  - 3000K
  - 3500K
  - 4000K
- Passive thermal management achieves L70 at 60,000 hours in IC and non IC applications (refer to compliance listings)
- Integral diffuse lens provides visual shielding
- Integral connector allows quick connection to housing flex

Lumen Options
- Lumen values (nominal)
  - 1500 lm
  - 2000 lm
  - 3000 lm
  - 4000 lm
  - 6000 lm
  - 8000 lm

Reflector
- Self-flanged aluminum reflectors are available in narrow, medium or wide distribution patterns
- Medium distribution non-conductive polymer matte white reflector for use in meeting 'dead front' applications
- Wall wash reflector features a rotatable linear spread lens for precise alignment of vertical illumination.
- Reflectors attach to LED module with (3) speed clamps
- Multiple painted or plated finishes are available

Reflector / Module Retention
- Reflector / module assembly is securely retained in the housing with (2) torsion springs

Driver
- Field replaceable constant current driver
- UNV 120-277VAC 50/60Hz input standard;
- Continuous 1% - 100% dimming with 0-10V analog controls
- Optional "DLV" low voltage DC driver for Cooper Lighting Solutions DLVP distributed low voltage system combines power and control

Canada Options
- 347VAC 50/60Hz; 1% dimming on 0 -10V analog control, for 1500, 2000, 3000, 4000 lumen models only
- 347V step down transformer factory installed with the standard "D010" 120V-277V, LED driver on 6000 and 8000 lumen models only

Emergency Option
- Provides 90 minutes of standby lighting meeting most life safety codes for egress
- Available with integral or remote charge indicator and test switch
- Available Self-Test (self-diagnostic), with remote charge indicator and test switch

Connected Lighting System Options
- WaveLinx - Two WaveLinx options:
  - Factory installed WaveLinx tile mount sensor kit
  - Field installed WaveLinx accessory tile mount sensor kit.
- The WTA WaveLinx tile mount sensor kit offers daylight dimming, PIR motion sensing control, and optional RLTS - Real Time Location Services available. (Refer to WaveLinx system specifications and application guides for details) The WTA WaveLinx kit includes control module that mounts on the luminaire electrical junction box via 1/2" knock-out, and tilemount sensor with direct-mount spring clips or for octagon ceiling box with included mounting bracket. (Field mount kit ordered and installed separately).
- Enlighted wireless tile mount sensor and control kit

Junction Box
- Galvanized steel junction box
- 20 in^3 internal volume excluding voltage barrier
- 25 in^3 internal total volume
- Voltage divider for 0-10V dimming wires [occupies (1) 1/2" pry-out space]
- Listed for (8) #12 AWG (four in, four out) 90° C conductors and feed-thru branch wiring
- (3) 1/2" and (2) 3/4" trade size pry-outs available
- (3) 4-port push wire nuts for mains voltage, with 1-port for fixture connection

Compliance
- UL Certified (US and Canada), wet location listed in protected ceilings
- IP20 - Above finished ceiling; IP65 - Below finished ceiling
- Non-IC rated 4000, 6000, 8000 lumen models. Insulation must be kept 3" from top and sides.
- IC rated 1500, 2000, 3000 lumen models are suitable for direct contact with air permeable insulation (also suitable for Non-IC)
- Non-IC marked spacing required for 6000 and 8000 lumen models
  - Marked Spacing Center to Center of Adjacent Luminaires = 36"
  - Center of Luminaire to Building Member = 18"
  - Minimum overhead = 0.5
- Emergency battery backup options are Non-IC only.
- Not for use in direct contact with spray foam insulation, consult NEMA LSD57-2013
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions FCC CFR Title 47 Part 15 Class A 120/277V
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- 1500 lumen 90CRI IC rated model may be used to comply with State of California Title 24 residential code, per JA8 certification standards
- May be used to comply with State of California Title 24 non-residential code, in Non-IC, as a dimmable LED luminaire
- ENERGY STAR certified, refer to certified light fixtures database

Warranty
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal
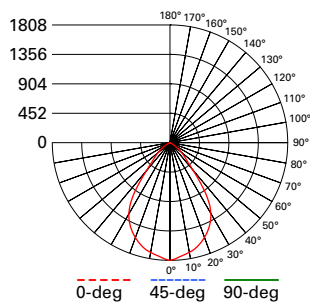
Photometric Data
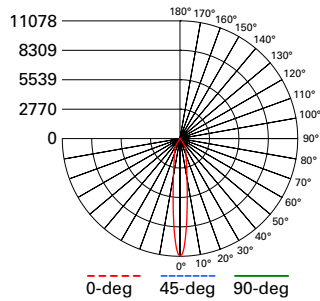
HC820D010-HM81520835-81NDC
Narrow Distribution
13° beam angle
Specular Clear Finish, 2000 Lumen Model, 80 CRI, 3500K
Spacing criterion: 0.24
Lumens: 2050
Input Watts: 20.5 W
Efficacy: 100 LPW
UGR: 10.0
Test Report:
HC820D010-HM81520835-81NDC.ies

(Polar plot axis values: 11078, 8309, 5539, 2770, 0)
0-deg   45-deg   90-deg
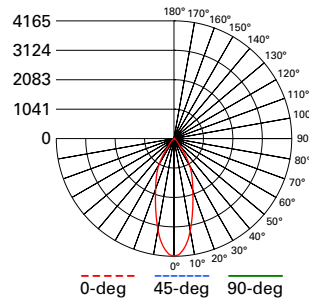
HC820D010-HM81520835-81MDC
Medium Distribution
37° beam angle
Specular Clear Finish, 2000 Lumen Model, 80 CRI, 3500K
Spacing criterion: 0.59
Lumens: 2185
Input Watts: 20.5 W
Efficacy: 106.6 LPW
UGR: 10.2
Test Report:
HC820D010-HM81520835-81MDC.ies

(Polar plot axis values: 4165, 3124, 2083, 1041, 0)
0-deg   45-deg   90-deg

HC820D010-HM81520835-81WDC
Wide Distribution
71° beam angle
Specular Clear Finish, 2000 Lumen Model, 80 CRI, 3500K
Spacing criterion: 1.08
Lumens: 2286
Input Watts: 20.5 W
Efficacy: 111.5 LPW
UGR: 14.7
Test Report:
HC820D010-HM81520835-81WDC.ies

(Polar plot axis values: 1808, 1356, 904, 452, 0)
0-deg   45-deg   90-deg

Photometric Multipliers (nominal lumen values)

1500 Lumen	2000 Lumen	3000 Lumen	4000 Lumen	6000 Lumen	8000 Lumen
0.72	1.00	1.47	2.06	2.80	3.32

Multipliers for relative lumen values with other series models.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K
0.93	0.94	1.00	1.02

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.77	0.83	0.87	0.90

Multipliers for relative lumen values with other series color temperatures.

Color Finish Multipliers

Finish code	C	H	W	BB
Finish	Specular Clear	Semi-Specular	Matte White	Black Baffle (lower cone)
Multiplier	1.00	0.95	0.98	0.89

Multipliers for relative lumen values with other color finishes.

Note: Refer to IES files for more product data.

COOPER
Lighting Solutions

Photometric Data

HC820D010-HM81520835-81RWWC

Wall Wash - Specular Clear Finish, 2000 Lumen Model, 80 CRI, 3500K

Spacing criterion: 1.05

Lumens: 1927

Input Watts: 20.5 W

Efficacy: 94 LPW

Test Report:
HC820D010-HM81520835-81RWWC.**ies**

0-deg --- 45-deg --- 90-deg ---

SINGLE UNIT FOOTCANDLES

2.5' from wall (distance from fixture along wall)

1	17.5	12.3	5.2	1.8	0.6	0.2	0.1
2	25.6	19.9	10.4	4.8	2.2	1	0.5
3	24.6	20.3	11.9	6.1	3.1	1.6	0.9
4	19.4	16.9	11.1	6.4	3.5	2	1.1
5	13.4	12.2	9.1	5.9	3.6	2.1	1.3
6	9	8.5	6.9	5	3.3	2.1	1.3
7	6.2	6	5.1	4	2.9	2	1.3
8	4.4	4.3	3.8	3.1	2.4	1.8	1.3
9	3.2	3.2	2.9	2.4	2	1.5	1.1
10	2.4	2.4	2.2	1.9	1.6	1.3	1

MULTIPLE UNIT FOOTCANDLES

	2.5' from wall (distance from fixture along wall) — 3 —			2.5' from wall (distance from fixture along wall) — 4 —		
1	19.4	16.7	19.4	18.2	10.5	18.2
2	30.4	29.8	30.4	27.7	20.8	27.7
3	30.7	31.9	30.7	27.7	23.8	27.7
4	25.9	28.1	25.9	23	22.3	23
5	19.3	21.5	19.3	16.9	18.2	16.9
6	14	15.5	14	12.3	13.8	12.3
7	10.2	11.1	10.2	9.1	10.2	9.1
8	7.6	8.1	7.6	6.8	7.6	6.8
9	5.7	6.1	5.7	5.2	5.7	5.2
10	4.4	4.6	4.4	4.1	4.4	4.1

Photometric Multipliers (nominal lumen values)

1500 Lumen	2000 Lumen	3000 Lumen	4000 Lumen	6000 Lumen	8000 Lumen
0.72	1.00	1.47	2.06	2.80	3.32

Multipliers for relative lumen values with other series models.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K
0.93	0.94	1.00	1.02

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K
0.77	0.83	0.87	0.90

Multipliers for relative lumen values with other series color temperatures.

Color Finish Multipliers

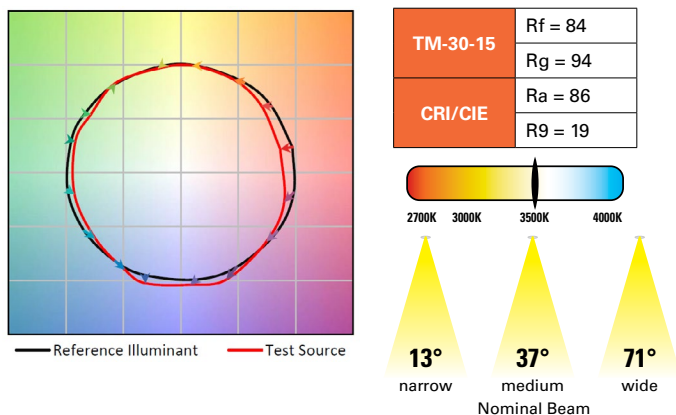| Finish code	C	H	W	BB
Finish	Specular Clear	Semi-Specular	Matte White	Black Baffle (lower cone)
Multiplier	1.00	0.95	0.98	0.89

Multipliers for relative lumen values with other color finishes.

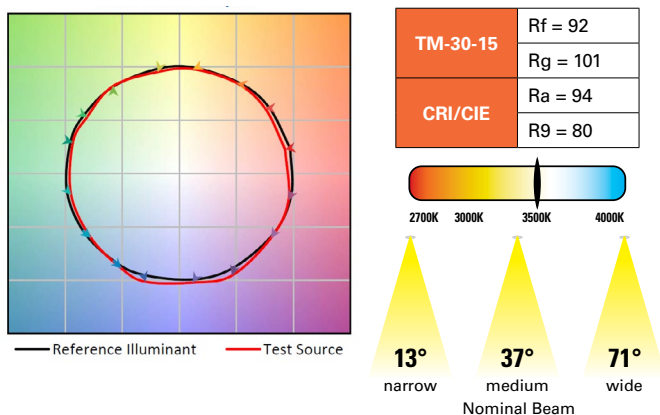Note: Refer to IES files for more product data.

COOPER Lighting Solutions

Energy and Performance Data

COLOR METRICS - TM-30-15 & CRI/CIE (3500K)

80 CRI Color Metric Summary - 3500K*

TM-30-15	Rf = 84
	Rg = 94
CRI/CIE	Ra = 86
	R9 = 19

— Reference Illuminant   — Test Source

2700K 3000K 3500K 4000K

13° narrow   **37°** medium   **71°** wide

Nominal Beam

90 CRI Color Metric Summary - 3500K*

TM-30-15	Rf = 92
	Rg = 101
CRI/CIE	Ra = 94
	R9 = 80

— Reference Illuminant   — Test Source

2700K 3000K 3500K 4000K

13° narrow   **37°** medium   **71°** wide

Nominal Beam

ENERGY DATA

Series	1500 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.119	0.055
Input Power (W)	14.2	14.9
In-rush (A)	0.212	0.85
In-rush Duration (ms)	0.28	0.32
THD (%)	7.8	16.3
PF	≥ 0.99	≥ 0.95
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Series	2000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.176	0.082
Input Power (W)	21.1	21.4
In-rush (A)	0.588	0.624
In-rush Duration (ms)	0.3	0.38
THD (%)	8.8	11.2
PF	≥ 0.99	≥ 0.94
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Series	3000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.228	0.102
Input Power (W)	27.2	27
In-rush (A)	0.898	1.7
In-rush Duration (ms)	0.36	0.38
THD (%)	9.7	9.3
PF	≥ 0.99	≥ 0.96
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Series	4000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.345	0.15
Input Power (W)	41.3	40.7
In-rush (A)	1.05	2.23
In-rush Duration (ms)	0.32	0.34
THD (%)	10.06	14.01
PF	≥ 0.99	≥ 0.97
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Series	6000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.5	0.22
Input Power (W)	59.7	59
In-rush (A)	5.4	10.8
In-rush Duration (ms)	0.12	0.154
THD (%)	12.4	10.8
PF	≥ 0.99	≥ 0.95
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Series	8000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.636	0.29
Input Power (W)	75.8	75
In-rush (A)	4.9	9.8
In-rush Duration (ms)	0.13	0.156
THD (%)	7.2	12.8
PF	≥ 0.99	≥ 0.93
Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)		
Sound Rating: Class A standards		

Notes:
* Emergency Battery packs are rated for a minimum starting temperature of 0°C.

COOPER
Lighting Solutions

Dimensional Details

Reflector	Max. Module Height
Narrow	7.9″
Medium	7.5″
Wide	6.8″
Baffle	6.8″

MAX MODULE HEIGHT
(SEE TABLE)

3-1/2″ [89mm]
(DRIVER HEIGHT)

1/2″ [13mm]
(CEILING THICKNESS)

Ø 8-5/16″ [212mm]
(REFLECTOR INNER APERTURE)

Ø 9-1/4″ [235mm]
(CEILING CUT OUT)

Ø 9-3/4″ [248mm]
(TRIM FLANGE)

11″
[280mm]

26-3/8″
[671mm]

![Cooper Lighting Solutions logo]