

# HEMI S

## DOWNLIGHT RECESSED



2" Module  
+ Soft Ambient



2" Module



Soft Ambient

Hemi is a line of hemisphere-shaped luminaires designed with exceptional rotational and tilt capabilities and a sleek aiming mechanism allowing for a vast range of precisely positioned solutions for both task and ambient requirements.

### Beam Angles



### Performance

ADJ. MODULE	LUMEN OUTPUT <sup>1</sup>	WATTS	EFFICACY
2" Module	1338 lm	14 W	96 lm/W

<sup>1</sup>Lumen packages are assuming 3500K, 80 CRI, 30° beam.

AMBIENT	LUMEN OUTPUT <sup>2</sup>	WATTS	EFFICACY
Soft Ambient	502 lm	13 W	39 lm/W

<sup>2</sup>Lumen packages are assuming 3500K, 80 CRI, white dome finish.

### Light Source

Static White  
Full Spectrum  
SOLA - Dim-to-Warm  
DUO - Tunable White  
TRIO - Three-channel Red, Green, Blue



### COB

2 Step Color Binning  
Up to 95 CRI

### Driver

1%, 0.1% Dimming Available  
0-10V, TRIAC, ELV, Lutron EcoSystem, DALI, DMX

### Configurations



2" Module  
+ Soft Ambient



Soft Ambient

### Ceiling Types



Drywall



Millwork



Acoustic Tile

### Installation Types

New Construction (Type Non-IC)  
Remodel (Type Non-IC)

### Plenum Clearance

As low  
as 2 3/4"



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Project: \_\_\_\_\_

Type: \_\_\_\_\_

## Order Guide

### 1 - Housing

Example: HEMSR-ADJ1X2IN-AMBSA-TRM-SW-SW-OF-ASB-120V-10W-7W-D1-D1

LUMINAIRE ID	CONFIGURATION ADJUSTABLE MODULE	CONFIGURATION AMBIENT	TRIM STYLE	LIGHT SOURCE ADJUSTABLE MODULE	LIGHT SOURCE AMBIENT	INSTALLATION TYPE <sup>2</sup>
HEMSR						
HEMSR - Hemi S Recessed	ADJ1X2IN - One 2" module ADJNA - None	AMBSA - Soft ambient AMBNA - None	TRM - Flanged trim TLMP - Trimless drywall mudplate TLMW <sup>1</sup> - Trimless millwork  <sup>1</sup> For remodel (RM) installation type, TLMW adapter must be installed from above the ceiling or before ceiling is installed.	SW - Static white FS - Full spectrum SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K NA - Not applicable	SW - Static white SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K TRIO - Three-channel Red, Green, Blue NA - Not applicable	OF - Open Frame Type Non-IC RM - Remodel Type Non-IC  <sup>2</sup> Consult factory for Type-IC (IC/CP).

MOUNTING OPTION <sup>3</sup>	VOLTAGE	WATTAGE ADJUSTABLE MODULE <sup>5</sup>		WATTAGE AMBIENT <sup>5</sup>		DIMMING ADJUSTABLE MODULE <sup>7,8</sup>	DIMMING AMBIENT <sup>7,8</sup>			
		TOTAL WATTAGE MUST NOT EXCEED 21 W								
ASB <sup>4</sup> - Adjustable standard bar hangers FMB <sup>4</sup> - Flush mount bars ACB <sup>4</sup> - Adjustable commercial bar hangers AHC <sup>4</sup> - Adjustable hat channel bars NA - None	120V - 120V 277V - 277V		2" module		Soft ambient	SW D1 - 1% 0-10V ELV <sup>9,10</sup> - ELV 120V TRI <sup>9,10</sup> - TRIAC 120V LDE1 <sup>11</sup> - Lutron Hi-lume 1% Eco DA <sup>11</sup> - DALI ELD1 - eldoLED 1% ECODrive 0-10V ELDO - eldoLED 0.1% SOLOdrive 0-10V DMX <sup>11</sup> - DMX	SOLA SD1 - 1% 0-10V SELV <sup>9,10</sup> - ELV 120V STRI <sup>9,10</sup> - TRIAC 120V  DUO DMX <sup>11</sup> - DMX DDA <sup>11</sup> - DALI DT6 DDA8 <sup>11</sup> - DALI DT8 DD1 - Dual 0-10V input for CCT/intensity LD2 <sup>11</sup> - Lutron DALI-2 digital	TRIO <sup>12</sup> DMX <sup>11</sup> - DMX		
		SW/FS <sup>6</sup>	10W - 10 W output, up to 1103 lm 14W - 14 W output, up to 1338 lm	SW	7W - 7 W, up to 273 lm 10W - 10 W, up to 368 lm 13W - 13 W, up to 460 lm					
		SOLA	8W - 8 W output, up to 560 lm (20° only) 13W - 13 W output, up to 900 lm (40° and up)	SOLA	7W - 7 W, up to 273 lm 10W - 10 W, up to 368 lm 13W - 13 W, up to 460 lm					
		DUO	5W - 5 W output, up to 300 lm (20° only) 10W - 10 W output, up to 640 lm (40° and up)	DUO	7W - 7 W, up to 281 lm 10W - 10 W, up to 379 lm 13W - 13 W, up to 474 lm					
						TRIO	5W - 5 W	NA - Not applicable		
				NA - Not applicable		NA - Not applicable				
THE TOTAL WATTAGE OF ALL THE MODULES AND AMBIENT MUST NOT EXCEED 21 W.										
Lumen outputs are reduced with full spectrum. See page 7 for details.										
						<sup>7</sup> See table on page 6 for valid driver combinations. <sup>8</sup> PoE (Power-over-Ethernet) compatible. Consult factory for details. <sup>9</sup> Available with 120V only.	<sup>10</sup> Not available with Ambient. <sup>11</sup> On-site commissioning is required. <sup>12</sup> Not available with Adjustable module.			

### 2 - Light & Baffle

Example: HEMSL-ADJ1X2IN(SW-10DEG-2STP-90CRI-27K-LS-FTMW)-AMBSA(SW-90CRI-27K)-TRM-FTMW-FTMW-FTMW

LUMINAIRE ID	CONFIGURATION ADJUSTABLE MODULE <sup>13</sup>	CONFIGURATION AMBIENT <sup>14</sup>	TRIM STYLE	BAFFLE FINISH	TRIM FLANGE FINISH	DOVE FINISH
HEMSL						
HEMSL - Hemi S	ADJ1X2IN( ) - One 2" module ADJNA - None  <sup>13</sup> See Adjustable module specification below to specify options between the parentheses.	AMBNA( ) - Soft ambient AMBNA - None  <sup>14</sup> See Ambient specification below to specify options between the parentheses.	TRM - Flanged trim TLMP - Trimless drywall mudplate TLMW <sup>15</sup> - Trimless millwork  <sup>15</sup> For remodel (RM) installation type, TLMW adapter must be installed from above the ceiling or before ceiling is installed.	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL# NA - Not applicable (specify for Trimless)	FTMW - Textured matte white FTMB <sup>16</sup> - Textured matte black CF# - Custom finish, specify RAL#  <sup>16</sup> Not available when specified with Ambient.

#### Adjustable Module Specification

ADJUSTABLE MODULE ID	LIGHT SOURCE ADJUSTABLE MODULE	BEAM	COLOR QUALITY	CRI ADJUSTABLE MODULE	COLOR TEMP. ADJUSTABLE MODULE	OPTICAL OPTIONS <sup>21</sup>	MODULE FINISH
ADJ1X2IN( )	SW - Static white FS - Full spectrum SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K	10DEG <sup>17</sup> - 10° Narrow spot 20DEG - 20° Spot 30DEG <sup>17</sup> - 30° Narrow flood 40DEG - 40° Flood 50DEG - 50° Wide flood  <sup>17</sup> Not available for SOLA and DUO.	2STP <sup>18</sup> - 2 Step MacAdam Ellipse 3STP - 3 Step MacAdam Ellipse  <sup>18</sup> Available with static white (SW) only. <sup>20</sup> Not available with SOLA/ DUO.	90CRI <sup>19</sup> - 90 CRI 95CRI <sup>20</sup> - 95 CRI 80CRI <sup>19,20</sup> - 80 CRI  <sup>19</sup> Not available with full spectrum. <sup>20</sup> Not available with SOLA/ DUO.	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K	LS - Linear spread HEX <sup>22</sup> - Hex louver SNB - Snoot, black SNW - Snoot, white HSNB - Half snoot, black HSNW - Half snoot, white NA - None  <sup>21</sup> Maximum 1 accessory for each module. <sup>22</sup> Always in textured matte black.	FTMW - Textured matte white FTMB - Textured matte black FTMB - Textured matte black CF# - Custom finish, specify RAL#

#### Ambient Specification

AMBIENT ID	LIGHT SOURCE AMBIENT	CRI AMBIENT	COLOR TEMP. AMBIENT
AMBNA( )	SW - Static white SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K TRIO - Three-channel Red, Green, Blue	90CRI - 90 CRI 95CRI <sup>23</sup> - 95 CRI 80CRI - 80 CRI NA - Not applicable (specify for TRIO)  <sup>23</sup> Available with static white (SW) only.	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K TRIO - Three-channel Red, Green, Blue

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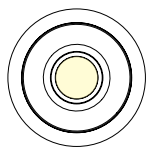
## DOWNLIGHT RECESSED



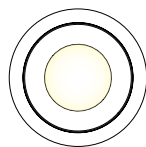
### Configurations

**ADJ1X2IN** - One 2" module

**AMBSA** - Soft ambient



Bottom view



Bottom view

Rotation 355°  
Tilt up to 30° from vertical

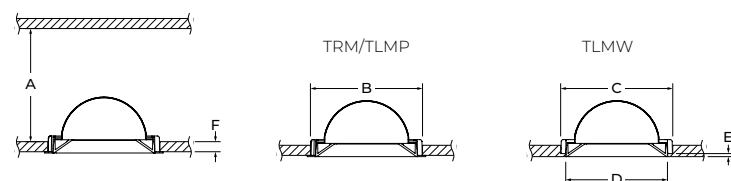
### Housing

INSTALLATION TYPES	
OF - Open Frame Type Non-IC	RM - Remodel Type Non-IC
1 driver	
2 drivers ²	

¹ For height dimension A, see the PLENUM CLEARANCE & CUT-OUT DIMENSIONS table below.

² When 2 light elements are specified, two drivers are provided.

### PLENUM CLEARANCE & CUT-OUT DIMENSIONS



PLENUM CLEARANCE HEIGHT		
	OF	RM
A	4 3/4"	2 3/4"

CUT-OUT DIMENSIONS		
B	TRM/TLMP	Ø 5"
C		Ø 5"
D	TLMW	Ø 4 1/8"
E		3/16"

MAXIMUM CEILING THICKNESS	
F	1"

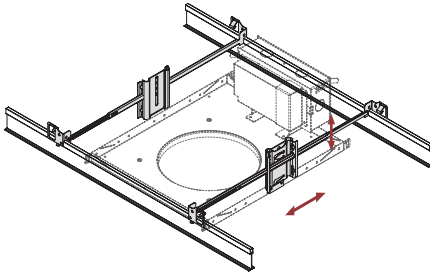
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### Housing

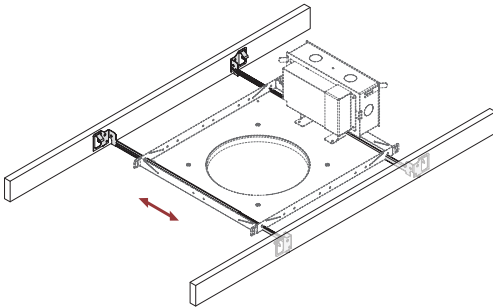
#### MOUNTING OPTIONS

##### ASB - Adjustable Standard Bar Hangers



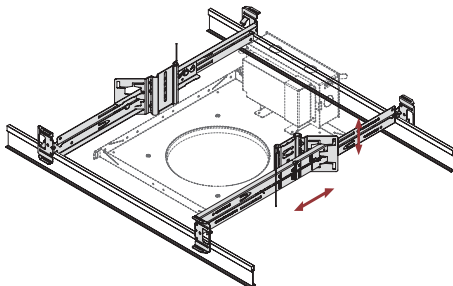
Adjustable Standard Bar hangers can be used in both commercial and residential applications and are adjustable to various heights in both Grid Ceiling and Drywall mounting. ASB hangers are less rigid and versatile than ACB hangers.

##### FMB - Flush Mount Bars



Flush Mount Bars are best used in residential applications, fitting snug to the surface and suitable for Wood, Metal, and Drywall mounting. The flush mounted bars are static and can't be adjusted.

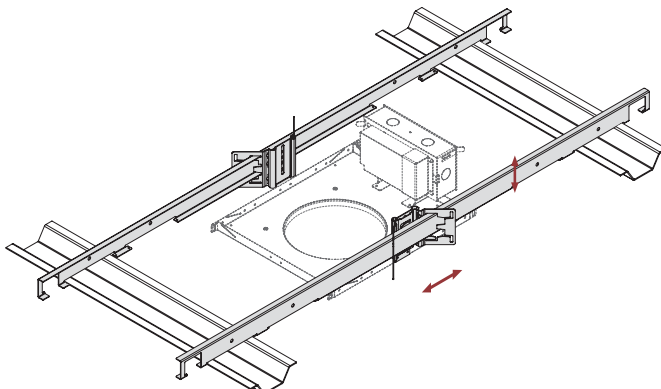
##### ACB - Adjustable Commercial Bar Hangers



Adjustable Commercial Bar hangers can be used in both commercial and residential applications and are by far the most versatile mounting bar we offer with its adjustability to various heights. ACB hangers are suitable for Grid Ceiling, Drywall, Metal, Wood and Frame mounting.

- Extremely rigid
- Fits into C-Channel notches in a Butterfly Bracket

##### AHC - Adjustable Hat Channel Bars



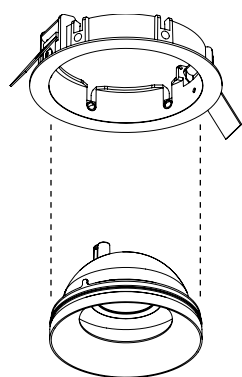
Adjustable Hat Channel bars can be used in both commercial and residential applications and come with a butterfly clip to adjust to various heights. AHC bars can be hung downward by 90 degrees in vertical position, and once wired, can be shifted onto the horizontal mounting plane. AHC bars are suitable for both Drywall and wood ceiling applications.

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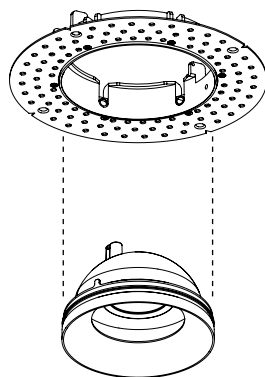
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### Light & Baffle

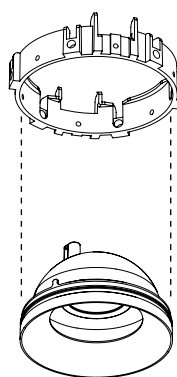


Flanged  
Trim



Trimless  
Drywall  
Mudplate

Mudplate



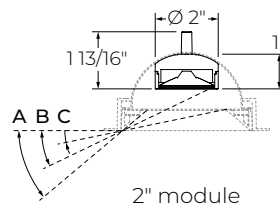
Trimless  
Millwork

Millwork  
Adapter

### TRIM

TRM Flanged Trim	TLMP/TLMW Trimless Drywall Mudplate /Trimless Millwork
<div> <div></div> Dome finish           <div></div> Baffle finish           <div></div> Trim flange finish         </div>	


### ADJUSTABLE MODULE & CUT-OFF/SHIELDING ANGLES



CUT-OFF & SHIELDING ANGLES		
		2" module
A	SHIELDING	40°
B	CUT-OFF (MODULE)	24°
C	CUT-OFF (AMBIENT)	12°

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## DOWNLIGHT RECESSED



### Light source and driver combinations

Please follow the table to ensure correct driver options for light sources selected.

#### ADJUSTABLE MODULE - AMBIENT

SW - SW/SOLA/DUO/TRIO

MODULE	AMBIENT	MODULE	AMBIENT	MODULE	AMBIENT	MODULE	AMBIENT
SW/FS	SW	SW/FS	SOLA	SW/FS	DUO	SW/FS	TRIO
D1	+	D1	SD1	D1	+	DD1	DMX
DA	+	DA		DA	+	DDA, DDA8	
LDE1	+	LDE1 <sup>1</sup>		DMX	+	DMX	
ELD0	+	ELD0					
ELD1	+	ELD1					
DMX	+	DMX					

<sup>1</sup>Not available with 7 W.

SOLA - SW/SOLA/DUO/TRIO

MODULE		AMBIENT		MODULE		AMBIENT		MODULE		AMBIENT	
SOLA		SW		SOLA		SOLA		SOLA		DUO	
SD1		+		D1		SD1		+		SD1	
SD1		+		SD1		SD1		+		DD1	

DUO - SW/SOLA/DUO/TRIO

MODULE	AMBIENT	MODULE	AMBIENT	MODULE	AMBIENT	MODULE	AMBIENT
DUO	SW	DUO	SOLA	DUO	DUO	DUO	TRIO
DD1	+	D1	SD1	DD1	+	DD1	DMX
DDA, DDA8	+	DA		DDA, DDA8	+	DDA, DDA8	
DMX	+	DMX		DMX	+	DMX	
				LD2	+	LD2	

#### ADJUSTABLE MODULE

SW/FS	SOLA	DUO
D1, ELV, TRI	SD1, SELV, STRI	DD1
DA		DDA, DDA8
LDE1		DMX
ELD0		LD2
ELD1		

#### AMBIENT

SW	SOLA	DUO	TRIO
D1	SD1	DD1	DMX
DA		DDA, DDA8	
LDE1		DMX	
ELD0		LD2	
ELD1			

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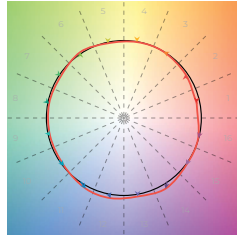
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### Color Quality

#### COLOR QUALITY - 3500K

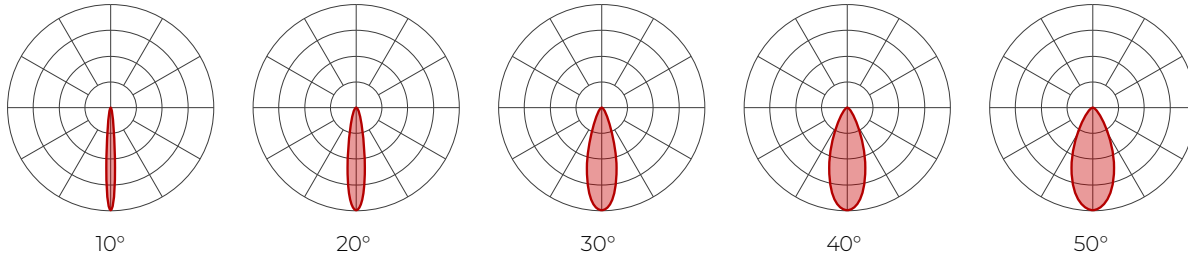
TM-30 R <sub>t</sub>	91
TM-30 R <sub>g</sub>	100
CRI	90
R9	> 50



### Photometrics

Values calculated based on 3500K and white baffle.

#### ADJUSTABLE MODULE - 2"



#### Delivered lumens

CRI	90 CRI					95 CRI					80 CRI				
BEAM	10°	20°	30°	40°	50°	10°	20°	30°	40°	50°	10°	20°	30°	40°	50°
10 W	641	630	1012	978	966	580	570	916	885	874	694	683	1103	1068	1057
14 W	828	814	1228	1187	1173	749	737	1112	1075	1062	897	883	1338	1297	1283

#### Efficacy

CRI	90 CRI					95 CRI					80 CRI				
BEAM	10°	20°	30°	40°	50°	10°	20°	30°	40°	50°	10°	20°	30°	40°	50°
10 W	64	63	101	98	97	58	57	92	89	87	69	68	110	107	106
14 W	59	58	88	85	84	54	53	79	77	76	64	63	96	93	92

### MULTIPLIERS

Please follow the multiplier tables to ensure correct lumen value.

Beams, CCT, dome colors, baffle colors, and accessories will change the lumen value.

CCT		FULL SPECTRUM		OPTICAL OPTIONS	
2700K	0.9	FS	0.7	Linear spread	0.84
3000K	0.95			Hex louver	0.86
3500K	1			Snoot	Variable Per Beam
4000K	1.05			Half snoot	Variable Per Beam

For SOLA and DUO, please consult factory.

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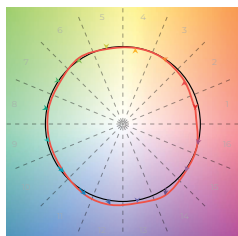
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### Color Quality

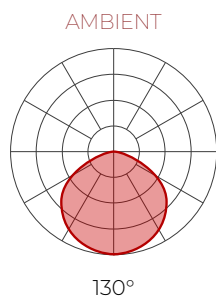
#### COLOR QUALITY - 3500K

TM-30 R <sub>t</sub>	91
TM-30 R <sub>a</sub>	98.7
CRI	93.3
R9	> 50



### Photometrics

Values calculated based on 3500K and white dome.



#### Delivered lumens

CRI	90 CRI	95 CRI	80 CRI
7 W	232	243	273
10 W	313	328	368
13 W	391	410	460

#### Efficacy

CRI	90 CRI	95 CRI	80 CRI
7 W	33	35	39
10 W	31	33	37
13 W	30	32	35

### MULTIPLIERS

Please follow the multiplier tables to ensure correct lumen value.  
CCT and adjustable module configuration will change the lumen value.

CCT		CONFIGURATION WITH ADJUSTABLE MODULE		
2700K	0.9	2" module	White	0.72
3000K	0.95		Black	0.44
3500K	1	*This is the light loss factor on the ambient portion of the light when there is a module as an obstruction. The multiplier is with the ambient light on, and the module light off.		
4000K	1.05			

For SOLA and DUO,  
please consult factory.

Multiply together each applicable factor for CCT and adjustable module configuration to determine the final multiplier for the ambient light portion of your fixture.

$$\text{CCT} \times \text{Configuration with adjustable module} = \text{FINAL MULTIPLIER}$$



# HEMI S

## DOWNLIGHT RECESSED



### Technical Specifications

#### OPTIC

##### Adjustable Module

Hyflex™ optics provide precise optical control in a remarkably compact form. The core of this four-tier system is a compound reflector with a central TIR element, just 1.06" deep. Beam smoothing discs perfect beam angles up to 50°. Beam angles are easily interchanged in the field.

##### Ambient

Hemi can deliver soft ambient light with or without additional light modules. The ambient array can emit values up to 630 lumens and can be controlled separately or in conjunction with the light modules. You can use Trio to play with color and Sola or Duo to tune your white light.

#### LIGHT SOURCE

##### Adjustable Module

Compact COB (Chip-On-Board) LED module, available in 2700K, 3000K, 3500K and 4000K with a choice of 80 CRI, 90 CRI, or 95 CRI, with elevated R9 value for 90 CRI and above. Color consistency is maintained to within 2 SDCM. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated. Optional full spectrum LEDs can be incorporated in the fixture to increase Cyanosis Observation Index (COI) and assist in regulating circadian rhythms.

##### Ambient

Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 2700K, 3000K, 3500K and 4000K with a choice of 80 CRI, 90 CRI, or 95 CRI, with elevated R9 value for 90 CRI and above. Color consistency maintained to within 3 SDCM. LEDs operate at reduced drive current to optimize efficacy and lumen maintenance. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

##### Chromawerx SOLA

Chromawerx SOLA is single-channel control that dims output while warming the color temperature in a pre-determined relationship. A simple analog control adjusts a specially populated LED array to emulate the effect of dimming a filament source.

##### Chromawerx DUO

Chromawerx DUO offers a two-channel control system which uses analog or digital protocols for synchronous control of both cool (6500K) to warm (2700K) LED arrays - maintaining a CRI above 90. The range of color DUO offers is useful for entraining circadian rhythms, stimulating alertness, and compensating for jet lag among other applications. The Chromawerx drivers are programmed to limit maximum light output and power usage across all color temperatures. When paired with DALI drivers (DDA/DDA8), color tuning follows a linear dimming curve.

##### Chromawerx TRIO

Chromawerx TRIO is our 3-channel control of an RGB (red-green-blue) array provided in the Soft Ambient of the HEMI S and HEMI L fixtures. TRIO addresses the need for more expressive color in architectural applications by using the DMX protocol to support dynamic multi-hued color. While a typical user interface will be a DMX controller by others, Lumenwerx offers a simple control station for stand-alone color changing applications.

#### ELECTRICAL

Unless otherwise specified, dimming down to 1%. At maximum driver load: efficiency>84%, PF>0.9, THD<20%.

**Integral:** 0-10V, ELV, TRIAC, Lutron Hi-Lume 1% EcoSystem, DALI, eldoLED 0.1% SOLOdrive 0-10V, eldoLED 1% ECOdrive 0-10V, DMX, Lutron DALI-2 digital

#### PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, DUO (tunable white), QUADRO (RGBW), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

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## DOWNLIGHT RECESSED



### CONSTRUCTION

#### Housing

For new construction, 22 gauge galvanized steel, open frame, non-IC rated. 18 gauge galvanized steel junction box with ½" trade size knockouts. Adjustable hanger bars and butterfly brackets are included. Adjustable commercial hat channel and flush mounted brackets are also available.

#### Light element

**Adjustability:** Hot aiming, 355° rotation and 30° vertical tilt with shift to ensure beam stays centered.

**LED module:** Integral COB module. 90 CRI and 2 SDCM, Standard with options of 80 CRI, or 95 CRI. L80 > 60,000 hours

**HyFlex™ optics:** Proprietary TIR/reflector with field interchangeable beam smoothing lenses.

**Thermal management:** Die casted aluminum heat sink and efficient thermal padding to maximize dissipation.

**Trim:** Die-cast aluminum mounted with retaining spring clips

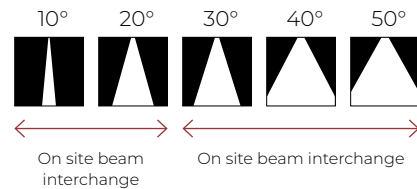
**Trim style:** Trimmed and trimless with mudplate or millwork adapter

### WEIGHT

**Open frame:** 4.8 lbs - 2.2 kg

**Remodel:** 2.0 lbs - 0.9 kg

### BEAM ANGLES



### OPTICAL OPTIONS



### ENVIRONMENT

Ambient temperature at fixture location shall be within 0°C/32°F - 25°C/77°F, indoor dry or damp as well as outdoor damp use (canopies or marquees).

### CERTIFICATION

**ETL:** Rated for Indoor dry/damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

### WARRANTY

Lumenwerx provides a five-year limited warranty on electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.