



# MOONRING 1.5 & 3

MR1.5/MR3 | SUSPENDED, CEILING

**STANDARD SIZES**

1.5" or 3" Aperture  
Ring diameters from 2 feet to 16 feet

**LAMPING**

LED - Direct & Indirect - 80/90 CRI - 2700K/3000K/3500K/4000K  
Output Options: MIN/LOW/MED/HI/Tunable White/RGB/RGB+W  
Dimming down to 0%

**FINISH**

Two Tone Paint Options (Select Models):  
18 standard finishes available at no extra charge  
RAL classic colors, TCI / Tiger Drylac catalog colors, and custom color match also available

**CONSTRUCTION**

Industrial Strength Extruded & Welded 6061 Aluminum





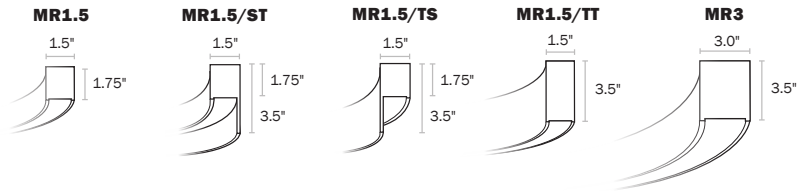
# PRODUCT SUBMITTAL WORKSHEET

## SAMPLE PRODUCT CODE

MR1.5/TS – D3 – SS – MED/90/3500 – 0/10V/0% – LENS – LOW/90/3500 – 0/10V/0% – HT – BK – RAL1001 – UNV – EMB/1 – OS/1 – SB  
 1 2 3 4 5 6 7 8 9 10 11 12 13a 13b 13c

### 1. BASE MODEL (CHOOSE ONE)

- MR1.5** QS 1.5", inside short wall, outside short wall
- MR1.5/ST** 1.5", inside short wall, outside tall wall
- MR1.5/TS** 1.5", inside tall wall, outside short wall
- MR1.5/TT** 1.5", inside tall wall, outside tall wall
- MR3** 3.0", equal wall

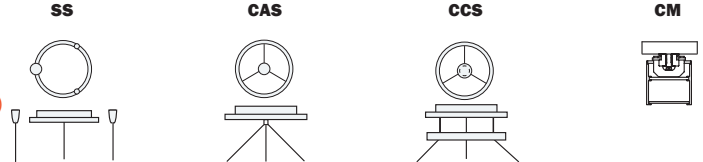


### 2. NOMINAL SIZE (CHOOSE ONE)

- |   |   |
|---|---|
| <input type="checkbox"/> <b>D2</b> 2' (24") outer diameter    | <input type="checkbox"/> <b>D8</b> 8' (96") outer diameter    |
| <input type="checkbox"/> <b>D3</b> QS 3' (36") outer diameter | <input type="checkbox"/> <b>D10</b> 10' (120") outer diameter |
| <input type="checkbox"/> <b>D4</b> QS 4' (48") outer diameter | <input type="checkbox"/> <b>D12</b> 12' (144") outer diameter |
| <input type="checkbox"/> <b>D5</b> QS 5' (60") outer diameter | <input type="checkbox"/> <b>D14</b> 14' (168") outer diameter |
| <input type="checkbox"/> <b>D6</b> QS 6' (72") outer diameter | <input type="checkbox"/> <b>D16</b> 16' (192") outer diameter |
| <input type="checkbox"/> <b>D7</b> 7' (84") outer diameter    |   |

### 3. MOUNTING (CHOOSE ONE)

- SS** QS Standard Suspension
- CAS<sup>1</sup>** QS Central Axis Suspension
- CCS<sup>1</sup>** QS Collared Central Suspension
- CM<sup>1</sup>** QS Ceiling Mounted (Not available with indirect lighting)



<sup>1</sup>Unavailable for rings D7, D8, D10, D12, D14 or D16

### 4. LED LAMPING – DIRECT (CHOOSE ONE UNDER A, B, & C)

- |   |                                |                                   |
|---|--------------------------------|-----------------------------------|
| <b>A. OUTPUT*<sup>2</sup></b>                         | <b>B. CRI<sup>3</sup></b>      | <b>C. CCT<sup>3</sup></b>         |
| <input type="checkbox"/> QS MIN                       | <input type="checkbox"/> QS 80 | <input type="checkbox"/> 2700K    |
| <input type="checkbox"/> QS LOW                       | <input type="checkbox"/> QS 90 | <input type="checkbox"/> QS 3000K |
| <input type="checkbox"/> QS MED                       |                                | <input type="checkbox"/> QS 3500K |
| <input type="checkbox"/> QS HI                        |                                | <input type="checkbox"/> QS 4000K |
| <input type="checkbox"/> QS TUNE (2700K-6500K, 80CRI) |                                |                                   |
| <input type="checkbox"/> QS RGB                       |                                |                                   |
| <input type="checkbox"/> QS RGBW (80CRI, 3500K White) |                                |                                   |

DELIVERED LUMENS (LM)	WATTS (W)
See pages 8-13 for complete details.	

\*Consult ALW for custom lumen packages.

<sup>2</sup>Direct/Indirect lighting combinations are limited when specifying HI OUTPUT due to increased thermal temperatures and/or driver type limitations. See the 'Direct/Indirect LED Lamping Chart' on page 8 and LED driver footnotes.

<sup>3</sup>CRI/CCT options not applicable for TUNE, RGB, or RGBW lighting.

QS = QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 25 rings of QuickShip-eligible product per order.

SS051321



**5. REMOTE DRIVER<sup>4</sup> – DIRECT** (CHOOSE ONE .STD, TUNE & RGB(W) TABLE INDICATES COMPATIBLE LED LAMPING)

		STD <sup>5</sup>	TUNE	RGB(W)	
<input type="checkbox"/> <b>0/10V/S</b>	QS	●	●		0-10V dimming down to 5% (Standard Dimming – Down to 10% for TUNE lamping)
<input type="checkbox"/> <b>0/10V/1%</b>	QS	●	●		0-10V dimming down to 1%
<input type="checkbox"/> <b>0/10V/0%</b>	QS	●	●		0-10V premium dimming down to 0%
<input type="checkbox"/> <b>ECOSYS1</b>		●			(LDE1) Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology
<input type="checkbox"/> <b>LTEA</b>		●			Lutron Hi-lume 1% 2-wire TRIAC dimming (120V forward-phase only).
<input type="checkbox"/> <b>DALI</b>		●			DALI flicker-free dimming down to 0%
<input type="checkbox"/> <b>DMX</b>	QS	●	●	●	DMX flicker-free dimming down to 0%

<sup>4</sup>Driver specifications provided upon request.

<sup>5</sup>Lutron Vive Control Systems is compatible only with STD lamping. See more information for compatible Driver under 'Sensor Options'.

**6. LENS – DIRECT**

**LENS**      QS Extra diffuse lens

**7. LED LAMPING – INDIRECT** (CHOOSE NONE OR ONE UNDER A, B, & C – NOT AVAILABLE WITH CEILING MOUNTING)

**N**      None. Choose when indirect lamping is not desired.

**A. OUTPUT\*<sup>6</sup>**

- QS MIN
- QS LOW
- QS MED
- QS HI
- QS TUNE (2700K-6500K, 80CRI)
- QS RGB
- QS RGBW (80CRI, 3500K White)

**B. CRI<sup>7</sup>**

- QS 80
- QS 90

**C. CCT<sup>7</sup>**

- 2700K
- QS 3000K
- QS 3500K
- QS 4000K

DELIVERED LUMENS (LM)	WATTS (W)
See pages 8-13 for complete details.	

\*Consult ALW for custom lumen packages.

<sup>6</sup>Direct/Indirect lamping combinations are limited when specifying HIGH OUTPUT due to increased thermal temperatures and/or driver type limitations. See the 'Direct/Indirect LED Lamping Chart' on page 8 and LED driver footnotes. TUNE: Indirect lamping unavailable for D12 - D14 rings. RGB/W: Indirect lamping unavailable for D7 - D14 rings.

<sup>7</sup>CRI/CCT options not applicable for RGB lamping.

**8. REMOTE DRIVER<sup>8</sup> – INDIRECT** (CHOOSE ONE .STD, TUNE & RGB(W) TABLE INDICATES COMPATIBLE LED LAMPING)

		STD <sup>9</sup>	TUNE	RGB(W)	
<input type="checkbox"/> <b>0/10V/S</b>	QS	●	●		0-10V dimming down to 5% (Standard Dimming – Down to 10% for TUNE lamping)
<input type="checkbox"/> <b>0/10V/1%</b>	QS	●	●		0-10V dimming down to 1%
<input type="checkbox"/> <b>0/10V/0%</b>	QS	●	●		0-10V premium dimming down to 0%
<input type="checkbox"/> <b>ECOSYS1</b>		●			(LDE1) Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology
<input type="checkbox"/> <b>LTEA</b>		●			Lutron Hi-lume 1% 2-wire TRIAC dimming (120V forward-phase only).
<input type="checkbox"/> <b>DALI</b>		●			DALI flicker-free dimming down to 0%
<input type="checkbox"/> <b>DMX</b>	QS	●	●	●	DMX flicker-free dimming down to 0%

<sup>8</sup>Driver specifications provided upon request.

<sup>9</sup>Lutron Vive Control Systems is compatible only with STD lamping. See more information for compatible Driver under 'Sensor Options'.

QS = QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 25 rings of QuickShip-eligible product per order.

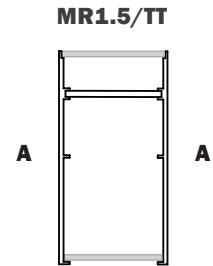
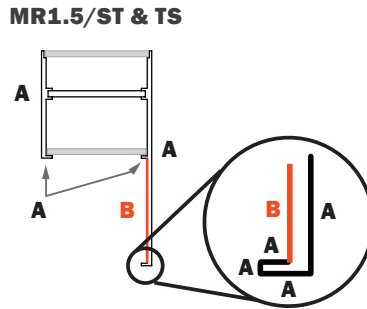
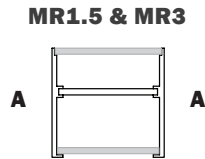
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**9. LENS – INDIRECT** (CHOOSE ONE)

- QS N** None. Choose when indirect lighting is not desired. Fixture will be supplied with an aluminum cover in place of a lens to match the exterior finish.
- QS LENS** Extra diffuse lens
- QS HT<sup>10</sup>** High transmission, near-clear lens

<sup>10</sup>High transmission lens increases lumen output by ~14%, but LED chip is visible. Recommended only when top-side of fixture is not directly visible.



**13. FINISH – SURFACE (A)** (CHOOSE ONE. SEE PAGE 15 FOR LARGER SWATCHES AND ADDITIONAL INFORMATION)

**STANDARD FINISHES**

ALUMINUM

- BA** **QS**  Brushed Aluminum

BASIC POWDER COAT

- GW**  Gloss White
- SW** **QS**  Satin White
- AW**  Antimicrobial Satin White
- TW**  Textured Matte White
- TB**  Textured Matte Black

METALLIC POWDER COAT

- SG**  Silver Gray
- CG**  Charcoal Gray
- CU**  Copper
- BR**  Brass

SATIN ANODIZED EFFECT POWDER COAT

- CS**  Clear Silver
- OB**  Oil-Rubbed Bronze
- DB**  Dark Bronze
- SB** **QS**  Satin Black

GLOSS POWDER COAT (80-95% GLOSS)

- GO**  Orange (RAL 2003)
- GR**  Red (RAL 3020)
- GM**  Magenta (RAL 4010)
- GB**  Blue (RAL 5015)

**SPECIAL ORDER FINISHES**

- RAL\_\_\_\_\_** Specify RAL Classic Color (Ex: RAL 3003) - Most RAL Colors are available for powder coat. See [www.alwusa.com/finishes](http://www.alwusa.com/finishes)
- CAT\_\_\_\_\_** Specify Catalog Colors - Specify colors from the [Tiger Drylac](#) and [TCI](#) catalogs
- CCM\_\_\_\_\_** Custom Color Match - Specify a custom powder coat color match

QS = QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 25 rings of QuickShip-eligible product per order.

SS051321




### 13. FINISH — SURFACE (B) (CHOOSE ONE. SEE PAGE 15 FOR LARGER SWATCHES AND ADDITIONAL INFORMATION)

#### STANDARD FINISHES





##### ALUMINUM

- BA**  Brushed Aluminum





##### BASIC POWDER COAT

- GW**  Gloss White  
 **SW**  Satin White  
 **AW**   Antimicrobial Satin White  
 **TW**  Textured Matte White  
 **TB**  Textured Matte Black



##### METALLIC POWDER COAT

- SG**  Silver Gray  
 **CG**  Charcoal Gray  
 **CU**  Copper  
 **BR**  Brass




##### SATIN ANODIZED EFFECT POWDER COAT

- CS**  Clear Silver  
 **OB**  Oil-Rubbed Bronze  
 **DB**  Dark Bronze  
 **SB**  Satin Black


##### GLOSS POWDER COAT (80-95% GLOSS)

- GO**  Orange (RAL 2003)  
 **GR**  Red (RAL 3020)  
 **GM**  Magenta (RAL 4010)  
 **GB**  Blue (RAL 5015)

#### SPECIAL ORDER FINISHES

- RAL**\_\_\_\_\_  Specify RAL Classic Color (Ex: RAL 3003) - Most RAL Colors are available for powder coat. See [www.alwusa.com/finishes](http://www.alwusa.com/finishes)  
 **CAT**\_\_\_\_\_  Specify Catalog Colors - Specify colors from the [Tiger Drylac](#) and [TCI](#) catalogs  
 **CCM**\_\_\_\_\_  Custom Color Match - Specify a custom powder coat color match

### 12. VOLTAGE (CHOOSE ONE)

- UNV**  Universal Voltage (120VAC-277VAC)  
 **347** 347 Volt (Driver options may be limited. Not available with EMB)




### 13. ADDITIONAL OPTIONS (OPTIONAL — CHOOSE ONE UNDER A, B, & C, IF DESIRED)

#### A. EMERGENCY OPTIONS

- EMB**<sup>11</sup>  Emergency Battery (Not available in 347V)  
 **EMC**<sup>11</sup>  Emergency Circuit

<sup>11</sup>Consult ALW for more details.

#### B. SENSOR OPTIONS (INDICATE QUANTITY IF DESIRED, OTHERWISE IT WILL AUTOMATICALLY BE CALCULATED)



- FCJS**/\_\_<sup>12</sup> Lutron® Vive remote RF wireless fixture control (Lutron Part: FCJS-ECO or FCJS-010)  
 **FCJS**/S/\_\_<sup>12</sup> Lutron® Vive remote RF wireless fixture control + daylight/occ sensor (Lutron Part: FCJS-ECO or FCJS-010, & FC-Sensor)  
 **ENLGHT**/\_\_<sup>13</sup>  Enlighted® remote connected lighting smart sensor (Enlighted Part: SU-5S-H) (occupancy, daylight, networking, and more)  
 **OS**/\_\_\*  0-10V remote occupancy sensor  
 **PH**/\_\_\*  0-10V remote photocell/daylight sensor

\*Quickship availability on occupancy and photocell/daylight sensors may vary. Contact ALW for more information.

<sup>12</sup>Lutron® Vive remote sensors are compatible with the following drivers: 0/10V/S, 0/10V/1, 0/10V/0 driver or ECOSYS. Programming required by Lutron Commissioner.

<sup>13</sup>Enlighted® sensors are compatible with the following drivers: 0/10V/S, 0/10V/1, 0/10V/0. Programming required by Enlighted Commissioner. Additional Enlighted sensor families included IoT Sensors and Enlighted One Sensors are also available. Contact Customer Support for more information.

#### C. ADDITIONAL OPTIONS (NOT APPLICABLE FOR CEILING MOUNT)

- COMBO**  Combination 4.5" canopy at power feed locations to accommodate both power cord & suspension mount hardware.  
 **SB**  Seismic Bracing

QS = QuickShip-qualifying option. For the entire luminaire configuration to be QuickShip-eligible, ALL options specified in the configuration must be ones notated with "QS". NOTE: Maximum 25 rings of QuickShip-eligible product per order.

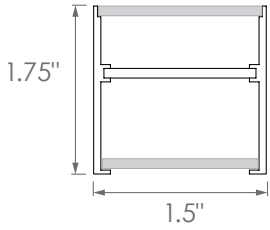
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## MECHANICAL DIAGRAMS

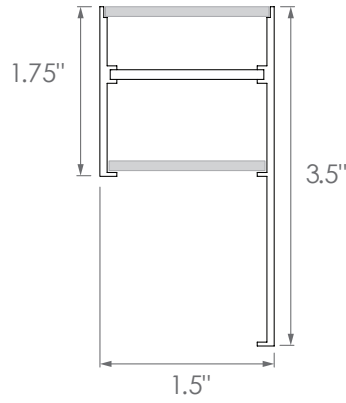
### MR1.5

Inside Short Wall  
Outside Short Wall



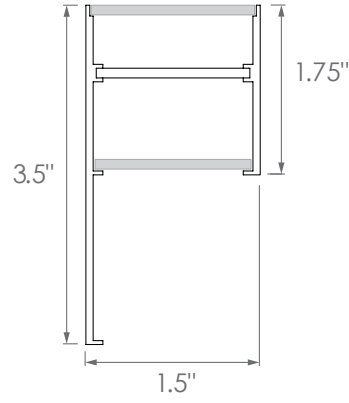
### MR1.5/ST

Inside Short Wall  
Outside Tall Wall



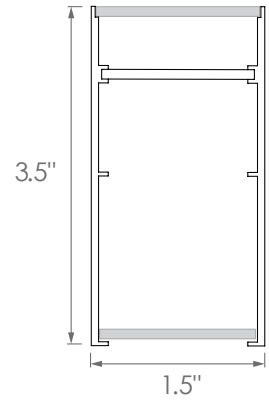
### MR1.5/TS

Inside Tall Wall  
Outside Short Wall



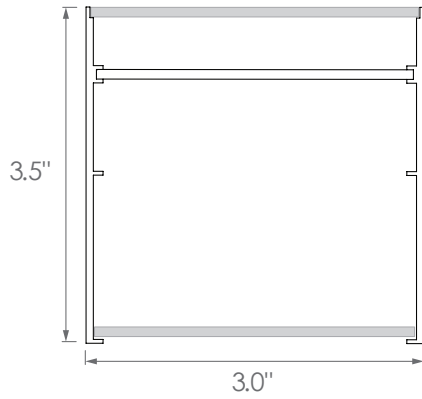
### MR1.5/TT

Inside Tall Wall  
Outside Tall Wall



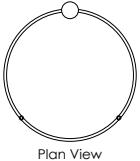
### MR3

Inside Wall (3.5")  
Outside Wall (3.5")

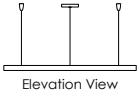




## MOUNTING OPTIONS



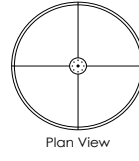
Plan View



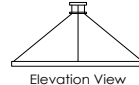
Elevation View

### Standard Suspension (SS)

- (1) 4.5" white canopy per power feed location
- (1) bullet mount
- (1) 8' aircraft cable and
- (1) 2" white canopy (for use with T-bar mounting) per suspension point



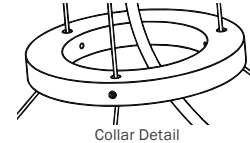
Plan View



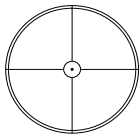
Elevation View

### Central Collared Suspension (CCS)

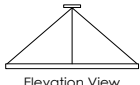
- (1) 5" white central axis canopy and
- (1) 5" collared ring (color matches specified body finish) that all aircraft cables and power feeds route through.



Collar Detail



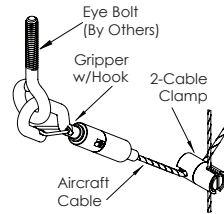
Plan View



Elevation View

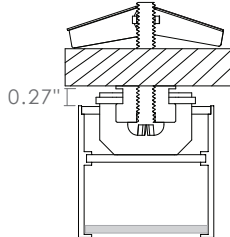
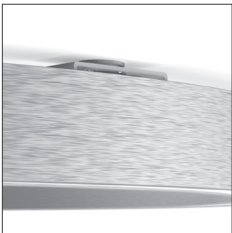
### Central Axis Suspension (CAS)

- (1) 4.5" white central axis canopy per fixture that all aircraft cables/power feeds route into, as shown.



### Seismic Bracing (SB)

- Add-on hardware includes cable gripper with hook, 2-cable clamp and specified length of aircraft cable per suspension point.



0.27"

### Ceiling Mount (CM)

Ceiling mount is for horizontal, ceiling mounting only. The fixture is not compatible with indirect lighting or vertical surface mounting (i.e. on a wall). Three ceiling-mount brackets per fixture. Surface Mount hardware adds 0.27" height to all options, as shown.



### Combo Canopy (COMBO)

Choose option COMBO to specify 4.5" canopies at feed locations with power feed and aircraft cable suspension mounting. Canopy finish is always white. Contact ALW for alternate colors.



## PERFORMANCE & MOUNTING DETAILS – MR1.5<sup>13</sup>

<b>RING DIAMETER</b>	<b>OUTPUT TYPE</b>	<b>LUMENS (LM)</b> <i>direct</i> <i>indirect</i>	<b>WATTS (W)</b> <i>direct OR indirect</i> <i>direct AND indirect</i>	<b>POWER DROPS<sup>14</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>REMOTE DRIVER BOXES<sup>15</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>SUSPENSION POINTS</b>	<b>FIXTURE SECTIONS</b>	<b>APPROX. WEIGHT (LBS)</b>	<b>CENTRAL AXIS, COLLARED OR CEILING</b>
<b>D2 (MR1.5)</b>	MIN	1500	22	1	1	3	1x Ring	12.5	YES
		1650	44	1	1				
	LOW	2250	35	1	1				
		2500	70	1	1				
	MED	3000	47	1	1				
		3350	94	1	1				
HI	4500 N/A	70 N/A	1 N/A	1 N/A					
RGB/RGBW	1750/3200	47/59	1	1					
	1950/3600	94/118	2	2					
TUNABLE	4450	64	1	1					
	4950	128	1	2					
<b>D3 (MR1.5)</b>	MIN	2250	34	1	1	3	1x Ring	18.75	YES
		2525	68	1	1				
	LOW	3375	54	1	1				
		3750	108	1	1				
	MED	4500	72	1	1				
		5050	144	1	1				
HI	6750 N/A	108 N/A	1 N/A	1 N/A					
RGB/RGBW	2600/4800	74/92	1	1					
	2950/5350	148/184	2	2					
TUNABLE	6700	98	1	2					
	7450	196	2	4					
<b>D4 (MR1.5)</b>	MIN	3000	46	1	1	3	1x Ring	25	YES
		3350	92	1	1				
	LOW	4500	73	1	1				
		5050	146	1	1				
	MED	6000	97	1	1				
		6750	194	2	2				
HI	9000 N/A	145 N/A	1 2	1 2					
RGB/RGBW	3500/6400	101/126	1/2	1/2					
	3900/7150	202/252	2/2	2/4					
TUNABLE	8900	133	1	2					
	9900	266	2	4					
<b>D5 (MR1.5)</b>	MIN	3750	58	1	1	3	1x Ring	31.75	YES
		4200	116	1	1				
	LOW	5600	92	1	1				
		6300	184	1	1				
	MED	7500	122	1	1				
		8400	244	2	2				
HI	11250 N/A	183 N/A	1 N/A	1 N/A					
RGB/RGBW	4350/8000	123/157	2	2					
	4850/8900	246/314	2	4					
TUNABLE	11150	168	1	2					
	12400	336	2	4					

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

SS051321





## PERFORMANCE & MOUNTING DETAILS – MR1.5 (CONT.)<sup>13</sup>

<b>RING DIAMETER</b>	<b>OUTPUT TYPE</b>	<b>LUMENS (LM)</b> <i>direct</i> <i>indirect</i>	<b>WATTS (W)</b> <i>direct OR indirect</i> <i>direct AND indirect</i>	<b>POWER DROPS<sup>14</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>REMOTE DRIVER BOXES<sup>15</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>SUSPENSION POINTS</b>	<b>FIXTURE SECTIONS</b>	<b>APPROX. WEIGHT (LBS)</b>	<b>CENTRAL AXIS, COLLARED OR CEILING</b>
<b>D6 (MR1.5)</b>	MIN	4500 5050	70 140	1 1	1 2	3	1x Ring	37.5	YES
	LOW	6750 7575	110 220	1 2	1 2				
	MED	9000 10100	147 294	1 2	1 2				
	HI	13500 N/A	220 N/A	2 N/A	2 N/A				
	RGB/RGBW	5250/9600 5850/10700	150/191 300/382	2 2	2 4				
	TUNABLE	13350 14850	202 404	2 2	3 6				
<b>D7 (MR1.5)</b>	MIN	5250 5900	81 162	2 2	2 2	4	2x Joined Arcs	40.75	NO
	LOW	7900 8850	129 258	2 2	2 2				
	MED	10500 11800	172 344	2 2	2 2				
	HI	15750 N/A	257 N/A	2 N/A	2 N/A				
	RGB/RGBW	6100/11200 N/A	174/220 N/A	2/2 N/A	2/4 N/A				
	TUNABLE	15600 17350	234 468	2 2	4 4				
<b>D8 (MR1.5)</b>	MIN	6000 6725	93 186	2 2	2 2	4	2x Joined Arcs	50	NO
	LOW	9000 10100	147 294	2 2	2 2				
	MED	12000 13475	196 392	2 2	2 4				
	HI	18000 N/A	295 N/A	2 N/A	2 N/A				
	RGB/RGBW	7000/12800 N/A	202/256 N/A	2/2 N/A	2/4 N/A				
	TUNABLE	17800 19800	270 540	2 2	4 4				
<b>D10 (MR1.5)</b>	MIN	7500 8425	117 234	4 4	4 4	8	4x Joined Arcs	62.5	NO
	LOW	11250 12625	185 370	4 4	4 4				
	MED	15000 16850	246 492	4 4	4 4				
	HI	22500 N/A	369 N/A	4 N/A	4 N/A				
	RGB/RGBW	8700/16000 N/A	240/312 N/A	4 N/A	2 N/A				
	TUNABLE	22250 24750	332 664	4 4	2 2				

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

SS051321



## PERFORMANCE & MOUNTING DETAILS – MR1.5 (CONT.)<sup>13</sup>

RING DIAMETER	OUTPUT TYPE	LUMENS (LM) <i>direct</i> <i>indirect</i>	WATTS (W) <i>direct OR indirect</i> <i>direct AND indirect</i>	POWER DROPS <sup>14</sup> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	REMOTE DRIVER BOXES <sup>15</sup> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
<b>D12 (MR1.5)</b>	MIN	9000 10100	140 280	4 4	4 4	8	4x Joined Arcs	75	NO
	LOW	13500 15150	222 444	4 4	4 4				
	MED	18000 20200	296 592	4 4	4 4				
	HI	27000 N/A	444 N/A	4 N/A	4 N/A				
	RGB/RGBW	10450/19200 N/A	304/384 N/A	4 N/A	2 N/A				
	TUNABLE	26700 29700	404 N/A	4 4	8 8				
<b>D14 (MR1.5)</b>	MIN	10500 11800	163 326	4 4	4 4	8	4x Joined Arcs	87.5	NO
	LOW	15750 17700	259 518	4 4	4 4				
	MED	21000 23575	346 692	4 4	4 4				
	HI	31500 N/A	518 N/A	4 N/A	4 N/A				
	RGB/RGBW	12200/22350 N/A	348/448 N/A	4/4 N/A	2/8 N/A				
	TUNABLE	34650 N/A	472 N/A	4 N/A	8 N/A				
<b>D16 (MR1.5)</b>	MIN	12000 13500	188 378	4 4	4 4	8	4x Joined Arcs	100	NO
	LOW	18000 20200	298 596	4 4	4 4				
	MED	24000 27000	397 794	4 4	4 8				
	HI	36000 N/A	595 N/A	4 N/A	4 N/A				
	RGB/RGBW	13950/25550 N/A	404/512 N/A	4/4 N/A	2/8 N/A				
	TUNABLE	35600 N/A	544 N/A	4 N/A	8 N/A				

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.



## PERFORMANCE & MOUNTING DETAILS – MR3<sup>13</sup>

<b>RING DIAMETER</b>	<b>OUTPUT TYPE</b>	<b>LUMENS (LM)</b> <i>direct</i> <i>indirect</i>	<b>WATTS (W)</b> <i>direct OR indirect</i> <i>direct AND indirect</i>	<b>POWER DROPS<sup>14</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>REMOTE DRIVER BOXES<sup>15</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>SUSPENSION POINTS</b>	<b>FIXTURE SECTIONS</b>	<b>APPROX. WEIGHT (LBS)</b>	<b>CENTRAL AXIS, COLLARED OR CEILING</b>
<b>D2 (MR3)</b>	MIN	2350 2650	22 44	1 1	1 1	3	1x Ring	13.75	YES
	LOW	3550 3975	35 70	1 1	1 1				
	MED	4725 5300	47 94	1 1	1 1				
	HI	7100 N/A	70 N/A	1 N/A	1 N/A				
	RGB/RGBW	1850/3400 2075/3825	47/59 94/118	1 2	1 2				
	TUNABLE	4725 5300	64 128	1 1	1 2				
<b>D3 (MR3)</b>	MIN	3550 3975	34 68	1 1	1 1	3	1x Ring	20.75	YES
	LOW	5300 5950	54 108	1 1	1 1				
	MED	7100 7950	72 144	1 1	1 1				
	HI	10625 N/A	108 N/A	1 N/A	1 N/A				
	RGB/RGBW	2775/5100 3125/5725	74/92 148/184	1 2	1 2				
	TUNABLE	7075 7975	98 196	1 2	2 4				
<b>D4 (MR3)</b>	MIN	4725 5300	46 92	1 1	1 1	3	1x Ring	27.5	YES
	LOW	7100 7950	73 146	1 1	1 1				
	MED	9450 10625	97 194	1 2	1 2				
	HI	14200 N/A	145 N/A	1 N/A	1 N/A				
	RGB/RGBW	3700/6775 4150/7625	101/126 202/252	1/2 2/2	1/2 2/4				
	TUNABLE	9450 10625	133 266	1 2	2 4				
<b>D5 (MR3)</b>	MIN	5900 6625	58 116	1 1	1 1	3	1x Ring	35	YES
	LOW	8900 9950	92 184	1 1	1 1				
	MED	11800 13275	122 244	1 2	1 2				
	HI	17700 N/A	183 N/A	1 N/A	1 N/A				
	RGB/RGBW	4625/8475 5200/9525	123/157 246/314	2 2	2 4				
	TUNABLE	11800 13275	168 336	1 2	2 4				

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

SS051321



## PERFORMANCE & MOUNTING DETAILS – MR3 (CONT.)<sup>13</sup>

<b>RING DIAMETER</b>	<b>OUTPUT TYPE</b>	<b>LUMENS (LM)</b> <i>direct</i> <i>indirect</i>	<b>WATTS (W)</b> <i>direct OR indirect</i> <i>direct AND indirect</i>	<b>POWER DROPS<sup>14</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>REMOTE DRIVER BOXES<sup>15</sup></b> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	<b>SUSPENSION POINTS</b>	<b>FIXTURE SECTIONS</b>	<b>APPROX. WEIGHT (LBS)</b>	<b>CENTRAL AXIS, COLLARED OR CEILING</b>
<b>D6 (MR3)</b>	MIN	7100 7950	70 140	1 1	1 2	3	1x Ring	41.25	YES
	LOW	10625 11925	110 220	1 2	1 2				
	MED	14200 15925	147 294	1 2	1 2				
	HI	21300 N/A	220 N/A	2 N/A	2 N/A				
	RGB/RGBW	5550/10175 6225/11450	150/191 300/382	2 2	2 4				
	TUNABLE	14175 15925	202 404	2 2	3 6				
<b>D7 (MR3)</b>	MIN	8300 9275	81 162	2 2	2 2	4	2x Joined Arcs	44.75	NO
	LOW	12400 13925	129 258	2 2	2 2				
	MED	16550 18575	172 344	2 2	2 2				
	HI	24800 N/A	257 N/A	2 N/A	2 N/A				
	RGB/RGBW	6475/11875 N/A	174/220 N/A	2/2 N/A	2/4 N/A				
	TUNABLE	16525 18600	234 468	2 N/A	4 N/A				
<b>D8 (MR3)</b>	MIN	9450 10600	93 186	2 2	2 2	4	2x Joined Arcs	55	NO
	LOW	14200 15900	147 294	2 2	2 2				
	MED	18900 21225	196 392	2 2	2 4				
	HI	28350 N/A	295 N/A	2 N/A	2 N/A				
	RGB/RGBW	7400/13575 N/A	202/256 N/A	2/2 N/A	2/4 N/A				
	TUNABLE	18900 21250	270 540	2 N/A	4 N/A				
<b>D10 (MR3)</b>	MIN	11800 13250	117 234	4 4	4 4	8	4x Joined Arcs	68.75	NO
	LOW	17700 19900	185 370	4 4	4 4				
	MED	23600 26550	246 492	4 4	4 4				
	HI	35500 N/A	369 N/A	4 N/A	4 N/A				
	RGB/RGBW	9250/16950 N/A	240/312 N/A	4 N/A	2 N/A				
	TUNABLE	23600 26550	332 664	4 4	2 8				

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

SS051321



## PERFORMANCE & MOUNTING DETAILS – MR3 (CONT.)<sup>13</sup>

RING DIAMETER	OUTPUT TYPE	LUMENS (LM) <i>direct</i> <i>indirect</i>	WATTS (W) <i>direct OR indirect</i> <i>direct AND indirect</i>	POWER DROPS <sup>14</sup> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	REMOTE DRIVER BOXES <sup>15</sup> <i>direct OR indirect</i> <i>direct AND indirect</i> <i>(Standard Driver)<sup>16</sup></i>	SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
<b>D12 (MR3)</b>	MIN	14200 15900	140 280	4 4	4 4	8	4x Joined Arcs	82.5	NO
	LOW	21300 23850	222 444	4 4	4 4				
	MED	28350 31850	296 592	4 4	4 4				
	HI	42500 N/A	444 N/A	4 N/A	4 N/A				
	RGB/RGBW	11100/20350 N/A	4 N/A	4 N/A	2 N/A				
	TUNABLE	28325 31875	4 N/A	4 N/A	8 N/A				
<b>D14 (MR3)</b>	MIN	16550 18550	163 326	4 4	4 4	8	4x Joined Arcs	96.25	NO
	LOW	24800 27850	259 518	4 4	4 4				
	MED	33100 37150	346 692	4 4	4 4				
	HI	49600 N/A	518 N/A	4 N/A	4 N/A				
	RGB/RGBW	12925/23750 N/A	348/448 N/A	4/4 N/A	2/8 N/A				
	TUNABLE	33050 N/A	472 N/A	4 N/A	8 N/A				
<b>D16 (MR3)</b>	MIN	18900 21200	188 378	4 4	4 4	8	4x Joined Arcs	110	NO
	LOW	28350 31825	298 596	4 4	4 4				
	MED	37800 42475	397 794	4 4	4 8				
	HI	56700 N/A	595 N/A	4 N/A	4 N/A				
	RGB/RGBW	14775/27125 N/A	404/512 N/A	4/4 N/A	2/8 N/A				
	TUNABLE	37775 N/A	544 N/A	4 N/A	8 N/A				

<sup>13</sup>Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

<sup>14</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.

<sup>15</sup>One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.

<sup>16</sup>Applies to 0/10V/S drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.



## DIRECT/INDIRECT LED LAMPING CHART

Due to high thermal conditions, Direct & Indirect Lamping combinations are limited to the options below. Additional lamping combinations may be limited to the driver specified.

		INDIRECT LAMPING							
		NONE	MIN	LOW	MED	HI	RGB	RGBW	TUNE
DIRECT LAMPING	MIN	✓	✓	✓	✓	✓	✓	✓	✓
	LOW	✓	✓	✓	✓	✓	✓	✓	✓
	MED	✓	✓	✓	✓	/	/	/	/
	HI	✓	✓	✓	/	/	/	/	/
	RGB	✓	✓	✓	/	/	✓	✓	✓
	RGBW	✓	✓	✓	/	/	✓	✓	✓
	TUNE	✓	✓	✓	/	/	✓	✓	✓

## HOW TO CALCULATE VOLTAGE DROP?

Your MOONRING may be powered with more than 1x Class 2 LED driver. Let's use the White LED, 33VDC chart below as an example.

### 1. Determine Load Size of Each Circuit

- Open the driver enclosure and you'll see a silver sticker that indicates the Power (Wattage).
- Let's say the load is 45W. Round up to the nearest load, which is 50W (we're using the White LED, 33VDC chart in this example).

### 2. Determine Distance from Driver to Load

Let's assume the distance is 60 ft.

### 3. Determine Wire Gauge

In this example, ALW recommends to install 16 AWG wire between the Driver and Canopy (where power drops to the ring).

## MOONRING VOLTAGE DROP CHART FOR REMOTE DRIVERS - WHITE LED, 33VDC

For best performance, ensure proper wire gauge is installed between the remote LED driver and canopy that is dropping power to your fixture. *This chart only applies to MOONRING White LEDs at 33VDC. Do not use this chart to calculate voltage drop for other fixtures.*

WIRE GAUGE	20W 0.61A	30W 0.91A	40W 1.21A	50W 1.52A	60W 1.82A	70W 2.12A	80W 2.42A	90W 2.73A	100W 3.03A
18 AWG	119 ft.	77 ft.	55 ft.	43 ft.	34 ft.	28 ft.	23 ft.	20 ft.	17 ft.
16 AWG	195 ft.	127 ft.	93 ft.	73 ft.	59 ft.	50 ft.	42 ft.	37 ft.	32 ft.
14 AWG	315 ft.	207 ft.	153 ft.	121 ft.	99 ft.	84 ft.	72 ft.	63 ft.	56 ft.
12 AWG	506 ft.	334 ft.	249 ft.	197 ft.	163 ft.	138 ft.	120 ft.	106 ft.	94 ft.
10 AWG	809 ft.	537 ft.	400 ft.	319 ft.	264 ft.	225 ft.	196 ft.	173 ft.	155 ft.

## MOONRING VOLTAGE DROP CHART FOR REMOTE DRIVERS - RGB LED, 24VDC

For best performance, ensure proper wire gauge is installed between the remote LED driver and canopy that is dropping power to your fixture. *This chart only applies to MOONRING RGB fixtures at 24VDC. Do not use this chart to calculate voltage drop for other fixtures.*

WIRE GAUGE	20W 0.83A	30W 1.25A	40W 1.67A	50W 2.08A	60W 2.50A	70W 2.92A	80W 3.33A	90W 3.75A	100W 4.20A
18 AWG	59 ft.	37 ft.	25 ft.	19 ft.	14 ft.	11 ft.	8 ft.	7 ft.	5 ft.
16 AWG	99 ft.	63 ft.	45 ft.	35 ft.	27 ft.	22 ft.	18 ft.	15 ft.	13 ft.
14 AWG	163 ft.	106 ft.	77 ft.	60 ft.	49 ft.	40 ft.	34 ft.	30 ft.	26 ft.
12 AWG	264 ft.	173 ft.	128 ft.	100 ft.	82 ft.	69 ft.	60 ft.	52 ft.	46 ft.
10 AWG	424 ft.	280 ft.	208 ft.	164 ft.	136 ft.	115 ft.	100 ft.	88 ft.	78 ft.

SS051321



## STANDARD FINISHES

Standard finishes are available at no additional charge.

### ALUMINUM



Brushed Aluminum  
QS

### BASIC POWDER COAT



Gloss White

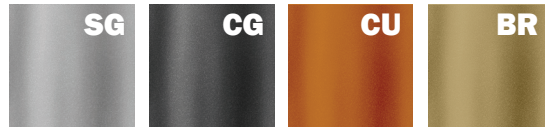
Satin White  
QS

Antimicrobial Satin White

Textured Matte White

Textured Matte Black

### METALLIC POWDER COAT



Silver Gray

Charcoal Gray

Copper

Brass

### SATIN ANODIZED EFFECT POWDER COAT



Clear Silver

Oil-Rubbed Bronze

Dark Bronze

Satin Black  
QS

### GLOSS POWDER COAT (80-95% GLOSS)



Orange  
RAL 2003

Red  
RAL 3020

Magenta  
RAL 4010

Blue  
RAL 5015

## SPECIAL ORDER FINISHES\*



### RAL CLASSIC COLORS (80-95% GLOSS): RAL\_ \_ \_ \_

Most RAL Classic Colors are available for a minimum setup fee. On your specification submittal choose your RAL color by entering the 4-digit RAL code (Ex: RAL 3003). See [www.alwusa.com/finishes](http://www.alwusa.com/finishes)



### CUSTOM COLOR MATCH: CCM\_ \_ \_ \_

Custom powder coat color matching is available for a premium setup fee. Consult ALW for additional information.



### CATALOG COLORS: CAT\_ \_ \_ \_

The complete range of powder coat colors from [Tiger Drylac](#) and [TCI](#) catalogs are available for a minimum setup fee. Consult ALW for a catalog color you would like to specify.

\*An individual setup fee will apply to each unique Special Order Finish per purchase order.  
(ex: RAL 5023 and RAL 2008 are specified for multiple line items on a purchase order. 2x setup fees will apply)



## ADDITIONAL OPTIONS & SPECIFICATIONS

### LENS

**Direct:** Extra diffused opal acrylic lens (LENS).

**Indirect:** Extra diffused opal acrylic lens (LENS) OR clear high transmission lens (HT). HT lens increases lumen output by ~15%, but LED chips are visible. Recommended only when top-side of fixture is not directly visible.

### HOUSING

100% recyclable, extruded architectural grade 6061 aluminum with a 0.075" minimum wall thickness.

### SAFETY & REGULATORY

ETL Listed (U.S. & Canada). Suitable for dry locations only. Conforms to UL std. 2108, Low Voltage Luminaires / Low Voltage Lighting Systems. Certified to CSA std. C22.2#250.0:2008 Ed. 3+G1;G2.

### OPERATING TEMPERATURE

Luminaire should be installed and operated ONLY in dry environments where the ambient temperature ranges from -4 °F to 122 °F (-20 °C to 50 °C). Luminaire operation in environments outside the listed temperature range voids the warranty AND may damage the product or adversely impact lamp life, lumen output and color consistency.

### WARRANTY

Limited 5-year warranty. Details: [alwusa.com/warranty](http://alwusa.com/warranty)

### POWER CABLES

Power cables come standard in a transparent sheathing to match steel aircraft suspension cables. Please contact customer support if custom cables are required for your application. Power cables cannot be swapped in the field as it will void the ETL Safety Listing and Product Warranty.



### CONTROLS, SENSORS, & LED DRIVER

ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. Our component portfolio is continually expanding to adopt to the latest technologies and specification needs. We currently support integration with Lutron, Enlighted, EldoLED, nLight, Osram, Philips, and more. If there's a component or system needed that you don't see on the spec sheet please contact ALW customer support today so we can review your requirements.