MOONRING 1.5 & 3

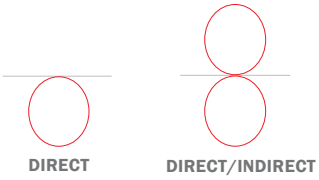
MR1.5 & MR3 | SUSPENDED, CEILING

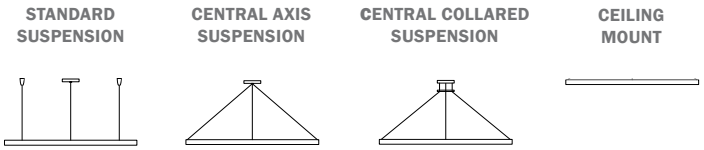
SPECIFICATIONS

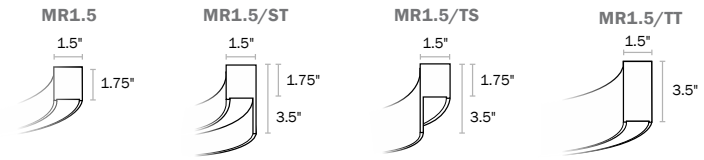
PROFILE	Ring — 1.5in. & 3in. aperture — 1.5in. to 3in. wall height
SIZES	2ft. - 16ft. diameter *(custom diameters available)*
LED OUTPUT	1,500lm - 56,700lm *(238lm/ft - 1129 lm/ft)*
CCT/CRI	2700K/3000K/3500K/4000K • 80 or 90+ CRI Tunable White (2700K – 6500K) • RGB and RGB+W
DIMMING/ DRIVER	Remote Driver: 0-10V, DALI, DMX, eldoLED, Lutron®, PoE (Molex, Igor, NuLEDS). Dimming to 0% for select models.
POWER	22W - 794W per ring
INPUT	120VAC, 277VAC, or 347VAC
OPTICS	Diffused acrylic lens — direct/indirect Optional clear (high transmission) lens — indirect
FINISHES	17 standard finishes at no extra charge Custom finishes available Two-tone paint *(select models available with extra charge)*
MATERIAL	6061 Extruded & Welded Aluminum
ENVIRONMENT	Indoor, dry location only

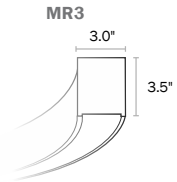
*Safety and Performance information available on last page. Weights and other specifications available on pages 4-10.

DISTRIBUTIONS & PROFILES









Not to scale. Dimensions are nominal. Consult factory for CAD drawing

Rev 112023

ALW

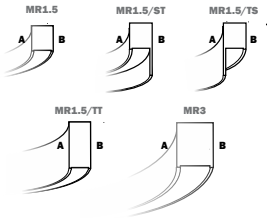
PRODUCT SPECIFICATION SHEET

	–	–	–	/	/	–	–	–				–	–	–	–		–	–	–		–		
1	2	3	4a	4b	4c	5	6	7a	7b	7c	8	9	10a	10b	11	12a	12b	12c

EXAMPLE: MR1.5/TS — D3 — SS — MED/90/3500 — V00 — LENS — LOW/90/3500K — V00 — HT — DB/SB — RAL1001 — UNV — EMB — NLT — SB
1 2 3 4 5 6 7 8 9 10A 10B 11 12A 12B 12C

1. BASE MODEL (CHOOSE 1)

- ☐ **MR1.5** 1.5", A: short, B: short
- ☐ **MR1.5/ST** 1.5", A: short, B: tall
- ☐ **MR1.5/TS** 1.5", A: tall, B: short
- ☐ **MR1.5/TT** 1.5", A: tall, B: tall
- ☐ **MR3** 3.0",A: tall, B: tall



2. NOMINAL SIZE* (CHOOSE 1)

☐ **D2**	2' (24")	☐ **D8**	8' (96")
QS ☐ **D3**	3' (36")	☐ **D10**	10' (120")
QS ☐ **D4**	4' (48")	☐ **D12**	12' (144")
QS ☐ **D5**	5' (60")	☐ **D14**	14' (168")
QS ☐ **D6**	6' (72")	☐ **D16**	16' (192")
☐ **D7**	7' (84")		

*Dimensions refer to ring outer diameter. Custom diameters available upon request

3. MOUNTING (CHOOSE 1)

- QS ☐ **SS** Standard Suspension

Rings **D2**, **D3**, **D4**, **D5**, and **D6** ONLY

- QS ☐ **CAS** Central Axis Suspension
- QS ☐ **CCS** Collared Central Suspension
- QS ☐ **CM**[1] Ceiling Mounted

[1]Not available with indirect lamping

4. LED LAMPING - DIRECT (CHOOSE 1 FOR EACH)

A. OUTPUT (MR1.5/MR3)[2]	B. CRI[6]	C. CCT[6]
QS ☐ **MIN** (238/376 lm/ft)	☐ **NO CRI/CCT***	
QS ☐ **LOW** (358/565 lm/ft)	QS ☐ **80**	☐ **2700K**
QS ☐ **MED** (477/753 lm/ft)	QS ☐ **90**	QS ☐ **3000K**
QS ☐ **HI**[3] (716/1129 lm/ft)		QS ☐ **3500K**
☐ **TUNE**[4] (27K-65K, 709/751 lm/ft)		QS ☐ **4000K**
☐ **RGB**[4] (278/295 lm/ft)		
☐ **RGBW**[4] (3500K, White, 510/540 lm/ft)		
☐ **CSTM/____**[5] (Enter lumens in product code above. Ex. 0100=100lm/ft)		

*Choose when TUNE, RGB, or RGBW is desired output
[2]For delivered lumens and watts, see "Performance Details"
[3]Refer to additional footnotes below for more information
[4]TUNE and RGBW only available in 80CRI
[5]Consult ALW for custom lumen packages
[6]CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping

5. REMOTE DRIVER - DIRECT[7] (CHOOSE 1)

- QS ☐ **V00** (0-10V, dim to 0%) ☐ **POEI** (POE IGOR)
- QS ☐ **V01** (0-10V, dim to 1%) ☐ **POEN** (POE Nuleds)
- QS ☐ **V05**[8] (0-10V, dim to 5%) ☐ **POE**[9] (POE Ready)
- ☐ **P01** (ELV/TRIAC phase dim to 1%)
- ☐ **LDE1** (Lutron ECOSYS1, 0-10V, dim to 1%)
- ☐ **ELDV0** (eldoLED, 0-10V, dim to 0%)
- ☐ **DALI** (DALI, dim to 0%)
- ☐ **DMX** (DMX, dim to 0%)
- ☐ **POEM** (POE Molex)

[7]Driver specifications provided upon request. *See page 11 for driver details.* Refer to all 'Driver', 'Sensor' and lamping charts for compatibility
[8]V05 standard driver dims down to 10% with TUNE lamping
[9]Choose desired PoE solution not listed. Contact customer service to review and confirm the PoE system of your choice

6. LENS - DIRECT

- QS ☐ **LENS** Extra diffuse lens

7. LED LAMPING - INDIRECT (CHOOSE 1 FOR EA)

- QS ☐ **N** (None)

A. OUTPUT (MR1.5/MR3)[2]	B. CRI[6]	C. CCT[6]
QS ☐ **MIN** (267/422 lm/ft)	☐ **NO CRI/CCT**	
QS ☐ **LOW** (400/633 lm/ft)	QS ☐ **80**	☐ **2700K**
QS ☐ **MED** (535/845 lm/ft)	QS ☐ **90**	QS ☐ **3000K**
QS ☐ **HI**[3] (N/A)		QS ☐ **3500K**
☐ **TUNE**[4] (27K-65K, 789/846 lm/ft)		QS ☐ **4000K**
☐ **RGB**[4] (311/540 lm/ft)		
☐ **RGBW**[4] (3500K, White, 569/608 lm/ft)		
☐ **CSTM/____**[5] (Enter lumens in product code above. Ex. 0100=100lm/ft)		

*Choose when TUNE, RGB, or RGBW is desired output
[2]For delivered lumens and watts, see "Performance Details"
[3]Refer to additional footnotes below for more information
[4]TUNE and RGBW only available in 80CRI
[5]Consult ALW for custom lumen packages
[6]CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping

8. REMOTE DRIVER - INDIRECT[7] (CHOOSE 1)

- QS ☐ **N** (None) ☐ **POEM** (POE Molex)
- QS ☐ **V00** (0-10V, dim to 0%) ☐ **POEI** (POE IGOR)
- QS ☐ **V01** (0-10V, dim to 1%) ☐ **POEN** (POE Nuleds)
- QS ☐ **V05**[8] (0-10V, dim to 5%) ☐ **POE**[9] (POE Ready)
- ☐ **P01** (ELV/TRIAC phase dim to 1%)
- ☐ **LDE1** (Lutron ECOSYS1, 0-10V, dim to 1%)
- ☐ **ELDV0** (eldoLED, 0-10V, dim to 0%)
- ☐ **DALI** (DALI, dim to 0%)
- ☐ **DMX** (DMX, dim to 0%)

[7]Driver specifications provided upon request. *See page 11 for driver details.* Refer to all 'Driver', 'Sensor' and lamping charts for compatibility
[8]V05 standard driver dims down to 10% with TUNE lamping
[9]Choose desired PoE solution not listed. Contact customer service to review and confirm the PoE system of your choice

9. LENS - INDIRECT (CHOOSE 1)

- QS ☐ **N** None
- QS ☐ **LENS** Extra diffuse lens
- QS ☐ **HT**[10] High transmission, near-clear lens

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

10. FINISH* (CHOOSE 1 FOR EACH WALL)

	A	B		
STANDARD FINISHES				
QS	☐	☐	**SW**	Satin White
QS	☐	☐	**SB**	Satin Black
QS	☐	☐	**AS**	Aluminum Silver Anodized Effect
QS	☐	☐	**TB**	Textured Black
QS	☐	☐	**BA**	Brushed Aluminum
PREMIUM FINISHES				
	☐	☐	**__**	See chart on page 4 for premium finishes. Manually type in the finish code (Ex: OB = Oil-Rubbed Bronze)
SPECIAL ORDER FINISHES*				
	☐	☐	**RAL____**	Specify RAL Classic Color (Ex: RAL 3003)
	☐	☐	**CCM____**	Custom Color Match

*A: Inside Wall, B: Outside Wall. Wall diagram on page 4 Leave "B" unselected for MR1.5 SS, TT, and MR3. Manually type in the finish code for special order finishes.

11. VOLTAGE (CHOOSE 1)

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

12a. EMERGENCY OPTIONS (OPTIONAL, CHOOSE 1)

- ☐ **N** None
- QS ☐ **EMB**[11] Emergency Battery (Not available in 347 V)
- QS ☐ **EMC**[11] Emergency Circuit

[11]Applies to direct lamping only. EMB will deliver constant power to a 2ft arc of a ring for 90min. Total lumens: MR1.5: 1432lms, MR3: 2256lms. Consult ALW for more details.

12b. SENSOR OPTIONS* (OPTIONAL, CHOOSE 1)

- ☐ **N** (None)
- ☐ **WLNX/__** (Cooper Wavelinx)
- QS ☐ **ENLGHT/__** (Enlighted)
- ☐ **FCJS/__** (Lutron)
- ☐ **FCJS/S/__** (Lutron, occ/daylight sensor)
- ☐ **MLX** (Molex POE)
- ☐ **NLT** (nlight Wired)
- ☐ **NLTAIR** (nlight Air wireless)
- QS ☐ **OS/PH/HV__** (Hubbel WASP occ/daylight sensor)

*All sensors to be remotely located
*Sensor descriptions available on pages 12-13.
*Default quantity is 1 sensor per 8ft, manually type in sensor quantity per ring (Ex: 1 = 1x remote sensor)

12c. ADDITIONAL OPTIONS (OPTIONAL)

- QS ☐ **SB** Seismic Bracing

ADDITIONAL NOTES & LIMITATIONS

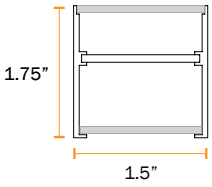
[3]Direct/Indirect lamping combinations are limited when specifying HI OUTPUT due to increased temperatures and/or driver type limitations. See the 'Direct/Indirect LED lamping Chart on page 10 and LED driver footnotes.

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 of 25 rings of Quickship-eligible product per order.

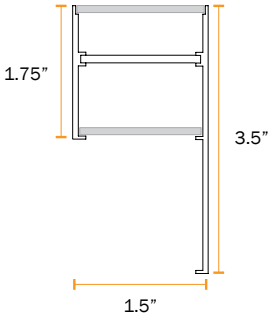
Rev 112023

MECHANICAL DIAGRAMS

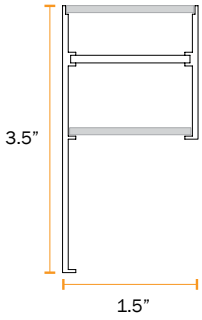
MR1.5
Inside Short Wall
Outside Short Wall



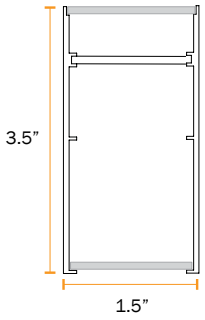
MR1.5/ST
Inside Short Wall
Outside Tall Wall



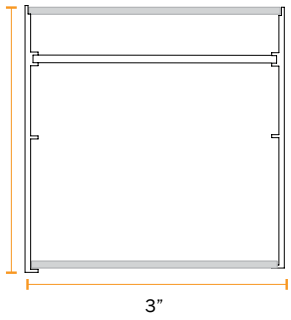
MR1.5/TS
Inside Tall Wall
Outside Short Wall



MR1.5/TT
Inside Tall Wall
Outside Tall Wall



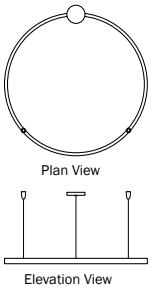
MR3
Inside Tall Wall
Outside Tall Wall



MOUNTING OPTIONS

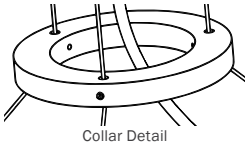
STANDARD SUSPENSION (SS)

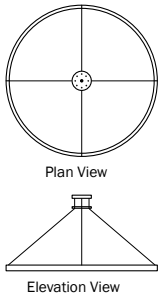
- 4.5" white canopy per power feed location
- Bullet mount
- 8’ aircraft cable (longer suspension cables available upon request)
- 2" white canopy (for use with T-bar mounting) per suspension point



CENTRAL COLLARED SUSPENSION (CCS)

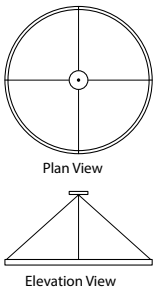
- 5" white central axis canopy
- 8’ aircraft cable. 18” minimum distance from ceiling to fixture.
- 5" collared ring (color matches specified body finish) that all aircraft cables and power feeds route through.





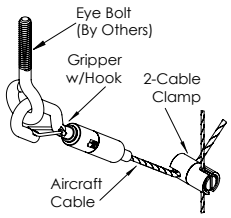
CENTRAL AXIS SUSPENSION (CAS)

-4.5" white central axis canopy per fixture that all aircraft cables/power feeds route into, as shown.
- 8’ aircraft cable. 18” minimum distance from ceiling to fixture.



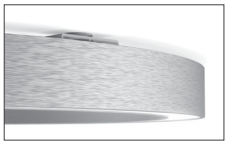
SEISMIC BRACING (SB)

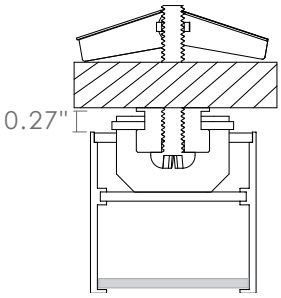
Add-on hardware includes cable gripper with hook, 2-cable clamp and specified length of aircraft cable per suspension point.



CEILING MOUNT (CM)

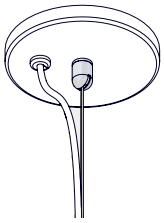
Ceiling mount is for horizontal, ceiling mounting only. The fixture is not compatible with indirect lamping or vertical surface mounting (i.e. on a wall). Three ceiling-mount brackets per fixture. Surface Mount hardware adds 0.27" height to all options, as shown.





COMBO CANOPY

Suspended options come with standard 4.5" canopies at feed locations with power feed and aircraft cable suspension mounting. Canopy finish is always white.
Contact ALW for alternate colors.



FINISHES

Standard finishes are available at no additional charge and no extended lead time for standard configurations.
Two-tone paint options available for select models with extra charge.

STANDARD FINISHES - QS ELIGIBLE

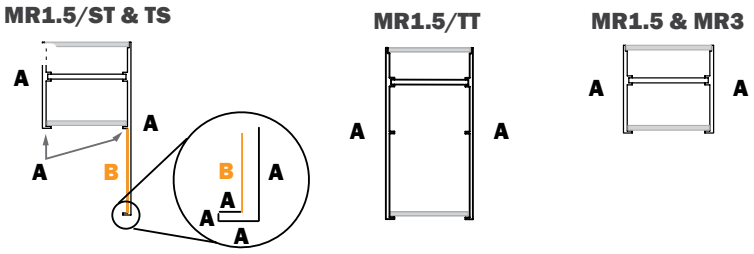
BA — Brushed Aluminum QS

AS — Aluminum Silver Anodized Effect QS

SW — Satin White QS

SB — Satin Black QS

TB — Textured Black QS



PREMIUM FINISHES

BASIC POWDER COAT

GW — Gloss White

AW — Antimicrobial Gloss White

TW — Textured Matte White

METALLIC POWDER COAT

CG — Charcoal Gray

CU — Copper

BR — Brass

SATIN ANODIZED EFFECT POWDER COAT

OB — Oil-Rubbed Bronze

DB — Dark Bronze

GLOSS POWDER COAT (80-95% GLOSS)

GO — Orange RAL 2003

GR — Red RAL 3020

GM — Magenta RAL 4010

GB — Blue RAL 5015

Contact ALW Quotes for sample paint finish swatches.

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.alw-inc.com/resources/finishes

CUSTOM COLOR MATCH: CCM_ _ _ _

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

*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)

*Printed or on-screen colors are only approximations - consult actual Color Chip Set before specifying

PERFORMANCE DETAILS - MR1.5[12]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[13] (Standard Driver)[15]		REMOTE DRIVER BOXES[14] (Standard Driver)[15]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D2 (MR1.5)	MIN	1500	1650	22	44	1	1	1	1	3	1x Ring	12.5	YES
	LOW	2250	2500	35	70	1	1	1	1				
	MED	3000	3350	47	94	1	1	1	1				
	HI	4500	N/A	70	N/A	1	N/A	1	N/A				
	RGB RGBW	1750 3200	1950 3600	47 59	94 118	1	2	1	2				
	TUNABLE	4450	4950	64	128	1	1	1	2				
D3 (MR1.5)	MIN	2250	2525	34	68	1	1	1	1	3	1x Ring	18.75	YES
	LOW	3375	3750	54	108	1	1	1	1				
	MED	4500	5050	72	144	1	1	1	1				
	HI	6750	N/A	108	N/A	1	N/A	1	N/A				
	RGB RGBW	2600 4800	2950 5350	74 92	148 184	1	2	1	2				
	TUNABLE	6700	7450	98	196	1	2	2	4				
D4 (MR1.5)	MIN	3000	3350	46	92	1	1	1	1	3	1x Ring	25	YES
	LOW	4500	5050	73	146	1	1	1	1				
	MED	6000	6750	97	194	1	2	1	2				
	HI	9000	N/A	145	N/A	1	2	1	2				
	RGB RGBW	3500 6400	3900 7150	101 126	202 252	1 2	2 2	1 2	2 4				
	TUNABLE	8900	9900	132	266	1	2	2	4				
D5 (MR1.5)	MIN	3750	4200	58	116	1	1	1	1	3	1x Ring	31.75	YES
	LOW	5600	6300	92	184	1	1	1	1				
	MED	7500	8400	122	244	1	2	1	2				
	HI	11250	N/A	183	N/A	1	N/A	1	N/A				
	RGB RGBW	4350 8000	4850 8900	123 157	246 314	2	2	2	4				
	TUNABLE	11150	12400	168	336	1	2	2	4				

[12]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.
[13]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.
[14]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[15]Applies to V05 drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

PERFORMANCE DETAILS - MR1.5 (CONT'D)[12]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[13] (Standard Driver)[15]		REMOTE DRIVER BOXES[14] (Standard Driver)[15]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D6 (MR1.5)	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				
D7 (MR1.5)	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	N/A	4	N/A				
D8 (MR1.5)	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	N/A	2	N/A	4	N/A				
D10 (MR1.5)	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				

[12]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.
[13]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.
[14]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[15]Applies to V05 drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

PERFORMANCE DETAILS - MR1.5 (CONT'D)[12]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[13] (Standard Driver)[15]		REMOTE DRIVER BOXES[14] (Standard Driver)[15]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D12 (MR1.5)	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	N/A	8	N/A				
D14 (MR1.5)	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				
D16 (MR1.5)	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				

[12]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.
[13]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.
[14]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[15]Applies to V05 drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

PERFORMANCE DETAILS - MR3[16]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[17] (Standard Driver)[19]		REMOTE DRIVER BOXES[18] (Standard Driver)[19]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D2 (MR3)	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				
D3 (MR3)	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				
D4 (MR3)	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				
D5 (MR3)	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				

[16]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.
[17]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.
[18]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[19]Applies to V05 drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

PERFORMANCE DETAILS - MR3 (CONT'D)[16]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[17] (Standard Driver)[19]		REMOTE DRIVER BOXES[18] (Standard Driver)[19]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D6 (MR3)	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				
D7 (MR3)	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				
D8 (MR3)	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				
D10 (MR3)	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				

[16]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.
[17]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.
[18]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[19]Applies to V05 drivers (or DMX for RGB/RGBW). For additional info on other driver models see your final drawing/submittal.

PERFORMANCE DETAILS - MR3 (CONT'D)[16]

RING DIAMETER	OUTPUT TYPE	LUMENS (LM)		WATTS (W)		POWER DROPS[17] (Standard Driver)[19]		REMOTE DRIVER BOXES[18] (Standard Driver)[19]		SUSPENSION POINTS	FIXTURE SECTIONS	APPROX. WEIGHT (LBS)	CENTRAL AXIS, COLLARED OR CEILING
		Direct	*Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*	*Direct* ***OR*** *Indirect*	*Direct* ***AND*** *Indirect*				
D12 (MR3)	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				
D14 (MR3)	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	37510	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				
D16 (MR3)	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	540	4	N/A	8	N/A				

[16]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.
[17]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.
[18]One or more drivers may be enclosed in each Remote Driver Box. See your final drawing/submittal for details.
[19]Applies to V05 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	✓	✓	✓			✓	✓	✓

VOLTAGE DROP DETAILS

VOLTAGE DROP CALCULATION DIRECTIONS

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

a. Open the driver enclosure and you'll see a silver sticker that indicates the Power (Wattage).

b. 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. I f you need to determine your wire gauge and driver distance before you receive the product, use 95W as your worst case load rating. All drivers are Class 2 and each circuit will never exceed 95W.

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.

DRIVERS

PRODUCT CODE	DESCRIPTION
N	None. Choose when indirect lamping is not desired.
V00	0-10V dimming down to 0% (dim to off).
V01	0-10V dimming down to 1%.
V05	0-10V dimming down to 5% (Down to 10% for TUNE lamping).
P01	Driver supports both TRIAC Forward Phase 2-Wire and ELV Reverse Phase 3-Wire dimming controls.
LDE1	(LDE1) Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology.
ELDV0	eldoLED 0/10V dimming down to 0% (when choosing nLight Air integral sensors a compatible eldoLED LEDcode version will be specified)
DALI	DALI flicker-free dimming down to 0%.
DMX	DMX flicker-free dimming down to 0%.
POEM	Molex CoreSync PoE LED Driver. Contact ALW to assist with your project.
POEI	IGOR PoE LED Driver. Contact ALW to assist with your project.
POEN	NuLEDS PoE LED Driver. Contact ALW to assist with your project.
POE	Specify a PoE driver of your choice. Fixture comes with low voltage leads and no LED driver. Contact ALW to assist with your project

*Most drivers can be programmed to specific dimming levels if desired. Contact ALW for specific dimming level requests.
ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet, please contact ALW customer support today to specify a compatible solution of your choice.

DRIVER/LED LAMPING COMPATIBILITY						
	STD	TUNE	RGB	RGB(W)	CA TITLE 24 JA8/JA10[20]	IEEE P1789 & HD TV STUDIO*[21]
V00	●	●			●	
V01	●	●			●	
V05	●	●			●	
P01	●				●	
LDE1	●				●	●
ELDV0	●	PER REQUEST			●	●
DALI	●	●			●	
DMX	●	●		●	PER REQUEST	PER REQUEST
POEM	PER REQUEST				●	●
POEI	PER REQUEST				●	●
POEN	PER REQUEST				●	●

● - Indicates compatibility
*Standard lamping (STD) - LOW/MED/HI

[20]Fixtures specified with 90CRI 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to California Title 24 JA8 and JA10 Appendices

[21]The following drivers conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers'. These drivers may also be installed in HD TV Studio applications utilizing high frequency camera equipment.

SENSORS

	PRODUCT CODE	DESCRIPTION	Location
	N	None. Choose when sensors are not desired.	-
COOPER WAVELINX	**WLNX**	Fixture is built with 0/10V wiring to connect to Wavelinx Wireless sensors and power/relay packs (sensors and equipment not provided by ALW)	Remote
ENLIGHTED™	**ENLGHT**	Enlighted remote connected lighting smart sensor - occ/daylight/networking (Enlighted Part: SU-5S-H-CL)	Remote
LUTRON VIVE	**FCJS**	Lutron® Vive remote RF wireless fixture control (Lutron Part: FCJS-ECO or FCJS-010)	Remote
	FCJS/S	Lutron® Vive remote RF wireless fixture control + daylight/occ sensor (Lutron Part: FCJS-ECO or FCJS-010, & FC-Sensor)	Remote
MOLEX POE CORESYNC	**MLX**	Molex PoE sensors for use with Molex/PoE drivers. Customer will need to determine who to purchase PoE equipment from	Remote
NLIGHT® WIRED	**NLT**	Fixture is built with wiring connections to connect to nLight® Wired remote sensors and power/relay packs purchased through distributor by agency	Remote
NLIGHT WIRELESS	**NLTAIR**	Fixture is built with wiring connections to connect to nLight® Air remote sensors and power/relay packs purchased through distributor by agency	Remote
VALUE SENSORS	**OS/PH/HV**	*Hubbell WASP* **High Voltage** *0-10V remote surface mount occ/daylight sensor. 120/277/347VAC input (Hubbell Part: WSPDSMUNV)* *Automated Dimming Functionality: Connect fixture 0/10V wires to sensor in the field. Adjust occ/photocell settings as desired* *On/Off or Manual Dimming Functionality: Turn photocell functionality OFF. Cap off 0/10V wires on sensor.* *Connect fixture 0/10V wires to wall dimmer in the field.*	Remote

*All connected lighting sensors/systems must be programmed in the field by an electrical commissioner familiar with the system. Refer to the 'Sensor Compatibility' and 'Driver/Sensor Compatibility' charts to specify compatible sensors, LED lamping, and LED driver systems.

SENSOR COMPATIBILITY

PRODUCT CODE		SENSOR TYPE	MAX MT HT	CA TITLE 24	STD*	TUNE	RGB	RGB(W)
COOPER WAVELINX	**WLNX**		15 ft	●	●			
ENLIGHTED	**ENLGHT**	OCCUPANCY/PHOTOCELL	40 ft	●	●	CUSTOM REQUEST		
LUTRON VIVE	**FCJS**	WIRELESS CONTROL	12 ft	●	●			
	FCJS/S	OCCUPANCY/PHOTOCELL	12 ft	●	●			
MOLEX POE CORESYNC	**MLX**		16 ft	●	●	■	CUSTOM REQUEST	CUSTOM REQUEST
NLIGHT WIRED	**NLT**		15 ft	●	●			
NLIGHT AIR WIRELESS	**NLTAIR**		15 ft (average)	●	●			
VALUE SENSORS	**OS/PH/HV**	OCCUPANCY/PHOTOCELL	45 ft	●	●	■	■	■

● - Indicates compatibility ■ - On/off sensor functionality only

*Standard lamping (STD) - MIN/LOW/MED/HI

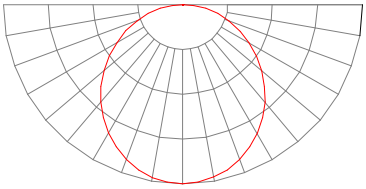
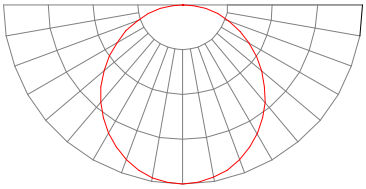
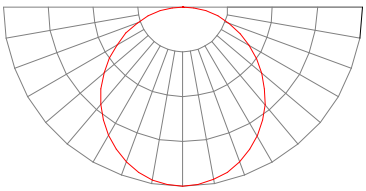
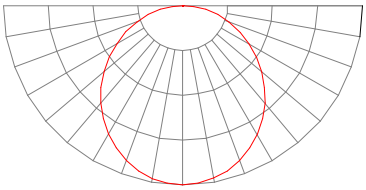
SENSORS (CONT'D)

DRIVER/SENSOR COMPATIBILITY									
	WLNX	ENLGHT	FCJS	FCJS/S /	MLX	NLT	NLTAIR	OS/PH/HV	NO SENSOR
V00	●	●	●	●				▲	●
V01	●	●	●	●				▲	●
V05	●	●	●	●				▲	●
P01								■	●
ELDV0						●	●	▲	●
DALI								■	●
DMX								■	●
POEM					●				●
POEI	Sensor types will depend on the PoE system configuration. Contact ALW for details.								
POE	Sensor types will depend on the PoE system configuration. Contact ALW for details.								
POE	Sensor types will depend on the PoE system configuration. Contact ALW for details.								

● - Indicates compatibility ▲ - Driver/sensor can have dimming OR on/off functionality but not both ■ - On/off sensor functionality only

*Driver specifications provided upon request
**ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet please contact ALW customer support today to specify a compatible solution of your choice.

PHOTOMETRICS

OPTIC	POLAR PLOT (CD)	MTG HEIGHT	LIGHT LEVEL (FC)	SPACING CRITERION (SC)[22] (0°- 180°) (90°- 270°)	MAX INTENSITY (CD)	OUTPUT (LM)
MR1.5		6 ft	43.8	1.26 1.26	1575	4500
		8 ft	24.6			
		10 ft	15.8			
		12 ft	10.9			
		14 ft	8			
		16 ft	6.2			
MR1.5 (ST)		6 ft	48.1	1.1 1.12	1739	4200
		8 ft	27			
		10 ft	17.3			
		12 ft	12			
		14 ft	8.8			
		16 ft	6.8			
MR1.5 (TS)		6 ft	42.8	1.12 1.1	1541	4048
		8 ft	24.1			
		10 ft	15.4			
		12 ft	10.7			
		14 ft	7.9			
		16 ft	6			
MR3		6 ft	70.6	1.26 1.26	2541	7100
		8 ft	39.7			
		10 ft	25.4			
		12 ft	17.6			
		14 ft	13			
		16 ft	9.9			

*Photometric calculations based on HI 4000K 80 CRI D2 fixture combination. Actual results may vary in the field.
For footcandle and output multipliers refer to the ALW IES File Multipliers Chart.

[22]Spacing criterion refers to maximum distance luminaires can be spaced to provide uniform illumination on the working plane or surface.
Luminaire spacing = Spacing Criterion (SC) x Mounting Height (MH) (ex. 1.14 (SC) x 10' (MH) = 11.4' Luminaire Spacing).

ADDITIONAL OPTIONS & SPECIFICATIONS

LED PERFORMANCE

> 54,000 hours at 70% lumen maintenance, LM80 / TM-21

HOUSING

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

OPTICS

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

SAFETY & REGULATORY

Fixtures specified with 90CRI, 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to **California Title 24 JA8 and JA10** Appendices. EldoLED drivers can conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers .

Contact ALW customer support today and we can help you with your project requirements.

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.

WARRANTY

Limited 11 year warranty. Details at alw-inc.com.

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.

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.

WEIGHT

Approximately 12.5lbs. - 110lbs. per fixture. Weight may vary depending on additional options selected.

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, nLight, Cooper Wavelinx, eldoLED, Molex PoE, NuLEDS PoE, Igor PoE, 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.