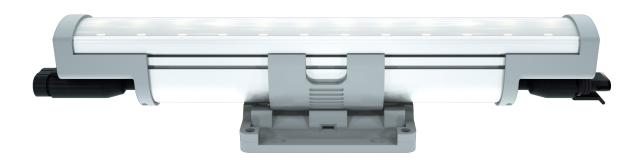
## MODA GRAZE® EXTERIOR ELV



Client:	Project Name:		
MODA Contact:			
SKU:		PO#:	Quantity:
Notes:			



## Specification Grade Premium Exterior Graze Fixture.

MODA GRAZE Exterior is a patent pending cove lighting system designed for exterior applications. Utilizing MODA's latest software and dimming technology with its onboard dimming chipset and MODA firmware, this series can dim to 0% smoothly without any flicker or noise and simultaneously synchronize dim with every fixture. Electronic Low Voltage dimming has no minimum run lengths. With MODA's methods of precision and high standards of work, MODA achieves perfect illumination. Color Rendering Index is at a MODA standard of 94-98. R1 - R15 values are in excess of 90. No striations, no color over angle, and no dark spots.

Small in physical size, yet powerful with up to 1200 lm/ft. Wall wash any applications with a choice of 6°, 10°, 25°, 40°, 10°x40°, 30°x60° or forward throw asymmetric beam patterns for SO+ and HO or 30°x100° for LO, SO or HO+ Lumen packages. Standard color temperatures available are 2200K, 2700K, 3000K, 3500K, and 4000K. Other CCT are available by request. 100-277V AC, 50/60Hz power input allows these fixtures to be installed anywhere in the world. New patent pending locking bracket rotates 180° for a multitude of light directions. Rugged aluminum design. Protected from corrosion and harsh weather conditions by MODA GUARD—a tough seal which protects the fixture. Fast installation is achieved with MODA KWIK CONNECT plugs and install-integral thumb latch connectors. Choice of five lumen packages ranging from 200 lm/ft to 1200 lm/ft. Available in 1ft & 4ft sections. Series is designed for driver or light engine to be factory replaced at its end of life or recycled.

Designed and developed in Las Vegas, USA by MODA.



# **PAGE**

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7	OPTIC FLEXIBILITY
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9	TM30
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11	0-10V TO ELV
12	ACCESSORIES: CABLES
13	FIXTURES AND ACCESSORIES



# **PHYSICAL**

Dimensions	L: 12 1/2in (318mm) L: 47 3/8in (1204mm)	W: 2 13/16in (71mm) H: 2 9/16in (65mm)				
Weight	12in: 1.3lbs (0.6kg) 48in: 4.9lbs (2.22kg)					
Applications Graze, Accent, & Indirect General Illumination						
Construction	Pure Aluminum Body, Polycarbonate Mounting Bracket and Polycarbonate Optical Lens					
Ingress Protection	Wet Location IP66					
Thermal Management	Moda Aluminum Heat S	ink				
Fixture Connections	Integral Male & Female	Connectors				
Operating Temperature	-40°F ~ 122°F (-40°C ~ 50°C)					
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)					
Humidity	0-95% Non Condensing					

# **SPECIFICATIONS**

	Lun	nens	Effic	acy
	1FT	4FT	1FT	4FT
LO	250 - 352	1002 - 1406	62 - 88	62 - 87
so	339 - 494	1368 - 1975	68 - 99	72 - 104
SO+	890 - 951	3261 - 3358	89 - 94	81 - 84
но	1140 - 1407	4264 - 5163	114 - 141	106 - 129
HO+	1085 - 1240	4300 - 4960	108 - 124	108 - 124

# POWER CONSUMPTION

120V - 277V AC

	1FT	4FT
LO	4W	16W
SO	5W	19W
SO+	10W	40W
НО	10W	40W
HO+	10W	40W

# OUTPUT

Colors	2200K*, 2700K, 3000K, 3500K, 4000K
Beam Angle	6°, 10°, 25°, 40°, 10°x40°, 30°x60°, Forward Throw Asymmetric, or 30°x100° optic options
CRI	94-98
SDCM	2-Step MacAdam Ellipse
Color Bin Tolerance	Single Bin
Lumen Maintenance	90,000 Hours L70 @ 25°C 70,000 Hours L70 @ 50°C
Testing Data	Light Data LM-79-08 & LM-80-08
	*2200K not available for SO+ or HO

# **ELECTRICAL**

Input Voltage	100-277V AC 50Hz/60Hz					
Control	Electronic Low Voltage Reverse Phase Trailing Edge					
Power Factor	≥ 0.98					

# MAX CONTINUOUS RUN

	120V AC	277V AC
LO	180ft	360ft
so	120ft	240ft
SO+	60ft	120ft
НО	60ft	120ft
HO+	60ft	120ft

# MODA TECHNOLOGY

moda <b>software</b> ™	MOda <b>Zero Bin™</b>
moda <b>Hardware™</b>	MOdathermal management™
MOCIO <b>PHOSPHOR™</b>	moda <b>airflow</b> ™
MOda <b>HIGH CRI™</b>	moda <b>communicate</b> ™
moda <b>driver™</b>	MOda <b>kwik connect</b> ™
moda <b>guard</b> ™	moda <b>seal</b> ™

# STANDARDS & CERTIFICATIONS







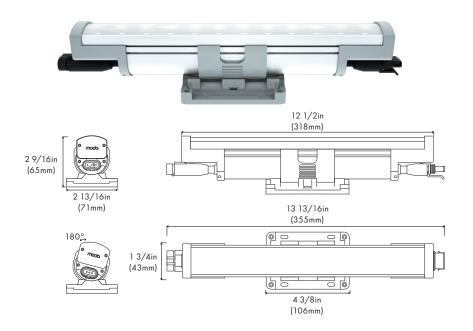






Certification	Tested to UL & CSA by Intertek For Use in USA & CANADA. Exceeds ANSI C78.377-2015, CE, CCC, C-Tick, RoHS, & WEEE Compliant.					
Class	1					
Warranty	3 Year Limited Warranty					





# **ELV**

1FT	1FT 6°		10° 25°		40°		10°x40°		30°x60°		Forward Throw Asymmetric				
Output	CCT	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy								
	2700K	940.08	94.00	928.08	92.80	914.08	91.40	904.08	90.40	1012.70	101.27	892.08	89.08	890.08	89.00
SO+	3000K	942.05	94.20	930.05	93.00	916.05	91.60	906.05	90.60	1014.30	101.43	894.50	89.40	892.05	89.20
30+	3500K	945.05	94.50	933.05	93.30	919.05	91.90	909.05	90.90	1017.60	101.76	897.05	89.70	895.05	89.50
	4000K	951.05	95.10	939.05	93.90	925.05	92.50	915.05	91.50	1026.30	102.63	903.05	90.30	901.05	90.10
	2700K	1190.26	119.02	1178.26	117.82	1164.26	116.42	1154.26	115.42	1145.26	114.52	1142.26	114.22	1140.26	114.02
ш	3000K	1320.36	132.03	1298.36	129.83	1284.36	128.43	1197.05	119.71	1265.36	126.53	1262.36	126.23	1260.36	126.03
НО	3500K	1358.10	135.81	1346.10	134.61	1322.10	133.21	1322.10	132.21	1313.10	131.31	1310.10	132.01	1308.10	130.81
	4000K	1407.15	140.71	1395.15	139.51	1381.15	138.11	1371.15	137.11	1362.15	136.21	1359.15	135.91	1359.15	135.91

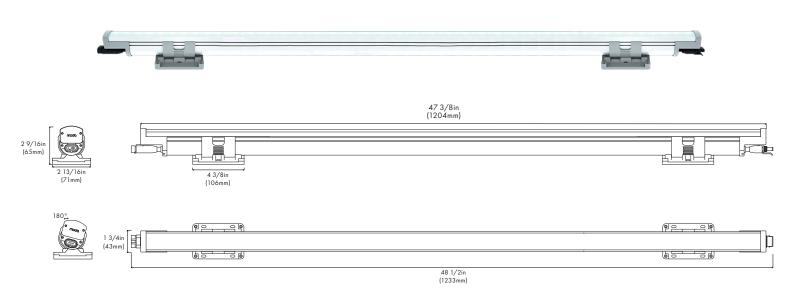
1FT	30°x100°				30°x100°					30°x100°	
Output	CCT	Lumens	Efficacy	Output	CCT	Lumens	Efficacy	Output	CCT	Lumens	Efficacy
	2200K	250.50	62.00		2200K	339.80	67.96		2200K	1085.20	108.52
	2700K	310.00	00 77.00		2700K	450.67	90.13		2700K	1219.74	121.97
LO	3000K	322.00	83.00	so	3000K	490.25	98.05	но+	3000K	1223.56	122.35
	3500K	344.00	86.00		3500K	491.33	98.26		3500K	1236.09	123.60
	4000K	352.00	88.00		4000K	493.84	98.76		4000K	1240.01	124.00

# **BEAM ANGLE**

	LO	SO	SO+	НО	HO+
6° / 10° / 25° / 40° / 10°x40° / 30°x60° Forward Throw Asymmetric			•	•	
30°x100°	•	•			•
				• A	vailable

0	Power Consumption	Max Run Length		
Output	100-277V AC	120V AC	277V AC	
LO	4W	180 ft	360 ft	
so	5W	120 ft	240 ft	
SO+	1 OW	60 ft	120 ft	
НО	1 OW	60 ft	120 ft	
HO+	10W	60 ft	120 ft	





# **ELV**

4FT		6	5°	10	0°	2	5°	4	0°	10°2	k40°	30°	«60°	Forward Asymi	
Output	CCT	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy
	2700K	3310.67	82.76	3298.67	82.46	3284.68	82.11	3274.68	81.86	3765.68	81.64	3262.68	81.56	3260.68	81.51
SO+	3000K	3318.23	82.95	3306.23	82.65	3292.23	82.30	3282.23	82.05	3273.23	81.83	3270.23	81.75	3292.23	82.30
30+	3500K	3335.20	83.38	3323.20	83.08	3309.20	82.73	3299.10	82.48	3290.20	82.25	3287.20	82.18	3285.20	82.13
	4000K	3358.40	83.96	3346.40	83.66	3332.40	83.31	3322.40	83.06	3313.40	82.83	3310.40	82.76	3308.40	82.71
	2700K	4314.02	107.85	4302.02	107.55	4288.02	107.20	4278.02	106.95	4269.02	106.72	4266.02	106.65	4264.02	106.60
НО	3000K	4785.40	119.63	4773.40	119.34	4759.40	118.98	4749.40	118.73	4740.40	118.51	4737.40	118.43	4735.40	118.38
	3500K	4982.40	124.56	4956.40	123.91	4956.40	123.91	4946.40	123.66	4937.40	123.43	4934.40	123.36	4932.40	123.31
	4000K	5162.60	129.06	5150.60	128.77	6136.60	128.41	5126.60	128.16	5117.60	127.94	5114.60	127.86	5112.60	127.81
4FT		30°x	:100°			30°x	:100°			30°x	:100°				
Output	CCT	Lumens	Efficacy	Output	CCT	Lumens	Efficacy	Output	CCT	Lumens	Efficacy				
	2200K	1002.00	62.62		2200K	1368.11	72.00		2200K	4300.80	107.52	-			
	2700K	1234.00	77.00		2700K	1783.10	93.84		2700K	4587.96	114.69				
LO	3000K	1316.00	82.00	so	3000K	1820.18	95.79	95.79 <b>HO+ 3</b>	3000K	4794.28	119.85				
	3500K	1366.00	85.00		3500K	1900.45	100.02		3500K	4844.63	121.11				
	4000K	1406.00	87.00		4000K	1975.36	103.96		4000K	4960.04	124.00				

В	EΑ	١М	\ A	١N	G	LΕ

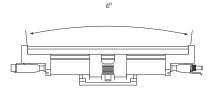
	LO	SO	SO+	НО	HO+
6° / 10° / 25° / 40° / 10°x40° / 30°x60° Forward Throw Asymmetric			•	•	
30°x100°	•	•			•
				• A	vailable

Output		Power Consumption	Max Ru	•
		100-277V AC	120V AC	277V AC
	LO	16W	180 ft	360 ft
	so	19W	120 ft	240 ft
	SO+	40W	60 ft	120 ft
	но	40W	60 ft	120 ft
	HO+	40W	60 ft	120 ft

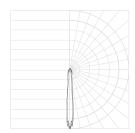


### 6° Beam Angle





### Polar Candela Distribution

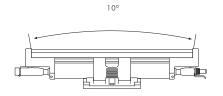


## Illuminance at a Distance (HO 4000K)

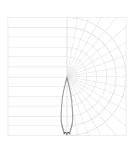
	Center B	Beam FC	Beam Width	
	1 Foot	4 Foot		
2.0 ft	41.43 fc	152.02 fc	0.4 ft	0.3 ft
4.0 ft	10.35 fc	38.00 fc	0.8 ft	0.7 ft
6.0 ft	5.17 fc	19.00 fc	1.2 ft	1.1 ft
8.0 ft	2.58 fc	9.50 fc	1.6 ft	1.5 ft
10.0 ft	1.29 fc	4.75 fc	2.1 ft	2.0 ft
		/	,	
12.0 ft	1.03 fc	3.80 fc	2.5 ft	2.4 ft
	Vert. Sp	read: 6°	<ul> <li>Horiz. Spread: 6°</li> </ul>	

# 10° Beam Angle





#### Polar Candela Distribution

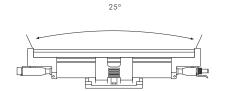


Illuminance at a Distance (HO 4000K)

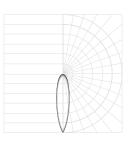
	Center E	Beam FC	Beam Width	
	1 Foot	4 Foot		
2.0 ft _	60.76 fc	224.32 fc	0.4 ft	0.3 ft
4.0 ft	15.19 fc	56.08 fc	0.8 ft	0.7 ft
6.0 ft	7.59 fc	28.04 fc	1.2 ft	1.1 ft
8.0 ft	3.79 fc	14.02 fc	1.6 ft	1.5 ft
10.0 ft	1.89 fc	7.01 fc	2.1 ft	2.0 ft
12.0 ft	1.51 fc	5.60 fc	2.5 ft	2.4 ft
	✓ Vert. Sp	read: 10°	✓ Horiz. Spread: 10°	

## 25° Beam Angle

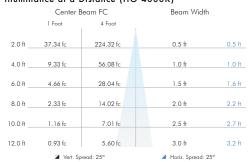




### Polar Candela Distribution

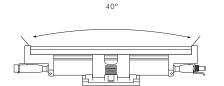


# Illuminance at a Distance (HO 4000K)

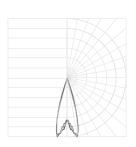


## 40° Beam Angle





#### Polar Candela Distribution



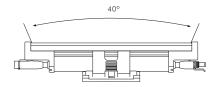
#### Illuminance at a Distance (HO 4000K)





### 10°X40° Beam Angle





### Polar Candela Distribution (HO 4000K)

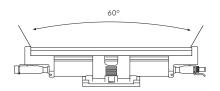


## Illuminance at a Distance (HO 4000K)

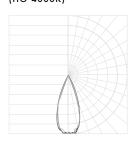
	Center E	Beam FC	Beam Width	
	1 Foot	4 Foot		
2.0 ft	42.72 fc	160.52 fc	0.7 ft	0.5 ft
4.0 ft	10.68 fc	40.13 fc	1.5 ft	1.0 ft
6.0 ft	5.34 fc	20.06 fc	2.2 ft	1.4 ft
8.0 ft	2.67 fc	10.03 fc	3.0 ft	1.9 ft
10.0 ft	1.33 fc	5.01 fc	4.6 ft	2.4 ft
12.0 ft	1.06 fc	4.01 fc	4.4 ft	3.0 ft
	✓ Vert. Sp	read: 10°	✓ Horiz, Spread: 40°	

### 30°x60° Beam Angle

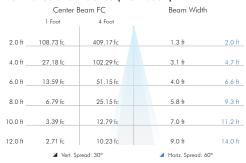




Polar Candela Distribution (HO 4000K)

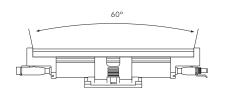


#### Illuminance at a Distance (HO 4000K)

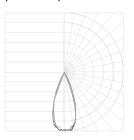


30°x60°x5° Beam Angle





Polar Candela Distribution (HO 4000K)

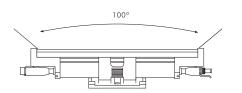


Illuminance at a Distance (HO 4000K)

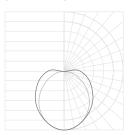
	Center E	Beam FC	Beam Width
	1 Foot	4 Foot	
2.0 ft	37.34 fc	59.40 fc	0.5 ft 0.5 ft
4.0 ft	9.33 fc	14.85 fc	1.0 ft 1.0 ft
6.0 ft	4.66 fc	7.42 fc	1.5 ft 1.6 ft
8.0 ft	2.33 fc	3.71 fc	2.0 ft 2.2 ft
10.0 ft	1.16 fc	1.85 fc	2.5 ft 2.7 ft
12.0 ft	0.93 fc	1.48 fc	3.0 ft 3.2 ft
	■ Vert Sn	rend: 30°	▲ Horiz Spread: 60°

### 30°x100° Beam Angle



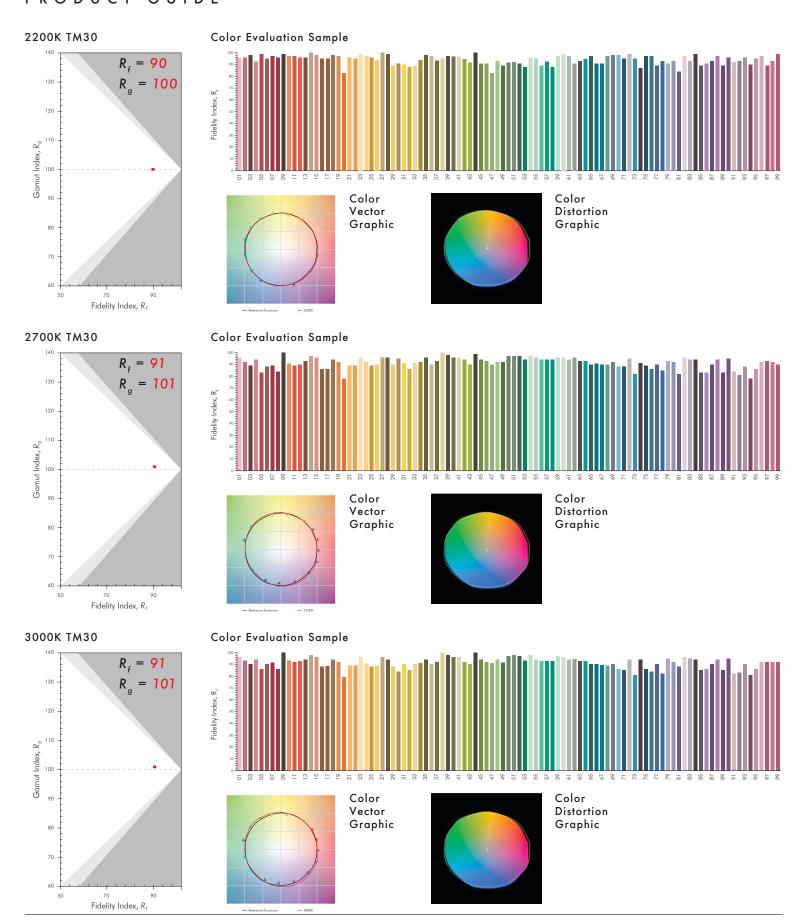


Polar Candela Distribution (HO+ 4000K)

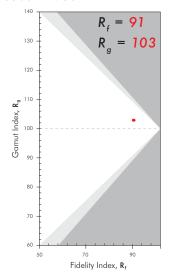


Illuminance at a Distance (HO+ 4000K)

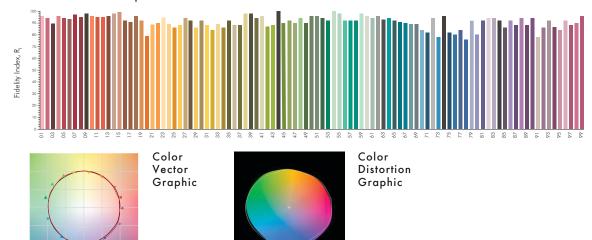
			,
	Center I	Beam FC	Beam Width
	1 Foot	4 Foot	
2.0 ft	114.8 fc	459.20 fc	1.3 ft 2.0 ft
4.0 ft	28.7 fc	114.80 fc	3.1 ft 4.2 ft
6.0 ft	14.3 fc	57.40 fc	4.0 ft 6.6 ft
8.0 ft	7.1 fc	28.7 fc	5.8 ft 9.3 ft
10.0 ft	3.5 fc	14.30 fc	7.0 ft 11.2 ft
12.0 ft	2.8 fc	11.40 fc	9.0 ft 14.0 ft
	✓ Vert. Sr	oread: 30°	▲ Horiz. Spread: 100°



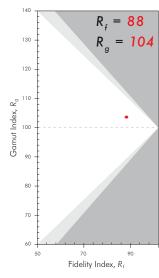




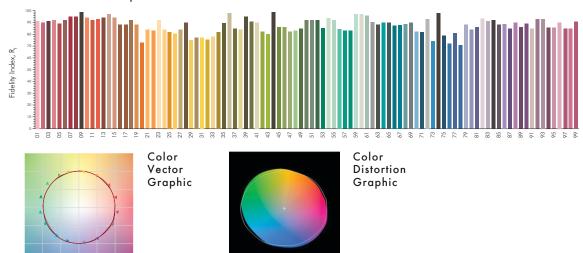
# Color Evaluation Sample



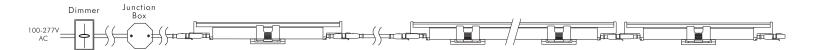
### 4000K TM30

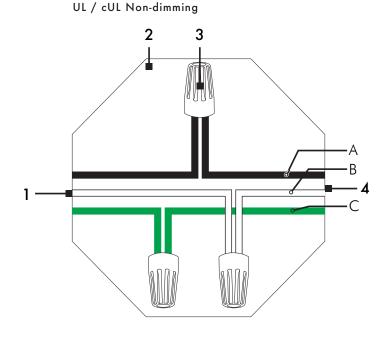


# Color Evaluation Sample

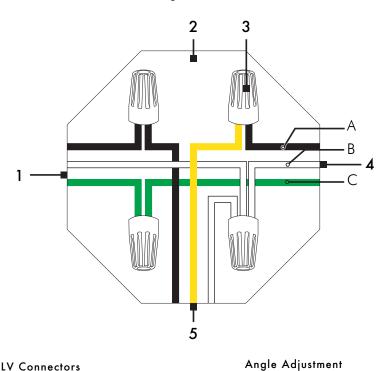








# UL / cUL ELV Dimming



# Wiring Legend

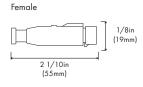
1	Power 100-277V AC
2	Junction Box
3	Wiring Nuts
4	3 Pin Leader Cable
5	ELV Dimmer

# 3 Pin Leader Cable

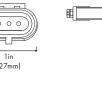
		UL/cUL	CE/CCC*
A	Live 100-277V AC	- Black	- Brown
В	Neutral	== White	- Blue
С	Ground	<b>G</b> reen	Green/ Yellow

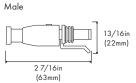
\*Not illustrated

# **ELV** Connectors

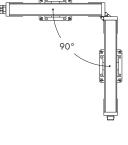






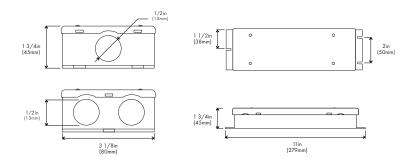








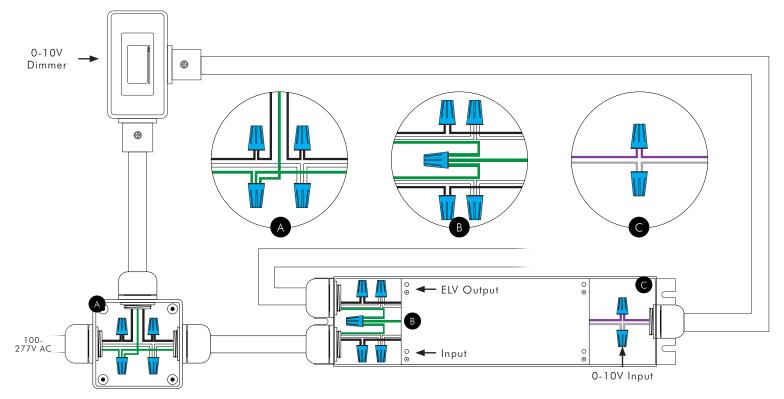




# MODA BRIDGE 1

## Converting 0-10V to ELV.

MODA BRIDGE 1 solves many installation issues. It accepts a standard 0-10V signal from most dimmers and dimming systems and internally converts this signal into a Electronic Low Voltage (ELV) signal. Thus enabling 0-10V control of an ELV fixture. It is optimized to perform precise smooth flicker free dimming down to 0%. Simple wiring with its integral 1/2in holes which accepts liquid tight or interior conduit connectors. Wire to any 100-277V 50/60 Hz feed. Power up to 840W of fixtures at 120V, 1600W at 230V, and 1900W at 277V. Fully potted enables the installer to mount this product virtually anywhere with its Wet Location IP65 rating. Fully protected from surge, short circuit, open circuit and over temperature. Power Input and data interface protected with High Grade Surge Protection. Designed and developed by MODA LIGHT, Las Vegas USA



Input				
	UL/cUI	L	CE/CC	C*
Live 100-277V AC		Black		Brown
Neutral	_	White		Blue
Ground		Green		Green/Yellow
0-10V / Data +		Purple		Purple
0-10V / Data -	_	Grey	_	Grey
				*Not illustrated

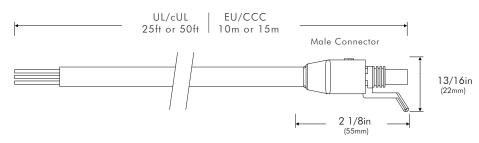
	UL/cUI	L	CE/CC	C*
Live 100-277V AC		Black		Brown
Neutral		White		Blue
Ground		Green		Green/Yellow
				*Not illustrated



# **ELV Leader Cables**

### Moda Cove Exterior 3 Pin Leader Cables

	UL/cUL	EU/CCC
Lengths	25ft and 50ft	10m and 15m
Color	Black	Black



## Pin Assignment



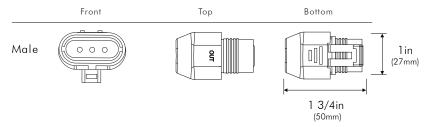
 UL/cUL
 EU/CCC

 1 Live 100-277V
 Black
 Brown

 2 Ground
 Green
 Yellow/Green

 3 Neutral
 White
 Blue

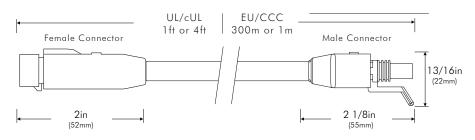
#### Connectors



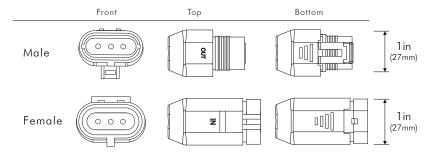
# **ELV Jumper Cables**

## Moda Cove Exterior 3 Pin Jumper Cables

	UL/cUL	EU/CCC
Lengths	1ft and 4ft	300mm and 1m
Color	Black	Black



### Connectors



## Pin Assignment



Female

		UL/cUL	EU/CCC
1	Live 100-277V	Black	Brown
2	Ground	Green	Yellow/Green
3	Neutral	White	Blue



		UL/cUL	EU/CCC
1	Live 100-277V	Black	Brown
2	Ground	Green	Yellow/Green
3	Neutral	White	Blue



MGE -		- S1	- S -		-	-
	В					G
COMP	LETE SKU SA	AMPLE:	MGE-	HO-S1-S-	22H-1-6	

MGE	_	Moda Graze Exterior
<b>B</b> - LIGHT	ОИТРИТ	
LO	_	Low Output
SO	_	Standard Output
SO+	_	Standard Output Plus
НО	_	High Output
HO+	_	High Output Plus
C - SERIE	s number	
S1	_	Series 1
<b>D</b> - PROD	OUCT FINISH	
S	_	Silver

## E - FIXTURE & LOCATION

22H*	_	2200K
27H	_	2700K
3H	_	3000K
35H	_	3500K
4H	_	4000K

<sup>\*</sup>Not available for SO+ and HO

# F - LENGTH

1	_	1FT
4	_	4FT

# G - OPTIC

6*	_	6° x 6°
10*	_	10° x 10°
25*	_	25° x 25°
40*	_	40° x 40°
140*	_	10° x 40°
360*	_	30° x 60°
365*	_	Forward Throw Asymmetric
310**	_	30° x 100°

<sup>\*</sup>Available only in SO+ and HO

<sup>\*\*</sup>Available only in LO, SO and HO+

ACCESSORIES	DESCRIPTION	ORDERING SKU
Leader Cable US 3 Pin 25FT	Power to first fixture of run	MLCE-US-3PIN-B-25FT
Leader Cable US 3 Pin 50FT	Power to first fixture of run	MLCE-US-3PIN-B-50FT
Jumper Cable US 3 Pin 1FT	Connection between fixtures	MJCE-US-3PIN-B-1FT
Jumper Cable US 3 Pin 4FT	Connection between fixtures	MJCE-US-3PIN-B-4FT
Leader Cable EU 3 Pin 10M	Power to first fixture of run	MLCE-EU-3PIN-B-10M
Leader Cable EU 3 Pin 15M	Power to first fixture of run	MLCE-EU-3PIN-B-15M
Jumper Cable EU 3 Pin 300MM	Connection between fixtures	MJCE-EU-3PIN-B-300MM
Jumper Cable EU 3 Pin 1M	Connection between fixtures	MJCE-EU-3PIN-B-1M
Terminator 3 Pin	Must be fixed to last fixture for safety	MTE-3PIN-B
Exterior Bracket Lock	Holds fixture in place for vertical installations	MCGE-BL-G
CONTROLS	DESCRIPTION	ORDERING SKU
Bridge 1 US	Allows user to convert a 0-10V dimming signal into an ELV dimming signal. North American Model	250-0000