

MOFFAT MW

Outdoor Linear Luminaire

Key Features

- 6063-T6 Extruded aluminum housing
- Highly reflective die-formed white painted aluminum reflector
- Die-cast aluminum end caps
- MOFFAT offered with a 5-year limited warranty that covers LED, driver and fixture
- ETL listed conforming to UL 1598 in US and CSA 250 in Canada
- Approved for wet location, IP65 Rated, fully gasketed lens and endcaps
- Maximum fixture weight is 20 lbs per standard 4' fixture
- Fixture head rotation provides asymmetric and general illumination
- Buy American Act compliant



Example Part #: MW-HE-835HO-26'-FL-U-OL2-1-0-W

MW - **HE** - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____

SHIELDING CRI, CCT & OUTPUT LENGTH MOUNTING VOLTAGE DRIVER CIRCUITING BATTERY & EMERGENCY FINISH FIXTURE OPTIONS CONTROLS

M_	HE	_____	_____
HOUSING	SHIELDING	CRI, CCT & OUTPUT ¹	LENGTH ²
MW - Moffat Wet MN - Moffat Natatorium (FL mounting only)	HE - High Efficiency Lens WHE - Asymmetric Lens <i>Shielding pg. 2</i>	_27_ - 2700K _30_ - 3000K _35_ - 3500K _40_ - 4000K CL_____ - Custom Lumens CW_____ - Custom Watts <i>Lumen Output pg. 2</i>	_ - Individual Fixture _ - Continuous Row <i>Length pg. 3</i>
_____	_____	_____	_____
MOUNTING	VOLTAGE	DRIVER	CIRCUITING
FL - Flush Mount PH_ - Pendant Hub (specify 12", 18", 24") WH_ - Wall Hub (specify 6", 12", 18", 24") <i>Mounting pg. 3</i>	U - Universal (120 thru 277V) 1 - 120V 2 - 277V 3 - 347V <i>Voltage pg. 3</i>	OL2 - Osram (1%, 0-10v, standard) OL3 - Osram 347v (10%, 0-10v) EE1 - eldoLED ECOdrive (1%, 0-10v) ES1 - eldoLED SOLOdrive (0%, 0-10v) LH1 - Lutron Hi-lume (1%, EcoSystem) L51 - Lutron 5-Series (5%, EcoSystem) PL2 - Advance Xitanium (1%, 0-10v) PS1 - Advance Xitanium (50%/100%) ND - Non-Dimming <i>Driver pg. 3</i>	1 - Single Circuit M - Multi Circuit E - Emergency (entire fixture) N - Night Light (entire fixture) <i>Circuiting pg. 4</i>
_____	_____	_____	_____
BATTERY & EMERGENCY ³	FINISH	FIXTURE OPTIONS	CONTROLS
0 - None _PLL - Bodine 10W (low profile) _E - Emergency circuit section _N - Night Light circuit section _L - Life Safety circuit section _G - Bodine GTD <i>Battery and Emergency pg. 4</i>	W - White S - Metallic Silver BL - Textured Black BR - Bronze GR - Graphite CC - Custom Color <i>Finish pg. 4</i>	V - Visor <i>Fixture Options pg. 4</i>	Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

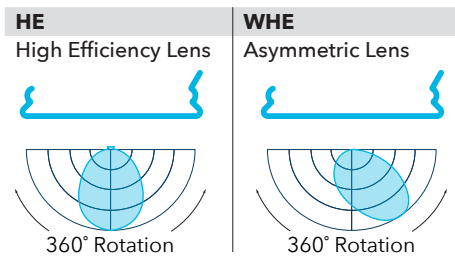
¹When specifying CRI, CCT, & OUTPUT the first _ is for specifying either 8 - 80CRI, 9 - 90CRI. The ending __ are for specifying output, example HO - High Output. See output charts for more information. ²Individual fixtures come in 2', 3', 4', 6' & 8' lengths. Continuous rows available in 1' increments, starting at 2'. ³Enter quantity for Battery and Emergency, Example 2PL.

Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.



Shielding

- The distributions for each shielding option below are shown in a direct orientation. See Mounting for all rotating head options.



CRI, CCT & Output

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory
- 80 CRI = R9≥19 and 90 CRI = R9≥61

Custom Output- Lumens OR Wattage

CL _____	Specify CRI, CCT and desired lumens (i.e. CL835950)	Specify lumens between standard offering listed below. Lumens are specified per color temp
CW _____	Specify CRI, CCT and desired wattage (i.e. CW9409.5)	Specify watts between standard offering listed below

80 CRI

	Color	Output	Lumens per foot	Shielding HE High Efficiency		WHE Asymmetric Lens	
				LPW	Watts/ft	LPW	Watts/ft
830LO	3000K	Low	350	122	2.9	103	3.4
830	3000K	Standard	750	126	5.9	109	6.9
830HO	3000K	High	1000	127	7.9	111	9.0
830VHO	3000K	Very High	1250	129	9.7	109	11.4
835LO	3500K	Low	350	125	2.8	106	3.3
835	3500K	Standard	750	128	5.8	111	6.8
835HO	3500K	High	1000	131	7.7	111	9.0
835VHO	3500K	Very High	1250	133	9.4	112	11.1
840LO	4000K	Low	350	127	2.8	108	3.3
840	4000K	Standard	750	130	5.8	112	6.7
840HO	4000K	High	1000	132	7.6	112	8.9
840VHO	4000K	Very High	1250	135	9.3	114	11.0

90 CRI

927LO	2700K	Low	350	101	3.5	88	4.0
927	2700K	Standard	750	107	7.0	91	8.3
927HO	2700K	High	1000	109	9.2	92	10.8
930LO	3000K	Low	350	105	3.3	91	3.9
930	3000K	Standard	750	109	6.9	94	8.0
930HO	3000K	High	1000	109	9.1	96	10.5
935LO	3500K	Low	350	107	3.3	93	3.8
935	3500K	Standard	750	112	6.7	96	7.8
935HO	3500K	High	1000	112	8.9	98	10.2
940LO	4000K	Low	350	106	3.3	92	3.8
940	4000K	Standard	750	111	6.8	95	7.9
940HO	4000K	High	1000	111	9.0	97	10.3

¹LPW and watts/ft based off 48" fixture size.

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Length

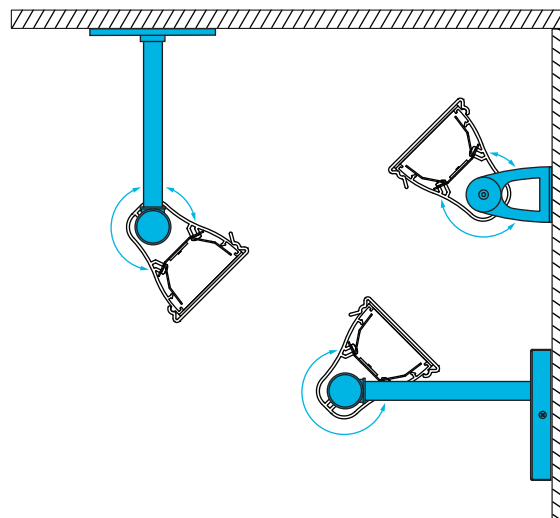
- All individual units cannot be joined
- The PH and WH mounting options have a 1-3/8" hub on each side of the fixture, the FL mounting option has 1/2" hub at each end of the fixture, see installation instructions for more details and chart.

2	3	4	6	8	-
Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Indiv. Fixture	Cont. Run Specify nominal overall row length to the 1'
24-5/8" (610.2mm)					
	36-5/8" (930.3mm)				
		48-5/8" (1235.1mm)			
			72-5/8" (1844.7mm)		
				96-5/8" (2454.3mm)	
Specify to the 1' >>>					

Mounting

- Pendant lengths are 12", 18", and 24"
- Wall Hub lengths are 6", 12", 18", and 24"
- End caps and standard white power cord attached at factory
- Canopies, hubs, and pendants match fixture finish, power cords are white, grey, or black depending on fixture finish. See Finish section for additional details
- Approved for wet location, IP65 rated, unless otherwise noted
- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 20 lbs. per 4' fixture
- Fixture head rotation provides asymmetric output
- The PH and WH mounting options have a 1-3/8" hub on each side of the fixture, the FL mounting option has 1/2" hub at each end of the fixture, see installation instructions for more details and chart.

FL	Flush Mount (360° rotating head)
PH_	Pendant Hub (360° rotating head)
WH_	Wall Hub (360° rotating head)



Voltage

- Some MOFFAT configurations will not accommodate all voltage options; consult with factory

U	Universal
1	120 volt
2	277 volt
3	347 volt

Driver

- Standard Driver Option = OL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options see Pinnacle Resource Guide
- Some MOFFAT configurations will not accommodate all driver options; consult with factory

OL2	Osram Optotronic 1%, 0-10v
OL3	Osram Optotronic 347v 10%, 0-10v, requires 347v option
EE1	eldoLED ECOdrive 1%, 0-10v Logarithmic
EE2	eldoLED ECOdrive 1%, 0-10v Linear
ES1	eldoLED ECOdrive 1%, DALI Logarithmic
ES2	eldoLED SOLOdrive 0%, 0-10v Linear
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
L51	Lutron 5-Series 5%, EcoSystem, LDE5
PL2	Advance Xitanium 1% , 0-10v
PS1	Advance Xitanium Step Dimming 50%/100%
ND	Non-Dimming



How to specify Circuiting, Battery and Emergency

- 1**
- Select fixture circuiting from options below
 - Some MOFFAT configurations will not accommodate all circuiting options, consult with factory

Circuiting

1	Single Circuit
M	Multi Circuit
E	Emergency Circuit only
N	Night Light Circuit only

- 2** + **3**
- Battery and emergency section options are available in addition to fixture circuit
 - Select battery and emergency section options below; factory shop drawing required
 - Some MOFFAT configurations will not accommodate all circuiting options, consult with factory

Battery and/or Emergency *If Required*

0	No battery or specific emergency section required
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Battery

- Select battery section type if required, indicate total QTY. *Example 2PL*
- 90 minute battery runtime; test button is integral to fixture
- For more battery options available, see Pinnacle Resource Guide

0	No battery
_ PLL	Bodine 10w Integral Lithium Self Testing <i>(low profile)</i>

For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 92.3 (LPW) x 10 (watts) = 923 battery lumen output

Emergency

- Select emergency section type if required, indicate total QTY. *Example 1E*
- Combine battery and emergency section ordering codes if both options are selected

_E	Emergency circuit section
_N	Night Light circuit section
_L	Life Safety circuit section NO THROUGH WIRE
_G	Bodine GTD, Generator Transfer Device section

Combination Section Ordering Examples

- Single circuit, (1) 10w battery, (1) emergency section
Ordering Code: 1-1PL1E
- Multi circuit, (2) 10w battery, (2) emergency sections
Ordering Code: M-2PL2E
- Single circuit, (1) night light section
Ordering Code: 1-1N

Battery OR Emergency Ordering Examples

- Single circuit, 10w Integral Battery Ordering Code: 1-1PL
- Emergency only, 10w Integral Battery Ordering Code: E-1PL
- Single circuit, GTD required Ordering Code: 1-1G

Finish

- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

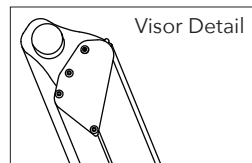
W	White <i>(white cord/white canopy)</i>
S	Metallic Silver <i>(grey cord/silver canopy)</i>
BL	Textured Black <i>(black cord/black canopy)</i>
BR	Bronze <i>(white cord/bronze canopy)</i>
GR	Graphite <i>(white cord/graphite canopy)</i>
CC	Custom Color <i>(white cord/color match canopy)</i>

- Specify finish options for mounting hardware (endcaps, hubs, and pendants) in fixture options section

Fixture Options

- Additional options to enhance the fixture and finish of the product
- Specify CC-C, CC-H, and CC-P to match housing. If not specified, canopy will be standard matte white.

V	Visor
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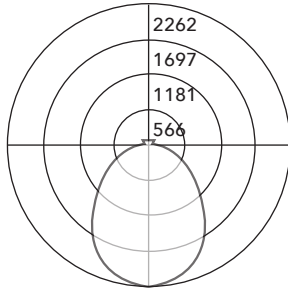




Photometrics

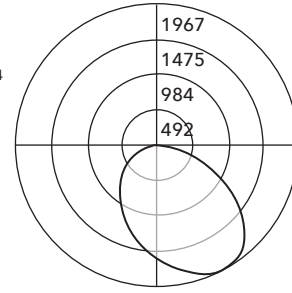
Satine Lens

Test # ITL91824
 Catalog # MW-HE-840VHO-4
 Lumens 5401 lm
 Watts 39.1 W
 Efficacy 138 LPW



Asymmetric Lens

Test # ITL92383
 Catalog # MW-HE-840VHO-4
 Lumens 4536 lm
 Watts 41.2 W
 Efficacy 110 LPW



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	2262	2262	2262	2262	2262
5	2251	2249	2248	2245	2246
10	2216	2207	2204	2196	2192
15	2160	2136	2132	2115	2104
20	2072	2041	2025	1996	1974
25	1959	1921	1894	1846	1819
30	1828	1781	1732	1666	1633
35	1669	1622	1554	1470	1434
40	1497	1445	1362	1269	1232
45	1310	1261	1170	1074	1037
50	1121	1075	985	896	865
55	938	890	809	731	706
60	753	718	648	588	565
65	587	558	502	457	443
70	425	409	372	341	330
75	279	271	252	236	233
80	149	152	148	145	144
85	49	57	68	75	78
90	3	15	32	44	48

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17878	14124	12022
55	15696	11420	9438
65	13212	8855	7254
75	10055	6174	5122
85	4793	2869	2735

Bug Rating
B2-U3-G1

Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1613	1613	1613	1613	1613
5	1717	1711	1686	1649	1607
10	1813	1797	1744	1668	1586
15	1897	1869	1789	1669	1550
20	1949	1915	1811	1652	1502
25	1967	1929	1809	1617	1434
30	1939	1900	1774	1557	1352
35	1863	1827	1698	1474	1252
40	1736	1705	1591	1368	1141
45	1570	1542	1442	1239	1015
50	1366	1349	1272	1091	880
55	1149	1143	1078	931	749
60	941	927	886	767	611
65	732	726	689	600	479
70	537	532	512	446	353
75	367	361	344	296	233
80	214	211	198	167	124
85	94	92	81	62	40
90	39	35	26	12	1

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18201	17407	13852
55	15361	15217	12534
65	11986	12154	10781
75	8068	8428	8397
85	3296	3418	3912

Bug Rating
B2-U3-G1

Fixture tested in direct orientation. Fixture head is rotatable for asymmetric aiming as needed. For all available IES files, please visit our website at pinnacle-ltg.com. Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25°C ambient conditions

Approvals & Certifications

Construction: 6063-T6 Extruded aluminum housing. Fixtures can be joined to create continuous runs. Standard high reflectance die-formed reflector. Fully gasketed lens and endcaps.

Shielding: Diffuse snap-in acrylic lens, removable for maintenance.

Mounting: Pendant mount, wall mount, and flush mounts available. Fixture head rotation provides asymmetric output. Refer to installation instructions for appropriate ceiling detail. Maximum fixture weight is 20 lbs. per 4' fixture.

LED: 25°C test environment. Lumen output/wattage has a margin of +/- 5%. All luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. Lifetime Projection: L70 lifetime - 146,500 hours and L90 lifetime - 45,000 hours. MacAdam 3-Step Ellipses. Not all products are Lighting Facts listed. For all available IES files, please visit our website at pinnacle-ltg.com.

CRI, CCT & Lumen Output: Four lumen packages available. Low (LO), Standard, High (HO), and Very High (VHO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K, and 4000K. 80 CRI = R9≥19 and 90 CRI = R9≥61. Fixture performance and photometric data based on 4' configuration. Published lumen or wattage data based on OL1 configuration.

Voltage: Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify OL3 in Driver section when 347 volt (3) is selected. Some MOFFAT configurations will not accommodate all voltage options; consult with factory.

Driver: Standard Driver Option is Osram 0-10V, 1% = OL2. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. Ambient operating range: -4F/-20C to 122F/50C For more driver options,

see Pinnacle Resource Guide. Some MOFFAT configurations will not accommodate all driver options.

Circuiting: Select from single circuit (1), Multi circuit (M), Emergency circuit (E), Night Light circuit (N) or Life Safety (L). For emergency circuiting situations that require no through wire or circuit separation, Life Safety Circuit should be selected. This will provide a separate power feed and only the Life Safety Circuit in that section. Some MOFFAT configurations will not accommodate all circuiting options; consult with factory.

Battery & Emergency: Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button is integral to fixture, fixture length increases by 1". For more Battery options, see Pinnacle Resource Guide.

Finish: Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish, consult factory for chip of standard paint finishes. Canopies, hubs, and pendants painted white unless specified differently in the options section of the part number. Contact factory for additional custom color and finish options.

Controls: Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

Labels: ETL listed conforming to UL1598 and CSA 250. Approved for Wet location unless otherwise noted. IP65 rated.

Fixture Weight: Maximum fixture weight is 20 lbs (per 4' fixture).

Buy American Act Compliant

Warranty: MOFFAT LED offered with a 5-year limited warranty. Covers LED, driver and fixture.

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