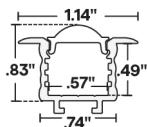
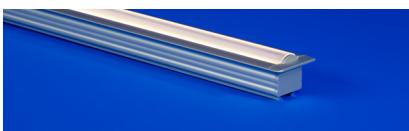




ESSENTIALS EMBD-OPTICS (02)

WD APPLICATIONS

24VDC Linear Fixtures - Recessed



Declare.

INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1	2	3	4	5	6
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS
				STD	

ADDITIONAL INFORMATION REQUIRED TO ORDER

7	8	9	10	11	12	13	14	15
WIRE INPUT/OUTPUT	CONNECTOR/WIRE IN	CONNECTOR/WIRE OUT	WIRE COLOR	WIRE TYPE	MOUNTING	FINISH	LENGTH (IN)	EXACT/OPTIMAL

Sample Part Number: EB2WD-6.0-30-DRY-STD-20-P1-BW-BW-BK-CL2-SP-ST-48"-E

1 PRODUCT EB2WD LED engine is built with 2 wires suitable for phase dimming control. See following pages for compatible power supplies.	2 WATTS/FT 6.0 6.0W/ft 1.5HE 1.5W/ft HE 2.5HE 2.5W/ft HE 1.5HE 1.5W/ft HE 2.5HE 2.5W/ft HE	3 CCT 19/27 1900K/2700K 19/30 1900K/3000K 20/27 2000K/2700K 20/30 2000K/3000K 27/40 2700K/4000K 27/55 2700K/5500K 24/30 2400K/3000K 27/40 2700K/4000K	4 RATED DRY IP20 WET IP67 DRY IP20 WET IP67 DMP IP54	5 EFFICIENCY STD Standard	6 LENS 12 Optical 12° 14 Optical 14° 20 Optical 20° 30 Optical 30° DRY or DMP only 45 Optical 45° DRY or DMP only 60 Optical 60° DRY or DMP only For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages
7 WIRE INPUT/OUTPUT SINGLE (Input only) S1 End Feed S2 Bottom Feed For continuous mounting, consider bottom feed.	8 CONNECTOR/WIRE IN BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" BRL only available with EB2WD BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)	9 CONNECTOR/WIRE OUT CLS Closed End (No feed)	10 WIRE COLOR WH White BK Black N/A For Barrel wet barrel only available in black		
PASS THROUGH (Input/output) P1 End Feed P2 Bottom Feed For continuous mounting, consider bottom feed.	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" BRL only available with EB2WD BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" BRL only available with EB2WD BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)			
11 WIRE TYPE CL2 Class 2 CL2P Plenum Rated N/A For Barrel CL2P only available with bare wire leads (BW)	12 MOUNTING SP Spring Clip MG Magnet	13 FINISH ST Satin CU Custom Custom finishes require a longer lead time, consult factory	14 LENGTH (IN) Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12".	15 EXACT/OPTIMAL O Optimal Illumination E Exact Specified Length Exact fixtures match the exact length you specify, but they may have dim spots at the ends. Optimal fixtures are slightly shorter than the length specified, but provide full illumination from end to end. See Exact/Optimal Fixture Length charts.	

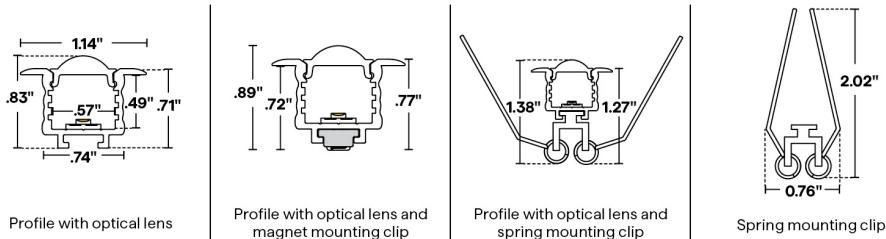
5 year warranty | Warranty only valid with QTL power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance



ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

24VDC Linear Fixtures - Recessed

1 PRODUCT - DIMENSIONS



2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs]
Tested with EB2WD-6.0-30-DRY-STD

	3000K	
	LM/FT	CRI
12	348	97
14	410	97
20	436	97
30	467	97
45	477	97
60	495	97

[Calculated L70 = 70000 hrs]
Tested with EB2DW-**-30-DRY-STD

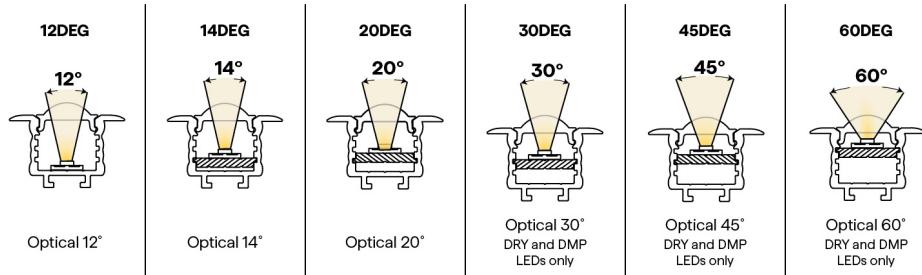
	1.5HE W/FT		2.5HE W/FT	
	3000K		3000K	
	LM/FT	CRI	LM/FT	CRI
12	125	98	197	98
14	140	98	221	98
20	146	98	231	98
30	151	98	239	98
45	166	98	262	98
60	165	98	261	98

6 DIODE VISIBILITY



PHOTOMETRIC PERFORMANCE

Nominal beam spread shown, beam spread varies based on light engine. For more detailed information, see photometric data.



TEMPERATURE RATINGS

		DW 1.5 HE W/FT		DW 3.0 HE W/FT		DW 2.5 HE W/FT		DW 5.0 HE W/FT	
		WD 6.0 W/FT		QTL power supply other than DALI, DMX		DALI, DMX, or non-QTL power supply		QTL power supply other than DALI, DMX	
		Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Recessed	-4°F	110°F	-4°F	140°F	-4°F	125°F	-4°F	130°F
DMP	Ambient Operating Temp - Recessed	**	**	-4°F	135°F	-4°F	120°F	-4°F	125°F
WET	Ambient Operating Temp - Recessed	-4°F	105°F	-4°F	135°F	-4°F	120°F	-4°F	125°F
								-4°F	110°F
								-4°F	105°F
								-4°F	105°F

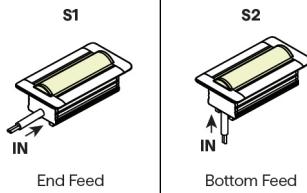


ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

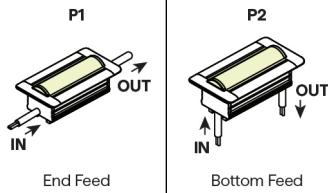
24VDC Linear Fixtures - Recessed

7 WIRE INPUT/OUTPUT

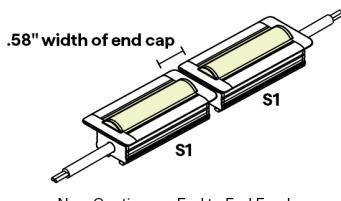
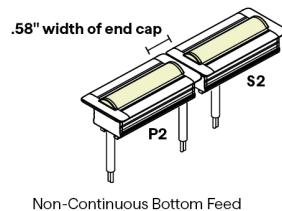
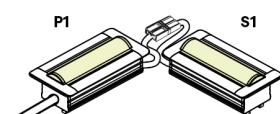
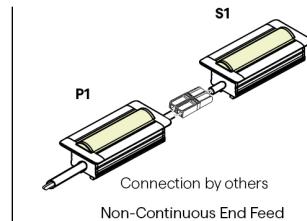
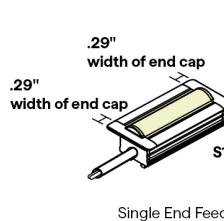
SINGLE (Input only)



PASS THROUGH (Input/Output)

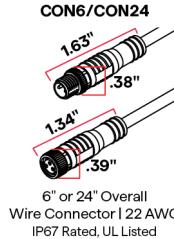
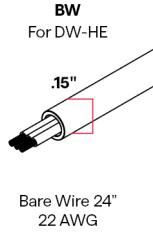
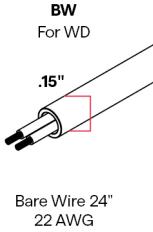


CONFIGURATION OPTIONS



8 / 9 CONNECTOR/WIRE – IN/OUT

Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



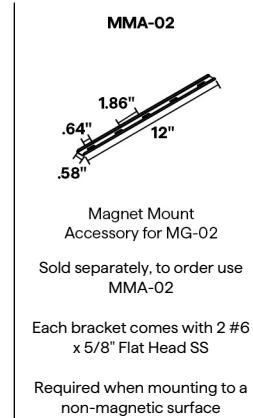
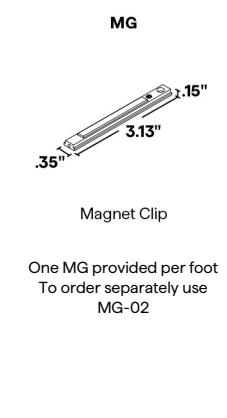
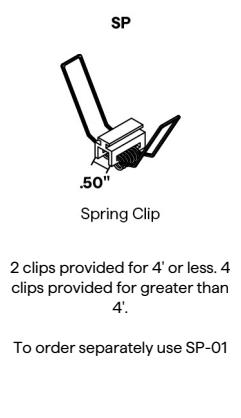
10 WIRE COLOR



ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

24VDC Linear Fixtures - Recessed

12 MOUNTING



13 FINISH



Custom finishes require a longer lead time, consult factory

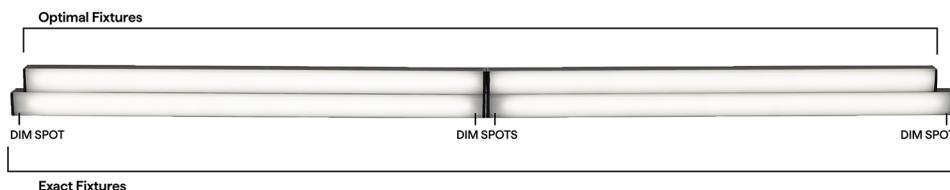
Custom finishes require a longer lead time, consult factory

15 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. Optimal fixtures' length is rounded down based on LED cut points to allow the fixture to be illuminated end to end. For runs with multiple fixtures that need to fill a specific length, it's recommended to order all optimal fixtures with an exact fixture at the end of the run.



WD DRY, DMP LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is +0 - 1/8". Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2	P1 & P2	
12"	S1 IN End Feed	S2 IN Bottom Feed	P1 OUT End Feed
13"	10.41"	12.41"	12.66"
14"	12.41"	12.41"	12.66"
15"	14.41"	14.41"	14.66"
16"	14.41"	14.41"	14.66"
17"	16.41"	16.41"	16.66"
18"	16.41"	16.41"	16.66"
19"	18.41"	18.41"	18.66"
20"	18.41"	18.41"	18.66"
21"	20.41"	20.41"	20.66"
22"	20.41"	20.41"	20.66"
23"	22.41"	22.41"	22.66"
24"	22.41"	22.41"	22.66"
36"	34.41"	34.41"	34.66"
48"	46.41"	46.41"	46.66"
60"	58.41"	58.41"	58.66"
72"	70.41"	70.41"	70.66"
84"	82.41"	82.41"	82.66"
96"	94.41"	94.41"	94.66"



ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

24VDC Linear Fixtures - Recessed

WD WET LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is $+0 - 1/8"$. Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.61"		10.76"	
13"	12.61"		12.76"	
14"	12.61"		12.76"	
15"	14.61"		14.76"	
16"	14.61"		14.76"	
17"	16.61"		16.76"	
18"	16.61"		16.76"	
19"	18.61"		18.76"	
20"	18.61"		18.76"	
21"	20.61"		20.76"	
22"	20.61"		20.76"	
23"	22.61"		22.76"	
24"	22.61"		22.76"	
36"	34.61"		34.76"	
48"	46.61		46.76"	
60"	58.61"		58.76"	
72"	70.61"		70.76"	
84"	82.61"		82.76"	
96"	94.61"		94.76"	

DW-HE DRY, DMP LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is $+0 - 1/8"$. Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.51"		10.86"	
13"	12.51"		12.86"	
14"	12.51"		12.86"	
15"	14.51"		14.86"	
16"	14.51"		14.86"	
17"	16.51"		16.86"	
18"	16.51"		16.86"	
19"	18.51"		18.86"	
20"	18.51"		18.86"	
21"	20.51"		20.86"	
22"	20.51"		20.86"	
23"	22.51"		22.86"	
24"	22.51"		22.86"	
36"	34.51"		34.86"	
48"	46.51"		46.86"	
60"	58.51"		58.86"	
72"	70.51"		70.86"	
84"	82.51"		82.86"	
96"	94.51"		94.86"	



ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

24VDC Linear Fixtures - Recessed

DW-HE WET LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is $+0 - 1/8"$. Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.66"		11.06"	
13"	12.66"		11.06"	
14"	12.66"		13.06"	
15"	14.66"		13.06"	
16"	14.66"		15.06"	
17"	16.66"		15.06"	
18"	16.66"		17.06"	
19"	18.66"		17.06"	
20"	18.66"		19.06"	
21"	20.66"		19.06"	
22"	20.66"		21.06"	
23"	22.66"		21.06"	
24"	22.66"		23.06"	
36"	34.66"		35.06"	
48"	46.66"		47.06"	
60"	58.66"		59.06"	
72"	70.66"		71.06"	
84"	82.66"		83.06"	
96"	94.66"		95.06"	

COMPATIBLE POWER SUPPLIES

See power supplies cut sheets for more information. Data subject to change, all data has $\pm 5\%$ tolerance.

DIM TO LEVEL	INDOOR		OUTDOOR	
	DW-HE Warm Dim Applications	WD	DW-HE Warm Dim Applications	WD
0.1%	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+WD QT-CAB-eLED+WD-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QTM-eLED+WD QTM-eLED+WD-AWN QZ-DW	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QOM-eLED+DALI-DT6 QOM-eLED+DALI-DT8 QOM-eLED+PS-DALI-DT6 QOM-eLED+PS-DALI-DT8 QOM-eLED+WD QZ-DW	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6 QZ-DMX QZ-PH/0-10V
1%	QZ-DALI-DT8	QTM-eLED(E) QZ-DALI-DT6	Q-SET+QZ-DALI-DT8 QZ-DALI-DT8	Q-SET+QZ-DALI-DT6 QZ-DALI-DT6
10%	Non-Dim Power Supply with WD App Dongle	Non-Dim Power Supply with SW App Dongle		



ESSENTIALS EMBD-OPTICS (02) WD APPLICATIONS

24VDC Linear Fixtures - Recessed

DIMMING PROTOCOL	INDOOR		OUTDOOR	
	DW-HE Warm Dim Applications	WD	DW-HE Warm Dim Applications	WD
Phase	QZ-DW	QT-CAB-QZ-PH/0-10V QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QZ-DW	Q-SET-QZ-PH/0-10V QZ-PH/0-10V
0-10V	QT-CAB-eLED+WD QT-CAB-eLED+WD-AWN QTM-eLED+WD QTM-eLED+WD-AWN QZ-DW	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QTM-eLED+0-10V QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DW QOM-eLED+WD QZ-DW	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PH/0-10V
Lutron Athena	QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+WD-AWN QTM-eLED+DALI-DT8-AWN QTM-eLED+WD-AWN	QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6-AWN		
ECO System		QTM-eLED(E)		
DMX		QZ-DMX		QZ-DMX
DALI-2: DT6 If using DW LED, wattage must be doubled except for AWN	QT-CAB-eLED+DALI-DT6 QTM-eLED+DALI-DT6	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	QOM-eLED+DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QZ-DALI-DT6
DALI-2: DT8 If using DW LED, wattage must be doubled except for AWN	QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QZ-DALI-DT8		Q-SET+QZ-DALI-DT8 QOM-eLED+DALI-DT8 QZ-DALI-DT8	
SCENE App Dimmed	Non-Dim Power Supply with WD App Dongle	Non-Dim Power Supply with SW App Dongle		

COMPATIBLE MOUNTING ACCESSORIES

MMA-02



Magnet Mount Accessory
of MG-02