FAIL-SAFE®

DESCRIPTION

The Fail-Safe FMW combines maximum security construction features with energy saving technology. This wall mounted luminaire utilizes a one-piece clamshell housing, security lensing and tamper resistant fasteners to maximize impact resistance and prevent contraband concealment and unauthorized fixture penetration. UL/cUL listed for wet locations. The FMW is ideal for confinement/security applications. Suitable for use in inmate cells, psychiatric wards, secure corridors and general population areas.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Fasteners
Stainless steel tamper-resistant T20 TORX® screws are standard. Allen-head screws with center reject pin are optional.

Housing
Clamshell design combines die-formed 14 ga. CRS body with continuous welded and ground ends to form a one-piece, seamless, doorless housing which maximizes impact resistance and prevents contraband concealment and unauthorized fixture penetration. Standard white high reflectance polyester powder coat finish. Gloss: 85%; Reflectance: 93%; Hardness: 2H; Salt Spray: 500 Hours.

Hinge
Continuous, concealed piano hinge (1/4" dia. knuckle) with welded pin end to prevent removal.

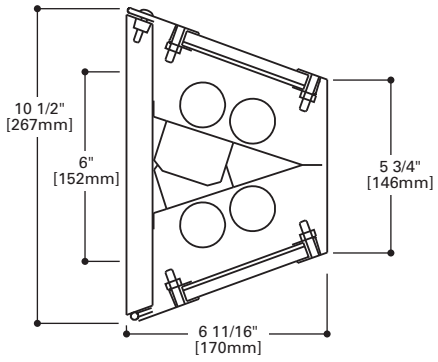
Backplate
Die-formed CRS backplate forms an irretrievable blade trap to prevent contraband concealment.

Lens
Choice of prismatic acrylic, prismatic polycarbonate or prismatic tempered glass on fixture side, clear polycarbonate or clear tempered glass on environmental side.

Lens Retention
Lens secured by thru-studs and vertically adjustable internal CRS hold-downs.

Ballast
Standard Class P, CBM/ETL ballast.

Labels
UL/cUL listed, standard wet label.

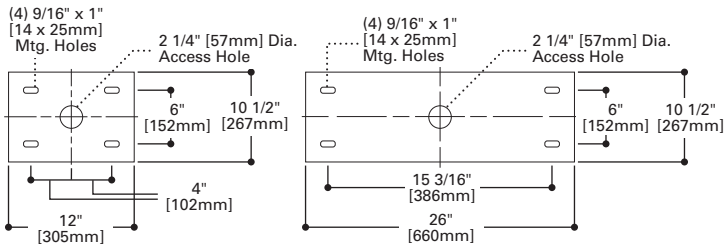


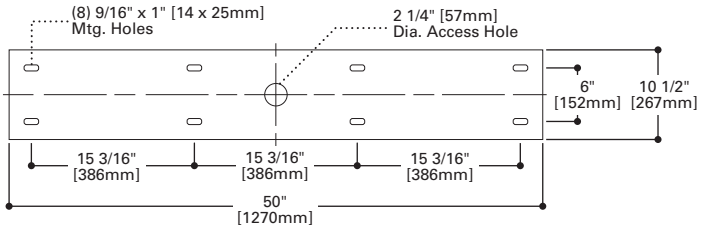
FMW

T5
T8
Biaxial
Compact Fluorescent
Confinement/Correctional

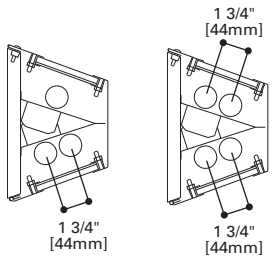
Wall

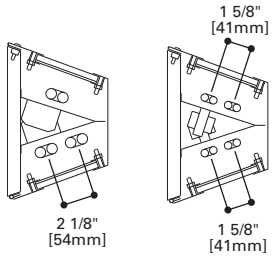
MOUNTING DIMENSIONS





LAMP CONFIGURATIONS





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ENERGY DATA

Input Watts:

STD Ballasts & STD Lamps
(2) 40W Biaxial Fluorescent: 82W
(3) 40W Biaxial Fluorescents: 127W

ES Ballasts & STD Lamps
(2) 17W T8 Fluorescent: 45W
(3) 17W T8 Fluorescent: 68W
(4) 17W T8 Fluorescent: 90W
(2) 32W T8 Fluorescent: 71W
(3) 32W T8 Fluorescent: 108W
(4) 32W T8 Fluorescent: 142W

Electronic Ballast Data
Consult Cooper Lighting Representative.

ORDERING INFORMATION

SAMPLE NUMBER: FMW-X-2/217-120-93/87-EB82-GLR

Product Family	Housing	Lamp Type	Voltage	Lens Type	Ballast	Options
FMW				/		

FMW= Maximum Security Wall Luminaire

S=12ga. (Ultimax)
X=14ga. (Maximum)
D=16ga. (Medium)

1' Nom. Length
Compact Fluorescent
1/113=(2) 13W Lamps 1 Up, 1 Down
1/213=(3) 13W Lamps 1 Up, 2 Down
2/113=(3) 13W Lamps 2 Up, 1 Down
2/213=(4) 13W Lamps 2 Up, 2 Down

2'Nom. Length
T5 Fluorescent
1/114=(2) 14W Lamps 1 Up, 1 Down
1/214=(3) 14W Lamps 1 Up, 2 Down
2/114=(3) 14W Lamps 2 Up, 1 Down

2'Nom. Length
T5 Fluorescent
2/214 =(4) 14W Lamps 2 Up, 2 Down
1/124 =(2) 24W Lamps 1 Up, 1 Down
1/224 =(3) 24W Lamps 1 Up, 2 Down
2/124 =(3) 24W Lamps 2 Up, 1 Down

2'Nom. Length
T8 Fluorescent
1/117=(2) 17W Lamps 1 Up, 1 Down
1/217=(3) 17W Lamps 1 Up, 2 Down
2/117=(3) 17W Lamps 2 Up, 1 Down
2/217=(4) 17W Lamps 2 Up, 2 Down

Biaxial Fluorescent
1/140BX=(2) 40W Lamps 1 Up, Down
1/240BX=(3) 40W Lamps 1 Up, 2 Down
2/140BX=(3) 40W Lamps 2 Up, 1 Down

4'Nom. Length
T5 Fluorescent
1/128=(2) 28W Lamps 1 Up, 1 Down
1/228=(3) 28W Lamps 1 Up, 2 Down
2/128=(3) 28W Lamps 2 Up, 1 Down
2/228=(4) 28W Lamps 2 Up, 2 Down
1/154=(2) 54W Lamps 1 Up, 1 Down
1/254=(3) 54W Lamps 1 Up, 2 Down
2/154=(3) 54W Lamps 2 Up, 1 Down

4'Nom. Length
T8 Fluorescent
1/132=(2) 32W Lamps 1 Up, 1 Down
1/232=(3) 32W Lamps 1 Up, 2 Down
2/132=(3) 32W Lamps 2 Up, 1 Down
2/232=(4) 32W Lamps 2 Up, 2 Down

120=120V
277=277V
UNV=120V- 277V

/

Inner Layer (Optional)
90=0.005 UV Absorbing Overlay

Fixture Side
80=0.125 Prismatic Acrylic
81=0.156 Prismatic Polycarbonate
82=0.187 Prismatic Polycarbonate
93=0.156 Prismatic Tempered Glass

Environmental Side
84=0.125 Clear Polycarbonate
85=0.187 Clear Polycarbonate
86=0.250 Clear Polycarbonate
87=0.375 Clear Polycarbonate
88=0.500 Clear Polycarbonate
94=0.187 Clear Tempered Glass
96=0.250 Clear Tempered Glass
97=0.375 Clear Tempered Glass
98=0.500 Clear Tempered Glass

Electronic Ballast [1]
EBT1=(1) Ballast for use with CFL Lamp
EBT2=(2) Ballasts for use CFL Lamp
EB51=(1) Ballast for use with T5 Lamp
EB52=(2) Ballasts for use with T5 Lamp
EB81=(1) Ballast for use with T8 Lamp
EB82=(2) Ballasts for use T8 Lamp
EBX1=(1) Ballast for use with Biaxial Lamp
EBX2=(2) Ballasts for use with Biaxial Lamp

DSR=Duplex Security Receptacle
EBP=Emergency Battery Pack
FNL=Fluorescent Night Light (Lamp by others.)
GLR=Fuse and Holder
ISH=Internal Security Hinge (doubles the number of fasteners)
RIF=Radio Interference Filter
SPK=Speaker Housing Compartment (extends housing)

On/Off Switches
SPS=Security Push Button [3]
TCS=Touch Control System [2]

Stainless Steel Outer Housing
SSN=Natural Brushed Finish
SSP=Polyester Powder Coat Finish

Fasteners
SF3=Allen-Head (center pin reject)

Accessories (order separately)

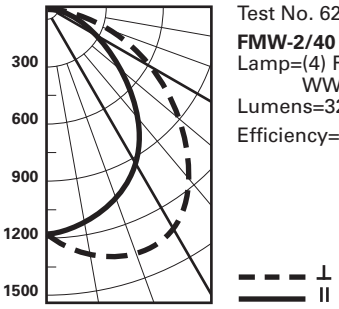
9306 =Allen-Head Wrench
VRSD=T20 Center Pin Tamperproof TORX ® - head bit

Notes:
Electronic ballast may cause interference with other electronic devices. If interference occurs, move the device away from the product or plug/connect into a different circuit/outlet.

[1] For specific electronic ballast, specify brand and catalog number.
[2] For additional information about the TCS option, see Fail-Safe spec sheet for TCS Touch Control System.
[3] 120V only.

PHOTOMETRICS

Candlepower Distribution



Test No. 6216
FMW-2/40
Lamp=(4) F40T12/ WW/RS
Lumens=3200
Efficiency=41.8%

Candlepower

Deg.	⊥	||
0	1191	1191
5	1256	1181
15	1376	1177
25	1331	1035
35	1269	870
45	1053	575
55	785	343
65	557	190
75	355	129
85	270	41
90	260	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-20	442	3.5	8.3
0-40	1439	11.2	26.9
0-60	2251	17.6	42.0
0-90	2723	21.3	50.8
0-120	3188	24.9	59.5
0-180	5357	41.8	100.0

Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
rw	70	50	30	10	50	30	10	50	10	50	10	50	10	0
RCR														
0	45	45	45	45	41	41	41	35	35	29	29	24	24	21
1	41	39	38	36	36	35	34	31	29	26	25	21	20	18
2	38	35	32	30	32	30	28	27	25	23	21	19	18	16
3	35	31	28	26	29	26	24	25	21	21	18	17	15	14
4	32	27	24	22	26	23	21	22	18	19	16	16	14	12
5	29	25	21	19	23	20	18	20	16	17	14	14	12	11
6	27	22	19	16	21	18	16	18	14	15	12	13	10	09
7	25	20	17	14	19	16	14	16	12	14	11	12	09	08
8	23	18	15	13	17	14	12	15	11	13	09	11	08	07
9	21	16	13	11	15	13	11	13	09	11	08	10	07	06
10	20	15	12	10	14	11	09	12	08	10	07	09	06	06

rc=Ceiling reflectance, rw=Wall reflectance, RCR=Room cavity ratio
CU Data Based on 20% Effective Floor Cavity Reflectance.