

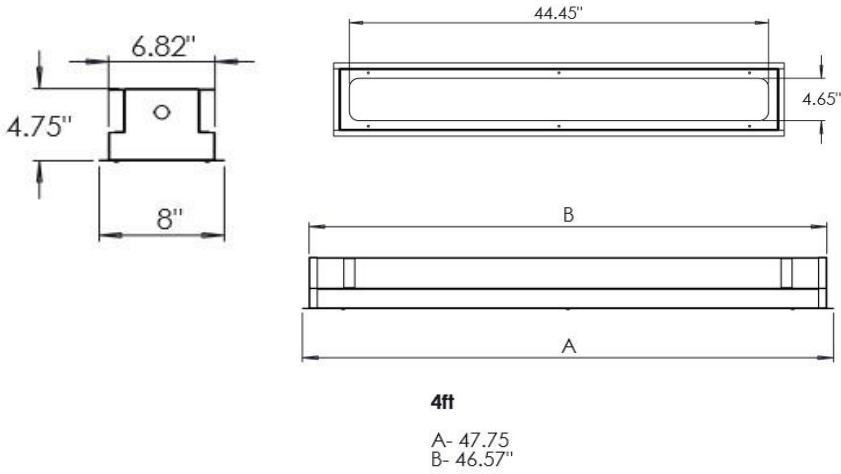
PROJECT:

NOTES:

ORDERING INFORMATION:

EXAMPLE MRGAL - M - 4F - F - 100 - 9 - 40 - 347 - H5 - M4 - AM - CL6 - DM
 SERIES SECURITY NOM. LENGTH MOUNTING LUMENS CRI KELVINS VOLTAGE DIFFUSER LENS OPTIONS CONTROLS DRIVER

SHOP DRAWINGS



ORDERING INFORMATION

SERIES
 MRGAL

VOLTAGE
 MV 120-277
 347 347V

SECURITY LEVEL
 H Heavy (14 gauge)
 M Medium (16 gauge)
 L Light (18 gauge)

DIFFUSER
 H5 White Opal Flexilume
 A1 Acrylic K12 (1/8")
 L1 Frosted Acrylic (1/8")

NOMINAL LENGTH
 (X)F Number of feet (length)*
 *Minimum of 2ft and maximum of 8ft
 (If not standard 4ft, contact manufacture for shop drawing and lumen outputs)

SECURITY LENS (NOMINAL THICKNESS)
 M1 Clear Polycarbonate (1/8")
 M3 Clear Polycarbonate (3/16")
 M4 Clear Polycarbonate (1/4")
 M5 Clear Polycarbonate (3/8")
 M6 Clear Polycarbonate (1/2")

MOUNTING
 T T-Bar
 F Flange

OPTIONS
 AM Anti-Microbial Paint
 EM Emergency Power Pack
 CC COI Compliant
 NLA Amber LED night light (500 lumens)
 NLR Red LED night light (500 lumens)
 SD Stainless Steel Door

LUMENS
 50 500 Lumens Per Foot
 75 750 Lumens Per Foot
 100 1000 Lumens Per Foot
 150 1500 Lumens Per Foot
 *Other lumen packages available

CONTROLS
 BLANK None
 Click on the following link for control options:
<https://bit.ly/2KzMuAx>

CRI
 BLANK 80 CRI
 9 90 CRI

DRIVER
 BLANK Non-dimming applications
 DM 0-10V Dimming
 DA DALI Driver
 Click on the following link for special driver options:
<https://bit.ly/2Eq26gU>

KELVIN
 30 3000K
 35 3500K
 40 4000K
 50 5000K
 TW Tunable White

FEATURES

- > Specification-grade patient room LED luminaire for anti-vandal behavioral healthcare applications
- > Features modern rectangle lens with rounded edges for visual comfort and efficiency
- > Robust design with security lens tightly secured by double-frame fastened internally with multiple screws
- > Door frame fastened with TORX tamper resistant screws
- > Welded housing for additional structural strength
- > Minimum 80 CRI; color range 3000K - 5000K available
- > 90 CRI Optional
- > Anti-microbial paint optional
- > Multiple dimming protocols available
- > IP65 for recessed applications*
- > Anti-ligature
- > 100% made in Canada

* Faceplate is sealed with multiple gaskets and luminaire is IP65 certified as providing protection against dust and water entering the luminaire through the faceplate in a recessed application. Note that the housing (which is designed to be recessed into ceiling and is not visible once installed) does not provide ingress protection against dust and water entering the luminaire from the plenum.

APPLICATIONS

- > Hospitals
- > Behavioral Healthcare Facilities
- > Rehabilitation Centers

FIXTURE PERFORMANCE DATA

SPECIFICATIONS

Housing – Precision die-formed 14, 16 or 18-gauge C.R.S. with continuously welded end plates

Door Frame – Single piece precision 14-gauge die formed frame with tamper-resistant fasteners that secure door frame to housing

Security Lens – Variety of robust polycarbonate lenses available. Secured with internal frame that is fastened internally to door frame with multiple screws

Finish – Baked white enamel powder finish applied post production on all surfaces for smooth edges and safe handling. Anti-microbial finish optional.

Electrical – High quality mid-power LED boards. L85 >50,000 hours.

Mounting – Recessed (plaster or T-Bar ceiling). We strongly recommend to add wire hangers on each earthquake clips/brackets (see fixture details)

Listings –
 ■ IP65
 ■ cUL certified as luminaire suitable for dry or damp locations.

Warranty – 5-year limited warranty

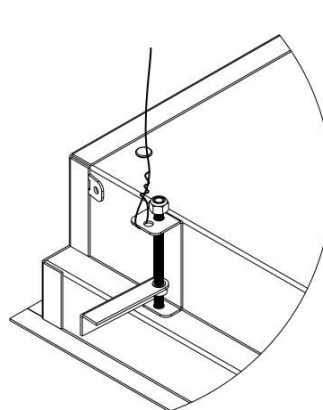
LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
4 FT			
500 lm / ft	2,151	18	120
1000 lm / ft	4,050	41	99
1500 lm / ft	6,066	59	103

*Results based on 4000K, 80 CRI, M4 (0.250" clear poly lens) and H5 white opal diffuser

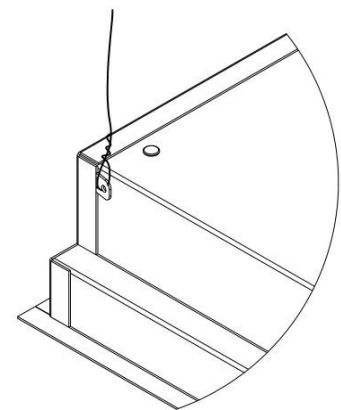
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS

Hanging brackets to secure housing to structure (wires not supplied by PA-CO)



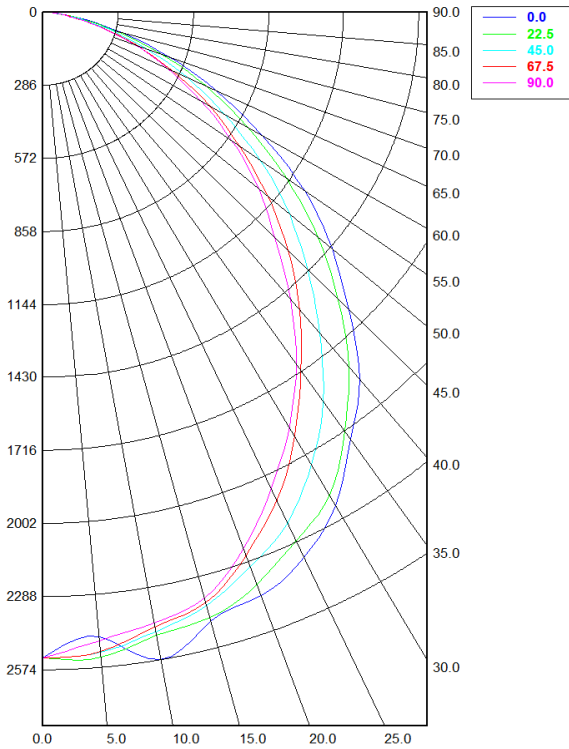
Plaster ceiling / Flange



T-Bar

PHOTOMETRY

MRGAL-M-4F-T-150-40-MV-H5-M4T, Total Luminaire Output: 6,066 lumens; 59 watts



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	2,526.90	2,526.90	2,526.90	2,526.90	2,526.90
5.00°	2,454.99	2,534.48	2,515.90	2,511.99	2,469.43
10.00°	2,573.91	2,477.98	2,462.06	2,443.98	2,428.49
15.00°	2,467.37	2,453.73	2,403.88	2,391.76	2,372.87
20.00°	2,429.44	2,381.74	2,307.94	2,260.63	2,233.12
25.00°	2,354.28	2,281.80	2,204.49	2,103.81	2,054.34
30.00°	2,230.50	2,184.84	2,045.32	1,917.49	1,874.12
35.00°	2,042.18	2,002.48	1,861.38	1,712.97	1,684.45
40.00°	1,877.59	1,813.08	1,639.52	1,521.33	1,464.50
45.00°	1,646.68	1,589.75	1,428.67	1,317.09	1,244.63
50.00°	1,436.47	1,369.15	1,221.54	1,110.35	1,069.63
55.00°	1,216.11	1,130.09	1,005.03	908.41	875.16
60.00°	958.68	894.86	793.02	727.04	692.14
65.00°	727.75	680.15	605.49	540.53	520.18
70.00°	508.98	473.73	416.11	376.35	364.86
75.00°	310.23	284.09	254.11	226.10	214.91
80.00°	150.09	139.01	121.55	113.78	106.72
85.00°	46.07	47.40	42.14	39.81	40.66
90.00°	7.16	9.24	7.90	8.73	9.07

Spacing Criterion:

Two luminaires, plane 0°	1.29
Two luminaires, plane 90°	1.11
Four luminaires	1.27

Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	252.45	4.16%
10.00° - 20.00°	678.07	11.18%
20.00° - 30.00°	1,007.74	16.61%
30.00° - 40.00°	1,158.37	19.09%
40.00° - 50.00°	1,112.87	18.34%
50.00° - 60.00°	911.32	15.02%
60.00° - 70.00°	606.22	9.99%
70.00° - 80.00°	279.50	4.61%
80.00° - 90.00°	59.83	0.99%
90.00° - 100.00°	2.33	0.04%
100.00° - 110.00°	0.00	0.00%
110.00° - 120.00°	0.00	0.00%
120.00° - 130.00°	0.00	0.00%
130.00° - 140.00°	0.00	0.00%
140.00° - 150.00°	0.00	0.00%
150.00° - 160.00°	0.00	0.00%
160.00° - 170.00°	0.00	0.00%
170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	6,066.37	100.00%
90.00° - 180.00°	2.33	0.04%
0.00° - 180.00°	6,066.37	100.00%