

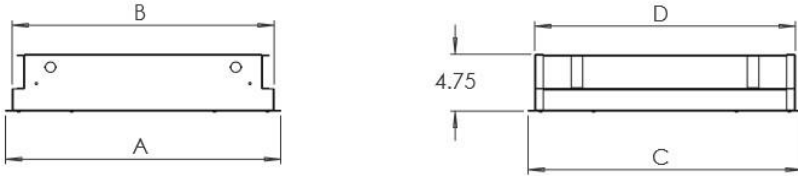
PROJECT: _____ NOTES: _____

ORDERING INFORMATION: _____



MRPA3 - M - T - A2 - E2 - PB - M4 - MV - AM - D
 SERIES SECURITY MOUNTING AMBIENT EXAM DIFFUSER LENS VOLTAGE OPTIONS DRIVER

SHOP DRAWINGS



2x4
 A - 23.75"
 B - 22.65"
 C - 47.75"
 D - 46.57"



ORDERING INFORMATION

SERIES
 MRPA3

SECURITY LEVEL
 H 14-Ga CRS (painted white)
 M 16-Ga CRS (painted white)
 L 18-Ga CRS (painted white)
 HS 14-Ga SS (painted white)*
 MS 16-Ga SS (painted white)*
 LS 18-Ga SS (painted white)*
 HB 14-Ga SS (brushed)*
 MB 16-Ga SS (brushed)*
 LB 18-Ga SS (brushed)*

*Overlapping floor in SS and housing is CRS

MOUNTING
 T T-Bar
 F Flange

AMBIENT (Lumens, TempK, CRI)
 See page 2 and use code to specify the ambient compartment.
 Ex: A2 = 3000 lm, 3500K, 80 CRI

EXAM (Lumens, TempK, CRI)
 See page 2 and use code to specify the ambient compartment.
 Ex: E4 = 8000 lm, 4000K, 90 CRI

DIFFUSER (Center ambient)
 BLANK Acrylic Ribbed Lens
 PB Perforated Basket

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")

VOLTAGE
 MV 120-277V
 347 347V

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

*Confirm TempK with manufacture

DRIVERS
 ND Non-dimming applications
 D 0-10V dimming
 DA DALI driver

FEATURES

- > Specification-grade patient room LED luminaire for anti-vandal behavioral healthcare applications
- > Features ambient and exam light compartments
- > 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*
- > Optional COI compliant

* 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

LUMEN PACKAGES

	AMBIENT		
	LUMENS	TEMP K	CRI
A1	3,000	3,000	80
A2	3,000	3,500	80
A3	3,000	4,000	80
A4	3,000	3,000	90
A5	3,000	3,500	90
A6	3,000	4,000	90
A7	4,000	3,000	80
A8	4,000	3,500	80
A9	4,000	4,000	80
A10	4,000	3,000	90
A11	4,000	3,500	90
A12	4,000	4,000	90
TW*	TUNABLE WHITE		
C	CUSTOM LED PACKAGES		

*Confirm protocol the TW will be controlled with

	EXAM		
	LUMENS	TEMP K	CRI
E1	8,000	3,000	80
E2	8,000	3,500	80
E3	8,000	4,000	80
E4	8,000	3,000	90
E5	8,000	3,500	90
E6	8,000	4,000	90
E7	9,000	3,000	80
E8	9,000	3,500	80
E9	9,000	4,000	80
E10	9,000	3,000	90
E11	9,000	3,500	90
E12	9,000	4,000	90
C	CUSTOM LED PACKAGES		

LED

FIXTURE PERFORMANCE DATA

SPECIFICATIONS

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

Door Frame – Single piece precision 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. L70 >72,000 hours reported / 95,140 hours calculated. 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 certified.
 ■ cUL certified

Warranty – 5-year limited warranty

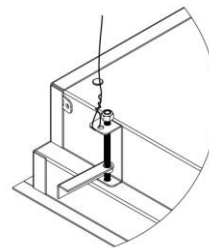
LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
24" x 48"			
AMBIENT-PB (3,000 lm)	3,034	31	98
AMBIENT-PB (4,000 lm)	4,062	44	92
EXAM (8,000 lm)	8,247	85	97
EXAM (9,000 lm)	9,266	92	100

*Results based on 4000K, 80 CRI, Perforated Basket (Ambient), M3 Security Lens

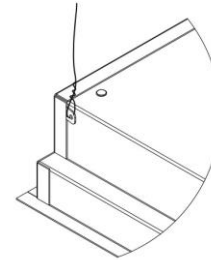
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS

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



Plaster ceiling / Flange

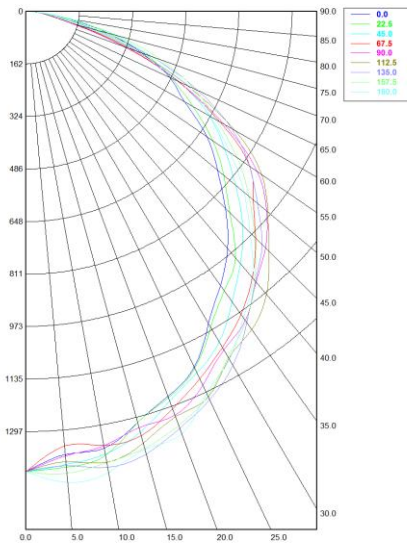


T-Bar



PHOTOMETRY

AMBIENT (4000 lumens / 4000K / Perforated Basket)



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	1,044.77	1,044.77	1,044.77	1,044.77	1,044.77
5.00°	1,031.73	1,025.15	1,013.82	1,029.98	1,020.06
10.00°	1,049.91	996.32	1,017.80	1,024.02	1,005.29
15.00°	1,010.82	987.92	1,007.97	993.88	1,011.05
20.00°	955.79	965.32	965.34	987.02	987.57
25.00°	893.45	891.22	927.21	931.44	947.55
30.00°	846.81	847.94	884.07	912.08	892.43
35.00°	769.60	791.60	818.80	871.75	870.14
40.00°	707.93	720.30	759.15	799.49	815.84
45.00°	645.57	662.20	692.27	743.45	777.82
50.00°	572.70	588.17	633.38	678.88	705.55
55.00°	493.84	514.84	560.66	608.44	642.28
60.00°	426.95	437.46	481.03	511.81	525.05
65.00°	350.66	367.86	388.14	371.51	377.46
70.00°	266.50	283.84	268.67	246.79	231.70
75.00°	186.34	192.33	150.07	117.47	98.42
80.00°	87.74	93.44	62.00	50.11	47.19
85.00°	23.22	26.45	21.53	22.19	21.82
90.00°	2.36	3.15	3.65	3.52	2.72

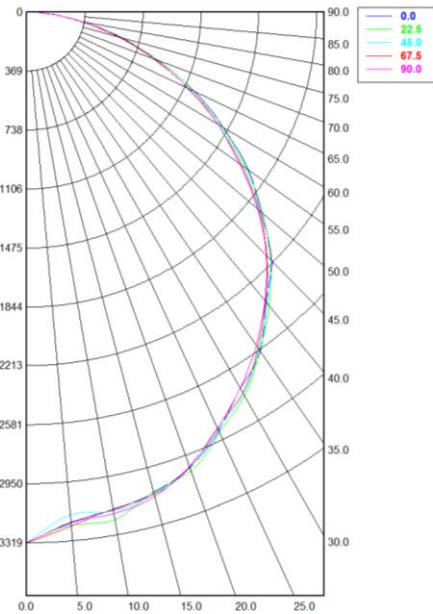
Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	104.98	3.46%
10.00° - 20.00°	286.85	9.45%
20.00° - 30.00°	435.95	14.36%
30.00° - 40.00°	530.97	17.50%
40.00° - 50.00°	560.81	18.48%
50.00° - 60.00°	521.64	17.19%
60.00° - 70.00°	386.03	12.72%
70.00° - 80.00°	174.37	5.75%
80.00° - 90.00°	32.50	1.07%
90.00° - 100.00°	0.79	0.03%
100.00° - 110.00°	0.01	0.00%
110.00° - 120.00°	0.01	0.00%
120.00° - 130.00°	0.01	0.00%
130.00° - 140.00°	0.01	0.00%
140.00° - 150.00°	0.01	0.00%
150.00° - 160.00°	0.01	0.00%
160.00° - 170.00°	0.00	0.00%
170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	3,034.10	99.97%
90.00° - 180.00°	0.85	0.03%
0.00° - 180.00°	3,034.95	100.00%

Spacing Criterion:

Two luminaires, plane 0°	1.2
Two luminaires, plane 90°	1.29
Four luminaires	1.4

EXAM (9000 lumens / 4000K)



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	3,318.75	3,318.75	3,318.75	3,318.75	3,318.75
5.00°	3,203.34	3,220.40	3,156.88	3,225.95	3,206.77
10.00°	3,160.37	3,223.19	3,170.46	3,156.04	3,184.74
15.00°	3,112.86	3,107.18	3,120.56	3,123.79	3,135.61
20.00°	3,028.12	3,053.71	3,033.16	3,027.44	3,022.78
25.00°	2,889.61	2,905.11	2,879.83	2,867.88	2,872.49
30.00°	2,719.92	2,772.70	2,759.45	2,750.88	2,717.98
35.00°	2,594.04	2,585.93	2,577.14	2,566.01	2,546.21
40.00°	2,369.78	2,402.09	2,381.26	2,363.83	2,357.14
45.00°	2,205.48	2,193.96	2,160.66	2,162.08	2,155.04
50.00°	1,947.46	1,960.68	1,924.63	1,930.07	1,919.09
55.00°	1,725.21	1,712.04	1,684.80	1,667.22	1,651.55
60.00°	1,444.71	1,436.90	1,409.51	1,399.95	1,403.88
65.00°	1,174.34	1,161.51	1,132.81	1,127.28	1,135.00
70.00°	887.28	892.04	865.19	871.21	858.28
75.00°	627.72	618.94	600.92	604.97	597.05
80.00°	365.45	361.85	361.57	356.56	349.93
85.00°	154.13	153.40	145.36	150.12	147.85
90.00°	17.23	22.50	19.61	21.42	19.06

Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	324.19	3.50%
10.00° - 20.00°	878.33	9.48%
20.00° - 30.00°	1,329.36	14.35%
30.00° - 40.00°	1,605.29	17.32%
40.00° - 50.00°	1,668.29	18.00%
50.00° - 60.00°	1,501.16	16.20%
60.00° - 70.00°	1,130.26	12.20%
70.00° - 80.00°	645.04	6.96%
80.00° - 90.00°	184.49	1.99%
90.00° - 100.00°	5.60	0.06%
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°	9,266.42	100.00%
90.00° - 180.00°	5.60	0.06%
0.00° - 180.00°	9,266.42	100.00%

Spacing Criterion:

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.21
Four luminaires	1.35