

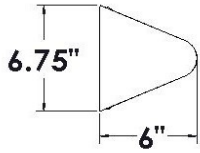
PROJECT:

NOTES:

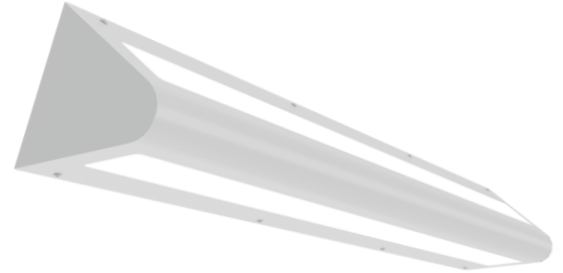
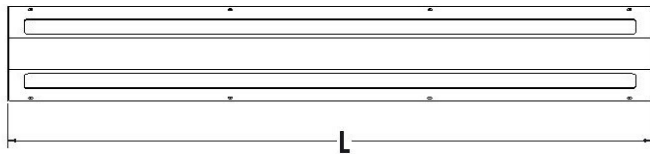
ORDERING INFORMATION:

EXAMPLE MURA - M - 4F - 40 - 20 - 9 - 40K - H5 - M4 - MV - 1C - EM - D
SERIES SECURITY LEVEL DIMENSIONS LUMENS UP LUMENS DOWN CRI KELVINS DIFFUSERS LENS VOLTAGE CIRCUITS OPTIONS DRIVER

SHOP DRAWINGS



	L
MURA 23"	23.5"
MURA 34"	34.5"
MURA 45"	45.25"



ORDERING INFORMATION

SERIES
MURA

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

NOMINAL LENGTH
 2F 23"
 3F 34"
 4F 45"

LUMENS UP*
 00 No indirect light or lens
 20 2,000
 40 4,000
 *Other lumen packages available.

LUMENS DOWN*
 20 2,000
 40 4,000
 *Other lumen packages available.

CRI
 BLANK 80 CRI
 9 90 CRI

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

DIFFUSERS
 A1 Acrylic K12 (1/8")
 H5 White Opal Underlay
 L1 Frosted Acrylic (1/8")

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

CIRCUITS
 1C 1 Circuit
 2C 2 Circuits

OPTIONS
 EM Emergency Power Pack
 AM Antimicrobial Finish
 SH Stainless Steel Housing
 FU Fuse and Fuse Holder
 NLA Amber LED night light (500 lumens)
 NLR Red LED night light (500 lumens)
 NL White LED night light (500 lumens)*
 LV Low Voltage Relay Ready (Patient Controlled)**

*Confirm lumen packages and TempK with manufacture
 **Remote control not supplied by PA-CO and only 2 loads can be dimmable

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

FEATURES

- > Specification-grade direct/indirect wall mounted LED luminaire for anti-vandal and maximum security applications
- > Two apertures provide up and down light
- > Security lens (multiple thicknesses available) secured with internal frame
- > Continuous welded and ground seams for optimal structural strength
- > Tamper resistant fasteners
- > Minimum 80 CRI; color range 3000K - 5000K available
- > Multiple dimming protocols available
- > Optional 90 CRI
- > 1 or 2 circuits available
- > Anti-Ligature

APPLICATIONS

- > Behavioral Facilities
- > Correctional facilities
- > Prison Cells
- > Patient Rooms

FIXTURE PERFORMANCE DATA

SPECIFICATIONS

Housing – One-piece precision die-formed bull nose 14, 16, 18-gauge C.R.S. with continuously welded end plates

Internal Frame – One piece precision die formed internal frame fastened to housing with multiple screws

Security Lens – Variety of robust polycarbonate lenses available (outer lens)

Diffuser - Variety of diffusers available for smooth and uniform illumination (inner lens)

Finish – Baked white enamel powder finish applied post production on all surfaces for smooth edges and safe handling

Electrical – High quality mid-power LED boards. L70 >72,000 hours reported / 129,200 hours calculated at maximum allowable output current. L85 >50,000 hours.

Mounting – Surface Wall Mount

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

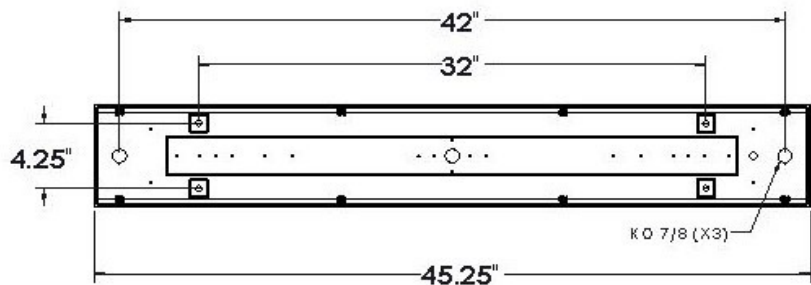
Warranty – 5-year limited warranty

LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
4F			
20 UP / 20 DOWN	3,988	36	110
20 UP / 40 DOWN	6,161	61	101
40 UP / 20 DOWN	6,163	60	103
40 UP / 40 DOWN	8,092	74	109

*Results based on 4000K, 80 CRI, Security Lens (M4), Diffuser (H5)

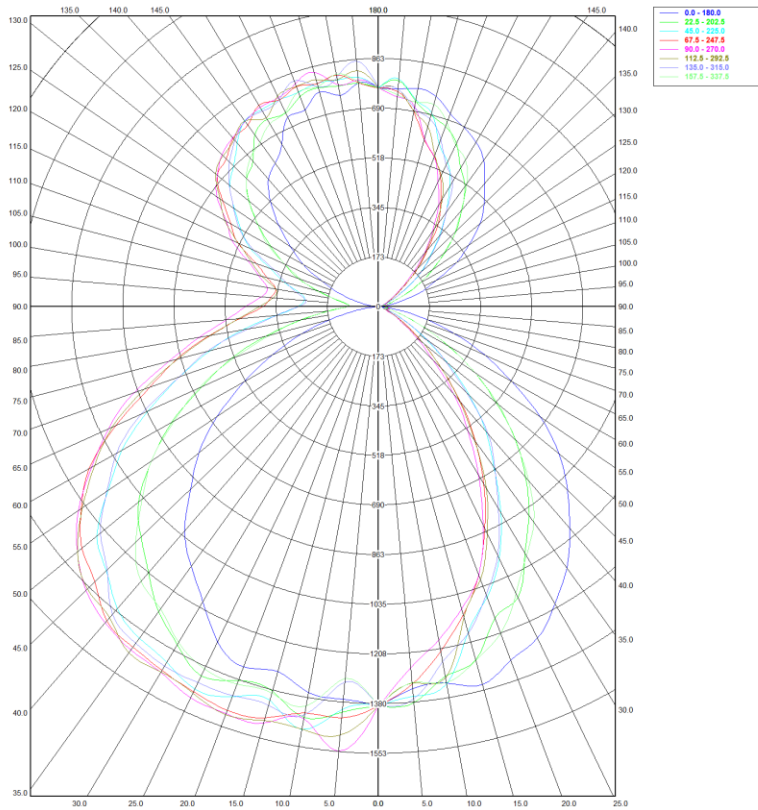
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS



PHOTOMETRY

MURA-M-4F-20-40-40K-H5-M4-MV



Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	138.61	2.25%
10.00° - 20.00°	369.80	6.00%
20.00° - 30.00°	555.32	9.01%
30.00° - 40.00°	656.15	10.65%
40.00° - 50.00°	667.94	10.84%
50.00° - 60.00°	594.91	9.65%
60.00° - 70.00°	459.84	7.46%
70.00° - 80.00°	309.01	5.01%
80.00° - 90.00°	190.83	3.10%
90.00° - 100.00°	142.60	2.31%
100.00° - 110.00°	174.90	2.84%
110.00° - 120.00°	249.40	4.05%
120.00° - 130.00°	324.90	5.27%
130.00° - 140.00°	369.15	5.99%
140.00° - 150.00°	365.63	5.93%
150.00° - 160.00°	308.20	5.00%
160.00° - 170.00°	206.99	3.36%
170.00° - 180.00°	77.78	1.26%
0.00° - 90.00°	3942.41	63.98%
90.00° - 180.00°	2219.54	36.02%
0.00° - 180.00°	6161.95	100.00%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93	1387.93
5.00°	1333.71	1382.53	1360.28	1317.65	1261.19	1313.23	1370.64	1312.07	1369.72	1415.36	1405.00	1435.37	1552.60	1495.93	1311.02	1298.35	1333.71
10.00°	1328.65	1305.43	1332.40	1215.88	1177.05	1310.81	1253.94	1327.95	1362.87	1451.08	1492.69	1435.13	1453.53	1491.93	1441.63	1410.82	1328.65
15.00°	1360.46	1272.00	1172.62	1109.69	1087.67	1117.95	1175.66	1272.47	1313.54	1384.73	1416.92	1480.38	1499.33	1490.00	1434.08	1390.46	1360.46
20.00°	1308.08	1151.68	1074.32	992.41	992.12	1009.26	1065.73	1209.70	1333.47	1383.83	1443.11	1493.58	1505.88	1510.10	1438.67	1396.27	1308.08
25.00°	1272.31	1116.06	965.45	850.43	838.30	870.40	955.61	1100.71	1285.41	1416.32	1467.81	1476.85	1501.21	1482.42	1442.65	1389.25	1272.31
30.00°	1192.93	990.78	827.54	712.69	676.52	728.39	810.70	999.65	1184.79	1357.87	1428.01	1461.29	1468.52	1466.38	1443.94	1349.06	1192.93
35.00°	1110.07	887.10	680.15	570.06	528.35	565.75	686.25	916.14	1102.43	1293.51	1406.76	1444.53	1456.99	1469.64	1428.30	1282.47	1110.07
40.00°	1004.54	773.72	565.48	433.73	399.15	426.53	576.32	789.87	1018.00	1207.92	1370.83	1426.41	1434.35	1411.29	1396.85	1246.78	1004.54
45.00°	903.38	654.75	435.53	300.41	262.31	301.41	420.55	651.82	896.24	1133.29	1298.79	1352.52	1395.03	1389.40	1294.72	1159.27	903.38
50.00°	795.49	520.04	308.65	204.56	176.69	199.73	300.17	530.09	790.39	1056.00	1239.95	1306.81	1325.81	1325.10	1225.03	1039.83	795.49
55.00°	665.54	399.49	196.14	126.91	101.99	115.25	208.70	397.52	661.56	933.36	1112.47	1223.69	1235.42	1218.99	1118.05	934.83	665.54
60.00°	520.34	275.31	121.36	76.64	69.77	79.02	123.04	277.76	525.86	804.94	998.66	1126.82	1117.38	1105.63	1020.16	794.18	520.34
65.00°	397.65	174.88	66.55	44.31	34.64	41.70	69.81	174.18	394.24	656.81	857.24	975.64	1004.10	989.13	880.60	670.11	397.65
70.00°	274.50	96.03	31.70	19.26	26.76	18.58	31.19	98.30	278.96	531.34	716.35	823.36	879.95	843.60	716.69	517.98	274.50
75.00°	167.93	47.82	14.85	31.15	36.57	28.82	16.40	47.66	165.50	391.30	587.29	705.69	731.49	700.00	599.11	377.20	167.93
80.00°	77.41	23.30	19.17	34.00	38.14	30.92	19.57	21.94	78.65	263.56	468.19	580.67	614.29	575.81	448.47	270.55	77.41
85.00°	28.52	25.00	27.84	25.28	25.88	27.18	26.77	28.28	26.34	170.20	344.73	469.26	514.46	475.01	347.14	161.20	28.52
90.00°	8.60	33.64	23.02	22.12	23.39	25.08	24.27	34.59	8.69	106.36	273.30	391.22	449.59	401.98	270.25	108.62	8.60

Spacing Criterion:

Two luminaires, plane 0°	1.26
Two luminaires, plane 90°	0.85
Four luminaires	1.33

