

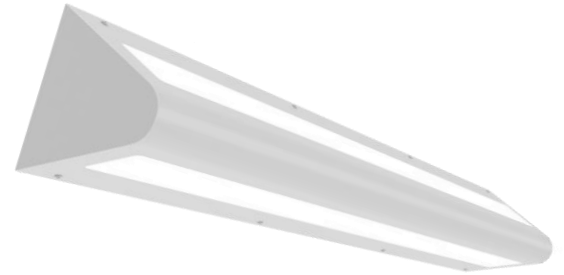
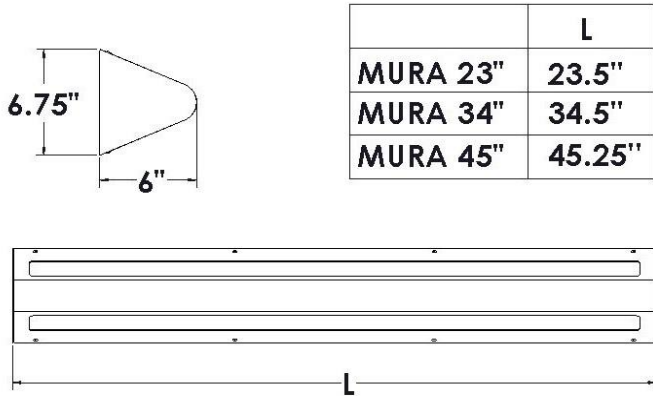
PROJECT:

NOTES:

ORDERING INFORMATION:

EXAMPLE MURA - M - 45 - L - 40 - 20 - 9 - 40K - H5 - M4 - MV - 1C - EM - DM
SERIES SECURITY LEVEL DIMENSIONS SOURCE LUMENS UP LUMENS DOWN CRI KELVINS DIFFUSERS LENS VOLTAGE CIRCUITS OPTIONS DRIVER

SHOP DRAWINGS



ORDERING INFORMATION

SERIES
MURA

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

NOMINAL LENGTH
 23 23"
 34 34"
 45 45"

SOURCE
L LED

LUMENS UP*
 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
 AL Anti-Ligature
 SH Stainless Steel Housing
 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

DRIVER
 BLANK Non-dimming applications
 DM 0-10V dimming
 DA DALI

Click on the following link for control options:
<https://bit.ly/2KzMuAx>

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
- > 100% made in Canada

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.

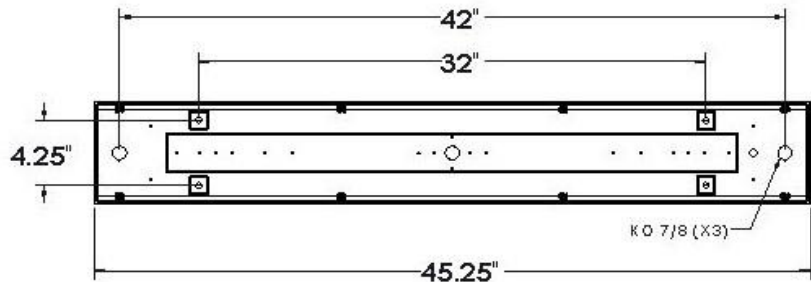
Warranty – 5-year limited warranty

LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
45"			
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)

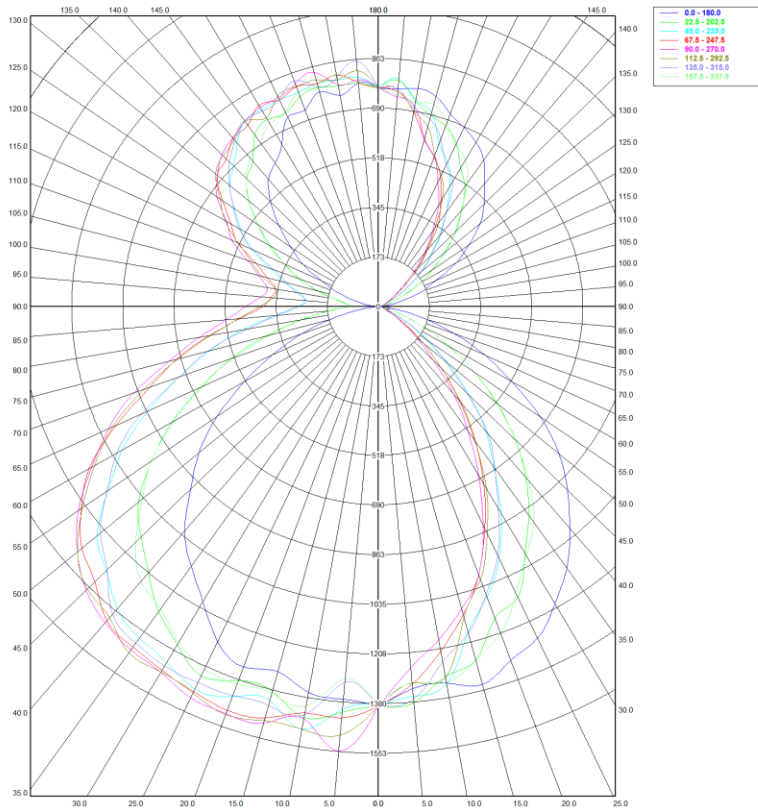
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS



PHOTOMETRY

MURA-M-45-L-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	1443.84	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

