

PROJECT:

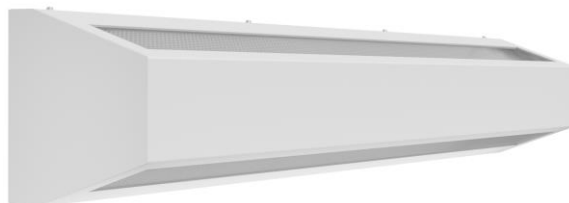
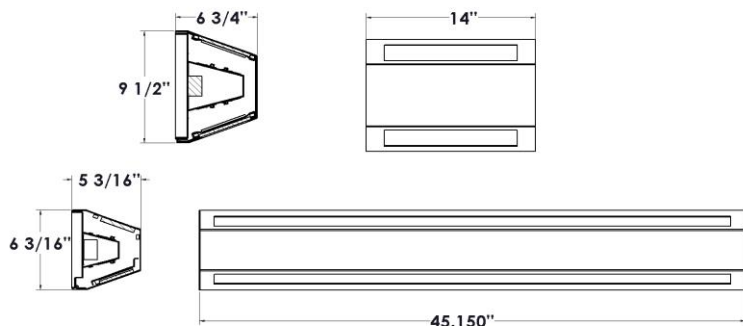
NOTES:

ORDERING INFORMATION:

**EXAMPLE** PUOA - H - 45 - L - 40 - 20 - 9 - 40 - H5 M1 - MV - 1C - EM - CLE4- DM

SERIES SECURITY LEVEL DIMENSIONS SOURCE LUMENS UP LUMENS DOWN CRI KELVINS DIFFUSERS LENS VOLTAGE CIRCUITS OPTIONS CONTROLS DRIVER

SHOP DRAWINGS



ORDERING INFORMATION

SERIES	
PUOA	

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

NOMINAL LENGTH	
23	23"
45	45"

SOURCE	
L	LED

LUMENS UP*	
20	2,000
40	4,000

LUMENS DOWN*	
20	2,000
40	4,000

\*Other lumen packages available.

CRI	
BLANK	80 CRI
9	90 CRI

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

DIFFUSERS	
A0	Acrylic K12 (0.95")
A1	Acrylic K12 (0.125")
H5	White Opal

SECURITY LENS	
M1	Clear Polycarbonate (0.125")
M3	Clear Polycarbonate (0.187")
M4	Clear Polycarbonate (0.250")
M5	Clear Polycarbonate (0.375")

VOLTAGE	
MV	120-277V
347	347V

CIRCUITS	
1C	1 Circuit
2C	2 Circuits

OPTIONS	
EM	Emergency Power Pack
NL	LED Night Light
AM	Antimicrobial Finish

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

DRIVER	
BLANK	Non-dimming applications
DM	Dimming applications

FEATURES

- > Specification-grade direct/indirect wall mounted LED luminaire for anti-vandal and maximum security applications
- > Robust clamshell housing designed to prevent penetration and contraband concealment
- > Two apertures provide up and down light
- > Security lens (multiple thicknesses available) secured with internal frame
- > Concealed piano hinge welded to door frame and fastened to backplate
- > Continuous welded and ground seams for optimal structural strength
- > Tamper resistant fasteners
- > Minimum 80 CRI; color range 3000K - 5000K available
- > Multiple dimming protocols available
- > 100% made in Canada

APPLICATIONS

- > Prison cells
- > Correctional facilities
- > Corridors
- > Locker rooms
- > Public areas
- > Patient Rooms

FIXTURE PERFORMANCE DATA

SPECIFICATIONS

**Housing** – One-piece precision die-formed 12, 14, 16, 18-gauge C.R.S. with continuously welded end plates

**Back-plate** – Die-formed 14,16 or 18 gauge CRS with embossed mounting holes and contraband trap

**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)

**Hinge** – Concealed full-length piano style hinge with .500" knuckle and .125" pin welded to doorframe

**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 >50,000 hours.

**Mounting** – Surface Wall Mount

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

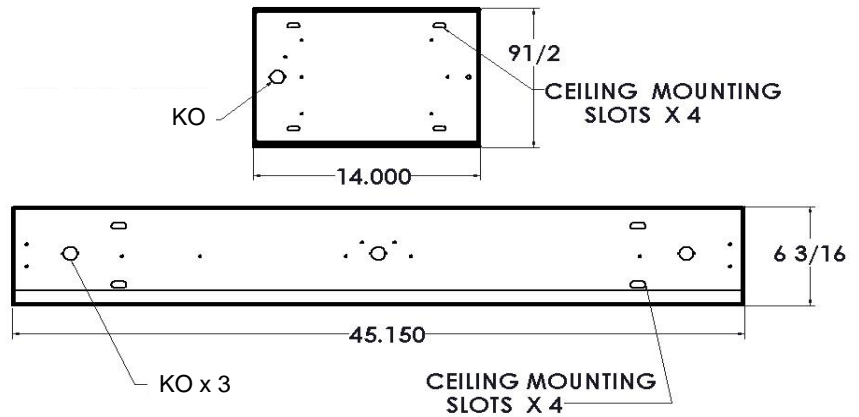
**Warranty** – 5-year limited warranty

LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
23"			
30	3,052	27	113
40	4,069	37	110
45"			
40	4,097	31	111
60	6,162	46	134

\*Results based on 4000K, 80 CRI, Security Lens (M1), Diffuser (H5)

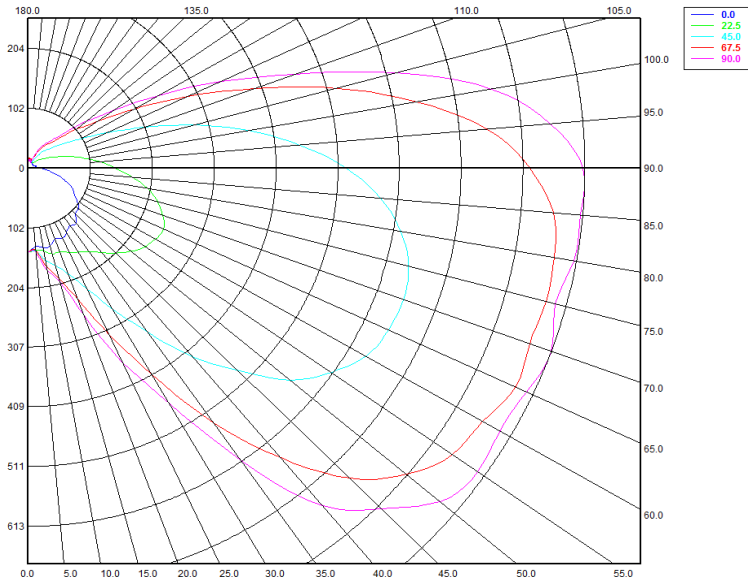
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS



PHOTOMETRY

PUOA-45-LED-40-40-A1-M1-MVOLT Total Luminaire Output: 4,097 lumens; 31 Watts



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	144.07	144.07	144.07	144.07	144.07
5.00°	134.89	140.60	142.99	141.65	144.91
10.00°	137.71	143.57	158.41	169.17	176.80
15.00°	138.46	151.75	172.34	195.07	200.54
20.00°	129.06	152.02	192.78	240.76	270.04
25.00°	132.35	159.05	226.69	314.69	366.47
30.00°	126.47	165.45	281.20	409.24	466.20
35.00°	120.29	173.72	344.38	532.22	610.03
40.00°	122.67	188.30	423.28	647.82	754.65
45.00°	110.09	205.19	491.90	751.20	824.22
50.00°	107.97	220.89	564.84	816.00	888.13
55.00°	98.60	234.25	609.95	855.77	906.74
60.00°	87.77	241.82	643.82	867.37	900.73
65.00°	79.21	246.51	657.25	888.49	907.90
70.00°	65.62	235.79	660.36	881.76	919.66
75.00°	52.76	220.36	650.88	885.95	901.79
80.00°	38.17	199.78	625.95	882.08	915.08
85.00°	28.03	170.69	583.42	871.10	916.42
90.00°	20.05	142.90	524.19	828.57	916.76
95.00°	13.34	119.21	449.84	762.33	866.21
100.00°	12.25	95.44	368.37	651.67	777.88
105.00°	13.36	76.31	284.42	527.18	627.53
110.00°	12.05	57.31	203.27	396.66	469.61
115.00°	10.14	44.09	144.48	290.25	349.73
120.00°	8.83	34.01	100.32	202.51	248.46
125.00°	9.44	26.84	75.64	137.86	172.73
130.00°	9.12	21.83	55.37	101.93	122.49
135.00°	9.44	15.12	45.64	72.47	86.01
140.00°	10.10	12.24	36.45	55.35	64.13
145.00°	10.12	11.26	24.40	48.12	51.71
150.00°	11.15	12.66	14.59	33.80	41.58
155.00°	11.68	13.31	12.24	18.05	22.02
160.00°	14.72	13.39	14.14	10.76	9.36
165.00°	14.64	15.11	15.70	16.70	14.57
170.00°	16.53	15.41	16.11	14.77	13.83
175.00°	13.84	16.65	15.37	17.44	12.70
180.00°	14.94	14.94	14.94	14.94	14.94

Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	15.09	0.37%
10.00° - 20.00°	50.30	1.23%
20.00° - 30.00°	112.88	2.75%
30.00° - 40.00°	225.52	5.50%
40.00° - 50.00°	370.60	9.04%
50.00° - 60.00°	490.81	11.98%
60.00° - 70.00°	563.42	13.75%
70.00° - 80.00°	589.36	14.38%
80.00° - 90.00°	568.29	13.87%
90.00° - 100.00°	478.28	11.67%
100.00° - 110.00°	319.69	7.80%
110.00° - 120.00°	167.26	4.08%
120.00° - 130.00°	77.68	1.90%
130.00° - 140.00°	36.61	0.89%
140.00° - 150.00°	18.23	0.44%
150.00° - 160.00°	7.68	0.19%
160.00° - 170.00°	4.11	0.10%
170.00° - 180.00°	1.57	0.04%
0.00° - 90.00°	2,986.26	72.88%
90.00° - 180.00°	1,111.10	27.12%
0.00° - 180.00°	4,097.36	100.00%

Spacing Criterion:

Two luminaires, plane 0°	1.3
Two luminaires, plane 90°	4.19
Four luminaires	3.41