

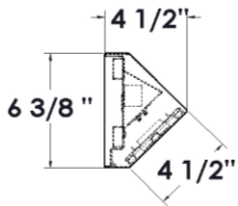
PROJECT:

NOTES:

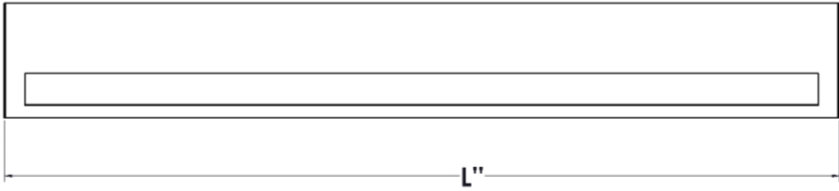
ORDERING INFORMATION:

**EXAMPLE** PUMA - H - 45 - L - 40 - 9 - 40 - H5 - M5 - MV - EM - DIM  
 SERIES SECURITY LEVEL NOM. LENGT SOURCE LUMENS CRI KELVINS DIFFUSERS LENS VOLTAGE OPTIONS DRIVER

SHOP DRAWINGS



	L
PUMA - 23	23"
PUMA - 34	34"
PUMA - 45	45"



ORDERING INFORMATION

**SERIES**  
PUMA

**KELVIN**

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

**SECURITY LEVEL**  
 X Extra Heay (12 gauge)  
 H Heavy (14 gauge)  
 M Medium (16 gauge)  
 L Light (18 gauge)

**DIFFUSERS**  
 00 None  
 A0 Acrylic K12 (0.95")  
 A1 Acrylic K12 (0.125")  
 H5 White Opal

**NOMINAL LENGTH**  
 23 23"  
 34 34"  
 45 45"

**SECURITY LENS**  
 M1 Clear Polycarbonate (0.125")  
 M4 Clear Polycarbonate (0.250")  
 M5 Clear Polycarbonate (0.375")  
 M6 Clear Polycarbonate (0.500")

**SOURCE**  
L LED

**VOLTAGE**  
 MV 120-277V  
 347 347V

**LUMENS**

**OPTIONS**  
 EM Emergency Power Pack  
 NL Amber LED Night Light  
 NLR Red LED Night Light

Lumen Package*	Nom. Lumens	Wattage
<b>45"</b>		
30	3,000	28
40	4,000	37
50	5,000	47

\*Other lumen packages available.

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

**CRI**  
 BLANK 80 CRI  
 9 90 CRI

FEATURES

- > Specification-grade LED wall mount luminaire for anti-vandal and security applications
- > Robust design with concealed hinges, tamper-resistant fasteners and contraband trapping backplate
- > Security lens (multiple thicknesses available)
- > Double frame secured internally with multiple screws
- > Concealed piano hinge welded to door frame and fastened to backplate welded housing for additional strength
- > Welded housing for additional strength
- > Minimum 80 CRI; color range 3000K - 5000K available
- > Multiple dimming protocols available
- > Energy-saving occupancy sensor option available
- > 100% made in Canada

APPLICATIONS

- > Prison cells
- > Correctional facilities
- > Corridors
- > Locker rooms
- > Public areas
- > Schools
- > Stairwells

LED

FIXTURE PERFORMANCE DATA

**SPECIFICATIONS**

**Housing** – Precision die-formed 12,14,16,18-gauge C.R.S. with continuously welded end caps of matching gauge

**Door Frame** – Single piece precision die formed frame with seam welded corners and tamper-resistant fasteners secure door frame to housing

**Internal Frame** –

*For maximum security applications:*

One piece internal frame fastened to door with 12 screws for maximum security applications.

*For minimum security applications:*

Zintec angle frame riveted to door

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

**Diffuser** – Variety of diffusers available for smooth and uniform illumination (inner lens).

**Hinge** – 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** – Wall mount

**Listings** –

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

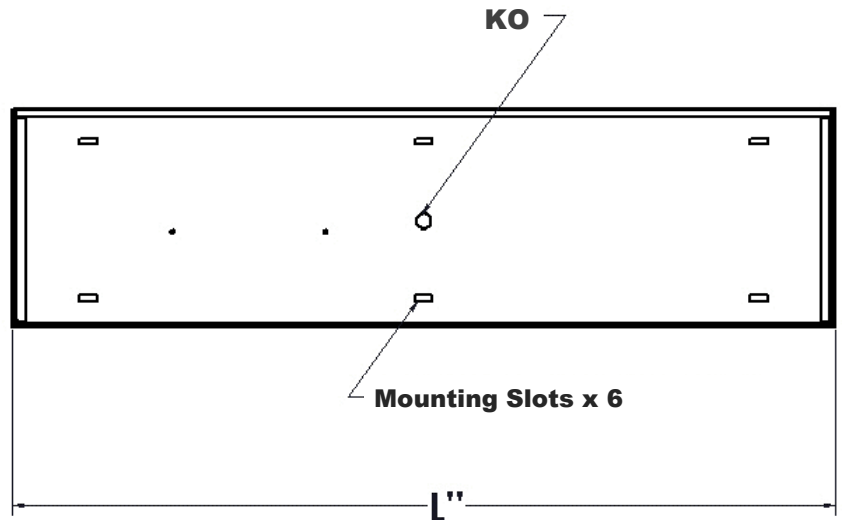
**Warranty** – 5-year limited warranty

LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
45"			
30	3,005	28	107
40	4,119	37	111
50	5,001	47	106

\*Results based on 4000K, 80 CRI, Lens M4, Diffuser A1

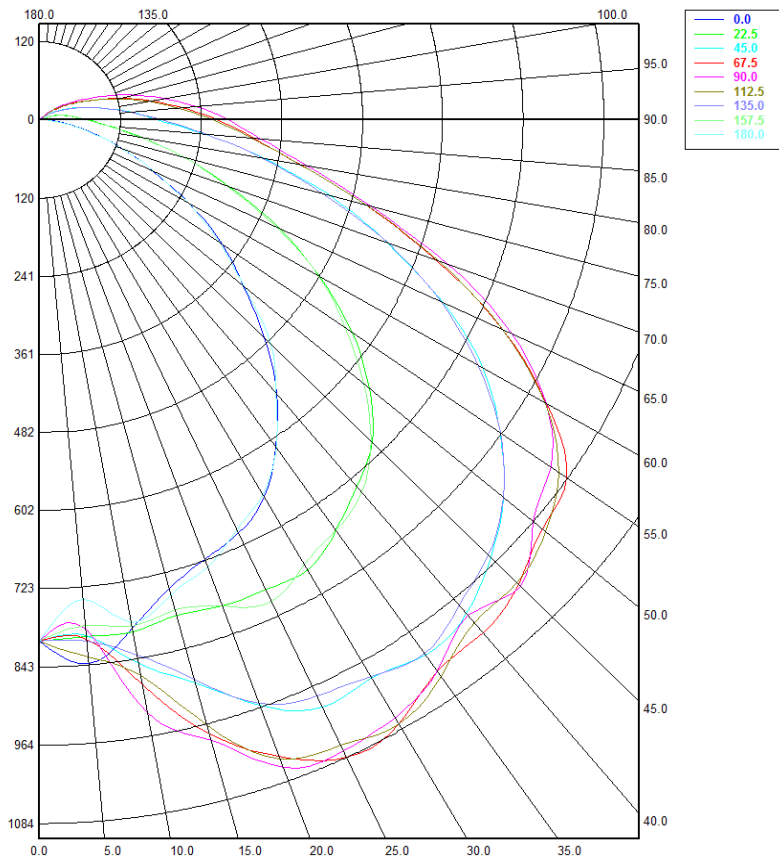
MULTIPLIER TABLE	
COLOR TEMPERATURE	
CCT/CRI	CONVERSION FACTOR
3000K / 80 CRI	0.95
3500K / 80 CRI	0.97
4000K / 80 CRI	1
5000K / 80 CRI	1.03

FIXTURE DETAILS



PHOTOMETRY

PUMA-45-LED-40-40-A1-M4-MVOLT Total Luminaire Output: 4.119 lumens: 47 Watts



Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°
0.00°	803.03	803.03	803.03	803.03	803.03	803.03	803.03	803.03	803.03
5.00°	841.49	799.21	798.15	802.83	788.41	831.14	806.70	781.98	741.30
10.00°	796.02	801.23	850.52	883.86	927.92	869.41	837.38	791.90	786.24
15.00°	747.90	790.52	898.70	980.02	989.35	966.33	892.53	781.92	757.13
20.00°	720.76	797.05	959.79	1,043.82	1,061.63	1,048.07	957.33	797.86	733.42
25.00°	702.67	798.52	998.97	1,083.96	1,072.78	1,063.01	979.16	819.42	696.98
30.00°	670.77	800.43	992.63	1,074.99	1,062.52	1,074.91	990.13	790.40	666.53
35.00°	614.52	771.81	1,006.29	1,036.98	1,036.87	1,046.22	1,003.98	771.38	615.68
40.00°	550.31	736.69	992.93	1,031.81	996.99	1,011.66	976.48	748.45	548.77
45.00°	473.82	702.48	953.81	1,012.24	1,016.27	1,009.34	948.56	698.92	488.50
50.00°	396.55	641.70	905.12	980.82	963.50	987.61	905.28	630.76	397.18
55.00°	332.85	569.22	840.27	961.95	932.64	947.04	840.46	555.44	326.32
60.00°	257.12	482.62	765.81	876.23	874.25	872.31	758.02	480.96	254.36
65.00°	187.26	394.23	665.87	764.02	779.64	764.00	662.08	388.71	187.97
70.00°	135.32	301.36	552.25	631.99	649.79	635.00	553.27	296.46	132.11
75.00°	86.99	223.80	446.67	502.05	510.92	502.56	435.05	224.02	84.13
80.00°	49.11	154.39	338.26	393.41	405.44	392.63	336.39	151.96	47.83
85.00°	24.26	102.37	246.51	319.89	330.85	317.28	247.46	98.56	20.80
90.00°	10.18	71.30	175.01	265.14	281.96	257.73	181.57	68.99	9.57
95.00°	5.42	52.29	138.20	213.01	234.52	208.78	134.73	53.35	6.21
100.00°	2.45	38.72	99.79	168.71	188.41	163.34	101.48	39.89	2.29
105.00°	1.56	28.36	74.88	128.44	147.01	125.16	72.97	26.35	1.52
110.00°	0.74	11.56	53.49	89.33	109.70	89.96	52.11	12.61	0.83
115.00°	0.25	3.05	35.64	66.31	77.03	64.29	33.74	3.24	0.20
120.00°	0.27	0.82	21.17	42.53	52.05	44.25	19.60	0.79	0.20
125.00°	0.09	0.62	6.04	27.20	35.63	29.45	6.32	0.98	0.09
130.00°	0.09	0.62	1.49	13.05	20.80	12.84	1.39	0.47	0.24
135.00°	0.01	0.62	1.12	1.83	3.78	1.65	0.93	0.74	0.16
140.00°	0.21	0.75	1.71	1.35	1.08	1.54	1.02	0.43	0.05
145.00°	0.04	0.76	0.97	1.44	1.59	0.95	0.82	0.59	0.00
150.00°	0.00	0.50	1.06	1.16	1.38	1.58	1.39	0.38	0.02
155.00°	0.00	0.06	1.30	1.18	0.93	1.03	0.84	0.28	0.09
160.00°	0.00	0.00	0.93	0.70	0.93	0.57	0.82	0.26	0.00
165.00°	0.00	0.14	0.40	0.40	1.53	0.17	0.12	0.20	0.00
170.00°	0.00	0.09	0.51	0.26	0.27	0.18	0.33	0.00	0.00
175.00°	0.00	0.07	0.00	0.07	0.00	0.00	0.00	0.00	0.00
180.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Spacing Criterion:

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.83
Four luminaires	1.83

Zonal Lumen Summary

Zone	Lumens	% Fixture
0.00° - 10.00°	83.20	2.02%
10.00° - 20.00°	251.85	6.11%
20.00° - 30.00°	431.94	10.48%
30.00° - 40.00°	569.26	13.82%
40.00° - 50.00°	653.95	15.87%
50.00° - 60.00°	662.91	16.09%
60.00° - 70.00°	566.08	13.74%
70.00° - 80.00°	389.74	9.46%
80.00° - 90.00°	234.91	5.70%
90.00° - 100.00°	143.05	3.47%
100.00° - 110.00°	80.61	1.96%
110.00° - 120.00°	36.50	0.89%
120.00° - 130.00°	12.69	0.31%
130.00° - 140.00°	2.03	0.05%
140.00° - 150.00°	0.58	0.01%
150.00° - 160.00°	0.34	0.01%
160.00° - 170.00°	0.11	0.00%
170.00° - 180.00°	0.01	0.00%
0.00° - 90.00°	3,843.82	93.30%
90.00° - 180.00°	275.92	6.70%
0.00° - 180.00°	4,119.74	100.00%

