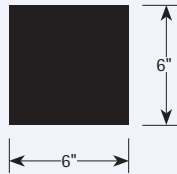




FEATURES

- Internal extruded aluminum chassis and outer steel housing provides excellent strength and rigidity
- Direct/Indirect Luminaire
- Up to 2-lamp T8 in cross section
- Die-cast aluminum end caps provide stylish, subtle fixture ends
- Controls compatible
- Available with lenses or parabolic louvers
- Wide assortment of lighting distributions
- Excellent for schools, offices and retail applications

SHAPE AND DIMENSIONS



PROJECT INFORMATION

Project Name	Type
Catalog No.	Date

CONSTRUCTION

The outer housing of the Form 4 is constructed of 20 gauge steel. This steel housing is wrapped around multiple aluminum extrusions to give the housing the durability and rigidity of an aluminum extruded housing. The end caps are constructed of die cast aluminum ensuring that there are no light leaks. All fasteners are concealed and maintained with a minimum amount of tolerance to ensure that fixture integrity is maintained.

FINISH

Standard housing finish is powder coat matte white. Other powder coat finishes are available as an option. Pre-plated steel finishes are available in bright chrome, polished brass and satin medium bronze. End caps and connectors are finished the same as the housing on all painted parts. Cast end caps and connectors on pre-plated units are painted flat black.

SHIELDING

Form 4 is available with a parabolic louver or acrylic lens.

—Parabolic louvers are constructed of anodized aluminum with either a low iridescent specular or semi-specular finish.

—A variety of lenses are available.

MOUNTING

The F4 is designed to be installed with cables, stems, surface mounted. Corners and connectors are available and constructed of heavy-duty steel to assure rigid joints. Where patterns or rows are used it is recommended that the factory be provided with a layout diagram.

LABELS AND ELECTRICAL

- UL 1598 or CSA
- Prewired w/ T8 electronic ballasts
- Quick connect plugs standard
- Damp label on most models

ORDERING INFORMATION

EXAMPLE: F4-20-2UT8-CM48-A12-EU-MW

F4		T8							
MODEL		LAMP TYPE		SUSPENSION LENGTH		BALLAST		VOLTAGE	FINISH
F4 Form 4		T8 T8		48 48" 96 96"		E Electronic, Instant Start (Standard for T8) EP Electronic, Programmed Start ED Electronic, Dimming (Must specify) ESD Electronic, Step Dimming		U 120V-277V 120 120V 277 277V 347 347V	MW Matte White (Std.) ZT ZET Metallic Silver See MTX-1 for other color selections.
ROW LENGTH	LAMP PROFILE AND DISTRIBUTION	MOUNTING METHOD		SHIELDING		OPTIONS			
4 4' Single	1U 1-Lamp Uplight	CM Adjustable Aircraft Cable	LD Low Iridescent Semi-Specular Louver	DC Dust Cover					
8 8' Single	1AU 1-Lamp Asymmetric Uplight	PM Pendant Mount	LS Low Iridescent Specular Louver	LR Left/Right Switching (2-Lamp only)					
— Indicate row length over 8' in 4' increments	1UD 1-Lamp Uplight & Downlight	SM Surface Mount (Direct only)	A12 Acrylic Pattern 12 Lens	EL Emergency Battery Pack ^{2,3}					
Note: Rows over 8' will be configured by Alera. Example: 16' will be (2) 8'. Alternate configurations: contact factory.	1D 1-Lamp Downlight	WM Wall Mount, Symmetric Dist.	A19 Acrylic Pattern 19 Lens	EMC One Emergency Circuit ^{2,3,4}					
	1AD 1-Lamp Asymmetric Downlight	WMW Wall Mount, Wall Wash ¹	CA Clear Acrylic Lens (No pattern)	NL Night Light Circuit ^{2,3,4}					
	2U 2-Lamp Uplight	WMR Wall Mount, Room Wash ¹	OA Opal Acrylic Lens (No pattern)	GLR Fast Blow Fuse					
	2UD 2-Lamp Uplight & Downlight	See HGR-1 for other hanging methods.	WCB White Cross Baffle	GMF Slow Blow Fuse					
	2D 2-Lamp Downlight		NA No Shielding	TBAR T-Bar Mounting					
				CSA UL listed or CSA certified for Canada					
				DL Damp Label (Available on most models)					

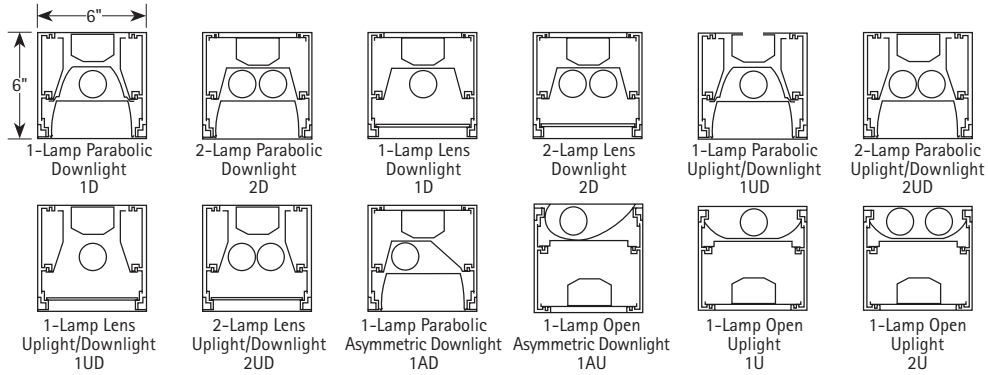
¹For use with asymmetric distributions.

²Specify voltage. For additional, specify quantity before nomenclature (Example: 2EL120, EMC277).

³Not available with all configurations; some limitations apply. Contact factory for details.

⁴One extra feed drop per row with through wiring. (Standard is one 4ft lamp per circuit.)

CROSS SECTION



PHOTOMETRIC DATA

LUMINAIRE DATA Test 6478

Luminaire	F4-1UDT12-49-LE Form 4 Architectural Beam 6" x 6" x 48" 1-Lamp with Semi-specular Louver
Ballast	-
Ballast Factor	1.00
Lamp	-
Lumens per Lamp	3200
Watts	52
Mounting	Pendant
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 0.15 90° = 1.65
Luminous Opening in Feet	Length: 4.00 Width: 0.50 Height: 0.00

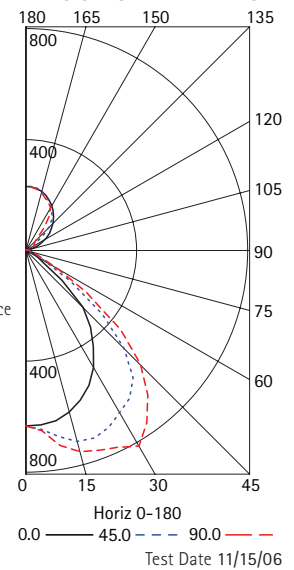
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	3418	3418	3418	3418	3418
30	3039	3642	4207	4885	5071
40	2550	3316	4229	4616	4813
45	2215	3022	3806	4201	4460
50	1432	2269	3014	3508	3743
55	676	966	1886	2552	2505
60	517	581	861	1572	1345
65	420	471	484	751	624
70	330	393	393	393	425
75	291	333	333	333	354
80	310	341	341	341	372
85	432	494	494	494	494

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50				
	RW	70	50	30	10	70	50	30	10	50	30	10	0		
1	68	66	64	62	65	63	61	59	58	56	55	44			
2	63	59	55	52	60	57	53	51	52	49	47	39			
3	58	53	48	45	56	51	47	44	47	44	41	34			
4	54	47	43	39	51	46	41	38	42	39	36	30			
5	50	43	38	34	48	41	37	33	38	34	32	27			
6	46	39	34	30	44	37	33	29	35	31	28	24			
7	43	35	30	27	41	34	29	26	32	28	25	21			
8	40	32	27	24	38	31	27	23	29	25	22	19			
9	37	30	25	21	36	29	24	21	27	23	20	17			
10	35	27	23	19	33	26	22	19	25	21	18	16			

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	576	18.0	27.8
0-40	969	30.3	46.7
0-60	1507	47.1	72.6
0-90	1583	49.5	76.3
90-120	74	2.3	3.6
90-130	133	4.2	6.4
90-150	319	10.0	15.4
90-180	493	15.4	23.7
0-180	2075	64.9	100.0

ENERGY DATA

Total Luminaire Efficiency	64.9%
Luminaire Efficacy Rating (LER)	40
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Intensive Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$6.00 based on 3000 hrs. and \$0.08 per KWH

PHOTOMETRIC DATA

LUMINAIRE DATA Test 7044

Luminaire	F4-2DT12-LD-LE Form 4 Architectural Beam 6" x 6" x 48" Decorative 2-Lamp Luminaire with #43 Louver
Ballast	-
Ballast Factor	1.00
Lamp	-
Lumens per Lamp	3200
Watts	92
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.17 90° = 1.19
Luminous Opening in Feet	Length: 4.00 Width: 0.42 Height: 0.00

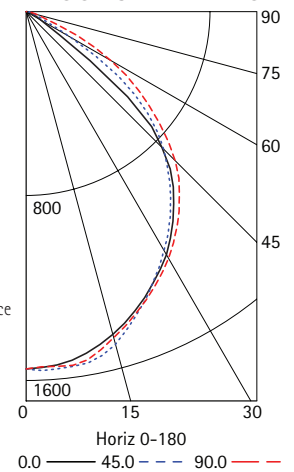
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	9886	9886	9886	9886	9886
30	8967	8922	8804	8974	9100
40	8264	8038	8071	8339	8606
45	7512	7457	7602	7865	8246
50	5702	6280	6848	7037	7506
55	1944	3161	5451	5965	6613
60	961	1192	2883	4600	5433
65	713	849	1243	2941	3669
70	543	656	880	1461	1630
75	396	520	743	965	1139
80	332	443	627	775	959
85	294	809	1250	735	882

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50				
	RW	70	50	30	10	70	50	30	10	50	30	10	0		
1	53	51	50	48	52	50	49	48	48	47	46	43			
2	49	46	44	41	48	45	43	41	44	42	40	37			
3	46	42	38	36	45	41	38	36	40	37	35	33			
4	42	38	34	31	41	37	34	31	36	33	31	29			
5	39	34	30	28	38	34	30	27	33	30	27	26			
6	37	31	27	25	36	31	27	24	30	27	24	23			
7	34	28	25	22	33	28	24	22	27	24	22	21			
8	32	26	22	20	31	26	22	20	25	22	20	19			
9	30	24	20	18	29	24	20	18	23	20	18	17			
10	28	22	19	16	27	22	19	16	22	18	16	15			

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1163	18.2	38.0
0-40	1851	28.9	60.5
0-60	2887	45.1	94.4
0-90	3057	47.8	100.0
0-180	3057	47.8	100.0

ENERGY DATA

Total Luminaire Efficiency	47.8%
Luminaire Efficacy Rating (LER)	N/A
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$N/A based on 3000 hrs. and \$0.08 per KWH

Test Date 11/15/06

PHOTOMETRIC DATA

LUMINAIRE DATA Test 7043

Luminaire	F4-2UDT12-LD-LE Form 4 Architectural Beam 6" x 6" x 48" Decorative 2-Lamp Fluorescent Direct/ Indirect Luminaire with #43 Baffle
Ballast	-
Ballast Factor	1.00
Lamp	-
Lumens per Lamp	3200
Watts	92
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.15 90° = 1.22
Luminous Opening in Feet	Length: 4.00 Width: 0.42 Height: 0.00

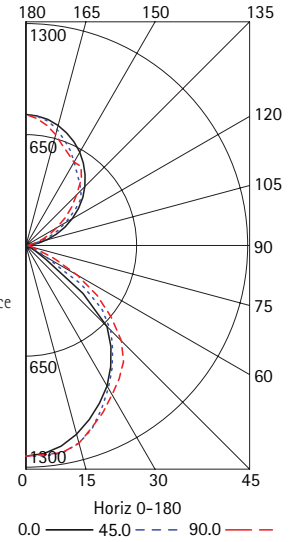
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	7913	7913	7913	7913	7913
30	7043	7191	7154	7324	7480
40	6490	6557	6633	7009	7452
45	6098	6125	6379	6760	7185
50	4356	5084	5811	6020	6499
55	1620	2245	4401	5049	5697
60	807	935	1909	3742	4459
65	591	682	925	2153	2790
70	450	543	712	1049	1330
75	347	421	594	767	965
80	295	369	480	664	812
85	294	294	1176	662	882

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	69	67	64	62	64	62	60	58	54	53	51	35	
2	64	59	55	52	59	55	52	49	48	46	44	31	
3	59	53	48	45	55	50	45	42	43	40	38	27	
4	54	47	42	38	50	44	40	36	39	36	33	24	
5	50	42	37	33	46	40	35	32	35	32	29	21	
6	46	38	33	29	43	36	31	28	32	28	25	19	
7	43	35	30	26	40	33	28	25	29	25	23	17	
8	40	32	27	23	37	30	25	22	27	23	20	15	
9	37	29	24	21	35	27	23	20	25	21	18	14	
10	35	27	22	19	33	25	21	18	23	19	17	13	

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	941	14.7	21.4
0-40	1504	23.5	34.2
0-60	2367	37.0	53.8
0-90	2504	39.1	56.9
90-120	345	5.4	7.8
90-130	643	10.0	14.6
90-150	1338	20.9	30.4
90-180	1897	29.6	43.1
0-180	4401	68.8	100.0

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	68.8%
Luminaire Efficacy Rating (LER)	N/A
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$N/A based on 3000 hrs. and \$0.08 per KWH

Test Date 11/15/06