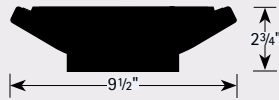


FEATURES

- Parabolic louver combines with curved shape for direct/indirect distribution
- Sturdy 20-gauge steel construction for excellent housing rigidity
- Controls compatible
- Available with optional installed open or closed loop daylight sensors (DSPL, DSL) when daylight dimming systems are desired
- High efficiency with wide distribution
- Flat end caps standard (5/16" length)
- Modular mounting points for convenient hanging locations
- Patented die cast aluminum, tongue and groove couplers provide zero tolerance alignment resulting in consistently straight rows (Patent# 6,796,676B2)
- Aircraft cable mounting

SHAPE AND DIMENSIONS



PROJECT INFORMATION

Project Name	Type
Catalog No.	Date

CONSTRUCTION

- Housing provides both direct and indirect light distribution.
- Up to three T8, T5, T5HO lamps in cross section.
- Modular mounting points maintain convenient, predictable locations and fixture lengths in 48" increments.
- The housing is designed to wrap around the end plates and secures on top with concealed screws to ensure housing tolerances are consistent.
- Standard light distribution is 60% uplight, 40% downlight; additional options are available and are field retrofittable.

FINISH

Housing and all painted parts are treated with a multi-stage phosphate prior to finish. Parts are then finished with a white powder coat for maximum consistent coverage and longevity. Other colors may be specified; refer to Color Guide in e-PSG or contact your local Alera Lighting representative.

SHIELDING

- Low iridescence semi-specular louver (LD) provides both direct and indirect illumination.
- Specular low iridescence (LS) louver snaps in from below for simplicity and ease of installation.
- Gloss white painted louver.

MOUNTING

To maintain consistent, predictable mounting points, 1- and 3-lamp fixtures use a yoke hanger and 2-lamp units use a single-point mounting system at each hanging location. Fixed cable has a total vertical adjustment of 1 1/4". The end of the cable barrel screws into a standard 1/4-20 bolt brought down from the ceiling. All fixtures are suspended in modular increments and must be supported at each fixture housing end.

CONTROLS COMPATIBILITY

Controls compatible. When used with Occupancy Sensors, most lamp vendors recommend Program Start ballast (EP) to extend lamp life. For daylight sensors installed, see information below.

ARCHITECTURAL SENSORS INSTALLED

Daylight sensors are used to measure available sunlight and reduce electric light for energy savings. Alera sensors are installed to be both accessible and visible below the housing.

DSPL: Philips Luxsense, Mark 7 0-10V dimming ballast. Closed loop sensor measures reflected light in a cone below the sensor. Pre-commissioned by Philips to 45fc standard; modest manual adjustability via sensor ring.

DSL: Lutron EcoSystem, digital dimming ballast. Open loop sensor must be pointed directly at the source of natural light. System requires proprietary commissioning by others.

Additional technical data: see TID sheets, Alera website and sensor manufacturer websites.

LABELS AND ELECTRICAL

- All luminaires are built to UL1598 Standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard.
- Quick-connect plugs standard.

Name:	CVL-2T8-LD-E
Test #:	13633
Efficiency:	87%
LER:	78

Definitions on page 182.

ORDERING INFORMATION

EXAMPLE: CVL-8-2T8-CM48-LD-EU-MW

MODEL	LAMP TYPE AND PROFILE	MOUNTING METHOD	ADJUSTABLE CABLE LENGTH	SHIELDING	VOLTAGE	COLOR
CVL CÛrv Louvered	1T5 One T5 Lamp ¹ 2T5 Two T5 Lamps ¹ 3T5 Three T5 Lamps ¹	FCM18 Fixed Aircraft Cable Mount (2-Lamp only)	48 48" 96 96"	LD Low Iridescence Semi-Specular Louver (Std.) LS Low Iridescence Specular Louver GW White Louver	U 120V-277V 120 120V 277 277V 347 347V	MW Matte White MB Black ZT ZET Metallic Silver
ROW LENGTH	1T5HO One T5HO Lamp ¹ 2T5HO Two T5HO Lamps ¹ 3T5HO Three T5HO Lamps ¹	CM Adjustable Aircraft Cable Mount	Other lengths available on request.			See Color Selection Guide for other colors.
4 4' Single						
8 8' Single						
– Indicate row length over 8' in 4' increments						
DISTRIBUTION		BALLAST		OPTIONS		
Blank	60% Uplight, 40% Downlight	E	Electronic, Instant Start, (Std. for T8)	DC	Dust Cover (T8 and T5 with standard distribution) ^{2, 6, 8}	
0/100	0% Uplight, 100% Downlight ^{2, 6, 8}	EP	Electronic, Programmed Start (Std. for T5 & T5HO, optional for T8)	SCE	Sceptled End Cap (5/16") ⁹	
20/80	20% Uplight, 80% Downlight ^{2, 6, 8}	ELW	Electronic T8, Low Wattage, Instant Start	BN	Bull Nose End Cap (5/16") ⁹	
40/60	40% Uplight, 60% Downlight ^{2, 6, 8}	EPLW	Electronic T8, Low Wattage, Programmed Start	LR	Left/Right Switching (2-Lamp only)	
85/15	85% Uplight, 15% Downlight ^{2, 6, 8}	ED	Electronic, Dimming (Must specify)	IBOB	Inboard/Outboard Switching (3-Lamp only)	
CLC	Center Lamp Cover A/V Mode ^{2, 6, 8}	ESD	Electronic, Step Dimming	EL	One Emergency Battery Pack ^{3, 4}	
		EDUMK7	Universal Voltage, Electronic Dimming Philips Advance Mark 7 (0-10V)	EMC	One Emergency Circuit ^{4, 5}	
		EDULUTES	Universal Voltage, Lutron EcoSystem Digital Dimming Ballast ^{4, 7}	NLC	Night Light Circuit ^{4, 5}	
			Unless specified, Alera will use fewest ballasts possible.	GLR	Fast Blow Fuse	
				GMF	Slow Blow Fuse	
				TBAR	T-Bar Mounting	
				DSPL	Philips LuxSense Daylight Sensor (Must Specify Philips Advance 0-10V Dimming Ballast) ⁴	
				DSL	Lutron Daylight Sensor (Must Specify Lutron EcoSystem [EC5 Series] Dimming Ballast) ^{4, 7}	

¹ T5/T5HO at risk for socket shadow in downlight component.

² Dust cover not available when using these optical distribution covers.

³ Specify voltage. For additional, specify quantity before nomenclature (Example: 2EL120).

⁴ Not available with all configurations; some limitations apply. Contact factory for details.

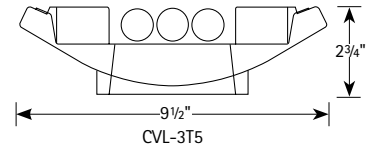
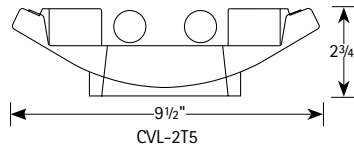
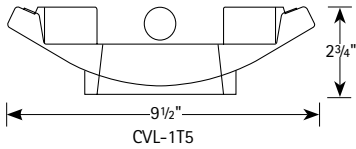
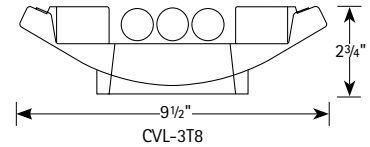
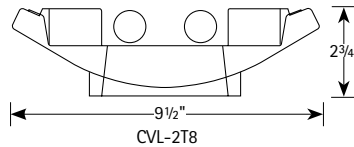
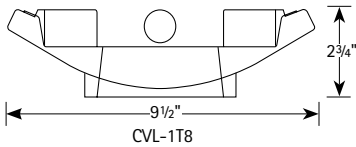
⁵ One extra feed drop per EMC or NLC. (For through wiring, contact factory).

⁶ Optional distribution covers provide approximate patterns. Distribution pattern results vary according to specific lamp configurations. Contact factory for additional information.

⁷ Lutron EcoSystem® series ballast. Contact factory for other Lutron ballasts.

⁸ Ships separately.

CROSS SECTION



PHOTOMETRIC DATA

LUMINAIRE DATA Test 13633

Luminaire	CVL-2T8-LD-E Cûrv Architectural 9.5" x 48" 2-Lamp with 1 x 17 Cell Semi- Specular Louver
Ballast	REL-2P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	58
Mounting	Suspended
Shielding Angle	0° = 29 90° = 25
Spacing Criterion	0° = 1.16 90° = 1.12
Luminous Opening in Feet	Length: 3.58 Width: 0.32 Height: 0.00

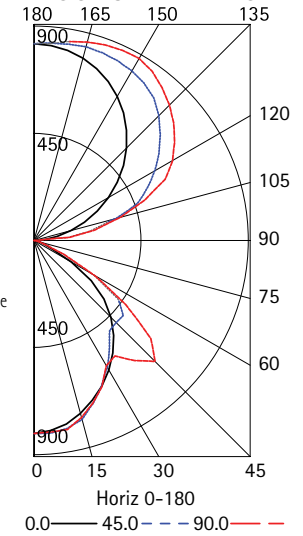
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	7611	7611	7611	7611	7611
30	6813	6824	6672	6596	6586
40	6378	6170	6059	7286	8071
45	6059	5833	6471	8517	9541
50	5598	5482	7148	8814	9355
55	4800	5062	7044	7344	7699
60	3383	4209	5299	5262	5468
65	1779	2379	3113	3179	3179
70	1154	1346	1511	1511	1429
75	908	1016	908	799	762
80	866	812	541	433	325
85	862	647	323	108	0

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	83	80	76	74	75	72	70	67	59	57	55	28				
2	76	70	65	61	69	64	60	56	52	49	46	24				
3	69	62	56	51	63	56	51	47	46	42	39	21				
4	64	55	48	43	57	50	44	40	41	37	34	18				
5	58	49	42	37	53	45	39	34	37	32	29	16				
6	54	44	37	32	49	40	34	30	33	29	25	14				
7	50	39	33	28	45	36	30	26	30	25	22	12				
8	46	36	29	25	42	33	27	23	27	23	20	11				
9	43	32	26	22	39	30	24	20	25	20	17	10				
10	40	30	24	19	36	27	22	18	23	19	16	9				

INDOOR CANDELA PLOT



Test Date 6/2/04

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	606	10.3	11.8
0-40	966	16.4	18.8
0-60	1720	29.2	33.5
0-90	1893	32.1	36.9
90-120	952	16.1	18.5
90-130	1501	25.4	29.3
90-150	2542	43.1	49.5
90-180	3237	54.9	63.1
0-180	5130	87.0	100.0

ENERGY DATA

Total Luminaire Efficiency	87.0%
Luminaire Efficacy Rating (LER)	78
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.08 based on 3000 hrs. and \$0.08 per KWH

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13588

Luminaire	CVL-3T8-LD-E Cûrv Louver Architectural Curve 9.5" x 48" 3-Lamp with 1 x 17 Cell Semi- Specular Center Louver
Ballast	REL-3P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	85
Mounting	Suspended
Shielding Angle	0° = 29 90° = 25
Spacing Criterion	0° = 1.16 90° = 1.40
Luminous Opening in Feet	Length: 3.58 Width: 0.32 Height: 0.00

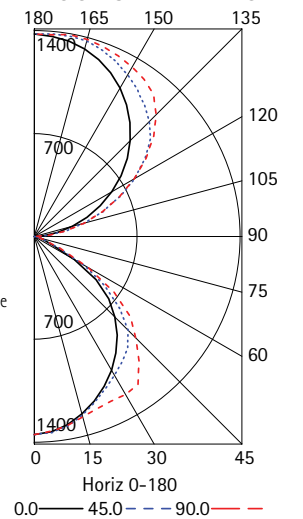
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	12647	12647	12647	12647	12647
30	11392	11294	11815	12867	13453
40	10745	10794	12106	13100	13578
45	10285	10564	11999	12304	12942
50	9647	10174	11036	11489	12498
55	8387	9174	9632	10222	10861
60	5901	6840	7460	7479	7874
65	3068	3446	4380	4447	4424
70	1978	2033	2143	2170	2143
75	1597	1597	1561	1561	1597
80	1461	1353	1353	1353	1353
85	1617	1294	1078	1078	1078

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	86	82	79	76	78	75	72	70	62	60	58	32				
2	78	72	67	63	71	66	62	58	55	52	49	27				
3	72	64	58	53	65	59	53	49	49	45	42	24				
4	66	57	50	45	60	52	46	42	43	39	36	21				
5	60	51	44	39	55	47	41	36	39	34	31	18				
6	56	45	38	34	51	42	36	31	35	30	27	16				
7	51	41	34	29	47	38	32	27	32	27	24	14				
8	48	37	30	26	43	34	28	24	29	24	21	13				
9	44	34	27	23	40	31	25	22	26	22	19	11				
10	41	31	25	21	38	29	23	19	24	20	17	10				

INDOOR CANDELA PLOT



Test Date 4/8/02

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1021	11.7	13.2
0-40	1686	19.4	21.8
0-60	2878	33.1	37.3
0-90	3144	36.1	40.7
90-120	1088	12.5	14.1
90-130	1868	21.5	24.2
90-150	3460	39.8	44.8
90-180	4580	52.6	59.3
0-180	7724	88.8	100.0

ENERGY DATA

Total Luminaire Efficiency	88.8%
Luminaire Efficacy Rating (LER)	80
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.00 based on 3000 hrs. and \$0.08 per KWH

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13673

Luminaire	CVL-2T5HO-LD-EP
Cûrv Louver	Architectural Curve
Architectural Curve	9.5" x 48" 2-Lamp with 1 x 17 Cell Semi-Specular Louver
Ballast	ICN-2S54
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	119
Mounting	Suspended
Shielding Angle	0° = 29 90° = 25
Spacing Criterion	0° = 1.15 90° = 1.04
Luminous Opening in Feet	Length: 3.58 Width: 0.32 Height: 0.00

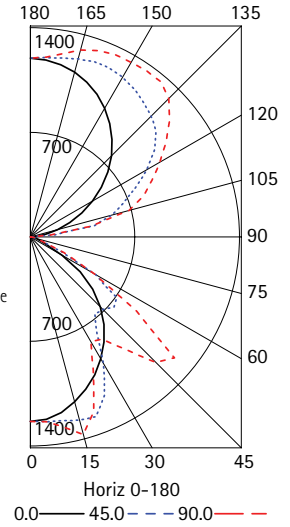
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	11595	11595	11595	11595	11595
30	10220	11511	10589	8918	8766
40	9383	10254	8242	10426	11959
45	8783	8916	9115	13288	15759
50	7952	7689	10671	15758	18389
55	6667	6962	11582	13842	14219
60	4623	6070	9527	8738	9189
65	2512	3468	5091	5358	5491
70	1703	2033	2418	2500	2418
75	1380	1597	1743	1779	1706
80	1245	1407	1515	1515	1461
85	1294	1402	1186	1186	1186

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0			
	RW	70	50	30	10	70	50	30	10	50	30	10	0	0	0	
1	85	81	78	75	77	74	71	69	60	58	57	29				
2	77	71	66	62	70	65	61	57	53	50	48	25				
3	71	63	57	52	64	57	52	48	47	43	40	22				
4	65	56	49	44	59	51	45	41	42	38	34	19				
5	59	50	43	38	54	45	39	35	38	33	30	16				
6	55	44	38	33	50	41	35	30	34	29	26	14				
7	50	40	33	28	46	37	31	27	31	26	23	13				
8	47	36	30	25	42	33	27	23	28	23	20	11				
9	43	33	27	22	40	30	25	21	25	21	18	10				
10	41	30	24	20	37	28	22	19	23	19	16	9				

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	88.4%
Luminaire Efficacy Rating (LER)	66
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.64 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	971	10.9	12.3
0-40	1510	17.0	19.2
0-60	2708	30.4	34.4
0-90	2998	33.7	38.1
90-120	1424	16.0	18.1
90-130	2257	25.4	28.7
90-150	3843	43.2	48.8
90-180	4870	54.7	61.9
0-180	7868	88.4	100.0

Test Date 7/28/04

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13694

Luminaire	CVL-3T5HO-LD-EP
Cûrv Louver	Architectural Curve
Architectural Curve	9.5" x 48" 3-Lamp with 1 x 17 Cell Semi-Specular Louver
Ballast	ICN-4S54-90C-2LS
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	185
Mounting	Suspended
Shielding Angle	0° = 29 90° = 25
Spacing Criterion	0° = 1.14 90° = 1.55
Luminous Opening in Feet	Length: 3.58 Width: 0.32 Height: 0.00

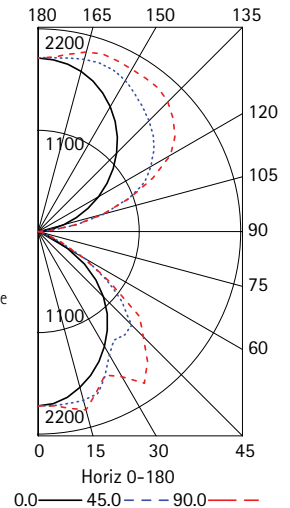
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	17768	17768	17768	17768	17768
30	15612	17034	16762	18140	19735
40	14289	15442	17957	21845	22654
45	13314	14311	19121	20197	21446
50	11972	13360	17409	18798	20976
55	10025	12253	14628	15136	15284
60	6897	9396	11031	9753	10429
65	3602	4647	5958	6203	6425
70	2280	2610	2885	2967	3022
75	1779	1960	1997	2033	2142
80	1569	1623	1623	1623	1786
85	1617	1186	1402	1402	1402

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0			
	RW	70	50	30	10	70	50	30	10	50	30	10	0	0	0	
1	86	82	79	76	78	75	72	70	61	59	58	30				
2	78	72	67	63	71	66	62	58	54	51	49	26				
3	72	64	58	53	65	58	53	49	48	44	41	23				
4	66	57	50	45	60	52	46	42	43	39	35	20				
5	60	51	44	39	55	46	40	36	38	34	31	17				
6	56	45	38	34	50	42	36	31	35	30	27	15				
7	51	41	34	29	47	38	32	27	31	27	23	14				
8	48	37	30	26	43	34	28	24	29	24	21	12				
9	44	34	27	23	40	31	25	21	26	22	19	11				
10	41	31	25	20	38	28	23	19	24	20	17	10				

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	89.2%
Luminaire Efficacy Rating (LER)	64
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.75 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1492	11.2	12.5
0-40	2480	18.6	20.8
0-60	4250	31.8	35.7
0-90	4604	34.5	38.7
90-120	1985	14.9	16.7
90-130	3288	24.6	27.6
90-150	5702	42.7	47.9
90-180	7301	54.7	61.3
0-180	11905	89.2	100.0

Test Date 9/3/04