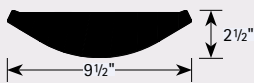


FEATURES

- Elegant, sophisticated appearance
- Direct/indirect with side louvers
- Two, three, or four T8, T5, or T5HO lamps in cross section
- 20-gauge steel housing with aluminum die cast components
- Controls compatible
- Available with optional installed open or closed loop daylight sensors (DSPL, DSL) when daylight dimming systems are desired
- Choice of solid (CVSL) or perforated (CVPL) louver blades
- Flat end caps standard (5/16" in length)
- Patented die cast aluminum joining system (Patent# 6,796,676 B2) ensures straight rows
- Modular mounting points for convenient hanging locations

SHAPE AND DIMENSIONS



PROJECT INFORMATION

Project Name	Type
Catalog No.	Date

CONSTRUCTION

- Two to four T8, T5, or T5HO lamps in cross section
- Housing provides both direct and indirect light distribution
- Modular mounting points maintain convenient, predictable locations and fixture lengths in 48" increments.
- The exact shape of the housing is maintained by the use of a patented inner die cast plate (Patent# 6,796,676 B2) at each fixture end throughout the row to provide consistently straight runs with no snaking.
- The housing is designed to wrap around the plate and secures on top with concealed screws to ensure housing tolerances are consistent.

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 the Color Selection Guide or contact your local Alera Lighting representative.

SHIELDING

Model CVSL includes two solid (non-perforated) white cross baffles, one on each side of the luminaire. Model CVPL includes two perforated white cross baffles, one on each side of the luminaire. An acrylic overlay (OLAY) option is available when T8 lamps are used.

MOUNTING

- Designed for ceiling suspension with an aircraft cable mechanism.
- Fixed cable has a total vertical adjustment of 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.

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.

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.

Name:	CVPL-278-70/30-E
Test #:	13801
Efficiency:	92.9%
LER:	75

ORDERING INFORMATION

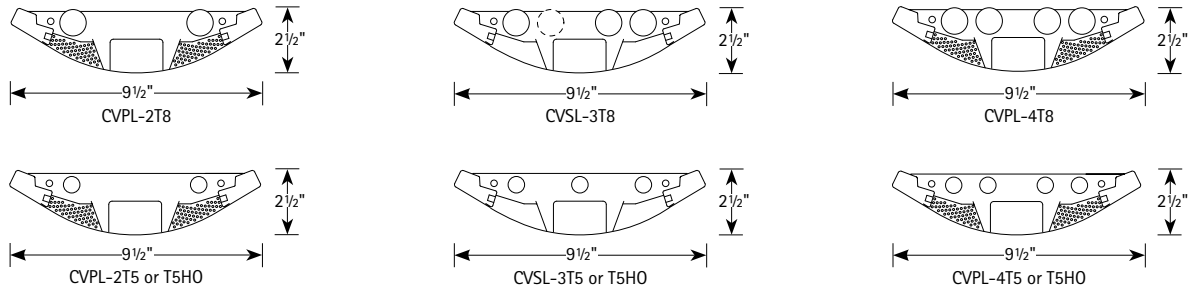
EXAMPLE: CVSL-8-3T8-CM96-EU-MW-SCE

MODEL	DISTRIBUTION	ADJUSTABLE CABLE LENGTH	OVERLAY	VOLTAGE	FINISH
CVSL curVista Solid Baffle	Blank 70% Uplight, 30% Downlight	48 48"	Blank None (Std.)	U 120V-277V	MW Matte White (Std.)
CVPL curVista Perf Baffle	50/50 50% Uplight, 50% Downlight ^{1,6}	96 96"	OLAY Acrylic Lens Overlay (Above baffles; for dust cover see Options)	120 120V	ZT ZET Metallic Silver
	40/60 40% Uplight, 60% Downlight ^{1,6}	Other lengths available on request.		277 277V	See Color Selection Guide for other colors.
	(Will vary with lamp and shielding options)			347 347V	
ROW LENGTH	LAMP TYPE AND PROFILE	MOUNTING METHOD	BALLAST	OPTIONS	
4 4' Single	2T5 Two T5 Lamps	FCM18 Fixed Cable Mount (2-Lamp only) 18"	E Electronic, Instant Start, (Std. for T8)	DC Dust Cover (N/A T5HO) ⁶	
8 8' Single	3T5 Three T5 Lamps		EP Electronic, Programmed Start (Std. for T5 & T5HO, optional for T8)	SCE Sculpted curVista End Cap (5/16") ⁶	
– Indicate row length over 8' in 4' increments	4T5 Four T5 Lamps	CM Adjustable Aircraft Cable Mount (Std.)	ELW Electronic T8, Low Wattage, Instant Start	BN Bull Nose End Cap (5/16") ⁶	
Note: Rows over 8' will be configured by Alera. Example: 16' will be (2) 8'. Alternate configurations: contact factory.	2T5HO Two T5HO Lamps		EPLW Electronic T8, Low Wattage, Programmed Start	LR Left/Right Switching (2-Lamp only)	
	3T5HO Three T5HO Lamps		ED Electronic, Dimming (Must specify)	IBOB Inboard/Outboard Switching (3-Lamp only)	
	4T5HO Four T5HO Lamps		ESD Electronic, Step Dimming	EL One Emergency Battery Pack ^{2,3}	
	2T8 Two T8 Lamp		EDUMK7 Universal Voltage, Electronic Dimming Philips Advance Mark 7 (0-10V) ³	EMC One Emergency Circuit ^{3,4}	
	3T8 Three T8 Lamps		EDULUTES Universal Voltage, Lutron EcoSystem Digital Dimming Ballast ^{3,5}	NLC Night Light Circuit ^{3,4}	
	4T8 Four T8 Lamps			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) ³	
				DSL Lutron Daylight Sensor (Must Specify Lutron EcoSystem [EC5 Series] Dimming Ballast) ^{3,5}	

Unless specified, Alera will use fewest ballasts possible.

CURVES / CVSL

CROSS SECTION



PHOTOMETRIC DATA

LUMINAIRE DATA Test 13801

Luminaire	CVSL/CVPL-2T8-E-MW4 curVista Architectural Curve
	9.5" x 48" 2-Lamp with 2 Rows of Matte White Flat Perforated Baffles
Ballast	REL-2P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	64
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.12 90° = 1.16
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

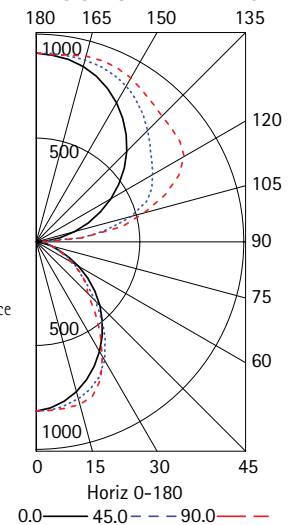
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	13268	13268	13268	13268	13268
30	11448	11918	12425	11993	11974
40	10498	11093	10392	9457	9329
45	9969	10521	9232	8219	8081
50	9320	9700	8104	7598	7927
55	8543	8657	7181	7323	7351
60	7651	7619	6870	6447	6414
65	6587	6626	6125	5663	5701
70	5331	5855	5426	4998	4903
75	4717	5221	4843	4906	4969
80	4406	4688	5344	5531	5531
85	4296	5791	7658	8219	8219

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	88	84	80	77	79	76	73	70	60	58	57	26	23
2	80	73	68	63	72	66	62	58	53	50	47	23	20
3	73	65	58	53	66	59	53	49	47	43	40	19	17
4	67	57	50	45	60	52	46	41	42	38	34	17	15
5	61	51	44	39	55	46	40	36	38	33	30	15	13
6	57	46	39	33	51	42	35	31	34	29	26	13	11
7	52	41	34	29	47	38	32	27	31	26	23	12	10
8	48	37	31	26	44	34	28	24	28	23	20	11	9
9	45	34	27	23	41	31	25	21	26	21	18	10	8
10	42	31	25	21	38	29	23	19	24	19	16	9	7

INDOOR CANDELA PLOT



Test Date 12/13/04

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	622	10.5	11.3
0-40	974	16.5	17.8
0-60	1534	26.0	28.0
0-90	1823	30.9	33.3
90-120	1206	20.4	22.0
90-130	1811	30.7	33.0
90-150	2910	49.3	53.1
90-180	3659	62.0	66.7
0-180	5481	92.9	100.0

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

ENERGY DATA

Total Luminaire Efficiency	92.9%
Luminaire Efficacy Rating (LER)	75
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.20 based on 3000 hrs. and \$0.08 per KWH

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13802

Luminaire	CVSL/CVPL-2T8-50/50-E-MW4 curVista Architectural Curve
	48" x 9.5" 2-Lamp with 2 Rows Flat Perf Baffles & Perf Lamp Separator
Ballast	REL-2P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	62
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.13 90° = 1.09
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

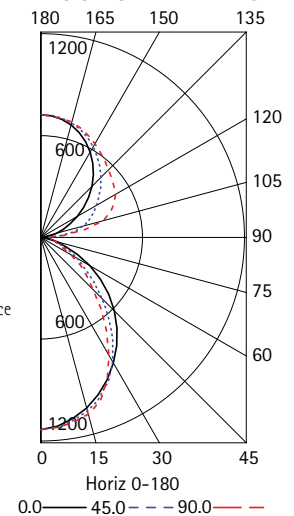
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	18428	18428	18428	18428	18428
30	16053	16147	15903	15189	15076
40	14791	14748	13176	11922	11688
45	14067	13790	11695	10314	10038
50	13195	12612	10206	8991	8940
55	12148	11239	8884	8288	8117
60	10810	9800	7977	7000	6707
65	9168	8397	6934	5740	5354
70	7282	7235	5759	4950	4855
75	6038	6227	5158	5346	5472
80	5531	5438	6094	6281	6188
85	5043	6911	8966	9713	9713

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	79	75	72	70	72	69	67	65	59	57	55	34	29
2	72	66	62	58	66	61	57	54	49	46	43	25	22
3	66	59	53	49	61	54	49	43	39	41	37	24	22
4	61	52	46	41	56	49	43	39	41	37	34	22	20
5	56	47	40	36	51	44	38	34	37	33	30	20	18
6	51	42	36	31	47	39	34	30	34	29	26	17	16
7	48	38	32	28	44	36	30	26	31	26	23	16	14
8	44	35	29	25	41	32	27	23	28	24	21	14	11
9	41	32	26	22	38	30	24	21	26	22	19	13	10
10	39	29	24	20	36	27	22	19	24	20	17	12	9

INDOOR CANDELA PLOT



Test Date 12/28/04

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	833	14.1	17.6
0-40	1292	21.9	27.3
0-60	2001	33.9	42.3
0-90	2336	39.6	49.4
90-120	702	11.9	14.9
90-130	1078	18.3	22.8
90-150	1826	31.0	38.6
90-180	2390	40.5	50.6
0-180	4726	80.1	100.0

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

ENERGY DATA

Total Luminaire Efficiency	80.1%
Luminaire Efficacy Rating (LER)	67
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.58 based on 3000 hrs. and \$0.08 per KWH

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13803

Luminaire	CVSL/CVPL-2T8-40/60-E-MW4
	curVista Architectural Curve
	48" x 9.5" 2-Lamp with 2 Rows Flat Perf Baffles & Perf Lamp Separator
Ballast	REL-2P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	62
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.13 90° = 1.08
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

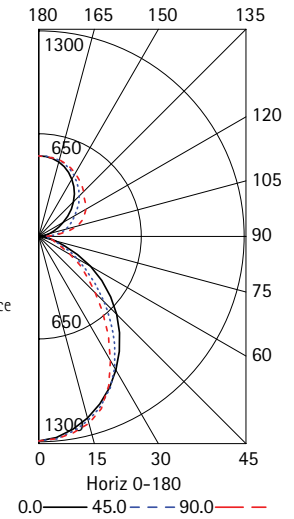
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	21065	21065	21065	21065	21065
30	18328	18365	18046	17125	17050
40	16895	16725	15046	13622	13431
45	16047	15609	13422	11880	11649
50	15044	14233	11802	10333	10130
55	13822	12715	10274	9196	9026
60	12307	11070	8986	7814	7489
65	10401	9399	7781	6433	6048
70	8282	8044	6521	5521	5379
75	6793	6856	5661	5787	5850
80	6188	6000	5653	6750	6563
85	5604	7285	9526	9900	9900

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	70	50	30	10	50	30	10	0	
1	74	71	68	66	69	67	64	62	58	57	55	39	
2	68	63	59	55	64	59	55	52	48	46	43	33	
3	63	56	51	46	58	52	48	44	46	43	40	29	
4	58	50	44	40	54	47	42	38	42	38	34	25	
5	53	45	39	35	50	42	37	33	37	33	30	22	
6	49	40	34	30	46	38	33	29	34	30	27	20	
7	46	37	31	27	43	35	29	26	31	27	24	18	
8	42	33	28	24	40	32	27	23	28	24	21	16	
9	40	31	25	22	37	29	24	21	26	22	19	15	
10	37	28	23	19	35	27	22	19	24	20	17	13	

INDOOR CANDELA PLOT



Test Date 12/28/04

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13804

Luminaire	CVSL/CVPL-3T8-70/30-E-MW4
	curVista Architectural Curve
	48" x 9.5" 3-Lamp with 2 Rows Matte White Flat Perf Blade Baffles
Ballast	REL-3P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	84
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.13 90° = 1.14
Luminous Opening in Feet	Length: 3.48 Width: 0.38 Height: 0.00

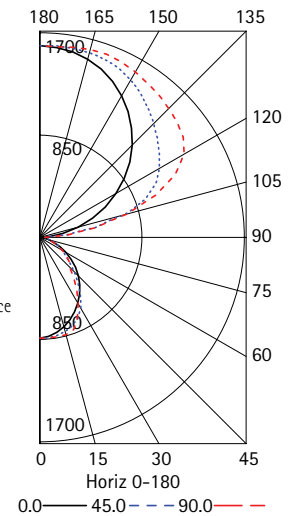
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	6821	6821	6821	6821	6821
30	5931	6184	6391	6043	5978
40	5472	5791	5238	4760	4643
45	5203	5479	4662	4156	4052
50	4888	4964	4103	3888	4040
55	4513	4428	3676	3860	3874
60	4054	3891	3614	3516	3500
65	3525	3409	3351	3178	3139
70	2903	3118	3070	2761	2642
75	2610	2893	2736	2673	2673
80	2578	2719	3047	3094	3047
85	2802	3456	4390	4576	4576

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	70	50	30	10	50	30	10	0	
1	84	80	77	74	74	71	69	66	55	53	51	18	
2	77	70	65	61	68	63	58	54	48	45	43	15	
3	70	62	55	50	62	55	50	46	43	39	36	13	
4	64	55	48	43	57	49	43	39	38	34	31	12	
5	59	49	42	36	52	44	38	33	34	30	26	10	
6	54	43	37	31	48	39	33	29	30	26	23	9	
7	50	39	32	27	44	35	29	25	28	23	20	8	
8	46	35	29	24	41	32	26	22	25	21	18	7	
9	43	32	26	21	38	29	23	19	23	19	16	7	
10	40	29	23	19	35	26	21	17	21	17	14	6	

INDOOR CANDELA PLOT



Test Date 11/16/04

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13770

Luminaire	CVSL-3T8-40/60-E curVista Architectural Curve 48" x 9.5" 3-Lamp with 2 Rows Blade Baffles Et Perf Lamp Separator
Ballast	REL-3P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	88
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.14 90° = 1.08
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

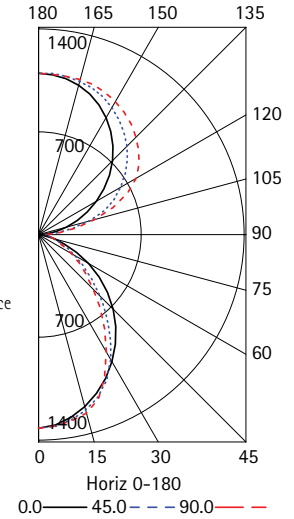
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	21456	21456	21456	21456	21456
30	18741	18911	18441	17426	17332
40	17341	17277	15195	13941	13813
45	16507	16070	13583	12294	12110
50	15500	14588	12005	10814	10713
55	14305	12971	10530	9735	9622
60	12796	11330	9344	8530	8400
65	10940	9669	8282	7434	7242
70	8758	8425	7187	6569	6473
75	7296	7422	6542	6479	6479
80	6844	6563	7406	7500	7313
85	6725	8406	10647	11208	11021

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50				
	RW	70	50	30	10	70	50	30	10	50	30	10	0		
1	71	68	65	63	65	62	60	58	51	50	48	27	0		
2	65	60	55	52	59	55	51	48	45	43	40	23	0		
3	59	53	48	43	54	48	44	40	40	37	34	20	0		
4	54	47	41	37	50	43	38	35	36	32	30	17	0		
5	50	42	36	32	46	39	34	30	32	29	26	15	0		
6	46	38	32	28	42	35	30	26	29	25	23	14	0		
7	43	34	28	24	39	31	26	23	27	23	20	12	0		
8	40	31	25	22	36	29	24	20	24	20	18	11	0		
9	37	28	23	19	34	26	21	18	22	19	16	10	0		
10	35	26	21	17	32	24	19	16	21	17	14	9	0		

INDOOR CANDELA PLOT



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

ENERGY DATA

Total Luminaire Efficiency	73.6%
Luminaire Efficacy Rating (LER)	65
ANSI/IESNA RP-1-2004 Compliance	Yes-VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.69 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	971	11.0	14.9
0-40	1504	17.0	23.1
0-60	2337	26.4	35.9
0-90	2741	31.0	42.1
90-120	1014	11.5	15.6
90-130	1647	18.6	25.3
90-150	2888	32.6	44.3
90-180	3772	42.6	57.9
0-180	6513	73.6	100.0

Test Date 1/3/04

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13805

Luminaire	CVSL/CVPL-4T8-70/30-E-MW4 curVista Architectural Curve 48" x 9.5" 4-Lamp with 2 Rows Flat Perf Blade Baffles
Ballast	B4321120RH-A
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2950
Watts	118
Mounting	Suspended
Shielding Angle	0° = 17 90° = 26
Spacing Criterion	0° = 1.14 90° = 1.23
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

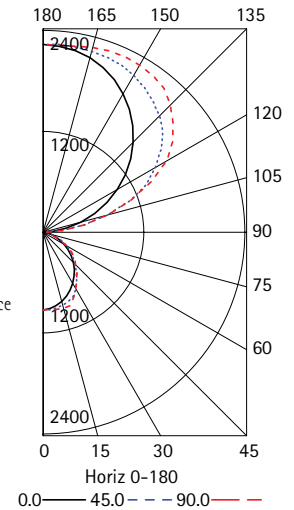
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	15042	15042	15042	15042	15042
30	13196	13873	14662	14474	14568
40	12241	13218	12942	13070	13261
45	11695	12593	12248	12386	12501
50	11042	11701	11625	11954	12511
55	10274	10842	11041	11665	11807
60	9344	10028	10712	10517	10484
65	8205	9360	9784	9091	8590
70	6902	8806	8615	6807	6473
75	6416	8051	6793	6479	6353
80	6469	7125	7313	7406	7125
85	7285	8592	10460	11021	10647

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50				
	RW	70	50	30	10	70	50	30	10	50	30	10	0		
1	83	79	76	73	73	70	67	65	54	52	50	17	0		
2	75	69	64	60	67	61	57	53	47	44	42	14	0		
3	69	61	54	50	61	54	49	45	41	38	35	12	0		
4	63	54	47	42	55	48	42	38	37	33	30	10	0		
5	58	48	41	36	51	43	37	32	33	29	25	9	0		
6	53	43	36	31	47	38	32	28	29	25	22	8	0		
7	49	38	31	27	43	34	28	24	27	22	19	7	0		
8	45	35	28	23	40	31	25	21	24	20	17	6	0		
9	42	31	25	21	37	28	23	19	22	18	15	6	0		
10	39	29	22	18	35	26	20	17	20	16	13	5	0		

INDOOR CANDELA PLOT



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

ENERGY DATA

Total Luminaire Efficiency	90.5%
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

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	721	6.1	6.7
0-40	1150	9.7	10.8
0-60	1917	16.2	18.0
0-90	2334	19.8	21.9
90-120	2276	19.3	21.3
90-130	3737	31.7	35.0
90-150	6500	55.1	60.9
90-180	8346	70.7	78.1
0-180	10680	90.5	100.0

Test Date 1/6/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13798

Luminaire	CVSL-2T5-70/30-EP curVista Architectural Curve
Ballast	ICN-2S54
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	122
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.12 90° = 1.20
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

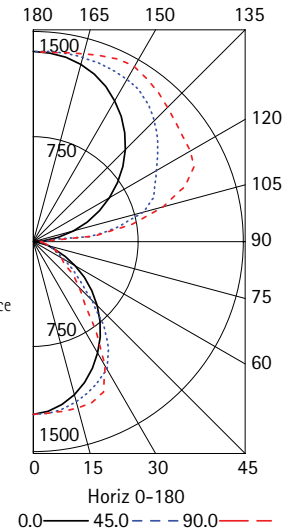
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	20056	20056	20056	20056	20056
30	17256	17933	19794	19456	19249
40	15747	16810	16661	12963	12049
45	14827	16208	13698	11051	10682
50	13803	15018	11068	9725	9497
55	12602	13482	9764	8174	7606
60	11200	11461	8335	7326	7554
65	9669	9592	6972	7589	8012
70	7806	7949	7330	7663	7568
75	6919	6667	7359	7233	7359
80	6563	6844	7875	8438	8344
85	6538	8592	11208	12328	12328

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	89	85	82	79	80	77	74	71	61	59	57	26	
2	82	75	70	65	73	68	63	59	54	51	48	22	
3	75	66	60	54	67	60	54	50	48	44	41	19	
4	68	59	52	46	61	53	47	42	43	38	35	17	
5	63	52	45	40	56	48	41	37	38	34	30	15	
6	58	47	40	34	52	43	36	32	35	30	26	13	
7	54	42	35	30	48	39	32	28	31	27	23	12	
8	50	38	31	27	45	35	29	25	29	24	21	11	
9	46	35	28	24	42	32	26	22	26	22	19	10	
10	43	32	25	21	39	29	24	20	24	20	17	9	

INDOOR CANDELA PLOT



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

ENERGY DATA

Total Luminaire Efficiency	95.2%
Luminaire Efficacy Rating (LER)	69
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.48 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	953	10.7	11.2
0-40	1494	16.8	17.6
0-60	2280	25.6	26.9
0-90	2681	30.1	31.6
90-120	1998	22.5	23.6
90-130	2946	33.1	34.8
90-150	4662	52.4	55.0
90-180	5794	65.1	68.4
0-180	8476	95.2	100.0

Test Date 2/4/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13799

Luminaire	CVSL-2T5-50/50-EP curVista Architectural Curve
Ballast	ICN-2S54
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	122
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.14 90° = 1.16
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

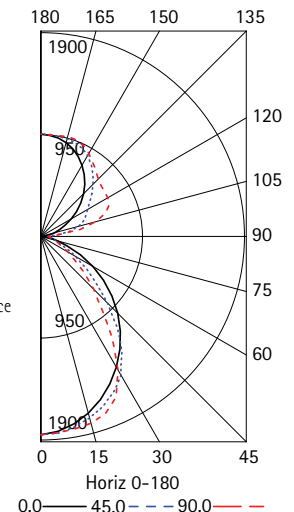
AVG. LUMINANCE (Candela/Sq. M.)

Angle	0.0	22.5	45.0	67.5	90.0
0	30101	30101	30101	30101	30101
30	26448	26937	28065	27200	26994
40	24503	25140	23589	19785	18765
45	23322	23920	20237	16737	16070
50	21933	22211	16943	14208	13474
55	20265	20038	14588	11779	10870
60	18266	17484	12210	9800	9344
65	15678	14792	10092	8667	8243
70	12471	12328	8948	7996	7806
75	10253	10315	8366	8617	8680
80	9375	9094	9938	10688	10500
85	8779	10460	14757	15877	15691

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	80	77	74	71	74	71	69	66	61	59	58	38	
2	73	68	63	59	68	63	59	55	54	51	49	33	
3	67	60	54	50	62	56	51	47	49	45	42	28	
4	62	54	47	43	57	50	45	40	43	39	36	25	
5	57	48	42	37	53	45	39	35	39	35	31	22	
6	53	43	37	32	49	41	35	31	36	31	28	19	
7	49	39	33	29	45	37	31	27	32	28	25	17	
8	45	36	30	25	42	34	28	24	30	25	22	16	
9	42	33	27	23	39	31	26	22	27	23	20	14	
10	40	30	24	21	37	28	23	20	25	21	18	13	

INDOOR CANDELA PLOT



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

ENERGY DATA

Total Luminaire Efficiency	80.7%
Luminaire Efficacy Rating (LER)	59
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$4.07 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1402	15.8	19.5
0-40	2193	24.6	30.5
0-60	3367	37.8	46.9
0-90	3909	43.9	54.4
90-120	970	10.9	13.5
90-130	1481	16.6	20.6
90-150	2509	28.2	34.9
90-180	3277	36.8	45.6
0-180	7186	80.7	100.0

Test Date 2/4/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13800

Luminaire	CVSL-2T5-40/60-EP curVista Architectural Curve 48" x 9.5" 2-Lamp with 2 Rows Matte White Flat Blade Reflectors and Perforated
Ballast	ICN-2S54
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	116
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.14 90° = 1.15
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

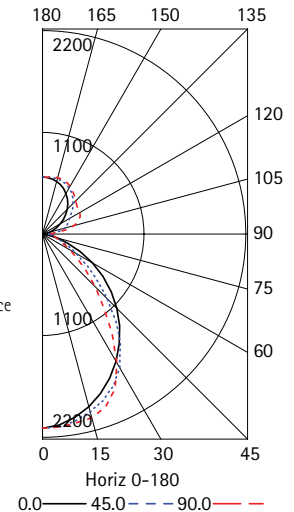
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	34187	34187	34187	34187	34187
30	29870	30546	31449	30434	30227
40	27584	28370	26309	22590	21804
45	26200	26844	22700	19316	18694
50	24592	24693	19223	16259	15500
55	22649	22025	16490	13595	12942
60	20252	18949	13772	11526	11103
65	17334	15870	11633	10015	9592
70	13756	13327	10186	8948	8853
75	11259	11133	9309	9561	9686
80	10313	9750	10969	11625	11625
85	9340	12141	16064	17185	17372

COEFFICIENTS OF UTILIZATION (%)

RCR	80			70			50			0		
	RW	70	50	30	10	70	50	30	10	50	30	10
1	76	73	70	67	71	69	66	64	61	59	58	43
2	70	64	60	56	65	61	57	54	54	51	49	37
3	64	57	52	48	60	54	49	46	48	45	42	32
4	59	51	45	41	55	48	43	39	44	39	36	28
5	54	46	40	36	51	44	38	34	39	35	32	25
6	50	41	36	31	47	40	34	30	36	31	28	22
7	47	38	32	28	44	36	31	27	33	28	25	20
8	44	34	29	25	41	33	28	24	30	26	22	18
9	41	32	26	22	38	30	25	22	28	23	20	16
10	38	29	24	20	36	28	23	20	26	21	19	15

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1588	17.8	24.0
0-40	2478	27.8	37.5
0-60	3805	42.8	57.6
0-90	4406	49.5	66.7
90-120	665	7.5	10.1
90-130	1005	11.3	15.2
90-150	1694	19.0	25.7
90-180	2198	24.7	33.3
0-180	6605	74.2	100.0

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

ENERGY DATA

Total Luminaire Efficiency	74.2%
Luminaire Efficacy Rating (LER)	57
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$4.21 based on 3000 hrs. and \$0.08 per KWH

Test Date 2/4/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13818

Luminaire	CVSL-3T5-70/30-EP curVista Architectural Curve 48" x 9.5" 3-Lamp with Two Rows Matte White Flat Blade Baffles
Ballast	ICN4S5490C2LS
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	183
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.12 90° = 1.20
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

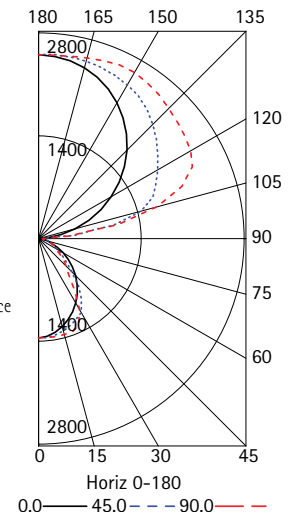
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	22010	22010	22010	22010	22010
30	18986	19775	21824	21260	20960
40	17362	18595	18064	14260	13516
45	16392	18004	14896	12409	12179
50	15272	16715	12309	11169	11169
55	13992	14957	11041	9678	9281
60	12535	12828	9670	9051	9507
65	10901	10824	8513	9630	9861
70	8948	9186	9186	8806	8615
75	8177	7925	8617	8491	8554
80	8063	8250	9375	10031	9750
85	8406	10647	13636	14757	14570

COEFFICIENTS OF UTILIZATION (%)

RCR	80			70			50			0		
	RW	70	50	30	10	70	50	30	10	50	30	10
1	92	88	84	81	82	78	75	72	60	58	56	19
2	84	77	71	66	74	69	64	60	53	49	47	16
3	77	68	61	55	68	60	55	50	47	43	39	14
4	70	60	53	47	62	54	47	42	41	37	34	12
5	64	53	46	40	57	48	41	36	37	32	29	11
6	59	48	40	35	52	43	36	31	33	29	25	10
7	55	43	35	30	48	39	32	27	30	25	22	9
8	51	39	32	26	45	35	29	24	27	23	20	8
9	47	35	28	23	42	32	26	21	25	21	17	7
10	44	32	25	21	39	29	23	19	23	19	16	7

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1049	7.9	7.8
0-40	1642	12.3	12.3
0-60	2525	18.9	18.8
0-90	3000	22.5	22.4
90-120	3459	25.9	25.8
90-130	5200	39.0	38.8
90-150	8327	62.4	62.2
90-180	10398	77.9	77.6
0-180	13399	100.4	100.0

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

ENERGY DATA

Total Luminaire Efficiency	100.4%
Luminaire Efficacy Rating (LER)	73
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.29 based on 3000 hrs. and \$0.08 per KWH

Test Date 2/8/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13820

Luminaire	CVSL-3T5-40/60-EP curVista Architectural Curve
	48" x 9.5" 3-Lamp with Two Rows Matte White Flat Blade Baffles and Perforated Lamp
Ballast	ICN4S5490C2LS
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	177
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.14 90° = 1.14
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

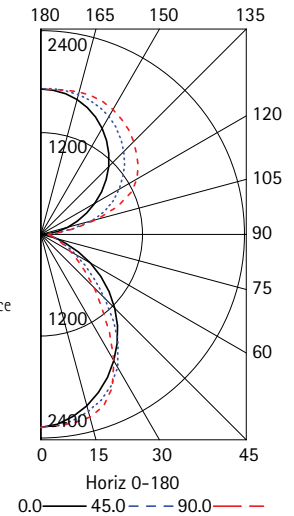
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	36987	36987	36987	36987	36987
30	32295	33084	34005	32652	32370
40	29815	30751	28307	24290	23568
45	28318	29077	24450	20974	20398
50	26542	26669	20919	17931	17222
55	24466	23813	18051	15355	14872
60	21945	20512	15368	13414	13251
65	18798	17257	13290	12018	11903
70	14946	14660	11804	10995	11043
75	12580	12517	11007	11133	11196
80	11813	11063	12563	13219	12844
85	11394	14196	18492	19613	19240

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	79	76	73	70	73	70	67	65	58	56	54	31				
2	73	67	62	58	66	61	57	54	51	48	46	27				
3	67	59	53	49	61	54	50	46	46	42	39	23				
4	61	53	46	42	56	49	43	39	41	37	34	20				
5	56	47	41	36	51	44	38	34	37	32	29	18				
6	52	42	36	31	47	39	34	29	33	29	26	16				
7	48	38	32	28	44	36	30	26	30	26	23	14				
8	45	35	29	24	41	32	27	23	28	23	20	13				
9	42	32	26	22	38	30	24	21	25	21	18	12				
10	39	29	23	20	36	27	22	19	23	19	16	11				

INDOOR CANDELA PLOT



Test Date 2/8/05

PHOTOMETRIC DATA

LUMINAIRE DATA Test 13828

Luminaire	CVSL-4T5-70/30-EP curVista Architectural Curve
	48" x 9.5" 4-Lamp with Two Rows Matte White Flat Blade Baffles
Ballast	ICN4S5490C2LS
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	238
Mounting	Suspended
Shielding Angle	0° = 16 90° = 33
Spacing Criterion	0° = 1.13 90° = 1.20
Luminous Opening in Feet	Length: 3.48 Width: 0.19 Height: 0.00

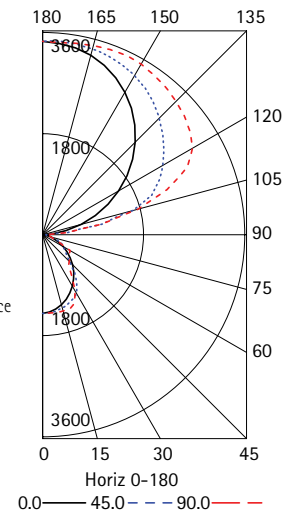
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	22791	22791	22791	22791	22791
30	19850	20659	22783	21956	21693
40	18276	19551	18871	15556	15301
45	17336	19017	15863	14803	15356
50	16234	17576	14081	15044	16158
55	15014	15894	13879	15355	16433
60	13610	13838	13838	16833	18363
65	12018	12250	14330	14407	12943
70	10138	11233	13280	9853	9567
75	9498	10819	9749	9435	9435
80	9469	9844	10594	11063	10969
85	10274	12328	15504	16438	16251

COEFFICIENTS OF UTILIZATION (%)

RCR	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	87	83	79	76	76	73	70	68	55	53	52	16				
2	79	72	67	62	69	64	59	56	49	46	43	14				
3	72	63	57	52	63	56	51	46	43	39	36	12				
4	66	56	49	44	58	50	44	39	38	34	31	10				
5	60	50	43	37	53	44	38	34	34	30	26	9				
6	55	45	37	32	49	40	33	29	30	26	23	8				
7	51	40	33	28	45	36	30	25	27	23	20	7				
8	47	36	29	24	42	32	26	22	25	21	18	6				
9	44	33	26	21	39	29	23	20	23	19	16	6				
10	41	30	23	19	36	27	21	17	21	17	14	5				

INDOOR CANDELA PLOT



Test Date 2/16/05