

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat. #: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Quantity: \_\_\_\_\_

**LED**

## BDR T24 LED Board/Driver 2x4 Prismatic Retrofit Kit

### Features:

- High performance, long life LED technology
- 0-10V dimming drivers standard
- Up to over 140 lumens per watt
- Pre-wired components and driver quick-disconnect allows for quick and easy installation, saving on labor costs
- A wide variety of lumen packages allows for flexibility in design and helps maximize energy savings
- Replaces up to 4 lamp T8 systems

### Applications:

For use in most existing 2x4 prismatic troffer & surface box luminaires.  
 For dry/indoor use only.

*Note: Contractor/engineer must ensure proper fit in existing luminaire housing.*

### Ambient Operating Temp:

- -30°C to 40°C

### Predicted Lifetime:

- L90 > 60,000hrs (reported)
- L70 > 200,000hrs (calculated)
- 90.6% lumen maint. @ 60,000 hrs (based on LM-80, TM-21 and in-situ laboratory testing)

### Construction:

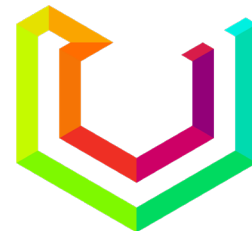
- Pre-wired boards and 0-10V driver
- Kit comes with (4) 2' LED boards wired for (2) 4' rows of LEDs
- Magnetic fasteners come standard and allow for easy application and adjustment of boards onto existing housing

### Certifications:

- UL 1598c listed for US and Canada, suitable for damp locations
- RoHS compliant
- DesignLights Consortium qualified on specific configurations (refer to DLC qualified products list for exact model numbers) <http://designlights.org/>

### Warranty:

- 5 year limited system warranty see [www.UnamiLighting.com](http://www.UnamiLighting.com) for complete warranty terms and conditions



Powered by:



### Ordering Guide:

example: BDR T24 2 MD UV 840

Series	Type	# of Rows	Output	Voltage	Shielding	CRI/CCT	Options			
BDR	T24	2		UV						
<b>BDR</b>	<b>T24</b> 2x4 Prismatic troffer/surface box kit	<b>2</b> (2) 2' rows of LEDs	<b>SL</b> Super Low	<b>UV</b> 120-277	<b>Blank</b> No Shielding	<b>830</b> 80 CRI/3000K	<b>Blank</b> No Options			
			<b>VL</b> Very Low					<b>FR</b> Frosted Acrylic Diffusers	<b>835</b> 80 CRI/3500K	<b>LVL</b> 0-10V Dimming Leads for Easy Field Access
			<b>LW</b> Low						<b>840</b> 80 CRI/4000K	
			<b>ML</b> Medium Low						<b>850</b> 80 CRI/5000K	
			<b>MD</b> Medium						<b>BAA</b> Buy American Act Compliant	
			<b>MH</b> Medium High							
			<b>HI</b> High							
			<b>VH</b> Very High							
<b>SH</b> Super High										

### Accessories (order separately)

- **A12(x)** Pattern 12 Prismatic Acrylic Lens (x = specify exact dimensions)
- **PW(x)** Prismatic White Acrylic Lens (x = specify exact dimensions)
- **A23F(x)** Frosted High Efficiency Pattern 23 Prismatic Acrylic Lens (x = specify exact dimensions)

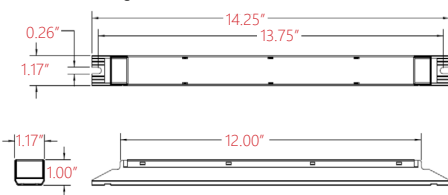
### Performance Chart:

Catalog #	QPL/UL Reference #	Nominal Lumens (3000K)	Watts (3000K)	LPW (3000K)	Nominal Lumens (3500K)	Watts (3500K)	LPW (3500K)	Nominal Lumens (4000K)	Watts (4000K)	LPW (4000K)	Nominal Lumens (5000K)	Watts (5000K)	LPW (5000K)
BDR T24 2 SL UV 8xx	RLK T24 2 SL UV 8xx	2600	20	132.6	2610	20	133.2	2686	20	137.0	2712	20	138.4
BDR T24 2 VL UV 8xx	RLK T24 2 VL UV 8xx	3352	25	134.1	3366	25	134.6	3463	25	138.5	3498	25	139.9
BDR T24 2 LW UV 8xx	RLK T24 2 LW UV 8xx	3736	28	133.4	3751	28	134.0	3859	28	137.8	3898	28	139.2
BDR T24 2 ML UV 8xx	RLK T24 2 ML UV 8xx	4117	31	132.8	4134	31	133.3	4253	31	137.2	4295	31	138.6
BDR T24 2 MD UV 8xx	RLK T24 2 MD UV 8xx	4551	35	130.0	4570	35	130.6	4701	35	134.3	4748	35	135.7
BDR T24 2 MH UV 8xx	RLK T24 2 MH UV 8xx	5256	41	127.6	5278	41	128.1	5430	41	131.8	5484	41	133.1
BDR T24 2 HI UV 8xx	RLK T24 2 HI UV 8xx	6546	47	139.3	6573	47	139.9	6763	47	143.9	6830	47	145.3
BDR T24 2 VH UV 8xx	RLK T24 2 VH UV 8xx	7278	53	137.3	7308	53	137.9	7519	53	141.9	7594	53	143.3
BDR T24 2 SH UV 8xx	RLK T24 2 SH UV 8xx	8559	64	133.7	8595	64	134.3	8842	64	138.2	8931	64	139.5

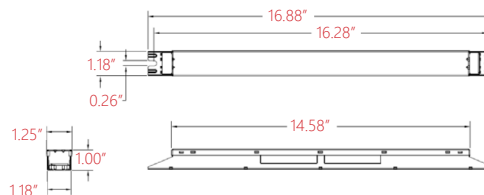
### Schematic:



Driver for SL through VH



Driver for SH models

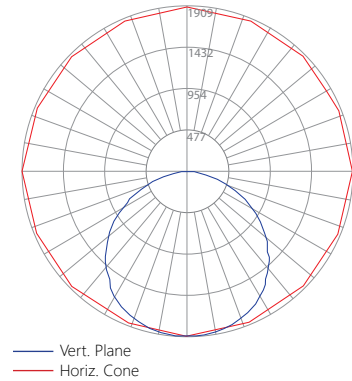


## Photometric Data:

### BDR T24 2 MH UV 830

Test No.: LLIA000933-008  
 Luminaire Lumens: 5,256 lm  
 Luminaire Watts: 41.2W  
 Efficacy: 127.6 LPW  
 Spacing Criterion (0-180): 1.32  
 Spacing Criterion (90-270): 1.28

Luminance Data (cd/sq.m)			
Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2664	2680	2620
55	2597	2527	2603
65	2356	2381	1303
75	1861	1056	281
85	574	399	354



### Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	697.03	13.30
0-30	1490.61	28.40
0-40	2459.63	46.80
0-60	4388.91	83.50
0-80	5224.86	99.40
0-90	5256.15	100.00
90-120	0.00	0.00
90-130	0.00	0.00
90-150	0.00	0.00
90-180	0.00	0.00
0-180	5256.15	100.00

### Coefficients Of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 0.20

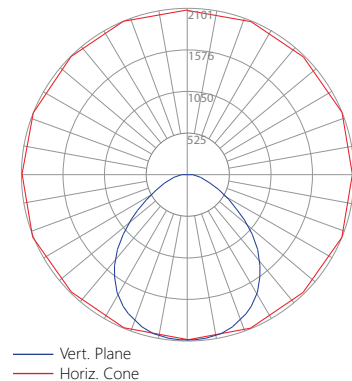
RC	80				70				50				30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106			
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90			
2	100	92	86	80	98	90	85	80	87	82	78	84	80	76			
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64			
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55			
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48			
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42			
7	66	53	44	38	64	52	43	38	50	43	37	49	42	37			
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27			

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08

### BDR T24 2 MH UV 830 w/ A12 lens

Test No.: LLIA000933-005A  
 Luminaire Lumens: 4,620 lm  
 Luminaire Watts: 41.2W  
 Efficacy: 112.1 LPW  
 Spacing Criterion (0-180): 1.24  
 Spacing Criterion (90-270): 1.20

Luminance Data (cd/sq.m)			
Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2584	2476	2316
55	1926	1762	1623
65	1419	1111	1275
75	1295	1034	1474
85	1586	1544	1960



### Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	760.67	16.50
0-30	1600.39	34.60
0-40	2554.48	55.30
0-60	3970.97	85.90
0-80	4522.46	97.90
0-90	4619.38	100.00
90-120	1.06	0.00
90-130	1.06	0.00
90-150	1.06	0.00
90-180	1.06	0.00
0-180	4620.44	100.00

### Coefficients Of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 0.20

RC	80				70				50				30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106			
1	110	105	102	98	107	103	100	96	99	96	93	95	93	91			
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77			
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67			
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59			
5	80	68	59	53	78	67	59	53	64	58	52	63	57	52			
6	74	61	53	47	72	60	53	47	59	52	47	57	51	46			
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41			
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37			
9	60	47	40	34	59	47	39	34	46	39	34	45	39	34			
10	57	44	36	31	55	43	36	31	43	36	31	42	35	31			

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08