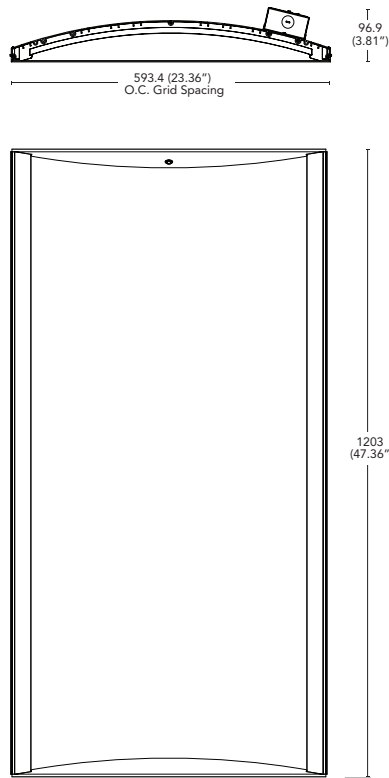


# 2' x 4' LED Troffer

# SORAA® barrel

Recessed LED troffer with a beautiful barrel shaped luminous lens providing ambient illumination from Soraa's unparalleled Vivid Color™ and Natural White™ accurate color and white rendering full spectrum LED with 95 CRI / 95 R9 and White Rendering Index of 100.



### Soraa LED

The highest possible quality ambient light is provided by Soraa LEDs, available in 3000K, 3500K, and 4000K with 95 CRI / 95 R9. Lumen maintenance is 50,000 hours at 70% lumen output.

### Soraa Optics

Precision formed optical assembly provides beautiful, even light distribution.

### Construction

Injection molded endplates and extruded aluminum frame provide strength, rigidity and tight tolerances. Gridlock features are built into the endplates for additional safety and convenience. Four suspension points and seismic clips are provided. Large access plate is designed in to enable supply connection. Drivers can be accessed via plenum.

### Finish

Durable frame has high reflectance baked matte white enamel finish for luminous uniformity.

### Weight

Luminaire: max. 11567gm; additional battery backup & hardware 1814gm.

### Emergency Battery Pack

Optional 120V-277V integral emergency battery pack is available in 7 or 14 watts to meet critical life-safety lighting requirements. 90-minute batteries provide constant power to the LED system, ensuring code compliance.

### Compliance

Luminaire cULus listed and IC rated. Rated for damp locations. Chicago plenum rated.

### Operating Temperature

Minimum -40°C, 25°C typical.

### Warranty

Five year warranty.



## Build Your Luminaire Sample Part Number: BL24 - 57 - 935 - UNV - DM1

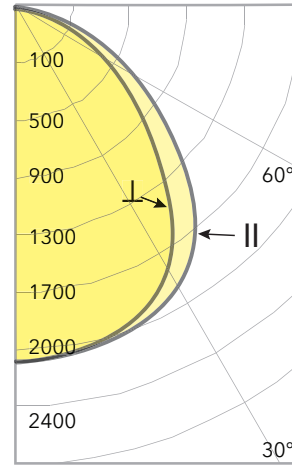
Series	Delivered Lumens	CCT/CRI	Voltage	Driver	Options	Accessories (Order Separately)
BL24	57 5200 lm	930 3000K/95	UNV 120-277V Universal	DM1 0-10V (1% min)	<b>Blank</b> None <b>EM7</b> 7W Emergency Battery Pack Installed <b>EM14</b> 14W Emergency Battery Pack Installed	<b>AMB-W3</b> 3 wire whip for non-dimming option <b>AMB-W4</b> 4 wire whip for non-dimming with emergency battery pack option <b>AMB-W5</b> 5 wire whip for 0-10V dimming option
		935 3500K/95		LU1 Lutron L3DAE Hi-lume 1% EcoSystem LED		
		940 4000K/95		LU2 Lutron L3DA3W Hi-lume 1% 3-wire LED EL1 eldoLED Solo-Drive 0% Dim EL2 eldoLED Eco-Drive 1% Dim		

# Photometrics: Soraa Barrel 2 x 4

## BL24-57 (5200 lm)

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

rc	80				70				50				30				10				0
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85			
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71			
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61			
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52			
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46			
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40			
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36			
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32			
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29			
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26			



### Candlepower

	Along II	45°	Across ⊥
0	0	45	90
5	1952	1952	1952
10	1948	1948	1947
15	1945	1940	1930
20	1934	1920	1901
25	1903	1885	1861
30	1859	1825	1791
35	1784	1737	1689
40	1681	1611	1536
45	1545	1444	1334
50	1373	1245	1111
55	1188	1033	893
60	987	835	714
65	798	665	570
70	630	522	453
75	484	402	349
80	358	293	252
85	238	185	151
90	126	79	48
95	0	0	0

### Spacing Criteria

(II) 1.36 x mounting height,  
(L) 1.28 x mounting height

### UGR

<19

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt
0-30	1566	30.1	30.1
0-40	2564	49.3	49.3
0-60	4267	82	82.1
0-90	5200	100	100
0-180	5200	100	100

### Base

**Configuration**  
Driver: LPL  
CCT: 3500K

### Scaling

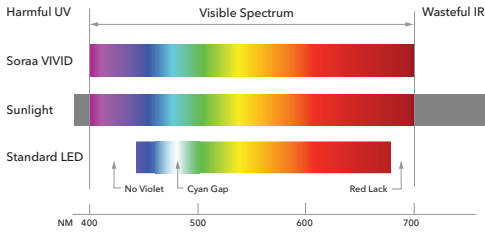
3000K	0.95
4000K	1.03
EldoLed Driver	0.975
Lutron Driver	1.025

## Efficacy

SKU	CCT	Driver	Delivered Lumens	Power (W)	Lm/W
BL24-57-930-UNV-DM1	3000	0-10V, 1% Minimum	4940	87	57
BL24-57-930-UNV-LU1	3000	Lutron L3DAE Hi-lume 1% EcoSystem LED driver	4940	89	56
BL24-57-930-UNV-LU2	3000	Lutron L3DA3W Hi-lume 1% 3-wire LED driver	4940	89	56
BL24-57-930-UNV-EL1	3000	eldoLED Solo-Drive 0% Dim	4940	85	58
BL24-57-930-UNV-EL2	3000	eldoLED Eco-Drive 1% Dim	4940	85	58
BL24-57-935-UNV-DM1	3500	0-10V, 1% Minimum	5200	87	60
BL24-57-935-UNV-LU1	3500	Lutron L3DAE Hi-lume 1% EcoSystem LED driver	5200	89	58
BL24-57-935-UNV-LU2	3500	Lutron L3DA3W Hi-lume 1% 3-wire LED driver	5200	89	58
BL24-57-935-UNV-EL1	3500	eldoLED Solo-Drive 0% Dim	5200	85	61
BL24-57-935-UNV-EL2	3500	eldoLED Eco-Drive 1% Dim	5200	85	61
BL24-57-940-UNV-DM1	4000	0-10V, 1% Minimum	5356	87	62
BL24-57-940-UNV-LU1	4000	Lutron L3DAE Hi-lume 1% EcoSystem LED driver	5356	89	60
BL24-57-940-UNV-LU2	4000	Lutron L3DA3W Hi-lume 1% 3-wire LED driver	5356	89	60
BL24-57-940-UNV-EL1	4000	eldoLED Solo-Drive 0% Dim	5356	85	63
BL24-57-940-UNV-EL2	4000	eldoLED Eco-Drive 1% Dim	5356	85	63

# Soraa Ambient Color and Whiteness Rendering

CCT	CRI	R9	Rf	Rg	Rfh1	Rw	McA
3000	95	95	90	100	90	100	3
3500	95	95	90	100	90	100	3
4000	95	95	90	100	90	70	4



Soraa has engineered the perfect balance between color rendering and white rendering. Soraa's core technology uses a violet LED emitter as the basis for full spectrum light. This allows both Vivid™ color rendering and Natural White™ white rendering, which creates whiteness by exciting fluorescing agents with violet radiation, without the harmful effect of UV.

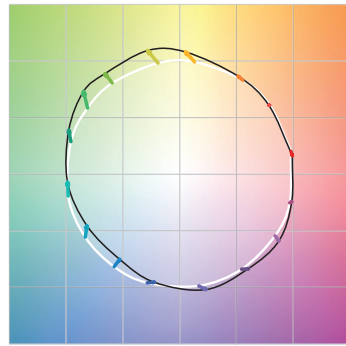
**Rf:** The TM-30 metric for color fidelity (similarity to colors under natural light), a more accurate version of the CRI Ra. Rf is 100 for natural light.

**Rg:** The TM-30 metric for color gamut (whether colors are more saturated than under natural light). Rg is 100 for natural light.

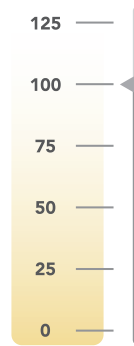
**Rfh1:** The TM-30 metric for color fidelity for red tones. Rfh1 is a more accurate version of the CRI R9. Rfh1 is 100 for natural light.

**Rw:** The Soraa-developed metric for white fidelity. Rw measures the magnitude of excitation of whitening agents within white materials. Rw is 100 for natural light.

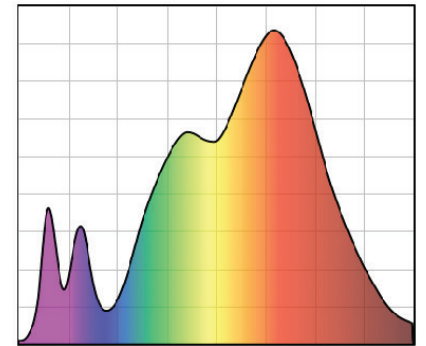
## 3000K



Rf: 90, Rg: 100, Rfh1: 90

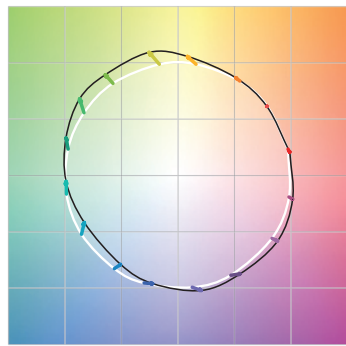


Rw: 100

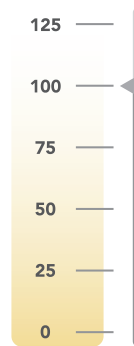


CRI: 95, R9: 95

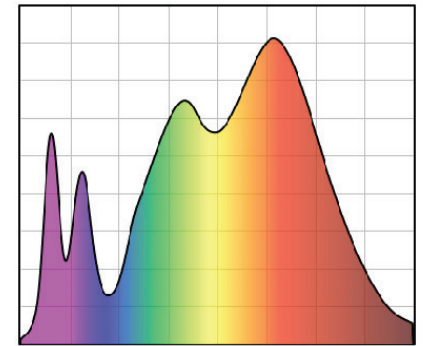
## 3500K



Rf: 90, Rg: 100, Rfh1: 90

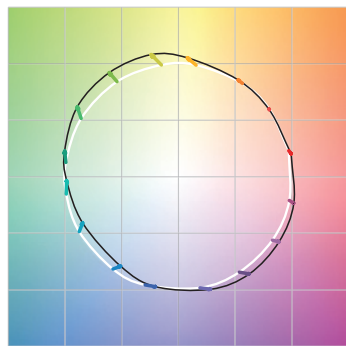


Rw: 100

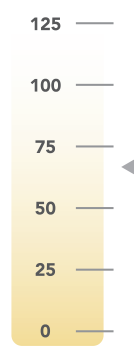


CRI: 95, R9: 95

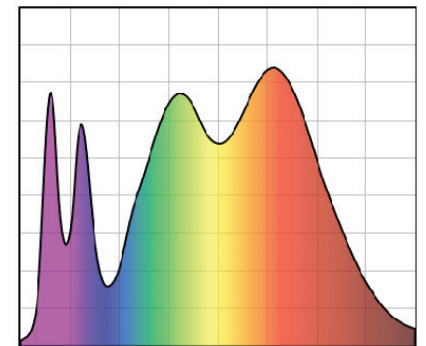
## 4000K



Rf: 90, Rg: 100, Rfh1: 90



Rw: 70



CRI: 95, R9: 95