

# OrgaRail® - Illuminated Handrail

ROUND Ø 1.90in(48mm)



## FEATURES

- Heavy duty stainless steel AISI 316 Satin Brushed.
- Dimensions: 1.9in(48mm) OD
- Curved handrail (10ft/3.04m radius or greater) is available upon request
- Channel for continuous OrgaLED® Top LED strip
- Energy efficient and simply slides into the internal aluminum channel
- Wall and Post Mounts are designed for quick and easy installation
- Available in various colors and luminous intensities
- Made in the USA
- ADA Compliant
- Bug Rating: B0-U0-G0

## MOUNTING

Wall or post mounted, glass infill option or glass mounting.  
\*Glass by others.

## HOW TO SPECIFY YOUR ENERGY EFFICIENT HANDRAIL

As each lighting project is unique, all the components of the OrgaRail® illuminated Handrail are professionally customized. Therefore, it is of great importance to provide fully dimensioned plans, DWG files and detailed drawings, in addition to the useful nomenclature below.

## ILLUMINATED HANDRAIL TECHNICAL DETAIL

Profile	Length	LED	CCT	Control	Beam	Mount	Lens	Connector	Options
<b>HR2</b>	_____	_____	_____	_____	_____	_____	_____	_____	_____
<b>HR2</b> 1.9in (48mm)	X Length in feet	<b>D</b> Deco <b>P</b> Power <b>HP</b> High Power <b>P1</b> Photon 1200 <b>P2</b> Photon 2000 <b>P3</b> Photon 3000 <b>P4</b> Photon 4000	<b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K <b>50</b> 5000K <b>RG</b> RGB <b>R</b> Red <b>G</b> Green <b>B</b> Blue <b>A</b> Wildlife Amber	<b>ND</b> Non Dimming <b>D1</b> 0-10V <b>TRI</b> TRIAC	<b>A</b> Asym. <b>S</b> Sym.	<b>P</b> Post <b>W</b> Wall	<b>LC</b> Clear <b>LF</b> Frosted <b>LA</b> Asym.	<b>I</b> Interior (IP40) <b>E</b> Exterior (IP67)	<b>PR</b> Post Return <b>WR</b> Wall Return <b>EC</b> End Cap <b>CV2D</b> Curved 2D <b>CV3D</b> Curved 3D(spiral) <b>FL</b> Flange Base Kit <b>N</b> None

Specifications may be modified or improved without notification.

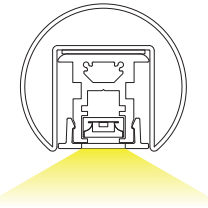
Project

Date

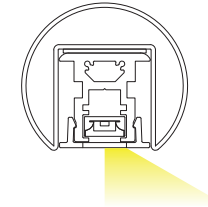
## AVAILABLE PROFILES

### SLIDE-FED (OrgaLED Top only)

#### SYMMETRIC

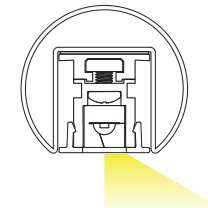


#### ASYMMETRIC

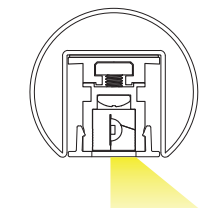


### PUSH-FIT (OrgaLED Side only)

#### STRAIGHT



#### 2D/3D BENDING



## CUSTOM FINISH

Powder Coat \_\_ (RAL #)  
Alloy Composition Coating  
Information available upon request.



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## MOUNTINGS & ACCESSORIES

Project

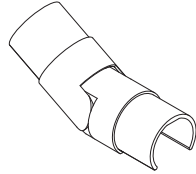
## STANDARD & CUSTOMIZED ANGLES

There are three standard angles for the OrgaRail® Handrails: 90°, Adjustable Up and Adjustable Down angles. Other angles can be customized upon request.

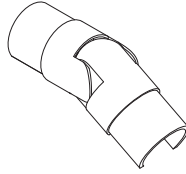
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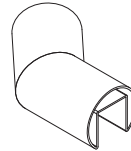
90° Post Return



Adjustable Angle Up



Adjustable Angle Down



Custom Angle

## LENS



Clear Lens



Frosted Lens



Asymmetric Lens  
\*light loss -50%

## INFILLS



Glass Bracket  
(glass by others)



Cable Infill



Railing Infill

## ADDER ACCESSORIES

Profile	Infills
HR2	_____
HR2 1.9in (48mm)	<p><b>GB</b> Glass Brackets (sizes in inches Ø1/4, Ø5/16, Ø3/8, Ø9/16)</p> <p><b>RL</b> Railing (sizes in inches Ø1/2, Ø5/8)</p> <p><b>CL</b> Cable (sizes in inches Ø1/8, Ø5/32, Ø1/4)</p>

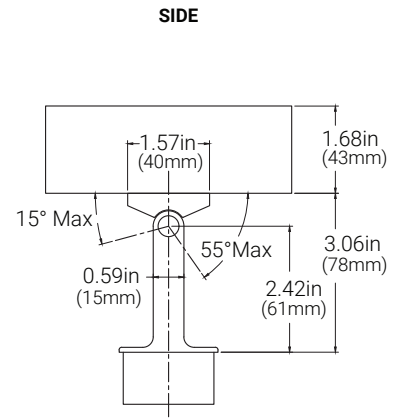
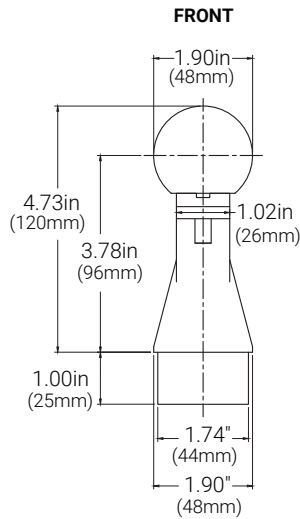
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# OrgaRail® - Illuminated Handrail

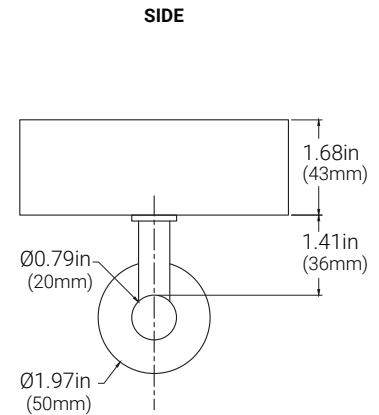
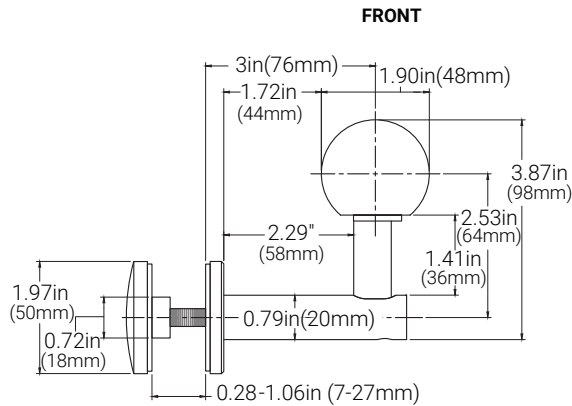
ROUND Ø 1.90in(48mm)

## DIMENSIONS

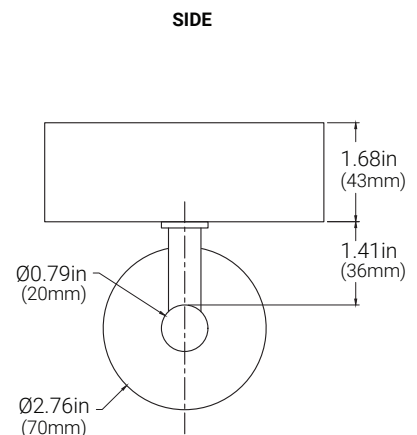
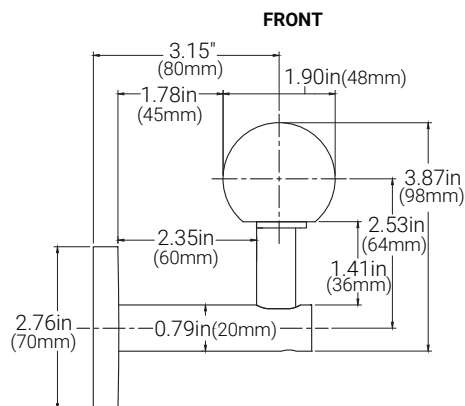
### POST MOUNT



### GLASS MOUNT



### WALL MOUNT



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# OrgaRail® - Illuminated Handrail

ROUND Ø 1.90in(48mm)

## SYMMETRIC LED STRIPS - 24V

Compatible with Slide-Fed Symmetric applications. Can be made Asymmetric with an Asymmetric lens. Flexible UV/IR protected PVC encapsulated LEDs with a continuous run length of up to 66ft (20.1m).

### PART NUMBER & SPECIFICATIONS- SYMMETRIC

Part #	Color	CRI	Lm/ft	Lm/m	W/ft	W/m
<b>OrgaLED® Deco Top</b>						
041101	2700K	>94	35.1	115.1	0.3	0.98
041102	3000K	>94	36	118.1	0.3	0.98
041103	3500K	>94	36	118.1	0.3	0.98
041104	4000K	>94	38.1	125	0.3	0.98
041105	5000K	>94	38.1	125	0.3	0.98
<b>OrgaLED® Power Top</b>						
041201	2700K	>94	116.8	383.1	1	3.3
041202	3000K	>94	120.1	393.9	1	3.3
041203	3500K	>94	120.1	393.9	1	3.3
041204	4000K	>94	127	416.6	1	3.3
041205	5000K	>94	127	416.6	1	3.3
<b>OrgaLED® High Power Top</b>						
041301	2700K	>94	198.6	651.4	1.7	5.6
041302	3000K	>94	204.2	669.8	1.7	5.6
041303	3500K	>94	204.2	669.8	1.7	5.6
041304	4000K	>94	215.9	708.2	1.7	5.6
041305	5000K	>94	215.9	708.2	1.7	5.6
<b>OrgaLED® RGB Top</b>						
011602	RGB 160	>80	42	137.8	1.5	4.9
011597	RGB240	>80	71	232.9	2.2	7.2
<b>OrgaLED® Photon 1200 Top</b>						
051101	2700K	>94	275.4	903.3	1.8	5.9
051102	3000K	>94	291.6	956.4	1.8	5.9
051104	4000K	>94	324	1062.7	1.8	5.9
051105	5000K	>94	315.9	1036.2	1.8	5.9
051106	6500K	>94	311	1020.1	1.8	5.9
<b>OrgaLED® Photon 2000 Top</b>						
051201	2700K	>94	459	1505.5	3	9.8
051202	3000K	>94	486	1594.1	3	9.8
051204	4000K	>94	540	1771.2	3	9.8
051205	5000K	>94	526	1725.3	3	9.8
051206	6500K	>94	518.4	1700.4	3	9.8
<b>OrgaLED® Photon 3000 Top</b>						
051301	2700K	>94	703.8	2308.5	4.6	15.1
051302	3000K	>94	745.2	2444.3	4.6	15.1
051304	4000K	>94	828	2715.8	4.6	15.1
051305	5000K	>94	807.3	2647.9	4.6	15.1
051306	6500K	>94	794.9	2607.3	4.6	15.1
<b>OrgaLED® Photon 4000 Top</b>						
051401	2700K	>94	918	2910.7	6	19
051402	3000K	>94	972	3081.9	6	19
051404	4000K	>94	1080	3424.3	6	19
051405	5000K	>94	1053	3338.7	6	19
051406	6500K	>94	1036.8	3287.2	6	19

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Project

Date

### ORGALED® TOP ACCESSORIES



**Straight Connector Cable**  
16ft(4.9m)  
IP40 / IP67  
#041002



**L-Connector Cable 16ft(4.9m)**  
IP40 / IP67  
#041003



**Jumper Cable 8in(203mm)**  
IP40 / IP67  
#041004



**Top End Cap | IP40 / IP67**  
#041001



**L-Splice Connector**  
IP40 / IP67  
#041005



**Inline Connector**  
IP40 / IP67  
#041006



**IP67 Waterproofing Kit**  
#011511

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## ASYMMETRIC LED STRIPS - 24V

Push-fit LEDs. Designed for 2D/ 3D Bending and Asymmetric applications. Flexible UV/IR protected PVC encapsulated LEDs with a continuous run length of up to 33ft(10.1m).

### PART NUMBER & SPECIFICATIONS

Part #	Color	CRI	lm/ft	lm/m	W/ft	W/m
<b>OrgaLED® Deco Side</b>						
042101	2700K	>94	33.8	110.9	0.4	1.3
042102	3000K	>94	34.7	113.8	0.4	1.3
042103	3500K	>94	34.7	113.8	0.4	1.3
042104	4000K	>94	36.7	120.4	0.4	1.3
042105	5000K	>94	36.7	120.4	0.4	1.3
<b>OrgaLED® Power Side</b>						
042201	2700K	>94	118.1	387.4	1.4	4.6
042202	3000K	>94	121.5	398.5	1.4	4.6
042203	3500K	>94	121.5	398.5	1.4	4.6
042204	4000K	>94	128.4	421.2	1.4	4.6
042205	5000K	>94	128.4	421.2	1.4	4.6
<b>OrgaLED® High Power Side</b>						
042301	2700K	>94	202.5	664.2	2.4	7.9
042302	3000K	>94	208.2	683	2.4	7.9
042303	3500K	>94	208.2	683	2.4	7.9
042304	4000K	>94	220.1	721.9	2.4	7.9
042305	5000K	>94	220.1	721.9	2.4	7.9
<b>OrgaLED® RGB Side</b>						
011760	RGB 160	>80	30	98.4	1.5	4.9
011869	RGB240	>80	51	167.3	2.2	7.2



Project

Date

### ORGALED® PHOTON ACCESSORIES



**White Starter Cable 16ft(4.9m)**  
IP40 / IP67  
#051002



**Jumper Connector**  
IP40 / IP67  
#051004



**Top End Cap**  
IP40 / IP67  
#051001

### ORGALED® SIDE ACCESSORIES



**Side Starter Cable 16ft(4.9m)**  
IP40 | IP67  
#042002



**Side White Jumper Cable 8in(203mm)**  
IP40 | IP67  
#042004



**Side End Cap | IP40**  
#042001

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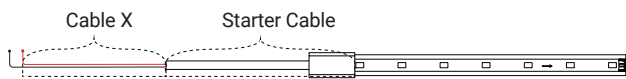
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ROUND Ø 1.90in(48mm)

## CABLE REQUIREMENT

The OrgaLED® LED strips need a minimum voltage at the beginning of the LED strip to function according to the specifications. The table below gives an indication of the maximum cable length based on the cable thickness. The standard OrgaLED® starter cable (20 AWG) has a cable length of 16ft (5m).

In case the required length is longer than the length mentioned in this cable, it is recommended to cut the starter cable down to 1ft and splice a larger gauge cable. Please contact your distributor for a detailed cable calculation.



Cable X Information	LED Strip	Max. Cable Length
<b>OrgaLED Top</b>		24V
20 AWG x 2	3.28ft / 1m	303ft / 92.4
	16.4ft / 5m	57ft / 17.4
	32.8ft / 10m	36ft / 11
	49.2ft / 15m	20ft / 6.1
	65.6ft / 20m	16ft / 4.9
18 AWG x 2	3.28ft / 1m	457ft / 139.3
	16.4ft / 5m	86ft / 26.2
	32.8ft / 10m	56ft / 17.1
	49.2ft / 15m	35ft / 10.7
	65.6ft / 20m	25ft / 7.7
16 AWG x 2	3.28ft / 1m	914ft / 278.6
	16.4ft / 5m	172ft / 52.4
	32.8ft / 10m	90ft / 27.4
	49.2ft / 15m	60ft / 18.3
	65.6ft / 20m	40ft / 12.2
14 AWG x 2	3.28ft / 1m	1521ft / 463.6
	16.4ft / 5m	287ft / 87.5
	32.8ft / 10m	140ft / 42.7
	49.2ft / 15m	96ft / 29.3
	65.6ft / 20m	70ft / 21.3

Cable X Information	LED Strip	Max. Cable Length
<b>Photon 1200</b>		24V
20 AWG x 2	3.28ft / 1m	490ft / 149.35m
	9.84ft / 3m	150ft / 45.72m
	22.96ft / 7m	60ft / 18.29m
18 AWG x 2	3.28ft / 1m	780ft / 237.74m
	9.84ft / 3m	250ft / 76.2m
	22.96ft / 7m	100ft / 30.48m
16 AWG x 2	3.28ft / 1m	1240ft / 377.95m
	9.84ft / 3m	400ft / 121.92m
	22.96ft / 7m	170ft / 51.82m
14 AWG x 2	3.28ft / 1m	1900ft / 579.12m
	9.84ft / 3m	640ft / 195.07m
	22.96ft / 7m	270ft / 82.3m

Cable X Information	LED Strip	Max. Cable Length
<b>Photon 2000</b>		24V
20 AWG x 2	3.28ft / 1m	280ft / 85.35m
	9.84ft / 3m	95ft / 28.96m
	19.68ft / 6m	46ft / 14.02m
18 AWG x 2	3.28ft / 1m	450ft / 137.16m
	9.84ft / 3m	150ft / 45.72m
	19.68ft / 6m	75ft / 22.86m
16 AWG x 2	3.28ft / 1m	720ft / 219.46m
	9.84ft / 3m	240ft / 73.15m
	19.68ft / 6m	120ft / 36.58m
14 AWG x 2	3.28ft / 1m	1150ft / 350.52m
	9.84ft / 3m	380ft / 115.82m
	19.68ft / 6m	190ft / 57.91m

Cable X Information	LED Strip	Max. Cable Length
<b>Photon 3000</b>		24V
20 AWG x 2	3.28ft / 1m	180ft / 54.86m
	9.84ft / 3m	60ft / 18.29m
	16.4ft / 5m	35ft / 10.67m
18 AWG x 2	3.28ft / 1m	290ft / 88.39m
	9.84ft / 3m	100ft / 30.48m
	16.4ft / 5m	60ft / 18.29m
16 AWG x 2	3.28ft / 1m	470ft / 143.26m
	9.84ft / 3m	150ft / 45.72m
	16.4ft / 5m	90ft / 27.43m
14 AWG x 2	3.28ft / 1m	750ft / 228.6m
	9.84ft / 3m	250ft / 76.2m
	16.4ft / 5m	150ft / 45.72m

Cable X Information	LED Strip	Max. Cable Length
<b>Photon 4000</b>		24V
20 AWG x 2	3.28ft / 1m	140ft / 42.67m
	9.84ft / 3m	45ft / 13.72m
	16.4ft / 5m	25ft / 7.62m
18 AWG x 2	3.28ft / 1m	220ft / 67.06m
	9.84ft / 3m	75ft / 22.86m
	16.4ft / 5m	40ft / 12.19m
16 AWG x 2	3.28ft / 1m	360ft / 109.73m
	9.84ft / 3m	120ft / 36.58m
	16.4ft / 5m	70ft / 21.34m
14 AWG x 2	3.28ft / 1m	575ft / 175.26m
	9.84ft / 3m	190ft / 57.91m
	16.4ft / 5m	110ft / 33.53m

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ROUND Ø 1.90in(48mm)

## POWER SUPPLIES, ENCLOSURES & CONTROLLERS

### PART NUMBER & SPECIFICATIONS

\*Forward Phase, Reverse Phase, & 0-10V Dimming Drivers. Remote enclosures available.

Part #	Ingress	Voltage	Wattage	Dimensions (inches)	Description
<b>POWER SUPPLIES - 24V</b>					
045001	IP67	100-305V	20W	7.6 x 1.18 x 0.79 / 193 x 30 x 20	Dimmable LED Driver
045002	IP67	100-305V	40W	5.83 x 1.57 x 0.87/148 x 40 x 22	Dimmable LED Driver
045003	IP67	120-277V	60W	6.3 x 2.24 x 1.5/160 x 57 x 38	Dimmable LED Driver
045004	IP67	120-277V	75W	6.3 x 2.24 x 1.5/160 x 57 x 38	Dimmable LED Driver
045005	IP67	120-277V	96W	7.6 x 2.24 x 1.5/193 x 57 x 38	Dimmable LED Driver
045006	IP67	120-277V	200W	10.1 x 3.03 x 1.8/257 x 77 x 46	Dimmable LED Driver
045007	IP67	120-277V	300W	11.9 x 3.03 x 1.8/302 x 77 x 46	Dimmable LED Driver

Part #	Ingress	Dimensions (inches)	Description
<b>ENCLOSURES</b>			
045008	IP67	9.4 x 2.6 x 1.9 / 239 x 66 x 48	20W Enclosure
045009	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	40W Enclosure
045010	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	60W Enclosure
045011	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	75W Enclosure
045012	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	96W Enclosure
045013	IP67	16.7 x 9.8 x 2.3 / 424 x 249 x 58	200W Enclosure
045014	IP67	16.7 x 9.8 x 2.3 / 424 x 249 x 58	300W Enclosure

Part #	Description
<b>CONTROLLERS</b>	
011344	180W Digital Controller
011345	720W Digital Controller
011341	Digital Controller & Power Supply Combination
011420	Nicolaude DE3 DMX 512 Controller
011403	Nicolaude DINA-DR1 DMX 512 Controller
011396	Switchex 40W Wall Mount Dimmable Power Supply
011397	Switchex 100W Wall Mount Dimmable Power Supply



Project

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20W Dimmable Driver



75W Dimmable Driver



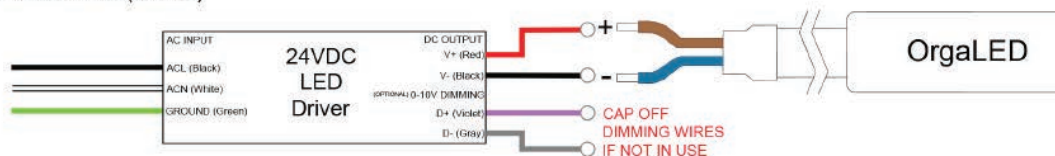
Digital Controller (180W, 720W)



Nicolaude DE3 DMX 512 Controller

## ELECTRICAL DETAILS

\*Regular Connection (Mono)



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