



4" ROUND BIOS® DOWNLIGHT 2000 LUMENS MAX

Spectrum's A Spec 4" recessed round downlight is illuminated by BIOS® to provide healthy, low energy lighting that promotes improved sleep, better health and well-being.

LUMENS AND WATTAGE CHART					
PART NUMBER	LUMENS	SOURCE LUMENS ¹	DELIVERED LUMENS ²	SYSTEM WATTS	LPW
RDFO4	BI12L	1200	543	15	36
RDFO4	BI20L	2000	1271	30	42

PROJECT: _____
TYPE: _____



AVAILABLE HOUSING TYPES

R_FO4BI - New Construction / 20L Max



FIXTURE HOUSING SPECIFICATION

SERIES	LUMENS ¹	CCT (M/P RATIO)	BEAM	BIOS PROTOCOL	DRIVER / VOLTAGE	OPTIONS	
RDFO4 RWFO4	Downlight Wall Wash	BI12L 1200 Lm BI20L 2000 Lm	30K 3000K (0.74) 35K 3500K (0.83) 40K 4000K (0.95)	WD 47°	DY Dynamic ST Static	DS10, DO10, DALI_ 10% 0-10V 1% 0-10V DALI Control E_ Non-Dimming	1 120V 2 277V BH27 ³ 27" Solid Bars H12 12" - 24" Expandable Bars CB24 24" C-Channel Bars

- Illuminated by BIOS® to provide healthy, low energy lighting that promotes improved sleep, better health and well-being.
- BIOS® SkyBlue® lighting solutions contribute to satisfying Circadian Lighting Design the WELL Building Standard v1 and v2.
- Highest M/P Ratio available in the market.
- Frame constructed of #20 ga. galvanized steel to resist corrosion.
- A variety of architectural powdercoat and anodized finishes are available.
- 5 year warranty on fixture and electronics.
- Self-Flanged one piece trim spun
- UL verification #490.

TRIM SPECIFICATION

TRIM	FINISH	FLANGE FINISH	TRIM OPTIONS ⁸
RD4FBI ⁴ RW4FBI ⁴	SG ² Semi-Diffuse HZ Haze Full Diffuse MW Matte White MB Matte Black PT Platinum Silver OB Oil Rubbed Bronze CH Charcoal AC Anodic Champagne AS Anodic Sapphire AM Anodic Malachite SN Sun Gold CO Copper Metallic GH Graphite AMB Anti Microbial Finish CC ⁵ Custom Color	MF Matching Flange WF ⁷ White Flange	DOWNLIGHT SOX ⁹ Micro Prism Solite™ Lens GLX Clear Glass Lens PGX Prismatic Glass Lens FGX Frosted Glass Lens SOW Micro Prism Solite™ Lens Wet Location GLW Clear Glass Lens Wet Location PGW Prismatic Glass Lens Wet Location FGW Frosted Glass Lens Wet Location WALL WASH SKX ⁹ Linear Wall Wash Lens SKW Linear Wall Wash Lens Wet Location

EXAMPLE: RDFO4BI12L30KWDDYDS101/BH27/RD4FBISGWFSOX

NOTES:

1 Nominal Source Lumens at any CCT 2 Nominal Delivered Lumens 80 CRI at Any CCT with WD-SG-SOX 3 Standard Bar Hangers 4 "F" Indicates Self-Flange Trim 5 Standard Finish 6 Contact Factory for Special Finishes 7 For Use with Non-White Trim Finish 8 Contact Factory for Special Lenses/Louvers 9 Standard Lens

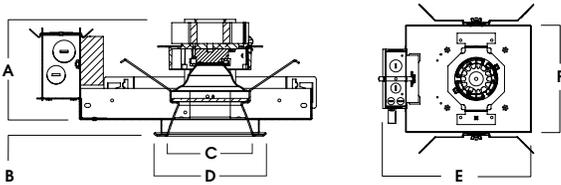
Dimensions and values shown are nominal. Spectrum Lighting continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.



HOUSING DIMENSIONS

RDFO4BI - DOWNLIGHT NEW CONSTRUCTION / 20L MAX

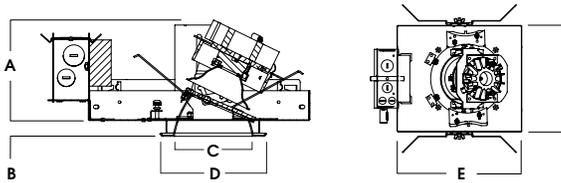
Non-IC rated, thermally protected frame-in kit for new construction. Non-IC designation requires insulation must be minimum of 3" from housing.



A	B	C	D	E	F
4.9	.625	4.0	5.75	13.2	9.5
124.46 mm	15.2 mm	101.6 mm	146.0 mm	335.3 mm	241.3 mm

RWFO4BI - WALL WASH NEW CONSTRUCTION / 20L MAX

Non-IC rated, thermally protected frame-in kit for new construction. Non-IC designation requires insulation must be minimum of 3" from housing.



A	B	C	D	E	F
5.1	.625	4.0	5.8	13.2	9.5
129.54 mm	15.2 mm	101.6 mm	147.3 mm	335.3 mm	241.3 mm

FEATURES

APPLICATION

Versatile 4" Round aperture recessed LED downlight illuminated by BIOS® to provide healthy, low energy lighting that promotes improved sleep, better health and well-being.

BIOS® SkyBlue®

These Spectrum Lighting fixtures are embedded with BIOS® SkyBlue® circadian solutions to produce the healthy "blue sky" light signal needed to stimulate human circadian biology. This specific light wavelength communicates directly with human biology through a non-visual photoreceptor to regulate circadian rhythms, providing healthier sleep patterns and ultimately, better health. BIOS® SkyBlue® lighting solutions is designed to provide the specific circadian stimulus required to improve overall sleep quality, allowing our bodies to better recover during the night. Having an improved circadian rhythm can positively impact daytime productivity and overall feelings of well-being.

ELECTRONICS

The BIOS® Bio-Dimming® module pairs with the BIOS SkyBlue® dynamic light engine to deliver a completely customizable and spectrally-modulated light source that reduces melanopic lux while also keeping photopic lux at a constant. The Bio-Dimming module's on-board sensor allows for compatibility with all standard architectural dimming protocols with no specific interface requirements.

FIXTURE

Two-stage optical system for smooth light distribution and focus control. Quick change LED module with interchangeable optics for job site adjustment and fixture maintenance. Shallow plenum design. Tool-less driver and j-box access. Post-lock trim retention torsion springs.

CONSTRUCTION

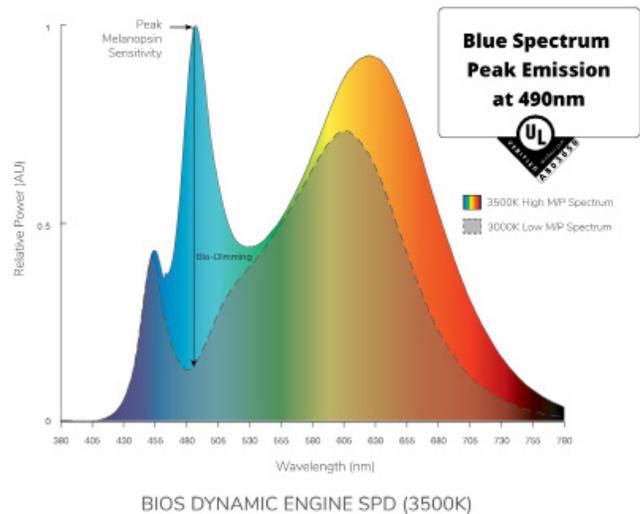
Housing/frame constructed of #20 ga. galvanized steel to resist corrosion. Self-Flanged one piece trim spun from 0.063" thick high purity aluminum and finished to specification.

TRIM FINISH

A variety of architectural powdercoat and anodized finishes are available. Matte white self-flange is standard.

CODE COMPLIANCE

BAA Compliant. Non-IC rated. ETL certified to meet US and Canadian standards. Suitable for dry or damp locations. Optional Wet location. Manufactured and tested to UL standards No. 1598/8750. UL verification #490.



PHOTOMETRIC DATA - 4" ROUND DOWNLIGHT

RDFO4 BI20L 35K WD XX RD4FBI SG SOX 100 percent

CANDLEPOWER CURVE TEST SP-00932_1	INTENSITY CANDELA 0° AZIMUTH	ZONAL LUMENS		SINGLE UNIT: PERFORMANCE INITIAL FOOTCANDLES BASED ON IES BEAM ANGLE				MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES INITIAL FOOTCANDLES AND WATTS PER SQUARE FOOT						
		0° - 10°	176	14%	Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 3		RCR 5	
	0.00° 1,910	0° - 10°	176	14%	5.5'	63 fc	4.8'	25 fc	9'	4'	65	1.60	57	1.60
	5.00° 1,836	0° - 20°	596	47%	6.5'	45 fc	5.7'	18 fc	12'	4'	78	1.92	48	1.33
	10.00° 1,699	0° - 30°	978	77%	7.5'	34 fc	6.6'	13 fc	16'	6'	30	0.73	24	0.66
	15.00° 1,486	0° - 40°	1,146	90%	8.5'	26 fc	7.5'	10 fc	Delivered Illuminance Rating: (DIR)		41 FC per W/Sq. Ft.		36 FC per W/Sq. Ft.	
	20.00° 1,174	0° - 60°	1,237	97%	10.0'	19 fc	8.8'	7 fc	Recessed Mounting Square rooms used for multiple units: - RCR 3: Length & Width = Ceiling Ht. -2.5' x 3.33 - RCR 5: Length & Width = Ceiling Ht. -2.5' x 2.00 * Average Footcandles at 2.5' Above Floor					
	30.00° 448	0° - 80°	1,252	98%	12.0'	13 fc	10.5'	5 fc						
	40.00° 131	0° - 90°	1,254	99%	14.0'	10 fc	12.3'	4 fc						
	50.00° 46	Total	1,271	100%	16.0'	7 fc	14.0'	3 fc						
	60.00° 17													
	70.00° 5													
	80.00° 2													
	90.00° 1													

Delivered Lumens: 1,271
Luminaire Watts: 30
LER: 42.37

CP at 0deg (Nadir): 1,910
CRI: 82

Beam Angle: 47.36
Spacing Ratio: 0.73

Lumen Multiplier: 12L x 0.432
CCT Multiplier: 30K x 0.96, 40K x 1.04



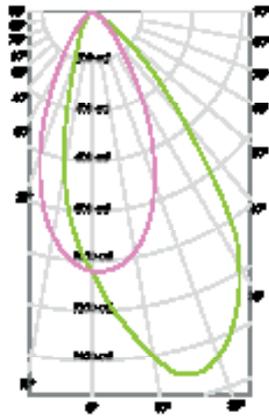
PHOTOMETRIC DATA - 4" ROUND WALL WASH

MINI-PC4 BR22L 32K WLD XL KVM-IN SLS 510K 100 PERCENT

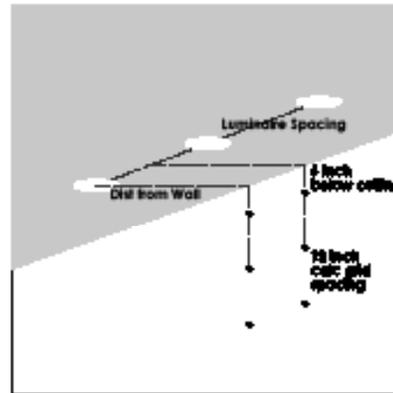
GAMMAPOWER CURVE
TBT 0F-01002_1

PERFORMANCE SUMMARY

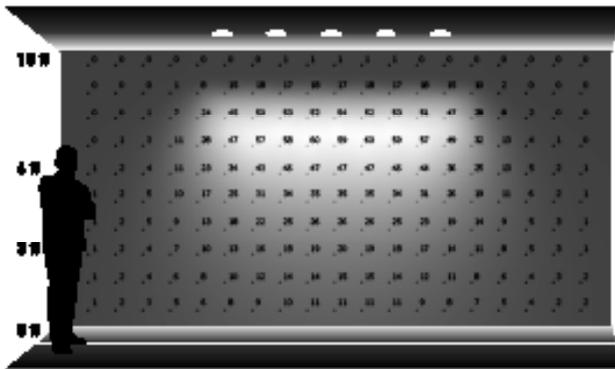
REFERENCE DIAGRAM



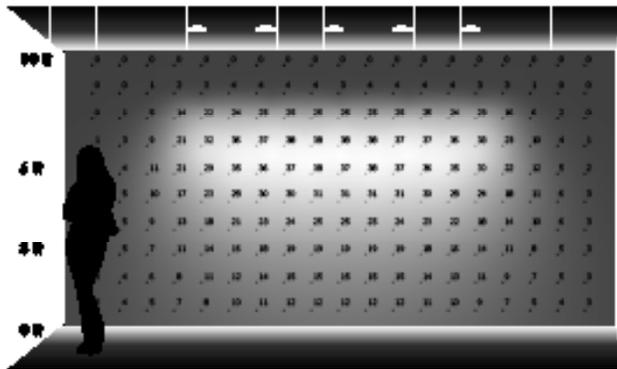
Delivered Lumens: 979
 Luminaire Width: 30
 LED: 32.68
 CP of Degr. (Nadir): 1,042
 CR: 82
 Lumen Multiplier: 12L x 0.432
 OCT Multiplier: 30K x 0.94, 40K x 1.04



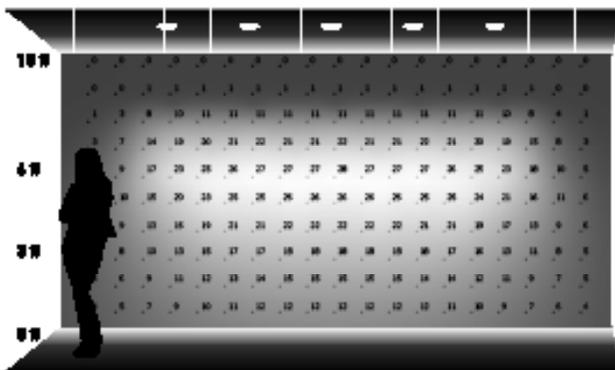
PERFORMANCE DATA - INITIAL ILLUMINATION (FOOTCANDLES) ON WALL - DIRECT LIGHT ONLY



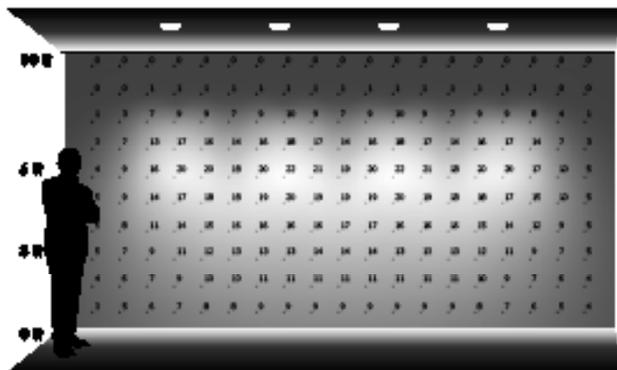
6 LUMINAIRES
 2' away from wall
 2' between luminaires



6 LUMINAIRES
 2'-4" away from wall
 2'-4" between luminaires



6 LUMINAIRES
 3' away from wall
 3' between luminaires



4 LUMINAIRES
 3' away from wall
 4' between luminaires

