



COMMERCIAL DOWNLIGHT SERIES BY SPECTRUM

### 3" ROUND FLANGELESS

NON-IC & IC NEW CONSTRUCTION / REMODEL

### DIM TO WARM

Dimming from 3000K to 1600K, Spectrum's Infinium Dim To Warm series follows in the footsteps of older halogen lamps which turned warmer in color when dimmed.

NOMINAL LUMENS / WATTAGE DATA				
PART NUMBER	CCT RANGE	DELIVERED LUMENS <sup>1</sup>	SYSTEM WATTS	LPW
IF03RMN 007	27K-16K	502	9.3	54
IF03RMN 010	28K-16K	647	11.3	57
IF03RMN 015	30K-16K	1057	17.2	61
IF03RMN 020	30K-16K	1321	21.7	61

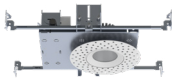
<sup>1</sup> Nominal Delivered Lumens at DD1 020 DL FL GP MW

PROJECT: \_\_\_\_\_  
 TYPE: \_\_\_\_\_



#### AVAILABLE HOUSING TYPES

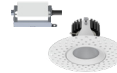
**IF03RMN NC** - New Construction



**IF03RMN IC** - IC New Construction



**IF03RMN RT** - Remodel Construction



HOUSING						HOUSING OPTIONS							
SERIES	TYPE	EMITTER	CRI/CCT	LUMENS	OPTIONS	DIMMING		MOUNTING		BATTERY			
IF03RMN	NC	New Construction	DW	DIM TO WARM		PR	1.25" Ceiling Extension	D1	1% 0-10V	1 120V 2 277V	NC/IC		EI 7W Integral Battery Not Available in IC New Construction ER 7W Remote Battery Available in All Types
	IC	New Construction		DD1	30-16K Dim to Warm						007 502 Lm 010 647 Lm 015 1057 Lm 020 1321 Lm	B1	
	RT	Remodel Construction		Nominal Delivered Lumens at DD1 020 DL FL GP MW				D3	1% ELV/MLV Phase-Cut (120V)	1 120V	RT		
												B0 No Bar Hangers	

#### AVAILABLE TRIM / MODULE TYPES

DL - DOWNLIGHT      WW - WALL WASH



TRIM OPTIONS					SEPARATE						
TRIM TYPE	BEAM <sup>1</sup>	LENS	FINISH	OPTION	ADDITIONAL ACCESSORIES						
DL	Downlight	SP	Spot (20°)	GN	No Lens Not Available in Wet Location	MW	Matte White	WL	Wet Location Requires GP or GC Lens	BAR HANGERS	
		NF	Narrow Flood (26°)							B2	27" Solid Bar Hangers
		FL	Flood (35°)							B4	24" C-Channel Bar Hangers
		WF	Wide Flood (56°)								
WW	Wall Wash	WF	Wide Flood	LW	Wall Wash Lens						

<sup>1</sup> Nominal Beam Angles Shown

EXAMPLE: IF03RMNCDWDD1007/D12B1/DLNF GCMWWL

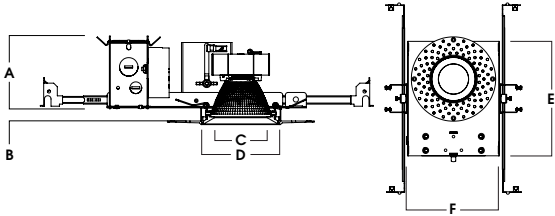
Dimensions and values shown are nominal. Spectrum Lighting continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.



## HOUSING DIMENSIONS

### IF03RMN NC - NEW CONSTRUCTION

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



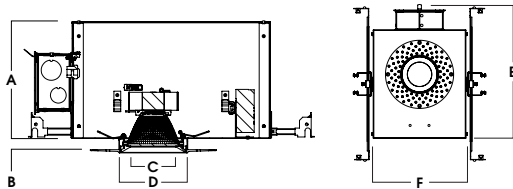
A	B	C	D	E	F
3.4 86.4 mm	.625 15.9 mm	2.5 63.5 mm	3.8 96.5 mm	9.5 241.3 mm	7.6 193.0 mm

Fixture Weight: 4.0 lbs

Ceiling Cutout:  $\varnothing 3\frac{7}{8}$ "

### IF03RMN IC - IC NEW CONSTRUCTION

IC rated frame-in kit for new construction with direct insulation contact and CCEA (Chicago Plenum) compatibility.



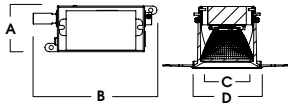
A	B	C	D	E	F
6.5 165.1 mm	.625 15.9 mm	2.5 63.5 mm	3.8 96.5 mm	13.2 335.3 mm	9.5 241.3 mm

Fixture Weight: 5.0 lbs

Ceiling Cutout:  $\varnothing 3\frac{7}{8}$ "

### IF03RMN RT - REMODEL CONSTRUCTION

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



A	B	C	D
2.8 71.1 mm	7.5 190.5 mm	2.5 63.5 mm	3.8 96.5 mm

Fixture Weight: 2.0 lbs

Ceiling Cutout:  $\varnothing 3\frac{7}{8}$ "

## FEATURES

### APPLICATION

Versatile shallow plenum 3" round recessed LED luminaire features downlight and wall wash flangeless trim options with new construction, insulated ceiling and retrofit housings.

### FEATURES

Two-stage optical system for smooth low glare light distribution. Zhaga International Standard LED module for ease of maintenance and replacement. Shallow plenum design. Tool-less LED module, driver, and J-Box access. Multi-Bar mounting brackets. Expandable bar hangers with horizontal range of 14.2"-26", and vertical adjustment of 1.75" for Non-IC housing and 2.325" for IC housings. Post-lock trim retention springs. Integral 0.625" collar, works with up to 1" ceiling. For thicker ceilings consult factory.

### TRIM FINISH

A variety of architectural powdercoat finishes are available. Trims available with and without lens.

### ELECTRONICS

Dim to Warm offering a familiar dimming experience to traditional incandescent lamps (3000K-1600K). All options feature 3-step MacAdam Ellipse binning and 95 CRI 0-10V or phase-cut dimming to 1%, standard.

### CONSTRUCTION

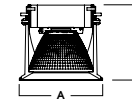
Housing/frame constructed of #20 ga. galvanized steel to resist corrosion. Flangeless one piece die-cast aluminum trim is finished to specification. Passive machined aluminum heatsink.

### CODE COMPLIANCE

BAA Compliant. 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. JA8 pending. City of Chicago Environmental Air (CCEA), and Insulated Ceiling (IC) options available.

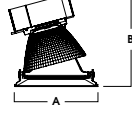
## TRIM / MODULE DATA

### DL - DOWNLIGHT MODULE



A	B
3.8 96.5 mm	3.6 91.4 mm

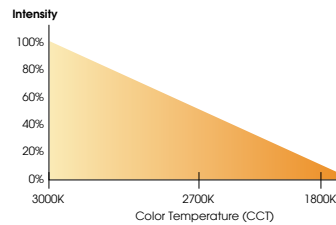
### WW - WALL WASH MODULE



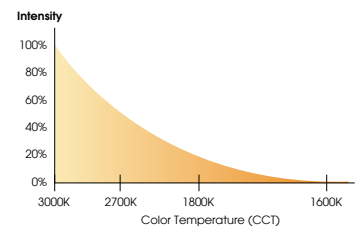
A	B
3.8 96.5 mm	4.1 104.1 mm

## DIMMING BEHAVIOR

### PHASE DIMMING (LINEAR)



### 0-10V DIMMING (LOGARITHMIC)



# PHOTOMETRIC DATA - 3" ROUND

IF03RMx xx DWDD1020 DLSGPMW

CANDLEPOWER CURVE TEST SP-00942_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								
			Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 4		RCR 6				
	0.00°		0° - 10°	393	31%	5.5'	192 fc	1.9'	92 fc	9'	2'	294	5.26	239	4.66
	0.00°	5,802	0° - 20°	838	66%	6.5'	137 fc	2.3'	66 fc	12'	2'	310	5.54	287	5.58
	5.00°	4,684	0° - 30°	1,109	87%	7.5'	103 fc	2.6'	49 fc	16'	4'	68	1.22	80	1.56
	10.00°	2,854	0° - 40°	1,206	94%	8.5'	80 fc	3.0'	38 fc	Delivered Illuminance Rating: (DIR)					
	15.00°	1,552	0° - 60°	1,251	98%	10.0'	58 fc	3.5'	28 fc	56 FC per W/Sq. Ft. 51 FC per W/Sq. Ft.					
	20.00°	906	0° - 80°	1,276	100%	12.0'	40 fc	4.2'	19 fc	Recessed Mounting					
	25.00°	300	0° - 90°	1,278	100%	14.0'	30 fc	4.9'	14 fc	Square rooms used for multiple units:					
	30.00°	300	Total	1,278	100%	16.0'	23 fc	5.6'	11 fc	- RCR 4: Length & Width = Ceiling Ht. -2.5' x 2.50					
	35.00°	350								- RCR 6: Length & Width = Ceiling Ht. -2.5' x 1.66					
	40.00°	49								+ Average Footcandles at 2.5' Above Floor					
	45.00°	450													

Delivered Lumens: 1,278  
Luminaire Watts: 21.7  
LER: 58.89

CP at 0deg (Nadir): 5,802  
CRI: 95

Beam Angle: 19.73  
Spacing Ratio: 0.33

Lumen Multiplier: 7L x 0.38, 10L x 0.49, 15L x 0.8  
CCT Multiplier: N/A, dim to warm emitter

IF03RMx xx DWDD1020 DLNFGPMW

CANDLEPOWER CURVE TEST SP-00942_2	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								
			Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 3		RCR 5				
	0.00°		0° - 10°	348	27%	5.5'	147 fc	2.5'	68 fc	9'	2'	331	5.60	248	4.62
	0.00°	4,446	0° - 20°	831	64%	6.5'	105 fc	3.0'	49 fc	12'	4'	82	1.39	81	1.50
	5.00°	4,026	0° - 30°	1,120	87%	7.5'	79 fc	3.4'	37 fc	16'	6'	41	0.69	40	0.74
	10.00°	2,908	0° - 40°	1,221	95%	8.5'	62 fc	3.9'	28 fc	Delivered Illuminance Rating: (DIR)					
	15.00°	1,740	0° - 60°	1,263	98%	10.0'	44 fc	4.6'	21 fc	59 FC per W/Sq. Ft. 54 FC per W/Sq. Ft.					
	20.00°	1,008	0° - 80°	1,286	100%	12.0'	31 fc	5.5'	14 fc	Recessed Mounting					
	24.00°	280	0° - 90°	1,288	100%	14.0'	23 fc	6.4'	10 fc	Square rooms used for multiple units:					
	28.00°	280	Total	1,288	100%	16.0'	17 fc	7.4'	8 fc	- RCR 3: Length & Width = Ceiling Ht. -2.5' x 3.33					
	32.00°	320								- RCR 5: Length & Width = Ceiling Ht. -2.5' x 2.00					
	36.00°	360								+ Average Footcandles at 2.5' Above Floor					
	40.00°	400													

Delivered Lumens: 1,288  
Luminaire Watts: 21.7  
LER: 59.35

CP at 0deg (Nadir): 4,446  
CRI: 95

Beam Angle: 25.9  
Spacing Ratio: 0.43

Lumen Multiplier: 7L x 0.38, 10L x 0.49, 15L x 0.8  
CCT Multiplier: N/A, dim to warm emitter

IF03RMx xx DWDD1020 DLFLGPMW

CANDLEPOWER CURVE TEST SP-00942_3	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								
			Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 3		RCR 5				
	0.00°		0° - 10°	263	20%	5.5'	102 fc	3.4'	45 fc	9'	2'	277	4.63	249	4.62
	0.00°	3,094	0° - 20°	762	58%	6.5'	73 fc	4.1'	32 fc	12'	4'	83	1.39	81	1.50
	5.00°	2,919	0° - 30°	1,134	86%	7.5'	55 fc	4.7'	24 fc	16'	6'	31	0.53	26	0.48
	10.00°	2,407	0° - 40°	1,255	95%	8.5'	43 fc	5.3'	19 fc	Delivered Illuminance Rating: (DIR)					
	15.00°	1,798	0° - 60°	1,298	98%	10.0'	31 fc	6.2'	13 fc	60 FC per W/Sq. Ft. 54 FC per W/Sq. Ft.					
	20.00°	1,257	0° - 80°	1,319	100%	12.0'	21 fc	7.5'	9 fc	Recessed Mounting					
	25.00°	421	0° - 90°	1,320	100%	14.0'	16 fc	8.7'	7 fc	Square rooms used for multiple units:					
	30.00°	421	Total	1,321	100%	16.0'	12 fc	10.0'	5 fc	- RCR 3: Length & Width = Ceiling Ht. -2.5' x 3.33					
	35.00°	421								- RCR 5: Length & Width = Ceiling Ht. -2.5' x 2.00					
	40.00°	52								+ Average Footcandles at 2.5' Above Floor					
	45.00°	20													

Delivered Lumens: 1,321  
Luminaire Watts: 21.7  
LER: 60.88

CP at 0deg (Nadir): 3,094  
CRI: 95

Beam Angle: 34.62  
Spacing Ratio: 0.55

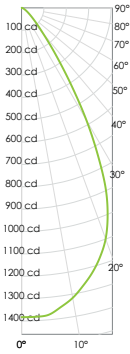
Lumen Multiplier: 7L x 0.38, 10L x 0.49, 15L x 0.8  
CCT Multiplier: N/A, dim to warm emitter



# PHOTOMETRIC DATA - 3" ROUND

IF03RMx xx DWDD1020 DLWFGPMW

CANDLEPOWER CURVE TEST SP-00942	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°	131	11%	Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 2		RCR 4	
	0.00° 1,383	0° - 20°	473	40%	5.5'	46 fc	5.9'	16 fc	9'	4'	73	1.31	64	1.31
	5.00° 1,378	0° - 30°	865	73%	6.5'	33 fc	7.0'	11 fc	12'	6'	34	0.62	30	0.62
	10.00° 1,317	0° - 40°	1,064	90%	7.5'	25 fc	8.0'	8 fc	16'	10'	13	0.23	8	0.17
	15.00° 1,225	0° - 60°	1,164	98%	8.5'	19 fc	9.1'	7 fc	Delivered Illuminance Rating: (DIR)		56 FC per W/Sq. Ft.		49 FC per W/Sq. Ft.	
	20.00° 1,099	0° - 80°	1,184	100%	10.0'	14 fc	10.7'	5 fc	Recessed Mounting Square rooms used for multiple units: - RCR 2: Length & Width = Ceiling Ht. -2.5' x 5.00 - RCR 4: Length & Width = Ceiling Ht. -2.5' x 2.50 * Average Footcandles at 2.5' Above Floor					
	30.00° 580	0° - 90°	1,186	100%	12.0'	10 fc	12.9'	3 fc						
	40.00° 151	Total	1,186	100%	14.0'	7 fc	15.0'	2 fc						
	50.00° 52				16.0'	5 fc	17.2'	2 fc						
	60.00° 21													
	70.00° 9													
	80.00° 3													
	90.00° 1													



Delivered Lumens: **1,186**  
Luminaire Watts: **21.7**  
LER: **54.65**

CP at 0deg (Nadir): **1,383**  
CRI: **95**

Beam Angle: **56.4**  
Spacing Ratio: **0.9**

Lumen Multiplier: **7L x 0.38, 10L x 0.49, 15L x 0.8**  
CCT Multiplier: **N/A, dim to warm emitter**



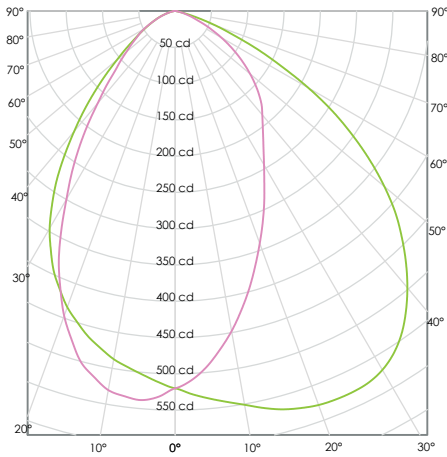
# PHOTOMETRIC DATA - 3" ROUND WALL WASH

IF03RMx xx DWDD1020 WWWFLWMW

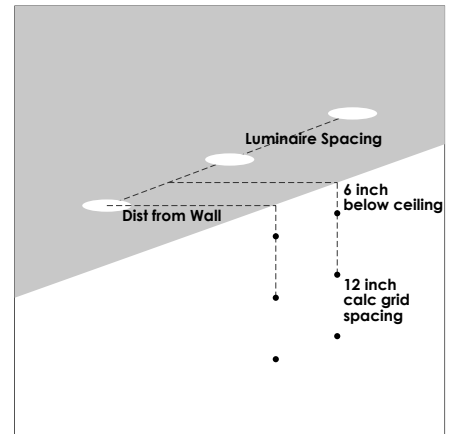
CANDLEPOWER CURVE  
TEST SP-00951

PERFORMANCE SUMMARY

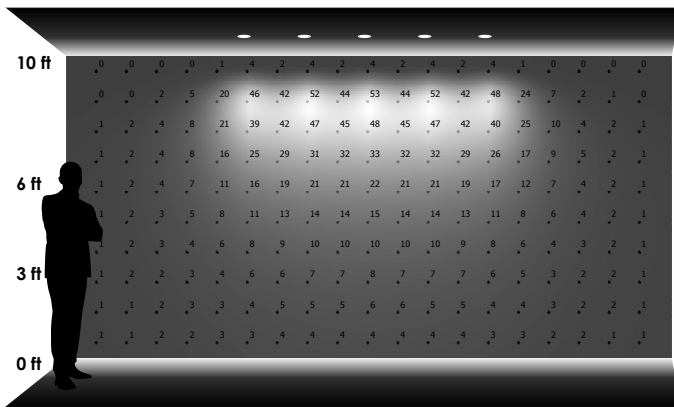
REFERENCE DIAGRAM



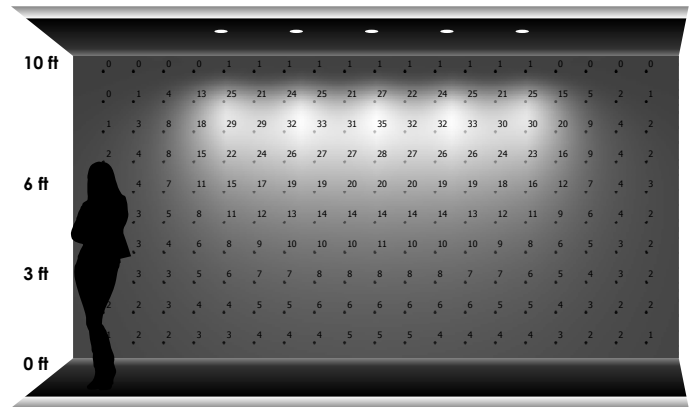
Delivered Lumens: 907  
 Luminaire Watts: 21.5  
 LER: 42.19  
  
 CP at 0deg (Nadir): 520  
 CRI: 95  
  
 Lumen Multiplier: 7L x 0.38, 10L x 0.49, 15L x 0.8  
 CCT Multiplier: N/A, dim to warm emitter



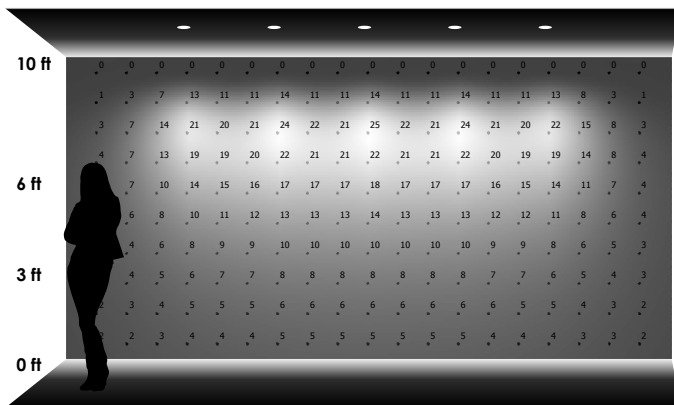
## PERFORMANCE DATA - INITIAL ILLUMINATION (FOOTCANDLES) ON WALL - DIRECT LIGHT ONLY



**5 LUMINAIRES**  
 2' away from wall  
 2' between luminaires



**5 LUMINAIRES**  
 2'-6" away from wall  
 2'-6" between luminaires



**5 LUMINAIRES**  
 3' away from wall  
 3' between luminaires



**4 LUMINAIRES**  
 3' away from wall  
 4' between luminaires

