



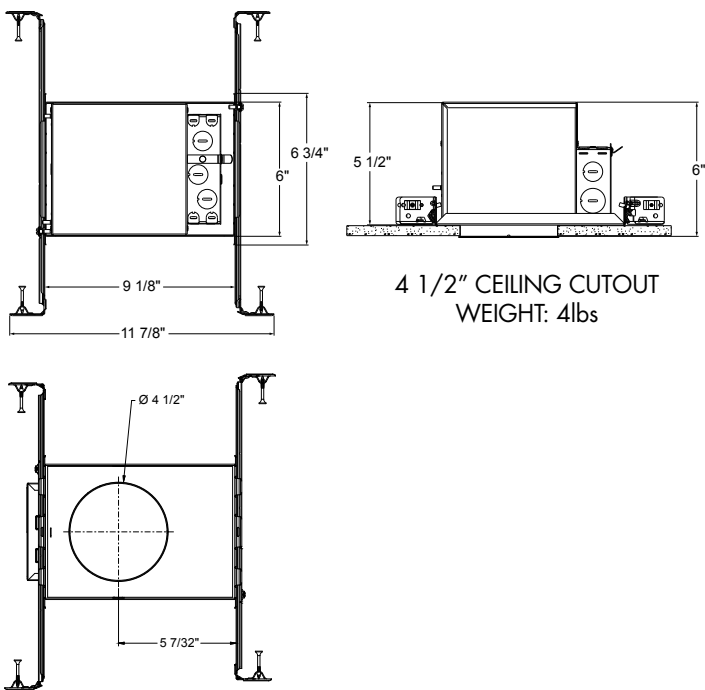
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

IC4ALFW Series



Dimensions



For use with standard Juno downlight trims:

Angle Cut



Downlight



Slot



Lensed



Square



Slope



Project:
Fixture Type:
Location:
Contact/Phone:

Product Features

All-in-one 4" LED fire-rated downlight with integral internally adjustable light engine for downlighting and accent lighting in the same housing. Versatile trim offering to address the needs of modern architectural designs.

Patent pending integrated low smoke intumescent barrier

- Eliminates the need for installers to build additional boxes around fixtures to meet fire ratings
- Provides protection against the spread of heat and flames into the ceiling cavity for 1 hour and 2 hour fire ratings
- Reduces sound transmission between floors

Easy installation and servicing

- Low profile integrated LED downlight less than 6" in height
- Easy to handle compact size weighing only 4 lbs
- Installs into wood joists with Real Nail® 3 bar hangers

Applications

- Residential and commercial applications including multi-family, hotels, assisted living, dormitories and other multi-level construction
- Shallow plenum, new construction
- IC rated - for direct contact with insulation

Fire Resistance Specifications:

- Conforms to UL263, ASTM STD E119 and CAN/ULC-S101 US and Canadian installations
- May be used in fire resistance floor-ceiling and roof-ceiling designs per UL Fire Classified Directories CDHW and CDHW7
- 1 hour fire rated floor/ceiling and roof/ceiling gypsum assembly per UL Design No. L500 & P500
- 2 hour fire rated floor/ceiling gypsum assembly per UL Design No. L500, L505, L511, L536, L538, L541, L556, L577, M500, M510, M521 & M543

Performance

Delivered Lumens	700L, 1000L
LED Color Temperature	27K, 30K, 35K, 40K
CRI	90+
Voltage	Dedicated 120V or MVOLT (120-277V)
Dimming	Forward/Reverse Phase or 0-10V
Optics	Spot, Narrow Flood or Flood



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

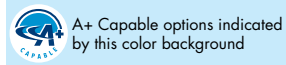


ORDERING INFORMATION

4" Housings

Example: IC4ALFW 07LM 27K 90CRI FL 120 FRPC

Series	Lumens	Color Temperature	CRI	Distribution	Voltage/Driver
IC4ALFW 4" LED Fire-rated IC New Construction Internally Adjustable Downlight	07LM 700 Nominal Lumens	27K 2700K	90CRI 90+ CRI	FL Flood	120 FRPC 120V Forward/Reverse Phase Cut, 5% dim
	10LM 1000 Nominal Lumens	30K 3000K		NFL Narrow Flood	MVOLT ZT Multi-Volt (120-277), 0-10V, 10% dim
		35K 3500K		SP Spot	MVOLT EZ10 Multi-Volt (120-277), eldoLED 0-10V, 10% dim
		40K 4000K			MVOLT EZ1 Multi-Volt (120-277), eldoLED 0-10V, 1% dim



ACCESSORIES (ordered separately)

Catalog Number	Description
CGF 200 MPINK	Color Glass Filter - 2" Diameter - Medium Pink
CGF 200 WRED	Color Glass Filter - 2" Diameter - Warm Red
CGF 200 DLTBLUE	Color Glass Filter - 2" Diameter - Daylight Blue
CGF 200 MBLU	Color Glass Filter - 2" Diameter - Medium Blue
CGF 200 MAMB	Color Glass Filter - 2" Diameter - Medium Amber
CGF 200 MGRN	Color Glass Filter - 2" Diameter - Medium Green
DGF 200 DRED	Dichroic Glass Filter - 2" Diameter Red
DGF 200 MGRN	Dichroic Glass Filter - 2" Diameter Medium Green
DGF 200 MBLU	Dichroic Glass Filter - 2" Diameter Medium Blue
DGF 200 DYEL	Dichroic Glass Filter - 2" Diameter Yellow (Dichroic)
DGF 200 MAGEN	Dichroic Glass Filter - 2" Diameter Magenta
DGF 200 CYAN	Dichroic Glass Filter - 2" Diameter Cyan
DCCF 200 HL4250	Dichroic Color Correction Filter - 2" Diameter - Halogen - to - Daylight
DIFF 200	Diffusion Glass Lens - 2" Diameter
UVF 200 UV	Filter Lens - 2" Diameter
HCLBL 200	Hexagonal Cell Louver - Black - 2" Diameter
LSPREAD 200	Linear Spread Glass Lens - 2" Diameter
PRISM 200	Prismatic Glass Lens - 2" Diameter
TIR2 SPT TIR	Optic - Spot
TIR2 NFLD TIR	Optic - Narrow Flood
TIR2 FLD TIR	Optic - Flood



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED
Downlight New Construction

IC4ALFW - Compatible Trims


OPEN/DOWNLIGHT TRIMS

Trim Series	Dimensions	Aperture	Catalog No.	Notes
	5"	3-3/8"	42L BWH	4" Downlight Cone Trim - Black Alzak® Cone, White Trim Ring
	5"	3-3/8"	42L CWH	4" Downlight Cone Trim - Clear Alzak® Cone, White Trim Ring
	5"	3-3/8"	42L HZWH	4" Downlight Cone Trim - Haze Cone, White Trim Ring
	5"	3-3/8"	42L PTSC	4" Downlight Cone Trim - Pewter Alzak® Cone, Satin Chrome Trim Ring
	5"	3-3/8"	42L WHZBRZ	4" Downlight Cone Trim - Wheat Haze Cone, Bronze Trim Ring
	5"	3-3/8"	42L WHZWH	4" Downlight Cone Trim - Wheat Haze Cone, White Trim Ring
	5"	3-3/8"	42L WWH	4" Downlight Cone Trim - Gloss White Cone, White Trim Ring

Notes




ANGLE CUT TRIMS

Trim Series	Dimensions	Aperture	Catalog No.	Notes
	5"	3-3/8"	47L BWH	4" Adjustable Angle Cut Cone Trim - Black Alzak® Cone, White Trim Ring
	5"	3-3/8"	47L CWH	4" Adjustable Angle Cut Cone Trim - Clear Alzak® Cone, White Trim Ring
	5"	3-3/8"	47L HZWH	4" Adjustable Angle Cut Cone Trim - Haze Cone, White Trim Ring
	5"	3-3/8"	47L PTSC	4" Adjustable Angle Cut Cone Trim - Pewter Alzak® Cone, Satin Chrome Trim Ring
	5"	3-3/8"	47L WHZBRZ	4" Adjustable Angle Cut Cone Trim - Wheat Haze Cone, Bronze Trim Ring
	5"	3-3/8"	47L WHZWH	4" Adjustable Angle Cut Cone Trim - Wheat Haze Cone, White Trim Ring
	5"	3-3/8"	47L WWH	4" Adjustable Angle Cut Cone Trim - Gloss White Cone, White Trim Ring


Notes



SLOT ADJUSTABLE TRIM

Trim Series	Dimensions	Aperture	Catalog No.	Notes
	5"	3-3/8"	45L WH	4" Adjustable Slot Trim - White


LENSED TRIMS

Trim Series	Dimensions	Aperture	Catalog No.	Notes
	5"	3-3/8"	41L BRZ	4" Adjustable Lens Shower Trim - Bronze
	5"	3-3/8"	41L SC	4" Adjustable Lens Shower Trim - Satin Chrome
	5"	3-3/8"	41L WH	4" Adjustable Lens Shower Trim - White

Notes



WALL WASH TRIMS

Trim Series	Dimensions	Aperture	Catalog No.	Notes
	5"	3-3/8"	39 CWH	4" Lensed Wall Wash Cone Trim - Clear Alzak, White Trim Ring
	5"	3-3/8"	39 WWH	4" Lensed Wall Wash Cone Trim - White, White Trim Ring
	5"	3-3/8"	39 HZWH	4" Lensed Wall Wash Cone Trim - Haze, White Trim Ring
	5"	3-3/8"	39 WHZWH	4" Lensed Wall Wash Cone Trim - Wheat Haze, White Trim Ring




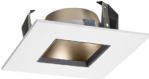






FIREWALL™ LED Downlight Series







4" Fire-Rated Internally Adjustable LED Downlight New Construction

IC4ALFW - Compatible Trims

SQUARE TRIMS

Trim Series	Dimensions	Aperture	Catalog No.		Notes
	5"	3-3/8"	47LSQ BWH	4" Square Adjustable Angle Cut Reflector Trim - Black, White Trim Ring	 
	5"	3-3/8"	47LSQ HZWH	4" Square Adjustable Angle Cut Reflector Trim - Haze, White Trim Ring	
	5"	3-3/8"	47LSQ WHZWH	4" Square Adjustable Angle Cut Reflector Trim - Wheat Haze, White Trim Ring	
	5"	3-3/8"	47LSQ WWH	4" Square Adjustable Angle Cut Reflector Trim - White, White Trim Ring	
	5"	3-3/8"	42LSQ BWH	4" Square Downlight Reflector Trim - Black, White Trim Ring	 
	5"	3-3/8"	42LSQ HZWH	4" Square Downlight Reflector Trim - Haze, White Trim Ring	
	5"	3-3/8"	42LSQ WHZWH	4" Square Downlight Reflector Trim - Wheat Haze, White Trim Ring	
	5"	3-3/8"	42LSQ WWH	4" Square Downlight Reflector Trim - White, White Trim Ring	
	5"	3-3/8"	41LSQ WH	4" Square Adjustable Lens Shower Trim - White Trim Ring	

SLOPE CEILING TRIMS

Trim Series	Dimensions	Aperture	Catalog No.		Notes
	Standard Slope 9° to 24°				 
	5"	3-3/8"	46L BWH	4" Angle Cut Cone - Standard Slope 9° to 24° - Black Alzak® Cone, White Trim Ring	
	5"	3-3/8"	46L CWH	4" Angle Cut Cone - Standard Slope 9° to 24° - Clear Alzak® Cone, White Trim Ring	
	5"	3-3/8"	46L HZWH	4" Angle Cut Cone - Standard Slope 9° to 24° - Haze Cone, White Trim Ring	
	5"	3-3/8"	46L PTSC	4" Angle Cut Cone - Standard Slope 9° to 24° - Pewter Alzak® Cone, Satin Chrome Trim Ring	
	5"	3-3/8"	46L WHZBRZ	4" Angle Cut Cone - Standard Slope 9° to 24° - Wheat Haze Cone, Bronze Trim Ring	
	5"	3-3/8"	46L WHZWH	4" Angle Cut Cone - Standard Slope 9° to 24° - Wheat Haze Cone, White Trim Ring	
	Super Slope 20° to 35°				 
	5"	3-3/8"	48L BWH	4" Angle Cut Cone - Super Slope 20° to 35° - Black Alzak® Cone, White Trim Ring	
	5"	3-3/8"	48L CWH	4" Angle Cut Cone - Super Slope 20° to 35° - Clear Alzak® Cone, White Trim Ring	
	5"	3-3/8"	48L HZWH	4" Angle Cut Cone - Super Slope 20° to 35° - Haze Cone, White Trim Ring	
	5"	3-3/8"	48L PTSC	4" Angle Cut Cone - Super Slope 20° to 35° - Pewter Alzak® Cone, Satin Chrome Trim Ring	
	5"	3-3/8"	48L WHZBRZ	4" Angle Cut Cone - Super Slope 20° to 35° - Wheat Haze Cone, Bronze Trim Ring	
	5"	3-3/8"	48L WHZWH	4" Angle Cut Cone - Super Slope 20° to 35° - Wheat Haze Cone, White Trim Ring	
5"	3-3/8"	48L WWH	4" Angle Cut Cone - Super Slope 20° to 35° - Gloss White Cone, White Trim Ring		



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

Specifications

LED Light Engine

LED array attached to cast aluminum sliding heatsink integrated directly with housing provides superior heat transfer to ensure long life of the LED

- Replaceable light engine mounts directly to inner housing assembly and incorporates the latest generation, high lumen output LED array
- LEDs are binned within a 3-step MacAdam Ellipse exceeding ENERGY STAR® requirements for superior fixture to fixture color uniformity
- 2700K, 3000K, 3500K, or 4000K color temperatures available
- 90 CRI minimum.

Optical System

Three field interchangeable, TIR optics available in 18°, 30° and 40° beam angles

- Module can accommodate one 2-inch diameter beam control lens or filter.

LED Driver

LED Driver Choice of dedicated 120 volt (120) driver or universal voltage (MVOLT) driver that accommodates input voltages from 120-277 volts AC at 50/60Hz

- Power factor > 0.9 at 120V input
- 120 volt only driver is dimmable with the use of most incandescent, magnetic low voltage and electronic low voltage wall box dimmers
- Universal voltage drivers are dimmable with the use of most 0-10V wall box dimmers
- For a list of compatible dimmers, see [JUNOICLED-DIM](#)
- Easily accessible from below the ceiling via patent pending integrated intumescent flaps.

Certifications

ENERGY STAR® Certified when used with select trims

- Certified to the high efficacy requirements of California T24 JA8-2016 with select trims
- UL listed for U.S. and Canada through-branch wiring, damp locations
- Lensed trims listed for wet location (covered ceiling)
- UL and cUL
- Conforms to UL 263, ASTM STD E119 and CAN/ULC-S101
- May be used in fire resistance floor-ceiling and roof-ceiling designs per UL Fire Classified Directories CDHW and CDHW7
- ASTM E283 certified Air-Loc

Life

LED housing is designed to provide 50,000 hours of life

- 5 year limited warranty on LED components.

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Housing

Designed for use in IC (insulated ceiling) or non-IC construction

- Powder coated steel housing sealed for Air-Loc® compliance
- Integrated patent pending continuous single layer low smoke intumescent barrier ships assembled in housing for fire resistance
- Housing is vertically adjustable to accommodate up to a 1 ½" ceiling thickness

Junction Box

Pre-wired junction box provided with (6) ½" and (1) ¾" knockouts, (4) knockouts for 12/2 or 14/2 NM cable and ground wire

- UL listed and cUL listed for through-branch wiring, maximum of 6 #12 branch circuit conductors
- Junction box provided with removable access plates
- Knock-outs equipped with pryout slots
- Quick connect electrical connectors supplied as standard for fast, secure installation.

Mounting Frame

22-gauge die-formed galvanized steel mounting frame

- Rough-in section (junction box, mounting frame, housing and bar hangers) fully assembled for ease of installation
- Pre-installed flame resistant Air-Loc gasket applied to frame

Real Nail 3 Bar Hangers

Patented (US Patent D552,969) Real Nail® 3 bar hangers: telescoping system permits quick placement of housing any where within 24" O.C. joists

- Includes removable nail for repositioning of fixture in wood joist construction

ELECTRICAL DATA

Dedicated 120V Only Driver Option (120 FRPC)

	700L	1000L
	120V	120V
Input Power	10.5W (+/-5%)	16.4W (+/-5%)
Input Current	0.10A	0.15A
Frequency	50/60 Hz	50/60 Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (Residential)	FCC Title 47 CFR, Part 15, Class B (Residential)
Minimum Starting Temp	-25°C (-13°F)	-25°C (-13°F)

ELECTRICAL DATA

Universal Voltage (MVOLT ZT, EZ10 & EZ1)

	700L		1000L	
	120V	277V	120V	277V
Input Power	10.0W (+/-5%)	10.0W (+/-5%)	16.0W (+/-5%)	16.0W (+/-5%)
Input Current	0.09A	0.04A	0.15A	0.06A
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (Residential)	FCC Title 47 CFR, Part 15, Class B (Residential)	FCC Title 47 CFR, Part 15, Class B (Residential)	FCC Title 47 CFR, Part 15, Class B (Residential)
Minimum Starting Temp	-20°C (-4°F)	-20°C (-4°F)	-20°C (-4°F)	-20°C (-4°F)



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

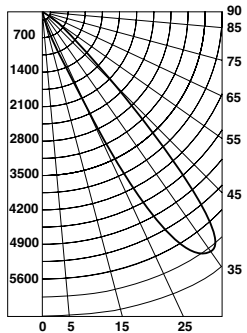
PHOTOMETRICS - 47L ANGLE CUT TRIM 1000L

PHOTOMETRIC REPORT

Test Report: PT09153001R
Catalog No: IC4ALFW 10LM 35K
 90CRI SP 120 FRPC with 47L HZWH
 and Spot Optic
Watts: 16.4
Lumens: 1077
Luminaire LPW: 66

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	183
5°	260
10°	431
15°	770
20°	1320
25°	2571
30°	4811
35°	6185
40°	4549
45°	2283
50°	1123
55°	656
60°	225
65°	54
70°	20
75°	7
80°	1
85°	0
90°	0

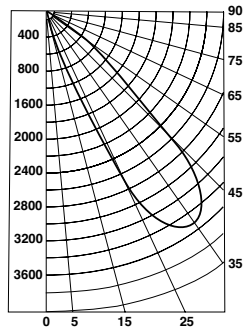


PHOTOMETRIC REPORT

Test Report: PT09152921R
Catalog No: IC4ALFW 10LM 35K
 90CRI NFL 120 FRPC with 47L HZWH
 and Narrow Flood Optic
Watts: 16.4
Lumens: 1091
Luminaire LPW: 67

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	177
5°	268
10°	400
15°	756
20°	1621
25°	2700
30°	3352
35°	3554
40°	3280
45°	2600
50°	1618
55°	794
60°	308
65°	94
70°	44
75°	14
80°	1
85°	0
90°	0

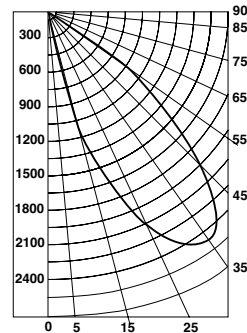


PHOTOMETRIC REPORT

Test Report: PT09152901R
Catalog No: IC4ALFW 10LM 35K
 90CRI FL 120 FRPC with 47L HZWH
 and Flood Optic
Watts: 16.4
Lumens: 1126
Luminaire LPW: 69

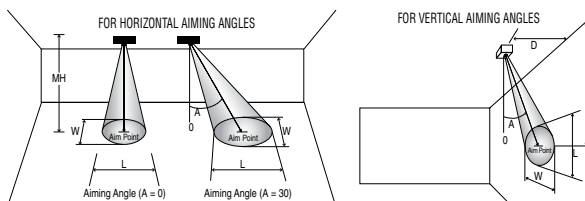
Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	220
5°	395
10°	698
15°	1120
20°	1661
25°	2171
30°	2504
35°	2591
40°	2413
45°	2023
50°	1489
55°	972
60°	465
65°	220
70°	87
75°	78
80°	0
85°	0
90°	0



CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



Horizontal Aiming Angles

Vertical Aiming Angles



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°		
				MH	FC	L W	FC	L W	D	FC	X L W	
IC4ALFW (10LM) LED, 3500K Spot	SP	18°	6185	4	387	1.3 1.3	251	1.7 1.5	2	193	3.5 2.7 1.3	
				6	172	1.9 1.9	112	2.6 2.2	3	86	5.2 4.1 1.9	
				8	97	2.5 2.5	63	3.4 2.9	4	48	6.9 5.5 2.5	
				10	62	3.2 3.2	40	4.3 3.7	5	31	8.7 6.9 3.2	
				12	43	3.8 3.8	28	5.1 4.4	6	21	10.4 8.2 3.8	
IC4ALFW (10LM) LED, 3500K Narrow Flood	NFL	30°	3554	4	222	2.1 2.1	144	2.9 2.5	2	111	3.5 5.5 2.1	
				6	99	3.2 3.2	64	4.4 3.7	3	49	5.2 8.2 3.2	
				8	56	4.3 4.3	36	5.9 5.0	4	28	6.9 10.9 4.3	
				10	36	5.4 5.4	23	7.3 6.2	5	18	8.7 13.7 5.4	
				12	25	6.4 6.4	16	8.8 7.4	6	12	10.4 16.4 6.4	
IC4ALFW (10LM) LED, 3500K Flood	FL	40°	2591	4	162	2.9 2.9	105	4.1 3.4	2	81	3.5 9.7 2.9	
				6	72	4.4 4.4	47	6.1 5.0	3	36	5.2 14.5 4.4	
				8	40	5.8 5.8	26	8.1 6.7	4	20	6.9 19.3 5.8	
				10	26	7.3 7.3	17	10.2 8.4	5	13	8.7 24.2 7.3	
				12	18	8.7 8.7	12	12.2 10.1	6	9	10.4 29.0 8.7	

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

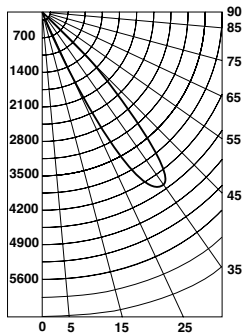
PHOTOMETRICS - 47L ANGLE CUT TRIM 700L

PHOTOMETRIC REPORT

Test Report: PT09153001R
Catalog No: IC4ALFW 07LM 35K
 90CRI SP 120 FRPC with 47L HZWH
 and Spot Optic
Watts: 10.5
Lumens: 799
Luminaire LPW: 76

Candlepower Distribution

Degrees Vertical	Candela
0°	135
5°	193
10°	320
15°	571
20°	979
25°	1908
30°	3570
35°	4589
40°	3376
45°	1694
50°	833
55°	486
60°	167
65°	40
70°	15
75°	5
80°	0
85°	0
90°	0

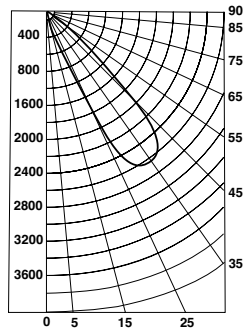


PHOTOMETRIC REPORT

Test Report: PT09152921R
Catalog No: IC4ALFW 07LM 35K
 90CRI NFL 120 FRPC with 47L HZWH
 and Narrow Flood Optic
Watts: 10.5
Lumens: 809
Luminaire LPW: 77

Candlepower Distribution

Degrees Vertical	Candela
0°	131
5°	199
10°	297
15°	561
20°	1203
25°	2004
30°	2488
35°	2637
40°	2434
45°	2225
50°	1201
55°	589
60°	228
65°	70
70°	33
75°	11
80°	1
85°	0
90°	0

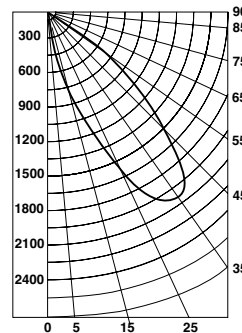


PHOTOMETRIC REPORT

Test Report: PT09152901R
Catalog No: IC4ALFW 07LM 35K
 90CRI FL 120 FRPC with 47L HZWH
 and Flood Optic
Watts: 10.5
Lumens: 835
Luminaire LPW: 80

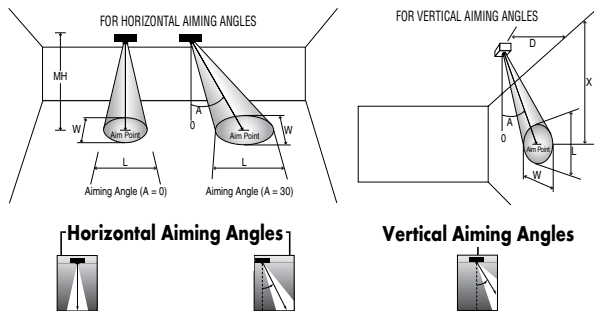
Candlepower Distribution

Degrees Vertical	Candela
0°	164
5°	293
10°	518
15°	831
20°	1232
25°	1611
30°	1858
35°	1923
40°	1790
45°	1501
50°	1105
55°	721
60°	345
65°	164
70°	65
75°	19
80°	0
85°	0
90°	0



CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°					
				MH	FC	L	W	FC	L	W	D	FC	X	L	W
IC4ALFW (07LM) LED, 3500K Spot	SP	18°	4589	4	287	1.3	1.3	186	1.7	1.5	2	143	3.5	2.7	1.3
				6	127	1.9	1.9	83	2.6	2.2	3	64	5.2	4.1	1.9
				8	72	2.5	2.5	47	3.4	2.9	4	36	6.9	5.5	2.5
				10	46	3.2	3.2	30	4.3	3.7	5	23	8.7	6.9	3.2
				12	32	3.8	3.8	21	5.1	4.4	6	16	10.4	8.2	3.8
IC4ALFW (07LM) LED, 3500K Narrow Flood	NFL	30°	2637	4	165	2.1	2.1	107	2.9	2.5	2	82	3.5	5.5	2.1
				6	73	3.2	3.2	48	4.4	3.7	3	37	5.2	8.2	3.2
				8	41	4.3	4.3	27	5.9	5.0	4	21	6.9	10.9	4.3
				10	26	5.4	5.4	17	7.3	6.2	5	13	8.7	13.7	5.4
				12	18	6.4	6.4	12	8.8	7.4	6	9	10.4	16.4	6.4
IC4ALFW (07LM) LED, 3500K Flood	FL	40°	1923	4	120	2.9	2.9	78	4.1	3.4	2	60	3.5	9.7	2.9
				6	53	4.4	4.4	35	6.1	5.0	3	27	5.2	14.5	4.4
				8	30	5.8	5.8	20	8.1	6.7	4	15	6.9	19.3	5.8
				10	19	7.3	7.3	12	10.2	8.4	5	10	8.7	24.2	7.3
				12	13	8.7	8.7	9	12.2	10.1	6	7	10.4	29.0	8.7

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03



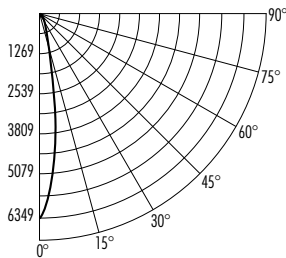
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 42L DOWNLIGHT TRIM 1000L

PHOTOMETRIC REPORT

Test Report#: PT09152801R
 Catalog No: IC4ALFW 10LM 35K 90CRI 35K
 SP 120 FRPC with 42L HZWH, Downlight Cone
 Haze Finish Trim and Spot Optic
 Luminaire Spacing Criteria: 0.30
 Luminaire LPW: 64



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	6349
5	4828
15	1260
25	420
35	105
45	14
55	0
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	74	67	61
5.0'	47	43	39
6.0'	33	30	27
7.0'	27	24	22
8.0'	21	19	17
9.0'	16	15	13
10.0'	12	11	10

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	956	N/A	91.3
0-40°	1031	N/A	98.5
0-60°	1046	N/A	100.0
0-90°	1046	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 16.9° Beam)

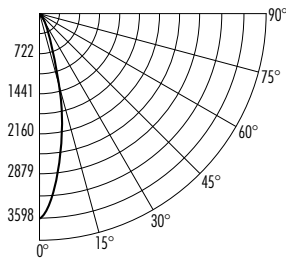
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	396.8	1.2
6	176.4	1.8
8	99.2	2.4
10	63.5	3.0

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	3709
55	105
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report#: PT09152803R
 Catalog No: IC4ALFW 10LM 35K 90CRI 35K
 NFL 120 FRPC with 42L HZWH, Downlight Cone
 Haze Finish Trim and Narrow Flood Optic
 Luminaire Spacing Criteria: 0.46
 Luminaire LPW: 62



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3598
5	3318
15	1497
25	423
35	115
45	25
55	1
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	71	64	59
5.0'	46	41	38
6.0'	32	29	26
7.0'	26	23	21
8.0'	20	18	17
9.0'	15	14	13
10.0'	11	10	9

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	910	N/A	89.5
0-40°	993	N/A	97.7
0-60°	1016	N/A	100.0
0-90°	1016	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 27.0° Beam)

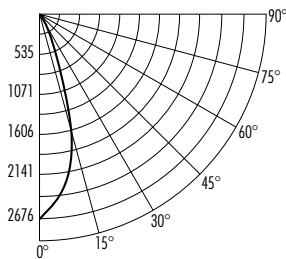
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	224.9	1.9
6	99.9	2.9
8	56.2	3.8
10	36.0	4.8

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	6597
55	244
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report#: PT09152805R
 Catalog No: IC4ALFW 10LM 35K 90CRI
 35K FL 120 FRPC with 42L HZWH, Downlight
 Cone Haze Finish Trim and Flood Optic
 Luminaire Spacing Criteria: 0.58
 Luminaire LPW: 68



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2676
5	2552
15	1626
25	659
35	157
45	30
55	0
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	78	70	63
5.0'	50	45	40
6.0'	35	31	28
7.0'	28	25	23
8.0'	22	20	18
9.0'	17	15	14
10.0'	13	11	10

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	980	N/A	87.5
0-40°	1091	N/A	97.4
0-60°	1120	N/A	100.0
0-90°	1120	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 35.0° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	167.3	2.5
6	74.3	3.8
8	41.8	5.0
10	26.8	6.3

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	8041
55	35
65	0
75	0
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.



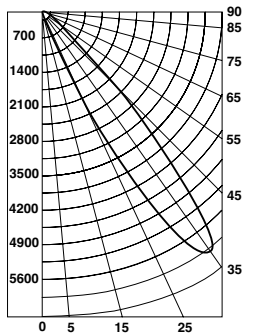
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 45L SLOT ADJUSTABLE TRIM 1000L

PHOTOMETRIC REPORT

Test Report: PT09153005R
Catalog No: IC4ALFW 10LM 35K
 90CRI SP 120 FRPC with 45L WH and Spot Optic
Watts: 16.4
Lumens: 854
Luminaire LPW: 52

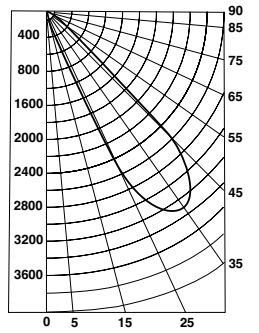


Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	59
5°	79
10°	183
15°	538
20°	1120
25°	2234
30°	4258
35°	5802
40°	4534
45°	2326
50°	1124
55°	648
60°	143
65°	48
70°	19
75°	7
80°	1
85°	0
90°	0

PHOTOMETRIC REPORT

Test Report: PT09152925R
Catalog No: IC4AL FW10LM 35K
 90CRI NFL 120 FRPC with 45L WH and Narrow Flood Optic
Watts: 16.4
Lumens: 873
Luminaire LPW: 53

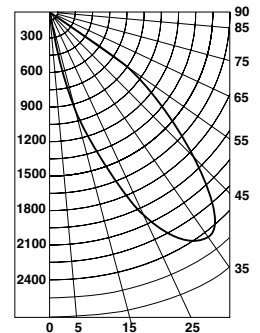


Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	69
5°	96
10°	143
15°	479
20°	1438
25°	2519
30°	3158
35°	3365
40°	3135
45°	2501
50°	1567
55°	746
60°	215
65°	87
70°	39
75°	13
80°	1
85°	0
90°	0

PHOTOMETRIC REPORT

Test Report: PT09152905R
Catalog No: IC4ALFW 10LM 35K
 90CRI FL 120 FRPC with 45L WH and Flood Optic
Watts: 16.4
Lumens: 955
Luminaire LPW: 58

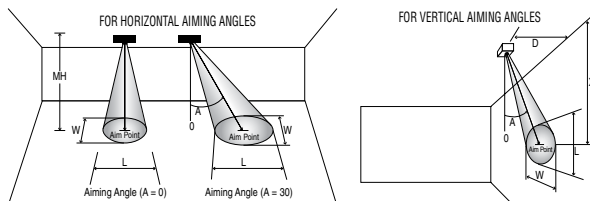


Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	131
5°	254
10°	490
15°	929
20°	1509
25°	2020
30°	2368
35°	2465
40°	2308
45°	1946
50°	1440
55°	901
60°	416
65°	210
70°	83
75°	21
80°	0
85°	0
90°	0

CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°					
				MH	FC	L	W	FC	L	W	D	FC	X	L	W
IC4ALFW(10LM) LED, 3500K Spot	SP	18°	5802	4	363	1.3	1.3	236	1.7	1.5	2	181	3.5	2.7	1.3
				6	161	1.9	1.9	105	2.6	2.2	3	81	5.2	4.1	1.9
				8	91	2.5	2.5	59	3.4	2.9	4	45	6.9	5.5	2.5
				10	58	3.2	3.2	38	4.3	3.7	5	29	8.7	6.9	3.2
				12	40	3.8	3.8	26	5.1	4.4	6	20	10.4	8.2	3.8
IC4ALFW (10LM) LED, 3500K Narrow Flood	NFL	30°	3365	4	210	2.1	2.1	137	2.9	2.5	2	105	3.5	5.5	2.1
				6	93	3.2	3.2	61	4.4	3.7	3	47	5.2	8.2	3.2
				8	53	4.3	4.3	34	5.9	5.0	4	26	6.9	10.9	4.3
				10	34	5.4	5.4	22	7.3	6.2	5	17	8.7	13.7	5.4
				12	23	6.4	6.4	15	8.8	7.4	6	12	10.4	16.4	6.4
IC4ALFW (10LM) LED, 3500K Flood	FL	40°	2465	4	154	2.9	2.9	100	4.1	3.4	2	77	3.5	9.7	2.9
				6	68	4.4	4.4	44	6.1	5.0	3	34	5.2	14.5	4.4
				8	39	5.8	5.8	25	8.1	6.7	4	19	6.9	19.3	5.8
				10	25	7.3	7.3	16	10.2	8.4	5	12	8.7	24.2	7.3
				12	17	8.7	8.7	11	12.2	10.1	6	9	10.4	29.0	8.7

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

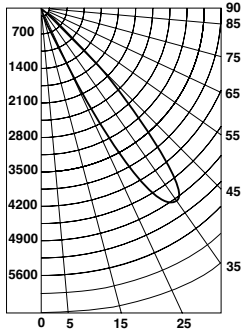
PHOTOMETRICS - 41L LENSED TRIM 1000L

PHOTOMETRIC REPORT

Test Report: PT09153003R
Catalog No: IC4ALFW 10LM 35K
 90CRI SP 120 FRPC with 41L WH and Spot Optic
Watts: 16.4
Lumens: 848
Luminaire LPW: 52

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	142
5°	191
10°	271
15°	452
20°	828
25°	1735
30°	3387
35°	4633
40°	3756
45°	2039
50°	903
55°	318
60°	150
65°	84
70°	54
75°	32
80°	15
85°	4
90°	0

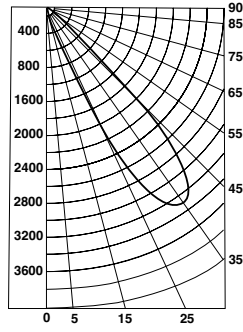


PHOTOMETRIC REPORT

Test Report: PT09152923R
Catalog No: IC4ALFW 10LM 35K
 90CRI NFL 120 FRPC with 41L WH and Narrow Flood Optic
Watts: 16.4
Lumens: 867
Luminaire LPW: 53

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	135
5°	183
10°	233
15°	468
20°	1208
25°	2208
30°	2836
35°	3030
40°	2782
45°	2169
50°	1288
55°	408
60°	149
65°	93
70°	53
75°	27
80°	12
85°	3
90°	0

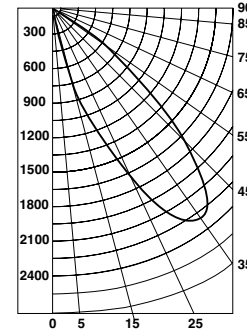


PHOTOMETRIC REPORT

Test Report: PT090152903R
Catalog No: IC4ALFW 10LM 35K
 90CRI FL 120 FRPC with 41L WH and Flood Optic
Watts: 16.4
Lumens: 936
Luminaire LPW: 57

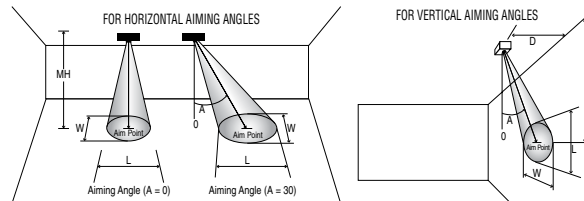
Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	139
5°	254
10°	487
15°	826
20°	1280
25°	1782
30°	2142
35°	2305
40°	2226
45°	1716
50°	1107
55°	619
60°	405
65°	224
70°	95
75°	28
80°	10
85°	1
90°	0



CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°		
				MH	FC	L W	FC	L W	D	FC	X	L W
IC4ALFW (10LM) SP LED, 3500K Spot	SP	18°	4633	4	290	1.3 1.3	188	1.7 1.5	2	145	3.5 2.7 1.3	
				6	129	1.9 1.9	84	2.6 2.2	3	64	5.2 4.1 1.9	
				8	72	2.5 2.5	47	3.4 2.9	4	36	6.9 5.5 2.5	
				10	46	3.2 3.2	30	4.3 3.7	5	23	8.7 6.9 3.2	
				12	32	3.8 3.8	21	5.1 4.4	6	16	10.4 8.2 3.8	
IC4ALFW (10LM) NFL LED, 3500K Narrow Flood	NFL	30°	3030	4	189	2.1 2.1	123	2.9 2.5	2	95	3.5 5.5 2.1	
				6	84	3.2 3.2	55	4.4 3.7	3	42	5.2 8.2 3.2	
				8	47	4.3 4.3	31	5.9 5.0	4	24	6.9 10.9 4.3	
				10	30	5.4 5.4	20	7.3 6.2	5	15	8.7 13.7 5.4	
				12	21	6.4 6.4	14	8.8 7.4	6	11	10.4 16.4 6.4	
IC4ALFW (10LM) FL LED, 3500K Flood	FL	40°	2305	4	144	2.9 2.9	94	4.1 3.4	2	72	3.5 9.7 2.9	
				6	64	4.4 4.4	42	6.1 5.0	3	32	5.2 14.5 4.4	
				8	36	5.8 5.8	23	8.1 6.7	4	18	6.9 19.3 5.8	
				10	23	7.3 7.3	15	10.2 8.4	5	12	8.7 24.2 7.3	
				12	16	8.7 8.7	10	12.2 10.1	6	8	10.4 29.0 8.7	

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03



FIREWALL™ LED Downlight Series

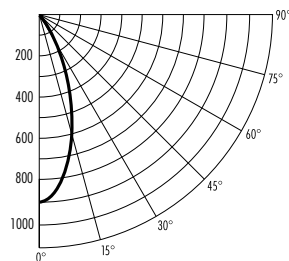
4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 39 WALL WASH TRIM 1000L

PHOTOMETRIC REPORT

Test Report #: PT02162902R
 Catalog No: IC4ALFW 10LM 35K 90CRI
 NFL 120 FRPC with 39 HZWH Trim

Luminaire Spacing Criterion: 0.64
 Luminaire LPW: 42



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	900
5	871
15	606
25	322
35	157
45	72
55	35
65	18
75	6
85	0
90	0

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	443	N/A	64.7
0-40°	571	N/A	83.5
0-60°	671	N/A	98.1
0-90°	684	N/A	100.0

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	19022
55	11545
65	7879
75	4337
85	0

FOOTCANDLES ON WALL FROM MULTIPLE FIXTURES

Fixture Distance to Wall	2'			3'		
	⎓ 2' ⎓	⎓ 3' ⎓	⎓ 3' ⎓	⎓ 4' ⎓		
1'	4 4 4	4 3 4	2 2 2	2 2 2		
2'	11 11 11	8 7 8	4 4 4	4 3 4		
3'	15 15 15	11 10 11	6 6 6	5 5 5		
4'	17 17 17	12 12 12	8 8 8	6 6 6		
5'	16 16 16	12 12 12	9 9 9	7 7 7		
6'	15 15 15	11 11 11	9 9 9	7 7 7		
7'	13 13 13	10 10 10	9 9 9	7 7 7		
8'	12 12 12	9 9 9	9 9 9	7 7 7		
9'	10 10 10	7 7 7	8 8 8	6 6 6		

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.



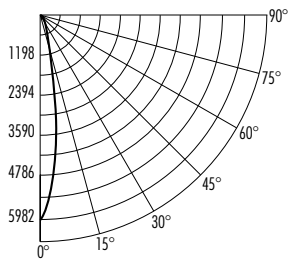
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 42LSQ SQUARE DOWNLIGHT TRIM 1000L

PHOTOMETRIC REPORT

Test Report#: PTO9152802R
 Catalog No: IC4ALFW 10LM 35K 90CRI SP
 120 FRPC with 42LSQ HZWH, Downlight Cone
 Haze Finish Square Trim and Spot Optic
 Luminaire Spacing Criteria: 0.30
 Luminaire LPW: 56



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	5982
5	4561
15	1241
25	221
35	31
45	4
55	0
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	64	59	55
5.0'	41	38	35
6.0'	29	26	24
7.0'	23	21	20
8.0'	18	17	16
9.0'	14	13	12
10.0'	10	9	9

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	875	N/A	96.0
0-40°	905	N/A	99.4
0-60°	911	N/A	100.0
0-90°	911	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 17.0° Beam)

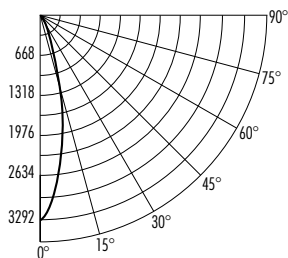
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	373.9	1.2
6	166.2	1.8
8	93.5	2.4
10	59.8	3.0

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	850
55	0
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report#: PTO9152804R
 Catalog No: IC4ALFW 10LM 35K 90CRI NFL
 120 FRPC with 42LSQ HZWH, Downlight Cone
 Haze Finish Square Trim and Narrow Flood Optic
 Luminaire Spacing Criteria: 0.48
 Luminaire LPW: 53



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	3292
5	3101
15	1467
25	213
35	58
45	6
55	0
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	61	56	51
5.0'	39	36	33
6.0'	27	25	23
7.0'	22	20	19
8.0'	17	16	15
9.0'	13	12	11
10.0'	10	9	8

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	813	N/A	93.8
0-40°	858	N/A	98.9
0-60°	867	N/A	100.0
0-90°	867	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 27.7° Beam)

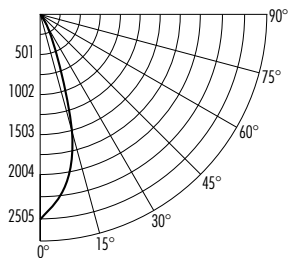
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	205.8	2.0
6	91.4	3.0
8	51.4	3.9
10	32.9	4.9

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	1264
55	0
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report#: PTO9152806R
 Catalog No: IC4ALFW 10LM 35K 90CRI FL
 120 FRPC with 42LSQ HZWH, Downlight Cone
 Haze Finish Square Trim and Flood Optic
 Luminaire Spacing Criteria: 0.60
 Luminaire LPW: 61



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	2505
5	2408
15	1597
25	498
35	106
45	9
55	0
65	0
75	0
85	0
90	0

Multipliers:
 27K - 0.93 35K - 1.00
 30K - 0.96 40K - 1.03

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	70	63	57
5.0'	45	40	36
6.0'	31	28	25
7.0'	25	23	20
8.0'	20	18	16
9.0'	15	14	12
10.0'	11	10	9

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	906	N/A	90.6
0-40°	986	N/A	98.6
0-60°	1000	N/A	100.0
0-90°	1000	N/A	100.0

INITIAL FOOTCANDLES

(One Unit, 16.4W, 34.7° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	156.6	2.5
6	69.6	3.7
8	39.1	5.0
10	25.1	6.2

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	1853
55	0
65	0
75	0
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.



FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

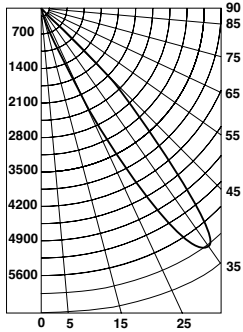
PHOTOMETRICS - 47LSQ SQUARE ANGLE CUT TRIM 1000L

PHOTOMETRIC REPORT

Test Report: PT09153002R
Catalog No: IC4ALFW 10LM 35K
 90CRI SP 120 FRPC with 47LSQ HZWH and Spot Optic
Watts: 16.4
Lumens: 983
Luminaire LPW: 60

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	85
5°	164
10°	365
15°	709
20°	1229
25°	2351
30°	4494
35°	6059
40°	4676
45°	2416
50°	1133
55°	370
60°	96
65°	32
70°	14
75°	4
80°	0
85°	0
90°	0

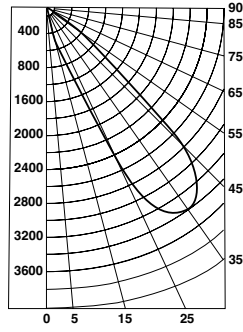


PHOTOMETRIC REPORT

Test Report: PT09152922R
Catalog No: IC4ALFW 10LM 35K
 90CRI NFL 120 FRPC with 47LSQ HZWH and Narrow Flood Optic
Watts: 16.4
Lumens: 990
Luminaire LPW: 60

Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	85
5°	145
10°	280
15°	655
20°	1510
25°	2571
30°	3241
35°	3465
40°	3231
45°	2596
50°	1642
55°	604
60°	143
65°	73
70°	32
75°	8
80°	0
85°	0
90°	0

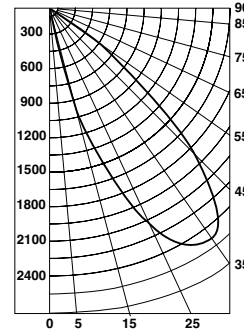


PHOTOMETRIC REPORT

Test Report: PT09152902R
Catalog No: IC4ALFW 10LM 35K
 90CRI FL 120 FRPC with 47LSQ HZWH and Flood Optic
Watts: 16.4
Lumens: 1050
Luminaire LPW: 64

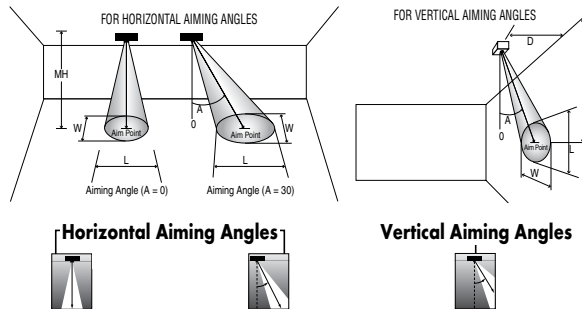
Candlepower Distribution (Candelas)

Degrees Vertical	Candela
0°	159
5°	321
10°	628
15°	1072
20°	1621
25°	2129
30°	2452
35°	2537
40°	2356
45°	1970
50°	1406
55°	729
60°	378
65°	188
70°	72
75°	12
80°	0
85°	0
90°	0



CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°).



FIXTURE	Beam Type	Beam Spread°	CBCP	0°			30°			30°					
				MH	FC	L	W	FC	L	W	D	FC	X	L	W
IC4ALFW (10LM) LED, 3500K Spot	SP	18°	6059	4	379	1.3	1.3	246	1.7	1.5	2	189	3.5	2.7	1.3
				6	168	1.9	1.9	109	2.6	2.2	3	84	5.2	4.1	1.9
				8	95	2.5	2.5	61	3.4	2.9	4	47	6.9	5.5	2.5
				10	61	3.2	3.2	39	4.3	3.7	5	30	8.7	6.9	3.2
				12	42	3.8	3.8	27	5.1	4.4	6	21	10.4	8.2	3.8
IC4ALFW (10LM) LED, 3500K Narrow Flood	NFL	30°	3465	4	217	2.1	2.1	141	2.9	2.5	2	108	3.5	5.5	2.1
				6	96	3.2	3.2	63	4.4	3.7	3	48	5.2	8.2	3.2
				8	54	4.3	4.3	35	5.9	5.0	4	27	6.9	10.9	4.3
				10	35	5.4	5.4	23	7.3	6.2	5	17	8.7	13.7	5.4
				12	24	6.4	6.4	16	8.8	7.4	6	12	10.4	16.4	6.4
IC4ALFW (10LM) LED, 3500K Flood	FL	40°	2537	4	159	2.9	2.9	103	4.1	3.4	2	79	3.5	9.7	2.9
				6	70	4.4	4.4	46	6.1	5.0	3	35	5.2	14.5	4.4
				8	40	5.8	5.8	26	8.1	6.7	4	20	6.9	19.3	5.8
				10	25	7.3	7.3	16	10.2	8.4	5	13	8.7	24.2	7.3
				12	18	8.7	8.7	11	12.2	10.1	6	9	10.4	29.0	8.7

Multipliers: 27K - 0.93
 30K - 0.96
 35K - 1.00
 40K - 1.03



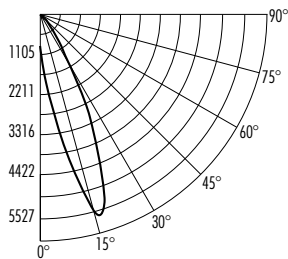
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 46L SLOPE TRIM 1000L

PHOTOMETRIC REPORT

Test Report#: PTO21162301R
 Catalog No: IC4ALFW 10LM 35K 90CRI SP
 120 FRPC with 46L HZWH, Standard Slope
 Haze Finish Trim and Spot Optic
Luminaire Spacing Criteria: 1.40
Luminaire LPW: 62



CANDLEPOWER DISTRIBUTION

Degrees Vertical	0°
0	954
5	1727
10	3497
15	5527
20	5305
25	3206
30	1542
35	841
40	469
45	274
50	160
55	49
60	22
65	7
70	2
75	0
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60"x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	71	62	54
5.0'	45	40	35
6.0'	32	28	24
7.0'	26	22	20
8.0'	20	18	15
9.0'	15	14	12
10.0'	11	10	9

INITIAL FOOTCANDLES

(One Unit, 16.4W, 17.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	361.1	1.2
6	160.5	1.9
8	90.3	2.5
10	57.8	3.1

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	785	N/A	76.7
0-40°	940	N/A	91.9
0-60°	1021	N/A	99.8
0-90°	1024	N/A	100.0

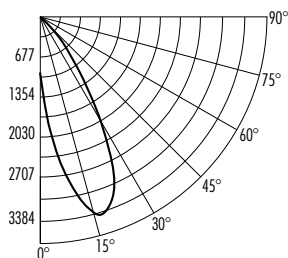
For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	72671
55	15912
65	3168
75	73
85	0

PHOTOMETRIC REPORT

Test Report#: PTO21162002R
 Catalog No: IC4ALFW 10LM 35K 90CRI NFL
 120 FRPC with 46L HZWH, Standard Slope Haze
 Finish Trim and Narrow Flood Optic
Luminaire Spacing Criteria: 1.50
Luminaire LPW: 65



CANDLEPOWER DISTRIBUTION

Degrees Vertical	0°
0	1025
5	1988
10	2909
15	3353
20	3384
25	3004
30	2196
35	1231
40	583
45	328
50	212
55	65
60	36
65	10
70	3
75	0
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60"x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	73	64	56
5.0'	47	41	36
6.0'	33	28	25
7.0'	26	23	20
8.0'	21	18	16
9.0'	16	14	12
10.0'	12	10	9

INITIAL FOOTCANDLES

(One Unit, 16.4W, 28.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	213.7	2.1
6	95.0	3.1
8	53.4	4.1
10	34.2	5.2

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	773	N/A	73.0
0-40°	962	N/A	90.8
0-60°	1056	N/A	99.7
0-90°	1059	N/A	100.0

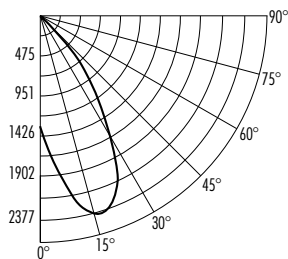
For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	87125
55	21173
65	4373
75	73
85	0

PHOTOMETRIC REPORT

Test Report#: PTO21162302R
 Catalog No: IC4ALFW 10LM 35K 90CRI FL
 120 FRPC with 46L HZWH, Standard Slope
 Haze Finish Trim and Flood Optic
Luminaire Spacing Criteria: 1.42
Luminaire LPW: 66



CANDLEPOWER DISTRIBUTION

Degrees Vertical	0°
0	1310
5	1784
10	2160
15	2377
20	2357
25	2137
30	1742
35	1203
40	735
45	381
50	170
55	69
60	26
65	10
70	1
75	0
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60"x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	75	65	56
5.0'	48	41	36
6.0'	33	29	25
7.0'	27	23	20
8.0'	21	18	16
9.0'	16	14	12
10.0'	12	10	9

INITIAL FOOTCANDLES

(One Unit, 16.4W, 36.5° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	149.4	2.6
6	66.4	4.0
8	37.3	5.3
10	23.9	6.6

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	764	N/A	71.0
0-40°	976	N/A	90.8
0-60°	1073	N/A	99.8
0-90°	1075	N/A	100.0

For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	101233
55	22586
65	4328
75	73
85	0



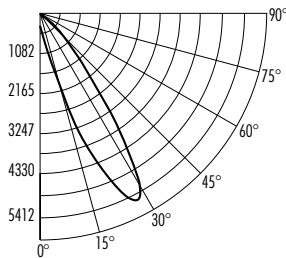
FIREWALL™ LED Downlight Series

4" Fire-Rated Internally Adjustable LED Downlight New Construction

PHOTOMETRICS - 48L SUPER SLOPE TRIM 1000L

PHOTOMETRIC REPORT

Test Report#: PTO2162303R
 Catalog No: IC4ALFW 10LM 35K 90CRI SP
 120 FRPC with 48L HZWH, Super Slope Haze
 Finish Trim and Spot Optic
 Luminaire Spacing Criteria: 2.28
 Luminaire LPW: 62



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	334
5	530
10	897
15	1658
20	3399
25	5412
30	5233
35	3190
40	1562
45	877
50	494
55	268
60	93
65	44
70	11
75	4
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	69	58	49
5.0'	44	37	31
6.0'	31	26	22
7.0'	25	21	18
8.0'	20	16	14
9.0'	15	13	11
10.0'	11	9	8

INITIAL FOOTCANDLES

(One Unit, 16.4W, 18.0° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	355.7	1.3
6	158.1	1.9
8	88.9	2.5
10	56.9	3.2

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	526	N/A	51.7
0-40°	820	N/A	80.6
0-60°	1006	N/A	98.9
0-90°	1017	N/A	100.0

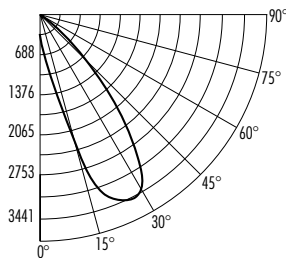
For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	233049
55	87636
65	19432
75	2819
85	216

PHOTOMETRIC REPORT

Test Report#: PTO2162301R
 Catalog No: IC4ALFW 10LM 35K 90CRI NFL
 120 FRPC with 48L HZWH, Super Slope Haze
 Finish Trim and Narrow Flood Optic
 Luminaire Spacing Criteria: 2.32
 Luminaire LPW: 65



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	342
5	564
10	1178
15	2195
20	3064
25	3441
30	3390
35	2939
40	2061
45	1105
50	534
55	307
60	99
65	50
70	14
75	4
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	73	61	51
5.0'	46	39	33
6.0'	32	27	23
7.0'	26	22	18
8.0'	21	17	15
9.0'	16	13	11
10.0'	12	10	8

INITIAL FOOTCANDLES

(One Unit, 16.4W, 28.9° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	216.8	2.1
6	96.3	3.1
8	54.2	4.1
10	34.7	5.2

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	529	N/A	49.7
0-40°	844	N/A	79.2
0-60°	1054	N/A	98.9
0-90°	1066	N/A	100.0

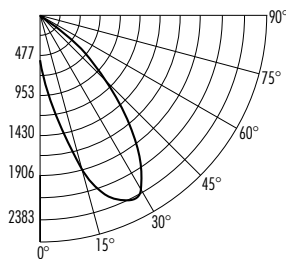
For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	293447
55	100453
65	22044
75	2747
85	216

PHOTOMETRIC REPORT

Test Report#: PTO2162304R
 Catalog No: IC4ALFW 10LM 35K 90CRI FL
 120 FRPC with 48L HZWH, Super Slope Haze
 Finish Trim and Flood Optic
 Luminaire Spacing Criteria: 2.22
 Luminaire LPW: 65



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	539
5	905
10	1366
15	1853
20	2208
25	2383
30	2347
35	2092
40	1671
45	1164
50	739
55	425
60	173
65	68
70	24
75	4
80	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80%, Wall 50%, Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	73	61	51
5.0'	46	39	32
6.0'	32	27	23
7.0'	26	22	18
8.0'	21	17	14
9.0'	16	13	11
10.0'	12	10	8

INITIAL FOOTCANDLES

(One Unit, 16.4W, 36.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	149.3	2.6
6	66.4	4.0
8	37.3	5.3
10	23.9	6.6

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	519	N/A	48.7
0-40°	806	N/A	75.6
0-60°	1051	N/A	98.6
0-90°	1066	N/A	100.0

For 2700K fixtures, use 0.93 multiplier; for 3000K fixtures, use 0.96 multiplier; for 3500K fixtures, use 1.00 multiplier; for 4000K fixtures, use 1.03 multiplier.

LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	309294
55	139069
65	30100
75	3180
85	0