

Apollo 8

FLUORESCENT PATIENT BED LIGHT WITH LED OPTIONS



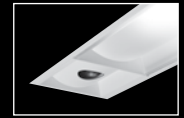
FOCAL POINT®



degree markers



separate LED



integral LED

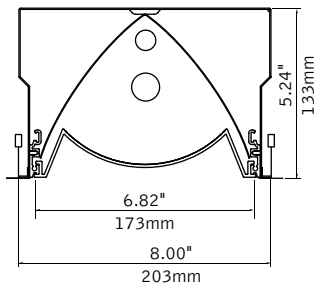


apollo 8
ambient only

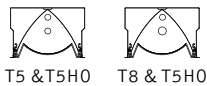


apollo 1 & 2
companion

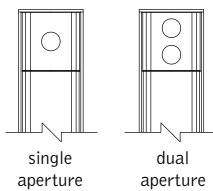
DIMENSIONAL DATA



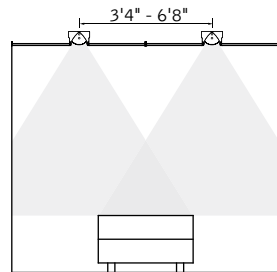
fluorescent lamping



LED options



When ordering dual aperture LEDs, the Adjustable Reading Light (LRL) will be positioned closest to the fluorescent lamp.



Application in pairs recommended
ambient & exam distribution shown

FEATURES

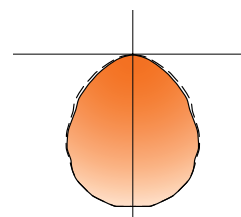
8" wide recessed patient bed light with LED options available in 4' & 5' lengths.

T5 or T8 lamps provide reading and ambient illumination, additional T5HO lamps provide 80+ average footcandles for exam. Low wattage LEDs deliver aimable reading, chart and night light options.

Symmetrical distribution accommodates a variety of patient room and equipment arrangements.

Radial extruded acrylic diffuser with internal ribs provides low brightness, even illumination and ease of cleaning.

PERFORMANCE



2-Lamp T5/T5HO
(Exam Off)

89% Efficient

1065 cd @ 0°

PRODUCT OVERVIEW

Lumen Output: 1115-8200lm

Wattage: 18-120W

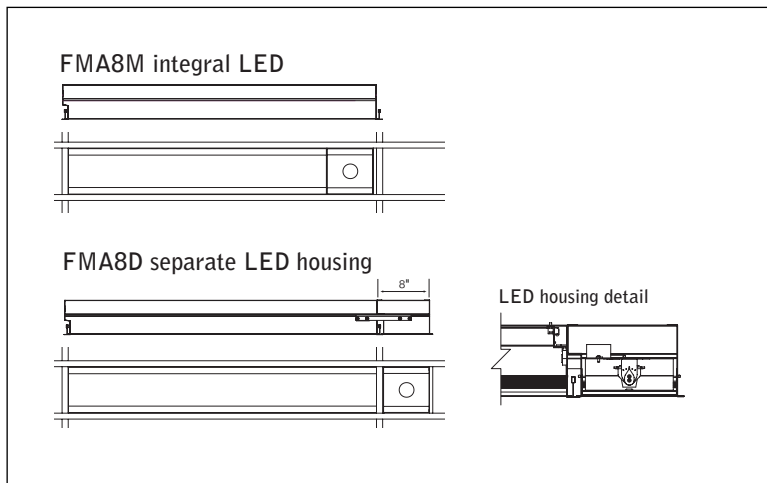
Lamping: T5, T5HO, T8

Visit focalpointlights.com for complete photometric data.

fixture:

project:

DETAILS



SPECIFICATIONS

Construction

20 Ga. steel housing. Lamp compartment is sealed and enclosed by detachable extruded acrylic diffuser. Bottom access 20 Ga. steel ballast compartment. 4' weight: 24 lbs; 5' weight: 30 lbs.

Optic

One-piece 20 Ga. steel side reflectors finished in Matte Satin White powder coat. 20 Ga. steel center reflector finished in High reflectance White. LED connector mounted to adjustable aluminum bracket, 0-30° tilt and 180° rotation with degree markers. Clear TIR optic directs light out of aperture and provides narrow beam for reading and night lights. Ripple TIR optic provides wide beam for night light. Black snoot maintains low brightness appearance. Aperture(s) covered with clear lens.

LED System

Reading and Chart Lights - High efficacy 5W, 3500K, 80+ CRI white led on aluminum clad circuit board with connector for optimum heat dissipation. Night Light – 620nm led on aluminum clad circuit board with connector. Constant current, fixed output driver.

Electrical

Ballasts are thermally protected and have a Class "P" rating. Low Voltage Controller is designed to function seamlessly alongside delicate hospital electronics. It emits no electromagnetic noise that either patient or equipment will detect. Any number of momentary contact switches can access two circuit loads. Both circuits can be switched in a sequence by using one switch or independently using separate switches. This is achieved by using jumpers conveniently located on the Low Voltage side of the housing. Load capacity: Dual (2) 120-277V Circuits at 5 Amps each load. Switch voltage: <5V (<.5, micro amps). Switch types: sequential (load 1,2, 1&2, off); individual (each load independently). Consult factory for dimming specifications and availability.

Labels

UL and cUL listed.

Lumen Maintenance

L70 at 50,000 hours.

Warranty

LED system rated for operation in ambient environments up to 25°C. 5 year limited warranty.

Finish

Polyester powder coat applied over a 5-stage pre-treatment. Optional Anti-Microbial paint finish available.

ORDERING

Luminaire Series

Multi-function Apollo 8 with exam and integral LED options	FMA8M	_____
Multi-function Apollo 8 with exam and LED options in separate housing	FMA8D	_____

Nominal Size

8" x 4'	84	_____
<small>(FMA8M only--3' fluorescent lamps)</small>		
8" x 5'	85	_____
<small>(FMA8M only--4' fluorescent lamps)</small>		
8"x4' with 8"separate LED housing	848	_____
<small>(FMA8D only)</small>		

Shielding

Radial Acrylic Lens	RA	_____
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Lamp Quantity

1 Lamp Ambient/ 1 Lamp Exam	11	_____
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Lamp Type

T5 & T5HO	T5T5HO	_____
T8 & T5HO	T8T5HO	_____

LED Function(s)

(Select 1 or 2 functions)

5W Adjustable Reading Light	LRL	_____
5W Adjustable LED Chart Light	LCL	_____
2W Fixed 620nm LED Night Light	LNL	_____

Circuit

Three Circuit	3C	_____
Four Circuit	4C	_____

Voltage

120 Volt	120	_____
277 Volt	277	_____
UNV Volt	UNV	_____

(Cannot be specified with EM option)

Ballast

Electronic Program Start <10% THD	S	_____
0-10V	D7	_____
Lutron 1% 3-wire	DH	_____
Lutron 1% H-Series	DK	_____

Mounting

Drywall Frame Kit	F	_____
Grid Mount	G	_____
Slot Tee	ST	_____

Factory Options

Chicago Plenum	CP	_____
Emergency Battery Pack*	EM	_____
Positional Clips	EQ	_____
Single Fuse and Holder	FU	_____
6' New York City Flex Whip	FNY	_____
6' Flex Whip	FW	_____
Low Voltage Controller*	LVC	_____

(2 circuits max, default control of LED reading light and ambient fluorescent. Consult factory for alternate wiring configurations.)

Include 3000K Lamp*	L830	_____
Include 3500K Lamp*	L835	_____
Include 4100K Lamp*	L841	_____
System Connector	SYC	_____

(Use to power & control a 2nd luminaire)

Finish

Matte Satin White	WH	_____
Matte Satin White Anti-Microbial	WHA	_____

example: Order 1 of each line item to create a patient bed pair
 (1) FMA8M-84-RA-11-T5T5HO-LRL-3C-277-S-G-SYC-WHA
 (1) FMA8M-84-RA-11-T5T5HO-LRL-3C-277-S-G-WHA

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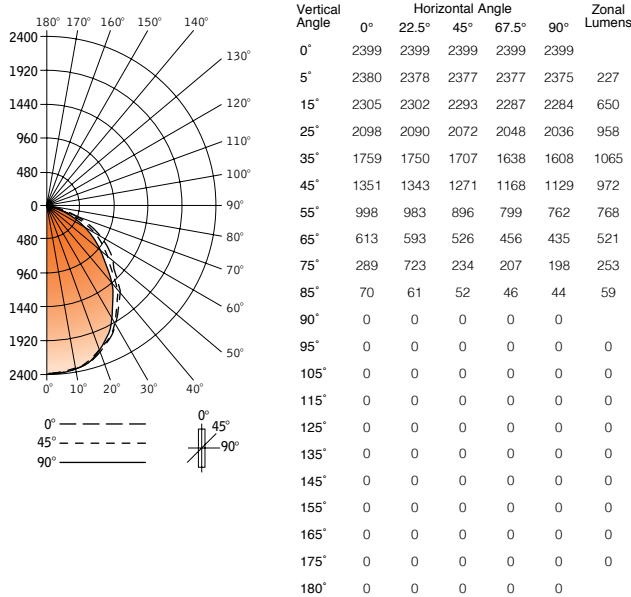
FLUORESCENT

FMA8D-84-RA-1-T5T5HO-2C-120-S-G-WH

Filename: FMA8D84RA11T5T5H_EXAM_ON.IES
 Test #: 16082.0

Lumens: 5503lm
 Efficiency: 70%

CANDLEPOWER DISTRIBUTION



LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30°	1835	23.2	33.3
0-40°	2900	36.7	52.7
0-60°	4670	59.1	84.9
0-90°	5503	69.7	100.0
Total Luminaire 0-180°	5503	70	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	9645	9074	8060
55°	8784	7886	6707
65°	7322	6283	5196
75°	5637	4564	3862
85°	4054	3012	2549

CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70			20		30		10		00	
	70	50	30	10	70	50	10	50	10	50	10	50	10	50	10
RCR 0	83	83	83	83	81	81	81	77	77	74	74	71	71	70	70
1	77	74	72	69	75	73	68	70	66	67	64	65	62	61	61
2	71	66	62	59	69	65	58	63	57	60	55	58	54	53	53
3	66	59	54	50	64	58	50	56	49	54	48	53	48	46	46
4	61	53	48	44	59	52	43	51	43	49	42	48	42	40	40
5	56	48	42	38	54	47	37	45	37	44	37	43	36	35	35
6	52	43	37	33	50	42	33	41	33	40	32	39	32	31	31
7	48	39	33	29	46	38	29	37	29	36	29	35	28	27	27
8	44	35	29	25	43	34	25	34	25	33	25	32	25	24	24
9	41	31	26	22	40	31	22	30	22	30	22	29	22	21	21
10	38	29	23	20	37	28	20	28	20	27	20	26	19	18	18

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

Apollo8

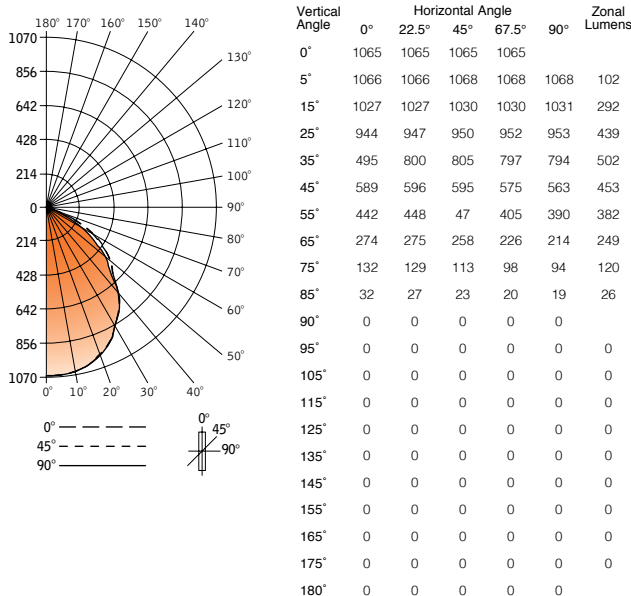
FLUORESCENT

FMA8D-84-RA-1-T5T5HO-2C-120-S-G-WH (T5HO LAMPS OFF)

Filename: FMA8D84RA11T5T5H_EXAM_OFF.IES
 Test #: 16081.0

Lumens: 2565lm
 Efficiency: 89%

CANDLEPOWER DISTRIBUTION



LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0-30°	833	28.7	32.5
0-40°	1335	46.0	52.0
0-60°	2170	74.8	84.6
0-90°	2565	88.5	100.0
Total Luminaire 0-180°	2565	89	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4204	4246	4016
55°	3887	3844	3432
65°	3273	3086	2551
75°	2567	2206	1826
85°	864	1355	1073

CO-EFFICIENTS OF UTILIZATION

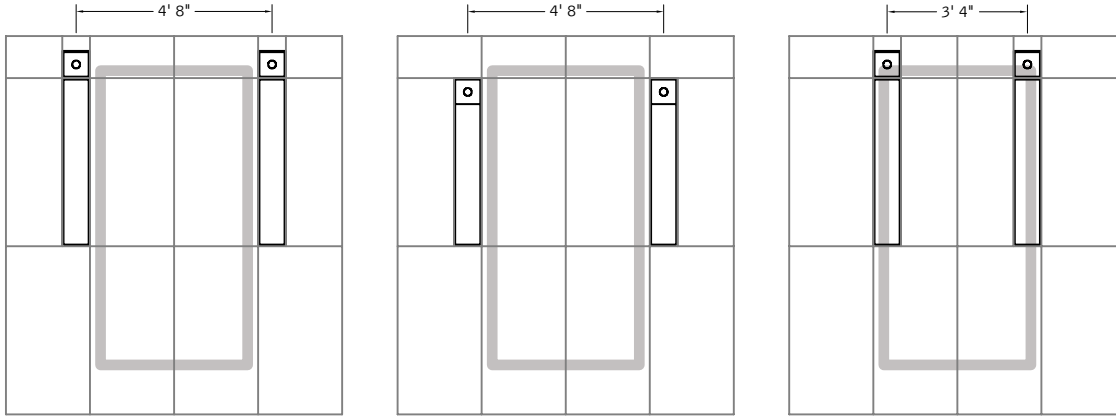
Floor Ceiling Wall	80				70			20		30		10		00	
	70	50	30	10	70	50	10	50	10	50	10	50	10	50	10
RCR 0	100	100	100	100	100	100	100	98	98	94	94	90	90	88	88
1	98	94	91	88	95	92	87	89	84	85	81	82	79	77	77
2	90	84	79	74	88	82	73	79	72	77	70	74	69	67	67
3	83	75	69	64	81	74	63	71	62	69	61	67	60	58	58
4	77	67	60	55	75	66	55	64	54	62	53	60	53	51	51
5	71	60	53	47	69	59	47	57	47	56	46	54	46	44	44
6	65	54	47	41	64	53	41	52	41	50	41	49	40	39	39
7	60	49	42	36	59	48	36	47	36	46	36	44	36	34	34
8	56	44	37	32	54	43	32	43	32	41	31	40	31	30	30
9	51	40	32	28	50	39	28	38	27	37	27	36	27	26	26
10	48	36	29	25	46	36	25	35	24	34	24	33	24	23	23

Numbers indicate percentage values of reflectivity.

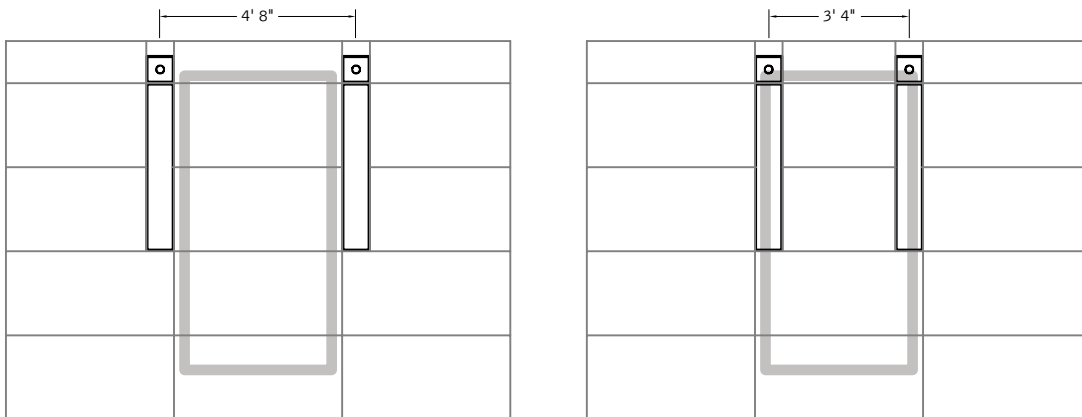
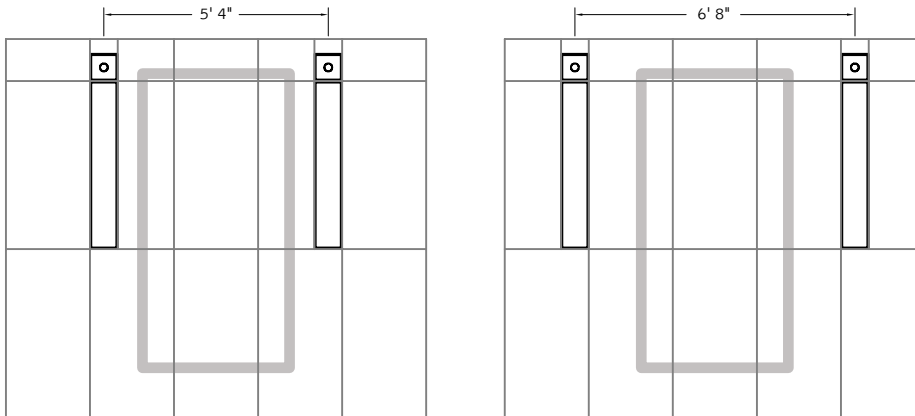
Go to www.focalpointlights.com for additional photometric data.



4' FLUORESCENT WITH SEPARATE 8" LED READER | 2'X4' CEILING TILES | 3' 5" X 7' BED



*3' fluorescent with integrated LED reader



Apollo 8

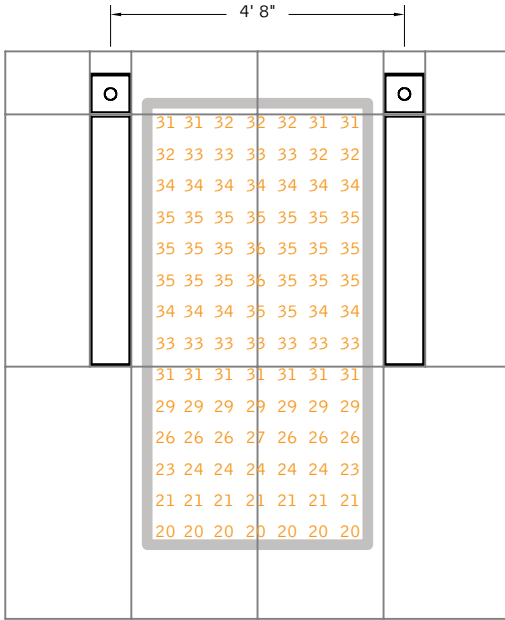
PATIENT BED LIGHT SYSTEM - DESIGN GUIDE



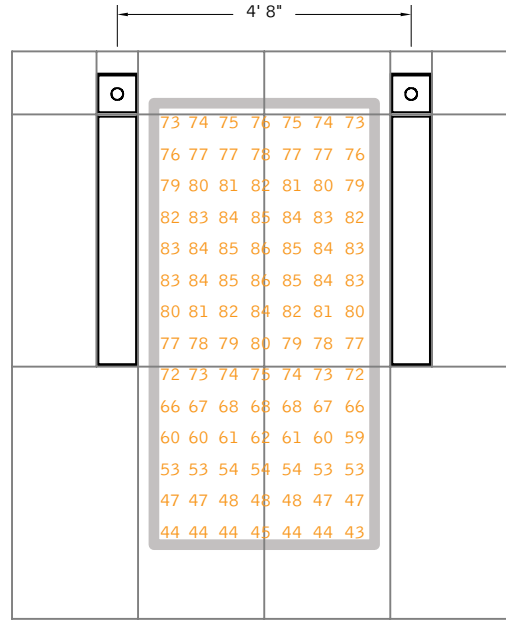
4' FLUORESCENT T8/T5HO WITH SEPARATE 8" LED READER

2'x4' ceiling tiles | 3' 5" x 7' bed

- AVERAGE FOOTCANDLES
- UNIFORMITY



Ambient only



Exam

4' FLUORESCENT LAMPS

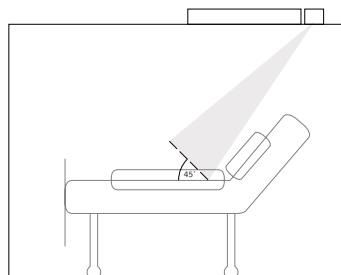
	Spacing	Ambient Only		Exam	
T5/T5HO	3' 4"	34.6	1.6:1	75.7	1.6:1
	4' 8"	32.2	1.5:1	70.4	1.6:1
	5' 4"	30.8	1.5:1	67.3	1.6:1
	6' 8"	27.7	1.5:1	60.6	1.5:1
T8/T5HO	3' 4"	32.4	1.6:1	70.5	1.6:1
	4' 8"	30.1	1.5:1	65.4	1.6:1
	5' 4"	28.8	1.5:1	62.6	1.6:1
	6' 8"	25.9	1.5:1	56.4	1.5:1

3' FLUORESCENT LAMPS

	Spacing	Ambient Only		Exam	
T5/T5HO	3' 4"	25.0	1.6:1	53.7	1.6:1
	4' 8"	23.3	1.5:1	49.9	1.6:1
	5' 4"	22.3	1.5:1	47.7	1.6:1
	6' 8"	20.1	1.5:1	43.0	1.5:1
T8/T5HO	3' 4"	23.6	1.6:1	50.1	1.6:1
	4' 8"	21.9	1.5:1	46.5	1.6:1
	5' 4"	20.9	1.5:1	44.5	1.6:1
	6' 8"	18.8	1.5:1	40.1	1.5:1

LED READING LIGHTS (45° reading plane)

Spacing	LED Reading Lights Only	
3' 4"	22.3	2.0:1
4' 8"	26.8	1.8:1
5' 4"	24.9	1.5:1
6' 8"	20.1	1.6:1



Room: 12'x12' | Ceiling Height: 9' | Reflectances: 80/50/20 | Light Loss Factor: 0.85
Light levels calculated in AGI-32. Calculations do not include any furniture or partitions.