



ALIEN ENERGY PRIVATE LTD.

28, RISHABH VIHAR, KARKARDOOMA, DELHI-92
 Tel : +91-11-22372828, 22373565,
 Telefax : +91-11-22375994
 E-mail: enquiry@alienenergy.in

energy efficient solutions

www.alienenergy.in

Technical Specifications of the ALIEN Recess Downlight



Supply Source	110 Volt - 250 Volt AC
Frequency	50+/- Hz
Expected Luminous Efficacy	120lumens / watt
Light Source	1w Power LEDs
Power Factor	> 0.90 (min) Lag
Life expectancy	About 60,000 glow hours
Control Circuit	Constant Voltage & Constant Current
LED Operating Current	360mA
CRI	>80
Housing Material of luminaire	Recess downlight rim made up of SS finish or MS powder coated and textured reflector made up of anodized aluminium sheet alongwith centrefrosted glass
Mounting details of LED and heat sink	The LEDs are mounted on a aluminium board . The heatsink design allows free flow of air so that heat build up is avoided. This is crucial as the LED life reduces by 50% with every 10 degree centigrade rise in Chip Junction temperature.
LEDs Make	Nichia, Luxeon, OSRAM, CREE, Philips or any reputed make
Humidity Range:	0 to 95%
Angle	120 degrees



ALIEN ENERGY PRIVATE LTD.

28, RISHABH VIHAR, KARKARDOOMA, DELHI-92
Tel : +91-11-22372828, 22373565,
Telefax : +91-11-22375994
E-mail: enquiry@alienenergy.in

energy efficient solutions

www.alienenergy.in

DIFFERENT MODELS AVAILABLE

S.no	Model No	LED Downlights	Replacement of conv. Downlights with copper chokes	Load reduction	Saves Energy
1	AE LED 10003 (R)	1w X 3 LED	1 x 9w CFL	18W-3W = 15W	ENERGY SAVING MORE THAN 75%
2	AE LED 10004 (R)	1w X 4 LED	1 X 11W CFL	20W-4W = 16W	
3	AE LED 10005 (R)	1w x 5 LED	1X 13W CFL	22W-5W = 17W	
4	AE LED 10006(R)	1w x 6 LED	1 X 18W CFL	27W-6W = 21W	
5	AE LED 10006 (R)	1w x 6 LED	2 X 9W CFL	36W-6W = 30W	
6	AE LED 10008 (R)	1w x 8 LED	2 X 11W CFL	40W-8W = 32W	
7	AE LED 10010 (R)	1w x 10 LED	2 X 13W CFL	44W-10W = 34W	
8	AE LED 10012 (R)	1w x 12 LED	2 X 18W CFL	54W-12W = 42W	



ALIEN ENERGY PRIVATE LTD.

28, RISHABH VIHAR, KARKARDOOMA, DELHI-92
 Tel : +91-11-22372828, 22373565,
 Telefax : +91-11-22375994
 E-mail: enquiry@alienenergy.in

energy efficient solutions

www.alienenergy.in

Lux readings between 18w CFL and 9w LED

S.N.	LAMP	MEASURING DISTANCE					
		4 Feet	5 Feet	6 Feet	7 Feet	8 Feet	9 Feet
		Center					
1	LED	121	78	57	43	33	25
2	CFL	60	38	24	18	15	12

18W CFL Retrofit v/s 9W LED Downlight



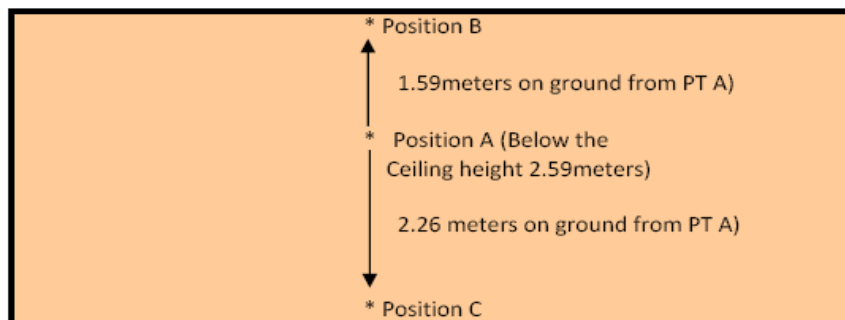
S.No	Distance	Position	Lux 18W CFL downlight	Lux 9W LED downlight
				
1	H - 2.59 m Floor to Ceiling	Below Fixture Position A	29	57
2	H - 1.6 m Table height to Ceiling	Below Fixture	18	25
3	1.59 m on ground from Position A - Left side	Position B	13	24
4	2.26 Metres on ground from Position A - right side	Position C	13	21

Diagram Showing the points where lux readings are taken





ALIEN ENERGY PRIVATE LTD.

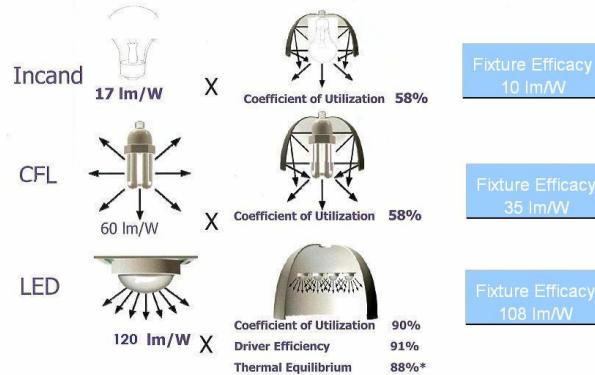
28, RISHABH VIHAR, KARKARDOOMA, DELHI-92
 Tel : +91-11-22372828, 22373565,
 Telefax : +91-11-22375994
 E-mail: enquiry@alienenergy.in

energy efficient solutions

www.alienenergy.in

Efficacy of Different lamps

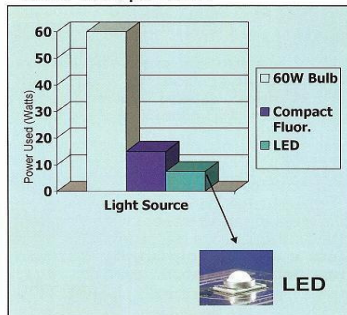
Recessed Down Lights



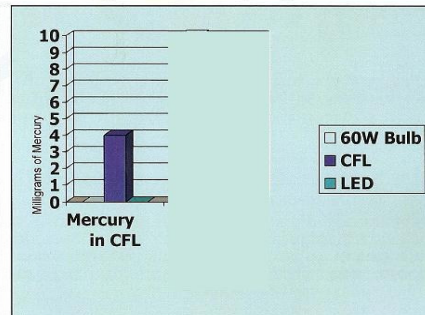
Comparison of energy consumption and emission between different lamps

A Comparison in Energy Consumption and Emissions

"Best" White LED and Compact Fluorescent vs. 60Watt Light Bulb Comparison



Mercury Emission by Light Source



Note : The above graphs clearly indicates the Emission and very high use of Mercury in case of CFL lamps



ALIEN ENERGY PRIVATE LTD.

28, RISHABH VIHAR, KARKARDOOMA, DELHI-92
 Tel : +91-11-22372828, 22373565,
 Telefax : +91-11-22375994
 E-mail: enquiry@alienenergy.in

energy efficient solutions

www.alienenergy.in

Comparison of LED Bulb and Traditional Light Sources

Comprehensive Performance Comparison Chart

Specifications	Incandescent Bulb	Energy Saving Lamp CFL	LED Lamp Bulb
Energy - Saving Rate	High Power Consumption	High (Low Power Consumption)	Energy Saving upto 80%
Optical Efficiency	Low	High	High
Working Life	Short (1,000 hrs)	Short (5000 hrs)	Super Long (>50000 hrs)
Environmental Performance	With Lead and mercury, harmful to environment)	High Pollution (with lead and mercury harmful to environment)	Apply with ROHS Standard No harm to environment)
Shock Resistance	Poor (Frangibility)	Poor (Frangibility)	Good (No filament or glass)
Stroboflash	No	Yes (AC Drives)	No (DC Drives)
Thermal Value	High (Outside temp > 300 degrees Celsius)	Middle (Outside temp > 70 degree Celsius)	Low (Outside temp <60 degree Celsius)
Working Voltage	Narrow (voltage fluctuations changes brightness and working life shortens)	Narrow (voltage fluctuation changes brightness and working life shortens)	Wide (Brightness will not change by voltage fluctuation and no influence on working life)
Power Factor	High (1.0)	Low (<.60)	High (>0.90)
Startup Speed	Slow	Faster	Fast
Color Temperature	Single (Warm white Only)	Rich (Pure white, warm white optional)	Rich (Pure white. Warm white optional)
Color Rendering Index	Best (Ra = 100)	Good (Ra > 70)	Good (Ra > 75)
Comprehensive Performance	Not Good	Average	Good

LTD.

DELHI-92
73565,
75994
rgy.in

gy.in
