

# Cornell

Breaking the conventional mould



*Powering Business Worldwide*





Cornell is an exciting new recessed lighting development from Eaton, breaking the conventional mould.

Using innovative materials and geometry, Cornell brings a new approach to Office and area lighting design. Its unique Dynamic Aspect™ diffuser system brings life and vitality to every space. With its seemingly 'variable' geometry effect, excellent luminance and glare control compliance, it is now the optimum solution.

Light quality is assured by the closely matched chip set which offers a crisp consistent colour effect and excellent efficacy.

With its clean lines and leading performance, Cornell is the new choice for the discerning designer.

- Up to 114 Llm/ cW
- Dynamic Aspect™ efficient diffuser
- Eaton emergency 'square optic' high efficiency pod
- Integrated controls option
- Lay-in and pull-up installation methods
- Backlit optically homogenous light output
- Cornell can aid in UGR and luminance compliant lighting designs

# Dynamic Aspect™ diffuser

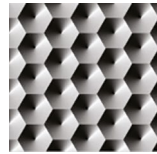
Achieving a whole space lighting solution takes a holistic approach to the problem. The needs of the occupants in terms of task appreciation, interaction with others, communication and wellbeing need to be considered in a balanced and sensitive way.

To meet these demands, Cornell features a unique active diffuser, utilising the very latest in materials technology. The combination of a micro-bonded photometric film array, carried on a light transmissive medium, delivers exceptional efficacies.

Coupled with a back lit body, this creates a depth of perspective seen in the diffuser and creates a subtle variability to the viewer, dependent on viewpoint.

Together this combination delivers a truly Dynamic Aspect™ experience to the viewer. Seen in a large array, Cornell adds vitality to any space.

Cornell's high level of geometric distribution adds to the lighting quality of a typical space. It achieves high levels of illuminance across vertical as well as horizontal planes, remaining true to the principals of glare and luminance control.



Cornell utilises a combination of Opaline and Microprismatic materials to create its distinctive uniform concentric square pattern.



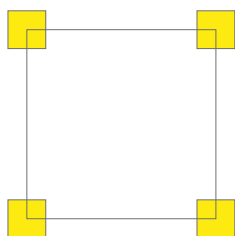
As the user moves and positions themselves in a varied way, the geometry of Cornell appears to change. This creates visual interest, movement and dynamism to the space. Another aspect of this highlights the apparent refraction between materials, again creating depth and vitality.

# Designed-in compliance

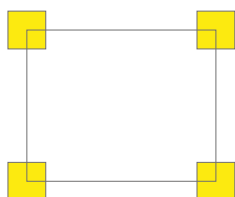
Designing with Cornell opens up a number of possibilities for diverse solutions. In typical Commercial Office applications, a user defined brief can be easily tailored to suit.

Visual communication is vital to the efficient and cohesive aspects of a Commercial office environment. This is recognised in both CIBSE and other lighting design guides. Good recognition and interaction with a person in a space increases productivity amongst workers. High levels of cylindrical illumination is seen as a key marker towards achieving this.

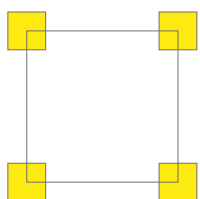
The examples below show how Cornell can help deliver class leading lighting design performance.



<b>Spacing</b>		<b>Model</b>
<b>3.0 x 3.0M</b>		<b>CNL66444KZ</b>
Average illuminance	450 lux	
Cylindrical illuminance	181 lux	
Modelling index	0.4	



<b>Spacing</b>		<b>Model</b>
<b>2.4 x 3.0M</b>		<b>CNL66444KZ</b>
Average illuminance	500 lux	
Cylindrical illuminance	203 lux	
Modelling index	0.4	



<b>Spacing</b>		<b>Model</b>
<b>2.4 x 2.4M</b>		<b>CNL66334KZ</b>
Average illuminance	550 lux	
Cylindrical illuminance	210 lux	
Modelling index	0.38	



Cornell feature the Eaton 'square -optic' emergency module as an option.



# Technical details

## Light Engine and Control Gear Options

- High output, high efficacy LED chip set optimised for recessed panel options
- >80 CRI 4000°K
- Energy efficient fixed output control gear as standard
- Dimming option - DALI

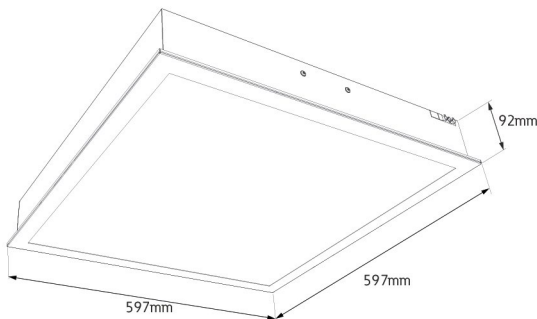
## Materials

- Body - welded, full box steel construction, powder coated in RAL9016 finish
- Panel optic - Dynamic Aspect™ diffuser combination with 65° cut-off angle characteristics
- Panel frame - monolithic seamless steel construction, powder coated in RAL9016 finish

## Installation Notes

- Suitable for exposed 'T' and some "half tee" metal pan ceilings
- Order side support bracket set for 'draw up' applications (ordered separately) CNLPBK
- Rear socket and plug (included) for rapid installation
- Emergency variants are fused as standard
- May aid lighting scheme design to comply with BS EN 12464-1 - refer to the lighting design guide on page 458

## Dimensions



## Options

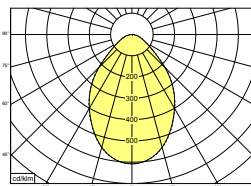
- Fully integral LED emergency conversion, 3 hour duration
- CG Line+ self-test emergency versions available, reducing maintenance costs and offering ease of compliance with testing requirements
- We offer a range of product support contracts to aid commissioning, reduce your maintenance costs, comply with legislative test requirements and increase the lifespan of your lighting equipment

## Specification

To specify state: Recessed back-lit LED luminaire, of full box welded construction with post coat powder paint, RAL9016 finish, for lay-in installations, with Dynamic Aspect™ diffuser and high efficiency LED modules, LED emergency option with unique lens optic delivering up to 10m x 10m coverage distribution, Eaton's Cornell range part no \_\_\_\_\_

## Photometric Data

Cat. No: CNL66344KZ



LO 3525 lm  
SHR nom: 1.00  
SHR max: 1.183

Utilisation factors / TM5

Reflectances			Room index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
0.7	0.5	0.2	66	76	82	87	93	97	100	104	106
0.7	0.3	0.2	60	70	76	81	88	93	96	100	103
0.7	0.1	0.2	55	65	72	77	84	89	93	98	101
0.5	0.5	0.2	65	74	80	84	90	94	97	100	102
0.5	0.3	0.2	59	69	75	80	86	90	93	97	100
0.5	0.1	0.2	55	64	71	76	82	87	90	95	98
0.3	0.5	0.2	64	72	78	82	87	91	93	96	98
0.3	0.3	0.2	58	67	74	78	84	88	91	94	96
0.3	0.1	0.2	54	64	70	74	81	85	88	92	95
0.0	0.0	0.0	52	61	67	72	78	81	84	88	90
BZ-class			2	2	3	3	3	2	3	3	3

## Catalogue Numbers

Variant	Lumen Output	Wattage (w)	Llm/cW	Cat No	Weight (kg)	Emergency Cat No	Weight (kg)
3400 lm	3376	29.4	114.8	CNL66344KZ	4.5	ELCNL66344KZ	5.0
4400 lm	4337	39.6	109.5	CNL66444KZ	4.5	ELCNL66444KZ	5.0

For DALI Dimming option replace character Z with DD, e.g. CNL66344KZ becomes CNL66344KDD

For Sensor option add the characters ISM, e.g. CNL66344KZ becomes ISMCNL66344KZ

Emergency versions also available with automatic test functionality, e.g. CG Line+

For further information, contact our Technical Support and Application department on 01302 303240 or email [LightingTechnicalUK@Eaton.com](mailto:LightingTechnicalUK@Eaton.com)

Llm/cW = luminaire lumens per circuit watt

## Accessories

Description	Cat No
CORNELL BEARER KIT (2 bearer brkts)	CNLPBK





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