

Electrical Safety Systems Ltd

Units 1 & 2 Fulwood Road North, Huthwaite,
Nottinghamshire NG17 4GW

Operator Philip Maxwell

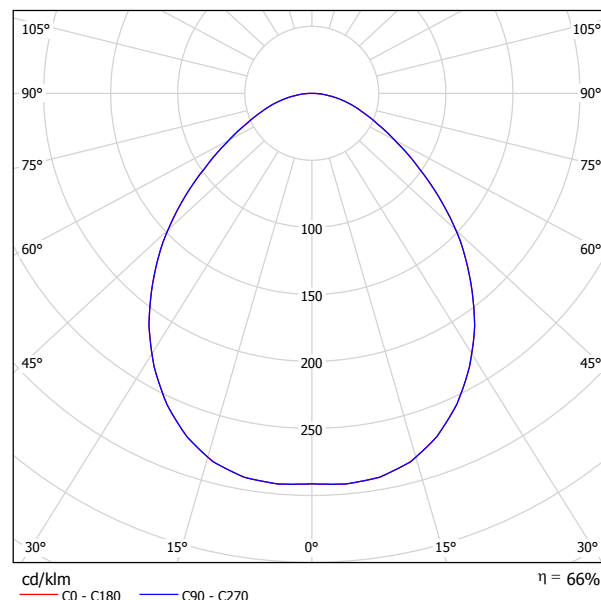
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HavellsSylvania 2028001 LED100TE ECO OPEN CONE 18W / Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 57 86 97 100 66

LED 100-TE Eco

Low profile downlight requiring a recess depth of just 100mm. Simple white reflector, optional gold or silver reflectors and cross blade louvre available. IP44 accessories are available from the Architectural range. Tilting lampholder for compact TC-T lamps. Die cast aluminium housing with integral polycarbonate gearbox. Energy efficient electronic gear with warm start and constant light output between 198-254VAC and 198-276VDC

Luminous emittance 1:

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	21.3	22.5	21.6	22.7	23.0	21.3	22.5	21.6	22.7	23.0
	3H	22.6	23.7	22.9	23.9	24.2	22.6	23.7	22.9	23.9	24.2
	4H	23.1	24.1	23.5	24.4	24.7	23.1	24.1	23.5	24.4	24.7
	6H	23.6	24.5	23.9	24.8	25.1	23.6	24.5	23.9	24.8	25.1
	8H	23.7	24.6	24.1	24.9	25.2	23.7	24.6	24.1	24.9	25.2
4H	12H	23.8	24.6	24.2	25.0	25.3	23.8	24.6	24.2	25.0	25.3
	2H	21.7	22.7	22.1	23.0	23.3	21.7	22.7	22.1	23.0	23.3
	3H	23.2	24.1	23.6	24.4	24.7	23.2	24.1	23.6	24.4	24.7
	4H	23.9	24.7	24.3	25.0	25.4	23.9	24.7	24.3	25.0	25.4
	6H	24.5	25.1	24.9	25.5	25.9	24.5	25.1	24.9	25.5	25.9
8H	8H	24.7	25.3	25.1	25.7	26.1	24.7	25.3	25.1	25.7	26.1
	12H	24.8	25.4	25.3	25.8	26.2	24.8	25.4	25.3	25.8	26.2
	4H	24.2	24.8	24.6	25.2	25.6	24.2	24.8	24.6	25.2	25.6
	6H	24.9	25.4	25.3	25.8	26.2	24.9	25.4	25.3	25.8	26.2
	8H	25.2	25.6	25.6	26.0	26.5	25.2	25.6	25.6	26.0	26.5
12H	12H	25.4	25.7	25.9	26.2	26.7	25.4	25.7	25.9	26.2	26.7
	4H	24.2	24.7	24.6	25.1	25.6	24.2	24.7	24.6	25.1	25.6
	6H	24.9	25.4	25.4	25.8	26.3	24.9	25.4	25.4	25.8	26.3
	8H	25.2	25.6	25.7	26.1	26.6	25.2	25.6	25.7	26.1	26.6
	12H	25.2	25.6	25.7	26.1	26.6	25.2	25.6	25.7	26.1	26.6
Variation of the observer position for the luminaire distances S											
S = 1.0H		+0.2 / -0.3					+0.2 / -0.3				
S = 1.5H		+0.4 / -0.7					+0.4 / -0.7				
S = 2.0H		+0.8 / -1.1					+0.8 / -1.1				
Standard table		BK04					BK04				
Correction Summand		5.5					5.5				
Corrected Glare Indices referring to 1200lm Total Luminous Flux											

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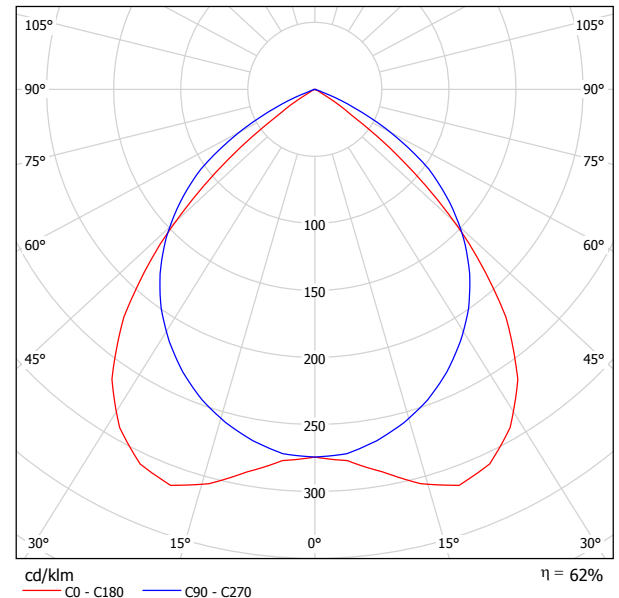
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HavellsSylvania 0055742 Ivy Classic T16 3x14W / Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 66 97 100 100 62

- Brilliant aluminium louvre
- LOR up to 68%
- Supplied complete with 840 4000K lamps
- Fast and easy lamp maintenance with quick release louvre facility
- Supplied complete with protective optic file for removal after installation
- Suitable for lay-in suspended grids complete with wire retention safety cable

Luminous emittance 1:

Glare Evaluation According to UGR											
ρ Ceiling	70	70	50	50	30	70	70	50	50	30	
ρ Walls	50	30	50	30	30	50	30	50	30	30	
ρ Floor	20	20	20	20	20	20	20	20	20	20	
Room Size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	9.1	10.2	9.4	10.4	10.6	18.2	19.3	18.5	19.5	19.7
	3H	9.0	9.9	9.3	10.2	10.4	18.2	19.2	18.5	19.4	19.7
	4H	8.9	9.8	9.3	10.1	10.3	18.2	19.0	18.5	19.3	19.6
	6H	8.9	9.7	9.2	10.0	10.3	18.1	18.9	18.4	19.2	19.5
	8H	8.8	9.6	9.2	9.9	10.2	18.1	18.8	18.4	19.1	19.4
	12H	8.8	9.5	9.2	9.8	10.2	18.0	18.7	18.4	19.0	19.4
4H	2H	9.4	10.3	9.7	10.5	10.8	18.0	18.9	18.4	19.2	19.5
	3H	9.3	10.0	9.6	10.3	10.6	18.1	18.8	18.4	19.1	19.4
	4H	9.2	9.8	9.6	10.2	10.5	18.0	18.6	18.4	19.0	19.3
	6H	9.2	9.7	9.6	10.1	10.4	17.9	18.5	18.3	18.8	19.2
	8H	9.1	9.6	9.5	10.0	10.4	17.9	18.4	18.3	18.8	19.2
	12H	9.1	9.5	9.5	9.9	10.4	17.8	18.3	18.3	18.7	19.1
8H	4H	9.1	9.6	9.6	10.0	10.4	17.9	18.4	18.3	18.8	19.2
	6H	9.1	9.4	9.5	9.9	10.3	17.8	18.2	18.3	18.6	19.1
	8H	9.0	9.4	9.5	9.8	10.3	17.8	18.1	18.2	18.5	19.0
	12H	9.0	9.3	9.5	9.7	10.2	17.7	18.0	18.2	18.5	19.0
12H	4H	9.1	9.5	9.5	9.9	10.4	17.8	18.3	18.3	18.7	19.1
	6H	9.0	9.4	9.5	9.8	10.3	17.8	18.1	18.2	18.5	19.0
	8H	9.0	9.3	9.5	9.7	10.2	17.7	18.0	18.2	18.5	19.0
Variation of the observer position for the luminaire distances S											
S = 1.0H		+1.6 / -4.5					+0.7 / -1.0				
S = 1.5H		+3.0 / -14.1					+1.5 / -3.1				
S = 2.0H		+4.6 / -20.1					+2.9 / -8.8				
Standard table		BK00					BK00				
Correction Summand		-8.2					-5.8				
Corrected Glare Indices referring to 3690lm Total Luminous Flux											

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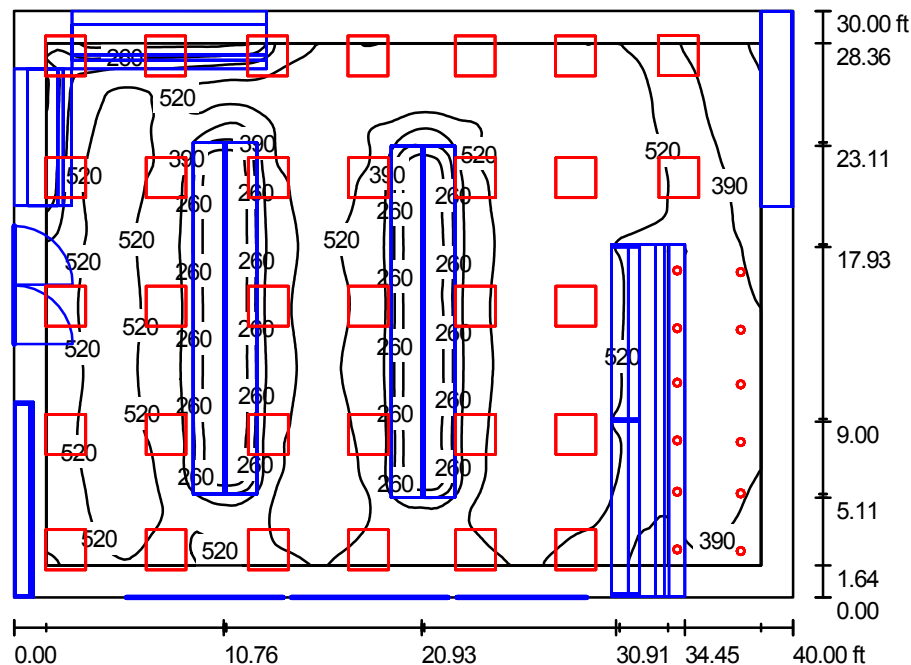
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Room 1 / Summary



Height of Room: 10.000 ft, Maintenance factor: 0.80

Values in Lux, Scale 1:118

Surface	ρ [%]	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Workplane	/	455	36	654	0.078
Floor	20	326	11	542	0.033
Ceiling	70	101	51	185	0.509
Walls (4)	50	165	4.62	528	/

Workplane:

Height: 2.598 ft
Grid: 128 x 128 Points
Boundary Zone: 1.640 ft

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.378, Ceiling / Working Plane: 0.221.

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ [lm]	P [W]
1	32	HavellsSylvania 0055742 Ivy Classic T16 3x14W (1.000)	3690	51.0
2	12	HavellsSylvania 2028001 LED100TE ECO OPEN CONE 18W (1.000)	1200	19.0
Total:			132480	1860.0

Specific connected load: 1.55 W/sq ft = 0.34 W/sq ft/100 lx (Ground area: 1200.03 sq ft)

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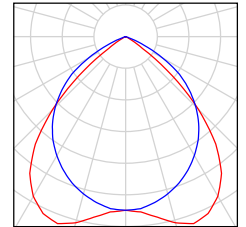
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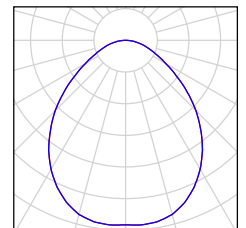
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Room 1 / Luminaire parts list

32 Pieces HavellsSylvania 0055742 Ivy Classic T16 3x14W
Article No.: 0055742
Luminaire Luminous Flux: 3690 lm
Luminaire Wattage: 51.0 W
Luminaire classification according to CIE: 100
CIE flux code: 66 97 100 100 62
Fitting: 3 x 14W T5 (Correction Factor 1.000).



12 Pieces HavellsSylvania 2028001 LED100TE ECO OPEN
CONE 18W
Article No.: 2028001
Luminaire Luminous Flux: 1200 lm
Luminaire Wattage: 19.0 W
Luminaire classification according to CIE: 100
CIE flux code: 57 86 97 100 66
Fitting: 1 x 18W TC-TEL (Correction Factor 1.000).



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Room 1 / Photometric Results

Total Luminous Flux: 132480 lm

Total Load: 1860.0 W

Maintenance factor: 0.80

Boundary Zone: 1.640 ft

Surface	Average illuminances [lx]			Reflection factor [%]	Average luminance [cd/m ²]
	direct	indirect	total		
Workplane	393	62	455	/	/
Floor	272	54	326	20	21
Ceiling	0.04	101	101	70	22
Wall 1	140	70	210	50	33
Wall 2	73	59	132	50	21
Wall 3	125	64	190	50	30
Wall 4	58	48	106	50	17

Uniformity on the working plane

u0: 0.078 (1:13)

E_{min} / E_{max}: 0.054 (1:18)

Illuminance Quotient (according to LG7): Walls / Working Plane: 0.378, Ceiling / Working Plane: 0.221.

Specific connected load: 1.55 W/sq ft = 0.34 W/sq ft/100 lx (Ground area: 1200.03 sq ft)