# **Day-Brite** CFI by (s)ignify

Recessed

FluxGrid 2x2

### **2FG** up to 5400 lumens

Day-Brite / CFI FluxGrid LED recessed offers architectural appeal with "must have" features. Two different lens styles, discrete air handling, integral emergency, and access to the boards and driver from below make FluxGrid an ideal solution for a wide range of applications.

### Ordering guide - standard & wireless controls

Standard configurations available with all choices, unless otherwise noted. Base configurations selections indicated by blue.

Width	Family	Ceiling Type	Air Function	Lumens (nominal delivered)	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G				2				
2 2'	FG FluxGrid	G Grid NEMA G 15/16"	Blank Static H Air return	Base Configurations 38B 3800 Standard Configurations 30L 3000 38L 3800 45L 4500 54L 5400 Other lumen packages may be ordered in increments of 100Im from 3000 to 5400 lumens	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	<b>2</b> 2'	D Diffuse (ribbed) DS Diffuse (smooth)	voltage 120-277V	DIM <sup>2</sup> Dimming SDIM Step dimming to 40% input power XDIM' MarkX phase dimming LDE Lutron LDE5 5% dimming DALI DALI	dimmable luminaires F2/6W 3/8" single flex, 6 wire 18 gauge 6' for dimmable and EMLED luminaires GLR Fusing, fast blow

### Ordering guide - PoE controls

example: 2FGG38L840-2-D-LV-POE-IAO

Project: Location

Cat.No:

Type:

Lamps

Notes:

Qty

example: 2FGG38B840-2-D-UNV-DIM

Width	Family	Ceiling Type	Air Function	Lumens (nominal delivered)	Color	Length	Center Diffuser	Voltage	Driver	Options
2	FG	G				2		LV	POE	
<b>2</b> 2'	FG FluxGrid	<b>G</b> Grid	Blank Static H Air return	<b>30L</b> 3000 <b>38L</b> 3800 <b>45L</b> 4500	830         80 CRI, 3000K           835         80 CRI, 3500K           840         80 CRI, 4000K           850         80 CRI, 5000K	<b>2</b> 2'	D Diffuse (ribbed) DS Diffuse (smooth)	LV Low voltage	POE Power over ethernet	IAO         Integral Interact Office daylighting and occupancy sensor, enables wired connected lighting control           EMPOE         600lm integral emergency driver and battery pack           IAOSB         Interact Office advanced wired sensor bundle, integral SC2000 w/IoT capabilities for enterprise scale projects

XDIM requires 120V or 277V specification.

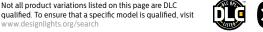
- Integral controls options dimmable to 5% via wireless wall switch. Non-controls options 2 are 0-10v dimmable to 1% for Standard configurations, and to 10% for Base configurations.
- Philips Bodine BSL310, 1100lm nominal delivered. 3
- Specify DIM driver option only. 4
- Must be installed in conjunction with a UL1008 device. 5
- 6 Must be ordered with an integral controls option.
- Not available with 347V option. 7
- Must order IRT9015 Interact commissioning remote with each system order.
- Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
- 10 Consult Signify to confirm whether specific accessories are BAA-compliant.



- FMA22 2'x2' "F" mounting frame for NEMA "F" mounting
- FGD2L FG 2' ribbed replacement lens
- FGDS2L FG 2' smooth replacement lens
- FGHD2L FG 2' air return ribbed replacement lens
- FGHDS2L FG 2' air return smooth replacement lens
- FSK22 2'x2' surface mount field installation kit (factory welded seams) • FSF22 - 2'x2' surface mount field assembly kit (field assembled)

### SWZCS accessories<sup>10</sup> (order separately)

- IRT9015 handheld remote for grouping and configuration (at least one remote required for any SWZCS installation).
- UID8451/10 Wireless Dimmer Switch Selector
- UID8461/10 Wireless Scene Selector





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qualified. To ensure that a specific model is qualified, visit ww.designlights.org/sear

### up to 5400 lumens

### Application

- 3" deep low profile configuration provides minimal penetration into the plenum space
- Acrylic diffuser available in ribbed and smooth configurations provides even illumination with comfortable appeal
- Standard and base configurations available in multiple lumen packages to suit the needs of various applications
- Lambertian distribution creates uniform horizontal and vertical illuminance on the work plane and reduces scalloping on the walls
- CRI 80 minimum color rendering with balanced spectrum
- LEDs coupled with standard dimming provide prolonged lumen maintenance. Optional integral sensors contribute further to LED lumen maintenance
- Designed for use with standard 15/16" wide Grid (NEMA "G") T-bars. Drywall or plaster applications require use with the FMA22 "F" mounting frame accessory (sold and shipped separately)
- Continuous row mounting is possible with a 1" gap between fixtures accommodated by others

### Enclosure

- Opal acrylic diffuser provides visually comfortable lumenance without compromise to luminaire efficacy.
- Diffuser requires no frames or fasteners and can be easily removed from below without the use of tools

### **Construction/Finish**

- Uncomplicated design is 3" deep with minimal material overlap creating several benefits:
- Less material required
- Less packaging required
- Reduced weight for ease of handling and transit
- Less energy required for construction and assembly
- More luminaires can be shipped per truck to reduce fuel consumption

- Metal side covers are die formed with a conical shape to enhance light distribution and visual aesthetic
- Injection molded lens retainers allow for easy, tool-free access to the LED boards and driver from below, and provide positive lens retention
- Luminaire finish is matte white polyester powder coat for high quality, durable finish
- T-bar grid clips are integral to the body
- Air return option provides air flow through a unique lens retainer design. Air passes through architectural forms in the lens retainers (each end), and through the end plate of the luminaire. A cover plate is provided to control air flow through the luminaire, or make it static as required
- Integral controls options include sensor mounted in one lens retainer
- EMLED option requires the emergency battery pack be installed with a top side cover. Access from above
- To estimate lumen output in emergency mode, multiply emergency pack wattage by efficacy, then by 1.10

### **General notes**

- $\cdot$  All options are factory installed
- All accessories are field installed
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, pertroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility

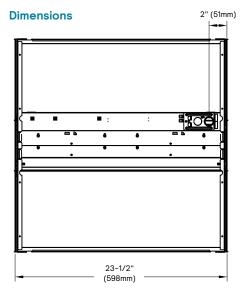
### Electrical

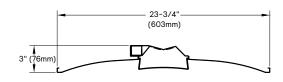
- Integral sensor options for occupancy sensing and/or daylight harvesting are available for additional energy savings with no reduction of life or increase in installation labor
- Standard configurations provide up to 120 lumens per watt and are available with 5 lumen packages and 3000, 3500, 4000, and 5000K color temperatures

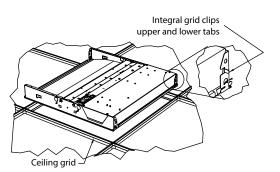
- Base configurations provide up to 124 lumens per watt and are available in 4200 lumen flux and 3500K and 4000K color temperatures
- LED boards are accessible from below by removal of the lens. Lens removal is tool-free by compressing the sides and pushing to one end
- LED driver is accessible from below by removal of the lens and integral wireway cover. The wireway cover is easily removed with a flat head screwdriver
- Other driver options including step dimming (SDIM, 100%/40%), DALI, phase dimming (XDIM), and Lutron are available
- 5 year manufacturer's limited warranty. Visit signify.com/warranties for complete warranty information.
- TM-21 predicted L70 lumen maintenance up to 85,000 hours
- cETLus listed to UL and CSA standards, suitable for damp locations
- Not all product variations listed on this page are DLC qualified. To ensure that a specific model is qualified, visit www.designlights.org/search

### **Energy data**

Luminaire	Catalog Number	Input Power	Efficacy
	2FGG30L840	24.3	124
2x2 Standard	2FGG38L840	31.3	121
	2FGG45L840	37.7	124
2x2 Base	2FGG38B840	34.3	121







### up to 5400 lumens

### **Wireless Controls Options**

### SpaceWise DT (SWZDT)

- Standalone daylight and occupancy sensing with advanced grouping, wireless mesh networking and dwell time.
- · Commissioning via compatible Android phone and Philips Field App
- · Dimming via compatible Zigbee wireless wall switch only (see link below for details)
- Register for the commissioning app at http:// registration.componentcloud.philips.com/ appregistration/
- Integral sensing options may not be combined
- For more information including recommended switches, refer to the following: -

SWZDT - www.usa.lighting.philips.com/systems/ lighting-systems/spacewise

### **Emergency Options (ER100)**

- · Power Sensing (Factory default) Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output
- Power Interruption Detection (Field option) Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output

### FluxGrid shown with integral sensor



### Interact Pro scalable sensor for Foundation, Advanced & Enterprise tiers

- (SWZCS and an evolution of SpaceWise)
- · SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the Foundation mode (similar to SpaceWise) when configured without a gateway or in an Interact Pro Advanced or Enterprise mode if a compatible gateway is used.
- · Interact Pro includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & BlueTooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- · Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote onsite to identify and group devices together.
  - · Compatible with:
  - UID8451/10 wireless dimmer switch
  - SWS200 wireless scene switch
  - Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
  - Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
  - Battery powered IP65 presence sensor OCC sensor IA CM IP65 WH
  - Battery powered IP65 presence & daylight sensor OCC-DL sensor IA CM IP65 WH
- For more information on Interact Pro visit: www.interact-lighting.com/
- interactproscalablesystem

### Radio only sensor (RADIO)

- Integral RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- · Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.

### Interact Pro scalable sensor bundles for **Enterprise tier**

- · IAOSB option in addition to occupancy and daylight sensing supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Compatible with UID8451/10 wireless dimmer switch, SWS200 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available.
- Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- · Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: www.interact-lighting.com/office or www.usa.lighting.philips.com/systems/systemareas/offices

### Wired Controls Options

### Interact Office Wired (PoE)

- PoE based IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- · Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- IAOSB option in addition to occupancy and davlight sensing supports advanced IoT capabilities such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- PoE lighting controller is accessible from below.

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- shelf life, and must be stored and installed in environments of 20C to 30C (-4F to 86F) ambient, and 45-85% relative humidity.
  - · For more information, visit: www.interactlighting.com/office or www.usa.lighting.philips. com/systems/system-areas/offices

· Emergency battery has a 3 month pre-installed

of chassis on one end.

### **Energy data**

Integral sensor option for occupancy sensing     (DD) and (an elasticity because the available)	Catalog Number	ССТ	Flux (lm)	DC Power (W)	DC Efficacy (Im/W)
(PIR) and/or daylight harvesting available for additional energy savings.	2FGG30L840-2-D-LV-POE	4000K	2980	24	125
<ul> <li>Optional integral emergency controller and</li> </ul>	2FGG38L840-2-D-LV-POE	4000K	3910	33	120
battery pack provides 600lm nominal output. Test switch and indicator light mounted on side	2FGG45L840-2-D-LV-POE	4000K	4529	39	116
rest switch and indicator light mounted on side					

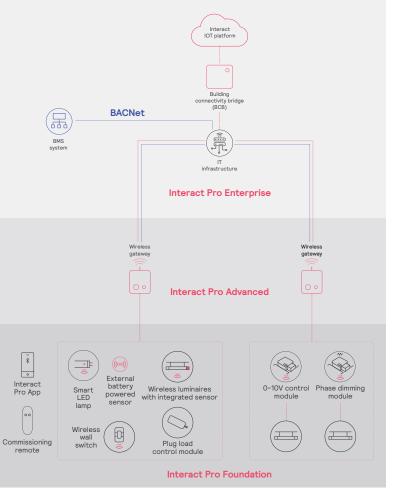
### up to 5400 lumens

		Interact Pro scalab	le system
	Foundation	Advanced	Enterprise
Dimming, grouping, and zoning	$\checkmark$	$\checkmark$	$\checkmark$
Bluetooth and ZigBee enabled	$\checkmark$	$\checkmark$	$\checkmark$
Motion sensing and daylight harvesting	$\checkmark$	$\checkmark$	$\checkmark$
Integration with 0-10V and phase dimming fixtures	$\checkmark$	$\checkmark$	$\checkmark$
Code compliance	$\checkmark$	$\checkmark$	$\checkmark$
Granular dimming and dwell time	$\checkmark$	$\checkmark$	$\checkmark$
Energy reporting and monitoring		$\checkmark$	$\checkmark$
Scheduling		$\checkmark$	$\checkmark$
Demand response		$\checkmark$	$\checkmark$
BMS integration (BACnet)			$\checkmark$
Floor plan visualization			$\checkmark$
IoT sensors for wellness			$\checkmark$
IoT Apps for productivity			$\checkmark$

#### Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
<ul> <li>luminaires with integrated sensors</li> </ul>	150
• smart TLEDS	150
Total number of ZGP devices (sensors and switches)	50
· sensors	30
• switches	50
<ul> <li>zones and groups</li> </ul>	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16

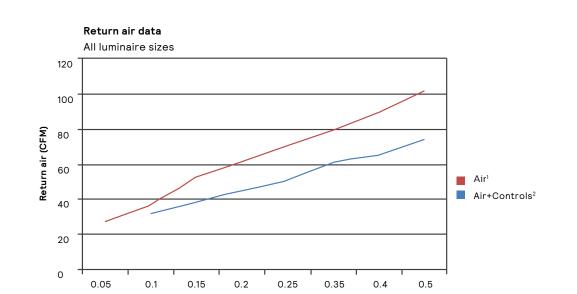


### up to 5400 lumens

### Air return option



Allows air to flow through vents in the lens retainers on each end. Air blades are provided on each end of the luminaire to control air flow to the plenum.



Plenum Pressure, Inches W.G.

### Return air - noise criteria

All luminaire sizes

					CI	=M			
Mode		27	37	53	62	71	80	90	102
Air <sup>1</sup>	NC (dB)	<15	24	25	29	33	35	38	40

0	-		
	-	IVI	

Mode		31	38	45	51	61	65	74
Air+Controls <sup>2</sup>	NC (dB)	<15	19	21	25	28	30	34

1. Air-only option includes air return lens retainers and pattern control blades on both ends of luminaire.

Air+Controls includes the air return lens retainer and pattern control blade on one end of the luminaire Control lens retainer on the other with matching width.

### up to 5400 lumens

### Photometry

#### 2x2 FluxGrid recessed LED, base configuration, 3800 nominal delivered lumens

#### LER - 114

							Light	Distribu	tion			Ave	rage Lu	uminano	e
Catalog No.	2FGG38B840-2-D-UNV-DIM						Degree	es Lu	umens	% Lum	inaire	Zone	End	45°	Cross
Test No.	36779						0-30		)92	28.5		45	14765		16218
S/MH	1.2						0-40		7 <u>50</u> 005	45.7 78.5		<u>55</u> 65	13366		16007
Lamp Type	LED	Candle	power				0-90 0-180		830 830	100 100		75 85	8928 5123	13683 11304	16392 13036
Lumens	3828	Angle	End	45	Cross	Back-45									
Input Watts	34	0	1465	1465	1465	1465	Coeff	cients	of Utiliz	ation					
		5	1444	1458	1460	1458	EFFE				CTANCE	20 PER (pf	c-0.20)		
Comparativo voa	rly lighting energy cost per 1000	15	1371	1377	1376	1377	pfc =	20					(-0.20)		
	ased on 3000 hrs. and \$.08 pwr	25	1227	1229	1240	1229	Ceil	20	80			70		5	0
KWH.	ased on 5000 firs. and 5.08 pwr	35	1033	1052	1073	1052	Wall	70	50	30	70	50	30	50	30
		45	816	861	896	861	RCR 0	118	118	118	115	115	115	111	111
The photometric	results were obtained in the	55	599	666	718	666	1	109	104	98	106			96	93
	tory which is NVLAP accredited by	65	364	481	542	481	2	98	90	83	95	89		84	80
	itute of Standards and Technology.	75	181	277	332	277	3	90	79	70	88		69	75	68
		85	35	77	89	77	4	82 76	69 63	61 54	80 73		60 53	67 59	58 52
	les based on test performed in		100	1	100		6	69	56	47	68		46	59	46
compliance with	LM-79.						7	65	52	42	63	51	40	48	40
							8	60	46	30	58		38	45	38

### 2x2 FluxGrid recessed LED, standard configuration, 3000 nominal delivered lumens

Catalog No.	2FGG30L840-2-D-UNV-DIM
Test No.	36780
S/MH	1.2
Lamp Type	LED
Lumens	3023
Input Watts	27

Comparative yearly lighting energy cost per 1000 lumens – **\$2.14** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candle	power			
Angle	End	45	Cross	Back-45
0	1171	1171	1171	1171
5	1154	1165	1166	1165
15	1095	1099	1100	1099
25	980	982	990	982
35	825	840	858	840
45	652	688	717	688
55	447	497	555	497
65	292	359	405	359
75	144	222	266	222
85	28	62	72	62

Light Distr	ibution	Ave	Average Luminance							
Degrees	Lumens	% Luminaire	Zone	End	45°	Cro				
0-30	873	28.9	45	11803	12452	129				
0-40	1398	46.2	55	9978	11082	123				
0-60	2381	78.7	65	8831	10868	122				
0-90	3024	100	75	7133	10950	1312				
0-180	3024	100	85	4081	9131	105				

34

55

42

34

41

34

LER - 112

Cross 12964 12387

10540

10868 12264

#### **Coefficients of Utilization**

9 10

56

42

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20								
Ceil		80		70			50		
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	102	97	96	93	
2	98	91	83	95	89	81	84	80	
3	90	80	70	88	78	69	75	68	
4	82	70	61	80	68	60	67	59	
5	76	63	54	73	61	54	59	53	
6	69	56	47	68	56	47	54	46	
7	65	52	42	64	51	42	50	41	
8	60	46	39	58	46	39	45	38	
9	56	44	34	56	42	34	41	34	
10	53	40	32	52	40	32	39	32	

### up to 5400 lumens

### Photometry

#### 2x2 FluxGrid recessed LED, standard configuration, 3800 nominal delivered lumens

#### LER - 110

							Light [	Distribu	tion			Ave	age Li	uminanc	e
Catalog No.	2FGG38L840-2-D-UNV-DIM						Degree	s L	umens	% Lum	inaire	Zone	End	45°	Cross
Test No.	36781						0-30		057	28.7		45	14277		15691
S/MH	1.2						0-40		594 903	46 78.8		55 65	12926		15493
Lamp Type LED		Candlepower				0-90		683 683	100		75 85	8588		15843 12452	
Lumens	3682	Angle	End	45	Cross	Back-45							14040	11132	12452
Input Watts	Input Watts 33		1419	1419	1419	1419	Coeffi	cients	of Utiliz	ation					
		5	1398	1411	1414	1411	FEFEC		OPCAVI		CTANCE	20 PER (pf	c=0 20)		
Comparative yea	Comparative yearly lighting energy cost per 1000		1326	1333	1333	1333	pfc =	20					(-0.20)	1	
lumens – <b>\$2.18</b> based on 3000 hrs. and \$.08 pwr KWH.		25	1187	1191	1200	1191	Ceil 80 70				50				
		35	998	1019	1039	1019	Wall	70	50	30	70	50	30	50	30
		45	790	834	868	834	RCR	118	118	118	115	115	115	111	111
The photometric	results were obtained in the	55	580	644	695	644	1	109	104	98	106		97		93
Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.		65	353	434	491	434	2	98	91	83	95		81		80
		75	174	268	321	268	3	90 82	80 70	70 61	88 80		69 60		68 59
<b>N</b>		85	33	76	85	76	4	76	63	54	73		54		53
Photometric values based on test performed in compliance with LM-79.							6	69	56	47	68		47		46
compliance with	LIVI-79.						7	65	52	42	64		42		41
							8	60 56	46	39	58		<u>39</u> 34		38 34
							10	53	44	34	55 52		<u>34</u> 32		34
									1.0						

#### 2x2 FluxGrid recessed LED, standard configuration, 4500 nominal delivered lumens

Catalog No.	2FGG45L840-2-D-UNV-DIM
Test No.	36782
S/MH	1.2
Lamp Type	LED
Lumens	4704
Input Watts	45

Comparative yearly lighting energy cost per 1000 lumens – **\$2.26** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Angle	End	45	Cross	Back-45
0	1800	1800	1800	1800
5	1774	1791	1794	1791
15	1684	1691	1692	1691
25	1507	1512	1523	1512
35	1268	1294	1319	1294
45	1003	1058	1103	1058
55	736	818	882	818
65	447	590	666	590
75	221	340	407	340
85	42	96	108	96

### Light Distribution

Lumens

1342 2150 369

4706

Degrees

0-30 0-40 0-60

0-90 0-180 Average Luminance

LER - 106

Zone	End	45°	Cross
45	18141	19143	19949
55	16417	18253	19674
65	13545	17871	20175
75	10900	16807	20115
85	6210	14034	15825

#### Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20		1						
Ceil		80	·		70		5	0	
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	101	97	96	93	
2	98	90	83	95	89	81	84	80	
3	90	79	70	88	78	69	75	68	
4	82	69	61	80	68	60	67	58	
5	76	63	54	73	61	53	59	52	
6	69	56	47	68	56	46	54	46	
7	65	52	42	63	51	42	48	41	
8	60	46	39	58	46	38	45	38	
9	56	42	34	55	42	34	41	34	
10	53	40	32	52	40	32	39	32	

% Luminaire

28.5 45.7 78.4

100 100

# (s)ignify

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