Day-Brite by Signify

Recessed

FluxGrid 1x4

1FG 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.

Project:	
Location:	
Cat.No:	
Туре:	
Lamps:	Qty:
Notes:	

example: 1FGG41B840-4-D-UNV-DIM

example: 1FGG38L840-4-D-LV-POE-IAO

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 ⁶	Options
1	FG	G				4				
1.1	FG FluxGrid	G Grid NEMA G 15/16"	Blank Static H Air return	Base Configurations 41B 4100 Standard Configurations 30L 3000 38L 3800 45L 4500 Other lumen packages may be ordered in increments of 100lm from 3000 to 5400 lumens	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	4 4'	D Diffuse (ribbed) DS Diffuse (smooth)	UNV Universal voltage 120-277V 1201 120V 2771 277V 347 347V	SDIM ² Dimming Step dimming to 40% input power XDIM ¹ MarkX phase dimming LDE Lutron LDE5 5% dimming DALI DALI	F1 3/8" flex, 3 wire 18 gauge 6' F2 3/8" flex, 4 wire 18 gauge 6' F1/D 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires F2/5W 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires F2/6W 3/8" single flex, 6 wire 18 gauge 6' for dimmable luminaires F2/6W 3/8" single flex, 6 wire 18 gauge 6' for dimmable and EMLED luminaires GLR Fusing, fast blow EMLED³ Integral emergency battery pack DSC Quick driver disconnect CHIC Chicago Plenum rated ER100* EM109* UL924 listed sensor bypass relay, factory installed between driver & sensor GTD/E5* UL924 listed Bodine GTD factory installed on driver input GTD/SNSR* SWZCS* SWZCS* Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SWZDT¹ SpaceWise only sensor, daylighting and occupancy, advanced grouping with dwell time RADIO⁴ Interact Pro RF sensor, enables wireless connected lighting control IAOSB* Interact Office advanced wireless sensor bundle, integral SC1500 w/loT capabilities for enterprise scale projects AG Antimicrobial finish NFG Narrow Grid (NEMA "NFG") ceiling brackets Meets the requirements of the Buy American Act of 1933 (BAA)

Ordering guide - PoE controls

Width	Family	Ceiling Type	Air Function	Lumens (nominal delivered)	Color	Length	Center Diffuser	Voltage	Driver	Options
1	FG	G				4		LV	POE	
1 1'	FG FluxGrid	G Grid	Blank Static H Air return	30L 3000 38L 3800 45L 4500	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K	4 4'	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/loT capabilities for enterprise scale projects

- XDIM requires 120V or 277V specification.
- Integral controls options dimmable to 5% via wireless wall switch. Non-controls options are 0-10v dimmable to 1% for Standard configurations, and to 10% for Base configurations.
- Philips Bodine BSL310, 1100lm nominal delivered.
- Specify DIM driver option only.
- 5 Must be installed in conjunction with a UL1008 device.
- 6 Must be ordered with an integral controls option.
- Not available with 347V option.
- 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.

Accessories¹⁰ (order separately)

- FMA14 1'x4' "F" mounting frame for NEMA "F" mounting
- FGD4L FG 4' ribbed replacement lens
- FGDS4L FG 4' smooth replacement lens
- FGHD4L FG 4' air return ribbed replacement lens
- FGHDS4L FG 4' air return smooth replacement lens
- FSK14 1'x4' surface mount field installation kit (factory welded seams)
- FSF14 1'x4' surface mount field assembly kit (field assembled)

SWZCS accessories¹⁰ (order separately)

· IRT9015 - handheld remote for grouping and configuration(at least one remote required for any SWZCS installation).







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 FMA14 "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 battery pack wattage by efficacy, then by 1.10

General notes

- · 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

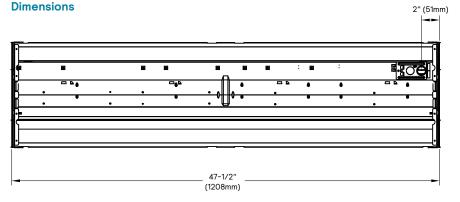
Electrical

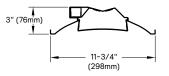
- Integral sensor options for occupancy sensing and/or daylight harvesting are available for additional energy savings with no reduction of life or increase in installation labor
- Standard configurations provide up to 121 lumens per watt and are available with 5 lumen packages and 3000, 3500, 4000, and 5000K color temperatures

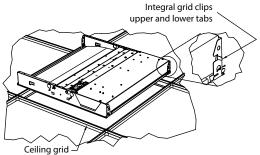
- Base configurations provide up to 124 lumens per watt and are available in 4100 lumen flux and 3500K and 4000K color temperatures
- LED boards are accessible from below by removal of the lens. Lens removal is tool-free by compressing the sides and pushing to one end
- LED driver is accessible from 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 70.000 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
	1FGG30L840	24.5	121
1x4 Standard	1FGG38L840	31.9	120
	1FGG45L840	38.6	116
1x4 Base	1FGG41B840	33.6	124







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:
- 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
- LCN3110: Battery powered IP65 presence sensor, OCC sensor IA CM IP65WH
- -LCN3120: 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 SWS200 wireless scene switch and Interact Ready wireless battery powered sensors.
- 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/system areas/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 daylight 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.

- Integral sensor option for occupancy sensing (PIR) and/or daylight harvesting available for additional energy savings.
- Optional integral emergency controller and battery pack provides 600lm nominal output.
 Test switch and indicator light mounted on side of chassis on one end.
- Emergency battery has a 3 month pre-installed 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

Energy data

Catalog Number	ССТ	Flux (lm)	DC Power (W)	DC Efficacy (lm/W)
1FGG30L840-4-D-LV-POE	4000K	3130	24	130
1FGG38L840-4-D-LV-POE	4000K	3843	30	128
1FGG45L840-4-D-LV-POE	4000K	4532	36	125

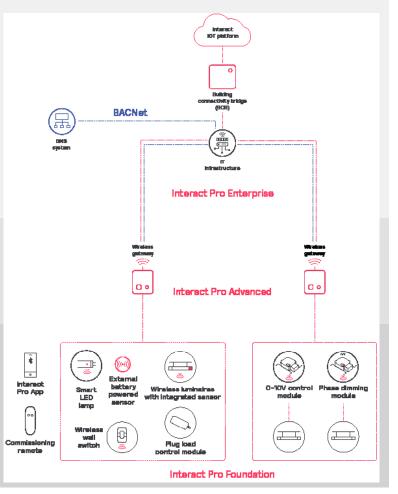
up to 5400 lumens

		Interact Pro scalab	le system
	Formal No.		
	Foundation	Advanced	Enterprise
Dimming, grouping, and zoning	~	✓	/
Bluetooth and ZigBee enabled	~	✓	/
Motion sensing and daylight harvesting	✓	✓	/
Integration with 0-10V and phase dimming fixtures	~	✓	~
Code compliance	~	✓	/
Granular dimming and dwell time	✓	✓	/
Energy reporting and monitoring		✓	/
Scheduling		✓	/
Demand response		✓	/
BMS integration (BACnet)			~
Floor plan visualization			~
IoT sensors for wellness			~
IoT Apps for productivity			/

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
 luminaires with integrated sensors 	150
• smart TLEDS	150
Total number of ZGP devices (sensors and switches)	50
· sensors	30
• switches	50
zones and groups	64
Group level	
Recommended number of lights	40 (recommended 25)
Number of ZGP devices	5
Number of scenes	16



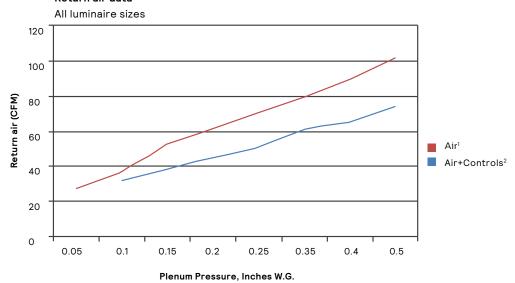
up to 5400 lumens

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.

Return air data



Return air - noise criteria

All luminaire sizes

	CFM								
Mode		27	37	53	62	71	80	90	102
Air ¹	NC (dB)	<15	24	25	29	33	35	38	40

CFM									
Mode			31	38	45	51	61	65	74
Air+Controls ²	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

1x4 FluxGrid recessed LED, base configuration, 4100 nominal delivered lumens

LER - 124

Catalog No. 1FGG41B840-4-D-UNV-DIM

 Test No.
 36798

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 4157

 Input Watts
 34

Comparative yearly lighting energy cost per 1000 lumens – **\$1.94** 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.

Candlepower

Angle	End	45	Cross	Back-45
0	1595	1595	1595	1595
5	1569	1584	1590	1584
15	1497	1505	1509	1505
25	1352	1363	1372	1363
35	1150	1177	1196	1177
45	921	980	1005	980
55	684	757	782	757
65	421	523	516	523
75	214	245	233	245
85	41	42	36	42

Light Distribution							
Degrees	Lumens	% Luminaire					
0-30	1203	28.9					
0-40	1939	46.6					
0-60	3354	80.6					
0-90	4150	99.8					
0-180	4160	100					

Average Luminance						
Zone	End	45°	Cross			
45	7833	8328	8541			
55	7163	7932	8196			
65	5994	7436	7342			
75	4961	5697	5418			
85	2807	2924	2469			

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)									
pfc =	20					,			
Ceil		80			70		5	50	
Wall	70	50	30	70	50	30	50	30	
RCR									
0	118	118	118	115	115	115	111	111	
1	109	105	100	106	102	97	97	94	
2	98	91	84	96	89	82	85	81	
3	91	80	71	88	79	70	76	68	
4	82	70	63	81	69	61	68	60	
5	77	64	55	73	63	54	60	53	
6	70	57	48	68	56	47	55	46	
7	66	52	44	64	51	42	50	41	
8	60	47	39	59	46	39	46	38	
9	56	44	35	56	42	34	41	34	
10	54	40	33	52	40	32	39	32	

1x4 FluxGrid recessed LED, standard configuration, 3000 nominal delivered lumens

Catalog No. 1FGG30L840-4-D-UNV-DIM

 Test No.
 36797

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 2975

 Input Watts
 24

Comparative yearly lighting energy cost per 1000 lumens – \$1.97 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.

Candlepower

Angle	End	45	Cross	Back-45
0	1156	1156	1156	1156
5	1137	1148	1152	1148
15	1084	1090	1094	1090
25	979	987	994	987
35	833	854	867	854
45	667	711	727	711
55	462	521	548	521
65	305	353	349	353
75	154	177	168	177
85	29	30	26	30

Light Distribution

Lumens	% Luminaire
871	29.3
1405	47.2
2411	81
2970	99.8
2977	100
	871 1405 2411 2970

LER - 121 Average Luminance

Zone	End	45°	Cross
45	5667	6042	6184
55	4839	5455	5743
65	4332	5022	4960
75	3579	4111	3906
85	2028	2069	1766

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pfc =	20							
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	105	100	106	102	98	97	94
3	100	92	84	96	90	83	85	81
3	91	81	72	88	79	71	76	69
4	82	71	63	81	69	61	68	60
5	77	64	55	75	63	55	60	54
6	70	57	48	68	56	48	55	47
7	66	53	44	64	52	44	50	42
8	60	47	40	59	46	39	46	39
9	56	44	35	56	44	35	41	34
10	54	40	33	53	40	33	39	32

up to 5400 lumens

Photometry

1x4 FluxGrid recessed LED, standard configuration, 3800 nominal delivered lumens

LER - 120

Catalog No. 1FGG38L840-4-D-UNV-DIM

 Test No.
 36796

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 3830

 Input Watts
 32

Comparative yearly lighting energy cost per 1000 lumens – **\$2.00** based on 3000 hrs. and \$.08 pwr

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.

Candlepower

Angle	End	45	Cross	Back-45
0	1480	1480	1480	1480
5	1456	1470	1475	1470
15	1388	1396	1401	1396
25	1254	1264	1274	1264
35	1067	1093	1111	1093
45	853	911	932	911
55	633	705	725	705
65	391	454	447	454
75	198	227	216	227
85	38	39	33	39

Light distribution				
Degrees	Lumens	% Luminaire		
0-30	1116	29.1		
0-40	1798	46.9		
0-60	3111	81.2		
0-90	3831	100		
0-180	3832	100		

Average Luminance				
Zone	End	45°	Cross	
45	7255	7742	7919	
55	6636	7383	7595	
65	5554	6453	6355	
75	4592	5281	5019	
85	2586	2683	2297	

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pfc =	20	JIK CAVIII	· KEI EE	I I I		0.207	1	
Ceil	20	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	105	100	106	102	98	97	94
2	100	92	84	96	90	83	85	81
3	91	81	72	88	79	71	76	69
4	82	71	63	81	69	61	68	60
5	77	64	55	75	63	55	60	53
6	70	57	48	68	56	47	55	47
7	66	52	44	64	52	42	50	42
8	60	47	39	59	46	39	46	39
9	56	44	35	56	42	35	41	34
10	54	40	33	52	40	33	39	32

1x4 FluxGrid recessed LED, standard configuration, 4500 nominal delivered lumens

Catalog No. 1FGG45L840-4-D-UNV-DIM

 Test No.
 36795

 S/MH
 1.2

 Lamp Type
 LED

 Lumens
 4546

 Input Watts
 39

Comparative yearly lighting energy cost per 1000 lumens – **\$2.03** 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.

Candlepower

Angle	End	45	Cross	Back-45
0	1751	1751	1751	1751
5	1723	1739	1746	1739
15	1643	1652	1658	1652
25	1484	1495	1507	1495
35	1263	1293	1314	1293
45	1010	1077	1103	1077
55	750	833	859	833
65	462	558	551	558
75	235	269	257	269
85	45	46	40	46

Light Distribution

0		
Degrees	Lumens	% Luminaire
0-30	1320	29
0-40	2129	46.8
0-60	3683	81
0-90	4548	100
0-180	4548	100

LER - 116 Average Luminance

Thorago Lammanoo				
Zone	End	45°	Cross	
45	8587	9155	9376	
55	7860	8728	9001	
65	6577	7931	7834	
75	5446	6254	5957	
85	3069	3193	2773	

Coefficients of Utilization

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	105	100	106	102	98	97	94
3	98	91	84	96	90	82	85	81
3	91	81	72	88	79	71	76	69
4	82	70	63	81	69	61	68	60
<u>5</u>	77	64	55	75	63	55	60	53
6	70	57	48	68	56	47	55	46
7	66	52	44	64	52	42	50	42
8	60	47	39	59	46	39	46	39
9	56	44	35	56	42	35	41	34
10	54	40	33	52	40	33	39	32



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