

Day-Brite / CFI ClearAppeal LED recessed is a fully luminous aperture luminaire providing modern appeal to architectural spaces. Featuring a regressed aesthetic with balanced glare gradient, ClearAppeal delivers high performing even illumination and high visual comfort. Its architectural style, coupled with controls options, makes ClearAppeal an ideal choice for applications such as office, institutional, and healthcare, where energy savings and customized effect are desired.

ClearAppeal now offers AccuRender technology for the highest color quality at the highest efficacy.

Ordering guide – standard & wireless controls

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

example: 2CAXG38L840-2-DS-UNV-DIM-SWZCS

Width	Family	Ceiling Type	Lumens (nominal delivered)	Efficacy	Color	Length	Center Diffuser	Voltage	Driver	Options
2	CAX	G			–	2	DS	–	–	
2' 2'	CAX ClearAppeal Gen 2	G Grid	Base configuration 38B 3800 Standard configurations 30L 3000 38L 3800 45L 4500 Other lumen packages may be ordered in increments of 100lm from 3000 to 4500 lumens	Blank Standard H⁵ High	830 80 CRI, 3000K 835 80 CRI, 3500K 840 80 CRI, 4000K 850 80 CRI, 5000K AccuRender⁸ 930 90 CRI, 3000K 935 90 CRI, 3500K 940 90 CRI, 4000K	2' 2'	DS Diffuse (smooth)	UNV Universal Voltage, 120-277 volt 347 347V	DIM¹ Dimming Step dimming to 40% input power SDIM Lutron LDE5, 5% dimming LDE Lutron LDE1, 1% dimming LDEH DALI dimming	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 and emergency luminaires GLR Fusing, fast blow BSL10LST⁴ Bodine 10W selftesting battery pack BSL6LST⁴ Bodine 6W selftesting battery pack DSC Quick driver disconnect CHIC³ Chicago Plenum rated ER100^{4,6,7} UL924 listed sensor bypass relay, factory installed between driver & sensor GTD/E^{4,6} UL924 listed Bodine GTD factory installed on driver input GTD/SNSR^{4,6,7} UL924 listed Bodine GTD factory installed between driver and sensor SWZCS^{2,10} Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time SWZDT² SpaceWise only sensor, daylighting and occupancy, advanced grouping with dwell time RADIO² Interact Pro RF sensor, enables wireless connected lighting control IAOSB^{2,10} Interact Office advanced wireless sensor bundle, integral SC1500 w/ IoT capabilities for enterprise scale projects AG Antimicrobial Finish WL Wet location listed

Ordering guide – PoE controls

example: 2CAXG38L840-2-DS-LV-POE-IAO

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

Footnotes

- 1 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.
- 2 Specify only with -DIM driver option.
- 3 CHIC option not provided with air return functionality.
- 4 Not available with 347V.
- 5 High efficacy option may only be ordered with Standard lumen configurations.
- 6 Must be installed in conjunction with a UL1008 device.
- 7 Must be ordered with an integral sensing option.
- 8 AccuRender is 90CRI with R9>50.
- 9 Option is qualified as Engineered-to-Order (ETO) ready. Lead times and minimum order quantities may vary, please consult factory.(DLC Standard efficacy only)
- 10 Must order IRT9015 Interact commissioning remote with each system order.

Accessories (order separately)

- **FSF422** – 2'x2' surface mount field installation kit (field assembled)
- **FMA22** – 2'x2' "F" mounting frame for NEMA "F" ceiling
- **CAXGDS22L** – 2'x2' ClearAppeal Gen2 replacement lens
- **CAXGDS22LC** – 2'x2' ClearAppeal Gen2 with controls replacement lens

SWZCS accessories (order separately)

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

2CAX ClearAppeal recessed 2x2

up to 4500 lumens

Application

- Ideal for modern offices, institutional, retail, and healthcare applications.
- Modern architectural styling to complement any space.
- Full width luminous lens provides smooth brightness and high visual comfort.
- Directs a controlled amount of light to higher angles to eliminate "cave effect" without creating glare.
- Available in standard efficacy and high efficacy (H) configurations up to 130lm/W.
- 80 CRI minimum source provides a balanced spectral power distribution.
- AccuRender 90 CRI source provides preferred color quality.
- Suitable for use with NEMA G (15/16") and NFG (9/16") suspended t-grid ceilings. NEMA F flange ceilings require the FMA24 accessory (ordered separately).

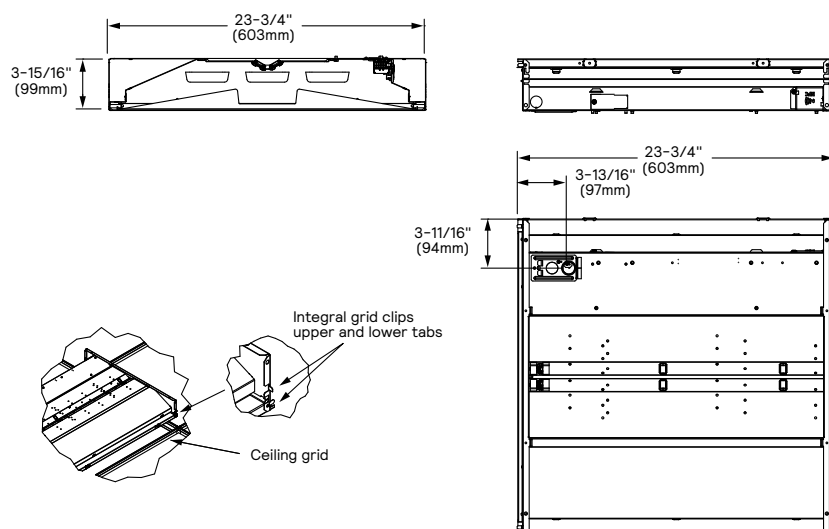
Construction/Finish

- Robust and durable dieformed embossed steel housing and end caps.
- Molded one-piece acrylic diffuser may be removed without tools for access to LED boards and driver(s).
- Unique spring retainers ensure the diffuser is centered in the housing opening at all times.
- T-bar grid clips are built into luminaire end caps for quick and easy installation, no extra parts.
- Air return functionality is standard for all configurations. See air flow and noise data on page 4.

Energy data

Configuration	Nominal CCT/ CRI	Flux (lm)	Input Power (W)	Efficacy (LPW)	DLC
2CAXG38B835	3500K/80	3990	34	117	Standard
2CAXG38B840	4000K/80	4007	34	116	Standard
2CAXG30L835	3500K/80	3053	26	116	Standard
2CAXG30L840	4000K/80	3061	27	116	Standard
2CAXG30LH835	3500K/80	3023	24	124	Standard
2CAXG30LH840	4000K/80	3097	24	127	Premium
2CAXG38L835	3500K/80	3884	34	114	Standard
2CAXG38L840	4000K/80	3887	34	114	Standard
2CAXG38LH835	3500K/80	3797	30	126	Premium
2CAXG38LH840	4000K/80	3814	29	130	Premium
2CAXG45L835	3500K/80	4587	42	111	Standard
2CAXG45L840	4000K/80	4614	42	110	Standard
2CAXG45LH835	3500K/80	4612	36	127	Premium
2CAXG45LH840	4000K/80	4716	36	130	Premium

Dimensions



- Suitable for end to end continuous row mounting. 1" gap between luminaires requires chase nipple to accommodate through wiring (by others).
- Sheetmetal components are multi-stage phosphate treated for maximum corrosion resistance and finish coat is high reflectance baked white enamel.
- Integral louvers on housing ends allow air from the heated space to return to a pressurized plenum.

Electrical

- Driver and LED board are accessible from below by easy removal of lens.
- Non-controls Base configurations 0-10V dimmable to 10%.
- Non-controls Standard configurations 0-10V dimmable to 1%.
- Standard configurations with controls options dimmable via wireless switches (see below).
- Predicted L70 lumen maintenance up to 87,000 hours at 25°C ambient for all configurations.
- Emergency battery packs accessible from above. To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire efficacy, then by 1.10.
- The GTD/E option is used to bypass wall switches and allow luminaire operation on auxiliary power. Generator transfer requires installation in conjunction with a UL1008 listed device.
- The GTD/SNSR option is used to bypass integrated sensor control in the event of utility power loss. Generator transfer requires installation in conjunction with a UL1008 listed device.
- Compliance to CAN ICES-005-A/ NEB-005-A and FCC Part 15-A.

Validation

- cETLus listed for use in damp locations
- When ordered with -WL option code, suitable for use in wet locations with covered ceilings
- Rated for direct contact with insulation (IC)
- CCEA Chicago Plenum listed
- ClearAppeal luminaires are Designlights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers, www.designlights.org/QPL

Environment

- Rated for dry or damp locations in operating ambient temperatures 0-30°C (32-86°F). 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, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility. Not suitable for natatorium environments.

Warranty

- 5 year manufacturer's limited warranty.
- Visit signify.com/warranties for complete warranty information.

2CAX ClearAppeal recessed 2x2

up to 4500 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

ClearAppeal 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.interact-lighting.com/office or www.usa.lighting.philips.com/systems/system-areas/offices

Energy Data (PoE)

Configuration	Nominal CCT/CRI	Flux (lm)	DC Power (W)*	Efficacy (LPW)
1CAXG30L840	4000K/80	3047	24	125
1CAXG38L840	4000K/80	3888	32	122
1CAXG45L840	4000K/80	4612	39	117

*DC power supply

2CAX ClearAppeal recessed 2x2

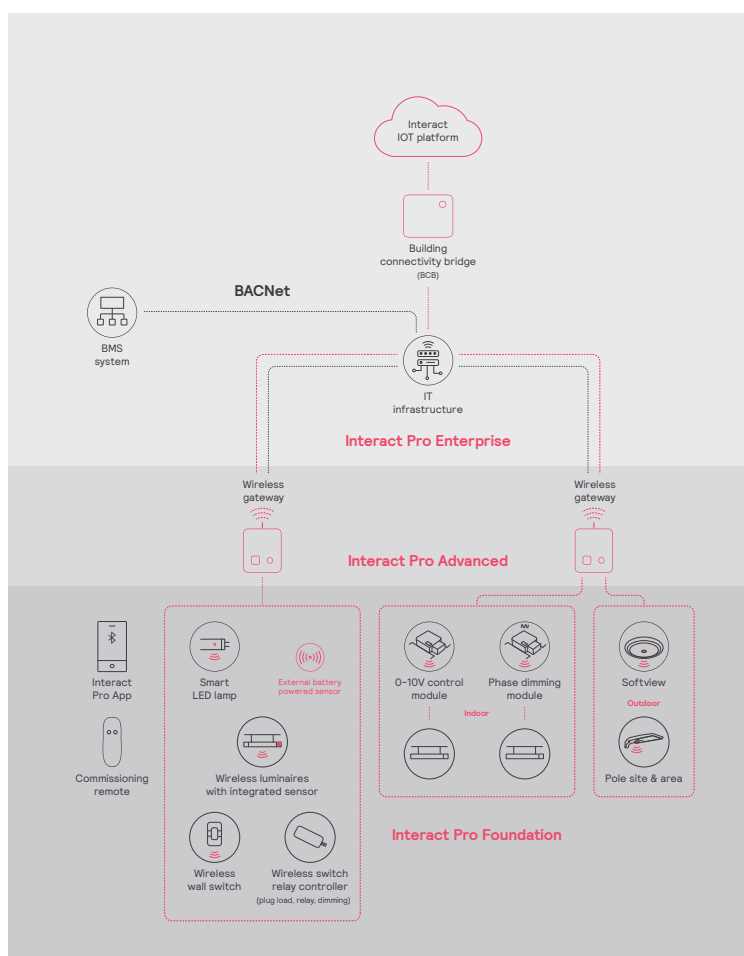
up to 4500 lumens

Interact Pro scalable system			
	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



2CAX ClearAppeal recessed 2x2

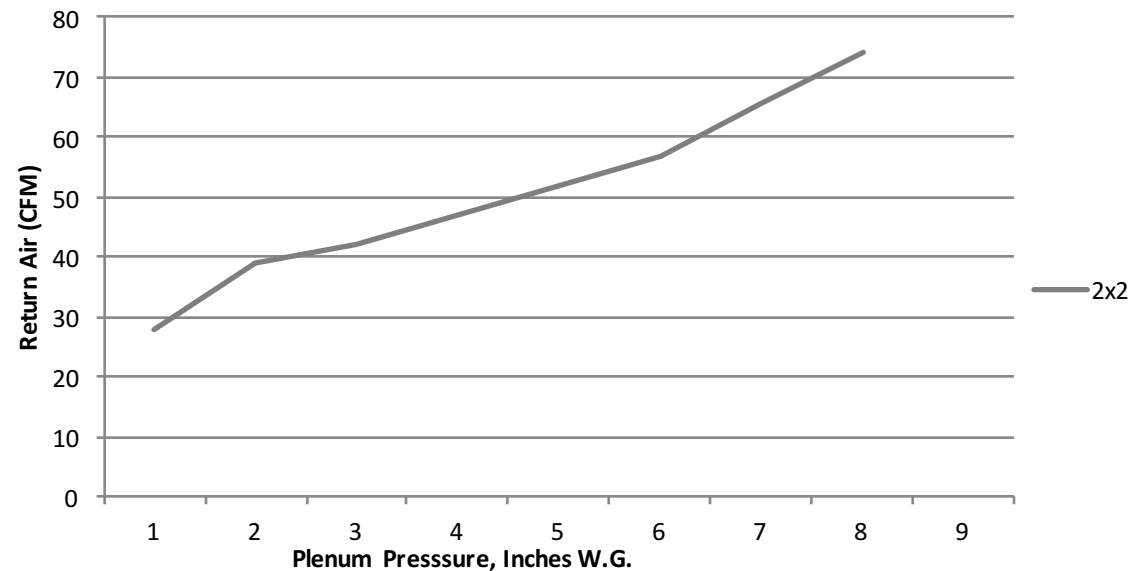
up to 4500 lumens

Air return



Integral louvers on housing ends allow air from the heated space to return to a pressurized plenum.

Return Air Data



2x2 Return Air – noise criteria								
CFM	28	39	42	47	52	57	65.5	74
NC (dB)	<15	26	31	33	38	42	44	46

Photometry

2x2 ClearAppeal recessed LED, base configuration, 3800 nominal delivered lumens

LER – 117

Catalog No.	2CAXG38B840-2-DS-UNV-DIM
Test No.	40558
S/MH	1.2
Lamp Type	LED
Lumens	4007
Input Watts	34
Comparative yearly lighting energy cost per 1000 lumens – \$2.05 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	1449	1449	1449	1449	
5	1432	1442	1448	1442	
15	1368	1382	1393	1382	
25	1245	1268	1281	1268	
35	1077	1108	1124	1108	
45	882	918	940	918	
55	680	711	740	711	
65	424	510	537	510	
75	225	286	315	286	
85	60	74	64	74	

Light Distribution			
Degrees	Lumens	% Luminaire	
0-30	1109	27.7	
0-40	1801	44.9	
0-60	3144	78.4	
0-90	4008	100.0	
0-180	4009	100.0	

Average Luminance			
Zone	End	45°	Cross
45	4096	4263	4368
55	3895	4074	4237
65	3298	3965	4176
75	2850	3628	4000
85	2273	2801	2401

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
RCR									
0	118	118	118	115	115	115	111	111	
1	109	104	98	106	101	97	96	93	
2	98	90	82	95	88	81	84	80	
3	90	79	70	86	78	69	75	68	
4	81	69	60	80	68	60	66	58	
5	76	63	54	73	61	53	58	52	
6	69	56	47	68	56	46	54	46	
7	65	51	41	63	50	41	48	40	
8	59	46	38	58	46	38	45	36	
9	56	42	34	55	41	34	40	34	
10	53	40	32	52	39	32	38	30	

2CAX ClearAppeal recessed 2x2

up to 4500 lumens

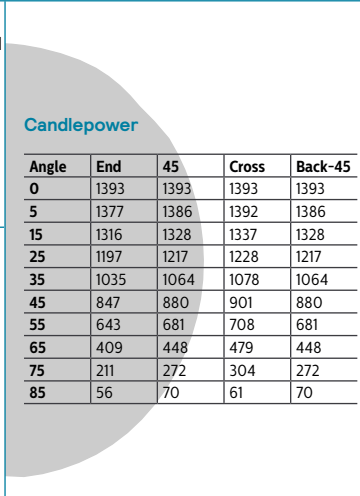
2x2 ClearAppeal recessed LED, standard configuration, 3800 nominal delivered lumens

LER - 114

Catalog No.	2CAXG38L840-2-DS-UNV-DIM
Test No.	40552
S/MH	1.2
Lamp Type	LED
Lumens	3888
Input Watts	34

2x2 ClearAppeal recessed LED, high efficacy configuration, 3800 nominal delivered lumens

LER - 130

Catalog No.	2CAXG38LH840-2-DS-UNV-DIM	Candlepower 	Light Distribution					Average Luminance			
Test No.	40570		Degrees	Lumens	% Luminaire	Zone	End	45°	Cross		
S/MH	1.2		0-30	1065	27.9	45	3937	4090	4187		
Lamp Type	LED		0-40	1728	45.3	55	3682	3903	4058		
Lumens	3815		0-60	3012	78.9	65	3179	3480	3722		
Input Watts	29		0-90	3815	100.0	75	2672	3455	3855		
		0-180	3815	100.0	85	2115	2639	2288			
Comparative yearly lighting energy cost per 1000 lumens – \$1.85 based on 3000 hrs. and \$.08 pwr KWH.			Coefficients of Utilization								
The photometric results were obtained in the Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.			EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
Photometric values based on test performed in compliance with LM-79.			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	90	83	95	89	81	84	80
			3	90	79	70	88	78	69	75	68
			4	81	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	51	42	63	51	41	48	41
			8	60	46	38	58	46	38	45	38
			9	56	42	34	55	42	34	40	34
			10	53	40	32	52	39	32	38	30



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