Day-Brite CFI
by **signify**

Linear

LBX LED suspended

Up to 18,000 lm

Control options available

Day-Brite / CFI LED linear suspended LBX luminaires with optional LightBalance Optics provide the versatility required for a wide range of applications. Available in 5 different configurations, LBX is easy to install and can be mounted together in runs. Where precise control is required, LightBalance Optics put the light where it's needed. Choose between narrow, medium, wide, aisle, & double asymmetric distributions.

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

Ordering guide

Family	Lumens (nominal delivered)	Color Temperature	Voltage	Optics	Options
LBX	—	—	—	—	

Family	Lumens (nominal delivered)	Color Temperature	Voltage	Optics		Options	
LBX	**40L** 4,000 (4') **55L** 5,500 (4') **70L** 7,000 (4') **90L** 9,000 (4') **80L** 8,000 (8') **110L** 11,000 (8') **140L** 14,000 (8') **180L** 18,000 (8') Other lumen packages may be ordered in increments of 500lm from 4000 to 9000 lumens for 4' unit and increments of 1000lm from 8000 to 18000 lumens for 8' unit	**830**[3] 3000K (CRI 80) **835** 3500K (CRI 80) **840** 4000K (CRI 80) **850** 5000K (CRI 80)	**UNV** Universal voltage 120–277V **120** 120V **208** 208V **240** 240V **277** 277V **347**[4] 347V	**Blank** **N**[1] **M**[1] **W**[1] **A**[1,2]	General Distribution Narrow Medium Wide Aisle	**FD** Flat diffuse lens **UD** Oval uplight diffuse lens **VLC** Visible Light Communication (consult factory) **WP6**[5,7] Wired 6' 16/3 cord & NEMA twist lock plug **WC6**[7] Wired 6' 16/3 cord **WC6/4**[7] Wired 6' 16/4 cord for line voltage plus unswitched hot for EMLED **WC6/5**[7] Wired 6' 18/5 cord for line voltage plus 0–10V dimming **WP6D**[5,7] Wired 6' 16/3 cord & NEMA twist lock plug for line voltage and wired 6' purple and gray leads with disconnect plug for dimming control **WC6D**[7] Wired 6' 16/3 cord for line voltage and wired 6' cord for dimming control **SWZCS**[8,9] Interact Pro scalable sensor with integral daylight & occupancy sensing, advanced grouping with dwell time **SWZDT**[8] SpaceWise sensor, daylighting and occupancy, advanced grouping, with dwell time **SWZCSH**[10] Interact Pro scalable high bay sensor with integral daylight & occupancy sensing, advanced grouping with dwell time **RADIO** Integral Interact Pro RF sensor, enables wireless connected lighting control **IAOSB**[8,9] Interact Office advanced wireless sensor bundle, integral SC1500 w/IoT capabilities for enterprise scale projects **EMLED**[6] Emergency battery (0˚C - 40˚C) **ER100**[11,12] UL924 listed sensor bypass relay, factory installed between driver & sensor (Interact Pro compatible) **ER100/HVPS**[11,12] UL924 listed sensor bypass relay, factory installed between driver & sensor for 347V Power Sense (Interact Pro compatible) **ER100/HVPI**[11,12] UL924 listed sensor bypass relay, factory installed between driver & sensor for 347V Power Interrupt (Interact Pro compatible) **GTD/E**[11] UL924 listed Bodine GTD factory installed on driver input	

1 Not for use with FD or UD diffuse lenses.
2 Not available in 3000K.
3 Not available in 9000lm or 18000lm.
4 Not available in 4000lm or 5500lm with EMLED.
5 Must specify voltage.
6 When row mounting, non-switched HOT for EMLED should be fed separately and directly to the emergency luminaire.
7 6' is standard cord length. For optional 10', 15', or 20' cord length, replace the "6" in the option code with the desired length.
8 Low mount motion detector. Use at 10' mounting height or below.
9 Must order IRT9015 Interact commissioning remote with each system order
10 High bay motion detector. Motion sensing zone is extremely limited if used below 15' mounting height.
11 Must be installed in conjunction with a UL1008 device.
12 Must be ordered with an integral sensing option.

Wiring Notes
· Standard cords have 3 wires. Consult factory for other cord options.

General Notes
· All options factory installed.
· All accessories are field installed.
· Many luminaire components, such as reflectors, refractors, lenses, sockets, lamp-holders, 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.

Predicted L70 Lifetime
· 40ºC Ambient > 100,000 hours
  (based upon LED manufacturer's supplied LM-80 data and in-situ laboratory testing)

Accessories (order separately)
· **LBX-HANGER BKT** – Hanging bracket (pair)
· **LBX-LVR4** – 4' White louver (order 2 for eight foot units)
· **FKR-126** – Two 5' chains and "V" hooks
· **LBX-WG4** – 4' White wire guard - not for UD lens (order 2 for eight foot units)
· **LBX-WGUD4** – 4' White wire guard for UD lens (order 2 for eight foot units)
· **IRT9015** – Handheld remote for grouping and configuration (at least one remote required for any SWZCS/SWZCSH installation)
· **UID8451/10** – Wireless Dimmer Switch Selector
· **DACH48** – 48" Adjustable cable hanger kit with white canopy (single)
· **DACH48-1-SC** – 48" Adjustable cable hanger kit with white canopy and white straight 18/3 cord (single)
· **DACH48-2-SC** – 48" Adjustable cable hanger kit with white canopy and white straight 18/4 cord (single)
· **DACH48-1D-SC** – 48" Adjustable cable hanger kit with white canopy and white straight 18/5 cord (single)
· **LBX-RL-FD-4** – 4' Replacement flat lens
· **LBX-RL-FD-8** – 8' Replacement flat lens
· **LBX-RL-UD-4** – 4' Replacement uplight lens
· **LBX-RL-UD-8** – 8' Replacement uplight lens

Not all product variations listed on this page are DLC qualified. To ensure that a specific model is qualified, visit www.designlights.org/search

interact ready.

LBX   LED linear suspended

Up to 18,000 lumens

Application

• This luminaire can be used to illuminate retail, grocery, cold storage, manufacturing, ware-housing and many other large indoor spaces with control and precision.
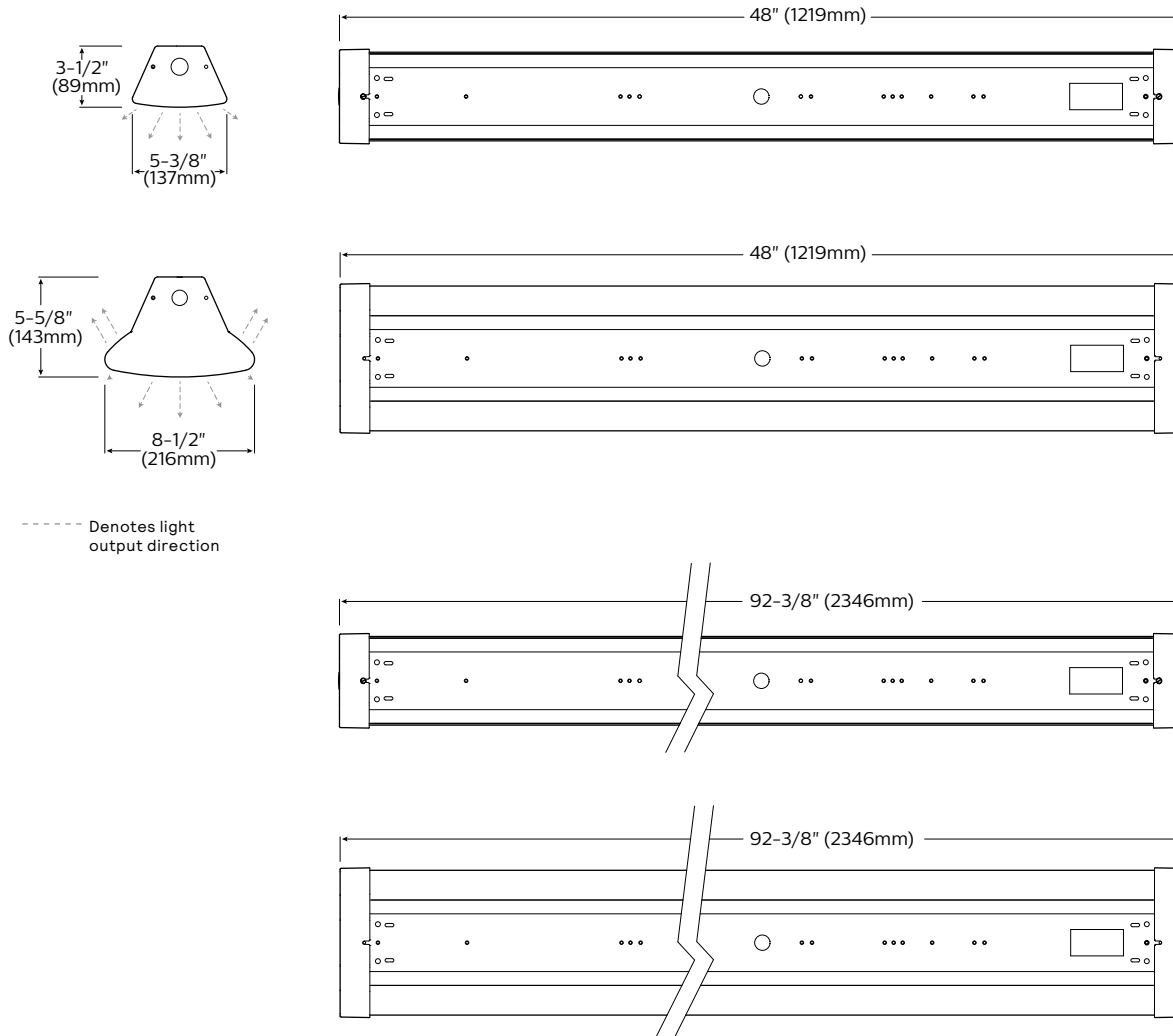
Construction/Finish

• Multiple optics available to create precise light distribution.

• Two diffuse lens options for glare control and optional uplight.

• Optional louver available for added aesthetics and glare control when diffuse lens is not used.

• Metal housing provides excellent thermal transfer to extend component life.

• End holes to attach V bracket for chain or cable hanging.

• May be cable, chain, or pendant mounted.

• Easily row mounted without disassembling the luminaire.

• 7/8" K.O. at each end of luminaire for wiring or motion detector.

• Polyester powder finish for excellent impact and corrosion resistance.

• LED light engines and drivers are field replaceable.

• 5 Year Limited Warranty.

• Components are RoHS compliant.

• Listed by ETL to meet UL 1598 standards for damp location and –35°C to 40°C ambient.

• Dimming drivers are standard. Control is 0-10V DC.

• Optional motion detector.

• DLC Listing for most variations. Please check the DLC Qualified Products List to confirm (www.designlights.org/QPL).

• Compatible with visible light communication (VLC). Contact your Philips sales representative for more information.

Dimensions

3-1/2" (89mm)

5-3/8" (137mm)

48" (1219mm)

5-5/8" (143mm)

8-1/2" (216mm)

48" (1219mm)

- - - - - Denotes light output direction

92-3/8" (2346mm)

92-3/8" (2346mm)

LBX   LED linear suspended

Up to 18,000 lumens

Wireless Controls Options

Interact Pro scalable sensor for Foundation, Advanced & Enterprise tiers (SWZCS/SWZCSH and an evolution of SpaceWise)

- SWZCS/SWZCSH 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/system-areas/offices

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

- 347V may require step-down transformer and must be ordered indicating Power Sensing or Power Interruption Detection
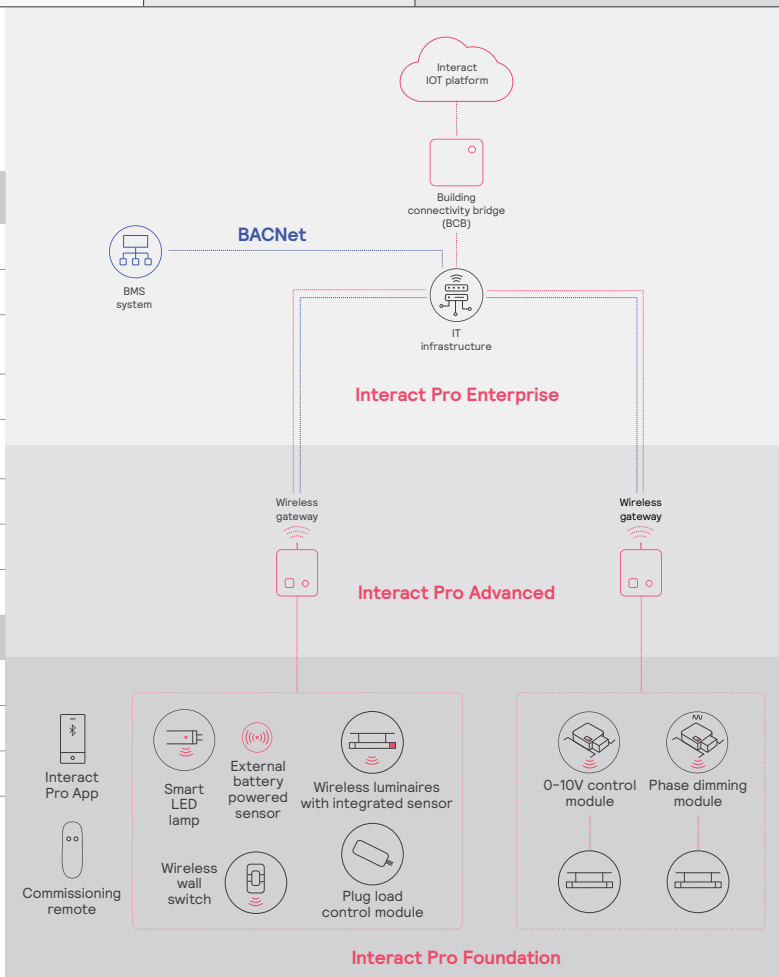
LBX   LED linear suspended

Up to 18,000 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

LBX   LED linear suspended

Up to 18,000 lumens

Configurations

Foundation: base unit with no optics, no lens. Ideal for "back of house" areas such as storage or utility spaces.

High performance: base unit with LightBalance optics, no lens, and a choice of narrow, medium, wide, or aisle optics.

Brightness control: base unit with louver. Field installed louver compatible with foundation or performance versions

Flat diffuse: base unit with flat lens. Ideal for retailers who want good performance, brightness control, and a minimal profile.

Uplight diffuse: base unit with oval lens and uplight. Ideal for retailers who want good performance and some uplight.

Options

Occupancy sensor

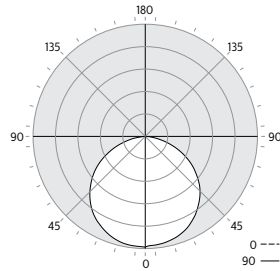Hanging brackets

V bracket and chain

LBX   LED linear suspended

Up to 18,000 lumens

LED linear suspended LBX, general distribution, 4,000 nominal delivered lumens

Catalog No. LBX40L840-UNV

Report no: 35816

Spacing criterion: 1.3
Lamp: LED
Output lumens: 4655 lm
Input watts: 31
Efficacy: 150 lm/W

Comparative yearly lighting energy cost per 1000 lumens – **$1.60** 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.

Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	1567	1567	1567	1567
5	1545	1559	1580	1559
15	1505	1524	1537	1524
25	1420	1432	1442	1432
35	1275	1300	1298	1300
45	1096	1108	1109	1108
55	862	880	877	880
65	591	603	604	603
75	298	308	312	308
85	53	10	7	10
95	0	0	0	0
105	0	0	0	0
115	0	0	0	0
125	0	0	0	0
135	0	0	0	0
145	0	0	0	0
155	0	0	0	0
165	0	0	0	0
175	0	0	0	0

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1240	26.6
0-40	2049	44.0
0-60	3683	79.1
0-90	4655	100.0
90-120	0.0	0.0
90-130	0.0	0.0
90-150	0.0	0.0
90-180	0.0	0.0
0-180	4655	100.0

Average Luminance

Angle	End	45°	Cross
45	10643.	10758.	10767.
55	10310.	10527.	10491.
65	9598.	9801.	9811.
75	7893.	8174.	8270.
85	4182.	772.	583.

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)		80%			70%			50%	
Wall (pw)		70	50	30	70	50	30	50	30
RCR		Zonal cavity method – Effective floor reflectance = 20%							
Room Cavity Ratio	0	119	119	119	116	116	116	111	111
	1	112	109	106	110	107	105	103	101
	2	106	100	95	103	98	94	95	91
	3	99	92	86	97	90	85	87	83
	4	93	84	77	91	83	77	81	75
	5	87	77	70	85	76	70	74	69
	6	82	71	64	80	70	64	69	63
	7	77	66	59	75	65	58	64	58
	8	72	61	54	71	60	53	59	53
	9	68	56	50	66	56	49	55	49
	10	64	53	46	63	52	46	51	45

LED linear suspended LBX, flat diffuse lens distribution, 4,000 nominal delivered lumens

Catalog No. LBX40L840-UNV-FD

Report no: 35921

Spacing criterion: 1.3
Lamp: LED
Output lumens: 3948
Input watts: 31
Efficacy: 128 lm/W

Comparative yearly lighting energy cost per 1000 lumens – **$1.88** 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.

Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	1367	1367	1367	1367
5	1346	1362	1371	1362
15	1301	1320	1327	1320
25	1210	1223	1231	1223
35	1075	1089	1094	1089
45	907	920	924	920
55	709	721	724	721
65	486	496	501	496
75	252	264	273	264
85	50	70	87	70
95	0	0	0	0
105	0	0	0	0
115	0	0	0	0
125	0	0	0	0
135	0	0	0	0
145	0	0	0	0
155	0	0	0	0
165	0	0	0	0
175	0	0	0	0

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1065	27.0
0-40	1746	44.2
0-60	3095	78.4
0-90	3945	99.9
90-120	2.0	0.1
90-130	2.0	0.1
90-150	2.0	0.1
90-180	2.0	0.1
0-180	3948	100.0

Average Luminance

Angle	End	45°	Cross
45	8808.	8931.	8972.
55	8486.	8624.	8665.
65	7894.	8058.	8139.
75	6681.	6991.	7233.
85	3914.	5474.	6844.

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)		80%			70%			50%	
Wall (pw)		70	50	30	70	50	30	50	30
RCR		Zonal cavity method – Effective floor reflectance = 20%							
Room Cavity Ratio	0	119	119	119	116	116	116	111	111
	1	109	104	99	106	101	97	97	94
	2	99	90	83	96	88	82	85	79
	3	90	79	71	87	78	70	75	68
	4	82	70	61	80	69	60	66	59
	5	76	63	53	73	61	53	59	52
	6	70	56	47	68	55	47	53	46
	7	65	51	42	63	50	42	49	41
	8	60	46	38	59	46	38	44	37
	9	56	43	34	55	42	34	41	34
	10	53	39	31	51	39	31	38	31

LBX   LED linear suspended

Up to 18,000 lumens

LED linear suspended LBX, oval lens uplight distribution, 4,000 nominal delivered lumens

Catalog No. LBX40L840-UNV-UD

Report no: 35833

Spacing criterion: 1.2   Input watts: 31
Lamp: LED   Efficacy: 137 lm/W
Output lumens: 4167 lm
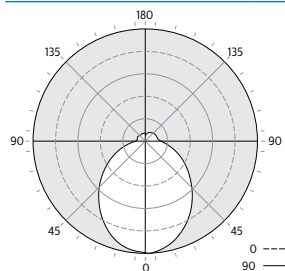
Comparative yearly lighting energy cost per 1000 lumens
– **$1.75** based on 3000 hrs. and $.08 pwr KWH.

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.

Candela distribution

Vertical Angle	Horizontal Angle			
	0°	45°	90°	-45°
0	1324	1324	1324	1324
5	1308	1310	1321	1310
15	1246	1245	1243	1245
25	1127	1112	1114	1112
35	962	947	956	947
45	773	770	783	770
55	573	589	621	589
65	375	420	474	420
75	185	268	337	268
85	31	149	225	149
95	0	98	162	98
105	15	98	148	98
115	29	101	145	101
125	39	100	140	100
135	51	93	132	93
145	67	90	121	90
155	81	94	112	94
165	92	95	96	95
175	100	95	72	95

Light Distribution

Degrees	Lumens	% Luminaire
0-30	991	23.8
0-40	1590	38.1
0-60	2721	65.3
0-90	3578	85.9
90-120	292	7.0
90-130	378	9.1
90-150	511	12.3
90-180	589	14.1
0-180	4167	100.0

Average Luminance

Angle	End	45°	Cross
45	4245.	3682.	3628.
55	3811.	3240.	3276.
65	3281.	2820.	3008.
75	2474.	2402.	2788.
85	950.	2100.	2804.

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

Ceiling (pcc)		80%			70%			50%	
Wall (pw)		70	50	30	70	50	30	50	30
RCR		Zonal cavity method – Effective floor reflectance = 20%							
Room Cavity Ratio	0	116	116	116	111	111	111	103	103
	1	105	100	95	101	96	92	89	86
	2	95	87	80	91	84	77	78	73
	3	87	76	68	83	73	66	68	62
	4	79	67	59	76	65	57	61	54
	5	73	60	51	70	58	50	55	48
	6	67	54	45	65	53	44	49	42
	7	63	49	41	60	48	40	45	38
	8	58	45	37	56	44	36	41	34
	9	54	41	33	52	40	32	38	31
	10	51	38	30	49	37	30	35	28

LBX   LED linear suspended

Up to 18,000 lumens

Photometric Test List

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy*
LBX40L840-UNV	35816	4655	31	150
LBX40L840-UNV-FD	35921	3948	31	128
LBX40L840-UNV-UD	35833	4167	31	137
LBX40L840-UNV-LVR4	35821	4408	31	142
LBX40L840-UNV-N	35823	4585	31	148
LBX40L840-UNV-N-LVR4	35822	4436	31	143
LBX40L840-UNV-M	35825	4599	31	148
LBX40L840-UNV-M-LVR4	35824	4431	31	143
LBX40L840-UNV-W	35827	4574	31	148
LBX40L840-UNV-W-LVR4	35826	4354	31	141
LBX40L840-UNV-A	35829	4656	31	151
LBX40L840-UNV-A-LVR4	35828	4429	31	143
LBX55L840-UNV	35945	6176	41	150
LBX55L840-UNV-FD	36114	5221	41	127
LBX55L840-UNV-UD	36099	5562	41	135
LBX55L840-UNV-LVR4	36115	5828	41	142
LBX55L840-UNV-N	36118	6074	41	148
LBX55L840-UNV-N-LVR4	36119	5890	41	143
LBX55L840-UNV-M	36122	6059	41	148
LBX55L840-UNV-M-LVR4	36123	5852	41	143
LBX55L840-UNV-W	36126	6039	41	147
LBX55L840-UNV-W-LVR4	36127	5739	41	140
LBX55L840-UNV-A	36130	6027	41	147
LBX55L840-UNV-A-LVR4	36131	5795	41	141
LBX70L840-UNV	35953	7906	53	148
LBX70L840-UNV-FD	36113	6678	53	125
LBX70L840-UNV-UD	36100	7096	53	133
LBX70L840-UNV-LVR4	36116	7453	53	139

Catalog No.	Test No.	Delivered Lumens	Input Watts*	Efficacy*
LBX70L840-UNV-N	36117	7783	53	146
LBX70L840-UNV-N-LVR4	36120	7537	53	141
LBX70L840-UNV-M	36121	7768	53	145
LBX70L840-UNV-M-LVR4	36124	7473	53	140
LBX70L840-UNV-W	36125	7747	53	145
LBX70L840-UNV-W-LVR4	36128	7333	53	137
LBX70L840-UNV-A	36129	7776	53	146
LBX70L840-UNV-A-LVR4	36132	7457	53	140
LBX90L840-UNV	35975	9919	66	150
LBX90L840-UNV-FD	35974	8388	66	127
LBX90L840-UNV-UD	36045	9039	66	137
LBX90L840-UNV-LVR4	36035	9423	66	143
LBX90L840-UNV-N	36037	9787	66	149
LBX90L840-UNV-N-LVR4	36036	9482	66	144
LBX90L840-UNV-M	36039	9787	66	149
LBX90L840-UNV-M-LVR4	36038	9452	66	143
LBX90L840-UNV-W	36041	9730	66	148
LBX90L840-UNV-W-LVR4	36040	9265	66	141
LBX90L840-UNV-A	36043	9850	66	149
LBX90L840-UNV-A-LVR4	36042	9524	66	144

* 347V models have the same input watts