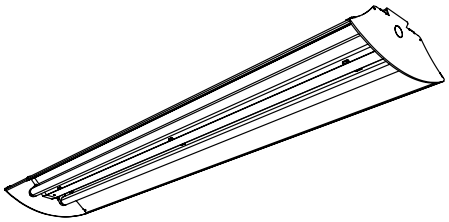
Day-Brite CFI by Signify

Industrial

Heavy Duty

1,2, or 3 lamp T8, T5, T5HO



Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Catalog Number

[ ] [ ] [ ] [ ] – [ ]

NO. OF LAMPS PER CROSS SECTION
(not included)
1
2
3

VOLTAGE
120
277
347
UNV - Universal Voltage, 120-277 volt

OPTIONS
BLK – Black external housing
CM – Canadian Market
SI – Specular Inserts (reflectors)
1/2 – One 2-lamp ballast (electronic or non-standard)
1/3 – One 3-lamp ballast (electronic or non-standard)
1/21 – 2-lamp & 1-lamp ballasts (electronic or non-standard)
1/4 – One 4-lamp ballast (electronic or non-standard)
1/42 – 4-lamp & 2-lamp ballasts (electronic or non-standard)
3/2 – Three 2-lamp ballasts (electronic or non-standard)
EB – Electronic ballast, <20% THD
EBH – High ballast factor electronic ballast (F32T8 only)
EB10I – Electronic ballast, instant start, <10% THD
EB10R – Electronic ballast, program rapid start, <10% THD
E1LP – DEB-1LP emerg. ballast, T8, 450 lumens, UL dry loc.
E7LP – DEB-7LP emerg. ballast, T5/T5HO/T8 600-700 lumens, UL dry loc.
E5LP – DEB-5LP emerg. ballast, T8, 1375-1400 lumens, UL dry loc.
E6LP – DEB-6LP emerg. ballast, T5/T5HO, 1230 lumens, UL dry loc.
GLR# – Fusing, fast blow (# = number of ballasts)
Power-Connect modular wiring – see sheet 1604-OA.

See section 1600-OA for option information.

FAMILY
HDI – Heavy Duty Industrial
THDI – Tandem version

LAMP TYPE/WATTAGE
28 – 28wT5 (46")
32 – 32wT8 (48")
54HO – 54wT5HO (46")

HDI Heavy duty industrial

Application

- Durable, high efficiency industrial luminaire.
- Designed around T8 and T5 lamps and low-profile electronic ballasts.
- Optional specular reflectors (SI option) can be installed after building construction is complete, to eliminate cleaning. Installation of reflectors does NOT require removal of lamps.
- Optional specular reflectors are protected from external impacts and HVAC "shimmering" by steel housing and provide a narrow focused distribution.
- Suitable for individual or continuous row mounting.

Construction/Finish

- Integral ballast channel eliminates the need to attach a reflector after mounting the channel.
- Locking lampholders provide positive contact and secure retention of lamps.
- Housing is multi-stage phosphate treated for maximum corrosion resistance, and finish is baked white enamel.
- Optional black external housing (BLK option) with white end caps makes the luminaire disappear into unpainted ceilings.

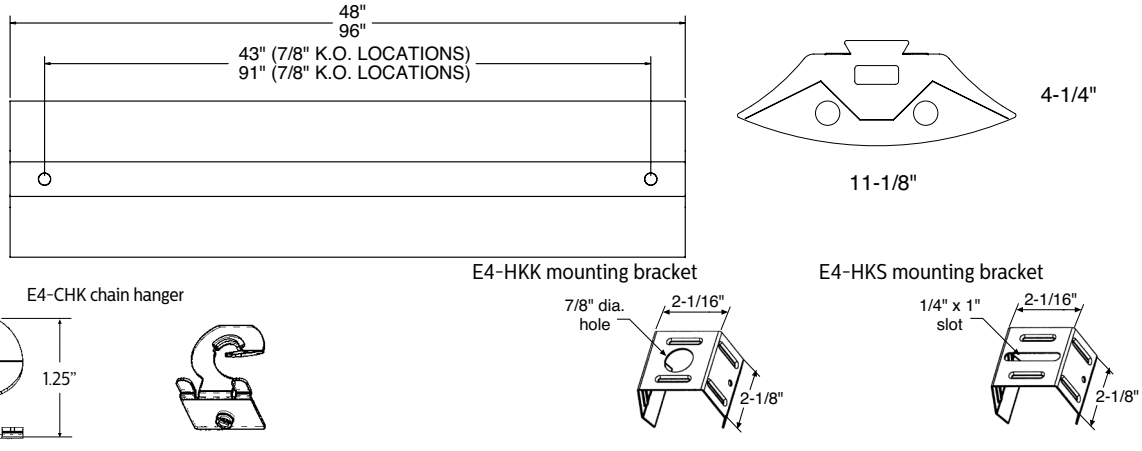
Electrical

- Canadian certified optional.
- (Low-Profile) Self-contained fluorescent emergency power packs can be incorporated. (UL dry location)
- High ballast factor electronic ballast available for increased light output.
- UL listed for damp locations. Units incorporating emergency ballasts UL listed for dry locations.

Accessories

- E4-HKK – sliding hanger bracket with 7/8" hole (one)
- E4-HKS – sliding hanger bracket with 1/4" x 1" slot (one)
- E4-CHK – Chain hanger hooks (pair) (chain not inlcuded, requires FL-123 or similar)
- FL-123 – 5' chain set (two chains) (requires E4-CHK)
- CS-400 – Rigid stem canopy
- CS-500 – Swivel stem canopy
- CS series stems
- N-3380/3381 – Universal joint aligner, octagonal box, 1/2" / 3/4" I.P.S.
- N-3385 – Universal joint aligner, square box, 1/2" I.P.S.
- HDI-173 – 4' wire guard

Dimensions



HDI Heavy duty industrial

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

Photometry

CATALOG # HDI232-1/2-EB | LAMPS = F32T8 | INPUT WATTS = 59 | LER = 78
TEST #22333 | S/MH= 1.2 | BALLAST = ELECTRONIC | BALLAST FACTOR = .88 | FIXTURE EFFICIENCY= 92.2%

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = $3.08 BASED ON 3000 HRS. AND $.08 PER KWH.

CANDLEPOWER

Angle	End	45	Cross
0	1570	1570	1570
5	1569	1564	1553
10	1551	1542	1529
15	1520	1508	1492
20	1478	1460	1443
25	1422	1398	1385
30	1357	1330	1320
35	1281	1251	1250
40	1193	1162	1187
45	1095	1073	1136
50	989	992	1076
55	873	911	1037
60	752	834	984
65	620	770	901
70	483	680	804
75	339	575	686
80	194	447	536
85	63	282	334

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.75 2850 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width / Room Height =	Approx. Area (sq. ft.) per Fixture 10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2 LAMP T8	5	-	133	80	57	40
	2	-	87	52	37	-
	1	-	63	38	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2850 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4546	4455	4716
55	4468	4663	5307
65	4307	5349	6259
75	3845	6522	7781
85	2122	9498	11250

LLF = .75 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.91 @ 40% RATED LAMP LIFE BF = 0.88 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20							
pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	110	110	110	107	107	107	102	102
1	97	93	88	95	91	86	86	82
2	88	80	72	85	78	70	75	68
3	80	68	60	78	68	59	65	57
4	72	60	52	70	59	51	56	50
5	67	54	45	65	53	45	51	44
6	61	48	40	59	47	39	46	39
7	56	44	34	55	42	34	41	34
8	53	40	32	52	39	32	38	30
9	50	36	28	47	35	28	34	28
10	46	34	26	45	33	26	32	26

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1221	21.4	23.2
0-40	2008	35.2	38.2
0-60	3684	64.6	70.1
0-90	5253	92.2	100.0

Photometry

CATALOG # HDI232-1/2-EB-SI | LAMPS = F32T8 | INPUT WATTS = 58 | LER = 81
TEST #22332 | S/MH= 1.0 | BALLAST = ELECTRONIC | BALLAST FACTOR = .88 | FIXTURE EFFICIENCY= 93.2%

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = $2.96 BASED ON 3000 HRS. AND $.08 PER KWH.

CANDLEPOWER

Angle	End	45	Cross
0	1939	1939	1939
5	1926	1897	1861
10	1899	1794	1726
15	1854	1670	1591
20	1791	1549	1468
25	1713	1425	1370
30	1620	1313	1325
35	1508	1234	1278
40	1385	1164	1240
45	1251	1084	1183
50	1104	1026	1106
55	945	937	1022
60	784	828	912
65	617	724	844
70	451	617	781
75	291	548	624
80	151	394	462
85	45	249	295

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.75 2850 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width / Room Height =	Approx. Area (sq. ft.) per Fixture 10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2 LAMP T8 w/spec. inserts	5	-	136	81	58	41
	2	-	90	54	39	-
	1	-	65	39	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2850 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	5194	4500	4911
55	4837	4796	5231
65	4286	5029	5863
75	3301	6216	7078
85	1516	8387	9936

LLF = .75 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.91 @ 40% RATED LAMP LIFE BF = 0.88 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20							
pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	111	111	111	108	108	108	104	104
1	100	94	90	96	93	88	89	84
2	90	81	75	88	80	72	76	70
3	81	70	63	79	69	61	67	59
4	75	63	54	72	61	53	58	52
5	68	56	46	67	55	46	53	46
6	63	50	41	61	50	40	47	40
7	58	46	36	56	45	36	42	35
8	55	41	34	53	40	33	40	33
9	51	38	29	50	38	29	36	29
10	47	34	28	46	34	28	34	27

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1338	23.5	25.2
0-40	2151	37.7	40.5
0-60	3850	67.5	72.5
0-90	5311	93.2	100.0

Signify

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