

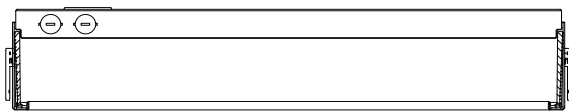


# Specification Data

Luminaire	INBOX 2 X 4 (NB2-24)	Type
Project		
Product		
Notes		



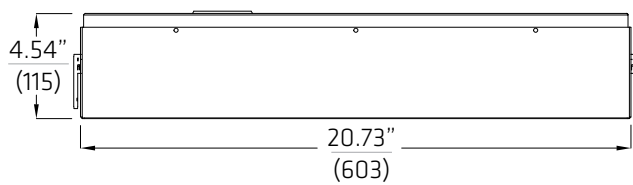
CROSS SECTION



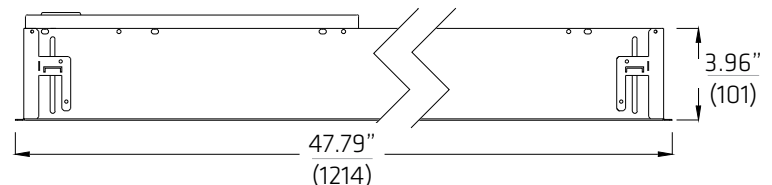
Performance Summary	Inbox 2 x 4			
	A	B	C	D
Light (lm)	2400	2950	3800	4600
Energy (W)	23	29	38	47
Efficacy (lm/W)	105	103	101	98
Color Rendering (CRI)	80+	80+	80+	80+
Color Accuracy (SDCM)	< 2	< 2	< 2	< 2
L70 Estimate (h)	200,000	200,000	200,000	200,000
Lumen Maintenance per TM21 (@ 60,000 h)	L90	L90	L90	L90

DLC qualified for 47 W (D) in 3000K, 3500K & 4000K.  
 Note: Values are nominal and based on 4000K CCT.

DIMENSIONS inches (mm)



FRONT VIEW

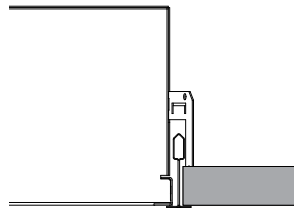


SIDE VIEW

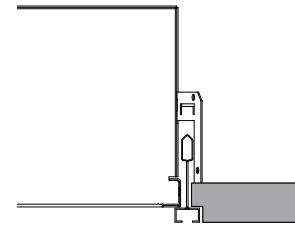
SPECIFICATION

NB2		24						OPTIONS	
1	2	3	4	5	6				
1. FAMILY	2. SIZE	3. ENERGY <sup>1</sup>	4. CCT	5. DRIVER	6. VOLTAGE	OPTIONS			
<b>NB2</b> Inbox	<b>12</b> 1 x 2 (2-sided optics)	<b>A</b> 23 W	<b>30</b> 3000 K	<b>E1</b> eldoLED ECO 0-10V Dim 1%	<b>M</b> 120 - 277 V	<b>B</b> Battery Pack <sup>4</sup>	<b>C</b> Chicago Plenum	<b>F</b> 6' Flex Whip	<b>K</b> Drywall Flange Kit
	<b>14</b> 1 x 4 (2-sided optics)	<b>B</b> 29 W	<b>35</b> 3500 K	<b>E2</b> eldoLED SOLO 0-10V Dim 0.1%					
	<b>22</b> 2 x 2 (2-sided optics)	<b>C</b> 38 W	<b>40</b> 4000 K	<b>E3</b> eldoLED ECO DALI 1%	<b>3</b> 347 V <sup>3</sup>				
	<b>24</b> 2 x 4 (2-sided optics)	<b>D</b> 47 W <sup>2</sup>		<b>E4</b> eldoLED SOLO DALI Dim 0.1%					
<b>NB1</b> Inbox	<b>22</b> 2 x 2 (4-sided optics)	<sup>1</sup> Add 4W to above for 347V with E1-4/L1		<b>F1</b> Factory Non- Dim	<sup>3</sup> 347 V Driver for F1/F2 347 V Transformer & Driver E1-4/L1				
		<sup>2</sup> 1 x 4   2 x 4   2 x 2 (4 sided) only		<b>F2</b> Factory 0-10V Dim 3%	<sup>4</sup> Available for 120-277V				
				<b>L1</b> Lutron Hi-Lume 1%-H EcoSystem					

CEILING INTEGRATION GRID

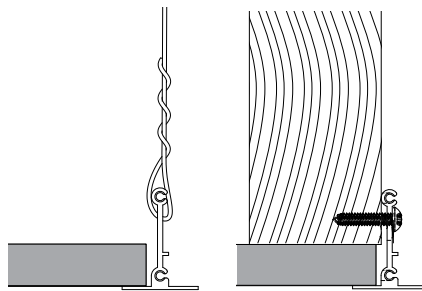


FLAT GRID

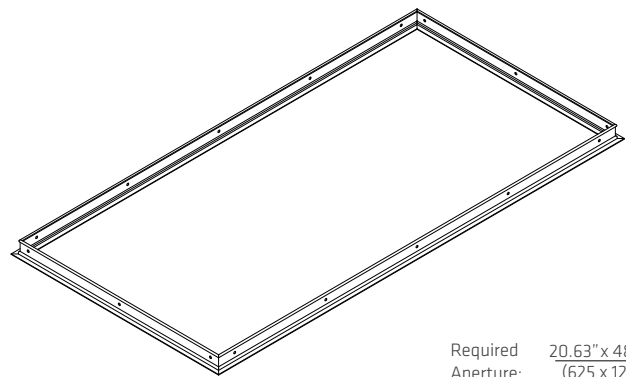


SLOT GRID

CEILING INTEGRATION DRYWALL



DRYWALL FLANGE KIT



Required 20.63" x 48.63"  
Aperture: (625 x 1235)

**CONSTRUCTION**

- Die formed 22 ga. steel housing
- Quick wire access plate and integral seismic restraint tabs/tie-offs
- Option for (K) drywall flange kit
- High reflectance diffuse white textured powdercoat

**OPTICAL**

- Anidolic optical structures with linear light extraction elements
- Precision extruded high transmittance clear acrylic lenses
- Long life LED system designed for typical TM21 lumen maintenance  $\geq$  L90 @ 60,000 h
- Available in CCTs 3000 K, 3500 K or 4000 K with CRI  $\geq$  80 and R9  $\geq$  0, all with color accurate binning  $\leq$  2 SDCM

**ELECTRICAL**

- Integral high efficiency drivers 120 - 277 V or 347 V; 50 - 60 Hz
- Power Factor  $>$  0.90
- Total Harmonic Distortion  $<$  20%
- F2:0 - 10 V Dim Range: 3 - 100%
- Optional Battery Pack
- Optional Lutron: Hi-lume H-Series EcoSystem LED drivers for 100 - 1% (PWM) dim range
- Optional flex whip: 6' prewired
- Surge Protection: Meets ANSI C82.11 spec and ANSI/IEEE C62.41
- Inrush Current: Meets NEMA 410

**WEIGHT**

- Maximum 25 lb (11.3 kg)
- Maximum 29 lb (13.2 kg) with battery pack

**WARRANTY**

- 5 year limited warranty on all components and workmanship

**ENVIRONMENTAL**

- Designed for use in damp or dry indoor environments with room side operating temperatures of 0 - 30° C (32 - 86° F)


**INDEPENDENT TESTING**

- IESNA LM79
- IESNA LM80 (LED@ 10,000 h)

**APPROVALS**

- UL Listed (USA + Canada)
- CCEA Chicago Plenum
- DesignLights Consortium®
- Lighting Facts®
- IC Rated

Product	Inbox 2x4	Description	Performance Summary		Light (lm)	Energy (W)	Efficacy (lm/W)	Color Accuracy (CRI) (R9) (SDCM)		
Version	NB2-24A40	2x4 LED A Lumens CCT 4000 K	CCT Color Temperature	4000 K	2435	23.2	105	84	13.5	< 2
Report	FLUXWERX			3500 K	2433	23.2	105	83.8	12.4	< 2
				3000K	2317	23.2	100	82.6	7.4	< 2



100% Dn

Vertical Angle	Horizontal Angle					Zonal Lumens
	0°	22.5°	45°	67.5°	90°	
0°	493	493	493	493	493	
5°	489	492	492	497	502	48
15°	476	496	597	663	685	167
25°	449	544	697	761	778	302
35°	409	568	707	743	749	406
45°	355	546	652	643	636	449
55°	290	478	537	492	460	420
65°	216	391	393	317	309	338
75°	136	273	217	199	202	227
85°	53	112	69	52	51	79
90°	1	3	4	4	5	
95°						
105°						
115°						
125°						
135°						
145°						
155°						
165°						
175°						
180°						


Zone	Lumens	% Lamp	% Fixture	
0-30°	517	N.A.	21	
0-60°	1792	N.A.	74	
0-90°	2435	N.A.	100	
90-180°	0	N.A.	0	
Total Luminaire	0-180°	2435	N.A.	100

Vertical Angle	0°	45°	90°
	45°	744	1364
55°	750	1386	1188
65°	756	1377	1083
75°	780	1241	1153
85°	897	1166	861

Floor Ceiling Wall	80				70			20		30		10		0
	70	50	30	10	70	50	10	50	10	50	10	50	10	0
0	119	119	119	119	116	116	116	111	111	106	106	102	102	100
1	107	102	97	93	105	100	91	95	88	91	86	88	83	81
2	97	88	80	74	94	86	73	82	71	79	70	76	68	66
3	88	76	67	60	85	74	60	71	58	69	57	66	56	54
4	80	67	57	50	77	65	50	63	49	60	48	58	48	45
5	73	59	49	42	71	58	42	56	42	54	41	52	41	38
6	67	53	43	36	65	52	36	50	36	48	36	47	35	33
7	62	47	38	32	60	47	32	45	31	44	31	42	31	29
8	57	43	34	28	56	42	28	41	28	40	27	38	27	25
9	53	39	31	25	52	39	25	37	25	36	24	35	24	22
10	50	36	28	22	48	35	22	34	22	33	22	33	22	20

Integrating Sphere and Photometric results at 4000K , 47W (D) by an independent accredited testing laboratory per IES LM-79-2008 and ANSI C78.377-2011. Results for 3000K, 3500K scaled based on integrating sphere results at 47W (D) and 2x2-4-sided integrated sphere results for Lumen outputs A, B, C. Candlepower Distribution scaled per total lumens of Integrating Sphere results.

Product	Inbox 2x4	Description	Performance Summary		Light (lm)	Energy (W)	Efficacy (lm/W)	Color Accuracy (CRI) (R9) (SDCM)		
Version	NB2-24B40	2x4 LED B Lumens CCT 4000 K	CCT Color Temperature	4000 K	2977	28.9	103	84	13.5	< 2
Report	FLUXWERX			3500 K	2974	28.9	103	83.8	12.4	< 2
				3000K	2833	28.8	98	82.6	7.4	< 2



100% Dn

Vertical Angle	Horizontal Angle					Zonal Lumens
	0°	22.5°	45°	67.5°	90°	
0°	603	603	603	603	603	
5°	598	602	601	608	613	59
15°	582	607	730	810	837	204
25°	549	665	852	930	952	369
35°	499	695	864	909	915	496
45°	434	667	797	787	777	549
55°	355	585	656	601	563	513
65°	264	479	480	387	378	413
75°	167	334	265	244	246	277
85°	65	137	84	64	62	97
90°	2	4	5	5	6	
95°						
105°						
115°						
125°						
135°						
145°						
155°						
165°						
175°						
180°						

Zone	Lumens	% Lamp	% Fixture	
0-30°	632	N.A.	21	
0-60°	2190	N.A.	74	
0-90°	2977	N.A.	100	
90-180°	0	N.A.	0	
Total Luminaire	0-180°	2977	N.A.	100

Vertical Angle	0°	45°	90°
	45°	910	1668
55°	917	1694	1452
65°	925	1683	1324
75°	954	1517	1409
85°	1098	1425	1053

Floor Ceiling Wall	80				70			20		30		10		0
	70	50	30	10	70	50	10	50	10	50	10	50	10	0
0	119	119	119	119	116	116	116	111	111	106	106	102	102	100
1	107	102	97	93	105	100	91	95	88	91	86	88	83	81
2	97	88	80	74	94	86	73	82	71	79	70	76	68	66
3	88	76	67	60	85	74	60	71	58	69	57	66	56	54
4	80	67	57	50	77	65	50	63	49	60	48	58	48	45
5	73	59	49	42	71	58	42	56	42	54	41	52	41	38
6	67	53	43	36	65	52	36	50	36	48	36	47	35	33
7	62	47	38	32	60	47	32	45	31	44	31	42	31	29
8	57	43	34	28	56	42	28	41	28	40	27	38	27	25
9	53	39	31	25	52	39	25	37	25	36	24	35	24	22
10	50	36	28	22	48	35	22	34	22	33	22	33	22	20

Product	Inbox 2x4	Description	Performance Summary		Light (lm)	Energy (W)	Efficacy (lm/W)	Color Accuracy (CRI) (R9) (SDCM)		
Version	NB2-24C40	2x4 LED C Lumens CCT 4000 K	CCT Color Temperature	4000 K	3797	37.5	101	84	13.5	< 2
Report	FLUXWERX			3500 K	3792	37.4	101	83.8	12.4	< 2
				3000K	3612	37.4	97	82.6	7.4	< 2

100% Dn

### CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle					Zonal Lumens
	0°	22.5°	45°	67.5°	90°	
0°	769	769	769	769	769	769
5°	763	768	767	775	782	75
15°	742	773	931	1033	1067	260
25°	700	848	1086	1186	1214	470
35°	637	886	1102	1159	1167	633
45°	554	851	1016	1003	991	700
55°	453	746	837	767	717	655
65°	337	610	613	494	482	527
75°	213	425	338	311	314	353
85°	82	175	107	82	79	124
90°	2	5	6	7	7	
95°						
105°						
115°						
125°						
135°						
145°						
155°						
165°						
175°						
180°						

### LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture	
0-30°	806	N.A.	21	
0-60°	2793	N.A.	74	
0-90°	3796	N.A.	100	
90-180°	0	N.A.	0	
Total Luminaire	0-180°	3797	N.A.	100

### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
	45°	1160	2127
55°	1169	2161	1852
65°	1179	2146	1689
75°	1216	1935	1797
85°	1398	1818	1342

### CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70				20				50				30				10				0			
	70	50	30	10	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10
0	119	119	119	119	116	116	116	111	111	106	106	102	102	100														
1	107	102	97	93	105	100	91	95	88	91	86	88	83	81														
2	97	88	80	74	94	86	73	82	71	79	70	76	68	66														
3	88	76	67	60	85	74	60	71	58	69	57	66	56	54														
4	80	67	57	50	77	65	50	63	49	60	48	58	48	45														
5	73	59	49	42	71	58	42	56	42	54	41	52	41	38														
6	67	53	43	36	65	52	36	50	36	48	36	46	35	33														
7	62	47	38	32	60	47	32	45	31	44	31	42	31	29														
8	57	43	34	28	56	42	28	41	28	40	27	38	27	25														
9	53	39	31	25	52	39	25	37	25	36	24	35	24	22														
10	50	36	28	22	48	35	22	34	22	33	22	33	22	20														

Integrating Sphere and Photometric results at 4000K , 47W (D) by an independent accredited testing laboratory per IES LM-79-2008 and ANSI C78.377-2011. Results for 3000K, 3500K scaled based on integrating sphere results at 47W (D) and 2x2-4sided integrated sphere results for Lumen outputs A, B, C. Candlepower Distribution scaled per total lumens of Integrating Sphere results.

Product	Inbox 2x4	Description	Performance Summary		Light (lm)	Energy (W)	Efficacy (lm/W)	Color Accuracy (CRI) (R9) (SDCM)		
Version	NB2-24D40	2x4 LED D Lumens CCT 4000 K	CCT Color Temperature	4000 K	4604	47.1	98	84	13.5	< 2
Report	1189570			3500 K	4599	46.9	98	83.8	12.4	< 2
				3000K	4380	46.9	93.4	82.6	7.4	< 2

100% Dn

### CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle					Zonal Lumens
	0°	22.5°	45°	67.5°	90°	
0°	932	932	932	932	932	932
5°	925	931	930	940	948	92
15°	900	938	1129	1253	1294	315
25°	849	1028	1317	1438	1472	570
35°	772	1074	1336	1405	1415	767
45°	672	1032	1232	1216	1202	849
55°	549	904	1015	930	870	794
65°	408	740	743	599	585	639
75°	258	516	410	377	381	428
85°	100	212	130	99	96	150
90°	3	6	7	8	9	
95°						
105°						
115°						
125°						
135°						
145°						
155°						
165°						
175°						
180°						

### LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture	
0-30°	977	N.A.	21	
0-60°	3387	N.A.	74	
0-90°	4604	N.A.	100	
90-180°	0	N.A.	0	
Total Luminaire	0-180°	4604	N.A.	100

### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
	45°	1406	2580
55°	1417	2620	2246
65°	1430	2603	2048
75°	1474	2346	2179
85°	1696	2205	1629

### CO-EFFICIENTS OF UTILIZATION

Floor Ceiling Wall	80				70				20				50				30				10				0			
	70	50	30	10	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10	50	10
0	119	119	119	119	116	116	116	111	111	106	106	102	102	100														
1	107	102	97	93	105	100	91	95	88	91	86	88	83	81														
2	97	88	80	74	94	86	73	82	71	79	70	76	68	66														
3	88	76	67	60	85	74	60	71	58	69	57	66	56	54														
4	80	67	57	50	77	65	50	63	49	60	48	58	48	45														
5	73	59	49	42	71	58	42	56	42	54	41	52	41	38														
6	67	53	43	36	65	52	36	50	36	48	36	46	35	33														
7	62	47	38	32	60	47	32	45	31	44	31	42	31	29														
8	57	43	34	28	56	42	28	41	28	40	27	38	27	25														
9	53	39	31	25	52	39	25	37	25	36	24	35	24	22														
10	50	36	28	22	48	35	22	34	22	33	22	33	22	20														

