

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P33958

Luminaire Tested: **4BCLED-LD4-32SL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P33958  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4BCLED-LD4-32SL-F-UNV-L835-CD1-U  
Description: METALUX 4FT BC LED WALL BRACKET CORRIDOR LUMINAIRE WITH A  
Light Source: (112) COOPER LIGHTING 3500K LEDS  
Ballast/Driver: (1) ELECTRONIC DRIVER

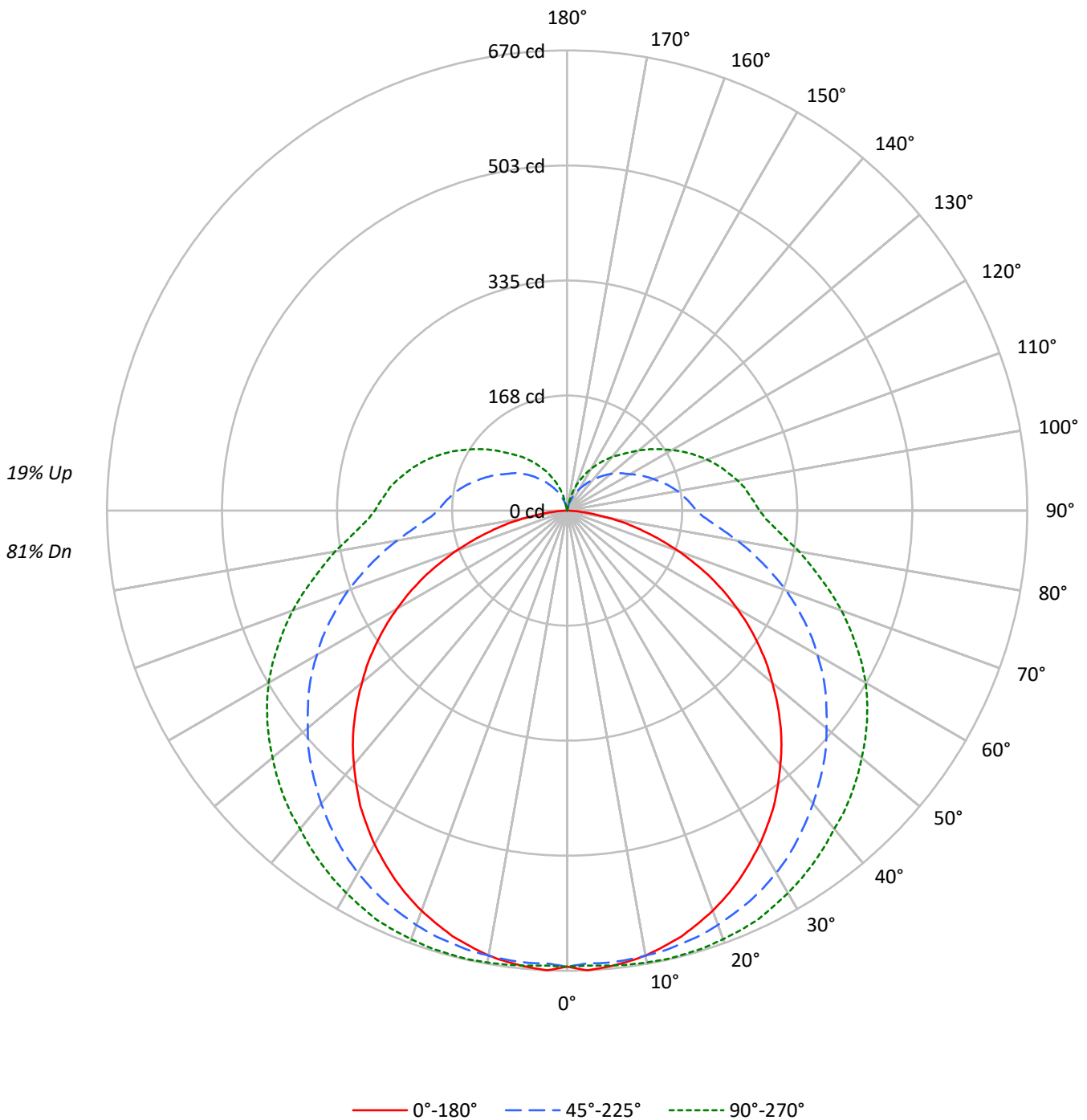
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3171.2 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.44 / 1.51  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.25')  
CIE Type: Semi-Direct  
  
Input Watts (W): 32.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	115	115	115	115	110	110	110	110	101	101	101	92	92	92	85	85	85	81
1	102	96	91	86	97	92	87	83	84	80	77	77	74	71	70	68	66	62
2	91	82	74	68	87	78	71	65	72	66	61	66	61	57	60	56	53	50
3	83	71	62	55	78	68	60	53	62	56	50	57	51	47	52	48	44	41
4	75	62	53	46	71	60	51	45	55	48	42	50	44	39	46	41	37	34
5	69	55	46	39	65	53	44	38	49	41	36	45	38	34	41	36	32	29
6	63	50	40	34	60	48	39	33	44	36	31	40	34	29	37	32	27	25
7	59	45	36	29	56	43	34	29	40	32	27	37	30	26	34	28	24	22
8	54	41	32	26	52	39	31	25	36	29	24	33	27	23	31	25	21	19
9	51	37	29	23	48	36	28	22	33	26	21	31	25	20	28	23	19	17
10	47	34	26	21	45	33	25	20	31	24	19	28	22	18	26	21	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4765	4765	4765
5°	4779	4556	4526
10°	4742	4395	4355
15°	4691	4256	4210
20°	4629	4128	4081
25°	4562	4009	3968
30°	4487	3889	3847
35°	4406	3765	3739
40°	4299	3642	3634
45°	4193	3529	3562
50°	4052	3409	3484
55°	3905	3307	3416
60°	3704	3192	3344
65°	3459	3072	3243
70°	3080	2943	3149
75°	2585	2788	3036
80°	1861	2643	2965
85°	864	2544	2913



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.3	2.0
10°-20°	185.2	5.8
20°-30°	289.6	9.1
30°-40°	364.1	11.5
40°-50°	402.2	12.7
50°-60°	402.1	12.7
60°-70°	362.7	11.4
70°-80°	290.9	9.2
80°-90°	212.2	6.7
90°-100°	171.5	5.4
100°-110°	142.4	4.5
110°-120°	110.4	3.5
120°-130°	78.9	2.5
130°-140°	51.2	1.6
140°-150°	29.1	0.9
150°-160°	12.8	0.4
160°-170°	2.7	0.1
170°-180°	0.0	0.0
0°-30°	538.1	17.0
0°-40°	902.2	28.5
0°-60°	1706.5	53.8
0°-90°	2572.3	81.1
90°-120°	424.3	13.4
90°-150°	583.4	18.4
90°-180°	599.0	18.9
0°-180°	3171.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	667	665	661	666	665	63
15°	642	646	652	666	668	181
25°	593	608	628	650	657	273
35°	525	550	585	616	626	328
45°	439	476	527	569	585	338
55°	340	389	459	514	533	304
65°	231	292	381	443	464	228
75°	115	196	294	360	382	122
85°	18	110	213	281	305	24
90°	0	86	188	256	280	1
95°	0	76	176	242	266	0
105°	0	59	149	212	235	0
115°	0	48	120	176	197	0
125°	0	39	95	138	156	0
135°	0	28	71	106	117	0
145°	1	18	47	76	86	0
155°	1	10	27	43	54	0
165°	1	3	11	16	23	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	664	664	664	664	664	664	664	664	664	664	664
2.5°	670	669	667	666	666	666	666	664	662	660	661
5°	667	666	664	664	665	665	665	664	662	661	661
7.5°	663	662	661	661	662	663	663	662	661	660	661
10°	658	656	655	655	657	659	659	660	659	658	660
12.5°	650	650	649	650	652	654	655	656	656	656	659
15°	642	641	641	643	645	648	650	651	651	652	656
17.5°	631	631	632	633	637	640	643	644	646	648	652
20°	620	620	621	623	627	632	635	637	639	642	647
22.5°	607	607	609	612	616	621	625	629	632	635	641
25°	593	594	596	599	605	610	615	619	623	628	634
27.5°	577	578	580	585	592	598	604	609	613	619	625
30°	561	562	564	570	578	585	592	597	602	609	616
32.5°	543	544	548	554	562	570	577	584	590	598	605
35°	525	525	530	536	545	554	562	569	576	585	593
37.5°	504	506	511	519	528	537	546	553	562	571	580
40°	483	485	490	499	510	520	529	538	547	557	566
42.5°	462	465	469	479	491	501	511	521	532	542	552
45°	439	442	448	459	471	482	492	503	515	527	538
47.5°	415	419	426	436	449	461	473	485	498	511	522
50°	390	393	401	414	428	441	453	466	480	493	506
52.5°	366	369	378	392	405	419	433	447	462	476	490
55°	340	344	354	367	381	397	411	427	443	459	473
57.5°	314	318	328	342	358	374	389	407	424	441	456
60°	286	291	301	316	333	351	367	386	404	421	438
62.5°	259	264	275	291	308	326	346	366	384	402	418
65°	231	236	248	264	282	303	323	344	363	381	398
67.5°	201	207	219	237	257	279	301	321	342	360	378
70°	172	179	192	210	232	256	277	299	319	339	355
72.5°	143	150	165	184	207	231	255	276	297	316	334
75°	115	122	138	159	183	208	231	254	275	294	312
77.5°	89	95	112	134	160	184	208	231	253	273	290
80°	61	69	88	112	137	162	186	209	231	251	269
82.5°	38	46	67	91	115	141	165	188	210	231	249
85°	18	28	47	72	97	123	147	170	192	213	231
87.5°	5	14	34	58	83	108	133	156	178	198	216
90°	0	8	27	50	74	99	123	146	168	188	206
92.5°	0	7	23	45	69	94	118	140	162	182	200
95°	0	6	21	41	64	88	112	134	156	176	194
97.5°	0	6	19	38	60	84	106	128	150	169	187
100°	0	5	18	35	56	78	101	122	143	163	180
102.5°	0	5	17	33	52	74	95	116	136	156	173
105°	0	5	16	31	49	69	90	110	130	149	166
107.5°	0	5	16	30	47	65	85	104	123	141	158
110°	0	4	15	29	45	62	80	98	117	134	151



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0	4	15	28	43	59	75	93	110	127	143
115°	0	4	14	27	41	56	72	88	104	120	135
117.5°	0	4	13	26	39	54	68	83	98	113	127
120°	0	3	12	24	38	51	65	79	93	106	120
122.5°	0	3	11	23	35	49	62	75	87	100	113
125°	0	3	10	21	33	45	58	71	83	95	106
127.5°	0	2	9	19	30	42	54	66	78	89	99
130°	0	2	8	17	28	39	50	61	72	83	94
132.5°	0	1	7	16	25	36	46	56	66	77	87
135°	0	1	6	14	23	32	42	51	61	71	80
137.5°	0	1	6	12	21	30	38	47	56	64	73
140°	0	1	5	11	18	27	35	42	50	58	66
142.5°	0	1	4	10	16	24	31	38	45	53	60
145°	1	1	4	9	14	21	28	34	41	47	53
147.5°	1	1	3	8	12	18	25	30	36	42	47
150°	1	1	3	7	11	16	21	27	31	37	41
152.5°	1	1	2	5	9	14	18	23	28	32	36
155°	1	1	2	4	8	12	15	20	23	27	30
157.5°	1	1	1	3	6	10	13	16	19	22	25
160°	1	1	1	2	5	8	10	13	16	18	20
162.5°	1	1	1	2	3	6	8	10	12	14	16
165°	1	1	1	1	2	4	6	8	9	11	12
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	664	664	664	664	664	664	664	664
2.5°	662	664	665	665	664	664	664	663
5°	663	665	666	666	667	666	666	665
7.5°	663	666	667	667	668	668	667	667
10°	663	666	667	668	669	669	669	668
12.5°	662	665	667	668	669	669	669	669
15°	660	663	665	667	668	669	669	668
17.5°	656	660	662	664	666	667	667	667
20°	652	656	659	662	663	664	665	664
22.5°	646	651	654	657	659	660	661	661
25°	639	645	649	652	654	656	657	657
27.5°	631	637	642	646	648	650	650	650
30°	622	629	634	637	640	643	643	643
32.5°	612	618	624	628	631	633	635	635
35°	601	607	614	618	621	624	625	626
37.5°	589	596	602	607	611	614	616	616
40°	575	584	590	596	601	604	605	605
42.5°	562	571	578	584	589	593	595	596
45°	547	558	565	573	578	582	584	585
47.5°	533	544	552	560	565	570	572	573
50°	518	529	539	546	553	557	560	560
52.5°	504	515	524	532	540	544	546	547
55°	487	499	509	518	525	529	532	533
57.5°	471	482	493	502	509	514	517	518
60°	452	465	476	485	492	497	500	502
62.5°	433	445	458	467	474	479	482	484
65°	413	427	438	448	455	460	463	464
67.5°	392	406	418	428	436	441	444	445
70°	372	385	398	408	415	420	424	425
72.5°	350	363	376	386	394	400	402	404
75°	328	343	355	365	373	379	382	382
77.5°	307	322	334	345	353	359	362	362
80°	286	300	313	323	332	338	341	343
82.5°	266	281	294	304	312	318	321	322
85°	248	263	276	286	294	301	303	305
87.5°	233	248	261	271	279	285	289	290
90°	223	238	251	261	270	276	279	280
92.5°	217	231	244	255	263	268	272	273
95°	210	225	237	248	256	262	265	266
97.5°	204	218	230	241	249	255	258	260
100°	197	211	223	233	241	247	250	252
102.5°	189	203	215	225	233	239	242	243
105°	181	195	207	217	225	230	234	235
107.5°	174	187	199	209	216	222	225	226
110°	165	179	190	200	207	212	216	217





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	157	170	181	190	198	203	206	207
115°	149	161	172	181	188	193	196	197
117.5°	140	152	163	171	178	183	186	187
120°	132	144	153	161	168	173	176	176
122.5°	124	135	144	152	158	163	165	166
125°	116	126	135	142	148	153	155	156
127.5°	109	118	126	133	138	143	145	146
130°	103	111	118	125	129	133	135	136
132.5°	96	104	110	116	120	124	126	126
135°	90	97	103	108	112	115	117	117
137.5°	82	90	97	101	105	107	109	109
140°	74	83	89	94	97	100	101	102
142.5°	67	74	82	87	90	92	94	94
145°	60	66	73	80	82	84	86	86
147.5°	53	59	65	71	75	76	78	78
150°	46	51	57	62	67	69	70	70
152.5°	40	44	49	53	59	61	62	63
155°	34	38	41	45	50	54	54	54
157.5°	28	31	34	37	41	45	46	47
160°	23	25	27	30	32	37	39	39
162.5°	17	19	21	23	25	27	31	31
165°	13	14	15	16	18	19	23	23
167.5°	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0

(END OF REPORT)