

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: P33960

Luminaire Tested: **4BCLED-LD4-40SL-F-UNV-L835-SD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P33960
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4BCLED-LD4-40SL-F-UNV-L835-SD1-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

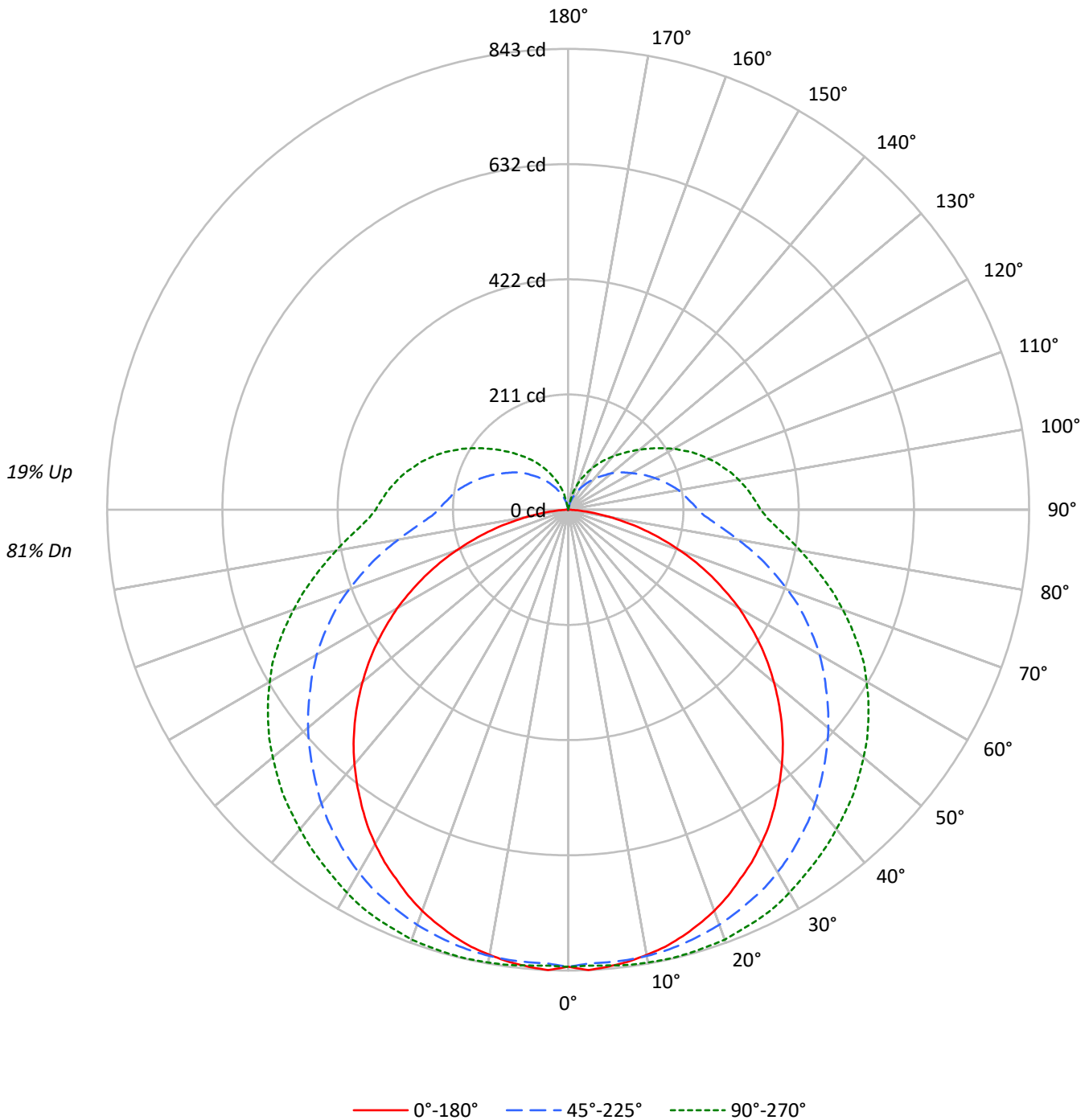
Lumens per Lamp: N/A
Luminaire Lumens: 3989.6 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 44.8
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	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	39	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°	5999	5999	5999
5°	6011	5728	5697
10°	5960	5537	5483
15°	5904	5359	5301
20°	5831	5195	5144
25°	5732	5036	4989
30°	5646	4891	4840
35°	5531	4737	4700
40°	5412	4590	4583
45°	5272	4433	4488
50°	5101	4294	4386
55°	4916	4150	4294
60°	4675	4026	4196
65°	4342	3871	4088
70°	3886	3699	3957
75°	3260	3518	3831
80°	2349	3317	3725
85°	1105	3201	3668



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	2.0
10°-20°	233.1	5.8
20°-30°	364.4	9.1
30°-40°	458.3	11.5
40°-50°	506.1	12.7
50°-60°	505.8	12.7
60°-70°	456.4	11.4
70°-80°	366.0	9.2
80°-90°	267.0	6.7
90°-100°	215.7	5.4
100°-110°	179.3	4.5
110°-120°	138.9	3.5
120°-130°	99.0	2.5
130°-140°	64.0	1.6
140°-150°	36.3	0.9
150°-160°	16.0	0.4
160°-170°	3.4	0.1
170°-180°	0.0	0.0
0°-30°	677.3	17.0
0°-40°	1135.6	28.5
0°-60°	2147.5	53.8
0°-90°	3237.0	81.1
90°-120°	533.9	13.4
90°-150°	733.2	18.4
90°-180°	753.0	18.9
0°-180°	3989.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	839	837	831	838	837	80
15°	808	814	821	839	841	228
25°	745	764	789	818	826	344
35°	659	692	736	775	787	412
45°	552	599	662	716	737	426
55°	428	490	576	645	670	382
65°	290	368	480	557	585	286
75°	145	246	371	454	482	153
85°	23	138	268	354	384	31
90°	0	110	237	322	352	1
95°	0	96	220	306	335	0
105°	1	74	187	267	295	0
115°	1	60	151	222	249	1
125°	1	48	119	174	196	1
135°	1	35	87	132	148	1
145°	1	22	59	95	108	1
155°	1	12	34	54	68	0
165°	1	4	14	20	29	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°	836	836	836	836	836	836	836	836	836	836	836
2.5°	843	842	839	838	839	839	838	836	834	831	831
5°	839	839	837	836	837	837	837	836	833	831	832
7.5°	834	834	832	832	833	834	834	834	832	831	832
10°	827	826	825	826	828	829	831	830	829	829	831
12.5°	819	817	817	818	821	823	825	825	825	826	829
15°	808	807	807	808	812	816	818	819	820	821	825
17.5°	795	795	795	797	802	806	809	812	813	815	821
20°	781	781	782	785	790	795	799	802	805	808	815
22.5°	764	765	766	770	776	782	787	791	795	799	806
25°	745	747	749	754	761	768	774	779	784	789	797
27.5°	727	727	731	737	744	753	760	766	772	779	787
30°	706	707	711	718	727	736	745	751	758	766	775
32.5°	684	685	690	697	707	718	727	734	743	752	761
35°	659	661	667	675	686	697	708	716	726	736	747
37.5°	634	637	643	651	664	677	687	697	708	720	731
40°	608	612	617	628	642	655	666	677	690	702	714
42.5°	581	584	591	603	617	631	643	656	669	682	695
45°	552	556	564	576	592	606	620	634	648	662	676
47.5°	522	527	535	549	565	581	595	611	626	642	657
50°	491	497	506	521	538	554	570	586	603	621	638
52.5°	460	465	476	492	510	527	544	562	581	599	617
55°	428	433	444	460	480	499	517	537	557	576	596
57.5°	394	399	413	430	450	470	490	513	534	554	574
60°	361	366	379	398	418	441	463	487	510	531	551
62.5°	325	332	347	365	389	411	435	460	483	506	527
65°	290	296	311	331	355	382	407	433	457	480	501
67.5°	254	261	277	298	325	352	378	404	431	455	474
70°	217	224	243	265	292	321	350	376	402	426	448
72.5°	180	188	206	232	262	291	320	349	374	398	420
75°	145	153	173	200	231	261	291	320	346	371	392
77.5°	110	120	139	169	202	232	262	291	318	343	366
80°	77	86	110	140	172	204	234	264	291	315	339
82.5°	48	58	83	114	145	177	208	238	265	290	314
85°	23	35	60	90	122	154	185	214	242	268	291
87.5°	7	18	43	73	104	136	166	196	223	249	272
90°	0	11	34	62	94	125	155	184	211	237	260
92.5°	0	8	29	57	87	118	148	176	203	229	252
95°	0	7	26	52	81	111	140	169	196	220	244
97.5°	0	7	24	48	76	105	134	162	188	213	236
100°	0	7	22	44	70	98	127	154	180	205	227
102.5°	0	7	21	41	66	93	119	146	172	196	218
105°	1	6	20	39	62	87	113	139	164	187	208
107.5°	0	6	20	38	59	82	106	131	155	178	199
110°	1	6	19	36	56	77	100	124	147	169	190



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0	5	18	35	54	74	95	117	138	160	180
115°	1	5	18	34	51	70	90	110	131	151	170
117.5°	1	5	17	32	49	67	85	104	123	142	160
120°	1	4	15	30	47	64	81	99	116	134	151
122.5°	1	4	14	28	44	61	77	93	110	126	142
125°	1	3	13	26	41	56	72	88	103	119	133
127.5°	0	3	12	24	38	52	67	82	97	111	125
130°	1	2	10	22	35	49	62	75	89	104	117
132.5°	1	2	9	20	32	45	57	69	82	95	109
135°	1	2	8	17	29	41	52	64	76	87	99
137.5°	1	1	7	15	26	37	48	59	69	80	91
140°	1	1	6	14	23	33	43	53	63	73	82
142.5°	1	1	6	12	20	30	39	48	57	66	74
145°	1	1	5	11	18	27	35	43	51	59	67
147.5°	1	1	4	10	16	23	31	38	45	52	59
150°	1	1	3	8	14	20	27	33	39	46	52
152.5°	1	1	3	7	12	17	23	29	35	40	45
155°	1	1	2	6	10	15	20	25	29	34	38
157.5°	1	1	1	4	8	12	16	20	24	28	32
160°	1	1	1	3	6	10	13	17	20	23	26
162.5°	1	1	1	2	5	7	10	13	16	18	20
165°	1	1	1	1	3	5	7	10	12	14	15
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°	836	836	836	836	836	836	836	836
2.5°	834	836	837	837	836	836	835	835
5°	835	838	838	839	839	839	838	837
7.5°	836	838	840	840	841	841	840	840
10°	835	838	840	841	842	842	842	841
12.5°	833	837	839	841	842	843	842	842
15°	830	835	838	840	841	842	841	841
17.5°	826	831	834	837	839	840	839	839
20°	821	826	830	833	835	837	837	837
22.5°	813	819	824	827	830	831	831	831
25°	805	811	816	820	823	825	826	826
27.5°	795	802	808	811	815	817	818	819
30°	784	791	797	801	805	808	809	809
32.5°	771	778	785	790	794	797	799	798
35°	757	765	772	778	782	785	787	787
37.5°	741	750	759	765	769	773	775	776
40°	725	734	743	750	756	759	762	763
42.5°	707	718	728	735	741	745	749	750
45°	689	701	712	720	727	732	735	737
47.5°	671	684	695	705	712	717	720	721
50°	652	666	678	689	696	701	704	705
52.5°	633	648	659	670	678	684	688	689
55°	613	627	640	650	659	665	670	670
57.5°	592	607	620	631	640	647	649	651
60°	569	584	598	610	619	625	629	630
62.5°	544	561	575	588	596	604	608	610
65°	520	536	551	563	573	579	583	585
67.5°	494	511	527	538	547	554	559	560
70°	467	485	499	513	522	529	533	534
72.5°	441	458	474	486	495	503	507	509
75°	413	431	447	460	469	476	480	482
77.5°	387	404	421	433	443	450	455	456
80°	360	378	394	407	417	425	429	431
82.5°	335	353	369	382	392	399	405	407
85°	312	330	347	360	370	378	382	384
87.5°	293	312	328	342	352	359	363	365
90°	281	299	315	329	339	346	351	352
92.5°	273	291	307	320	330	338	342	343
95°	265	282	299	312	322	329	333	335
97.5°	256	274	290	303	313	320	325	326
100°	247	265	281	293	304	310	315	316
102.5°	238	256	271	284	294	301	305	307
105°	228	245	261	273	283	290	294	295
107.5°	219	235	251	263	273	279	283	285
110°	209	225	239	251	261	268	272	273



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	198	214	228	240	249	256	260	261
115°	187	203	217	228	237	243	248	249
117.5°	177	192	205	215	224	230	234	235
120°	166	180	193	203	212	218	221	223
122.5°	156	169	181	191	199	204	208	209
125°	147	159	170	179	186	192	195	196
127.5°	137	149	159	167	174	179	182	183
130°	128	139	148	156	162	167	170	171
132.5°	120	130	139	146	151	155	158	159
135°	111	121	129	136	141	144	147	148
137.5°	101	113	120	126	131	134	136	137
140°	92	102	111	117	121	124	126	127
142.5°	83	92	102	108	111	115	116	117
145°	75	83	91	99	103	105	106	108
147.5°	66	73	81	89	93	96	97	97
150°	58	64	71	78	84	86	87	88
152.5°	50	56	61	67	74	77	78	78
155°	43	47	52	56	63	67	68	68
157.5°	35	39	43	47	51	57	58	59
160°	28	32	34	38	41	46	49	49
162.5°	22	24	26	29	31	35	39	40
165°	16	17	19	21	22	24	29	29
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)