

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: P33959

Luminaire Tested: **4BCLED-LD4-36SL-F-UNV-L835-SD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P33959
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4BCLED-LD4-36SL-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

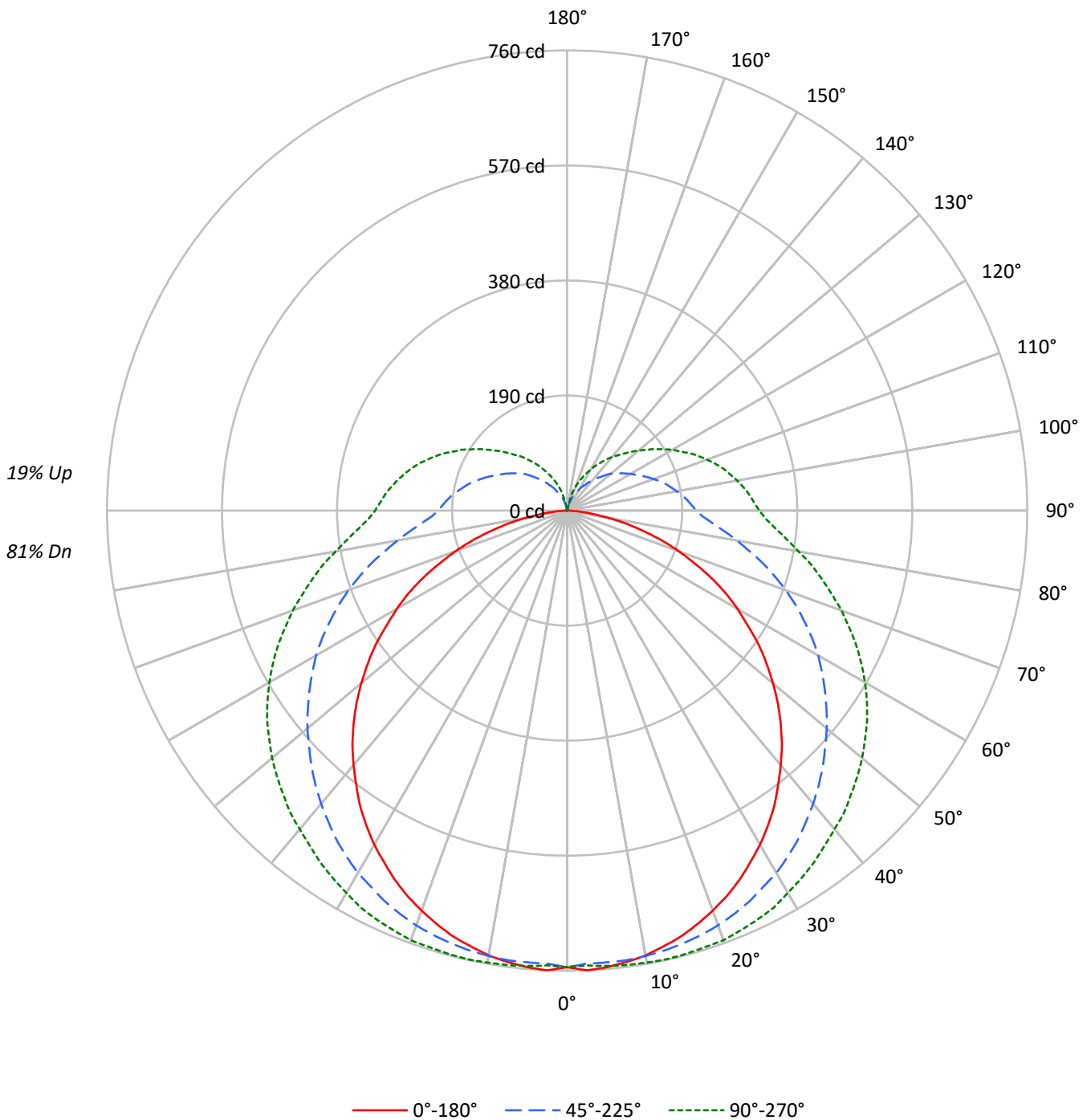
Lumens per Lamp: N/A
Luminaire Lumens: 3597.1 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 40.3
Input Voltage (V): NR
Input Current (A_{in}): 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	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°	5411	5411	5411
5°	5423	5162	5139
10°	5377	4990	4942
15°	5319	4830	4778
20°	5249	4687	4640
25°	5178	4545	4500
30°	5094	4412	4362
35°	5002	4274	4240
40°	4887	4132	4127
45°	4766	3997	4037
50°	4613	3872	3957
55°	4433	3747	3877
60°	4209	3631	3783
65°	3923	3484	3683
70°	3510	3334	3571
75°	2923	3167	3458
80°	2105	2991	3354
85°	1009	2879	3305



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	2.0
10°-20°	210.1	5.8
20°-30°	328.6	9.1
30°-40°	413.1	11.5
40°-50°	456.3	12.7
50°-60°	456.2	12.7
60°-70°	411.4	11.4
70°-80°	330.0	9.2
80°-90°	240.7	6.7
90°-100°	194.4	5.4
100°-110°	161.6	4.5
110°-120°	125.2	3.5
120°-130°	89.4	2.5
130°-140°	57.9	1.6
140°-150°	32.8	0.9
150°-160°	14.4	0.4
160°-170°	3.1	0.1
170°-180°	0.0	0.0
0°-30°	610.6	17.0
0°-40°	1023.7	28.5
0°-60°	1936.2	53.8
0°-90°	2918.3	81.1
90°-120°	481.3	13.4
90°-150°	661.4	18.4
90°-180°	679.0	18.9
0°-180°	3597.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	757	754	749	756	755	72
15°	728	734	740	756	758	205
25°	673	690	712	738	745	310
35°	596	624	664	698	710	372
45°	499	540	597	645	663	385
55°	386	442	520	583	605	344
65°	262	332	432	502	527	259
75°	130	222	334	408	435	139
85°	21	124	241	318	346	28
90°	0	98	213	290	317	1
95°	0	86	199	275	302	0
105°	0	67	169	241	267	0
115°	1	56	136	200	224	1
125°	1	44	107	157	177	0
135°	1	31	79	120	133	0
145°	1	20	52	86	97	1
155°	1	11	31	48	61	0
165°	1	4	12	18	27	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°	754	754	754	754	754	754	754	754	754	754	754
2.5°	760	759	757	756	756	756	755	754	751	749	749
5°	757	756	754	753	754	754	754	753	751	749	750
7.5°	752	752	750	750	751	752	752	752	750	749	751
10°	746	745	744	744	746	747	749	748	747	747	749
12.5°	737	737	737	737	740	742	744	744	744	744	747
15°	728	727	727	729	732	735	737	738	739	740	744
17.5°	716	716	717	718	723	726	729	731	733	735	740
20°	703	703	704	707	711	717	720	723	725	729	734
22.5°	689	689	691	695	699	705	710	713	717	721	727
25°	673	673	675	680	686	693	698	703	706	712	719
27.5°	655	656	658	664	671	678	685	691	696	701	709
30°	637	637	640	647	655	663	671	677	683	691	698
32.5°	617	618	622	628	637	647	655	662	670	678	687
35°	596	597	601	609	619	629	639	646	655	664	673
37.5°	572	575	579	588	599	610	619	628	638	648	658
40°	549	551	556	566	578	590	600	610	621	632	643
42.5°	525	527	534	544	557	569	580	592	604	615	627
45°	499	501	508	520	534	547	558	571	585	597	609
47.5°	472	474	482	496	510	524	537	551	565	578	592
50°	444	448	456	469	485	500	515	530	545	560	574
52.5°	415	419	429	444	459	475	491	507	524	540	556
55°	386	390	400	416	433	450	467	485	503	520	538
57.5°	354	361	372	387	407	425	442	461	481	499	517
60°	325	330	343	359	378	398	417	438	459	479	497
62.5°	295	299	311	329	349	370	392	414	436	456	474
65°	262	267	281	299	320	343	367	390	412	432	452
67.5°	228	234	250	269	292	316	341	365	387	409	428
70°	196	203	217	238	264	290	316	340	363	384	405
72.5°	164	170	187	208	235	262	288	314	337	359	379
75°	130	138	156	181	209	235	263	288	312	334	355
77.5°	100	108	127	152	181	210	237	262	286	308	330
80°	69	78	99	126	155	183	211	237	262	284	305
82.5°	43	52	75	102	131	160	187	214	238	262	283
85°	21	31	54	82	110	139	167	193	218	241	262
87.5°	6	16	39	65	94	123	150	177	201	224	245
90°	0	10	31	56	84	112	140	166	190	213	234
92.5°	0	7	26	51	78	106	133	159	183	206	227
95°	0	7	23	47	73	100	127	152	176	199	220
97.5°	0	6	21	43	68	94	120	146	170	192	213
100°	0	6	20	40	64	89	114	139	162	184	204
102.5°	0	6	19	37	59	83	108	132	155	176	196
105°	0	6	19	36	56	78	102	125	148	169	188
107.5°	0	5	18	34	53	74	96	118	140	161	180
110°	0	5	17	33	51	70	90	112	133	152	171



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1	5	16	32	49	67	86	105	125	144	162
115°	1	5	16	30	47	64	81	99	118	136	153
117.5°	0	4	15	29	45	61	77	94	111	128	144
120°	1	4	14	27	42	58	74	89	105	121	136
122.5°	0	3	13	25	40	55	70	85	99	114	127
125°	1	3	12	24	37	51	66	80	94	107	120
127.5°	0	2	10	22	34	47	61	75	88	101	113
130°	0	2	9	20	31	43	56	69	82	95	106
132.5°	1	2	8	18	29	40	51	63	75	87	99
135°	1	1	7	16	26	36	46	57	69	79	91
137.5°	0	1	6	14	24	33	43	52	62	72	82
140°	1	1	6	12	21	30	39	47	56	65	75
142.5°	1	1	5	11	18	27	35	43	51	59	67
145°	1	1	4	10	16	24	31	38	45	52	59
147.5°	1	1	4	9	14	21	28	34	41	47	53
150°	1	1	3	7	12	18	24	30	36	41	47
152.5°	1	1	2	6	11	15	21	26	31	35	40
155°	1	1	2	5	9	13	17	22	27	31	34
157.5°	1	1	1	4	7	11	15	18	22	26	29
160°	1	1	1	3	6	9	12	15	18	21	23
162.5°	1	1	1	2	4	7	9	12	14	16	18
165°	1	1	1	1	3	5	7	9	11	12	14
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°	754	754	754	754	754	754	754	754
2.5°	752	754	754	754	754	754	753	752
5°	753	755	756	756	756	756	755	755
7.5°	753	756	757	758	758	758	758	757
10°	753	755	757	758	759	759	759	758
12.5°	751	754	757	758	759	759	759	759
15°	748	752	755	756	758	758	758	758
17.5°	745	749	752	754	756	757	757	756
20°	740	745	748	751	753	754	754	755
22.5°	733	739	743	746	748	750	750	750
25°	726	732	736	739	743	744	745	745
27.5°	716	723	728	732	735	737	738	739
30°	707	713	719	723	726	728	729	729
32.5°	695	702	708	713	716	719	720	720
35°	683	690	696	701	705	708	710	710
37.5°	668	676	683	689	693	697	699	698
40°	653	661	670	676	681	684	687	687
42.5°	638	648	655	663	669	673	675	677
45°	621	632	641	649	655	659	662	663
47.5°	605	617	627	635	642	646	649	650
50°	589	601	611	620	628	632	635	636
52.5°	571	583	595	605	611	616	620	620
55°	552	566	578	588	596	600	604	605
57.5°	533	546	559	569	577	583	586	587
60°	514	528	540	550	558	563	567	568
62.5°	491	507	519	530	537	544	548	548
65°	469	483	496	507	517	522	526	527
67.5°	445	460	474	485	494	500	504	504
70°	422	437	451	462	471	476	481	482
72.5°	397	413	427	438	447	453	457	458
75°	372	388	403	413	424	430	434	435
77.5°	348	365	379	390	400	406	410	413
80°	325	342	355	367	376	383	386	388
82.5°	302	318	334	345	354	361	365	366
85°	282	298	312	325	335	341	345	346
87.5°	264	281	296	307	317	324	328	329
90°	253	270	284	296	306	312	316	317
92.5°	246	263	277	289	298	304	308	309
95°	238	255	269	281	290	297	301	302
97.5°	231	248	262	274	282	289	293	294
100°	223	239	253	265	274	280	284	285
102.5°	214	230	244	256	265	271	275	276
105°	206	221	235	247	256	261	266	267
107.5°	197	212	226	236	245	252	255	257
110°	187	203	216	226	235	241	245	246



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	178	193	206	216	224	230	234	235
115°	169	183	195	205	213	219	222	224
117.5°	159	173	184	194	202	208	211	211
120°	150	163	174	183	191	196	200	201
122.5°	141	153	163	172	179	184	188	188
125°	132	143	153	161	168	173	176	177
127.5°	124	134	143	151	157	161	165	165
130°	116	126	134	141	146	151	153	154
132.5°	109	118	125	131	136	140	143	144
135°	101	110	117	123	127	130	133	133
137.5°	93	103	109	115	118	122	124	124
140°	84	93	102	107	110	113	115	116
142.5°	75	84	93	98	102	104	106	106
145°	67	75	82	89	93	95	97	97
147.5°	59	65	72	80	84	86	88	88
150°	52	57	63	69	75	77	78	79
152.5°	45	50	54	60	66	68	70	70
155°	38	42	46	50	56	60	61	61
157.5°	32	35	39	42	46	51	52	53
160°	25	29	31	34	37	42	44	44
162.5°	20	22	24	26	28	31	35	36
165°	15	16	17	18	20	22	26	27
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)