

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: P34051

Luminaire Tested: **2BCLED-LD4-16SL-F-UNV-L835-CD1-U**

Test Date: 04/05/15



**Test Information**

Test Method: LM-79-08  
Report Number: P34051  
Test Lab: INNOVATION CENTER-P3  
Test Date: 04/05/15  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2BCLED-LD4-16SL-F-UNV-L835-CD1-U  
Description:  
Light Source: (56) COOPER LIGHTING 3500K LEDS  
Ballast/Driver: (1) ELECTRONIC DRIVER

**Summary**

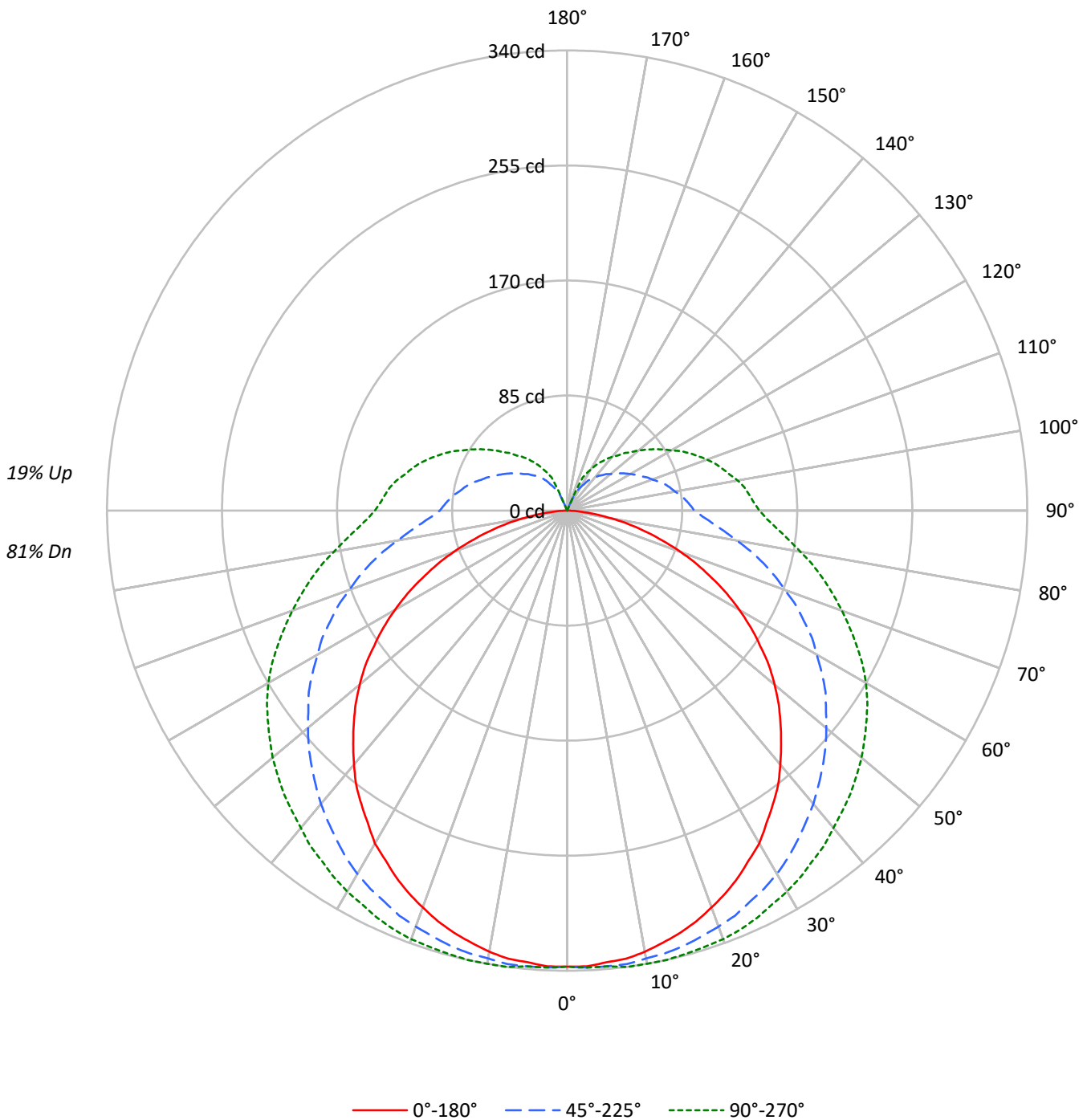
Lumens per Lamp: N/A  
Luminaire Lumens: 1606.4 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.44 / 1.51  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.21')  
CIE Type: Semi-Direct

Input Watts (W): 18.9  
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

TEST NUMBER: P34051

CATALOG NUMBER: 2BCLED-LD4-16SL-F-UNV-L835-CD1-U

### 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	44	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	49	40	33	60	48	39	33	44	36	31	40	34	29	37	32	27	25
7	59	45	36	29	56	43	34	28	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°	4837	4837	4837
5°	4783	4679	4644
10°	4737	4524	4513
15°	4669	4398	4384
20°	4591	4269	4281
25°	4515	4149	4176
30°	4439	4047	4078
35°	4327	3922	3986
40°	4221	3810	3910
45°	4099	3695	3862
50°	3972	3587	3815
55°	3790	3499	3767
60°	3575	3382	3730
65°	3276	3276	3657
70°	2904	3145	3588
75°	2396	3035	3536
80°	1715	2879	3485
85°	827	2809	3495



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.2	2.0
10°-20°	93.9	5.8
20°-30°	146.5	9.1
30°-40°	184.4	11.5
40°-50°	203.8	12.7
50°-60°	204.2	12.7
60°-70°	184.4	11.5
70°-80°	148.5	9.2
80°-90°	108.0	6.7
90°-100°	86.4	5.4
100°-110°	71.8	4.5
110°-120°	55.6	3.5
120°-130°	40.0	2.5
130°-140°	26.5	1.6
140°-150°	15.3	1.0
150°-160°	5.0	0.3
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	272.6	17.0
0°-40°	456.9	28.4
0°-60°	864.9	53.8
0°-90°	1305.8	81.3
90°-120°	213.8	13.3
90°-150°	295.6	18.4
90°-180°	301.0	18.7
0°-180°	1606.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	337	337	337	337	337	
5°	335	336	338	338	338	32
15°	323	326	333	338	339	91
25°	299	306	319	329	332	138
35°	265	278	297	312	316	166
45°	223	241	267	288	296	172
55°	174	198	233	260	270	156
65°	118	148	193	225	236	117
75°	60	100	150	184	196	64
85°	11	56	108	142	156	14
90°	0	43	94	130	142	1
95°	0	38	88	122	135	0
105°	0	30	75	108	119	0
115°	0	24	60	90	100	0
125°	0	20	48	70	79	0
135°	0	15	37	54	60	0
145°	0	10	27	39	44	0
155°	0	4	14	24	27	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P34051

CATALOG NUMBER: 2BCLED-LD4-16SL-F-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	337	337	337	337	337	337	337	337	337	337	337
2.5°	337	337	337	337	337	338	338	338	338	338	338
5°	335	336	335	336	336	337	337	337	338	338	338
7.5°	334	334	334	334	335	336	336	337	337	338	338
10°	331	331	331	331	332	333	334	335	336	336	337
12.5°	327	327	327	328	329	330	331	333	334	335	336
15°	323	323	323	324	325	327	329	330	332	333	334
17.5°	318	318	319	320	321	323	325	327	329	330	332
20°	312	312	313	315	316	319	321	323	325	327	329
22.5°	306	306	307	309	311	313	316	319	321	324	326
25°	299	299	301	302	305	308	311	314	316	319	322
27.5°	291	292	293	296	299	302	305	308	311	315	318
30°	284	284	286	288	292	295	298	302	306	310	313
32.5°	274	275	277	281	284	288	292	296	300	304	307
35°	265	266	269	272	276	280	284	289	293	297	301
37.5°	256	257	259	263	267	272	277	281	286	290	295
40°	245	246	249	253	258	263	268	273	278	283	288
42.5°	234	236	238	243	248	254	259	265	270	275	280
45°	223	225	228	233	238	244	250	256	262	267	273
47.5°	212	213	217	222	227	233	240	246	253	259	265
50°	200	201	205	211	217	223	229	236	243	250	257
52.5°	188	189	193	199	205	212	219	227	234	241	249
55°	174	177	181	187	194	201	209	216	224	233	240
57.5°	161	163	168	175	182	190	198	207	215	223	231
60°	147	150	154	162	169	177	186	196	205	213	222
62.5°	133	135	141	148	156	165	175	185	195	204	212
65°	118	121	127	135	144	153	164	174	184	193	202
67.5°	104	107	113	122	131	141	153	163	173	183	192
70°	89	92	99	108	118	130	141	152	162	171	181
72.5°	74	78	85	95	106	118	129	140	150	161	170
75°	60	64	72	82	94	105	117	129	139	150	159
77.5°	47	50	59	70	82	94	106	117	128	139	148
80°	33	37	46	58	70	82	94	106	117	127	137
82.5°	21	26	35	47	59	72	84	95	107	117	127
85°	11	16	26	37	50	62	74	86	97	108	117
87.5°	4	9	18	30	42	54	67	78	89	100	109
90°	0	5	14	25	37	49	61	73	84	94	104
92.5°	0	4	12	23	34	47	58	70	81	91	100
95°	0	3	10	21	32	44	56	67	78	88	97
97.5°	0	3	9	19	30	41	53	64	75	85	94
100°	0	3	9	17	28	39	50	61	72	81	91
102.5°	0	3	8	16	26	37	47	58	68	78	87
105°	0	2	8	16	25	34	45	55	65	75	83
107.5°	0	2	8	15	23	32	42	52	62	71	80
110°	0	2	7	14	22	31	40	49	59	67	76



TEST NUMBER: P34051

CATALOG NUMBER: 2BCLED-LD4-16SL-F-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0	2	7	14	21	29	38	47	56	64	72
115°	0	2	7	13	20	28	36	44	52	60	68
117.5°	0	2	6	12	19	27	34	42	49	57	64
120°	0	1	6	12	18	25	32	39	47	54	61
122.5°	0	1	5	11	18	24	31	37	44	51	57
125°	0	1	5	10	17	23	29	36	42	48	54
127.5°	0	1	5	10	16	22	28	34	40	45	50
130°	0	1	4	9	15	20	26	32	37	42	47
132.5°	0	1	4	8	14	19	25	30	35	40	45
135°	0	1	3	8	12	18	23	28	33	37	42
137.5°	0	1	3	7	11	16	21	26	31	35	39
140°	0	1	2	6	10	14	19	24	28	32	36
142.5°	0	0	2	5	9	13	17	21	26	30	33
145°	0	0	2	4	8	11	15	19	23	27	30
147.5°	0	0	1	3	6	10	13	16	20	23	27
150°	0	0	1	3	5	8	11	14	17	20	23
152.5°	0	0	1	2	4	7	9	12	15	17	20
155°	0	0	1	2	3	5	8	10	12	14	17
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
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°	337	337	337	337	337	337	337	337
2.5°	338	338	338	338	338	338	338	338
5°	338	338	338	339	339	338	338	338
7.5°	338	339	339	340	339	340	339	340
10°	338	338	339	339	340	340	340	340
12.5°	337	338	339	339	339	340	340	340
15°	335	336	338	339	339	339	339	339
17.5°	333	335	336	337	338	338	338	338
20°	331	333	334	335	336	336	337	337
22.5°	328	330	331	333	334	334	335	335
25°	324	326	328	330	331	331	332	332
27.5°	320	322	325	326	327	328	328	328
30°	315	318	320	322	324	324	325	325
32.5°	310	313	316	317	319	320	321	321
35°	305	308	310	313	314	316	316	316
37.5°	298	302	305	307	309	310	311	312
40°	292	295	299	302	304	305	306	306
42.5°	285	289	292	296	298	299	301	301
45°	278	282	286	290	292	294	295	296
47.5°	270	275	280	283	286	288	289	290
50°	263	268	273	277	280	282	283	284
52.5°	255	261	266	270	273	275	277	277
55°	247	253	258	263	266	268	270	270
57.5°	238	245	250	255	258	261	262	263
60°	229	236	241	246	250	252	254	255
62.5°	220	226	233	237	241	243	245	246
65°	210	217	223	227	232	234	236	236
67.5°	200	207	213	218	222	224	226	226
70°	189	196	202	207	211	214	216	216
72.5°	178	186	192	197	201	204	206	206
75°	167	175	181	187	191	194	195	196
77.5°	156	164	170	176	180	183	185	186
80°	145	153	159	165	169	172	174	175
82.5°	135	143	149	155	159	162	164	165
85°	126	133	140	145	150	153	155	156
87.5°	118	126	132	138	142	145	147	148
90°	112	120	127	132	137	139	141	142
92.5°	109	117	123	129	133	136	138	138
95°	106	113	120	125	130	133	135	135
97.5°	103	110	117	122	126	129	131	132
100°	99	106	113	118	122	125	127	128
102.5°	95	103	109	114	118	121	123	123
105°	91	98	105	110	114	117	119	119
107.5°	87	94	101	106	109	112	114	115
110°	84	90	96	101	105	108	109	110





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CATALOG NUMBER: 2BCLED-LD4-16SL-F-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	79	86	92	96	100	103	104	105
115°	75	81	87	92	95	98	99	100
117.5°	71	77	82	87	90	93	94	95
120°	67	73	78	82	85	87	89	89
122.5°	63	68	73	77	80	82	84	84
125°	59	64	69	72	75	77	79	79
127.5°	55	60	64	68	70	72	74	74
130°	52	56	60	63	66	68	69	69
132.5°	49	53	56	59	61	63	64	64
135°	46	49	52	55	57	58	59	60
137.5°	43	46	49	51	53	54	55	55
140°	40	43	45	48	49	50	51	52
142.5°	37	39	42	44	46	47	47	48
145°	33	36	38	40	42	43	43	44
147.5°	30	33	35	37	38	39	39	40
150°	26	29	31	33	34	35	35	35
152.5°	23	25	28	29	30	31	31	31
155°	19	21	24	25	26	27	27	27
157.5°	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0
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)