

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: P288450

Luminaire Tested: **2WNLED-LD4-28SL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P288450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1902-121-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2WNLED-LD4-28SL-F-UNV-L835-CD1-U
Description: 2FT WNLED WRAPAROUND
Light Source: (56) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

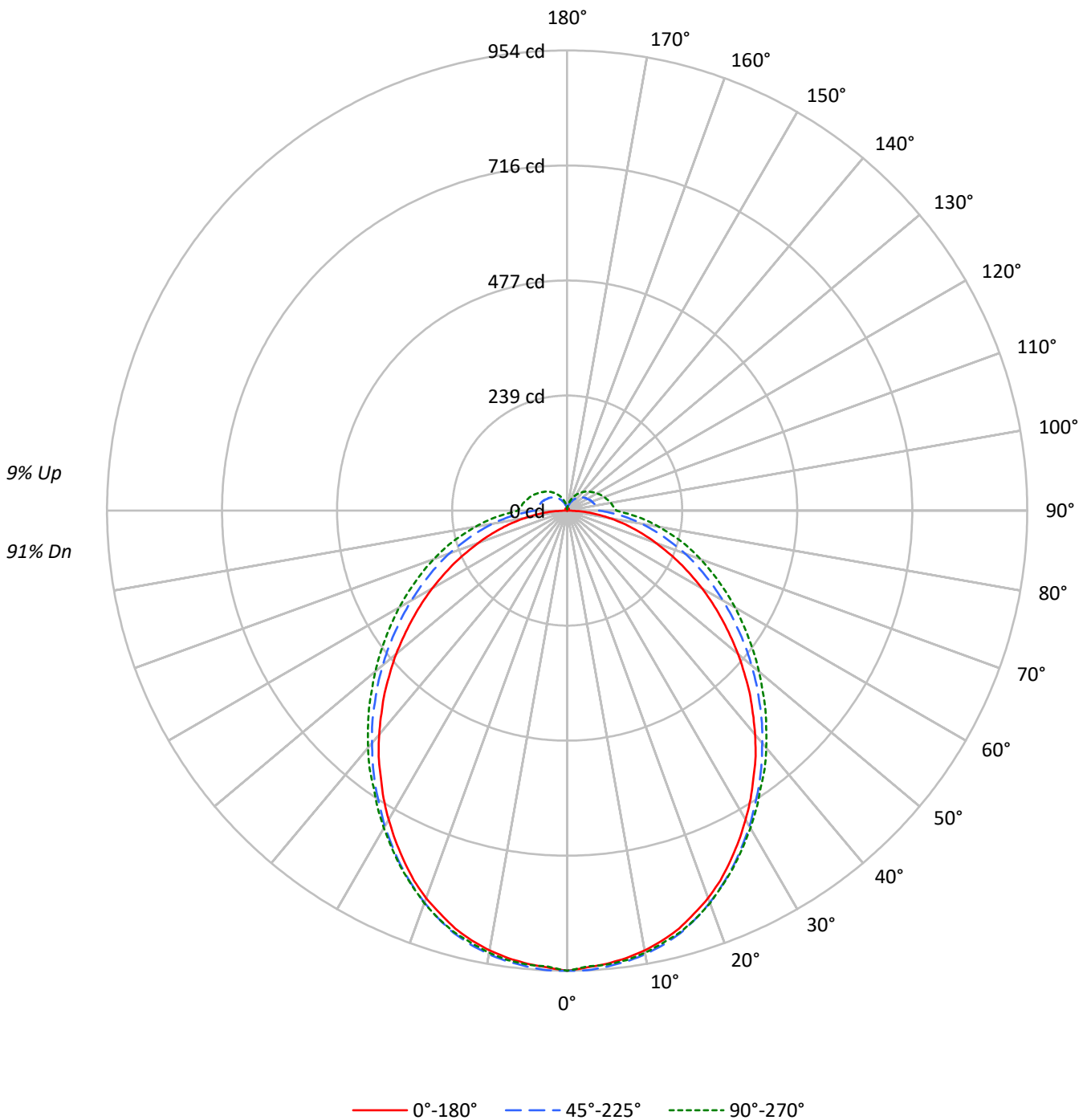
Lumens per Lamp: N/A
Luminaire Lumens: 2861.0 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.12')
CIE Type: Direct

Input Watts (W): 24.2
Input Voltage (V): 120
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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	106	101	96	92	102	97	93	90	92	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	85	78	73	80	74	70	75	71	67	71	67	64	61
3	87	77	68	62	84	74	67	61	70	64	58	66	61	56	63	58	54	52
4	80	68	59	52	77	66	58	52	62	55	50	59	53	48	56	51	47	44
5	74	61	52	45	71	59	51	44	56	49	43	53	47	42	50	45	41	38
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	50	41	35	61	48	40	34	46	39	34	44	37	33	42	36	32	30
8	59	45	37	31	57	44	36	31	42	35	30	40	34	29	38	33	29	27
9	55	42	34	28	53	41	33	28	39	32	27	37	31	27	36	30	26	24
10	52	38	31	25	50	38	30	25	36	29	25	35	28	24	33	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5134	5134	5134
5°	5067	5068	5050
10°	5005	4988	4978
15°	4916	4880	4879
20°	4788	4726	4744
25°	4622	4552	4579
30°	4439	4364	4405
35°	4243	4172	4229
40°	4045	3977	4082
45°	3832	3790	3931
50°	3608	3608	3782
55°	3368	3424	3654
60°	3137	3265	3557
65°	2897	3113	3475
70°	2632	2999	3444
75°	2361	2866	3460
80°	2037	2760	3500
85°	1513	2676	3712



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	3.1
10°-20°	254.9	8.9
20°-30°	374.1	13.1
30°-40°	432.8	15.1
40°-50°	433.2	15.1
50°-60°	385.4	13.5
60°-70°	306.8	10.7
70°-80°	212.2	7.4
80°-90°	112.8	3.9
90°-100°	62.1	2.2
100°-110°	54.8	1.9
110°-120°	46.1	1.6
120°-130°	36.8	1.3
130°-140°	27.2	1.0
140°-150°	17.7	0.6
150°-160°	9.4	0.3
160°-170°	3.7	0.1
170°-180°	0.7	0.0
0°-30°	719.1	25.1
0°-40°	1152.0	40.3
0°-60°	1970.6	68.9
0°-90°	2602.4	91.0
90°-120°	163.1	5.7
90°-150°	244.8	8.6
90°-180°	259.0	9.1
0°-180°	2861.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	943	951	949	950	945	90
15°	897	905	907	909	905	252
25°	801	810	814	818	816	369
35°	674	685	694	701	700	422
45°	535	549	564	576	581	412
55°	391	410	434	452	459	350
65°	258	283	314	338	346	255
75°	140	170	206	232	244	149
85°	42	72	109	136	146	44
90°	0	30	66	92	102	3
95°	0	28	63	88	96	0
105°	2	26	57	79	87	2
115°	3	24	52	70	77	3
125°	4	22	46	61	66	3
135°	5	19	39	52	56	4
145°	5	15	31	41	44	3
155°	5	11	21	30	32	2
165°	6	9	12	16	19	2
175°	6	6	6	6	7	1
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	954	954	954	954	954	954	954	954	954	954	954
2.5°	948	949	956	957	953	957	956	953	956	953	954
5°	943	944	950	951	948	951	951	948	952	949	949
7.5°	936	937	942	944	940	944	944	942	945	942	943
10°	926	927	932	935	932	934	934	933	936	933	934
12.5°	913	913	919	922	918	921	922	919	923	921	922
15°	897	896	902	905	902	905	905	904	907	905	907
17.5°	876	876	881	884	882	884	886	884	887	886	887
20°	855	854	860	862	861	864	864	862	866	865	865
22.5°	830	828	834	837	836	838	839	837	841	840	840
25°	801	800	806	809	808	810	812	810	813	813	814
27.5°	771	770	775	779	779	781	783	781	785	785	785
30°	740	739	743	748	748	751	753	750	755	755	756
32.5°	708	707	712	715	716	718	721	719	724	723	724
35°	674	673	678	682	684	685	688	687	691	691	694
37.5°	642	641	644	649	650	652	655	654	659	659	662
40°	606	605	610	613	616	617	620	620	626	626	629
42.5°	570	570	574	579	581	583	586	587	591	594	598
45°	535	535	538	543	547	549	552	553	557	561	564
47.5°	498	499	503	507	512	513	518	519	525	527	532
50°	463	463	467	472	478	479	483	485	491	494	499
52.5°	426	428	432	438	443	444	449	451	457	461	467
55°	391	393	397	404	409	410	415	418	424	429	434
57.5°	357	359	362	369	375	377	381	386	392	397	403
60°	323	324	330	336	343	345	350	353	362	367	373
62.5°	289	292	298	304	311	313	317	323	331	337	343
65°	258	261	266	272	280	283	287	294	301	307	314
67.5°	225	229	234	242	251	253	259	265	273	279	287
70°	196	200	205	212	220	223	228	237	245	252	260
72.5°	168	171	177	185	193	196	201	209	217	225	231
75°	140	144	150	157	167	170	175	183	191	199	206
77.5°	114	118	124	132	141	145	150	158	166	174	181
80°	89	93	98	107	116	120	125	133	141	149	156
82.5°	65	68	74	82	92	95	101	109	117	126	133
85°	42	45	51	59	68	72	77	85	94	102	109
87.5°	19	23	29	36	46	50	55	63	71	79	86
90°	0	4	10	17	26	30	35	43	51	59	66
92.5°	0	3	9	17	25	29	33	41	49	57	64
95°	0	3	9	16	24	28	33	40	48	56	63
97.5°	1	3	9	16	24	28	32	40	47	55	62
100°	1	3	9	16	24	27	31	39	46	54	60
102.5°	1	4	9	16	23	27	31	38	45	52	59
105°	2	4	9	15	23	26	30	37	44	51	57
107.5°	2	4	9	15	22	26	30	37	44	50	56
110°	2	4	9	15	22	25	29	36	42	49	55



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2	5	9	15	22	25	28	35	41	47	53
115°	3	5	9	15	21	24	28	34	40	46	52
117.5°	3	5	10	15	21	24	27	34	39	45	50
120°	3	5	9	15	20	23	27	33	38	44	48
122.5°	4	6	10	15	20	23	26	32	37	42	47
125°	4	6	10	14	20	22	25	31	36	41	46
127.5°	4	6	10	14	19	22	24	30	35	40	44
130°	4	6	9	14	19	21	23	29	34	38	42
132.5°	5	6	10	14	18	20	23	27	32	37	41
135°	5	6	9	13	17	19	22	26	31	35	39
137.5°	5	6	9	12	17	19	21	25	29	33	37
140°	5	6	9	12	16	17	19	23	28	31	35
142.5°	5	6	9	12	15	17	18	22	26	30	33
145°	5	6	8	11	14	15	17	20	24	27	31
147.5°	5	6	8	10	13	14	16	19	22	25	28
150°	5	6	8	10	12	13	15	17	20	23	26
152.5°	5	6	7	9	11	12	13	16	18	21	23
155°	5	6	7	9	10	11	12	14	17	19	21
157.5°	5	5	7	8	10	10	11	13	15	17	19
160°	5	6	7	7	9	9	10	12	13	15	16
162.5°	6	6	7	8	8	9	9	11	12	13	14
165°	6	6	7	7	8	9	9	10	11	12	12
167.5°	6	6	6	7	8	8	8	9	9	10	11
170°	6	6	6	7	7	7	8	8	8	9	9
172.5°	6	6	6	6	7	7	7	7	7	7	7
175°	6	6	6	6	6	6	6	6	7	7	6
177.5°	6	6	6	6	6	6	6	6	6	6	6
180°	5	5	5	5	5	5	5	5	5	5	5



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CATALOG NUMBER: 2WNLED-LD4-28SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	954	954	954	954	954	954	954	954	954	954
2.5°	956	955	952	953	953	949	951	950	950	946
5°	951	951	949	951	950	948	949	949	948	945
7.5°	945	945	944	946	945	942	944	944	944	940
10°	936	936	934	936	936	933	934	934	933	931
12.5°	924	923	922	923	923	920	921	922	922	918
15°	909	908	907	909	909	906	908	908	908	905
17.5°	890	890	889	891	891	887	890	891	890	887
20°	868	867	867	869	869	865	868	869	868	866
22.5°	843	843	843	843	844	841	844	844	843	841
25°	816	817	815	817	818	814	817	818	817	816
27.5°	788	788	788	790	791	787	790	791	790	788
30°	759	759	759	760	761	758	762	762	761	760
32.5°	728	728	729	730	732	728	732	732	732	731
35°	696	697	698	699	701	698	701	702	702	700
37.5°	665	666	668	669	670	668	672	672	672	673
40°	633	633	636	637	639	637	640	641	641	642
42.5°	600	602	605	606	607	606	609	610	610	611
45°	567	570	572	574	576	574	577	578	579	581
47.5°	535	536	540	543	545	543	546	548	548	549
50°	502	506	509	511	513	512	516	518	517	519
52.5°	470	474	478	480	483	481	485	487	487	489
55°	438	443	447	450	452	451	456	457	457	459
57.5°	407	412	416	419	422	421	426	428	428	430
60°	377	382	387	391	394	393	398	400	400	402
62.5°	348	354	358	363	365	365	370	372	372	374
65°	320	325	330	335	338	338	342	345	345	346
67.5°	292	298	304	308	311	311	316	319	318	320
70°	266	271	277	282	285	285	290	293	293	294
72.5°	239	246	252	257	259	261	265	267	267	269
75°	213	219	224	230	232	233	238	242	242	244
77.5°	189	195	201	205	207	208	212	215	216	217
80°	164	171	176	181	183	184	188	191	191	193
82.5°	141	147	152	156	159	159	164	167	168	169
85°	117	123	128	133	136	136	140	143	144	146
87.5°	94	100	105	110	112	113	118	120	121	121
90°	73	80	85	90	92	94	97	100	101	102
92.5°	71	77	83	87	90	91	95	97	98	99
95°	69	75	81	85	88	89	92	95	95	96
97.5°	68	74	79	83	86	87	90	92	93	94
100°	67	72	77	81	83	85	88	90	91	92
102.5°	65	70	75	79	81	82	86	88	88	89
105°	63	68	73	77	79	80	83	85	86	87
107.5°	62	67	71	75	77	78	81	83	83	84
110°	60	65	69	73	74	76	78	80	81	82



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	58	63	67	71	72	73	76	78	78	79
115°	57	61	65	68	70	71	73	75	76	77
117.5°	55	59	63	66	68	69	71	73	73	74
120°	53	57	61	64	65	66	69	70	70	71
122.5°	52	55	59	62	63	64	66	67	68	69
125°	50	53	57	59	61	62	64	65	65	66
127.5°	48	52	55	57	58	59	61	62	63	63
130°	46	50	53	55	56	57	59	60	60	61
132.5°	45	48	51	53	54	55	56	58	58	58
135°	42	46	49	50	52	52	54	55	55	56
137.5°	41	43	46	48	49	50	51	52	53	53
140°	38	41	44	46	46	47	49	50	50	50
142.5°	36	39	41	43	44	44	46	47	47	47
145°	34	36	39	40	41	42	43	44	44	44
147.5°	31	34	36	38	38	39	40	41	41	41
150°	29	31	33	35	36	36	37	38	38	38
152.5°	26	28	30	32	33	33	34	35	35	35
155°	23	25	27	29	30	30	31	31	31	32
157.5°	20	22	24	26	26	27	28	28	28	29
160°	18	19	21	22	23	23	24	25	25	25
162.5°	16	17	18	19	20	20	21	22	22	22
165°	13	14	15	16	16	17	18	19	19	19
167.5°	11	12	13	13	13	14	15	15	16	16
170°	9	10	10	10	11	11	11	12	13	13
172.5°	8	8	8	8	8	8	9	9	10	10
175°	6	6	6	6	6	6	6	6	7	7
177.5°	6	5	5	5	5	5	5	5	4	3
180°	5	5	5	5	5	5	5	5	5	5

(END OF REPORT)