

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: P288454

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P288454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1902-121-2)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4WNLED-LD4-32SL-F-UNV-L835-CD1-U
Description: 4FT WNLED WRAPAROUND
Light Source: (112) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

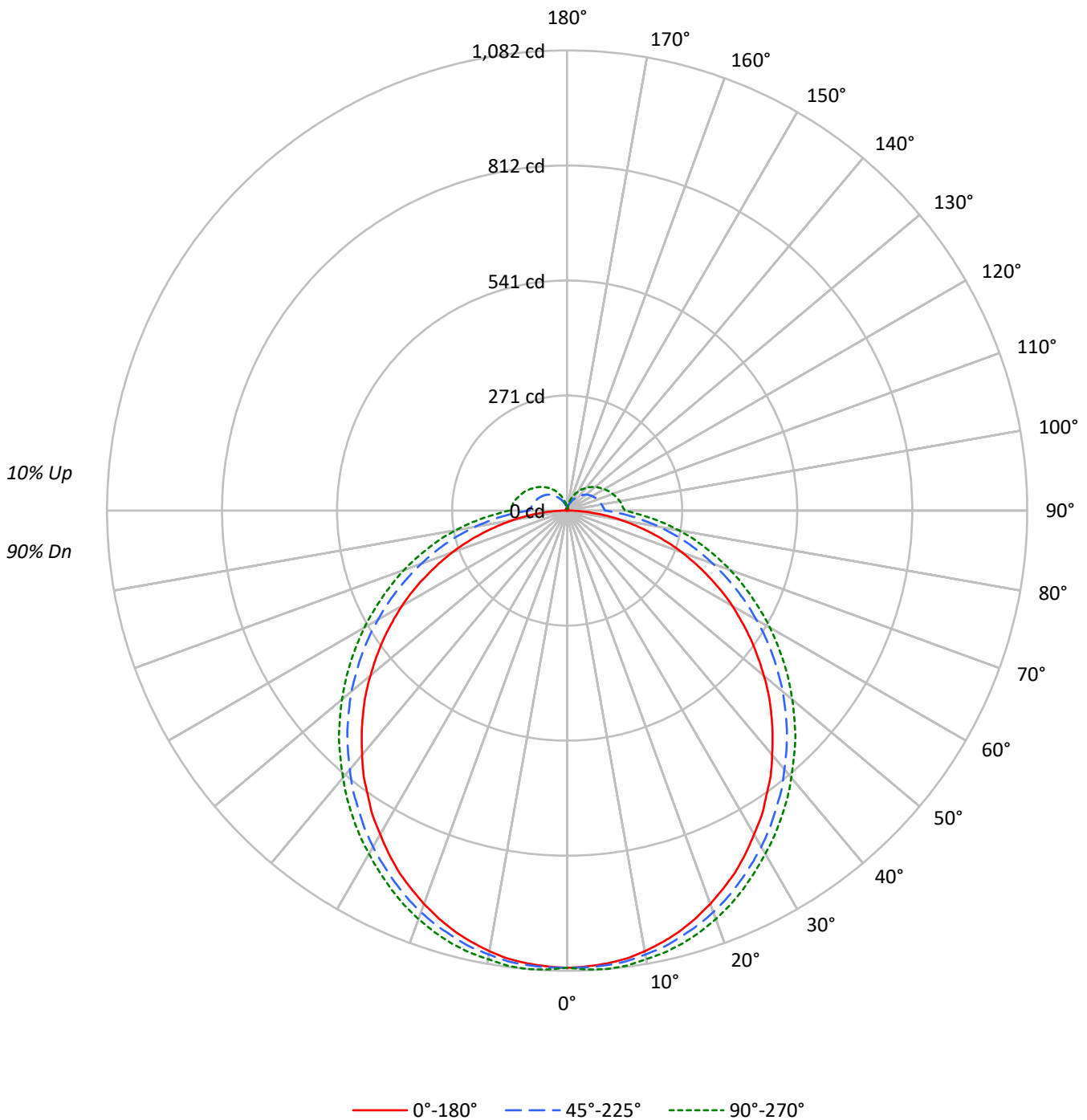
Lumens per Lamp: N/A
Luminaire Lumens: 3682.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 28.8
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	99	99	99	93	93	93	90
1	105	100	95	91	101	97	92	89	91	87	84	85	82	80	80	78	76	73
2	95	86	79	73	92	84	77	71	78	73	68	74	69	65	69	66	62	60
3	86	75	67	60	83	73	65	59	69	62	57	65	59	54	61	56	52	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	73	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	32
7	62	48	39	33	60	47	39	33	45	37	32	42	36	31	40	34	30	28
8	58	44	35	29	55	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2893	2893	2893
5°	2880	2871	2891
10°	2859	2841	2863
15°	2829	2806	2838
20°	2786	2767	2799
25°	2742	2716	2752
30°	2683	2667	2701
35°	2626	2610	2655
40°	2567	2556	2607
45°	2506	2505	2568
50°	2438	2449	2518
55°	2367	2387	2476
60°	2292	2322	2438
65°	2190	2260	2400
70°	2080	2197	2389
75°	1918	2150	2382
80°	1724	2096	2412
85°	1365	2060	2492



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	2.8
10°-20°	292.3	7.9
20°-30°	441.5	12.0
30°-40°	532.2	14.5
40°-50°	558.1	15.2
50°-60°	520.2	14.1
60°-70°	428.1	11.6
70°-80°	299.2	8.1
80°-90°	155.6	4.2
90°-100°	84.6	2.3
100°-110°	76.1	2.1
110°-120°	64.7	1.8
120°-130°	51.3	1.4
130°-140°	36.8	1.0
140°-150°	22.9	0.6
150°-160°	11.7	0.3
160°-170°	4.2	0.1
170°-180°	0.7	0.0
0°-30°	835.8	22.7
0°-40°	1368.0	37.2
0°-60°	2446.2	66.4
0°-90°	3329.1	90.4
90°-120°	225.3	6.1
90°-150°	336.3	9.1
90°-180°	353.0	9.6
0°-180°	3682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1075	1075	1075	1075	1075	
5°	1069	1060	1073	1071	1082	102
15°	1024	1018	1037	1040	1053	289
25°	937	937	962	967	981	431
35°	817	825	856	867	879	512
45°	679	696	731	747	759	524
55°	527	550	589	611	622	471
65°	367	396	439	468	478	364
75°	206	245	292	324	336	218
85°	60	102	151	184	196	64
90°	1	41	89	124	136	4
95°	1	39	85	119	130	1
105°	1	36	79	110	120	1
115°	2	34	72	99	108	2
125°	3	30	63	87	93	3
135°	3	24	52	73	78	2
145°	4	18	38	56	61	3
155°	5	13	25	37	42	2
165°	5	9	14	19	23	1
175°	5	6	7	6	7	0
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°	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075
2.5°	1073	1078	1072	1074	1068	1064	1081	1070	1071	1081	1075
5°	1069	1074	1068	1070	1065	1060	1078	1068	1069	1078	1073
7.5°	1063	1067	1061	1063	1059	1054	1071	1063	1064	1072	1069
10°	1052	1056	1053	1054	1050	1045	1063	1053	1055	1064	1060
12.5°	1039	1044	1039	1041	1038	1033	1050	1042	1044	1053	1051
15°	1024	1027	1024	1026	1023	1018	1035	1029	1031	1040	1037
17.5°	1005	1009	1006	1009	1006	1001	1018	1012	1014	1024	1022
20°	984	989	985	989	986	982	999	994	996	1006	1005
22.5°	961	966	962	965	965	961	977	974	976	985	985
25°	937	940	938	941	940	937	953	951	952	960	962
27.5°	909	914	911	915	914	912	927	925	928	937	938
30°	879	884	882	887	886	884	900	899	901	909	913
32.5°	851	853	853	857	858	856	871	871	874	881	886
35°	817	822	820	828	827	825	840	841	844	852	856
37.5°	786	788	788	795	797	794	807	811	814	821	828
40°	750	754	754	762	764	762	776	780	783	791	795
42.5°	715	718	720	727	731	729	742	747	750	759	763
45°	679	682	683	692	696	696	707	714	718	725	731
47.5°	643	644	647	655	661	661	672	678	683	690	696
50°	604	606	610	619	624	624	635	643	648	655	662
52.5°	565	568	572	581	587	588	597	607	610	618	625
55°	527	529	534	544	550	550	561	570	575	582	589
57.5°	487	490	495	505	511	512	522	531	537	544	552
60°	449	449	455	467	473	475	483	493	499	506	514
62.5°	409	409	416	426	433	435	446	455	461	468	477
65°	367	370	376	387	395	396	404	415	423	430	439
67.5°	327	331	335	346	355	357	366	377	384	391	402
70°	287	291	296	307	315	320	327	338	346	354	364
72.5°	247	251	256	268	277	282	289	302	309	317	328
75°	206	209	217	229	239	245	251	263	272	280	292
77.5°	166	171	178	190	200	205	212	227	235	245	256
80°	131	134	141	153	163	170	176	190	198	208	220
82.5°	95	99	106	118	130	136	141	155	164	174	184
85°	60	65	72	84	96	102	108	120	131	140	151
87.5°	28	33	41	52	63	70	75	88	98	108	118
90°	1	5	13	24	36	41	47	59	69	79	89
92.5°	0	4	12	23	34	40	45	57	67	77	87
95°	1	4	12	22	33	39	44	56	66	76	85
97.5°	1	4	12	22	33	38	44	55	65	75	84
100°	1	4	12	22	32	38	43	54	64	73	82
102.5°	1	4	12	21	32	37	42	53	63	72	81
105°	1	5	12	21	31	36	42	52	61	70	79
107.5°	2	5	12	21	31	36	41	51	60	69	77
110°	2	5	12	20	30	35	40	50	59	67	76



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2	5	12	20	30	35	39	49	58	66	74
115°	2	5	11	20	29	34	38	48	56	64	72
117.5°	2	5	11	19	28	33	37	47	55	62	70
120°	3	5	11	19	27	32	36	45	53	61	68
122.5°	3	6	11	18	27	31	35	44	51	59	66
125°	3	6	11	18	26	30	34	42	50	57	63
127.5°	3	6	11	17	25	28	32	40	48	54	61
130°	3	6	10	16	23	27	30	38	45	52	58
132.5°	3	6	10	16	22	25	29	36	43	49	55
135°	3	5	9	15	21	24	27	34	40	46	52
137.5°	3	5	9	14	19	22	25	31	37	43	48
140°	4	5	9	13	18	21	23	29	34	39	45
142.5°	4	5	8	12	17	19	21	27	32	36	41
145°	4	5	8	12	16	18	20	25	29	33	38
147.5°	4	5	8	11	15	17	18	23	27	30	34
150°	5	6	8	11	14	15	17	21	24	28	31
152.5°	5	6	8	10	13	14	16	19	22	25	28
155°	5	6	7	9	12	13	15	17	20	22	25
157.5°	5	6	7	9	11	12	13	16	18	20	22
160°	5	6	7	8	10	11	12	14	16	18	19
162.5°	5	6	7	8	9	10	11	12	14	15	17
165°	5	6	6	7	9	9	10	11	12	13	14
167.5°	5	5	6	7	8	8	9	10	11	11	12
170°	5	5	6	6	7	7	8	8	9	10	10
172.5°	5	5	6	6	6	7	7	7	8	8	8
175°	5	5	6	6	6	6	6	6	6	6	7
177.5°	5	5	5	5	5	5	5	5	5	5	5
180°	5	5	5	5	5	5	5	5	5	5	5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075
2.5°	1076	1078	1079	1076	1072	1075	1080	1074	1069	1080
5°	1074	1076	1076	1074	1071	1074	1079	1074	1069	1082
7.5°	1070	1071	1071	1069	1067	1071	1076	1071	1066	1079
10°	1063	1064	1064	1063	1060	1063	1068	1064	1059	1071
12.5°	1053	1054	1055	1053	1051	1056	1060	1055	1050	1064
15°	1040	1042	1042	1043	1040	1045	1049	1045	1040	1053
17.5°	1025	1027	1028	1028	1026	1030	1034	1030	1026	1039
20°	1007	1007	1010	1010	1009	1014	1018	1013	1009	1022
22.5°	988	988	989	989	989	994	999	994	990	1003
25°	964	965	966	969	967	972	977	972	967	981
27.5°	941	941	942	945	944	949	953	948	945	957
30°	916	916	917	920	920	925	928	923	921	932
32.5°	889	889	890	894	894	898	902	898	896	907
35°	859	860	862	866	867	871	875	871	868	879
37.5°	830	830	831	837	838	843	847	843	840	851
40°	799	799	801	807	809	812	817	813	810	820
42.5°	767	768	771	776	778	782	786	783	779	789
45°	734	736	738	745	747	750	755	751	749	759
47.5°	701	701	704	712	714	716	721	719	716	725
50°	666	667	670	677	680	682	688	686	683	691
52.5°	630	631	636	643	646	649	654	653	649	657
55°	594	596	602	609	611	614	620	617	617	622
57.5°	557	560	566	573	575	578	584	582	581	586
60°	520	524	530	537	541	542	549	548	546	551
62.5°	484	488	494	502	504	507	514	512	511	514
65°	446	450	458	466	468	471	478	476	474	478
67.5°	409	415	421	429	432	434	442	441	439	443
70°	372	378	385	393	396	399	406	405	405	408
72.5°	336	342	350	358	362	363	369	369	370	372
75°	300	306	314	322	324	328	334	333	334	336
77.5°	264	271	279	287	290	291	298	298	299	302
80°	229	236	244	252	255	255	262	263	264	266
82.5°	193	200	208	216	220	222	228	228	229	231
85°	159	165	174	181	184	186	192	193	194	196
87.5°	126	134	141	149	152	154	159	160	162	163
90°	98	106	114	121	124	126	132	134	135	136
92.5°	96	104	111	118	121	123	128	130	132	132
95°	95	102	109	117	119	121	126	128	130	130
97.5°	93	100	108	115	117	120	124	126	128	128
100°	91	99	106	113	115	117	122	124	126	126
102.5°	89	97	104	110	113	115	119	121	123	123
105°	88	95	102	108	110	112	117	119	121	120
107.5°	86	92	99	106	108	110	114	116	118	117
110°	84	90	97	103	105	107	111	113	115	114



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	82	88	94	100	102	104	108	110	112	111
115°	79	85	92	97	99	101	105	107	108	108
117.5°	77	83	89	95	96	98	101	103	105	104
120°	75	80	86	91	93	95	98	100	101	101
122.5°	72	78	83	88	90	91	95	96	98	97
125°	70	75	80	85	87	88	91	93	94	93
127.5°	67	72	77	82	83	85	87	89	90	90
130°	64	69	74	79	80	81	84	85	86	86
132.5°	61	66	71	75	76	78	80	82	83	82
135°	58	62	67	71	73	74	76	77	79	78
137.5°	54	59	63	67	69	70	72	73	74	74
140°	51	55	60	64	65	66	68	69	70	70
142.5°	47	51	55	59	61	62	64	65	66	65
145°	43	46	51	55	56	57	60	61	61	61
147.5°	39	42	46	50	52	53	55	56	57	57
150°	35	38	42	45	47	48	51	51	52	52
152.5°	31	34	37	41	42	44	46	47	47	47
155°	28	30	33	36	37	38	41	42	43	42
157.5°	24	27	29	31	32	33	36	37	38	38
160°	21	23	25	27	27	29	31	32	33	32
162.5°	18	19	21	22	23	24	26	27	28	28
165°	16	16	17	18	19	20	21	22	23	23
167.5°	13	14	14	15	15	16	16	18	19	19
170°	11	11	11	12	12	12	12	13	15	15
172.5°	9	9	9	9	9	9	9	10	10	11
175°	7	7	7	7	6	7	6	6	7	7
177.5°	5	5	5	5	5	5	4	4	4	4
180°	5	5	5	5	5	5	5	5	5	5

(END OF REPORT)