

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: P235493

Luminaire Tested: **2WSNLED-LD4-20SL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P235493  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-169-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U  
Description: 2FT WSNLED WRAPAROUND  
Light Source: (112) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

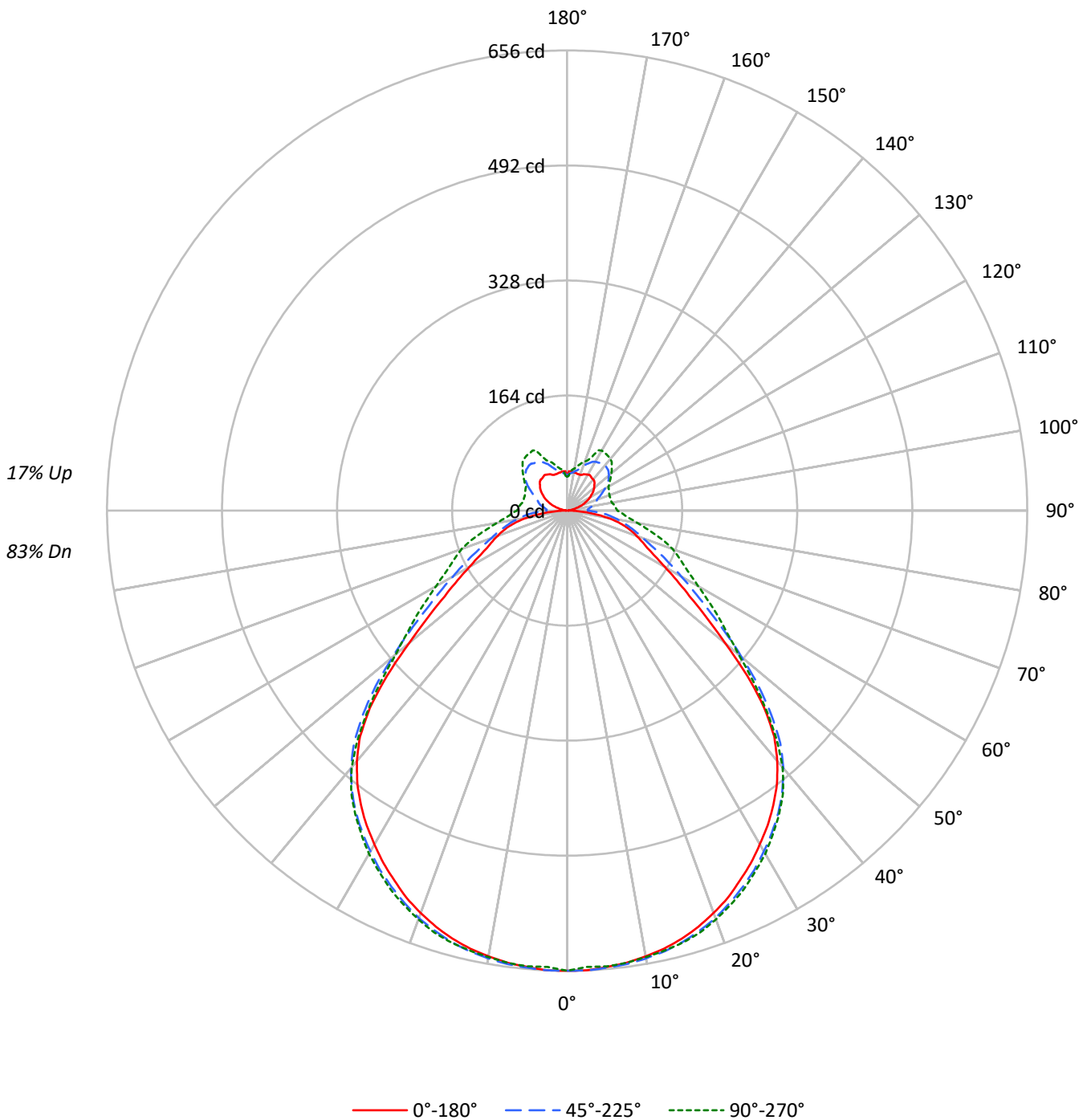
Lumens per Lamp: N/A  
Luminaire Lumens: 2038.0 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 20.2  
Input Voltage (V): 120  
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: P235493

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P235493

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	93	93	93	86	86	86	83			
1	105	100	96	92	100	96	92	89	89	86	83	82	80	78	76	74	72	69			
2	96	88	81	76	92	85	79	74	78	74	69	72	69	65	67	64	61	58			
3	88	78	70	64	84	75	68	62	70	64	59	64	60	56	60	56	53	50			
4	81	69	61	55	77	67	59	53	62	56	51	58	53	48	54	49	46	43			
5	74	62	54	47	71	60	52	46	56	49	44	52	47	42	49	44	40	38			
6	69	56	48	42	66	54	46	41	51	44	39	47	42	37	44	40	36	33			
7	64	51	43	37	61	49	42	36	46	40	35	43	38	33	41	36	32	30			
8	59	47	38	33	57	45	38	32	42	36	31	40	34	30	37	32	29	27			
9	56	43	35	30	53	41	34	29	39	33	28	37	31	27	35	30	26	24			
10	52	39	32	27	50	38	31	26	36	30	25	34	29	25	32	27	24	22			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3531	3531	3531
5°	3509	3493	3485
10°	3488	3461	3456
15°	3462	3425	3437
20°	3418	3378	3397
25°	3360	3311	3344
30°	3295	3238	3274
35°	3227	3158	3184
40°	3111	3032	3038
45°	2846	2767	2714
50°	2288	2347	2323
55°	1837	1927	2091
60°	1562	1646	1912
65°	1415	1451	1839
70°	1418	1330	1873
75°	1438	1294	1828
80°	1329	1302	1844
85°	908	1308	2118



TEST NUMBER: P235493

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.2	3.1
10°-20°	179.4	8.8
20°-30°	272.2	13.4
30°-40°	326.2	16.0
40°-50°	311.3	15.3
50°-60°	219.9	10.8
60°-70°	149.4	7.3
70°-80°	101.9	5.0
80°-90°	59.0	2.9
90°-100°	37.9	1.9
100°-110°	42.3	2.1
110°-120°	50.9	2.5
120°-130°	58.3	2.9
130°-140°	59.7	2.9
140°-150°	50.7	2.5
150°-160°	34.1	1.7
160°-170°	17.5	0.9
170°-180°	5.2	0.3
0°-30°	513.7	25.2
0°-40°	839.9	41.2
0°-60°	1371.1	67.3
0°-90°	1681.4	82.5
90°-120°	131.0	6.4
90°-150°	299.7	14.7
90°-180°	357.0	17.5
0°-180°	2038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	653	654	654	653	652	62
15°	632	634	637	638	638	178
25°	582	586	592	595	596	268
35°	513	517	525	527	527	320
45°	397	410	412	414	401	301
55°	213	234	244	251	263	195
65°	126	138	146	157	183	128
75°	85	72	93	111	129	89
85°	25	34	53	76	83	28
90°	1	14	30	57	72	2
95°	2	14	31	57	69	3
105°	14	20	42	58	64	15
115°	30	44	53	61	66	30
125°	45	56	72	74	75	40
135°	55	66	82	90	90	42
145°	59	68	82	95	98	37
155°	57	62	75	86	85	26
165°	54	56	60	67	68	15
175°	56	57	53	50	56	5
180°	48	48	48	48	48	



TEST NUMBER: P235493

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	656.0	656.0	656.0	656.0	656.0
2.5°	656.0	656.0	656.0	654.1	651.1
5°	653.1	654.1	654.1	653.1	652.1
7.5°	650.2	651.1	652.1	651.1	650.2
10°	645.3	647.3	648.2	648.2	646.3
12.5°	639.5	641.5	643.4	643.4	642.4
15°	631.8	633.7	636.6	637.6	637.6
17.5°	622.1	624.0	627.9	630.8	630.8
20°	610.4	613.4	618.2	620.1	620.1
22.5°	597.9	600.8	605.6	607.5	608.5
25°	582.3	586.2	592.0	594.9	595.9
27.5°	566.8	571.7	577.5	580.4	580.4
30°	549.4	555.2	561.0	563.9	564.9
32.5°	532.0	536.8	543.6	546.5	546.5
35°	512.6	517.4	525.2	527.1	527.1
37.5°	491.3	497.1	503.9	506.8	505.8
40°	466.1	472.9	479.6	481.6	477.7
42.5°	437.0	444.8	449.6	451.5	441.8
45°	397.3	409.9	411.8	413.7	401.2
47.5°	347.9	364.3	370.1	369.2	359.5
50°	293.6	316.9	324.6	325.6	318.8
52.5°	250.0	273.2	282.9	286.8	287.8
55°	213.2	233.5	244.2	251.0	262.6
57.5°	185.1	203.5	214.1	221.9	237.4
60°	160.8	178.3	188.0	196.7	216.1
62.5°	141.5	157.0	165.7	174.4	197.7
65°	126.0	137.6	146.3	157.0	183.1
67.5°	115.3	120.2	128.9	143.4	171.5
70°	105.6	102.7	115.3	130.8	159.9
72.5°	95.9	87.2	103.7	120.2	145.3
75°	85.3	71.7	93.0	111.4	128.9
77.5°	72.7	61.0	83.3	101.7	114.3
80°	58.1	51.4	73.6	93.0	101.7
82.5°	41.7	42.6	63.0	84.3	91.1
85°	25.2	33.9	53.3	75.6	83.3
87.5°	11.6	24.2	40.7	64.9	77.5
90°	1.0	14.5	30.0	57.2	71.7
92.5°	1.0	14.5	29.1	57.2	69.8
95°	1.9	14.5	31.0	57.2	68.8
97.5°	3.9	14.5	32.9	57.2	66.9
100°	6.8	14.5	36.8	57.2	64.9
102.5°	9.7	16.5	39.7	58.1	64.0
105°	13.6	20.3	41.7	58.1	64.0
107.5°	17.4	25.2	43.6	58.1	64.0
110°	22.3	32.0	45.5	59.1	64.0



TEST NUMBER: P235493

CATALOG NUMBER: 2WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	26.2	38.8	48.4	60.1	64.9
115°	30.0	43.6	53.3	61.0	65.9
117.5°	33.9	46.5	57.2	63.0	66.9
120°	37.8	50.4	62.0	65.9	67.8
122.5°	40.7	53.3	66.9	69.8	71.7
125°	44.6	56.2	71.7	73.6	74.6
127.5°	47.5	59.1	74.6	78.5	78.5
130°	50.4	61.0	77.5	82.4	82.4
132.5°	52.3	64.0	80.4	86.2	86.2
135°	55.2	65.9	82.4	90.1	90.1
137.5°	57.2	67.8	83.3	92.1	94.0
140°	58.1	67.8	84.3	94.0	95.9
142.5°	58.1	68.8	84.3	95.0	96.9
145°	59.1	67.8	82.4	95.0	97.9
147.5°	60.1	66.9	81.4	95.0	97.9
150°	59.1	65.9	80.4	92.1	98.8
152.5°	58.1	64.0	78.5	88.2	96.9
155°	57.2	62.0	74.6	86.2	85.3
157.5°	55.2	60.1	71.7	81.4	77.5
160°	54.3	58.1	66.9	77.5	74.6
162.5°	54.3	56.2	63.0	72.7	71.7
165°	54.3	56.2	60.1	66.9	67.8
167.5°	55.2	56.2	58.1	60.1	64.0
170°	55.2	56.2	56.2	56.2	61.0
172.5°	56.2	57.2	54.3	52.3	59.1
175°	56.2	57.2	53.3	50.4	56.2
177.5°	56.2	56.2	52.3	48.4	49.4
180°	48.4	48.4	48.4	48.4	48.4

(END OF REPORT)