

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: P235481

Luminaire Tested: **4WSNLED-LD4-20SL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P235481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-169-11)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

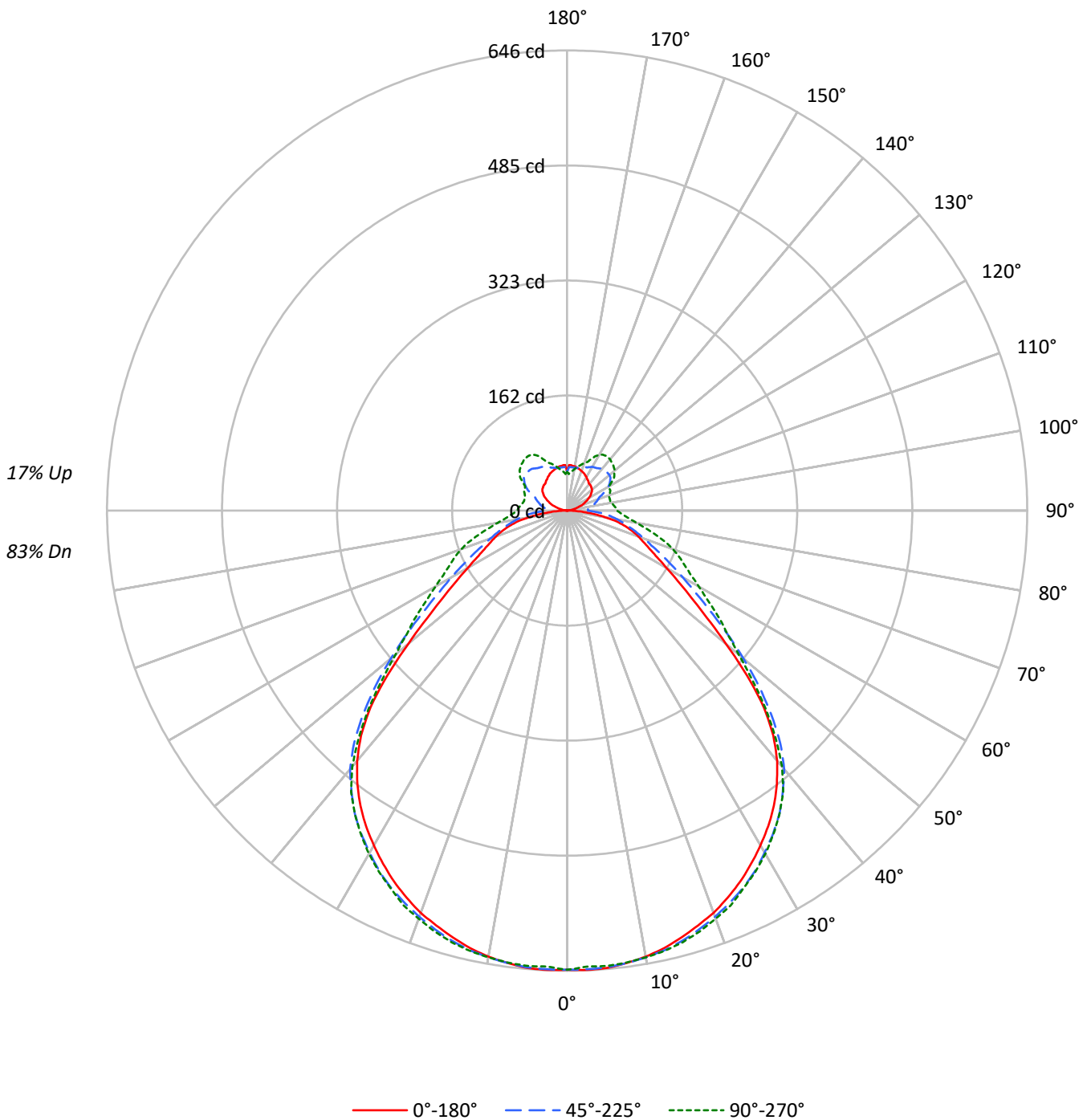
Lumens per Lamp: N/A  
Luminaire Lumens: 2002.0 lumens  
Efficiency: N/A  
Efficacy: 111.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 17.9  
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: P235481

CATALOG NUMBER: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P235481

CATALOG NUMBER: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**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	93	93	93	86	86	86	83
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69
2	96	88	82	76	92	85	79	74	78	74	70	73	69	65	67	64	62	59
3	88	78	70	64	84	75	68	62	70	64	59	65	60	56	60	56	53	50
4	81	69	61	55	77	67	59	53	62	56	51	58	53	48	54	50	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	48	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	38	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°	1735	1735	1735
5°	1736	1722	1715
10°	1728	1707	1703
15°	1714	1692	1691
20°	1702	1671	1670
25°	1682	1650	1643
30°	1657	1620	1613
35°	1627	1584	1570
40°	1569	1524	1492
45°	1441	1389	1335
50°	1174	1194	1144
55°	953	990	1030
60°	821	845	944
65°	764	748	915
70°	772	690	925
75°	785	671	900
80°	728	683	897
85°	530	714	1023



TEST NUMBER: P235481

CATALOG NUMBER: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.1	3.1
10°-20°	176.1	8.8
20°-30°	267.9	13.4
30°-40°	321.3	16.0
40°-50°	305.9	15.3
50°-60°	217.8	10.9
60°-70°	148.1	7.4
70°-80°	99.9	5.0
80°-90°	57.3	2.9
90°-100°	37.0	1.8
100°-110°	41.6	2.1
110°-120°	51.7	2.6
120°-130°	59.4	3.0
130°-140°	56.4	2.8
140°-150°	45.7	2.3
150°-160°	31.5	1.6
160°-170°	17.7	0.9
170°-180°	5.7	0.3
0°-30°	505.1	25.2
0°-40°	826.5	41.3
0°-60°	1350.1	67.4
0°-90°	1655.4	82.7
90°-120°	130.4	6.5
90°-150°	291.8	14.6
90°-180°	347.0	17.3
0°-180°	2002.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	645	645	645	645	645	
5°	645	641	644	643	642	61
15°	620	619	625	628	627	175
25°	575	576	584	586	586	265
35°	506	509	520	520	520	316
45°	391	400	405	405	394	296
55°	212	234	244	246	259	194
65°	128	137	145	154	182	129
75°	84	71	91	109	127	88
85°	23	33	52	73	80	26
90°	0	14	29	55	70	2
95°	2	14	30	56	67	3
105°	14	20	41	56	62	14
115°	28	45	55	62	67	28
125°	41	54	74	80	80	37
135°	48	57	78	89	91	37
145°	51	57	73	89	94	32
155°	57	58	67	78	80	26
165°	61	61	62	63	65	17
175°	64	64	61	53	54	6
180°	54	54	54	54	54	



TEST NUMBER: P235481

CATALOG NUMBER: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	644.6	644.6	644.6	644.6	644.6
2.5°	645.6	642.7	644.6	644.6	640.7
5°	644.6	640.7	643.6	642.7	641.7
7.5°	640.7	637.8	640.7	641.7	639.8
10°	635.9	633.0	636.9	637.8	636.9
12.5°	629.1	627.2	632.0	633.9	633.0
15°	620.4	619.4	625.2	628.1	627.2
17.5°	610.7	609.7	616.5	620.4	619.4
20°	601.0	600.0	606.8	609.7	609.7
22.5°	588.4	588.4	596.1	599.1	600.0
25°	574.8	575.8	584.5	586.4	585.5
27.5°	559.3	560.3	570.9	571.9	571.9
30°	542.8	544.8	554.5	555.4	556.4
32.5°	525.4	527.3	538.0	538.0	539.0
35°	506.0	508.9	519.6	519.6	519.6
37.5°	483.7	487.6	497.3	497.3	498.2
40°	458.5	464.3	474.0	473.0	469.2
42.5°	428.4	436.2	443.0	442.0	433.3
45°	390.6	400.3	405.2	405.2	394.5
47.5°	342.2	356.7	365.4	361.6	352.8
50°	290.8	312.1	322.8	320.9	314.1
52.5°	247.2	271.4	282.1	281.1	283.0
55°	212.3	233.6	244.3	246.2	258.8
57.5°	184.2	203.6	212.3	218.1	233.6
60°	160.9	178.4	187.1	192.9	213.3
62.5°	142.5	156.1	164.8	171.6	195.8
65°	128.0	136.7	145.4	154.1	182.2
67.5°	116.3	118.3	128.0	140.6	170.6
70°	106.6	99.8	114.4	128.9	158.0
72.5°	96.0	84.3	102.7	117.3	143.5
75°	84.3	70.8	91.1	108.6	127.0
77.5°	71.7	59.1	81.4	98.9	111.5
80°	55.3	50.4	71.7	90.1	98.9
82.5°	38.8	41.7	62.0	82.4	88.2
85°	23.3	33.0	52.3	72.7	80.5
87.5°	10.7	24.2	39.7	63.0	74.6
90°	0.0	14.5	29.1	55.3	69.8
92.5°	1.0	14.5	29.1	56.2	68.8
95°	1.9	13.6	30.0	56.2	66.9
97.5°	3.9	13.6	33.0	55.3	64.9
100°	6.8	14.5	35.9	55.3	63.0
102.5°	9.7	15.5	38.8	56.2	62.0
105°	13.6	20.4	40.7	56.2	62.0
107.5°	17.4	27.1	43.6	57.2	62.0
110°	21.3	34.9	46.5	58.2	63.0



TEST NUMBER: P235481

CATALOG NUMBER: 4WSNLED-LD4-20SL-F-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	25.2	40.7	48.5	61.1	64.9
115°	28.1	44.6	55.3	62.0	66.9
117.5°	32.0	47.5	62.0	63.0	66.9
120°	34.9	50.4	66.9	66.9	67.9
122.5°	38.8	52.3	70.8	74.6	73.7
125°	40.7	54.3	73.7	79.5	80.5
127.5°	43.6	55.3	76.6	82.4	83.4
130°	45.6	56.2	77.5	85.3	87.2
132.5°	46.5	56.2	77.5	87.2	89.2
135°	47.5	57.2	77.5	89.2	91.1
137.5°	48.5	56.2	77.5	90.1	92.1
140°	48.5	56.2	76.6	90.1	94.0
142.5°	49.4	56.2	74.6	90.1	94.0
145°	51.4	57.2	72.7	89.2	94.0
147.5°	52.3	57.2	71.7	87.2	93.1
150°	54.3	57.2	70.8	84.3	90.1
152.5°	55.3	57.2	68.8	81.4	86.3
155°	57.2	58.2	66.9	77.5	79.5
157.5°	58.2	58.2	65.9	73.7	73.7
160°	59.1	59.1	64.0	69.8	70.8
162.5°	60.1	60.1	63.0	65.9	67.9
165°	61.1	61.1	62.0	63.0	64.9
167.5°	62.0	62.0	61.1	59.1	62.0
170°	63.0	63.0	61.1	56.2	59.1
172.5°	63.0	64.0	61.1	54.3	56.2
175°	64.0	64.0	61.1	53.3	54.3
177.5°	64.0	64.0	61.1	51.4	51.4
180°	54.3	54.3	54.3	54.3	54.3

(END OF REPORT)