

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: P229494

Luminaire Tested: **14RLN-LD5-31-RDP-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229494  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36061)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14RLN-LD5-31-RDP-UNV-L840-CD1-U  
Description: METALUX 1X4 RLN LED TROFFER WITH RDP LENS  
Light Source: (112)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2681.0 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.35 / 1.39  
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')  
CIE Type: Direct

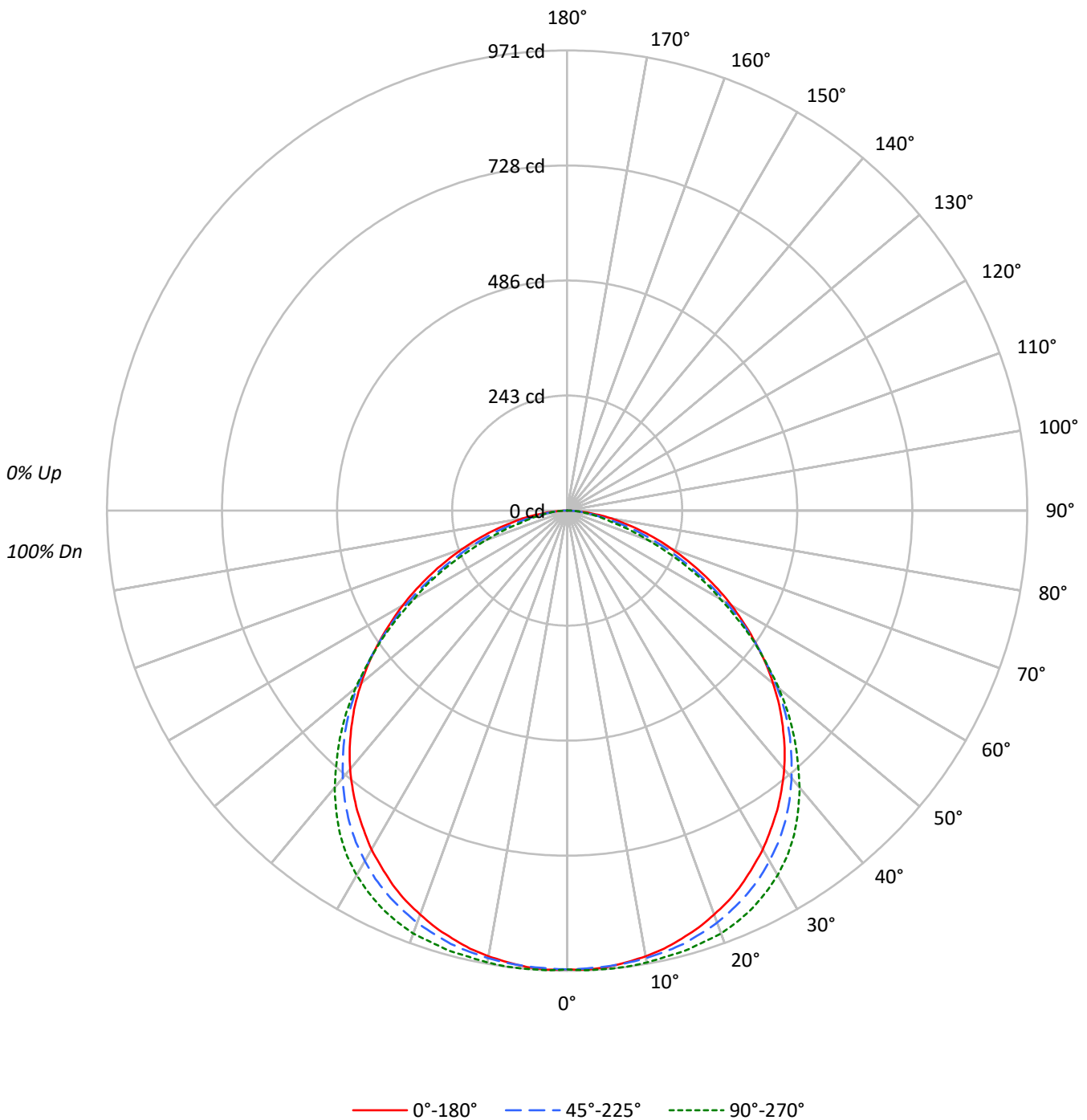
Input Watts (W): 30.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	30	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	3262	3262	3262
5°	3271	3266	3284
10°	3267	3281	3313
15°	3261	3303	3354
20°	3252	3319	3405
25°	3238	3328	3441
30°	3213	3322	3456
35°	3177	3298	3435
40°	3134	3240	3357
45°	3066	3160	3230
50°	2974	3030	3058
55°	2848	2840	2825
60°	2702	2611	2513
65°	2516	2336	2209
70°	2297	2047	1784
75°	2064	1699	1334
80°	1836	1240	1162
85°	1442	1028	1028



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.2	3.4
10°-20°	267.9	10.0
20°-30°	413.4	15.4
30°-40°	501.4	18.7
40°-50°	509.0	19.0
50°-60°	430.6	16.1
60°-70°	291.3	10.9
70°-80°	140.9	5.3
80°-90°	34.4	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	773.4	28.8
0°-40°	1274.8	47.5
0°-60°	2214.4	82.6
0°-90°	2681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2681.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	968	968	968	968	968	
5°	967	967	966	970	971	92
15°	935	940	947	958	962	264
25°	871	878	895	918	926	401
35°	772	780	802	827	835	483
45°	643	645	663	676	678	496
55°	485	481	483	483	481	433
65°	316	302	293	281	277	313
75°	158	146	130	113	102	169
85°	37	29	27	27	27	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	968.2	968.2	968.2	968.2	968.2
2.5°	969.5	969.5	966.9	969.5	970.9
5°	966.9	966.9	965.5	969.5	970.9
7.5°	961.5	962.9	962.9	968.2	970.9
10°	954.9	957.6	958.9	966.9	968.2
12.5°	946.9	949.6	953.6	962.9	964.2
15°	934.9	940.2	946.9	957.6	961.5
17.5°	922.9	928.3	936.2	950.9	954.9
20°	906.9	913.6	925.6	942.9	949.6
22.5°	891.0	896.3	910.9	932.2	938.9
25°	871.0	877.6	895.0	917.6	925.6
27.5°	848.3	857.7	876.3	900.3	908.3
30°	825.7	833.7	853.7	880.3	888.3
32.5°	799.1	807.1	829.7	855.0	864.3
35°	772.4	780.4	801.7	827.0	835.0
37.5°	743.1	748.5	771.1	792.4	800.4
40°	712.5	716.5	736.5	757.8	763.1
42.5°	679.2	681.9	700.5	719.2	720.5
45°	643.3	644.6	663.2	676.5	677.9
47.5°	607.3	606.0	621.9	631.3	632.6
50°	567.3	567.3	578.0	583.3	583.3
52.5°	527.4	524.7	530.1	534.0	530.1
55°	484.8	480.8	483.4	483.4	480.8
57.5°	442.2	434.2	435.5	432.8	426.2
60°	400.9	391.5	387.5	378.2	372.9
62.5°	358.2	347.6	339.6	329.0	327.6
65°	315.6	302.3	293.0	281.0	277.0
67.5°	274.3	262.4	249.0	235.7	227.7
70°	233.1	219.7	207.8	190.4	181.1
72.5°	195.8	183.8	169.1	149.2	142.5
75°	158.5	146.5	130.5	113.2	102.5
77.5°	122.5	113.2	95.9	81.2	79.9
80°	94.6	83.9	63.9	59.9	59.9
82.5°	61.3	54.6	45.3	42.6	42.6
85°	37.3	29.3	26.6	26.6	26.6
87.5°	14.6	13.3	13.3	13.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)