

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: P229742

Luminaire Tested: **24RLN-LD5-60-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229742  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36038)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-60-UNV-L840-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5999.0 lumens  
Efficiency: N/A  
Efficacy: 125.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

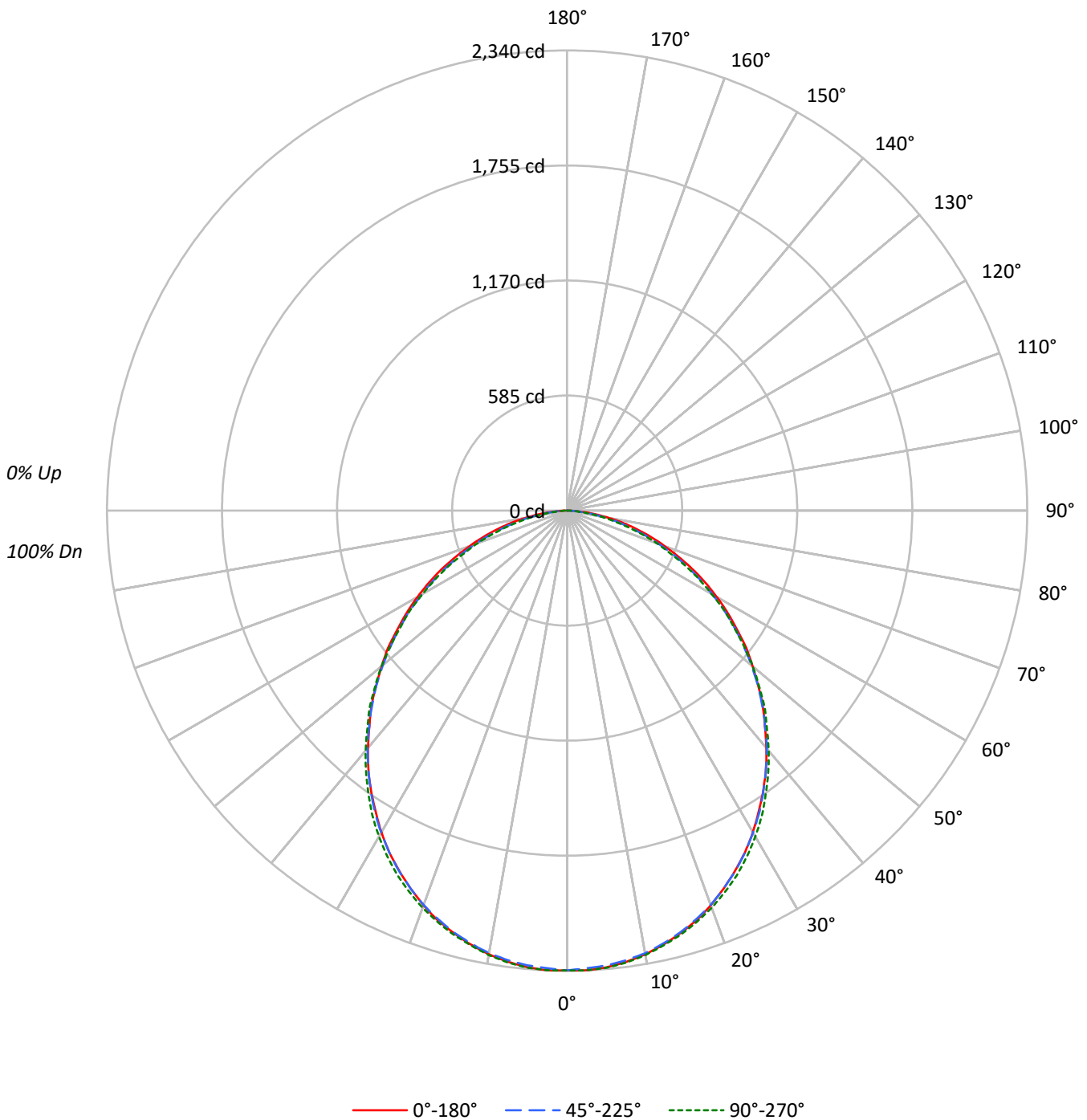
Input Watts (W): 47.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	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	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26

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

	0°	45°	90°
0°	3581	3581	3581
5°	3583	3569	3586
10°	3563	3554	3569
15°	3528	3522	3540
20°	3482	3479	3504
25°	3416	3419	3454
30°	3341	3344	3384
35°	3250	3253	3292
40°	3151	3158	3189
45°	3049	3041	3078
50°	2932	2914	2936
55°	2812	2777	2767
60°	2694	2613	2601
65°	2544	2435	2401
70°	2358	2214	2172
75°	2167	1955	1854
80°	1897	1631	1482
85°	1559	1128	896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.9	3.7
10°-20°	627.6	10.5
20°-30°	933.8	15.6
30°-40°	1091.0	18.2
40°-50°	1084.6	18.1
50°-60°	931.9	15.5
60°-70°	669.2	11.2
70°-80°	356.4	5.9
80°-90°	83.5	1.4
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°	1782.4	29.7
0°-40°	2873.4	47.9
0°-60°	4889.9	81.5
0°-90°	5999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5999.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2338	2338	2338	2338	2338	
5°	2331	2327	2321	2329	2333	221
15°	2225	2225	2221	2229	2232	627
25°	2021	2021	2023	2038	2044	931
35°	1738	1734	1740	1759	1761	1087
45°	1408	1396	1404	1412	1421	1084
55°	1053	1040	1040	1040	1036	945
65°	702	681	672	664	662	694
75°	366	345	330	321	313	390
85°	89	76	64	53	51	104
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2338.2	2338.2	2338.2	2338.2	2338.2
2.5°	2340.1	2336.3	2328.8	2338.2	2340.1
5°	2330.7	2326.9	2321.2	2328.8	2332.6
7.5°	2313.7	2309.9	2306.1	2313.7	2317.5
10°	2291.0	2289.1	2285.4	2294.8	2294.8
12.5°	2260.8	2259.0	2255.2	2264.6	2264.6
15°	2225.0	2225.0	2221.2	2228.8	2232.5
17.5°	2185.4	2183.5	2179.7	2189.1	2192.9
20°	2136.3	2136.3	2134.4	2145.7	2149.5
22.5°	2079.7	2079.7	2079.7	2094.8	2098.5
25°	2021.2	2021.2	2023.1	2038.2	2043.8
27.5°	1958.9	1957.0	1958.9	1975.9	1981.5
30°	1889.1	1885.3	1891.0	1907.9	1913.6
32.5°	1813.6	1809.8	1819.2	1834.3	1841.9
35°	1738.1	1734.3	1740.0	1758.9	1760.7
37.5°	1660.7	1651.3	1660.7	1677.7	1679.6
40°	1575.8	1568.2	1579.6	1587.1	1594.7
42.5°	1489.0	1485.2	1490.9	1504.1	1504.1
45°	1407.8	1396.5	1404.1	1411.6	1421.0
47.5°	1317.3	1311.6	1315.4	1321.0	1324.8
50°	1230.4	1221.0	1222.9	1228.6	1232.3
52.5°	1149.3	1130.4	1130.4	1134.2	1134.2
55°	1053.0	1039.8	1039.8	1039.8	1036.1
57.5°	968.1	951.1	949.3	949.3	949.3
60°	879.4	858.7	853.0	853.0	849.2
62.5°	790.7	771.9	764.3	756.8	756.8
65°	702.0	681.3	671.8	664.3	662.4
67.5°	611.4	596.3	585.0	575.6	566.2
70°	526.5	509.5	494.4	485.0	485.0
72.5°	447.3	428.4	413.3	402.0	396.3
75°	366.1	345.4	330.3	320.8	313.3
77.5°	294.4	271.8	256.7	243.4	235.9
80°	215.1	198.2	184.9	171.7	168.0
82.5°	149.1	135.9	120.8	111.3	107.6
85°	88.7	75.5	64.2	52.8	51.0
87.5°	35.9	26.4	20.8	20.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)