

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: P229775

Luminaire Tested: **24RLN-LD5-80-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229775  
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-LD5-80-UNV-L940-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)4000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

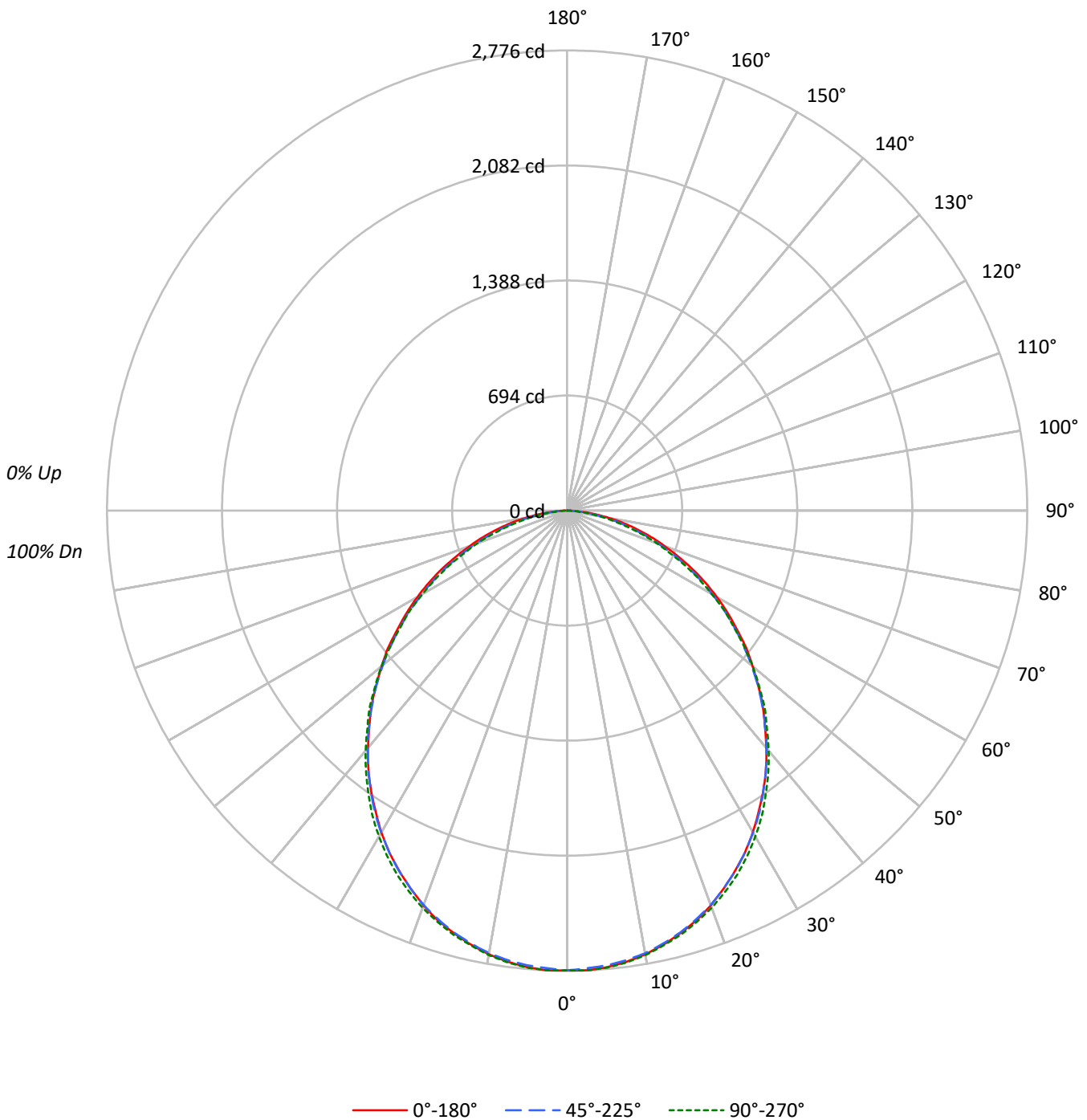
Lumens per Lamp: N/A  
Luminaire Lumens: 7117.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 67.45  
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°	4249	4249	4249
5°	4251	4234	4255
10°	4227	4217	4234
15°	4186	4179	4200
20°	4131	4127	4157
25°	4052	4056	4098
30°	3964	3968	4015
35°	3856	3860	3906
40°	3738	3747	3783
45°	3618	3608	3652
50°	3478	3457	3484
55°	3336	3294	3282
60°	3196	3100	3086
65°	3019	2889	2848
70°	2797	2627	2577
75°	2570	2319	2200
80°	2251	1935	1758
85°	1849	1337	1061



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.1	3.7
10°-20°	744.6	10.5
20°-30°	1107.8	15.6
30°-40°	1294.3	18.2
40°-50°	1286.7	18.1
50°-60°	1105.6	15.5
60°-70°	794.0	11.2
70°-80°	422.9	5.9
80°-90°	99.0	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°	2114.5	29.7
0°-40°	3408.9	47.9
0°-60°	5801.1	81.5
0°-90°	7117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7117.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2774	2774	2774	2774	2774	
5°	2765	2760	2754	2763	2767	262
15°	2640	2640	2635	2644	2649	744
25°	2398	2398	2400	2418	2425	1104
35°	2062	2058	2064	2087	2089	1289
45°	1670	1657	1666	1675	1686	1286
55°	1249	1234	1234	1234	1229	1121
65°	833	808	797	788	786	824
75°	434	410	392	381	372	463
85°	105	90	76	63	60	123
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2774.0	2774.0	2774.0	2774.0	2774.0
2.5°	2776.2	2771.7	2762.8	2774.0	2776.2
5°	2765.0	2760.5	2753.8	2762.8	2767.3
7.5°	2744.9	2740.4	2735.9	2744.9	2749.3
10°	2718.0	2715.8	2711.3	2722.5	2722.5
12.5°	2682.2	2679.9	2675.5	2686.7	2686.7
15°	2639.6	2639.6	2635.2	2644.1	2648.6
17.5°	2592.6	2590.4	2585.9	2597.1	2601.6
20°	2534.4	2534.4	2532.2	2545.6	2550.1
22.5°	2467.2	2467.2	2467.2	2485.2	2489.6
25°	2397.8	2397.8	2400.1	2418.0	2424.7
27.5°	2324.0	2321.7	2324.0	2344.1	2350.8
30°	2241.1	2236.6	2243.4	2263.5	2270.2
32.5°	2151.6	2147.1	2158.3	2176.2	2185.1
35°	2062.0	2057.5	2064.2	2086.6	2088.9
37.5°	1970.2	1959.0	1970.2	1990.4	1992.6
40°	1869.5	1860.5	1873.9	1882.9	1891.9
42.5°	1766.5	1762.0	1768.7	1784.4	1784.4
45°	1670.2	1656.8	1665.7	1674.7	1685.9
47.5°	1562.7	1556.0	1560.5	1567.2	1571.7
50°	1459.8	1448.6	1450.8	1457.5	1462.0
52.5°	1363.5	1341.1	1341.1	1345.6	1345.6
55°	1249.3	1233.6	1233.6	1233.6	1229.1
57.5°	1148.5	1128.4	1126.2	1126.2	1126.2
60°	1043.3	1018.7	1012.0	1012.0	1007.5
62.5°	938.1	915.7	906.7	897.8	897.8
65°	832.9	808.2	797.0	788.1	785.8
67.5°	725.4	707.5	694.1	682.9	671.7
70°	624.6	604.5	586.6	575.4	575.4
72.5°	530.6	508.2	490.3	476.9	470.2
75°	434.3	409.7	391.8	380.6	371.7
77.5°	349.3	322.4	304.5	288.8	279.9
80°	255.2	235.1	219.4	203.7	199.3
82.5°	176.9	161.2	143.3	132.1	127.6
85°	105.2	89.6	76.1	62.7	60.4
87.5°	42.5	31.3	24.6	24.6	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)