

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: P229772

Luminaire Tested: **24RLN-LD5-60-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229772  
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-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: 5299.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 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

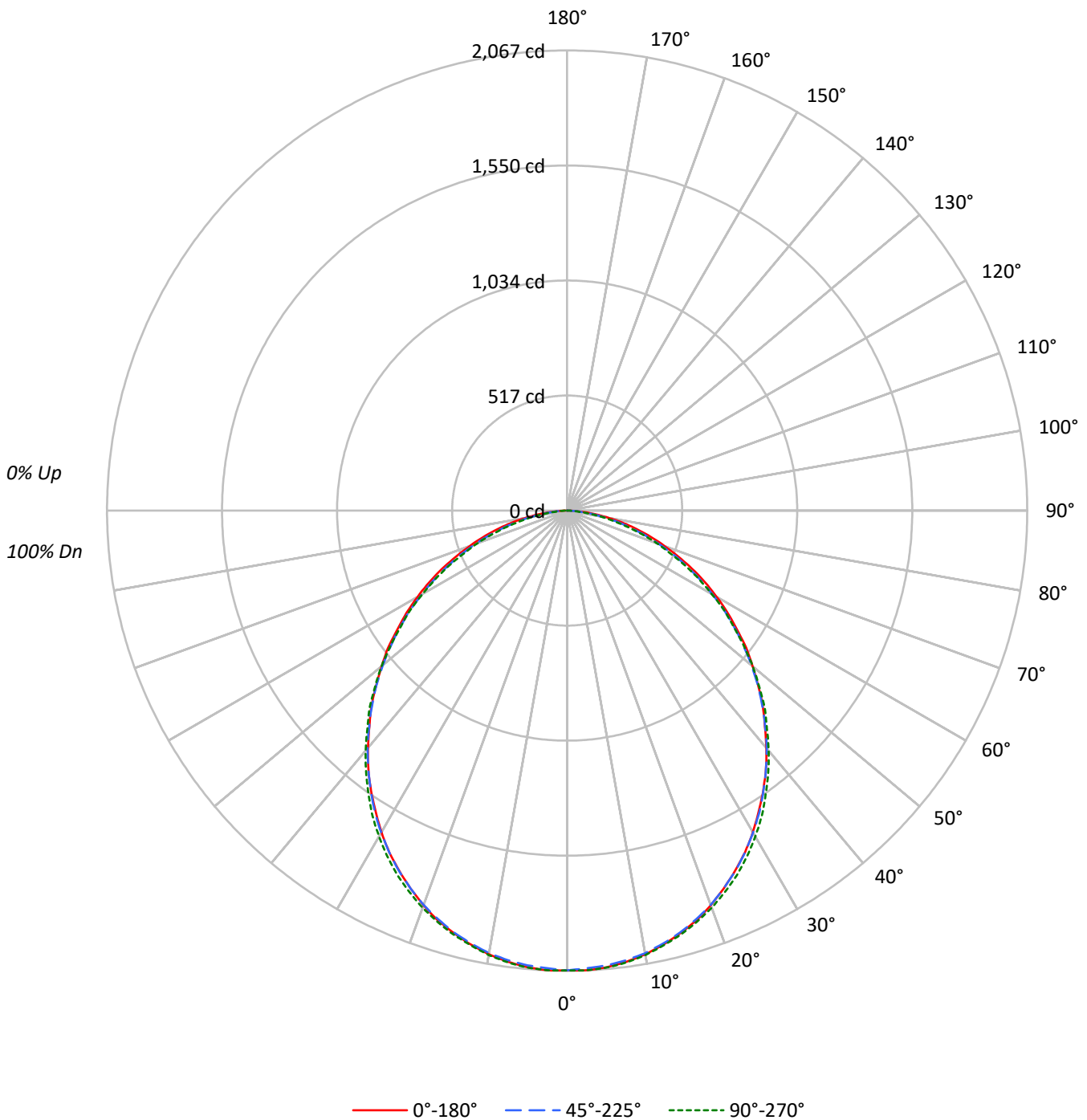
Input Watts (W): 47.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85					85			
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71					71			
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60					60			
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52					52			
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45					45			
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40					40			
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35					35			
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32					32			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	28					28			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26					26			

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

	0°	45°	90°
0°	3164	3164	3164
5°	3165	3153	3168
10°	3147	3140	3153
15°	3117	3111	3127
20°	3076	3073	3095
25°	3017	3020	3051
30°	2951	2954	2989
35°	2871	2874	2908
40°	2783	2790	2816
45°	2694	2686	2719
50°	2590	2574	2594
55°	2484	2453	2444
60°	2380	2308	2298
65°	2247	2151	2121
70°	2083	1956	1918
75°	1914	1726	1637
80°	1676	1441	1309
85°	1376	996	791



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.2	3.7
10°-20°	554.4	10.5
20°-30°	824.8	15.6
30°-40°	963.7	18.2
40°-50°	958.0	18.1
50°-60°	823.2	15.5
60°-70°	591.1	11.2
70°-80°	314.8	5.9
80°-90°	73.7	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°	1574.4	29.7
0°-40°	2538.1	47.9
0°-60°	4319.3	81.5
0°-90°	5299.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5299.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2065	2065	2065	2065	2065	
5°	2059	2055	2050	2057	2060	195
15°	1965	1965	1962	1969	1972	554
25°	1785	1785	1787	1800	1805	822
35°	1535	1532	1537	1554	1555	960
45°	1244	1234	1240	1247	1255	957
55°	930	918	918	918	915	834
65°	620	602	593	587	585	613
75°	323	305	292	283	277	344
85°	78	67	57	47	45	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2065.4	2065.4	2065.4	2065.4	2065.4
2.5°	2067.0	2063.7	2057.0	2065.4	2067.0
5°	2058.7	2055.4	2050.4	2057.0	2060.4
7.5°	2043.7	2040.4	2037.0	2043.7	2047.0
10°	2023.7	2022.0	2018.7	2027.0	2027.0
12.5°	1997.0	1995.4	1992.0	2000.4	2000.4
15°	1965.4	1965.4	1962.0	1968.7	1972.0
17.5°	1930.4	1928.7	1925.4	1933.7	1937.0
20°	1887.0	1887.0	1885.3	1895.3	1898.7
22.5°	1837.0	1837.0	1837.0	1850.3	1853.7
25°	1785.3	1785.3	1787.0	1800.3	1805.3
27.5°	1730.3	1728.6	1730.3	1745.3	1750.3
30°	1668.6	1665.3	1670.3	1685.3	1690.3
32.5°	1602.0	1598.6	1607.0	1620.3	1627.0
35°	1535.3	1531.9	1536.9	1553.6	1555.3
37.5°	1466.9	1458.6	1466.9	1481.9	1483.6
40°	1391.9	1385.3	1395.3	1401.9	1408.6
42.5°	1315.2	1311.9	1316.9	1328.6	1328.6
45°	1243.6	1233.6	1240.2	1246.9	1255.2
47.5°	1163.5	1158.5	1161.9	1166.9	1170.2
50°	1086.9	1078.5	1080.2	1085.2	1088.5
52.5°	1015.2	998.5	998.5	1001.9	1001.9
55°	930.2	918.5	918.5	918.5	915.2
57.5°	855.2	840.2	838.5	838.5	838.5
60°	776.8	758.5	753.5	753.5	750.1
62.5°	698.5	681.8	675.1	668.5	668.5
65°	620.1	601.8	593.4	586.8	585.1
67.5°	540.1	526.8	516.8	508.4	500.1
70°	465.1	450.1	436.7	428.4	428.4
72.5°	395.1	378.4	365.1	355.1	350.1
75°	323.4	305.1	291.7	283.4	276.7
77.5°	260.0	240.0	226.7	215.0	208.4
80°	190.0	175.0	163.4	151.7	148.4
82.5°	131.7	120.0	106.7	98.4	95.0
85°	78.3	66.7	56.7	46.7	45.0
87.5°	31.7	23.3	18.3	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)