

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: P473767

Luminaire Tested: **24CZ2-60-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473767  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5760.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

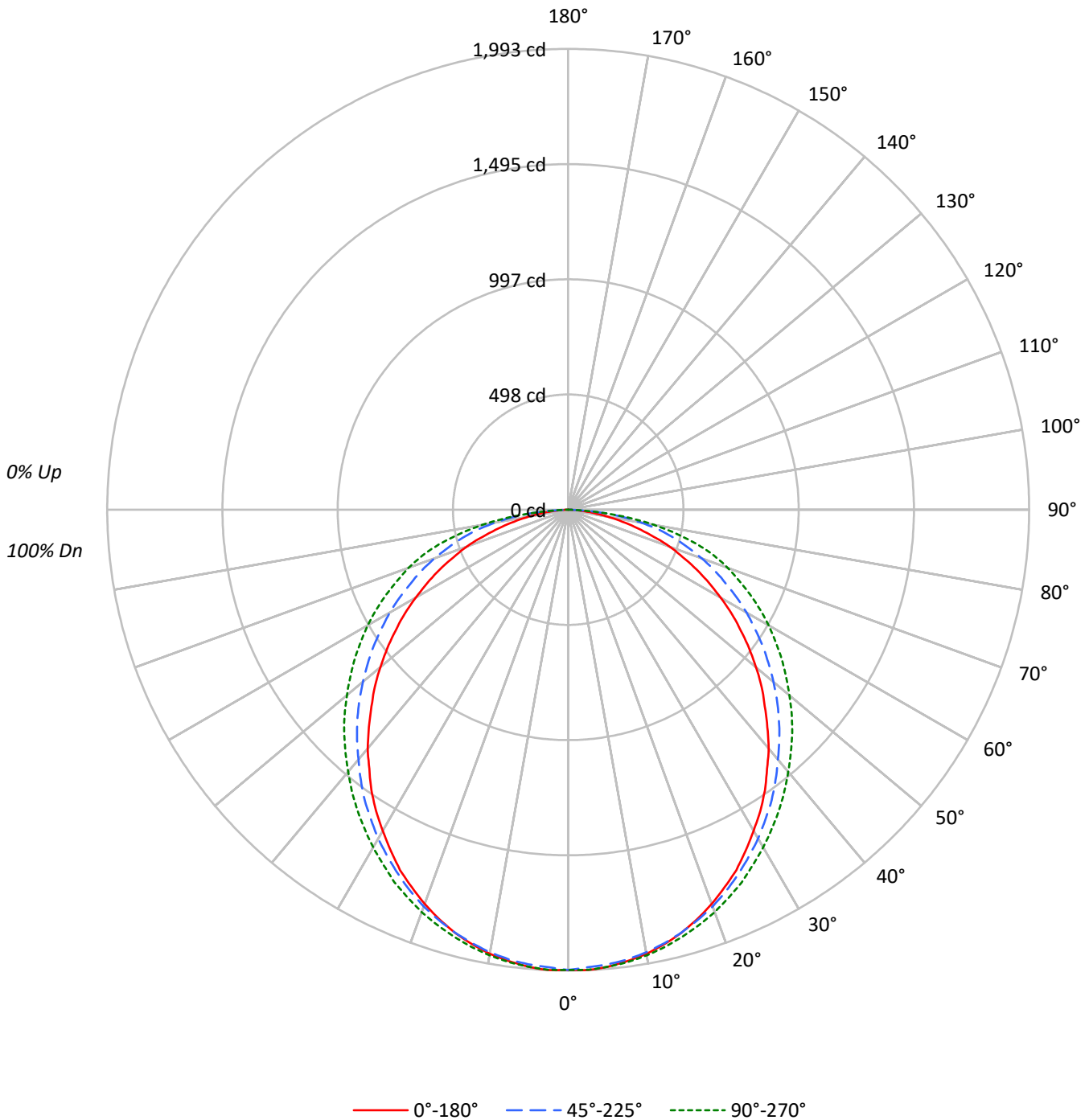
Input Watts (W): 46.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	2678	2678	2678
5°	2680	2666	2680
10°	2665	2656	2674
15°	2638	2636	2662
20°	2598	2614	2651
25°	2553	2582	2639
30°	2491	2552	2620
35°	2435	2519	2609
40°	2368	2478	2599
45°	2288	2452	2606
50°	2219	2425	2614
55°	2137	2408	2643
60°	2048	2396	2692
65°	1952	2388	2761
70°	1838	2412	2888
75°	1616	2462	3004
80°	1348	2480	2899
85°	962	2126	2155



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.2	3.3
10°-20°	535.9	9.3
20°-30°	804.0	14.0
30°-40°	959.9	16.7
40°-50°	994.3	17.3
50°-60°	915.4	15.9
60°-70°	738.4	12.8
70°-80°	482.4	8.4
80°-90°	141.4	2.5
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°	1528.1	26.5
0°-40°	2488.1	43.2
0°-60°	4397.7	76.3
0°-90°	5760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5760.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1984	1982	1974	1985	1984	188
15°	1894	1894	1893	1911	1911	534
25°	1720	1723	1739	1771	1777	791
35°	1482	1495	1534	1575	1588	926
45°	1202	1232	1289	1346	1370	929
55°	911	950	1026	1102	1127	815
65°	613	655	750	836	867	606
75°	311	369	474	556	578	332
85°	62	108	138	146	140	77
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1990.4	1990.4	1990.4	1990.4	1990.4
2.5°	1993.2	1990.4	1980.2	1992.3	1991.4
5°	1983.9	1982.1	1973.7	1984.9	1983.9
7.5°	1969.0	1968.1	1961.6	1973.7	1973.7
10°	1950.4	1948.6	1943.9	1957.9	1956.9
12.5°	1924.4	1923.4	1920.6	1937.4	1936.5
15°	1893.7	1893.7	1892.7	1911.3	1911.3
17.5°	1856.4	1857.4	1861.1	1882.5	1883.4
20°	1814.6	1818.3	1825.7	1849.9	1851.8
22.5°	1767.1	1774.6	1784.8	1811.8	1814.6
25°	1719.7	1723.4	1739.2	1770.8	1777.3
27.5°	1662.0	1671.3	1691.7	1724.3	1730.8
30°	1603.3	1616.4	1642.4	1675.9	1686.2
32.5°	1545.6	1556.8	1587.5	1625.7	1637.8
35°	1482.4	1495.4	1533.5	1575.4	1588.4
37.5°	1412.6	1433.0	1473.1	1521.4	1535.4
40°	1348.4	1367.0	1410.7	1464.7	1479.6
42.5°	1274.8	1298.1	1351.2	1406.1	1424.7
45°	1202.3	1232.0	1288.8	1346.5	1369.8
47.5°	1134.3	1158.5	1225.5	1290.7	1311.1
50°	1059.9	1087.8	1158.5	1227.4	1248.8
52.5°	986.4	1019.9	1091.5	1164.1	1187.4
55°	911.0	950.1	1026.4	1101.8	1126.9
57.5°	838.4	877.5	956.6	1036.6	1062.7
60°	761.2	803.1	890.5	967.8	1000.3
62.5°	686.7	728.6	820.7	904.5	935.2
65°	613.2	655.1	750.0	835.6	867.3
67.5°	536.9	582.5	684.0	766.8	797.5
70°	467.1	510.9	613.2	701.6	734.2
72.5°	387.1	439.2	543.4	630.9	661.6
75°	310.8	369.4	473.6	555.5	577.9
77.5°	240.1	298.7	402.9	464.3	478.3
80°	174.0	233.6	320.1	362.9	374.1
82.5°	112.6	174.0	231.7	260.6	264.3
85°	62.3	107.9	137.7	146.1	139.6
87.5°	22.3	40.9	40.0	32.6	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)