

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: P473773

Luminaire Tested: **24CZ2-50HE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473773  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4983.2 lumens  
Efficiency: N/A  
Efficacy: 129.1 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

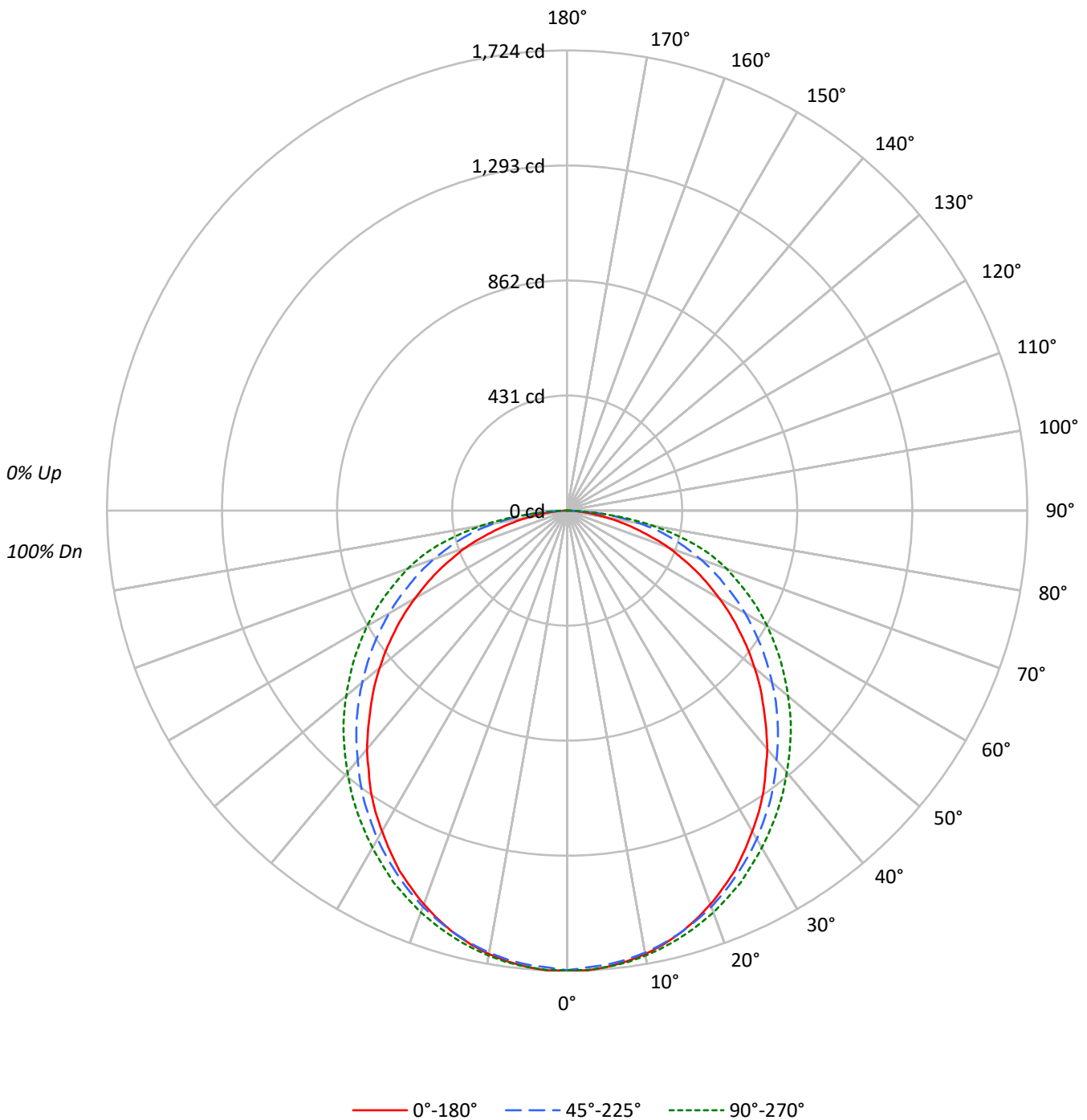
Input Watts (W): 38.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2317	2317	2317
5°	2318	2306	2318
10°	2305	2298	2313
15°	2282	2281	2303
20°	2248	2262	2294
25°	2209	2234	2283
30°	2155	2208	2266
35°	2106	2179	2257
40°	2049	2144	2248
45°	1979	2122	2255
50°	1919	2098	2262
55°	1849	2083	2287
60°	1772	2073	2329
65°	1689	2066	2389
70°	1590	2087	2499
75°	1398	2130	2599
80°	1166	2146	2507
85°	832	1839	1865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.8	3.3
10°-20°	463.7	9.3
20°-30°	695.6	14.0
30°-40°	830.5	16.7
40°-50°	860.2	17.3
50°-60°	791.9	15.9
60°-70°	638.8	12.8
70°-80°	417.4	8.4
80°-90°	122.4	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°	1322.0	26.5
0°-40°	2152.5	43.2
0°-60°	3804.6	76.3
0°-90°	4983.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4983.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1716	1715	1708	1717	1716	163
15°	1638	1638	1638	1654	1654	462
25°	1488	1491	1505	1532	1538	684
35°	1282	1294	1327	1363	1374	801
45°	1040	1066	1115	1165	1185	804
55°	788	822	888	953	975	705
65°	530	567	649	723	750	525
75°	269	320	410	481	500	287
85°	54	93	119	126	121	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1722.0	1722.0	1722.0	1722.0	1722.0
2.5°	1724.4	1722.0	1713.1	1723.6	1722.8
5°	1716.4	1714.8	1707.5	1717.2	1716.4
7.5°	1703.5	1702.7	1697.0	1707.5	1707.5
10°	1687.4	1685.8	1681.7	1693.8	1693.0
12.5°	1664.8	1664.0	1661.6	1676.1	1675.3
15°	1638.3	1638.3	1637.5	1653.6	1653.6
17.5°	1606.1	1606.9	1610.1	1628.6	1629.4
20°	1569.8	1573.1	1579.5	1600.4	1602.0
22.5°	1528.8	1535.2	1544.1	1567.4	1569.8
25°	1487.7	1491.0	1504.6	1532.0	1537.6
27.5°	1437.8	1445.9	1463.6	1491.8	1497.4
30°	1387.1	1398.4	1420.9	1449.9	1458.8
32.5°	1337.2	1346.8	1373.4	1406.4	1416.9
35°	1282.4	1293.7	1326.7	1362.9	1374.2
37.5°	1222.1	1239.8	1274.4	1316.3	1328.3
40°	1166.5	1182.6	1220.5	1267.1	1280.0
42.5°	1102.9	1123.0	1168.9	1216.4	1232.5
45°	1040.1	1065.9	1115.0	1164.9	1185.0
47.5°	981.4	1002.3	1060.3	1116.6	1134.3
50°	917.0	941.1	1002.3	1061.9	1080.4
52.5°	853.4	882.3	944.3	1007.1	1027.2
55°	788.1	822.0	888.0	953.2	974.9
57.5°	725.4	759.2	827.6	896.8	919.4
60°	658.5	694.8	770.4	837.3	865.4
62.5°	594.1	630.4	710.1	782.5	809.1
65°	530.5	566.8	648.9	722.9	750.3
67.5°	464.5	504.0	591.7	663.4	689.9
70°	404.1	442.0	530.5	607.0	635.2
72.5°	334.9	380.0	470.1	545.8	572.4
75°	268.9	319.6	409.8	480.6	499.9
77.5°	207.7	258.4	348.6	401.7	413.8
80°	150.5	202.1	276.9	314.0	323.6
82.5°	97.4	150.5	200.5	225.4	228.6
85°	53.9	93.4	119.1	126.4	120.8
87.5°	19.3	35.4	34.6	28.2	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)