

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: P473823

Luminaire Tested: **24CZ2-50HE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473823  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5163.9 lumens  
Efficiency: N/A  
Efficacy: 133.8 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

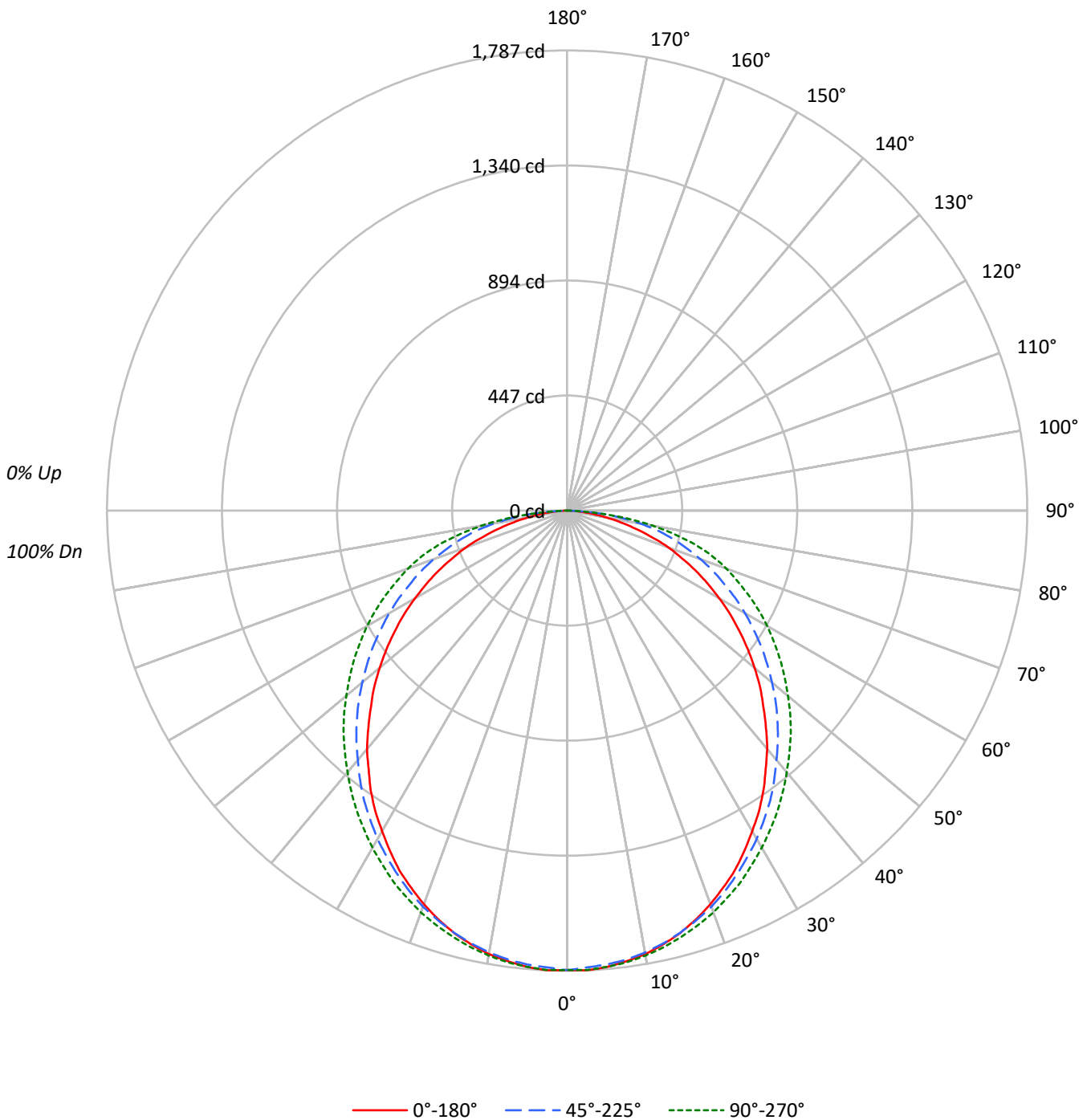
Input Watts (W): 38.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2401	2401	2401
5°	2402	2390	2402
10°	2389	2381	2397
15°	2365	2364	2387
20°	2329	2344	2377
25°	2289	2315	2366
30°	2233	2288	2349
35°	2183	2258	2339
40°	2123	2221	2330
45°	2051	2199	2337
50°	1989	2174	2344
55°	1916	2159	2370
60°	1836	2148	2413
65°	1750	2141	2475
70°	1648	2163	2589
75°	1448	2207	2693
80°	1209	2224	2599
85°	863	1907	1931



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.7	3.3
10°-20°	480.5	9.3
20°-30°	720.8	14.0
30°-40°	860.6	16.7
40°-50°	891.4	17.3
50°-60°	820.6	15.9
60°-70°	662.0	12.8
70°-80°	432.5	8.4
80°-90°	126.8	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°	1370.0	26.5
0°-40°	2230.6	43.2
0°-60°	3942.6	76.3
0°-90°	5163.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5163.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1784	1784	1784	1784	1784	
5°	1779	1777	1769	1780	1779	169
15°	1698	1698	1697	1714	1714	478
25°	1542	1545	1559	1588	1593	709
35°	1329	1341	1375	1412	1424	830
45°	1078	1104	1155	1207	1228	833
55°	817	852	920	988	1010	731
65°	550	587	672	749	778	544
75°	279	331	425	498	518	297
85°	56	97	124	131	125	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1784.5	1784.5	1784.5	1784.5	1784.5
2.5°	1787.0	1784.5	1775.3	1786.1	1785.3
5°	1778.6	1776.9	1769.4	1779.5	1778.6
7.5°	1765.3	1764.4	1758.6	1769.4	1769.4
10°	1748.6	1746.9	1742.7	1755.3	1754.4
12.5°	1725.2	1724.4	1721.9	1736.9	1736.1
15°	1697.7	1697.7	1696.9	1713.5	1713.5
17.5°	1664.3	1665.2	1668.5	1687.7	1688.5
20°	1626.8	1630.1	1636.8	1658.5	1660.2
22.5°	1584.2	1590.9	1600.1	1624.3	1626.8
25°	1541.7	1545.0	1559.2	1587.6	1593.4
27.5°	1490.0	1498.3	1516.7	1545.9	1551.7
30°	1437.4	1449.1	1472.4	1502.5	1511.7
32.5°	1385.7	1395.7	1423.2	1457.4	1468.3
35°	1329.0	1340.6	1374.8	1412.4	1424.1
37.5°	1266.4	1284.7	1320.6	1364.0	1376.5
40°	1208.8	1225.5	1264.7	1313.1	1326.5
42.5°	1142.9	1163.8	1211.3	1260.5	1277.2
45°	1077.8	1104.5	1155.4	1207.2	1228.0
47.5°	1016.9	1038.6	1098.7	1157.1	1175.5
50°	950.2	975.2	1038.6	1100.4	1119.6
52.5°	884.3	914.3	978.6	1043.6	1064.5
55°	816.7	851.8	920.2	987.8	1010.3
57.5°	751.7	786.7	857.6	929.4	952.7
60°	682.4	720.0	798.4	867.6	896.8
62.5°	615.7	653.2	735.8	810.9	838.4
65°	549.8	587.3	672.4	749.2	777.5
67.5°	481.4	522.2	613.2	687.4	715.0
70°	418.8	458.0	549.8	629.0	658.2
72.5°	347.0	393.8	487.2	565.6	593.2
75°	278.6	331.2	424.6	498.0	518.1
77.5°	215.2	267.8	361.2	416.3	428.8
80°	156.0	209.4	287.0	325.4	335.4
82.5°	100.9	156.0	207.7	233.6	236.9
85°	55.9	96.8	123.5	131.0	125.1
87.5°	20.0	36.7	35.9	29.2	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)