

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: P473765

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473765
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-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: 4862.6 lumens
Efficiency: N/A
Efficacy: 122.2 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

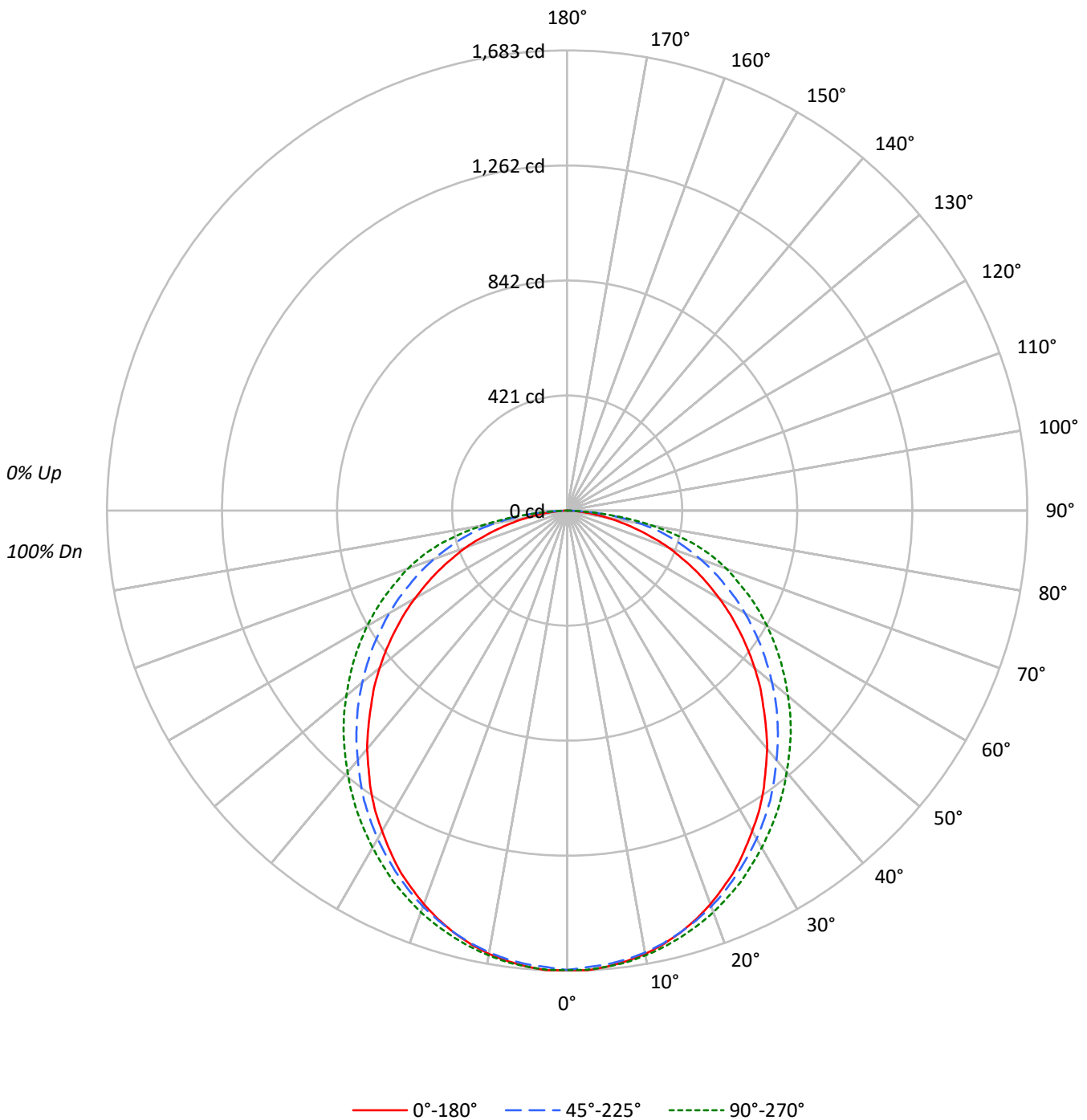
Input Watts (W): 39.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2261	2261	2261
5°	2262	2250	2262
10°	2250	2242	2257
15°	2227	2226	2248
20°	2193	2207	2238
25°	2155	2180	2227
30°	2103	2154	2211
35°	2055	2126	2203
40°	1999	2092	2194
45°	1931	2070	2200
50°	1873	2047	2207
55°	1804	2033	2232
60°	1729	2023	2273
65°	1648	2016	2331
70°	1552	2037	2438
75°	1364	2079	2536
80°	1138	2094	2447
85°	812	1795	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	3.3
10°-20°	452.4	9.3
20°-30°	678.8	14.0
30°-40°	810.4	16.7
40°-50°	839.4	17.3
50°-60°	772.8	15.9
60°-70°	623.3	12.8
70°-80°	407.3	8.4
80°-90°	119.4	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°	1290.0	26.5
0°-40°	2100.4	43.2
0°-60°	3712.5	76.3
0°-90°	4862.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4862.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1680	1680	1680	1680	1680	
5°	1675	1673	1666	1676	1675	159
15°	1599	1599	1598	1614	1614	450
25°	1452	1455	1468	1495	1500	667
35°	1251	1262	1295	1330	1341	782
45°	1015	1040	1088	1137	1156	785
55°	769	802	866	930	951	688
65°	518	553	633	705	732	512
75°	262	312	400	469	488	280
85°	53	91	116	123	118	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1680.3	1680.3	1680.3	1680.3	1680.3
2.5°	1682.7	1680.3	1671.7	1681.9	1681.1
5°	1674.8	1673.2	1666.2	1675.6	1674.8
7.5°	1662.3	1661.5	1656.0	1666.2	1666.2
10°	1646.5	1645.0	1641.0	1652.8	1652.0
12.5°	1624.5	1623.8	1621.4	1635.5	1634.8
15°	1598.6	1598.6	1597.8	1613.5	1613.5
17.5°	1567.2	1568.0	1571.1	1589.2	1590.0
20°	1531.8	1535.0	1541.3	1561.7	1563.3
22.5°	1491.8	1498.1	1506.7	1529.5	1531.8
25°	1451.7	1454.9	1468.2	1494.9	1500.4
27.5°	1403.0	1410.9	1428.2	1455.6	1461.1
30°	1353.5	1364.5	1386.5	1414.8	1423.4
32.5°	1304.8	1314.2	1340.2	1372.4	1382.6
35°	1251.4	1262.4	1294.6	1330.0	1341.0
37.5°	1192.5	1209.8	1243.5	1284.4	1296.2
40°	1138.3	1154.0	1190.9	1236.5	1249.0
42.5°	1076.2	1095.9	1140.6	1187.0	1202.7
45°	1014.9	1040.1	1088.0	1136.7	1156.3
47.5°	957.6	978.0	1034.6	1089.6	1106.9
50°	894.8	918.3	978.0	1036.2	1054.2
52.5°	832.7	861.0	921.5	982.7	1002.4
55°	769.1	802.1	866.5	930.1	951.3
57.5°	707.8	740.8	807.6	875.1	897.1
60°	642.6	677.9	751.8	817.0	844.5
62.5°	579.7	615.1	692.9	763.6	789.5
65°	517.7	553.0	633.2	705.4	732.1
67.5°	453.3	491.8	577.4	647.3	673.2
70°	394.4	431.3	517.7	592.3	619.8
72.5°	326.8	370.8	458.8	532.6	558.5
75°	262.4	311.9	399.9	469.0	487.8
77.5°	202.7	252.2	340.1	392.0	403.8
80°	146.9	197.2	270.2	306.4	315.8
82.5°	95.1	146.9	195.6	220.0	223.1
85°	52.6	91.1	116.3	123.3	117.8
87.5°	18.9	34.6	33.8	27.5	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)