

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: P473865

Luminaire Tested: **24CZ2-50-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473865
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

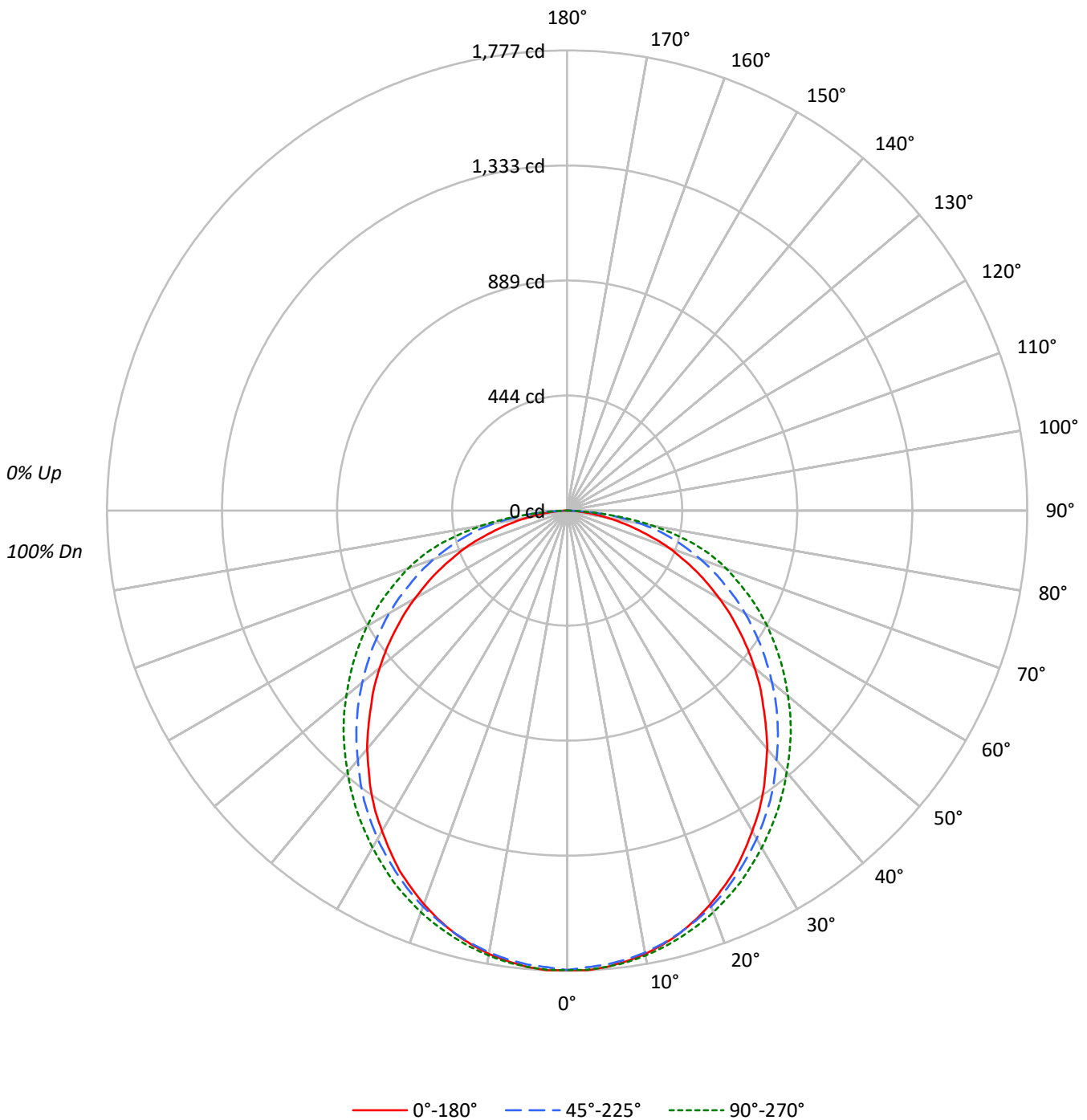
Lumens per Lamp: N/A
Luminaire Lumens: 5134.7 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2387	2387	2387
5°	2389	2376	2389
10°	2375	2368	2383
15°	2351	2350	2373
20°	2316	2330	2364
25°	2276	2302	2352
30°	2221	2275	2335
35°	2170	2246	2326
40°	2111	2209	2317
45°	2039	2186	2324
50°	1978	2162	2330
55°	1905	2146	2357
60°	1826	2136	2400
65°	1741	2129	2461
70°	1638	2151	2575
75°	1441	2195	2678
80°	1202	2211	2584
85°	858	1896	1920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	3.3
10°-20°	477.8	9.3
20°-30°	716.7	14.0
30°-40°	855.7	16.7
40°-50°	886.4	17.3
50°-60°	816.0	15.9
60°-70°	658.2	12.8
70°-80°	430.1	8.4
80°-90°	126.1	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°	1362.2	26.5
0°-40°	2217.9	43.2
0°-60°	3920.3	76.3
0°-90°	5134.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5134.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1774	1774	1774	1774	1774	
5°	1768	1767	1759	1769	1768	168
15°	1688	1688	1687	1704	1704	476
25°	1533	1536	1550	1579	1584	705
35°	1321	1333	1367	1404	1416	825
45°	1072	1098	1149	1200	1221	828
55°	812	847	915	982	1005	727
65°	547	584	669	745	773	541
75°	277	329	422	495	515	296
85°	56	96	123	130	124	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1774.3	1774.3	1774.3	1774.3	1774.3
2.5°	1776.8	1774.3	1765.2	1776.0	1775.2
5°	1768.5	1766.9	1759.4	1769.4	1768.5
7.5°	1755.3	1754.4	1748.6	1759.4	1759.4
10°	1738.7	1737.0	1732.9	1745.3	1744.5
12.5°	1715.5	1714.6	1712.1	1727.1	1726.2
15°	1688.1	1688.1	1687.2	1703.8	1703.8
17.5°	1654.9	1655.7	1659.0	1678.1	1679.0
20°	1617.6	1620.9	1627.5	1649.1	1650.7
22.5°	1575.3	1581.9	1591.0	1615.1	1617.6
25°	1533.0	1536.3	1550.4	1578.6	1584.4
27.5°	1481.5	1489.8	1508.1	1537.1	1542.9
30°	1429.3	1440.9	1464.1	1494.0	1503.1
32.5°	1377.8	1387.8	1415.2	1449.2	1460.0
35°	1321.4	1333.0	1367.1	1404.4	1416.0
37.5°	1259.2	1277.5	1313.1	1356.3	1368.7
40°	1202.0	1218.6	1257.6	1305.7	1318.9
42.5°	1136.4	1157.2	1204.5	1253.4	1270.0
45°	1071.7	1098.3	1148.9	1200.3	1221.1
47.5°	1011.2	1032.8	1092.5	1150.5	1168.8
50°	944.8	969.7	1032.8	1094.1	1113.2
52.5°	879.3	909.2	973.0	1037.7	1058.5
55°	812.1	846.9	915.0	982.2	1004.6
57.5°	747.4	782.2	852.7	924.1	947.3
60°	678.5	715.9	793.9	862.7	891.7
62.5°	612.2	649.5	731.6	806.3	833.7
65°	546.7	584.0	668.6	744.9	773.1
67.5°	478.6	519.3	609.7	683.5	710.9
70°	416.4	455.4	546.7	625.5	654.5
72.5°	345.1	391.5	484.4	562.4	589.8
75°	277.1	329.3	422.2	495.2	515.1
77.5°	214.0	266.3	359.2	413.9	426.4
80°	155.1	208.2	285.4	323.5	333.5
82.5°	100.4	155.1	206.6	232.3	235.6
85°	55.6	96.2	122.8	130.2	124.4
87.5°	19.9	36.5	35.7	29.0	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)