

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: P473873

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473873
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50HE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5262.1 lumens
Efficiency: N/A
Efficacy: 136.3 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

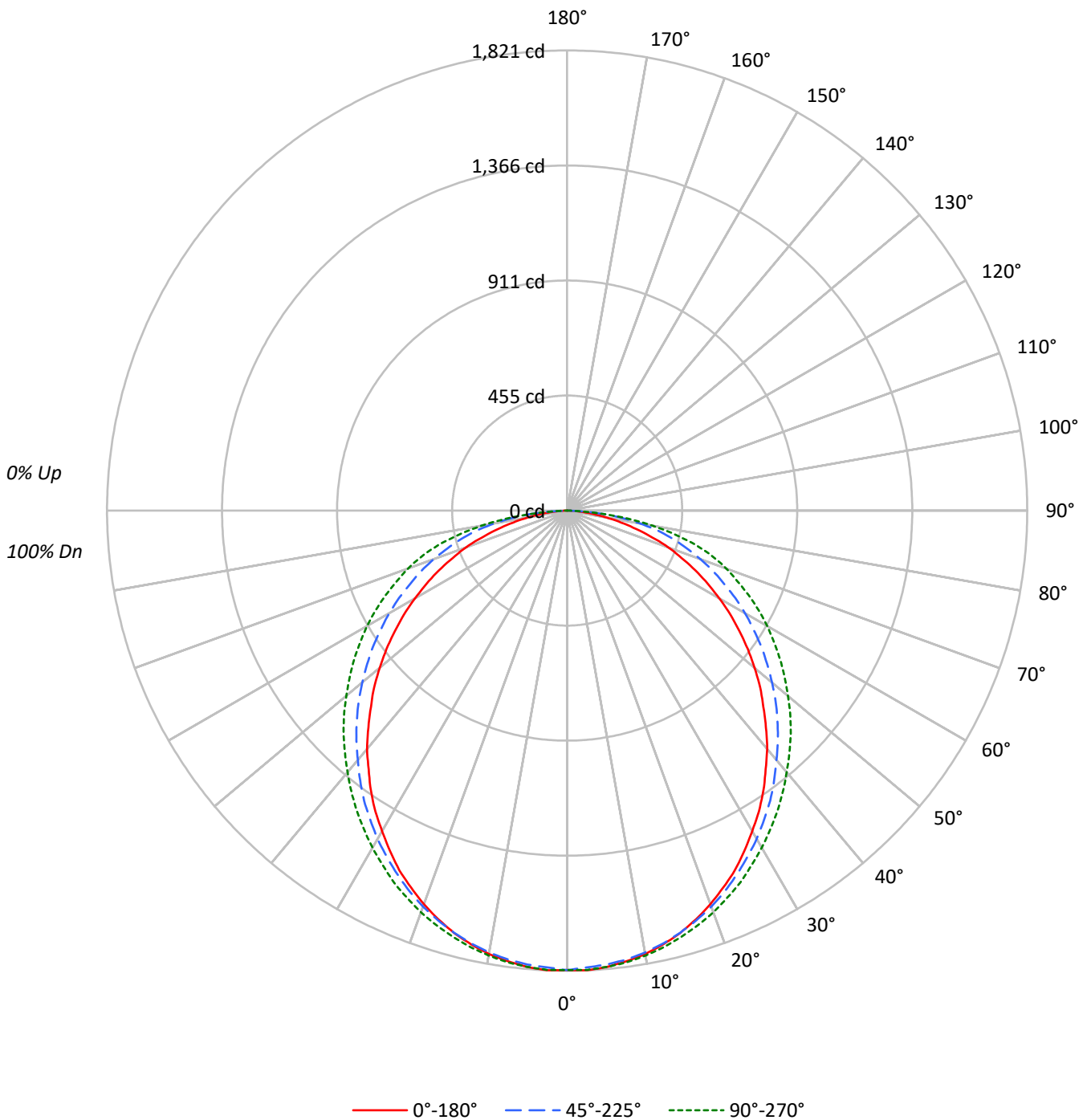
Input Watts (W): 38.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2447	2447	2447
5°	2448	2435	2448
10°	2434	2426	2443
15°	2410	2409	2432
20°	2374	2388	2422
25°	2332	2359	2411
30°	2276	2331	2393
35°	2224	2301	2383
40°	2164	2264	2374
45°	2090	2240	2381
50°	2027	2215	2388
55°	1952	2200	2415
60°	1871	2189	2459
65°	1784	2181	2522
70°	1679	2204	2638
75°	1476	2249	2744
80°	1232	2266	2648
85°	880	1942	1968



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.9	3.3
10°-20°	489.6	9.3
20°-30°	734.5	14.0
30°-40°	876.9	16.7
40°-50°	908.4	17.3
50°-60°	836.2	15.9
60°-70°	674.6	12.8
70°-80°	440.7	8.4
80°-90°	129.2	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°	1396.0	26.5
0°-40°	2273.0	43.2
0°-60°	4017.5	76.3
0°-90°	5262.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5262.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1818	1818	1818	1818	1818	
5°	1812	1811	1803	1813	1812	172
15°	1730	1730	1729	1746	1746	487
25°	1571	1574	1589	1618	1624	722
35°	1354	1366	1401	1439	1451	846
45°	1098	1126	1177	1230	1251	849
55°	832	868	938	1006	1030	745
65°	560	598	685	763	792	554
75°	284	338	433	508	528	303
85°	57	99	126	134	128	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1820.9	1818.4	1809.0	1820.1	1819.2
5°	1812.4	1810.7	1803.1	1813.3	1812.4
7.5°	1798.8	1798.0	1792.0	1803.1	1803.1
10°	1781.8	1780.1	1775.9	1788.6	1787.8
12.5°	1758.0	1757.2	1754.6	1769.9	1769.1
15°	1730.0	1730.0	1729.1	1746.1	1746.1
17.5°	1695.9	1696.8	1700.2	1719.8	1720.6
20°	1657.7	1661.1	1667.9	1690.0	1691.7
22.5°	1614.3	1621.1	1630.5	1655.1	1657.7
25°	1571.0	1574.4	1588.8	1617.7	1623.7
27.5°	1518.3	1526.8	1545.5	1575.2	1581.2
30°	1464.7	1476.6	1500.4	1531.0	1540.4
32.5°	1412.0	1422.2	1450.3	1485.1	1496.2
35°	1354.2	1366.1	1401.0	1439.2	1451.1
37.5°	1290.5	1309.2	1345.7	1389.9	1402.7
40°	1231.8	1248.8	1288.8	1338.1	1351.7
42.5°	1164.6	1185.9	1234.3	1284.5	1301.5
45°	1098.3	1125.5	1177.4	1230.1	1251.3
47.5°	1036.3	1058.4	1119.6	1179.1	1197.8
50°	968.3	993.8	1058.4	1121.3	1140.8
52.5°	901.1	931.7	997.2	1063.5	1084.7
55°	832.2	868.0	937.7	1006.5	1029.5
57.5°	765.9	801.6	873.9	947.0	970.8
60°	695.4	733.6	813.5	884.1	913.9
62.5°	627.4	665.6	749.8	826.3	854.4
65°	560.2	598.5	685.2	763.4	792.3
67.5°	490.5	532.2	624.8	700.5	728.5
70°	426.7	466.7	560.2	641.0	670.7
72.5°	353.6	401.2	496.5	576.4	604.4
75°	283.9	337.5	432.7	507.5	527.9
77.5°	219.3	272.9	368.1	424.2	437.0
80°	159.0	213.4	292.4	331.5	341.7
82.5°	102.9	159.0	211.7	238.0	241.4
85°	57.0	98.6	125.8	133.5	127.5
87.5°	20.4	37.4	36.6	29.8	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)