

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: P473768

Luminaire Tested: **24CZ2-65-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473768
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-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: 6188.5 lumens
Efficiency: N/A
Efficacy: 121.3 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

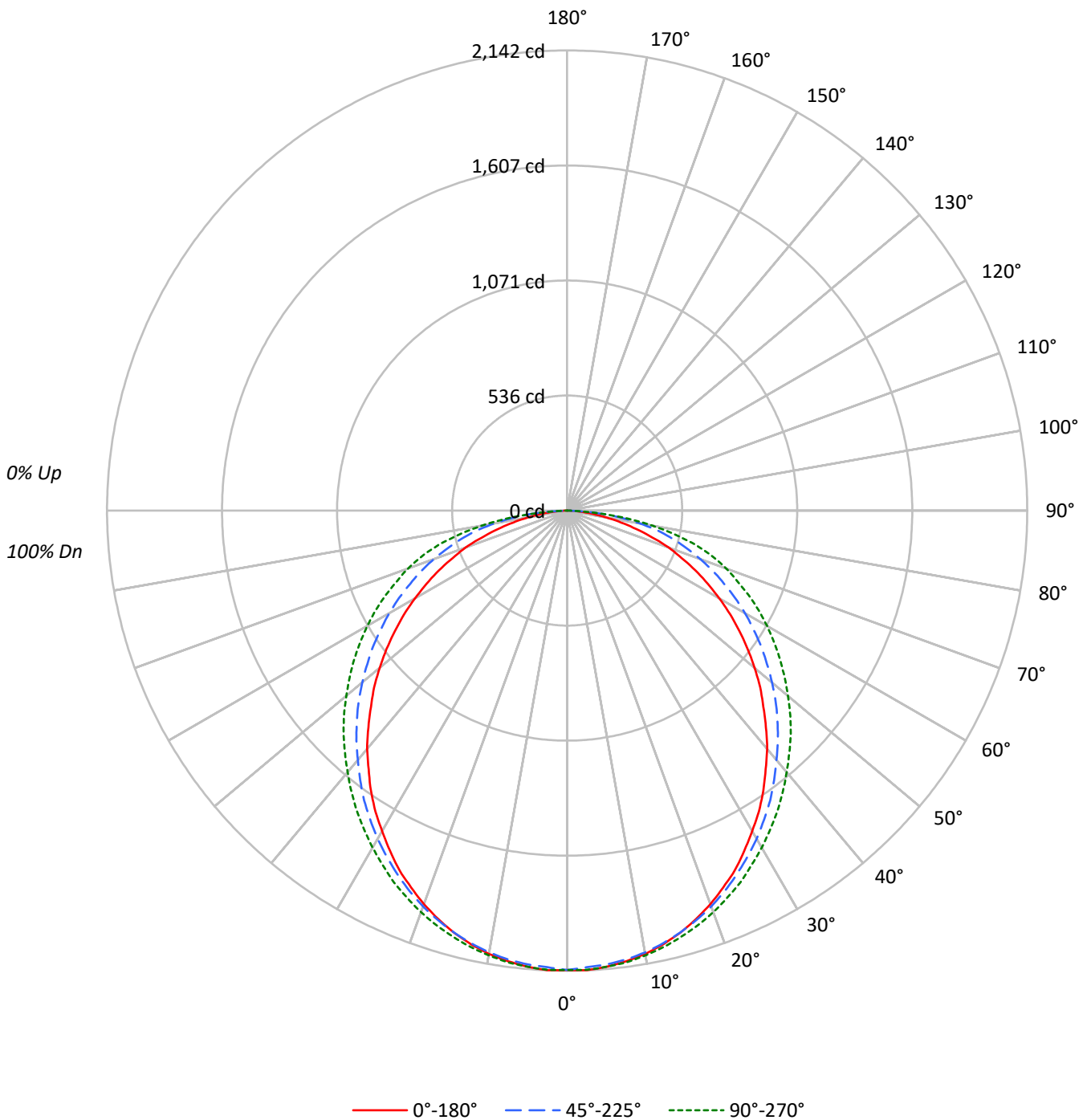
Input Watts (W): 51
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2877	2877	2877
5°	2879	2864	2879
10°	2863	2853	2873
15°	2834	2833	2860
20°	2791	2809	2849
25°	2743	2774	2835
30°	2676	2742	2815
35°	2616	2706	2803
40°	2545	2662	2792
45°	2458	2635	2800
50°	2384	2605	2808
55°	2296	2587	2840
60°	2201	2575	2892
65°	2097	2565	2967
70°	1974	2592	3103
75°	1736	2646	3228
80°	1449	2665	3114
85°	1034	2285	2316



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.2	3.3
10°-20°	575.8	9.3
20°-30°	863.8	14.0
30°-40°	1031.3	16.7
40°-50°	1068.3	17.3
50°-60°	983.4	15.9
60°-70°	793.3	12.8
70°-80°	518.3	8.4
80°-90°	152.0	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°	1641.8	26.5
0°-40°	2673.1	43.2
0°-60°	4724.8	76.3
0°-90°	6188.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6188.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2138	2138	2138	2138	2138	
5°	2132	2130	2120	2132	2132	202
15°	2034	2034	2034	2054	2054	573
25°	1848	1852	1869	1903	1910	850
35°	1593	1607	1648	1693	1707	995
45°	1292	1324	1385	1447	1472	998
55°	979	1021	1103	1184	1211	876
65°	659	704	806	898	932	651
75°	334	397	509	597	621	356
85°	67	116	148	157	150	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2138.5	2138.5	2138.5	2138.5	2138.5
2.5°	2141.5	2138.5	2127.5	2140.5	2139.5
5°	2131.5	2129.5	2120.5	2132.5	2131.5
7.5°	2115.5	2114.5	2107.5	2120.5	2120.5
10°	2095.5	2093.5	2088.5	2103.5	2102.5
12.5°	2067.5	2066.5	2063.5	2081.5	2080.5
15°	2034.5	2034.5	2033.5	2053.5	2053.5
17.5°	1994.5	1995.5	1999.5	2022.5	2023.5
20°	1949.5	1953.5	1961.5	1987.5	1989.5
22.5°	1898.6	1906.6	1917.5	1946.5	1949.5
25°	1847.6	1851.6	1868.6	1902.6	1909.6
27.5°	1785.6	1795.6	1817.6	1852.6	1859.6
30°	1722.6	1736.6	1764.6	1800.6	1811.6
32.5°	1660.6	1672.6	1705.6	1746.6	1759.6
35°	1592.6	1606.6	1647.6	1692.6	1706.6
37.5°	1517.6	1539.6	1582.6	1634.6	1649.6
40°	1448.7	1468.7	1515.6	1573.6	1589.6
42.5°	1369.7	1394.7	1451.7	1510.6	1530.6
45°	1291.7	1323.7	1384.7	1446.7	1471.7
47.5°	1218.7	1244.7	1316.7	1386.7	1408.7
50°	1138.7	1168.7	1244.7	1318.7	1341.7
52.5°	1059.8	1095.7	1172.7	1250.7	1275.7
55°	978.8	1020.8	1102.7	1183.7	1210.7
57.5°	900.8	942.8	1027.8	1113.7	1141.7
60°	817.8	862.8	956.8	1039.8	1074.7
62.5°	737.8	782.8	881.8	971.8	1004.8
65°	658.8	703.8	805.8	897.8	931.8
67.5°	576.9	625.9	734.8	823.8	856.8
70°	501.9	548.9	658.8	753.8	788.8
72.5°	415.9	471.9	583.9	677.8	710.8
75°	333.9	396.9	508.9	596.9	620.9
77.5°	257.9	320.9	432.9	498.9	513.9
80°	187.0	250.9	343.9	389.9	401.9
82.5°	121.0	187.0	248.9	279.9	283.9
85°	67.0	116.0	148.0	157.0	150.0
87.5°	24.0	44.0	43.0	35.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)