

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: P272162

Luminaire Tested: **24CZ2-50-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P272162  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50-S-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (84) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

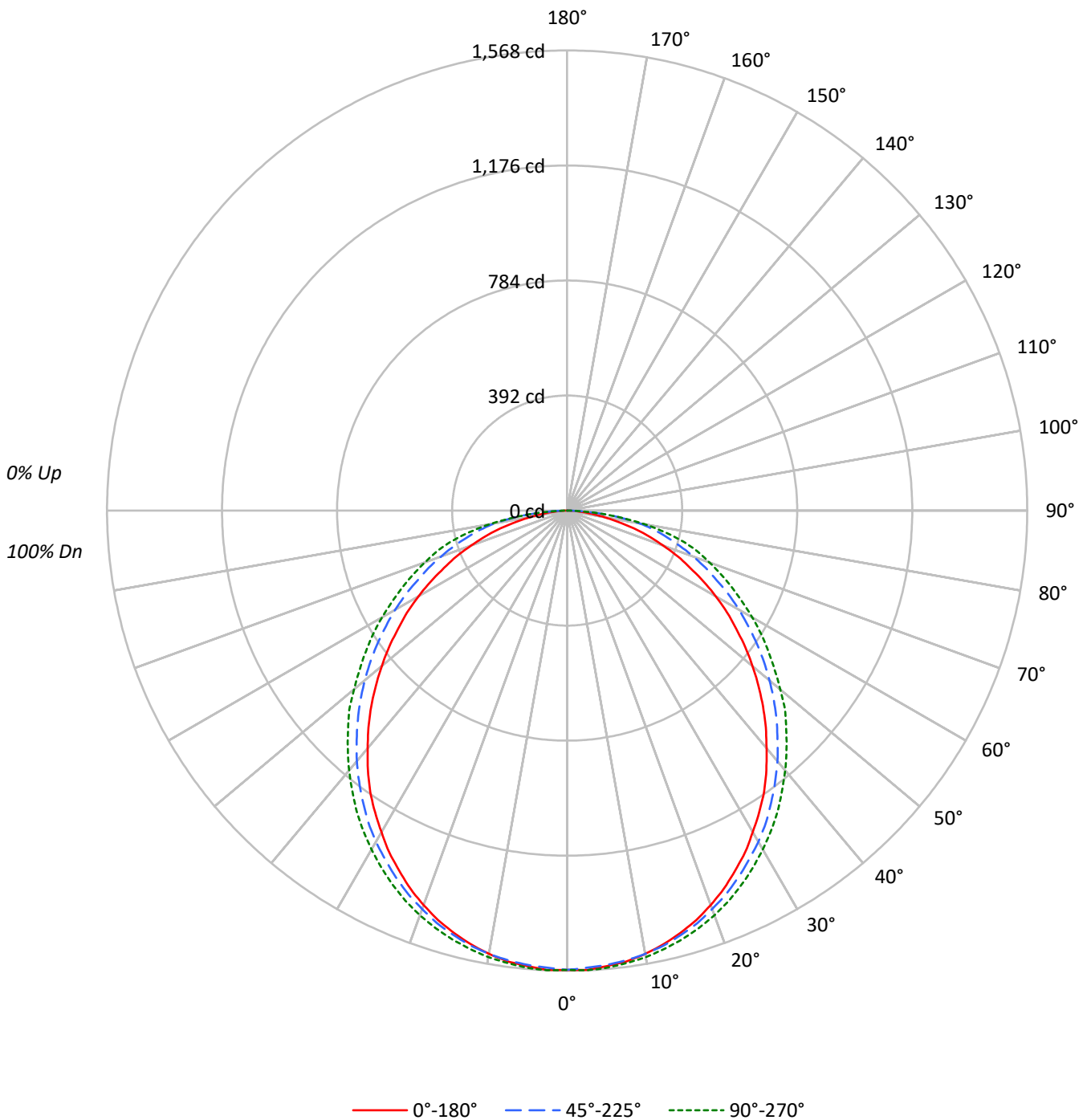
Lumens per Lamp: N/A  
Luminaire Lumens: 4455.0 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 48.6  
Input Voltage (V): NR  
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2106	2106	2106
5°	2104	2099	2112
10°	2096	2096	2111
15°	2076	2085	2107
20°	2048	2069	2101
25°	2010	2048	2088
30°	1966	2025	2071
35°	1922	1992	2055
40°	1857	1959	2031
45°	1796	1920	2009
50°	1727	1884	1985
55°	1650	1849	1965
60°	1573	1820	1961
65°	1473	1789	1973
70°	1364	1798	2026
75°	1221	1832	2141
80°	987	1941	2094
85°	743	1704	1660



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.2	3.3
10°-20°	423.4	9.5
20°-30°	636.4	14.3
30°-40°	758.1	17.0
40°-50°	775.9	17.4
50°-60°	698.5	15.7
60°-70°	548.5	12.3
70°-80°	356.0	8.0
80°-90°	110.1	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°	1207.9	27.1
0°-40°	1966.0	44.1
0°-60°	3440.3	77.2
0°-90°	4455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4455.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1565	1565	1565	1565	1565	
5°	1558	1561	1554	1562	1564	148
15°	1490	1494	1497	1510	1513	420
25°	1354	1366	1380	1402	1407	624
35°	1170	1184	1213	1242	1251	730
45°	944	966	1009	1047	1056	728
55°	703	734	788	829	838	631
65°	463	498	562	608	620	461
75°	235	280	352	400	412	249
85°	48	89	110	108	108	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1565.1	1565.1	1565.1	1565.1	1565.1
2.5°	1566.5	1566.5	1559.4	1566.5	1567.9
5°	1558.0	1560.8	1553.8	1562.2	1563.7
7.5°	1549.5	1549.5	1545.3	1553.8	1555.2
10°	1533.9	1535.4	1533.9	1543.8	1545.3
12.5°	1514.1	1517.0	1518.4	1528.3	1529.7
15°	1490.1	1494.3	1497.1	1509.9	1512.7
17.5°	1463.2	1467.4	1474.5	1488.7	1491.5
20°	1430.6	1436.3	1444.8	1463.2	1467.4
22.5°	1395.3	1400.9	1415.1	1432.1	1439.1
25°	1354.2	1365.5	1379.7	1402.3	1406.6
27.5°	1313.2	1323.1	1341.5	1365.5	1371.2
30°	1265.1	1280.6	1303.3	1327.3	1333.0
32.5°	1218.4	1233.9	1260.8	1286.3	1293.4
35°	1170.3	1184.4	1212.7	1242.4	1250.9
37.5°	1115.1	1133.5	1164.6	1194.3	1202.8
40°	1057.1	1079.7	1115.1	1146.2	1156.1
42.5°	1001.9	1025.9	1061.3	1095.3	1106.6
45°	943.9	966.5	1008.9	1047.2	1055.6
47.5°	884.4	909.9	955.2	993.4	1007.5
50°	825.0	851.9	900.0	939.6	948.1
52.5°	765.6	793.9	844.8	887.3	891.5
55°	703.3	734.4	788.2	829.2	837.7
57.5°	646.7	673.6	731.6	774.0	784.0
60°	584.4	614.1	676.4	716.0	728.8
62.5°	525.0	556.1	621.2	660.8	672.2
65°	462.7	498.1	561.8	608.5	619.8
67.5°	409.0	442.9	510.8	556.1	567.4
70°	346.7	384.9	457.1	503.8	515.1
72.5°	292.9	332.5	404.7	450.0	467.0
75°	234.9	280.2	352.4	400.5	411.8
77.5°	178.3	230.7	304.2	341.0	341.0
80°	127.4	182.5	250.5	267.4	270.3
82.5°	83.5	137.3	185.4	184.0	184.0
85°	48.1	89.1	110.4	107.5	107.5
87.5°	18.4	36.8	39.6	39.6	38.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)