

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: P272171

Luminaire Tested: **24CZ2-55-S-UNV-L940-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: P272171  
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: 24CZ2-55-S-UNV-L940-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (112) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

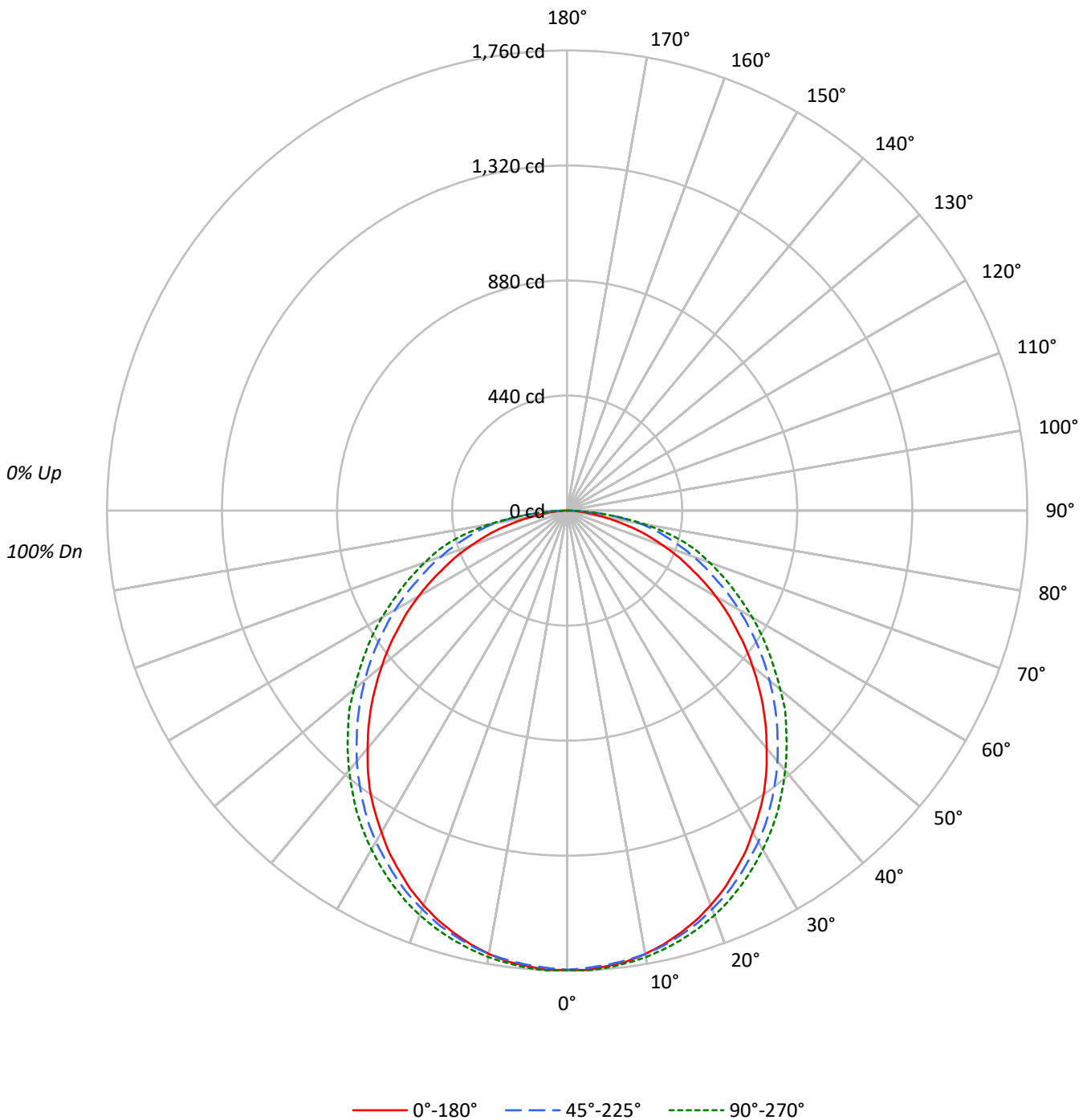
Lumens per Lamp: N/A  
Luminaire Lumens: 5001.0 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.5  
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°	2364	2364	2364
5°	2362	2356	2371
10°	2353	2353	2370
15°	2330	2341	2365
20°	2300	2322	2359
25°	2257	2299	2344
30°	2206	2273	2325
35°	2158	2236	2306
40°	2084	2199	2279
45°	2016	2155	2255
50°	1939	2115	2228
55°	1852	2076	2206
60°	1766	2043	2201
65°	1654	2008	2215
70°	1531	2019	2275
75°	1371	2056	2403
80°	1108	2179	2351
85°	834	1913	1863



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.3	3.3
10°-20°	475.3	9.5
20°-30°	714.4	14.3
30°-40°	851.0	17.0
40°-50°	870.9	17.4
50°-60°	784.1	15.7
60°-70°	615.8	12.3
70°-80°	399.6	8.0
80°-90°	123.6	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°	1356.0	27.1
0°-40°	2207.0	44.1
0°-60°	3862.0	77.2
0°-90°	5001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5001.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1757	1757	1757	1757	1757	
5°	1749	1752	1744	1754	1755	166
15°	1673	1678	1681	1695	1698	472
25°	1520	1533	1549	1574	1579	700
35°	1314	1330	1361	1395	1404	820
45°	1060	1085	1133	1176	1185	817
55°	790	824	885	931	940	708
65°	519	559	631	683	696	517
75°	264	314	396	450	462	279
85°	54	100	124	121	121	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1756.9	1756.9	1756.9	1756.9	1756.9
2.5°	1758.5	1758.5	1750.5	1758.5	1760.1
5°	1748.9	1752.1	1744.2	1753.7	1755.3
7.5°	1739.4	1739.4	1734.6	1744.2	1745.8
10°	1721.9	1723.5	1721.9	1733.1	1734.6
12.5°	1699.7	1702.9	1704.5	1715.6	1717.2
15°	1672.7	1677.5	1680.6	1694.9	1698.1
17.5°	1642.5	1647.3	1655.2	1671.1	1674.3
20°	1606.0	1612.3	1621.9	1642.5	1647.3
22.5°	1566.3	1572.6	1588.5	1607.6	1615.5
25°	1520.2	1532.9	1548.8	1574.2	1579.0
27.5°	1474.1	1485.3	1505.9	1532.9	1539.3
30°	1420.1	1437.6	1463.0	1490.0	1496.4
32.5°	1367.7	1385.2	1415.4	1443.9	1451.9
35°	1313.7	1329.6	1361.3	1394.7	1404.2
37.5°	1251.7	1272.4	1307.3	1340.7	1350.2
40°	1186.6	1212.0	1251.7	1286.7	1297.8
42.5°	1124.7	1151.7	1191.4	1229.5	1242.2
45°	1059.5	1084.9	1132.6	1175.5	1185.0
47.5°	992.8	1021.4	1072.2	1115.1	1131.0
50°	926.1	956.3	1010.3	1054.8	1064.3
52.5°	859.4	891.2	948.3	996.0	1000.8
55°	789.5	824.4	884.8	930.9	940.4
57.5°	725.9	756.1	821.3	868.9	880.0
60°	656.1	689.4	759.3	803.8	818.1
62.5°	589.3	624.3	697.4	741.8	754.5
65°	519.4	559.2	630.6	683.1	695.8
67.5°	459.1	497.2	573.4	624.3	637.0
70°	389.2	432.1	513.1	565.5	578.2
72.5°	328.8	373.3	454.3	505.1	524.2
75°	263.7	314.5	395.5	449.5	462.3
77.5°	200.2	258.9	341.5	382.8	382.8
80°	143.0	204.9	281.2	300.2	303.4
82.5°	93.7	154.1	208.1	206.5	206.5
85°	54.0	100.1	123.9	120.7	120.7
87.5°	20.7	41.3	44.5	44.5	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)