

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: P272023

Luminaire Tested: **22CZ2-24-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: P272023  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24-S-UNV-L940-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (56) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2207.0 lumens  
Efficiency: N/A  
Efficacy: 100.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

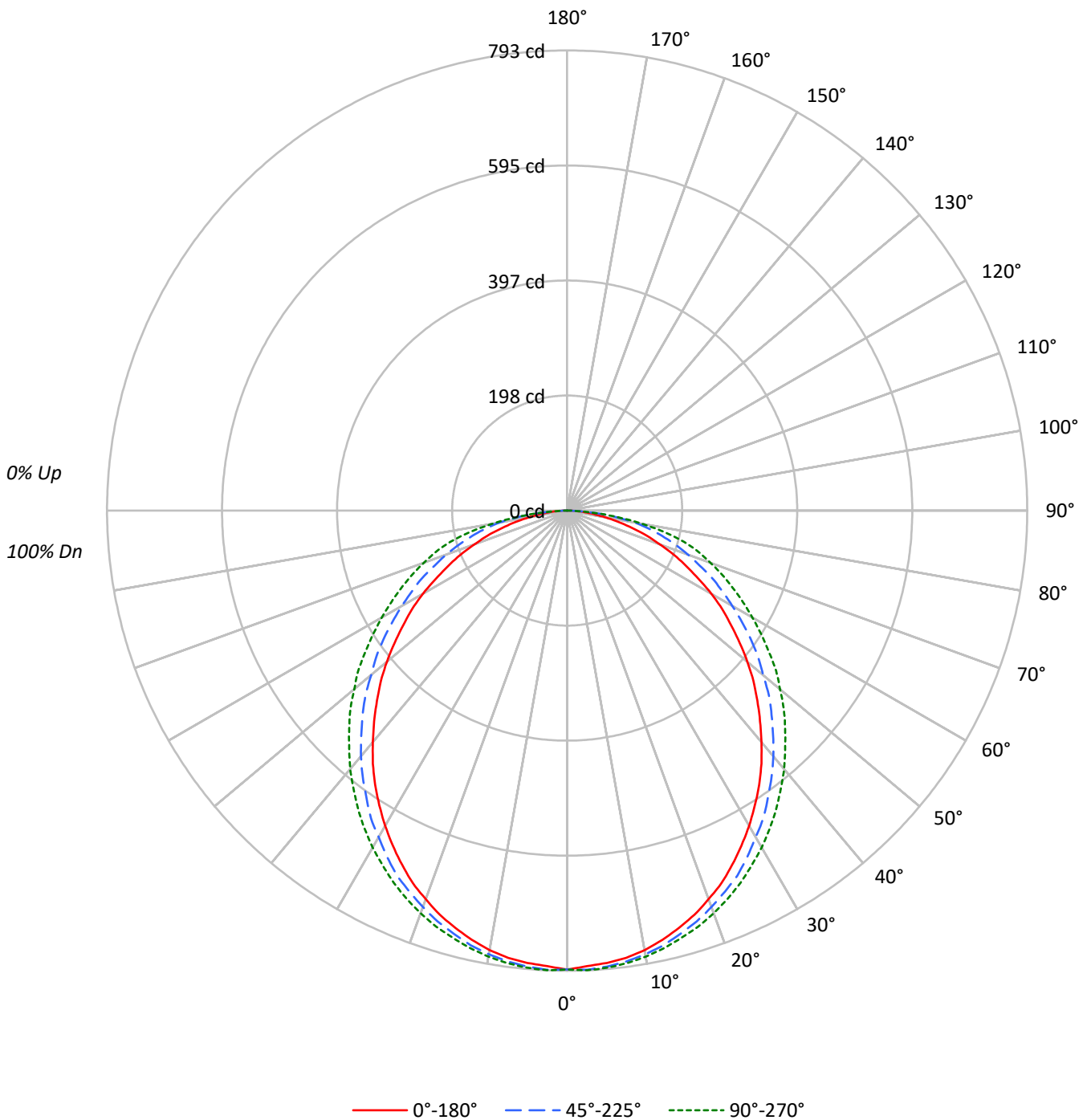
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2128	2128	2128
5°	2114	2131	2136
10°	2102	2122	2133
15°	2074	2103	2123
20°	2041	2082	2114
25°	1999	2061	2100
30°	1949	2019	2083
35°	1895	1982	2063
40°	1830	1943	2044
45°	1764	1897	2022
50°	1698	1845	2004
55°	1619	1812	1991
60°	1546	1768	1984
65°	1442	1757	2006
70°	1329	1742	2066
75°	1199	1766	2173
80°	1037	1819	2042
85°	858	1525	1525



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.8	3.4
10°-20°	212.8	9.6
20°-30°	318.5	14.4
30°-40°	377.1	17.1
40°-50°	384.3	17.4
50°-60°	344.5	15.6
60°-70°	269.7	12.2
70°-80°	173.9	7.9
80°-90°	51.4	2.3
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°	606.1	27.5
0°-40°	983.2	44.5
0°-60°	1712.0	77.6
0°-90°	2207.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2207.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	783	785	789	790	791	74
15°	744	749	755	761	762	210
25°	673	680	694	703	707	310
35°	577	584	603	622	628	360
45°	463	474	498	524	531	358
55°	345	356	386	413	424	309
65°	226	240	276	303	315	225
75°	115	133	170	199	209	124
85°	28	38	49	49	49	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	790.8	790.8	790.8	790.8	790.8
2.5°	785.7	787.7	791.9	792.9	792.9
5°	782.6	784.7	788.8	789.8	790.8
7.5°	777.5	778.5	783.6	785.7	786.7
10°	769.2	771.3	776.4	779.5	780.5
12.5°	757.9	761.0	767.2	771.3	772.3
15°	744.5	748.6	754.8	761.0	762.0
17.5°	730.1	734.2	742.4	749.6	751.7
20°	712.6	717.7	727.0	735.2	738.3
22.5°	695.1	699.2	710.5	720.8	723.9
25°	673.4	679.6	694.0	703.3	707.4
27.5°	650.8	658.0	672.4	684.8	688.9
30°	627.1	634.3	649.8	665.2	670.4
32.5°	602.4	610.6	629.2	644.6	649.8
35°	576.7	583.9	603.4	622.0	628.1
37.5°	549.9	556.1	578.7	598.3	604.5
40°	521.0	529.3	553.0	575.6	581.8
42.5°	492.2	501.5	525.2	549.9	556.1
45°	463.4	473.7	498.4	524.1	531.3
47.5°	435.6	443.8	471.6	496.3	506.6
50°	405.7	414.0	440.7	468.5	478.8
52.5°	374.8	386.2	415.0	441.8	454.1
55°	345.0	356.3	386.2	412.9	424.3
57.5°	317.2	326.4	357.3	385.1	396.4
60°	287.3	295.5	328.5	358.3	368.6
62.5°	255.4	267.7	301.7	329.5	341.9
65°	226.5	239.9	276.0	302.7	315.1
67.5°	199.8	212.1	247.1	276.0	289.4
70°	168.9	185.4	221.4	250.2	262.6
72.5°	144.2	158.6	195.6	224.5	237.9
75°	115.3	132.8	169.9	198.7	209.0
77.5°	91.6	109.2	144.2	166.8	172.0
80°	66.9	84.4	117.4	128.7	131.8
82.5°	45.3	61.8	84.4	87.5	88.6
85°	27.8	38.1	49.4	49.4	49.4
87.5°	13.4	15.4	17.5	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)