

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: P272015

Luminaire Tested: **22CZ2-20-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: P272015  
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: 22CZ2-20-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**

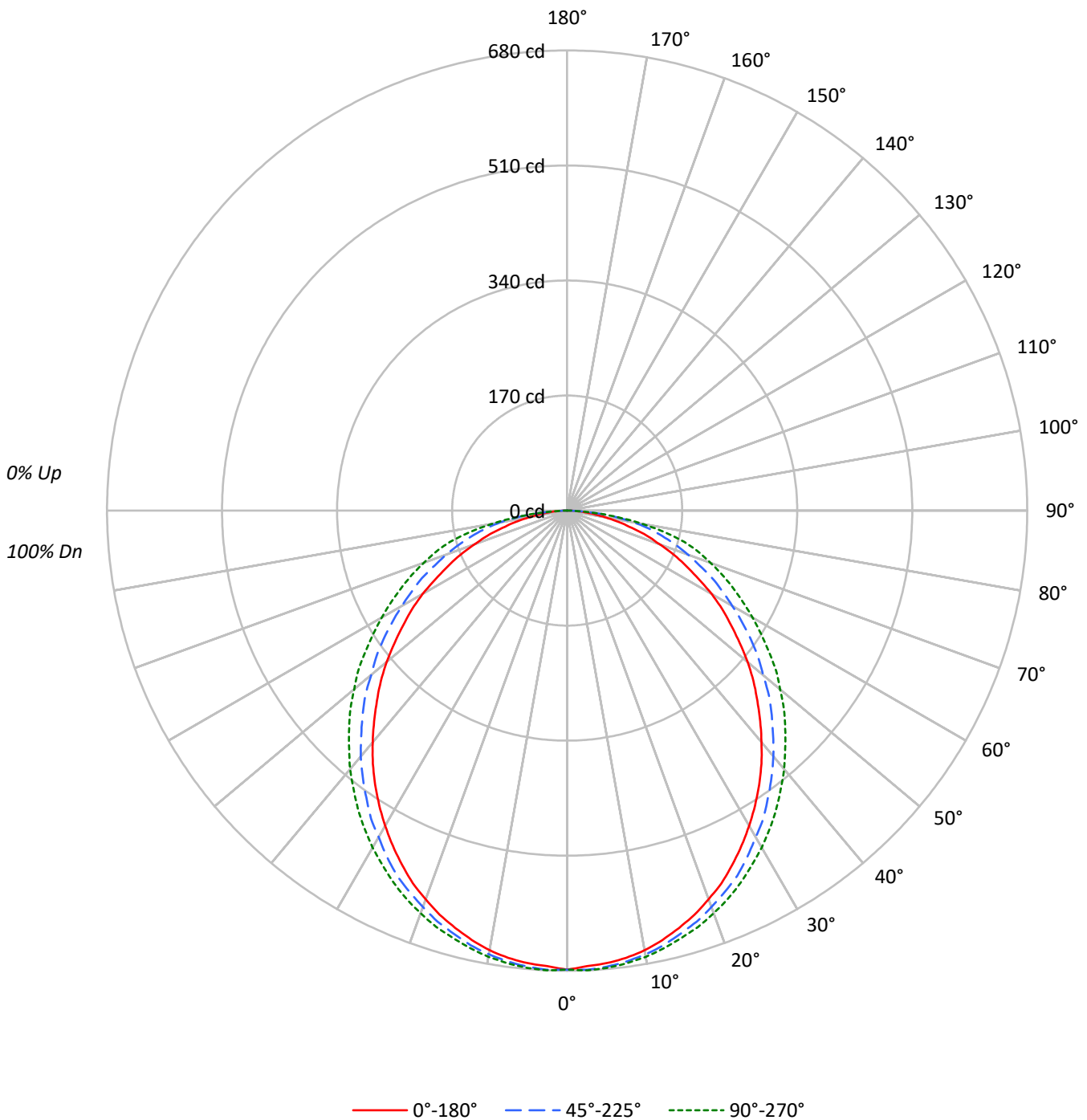
Lumens per Lamp: N/A  
Luminaire Lumens: 1893.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.9  
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°	1825	1825	1825
5°	1813	1828	1832
10°	1803	1820	1829
15°	1779	1804	1821
20°	1750	1786	1814
25°	1715	1768	1802
30°	1671	1732	1787
35°	1625	1700	1770
40°	1570	1666	1753
45°	1513	1627	1734
50°	1457	1582	1719
55°	1388	1554	1707
60°	1326	1517	1702
65°	1237	1507	1721
70°	1139	1494	1772
75°	1028	1515	1864
80°	890	1561	1753
85°	735	1309	1309



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.1	3.4
10°-20°	182.6	9.6
20°-30°	273.1	14.4
30°-40°	323.5	17.1
40°-50°	329.7	17.4
50°-60°	295.5	15.6
60°-70°	231.3	12.2
70°-80°	149.2	7.9
80°-90°	44.1	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°	519.8	27.5
0°-40°	843.3	44.5
0°-60°	1468.4	77.6
0°-90°	1893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1893.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	671	673	677	677	678	64
15°	639	642	647	653	654	180
25°	578	583	595	603	607	266
35°	495	501	518	534	539	309
45°	398	406	428	450	456	307
55°	296	306	331	354	364	265
65°	194	206	237	260	270	193
75°	99	114	146	170	179	106
85°	24	33	42	42	42	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	678.3	678.3	678.3	678.3	678.3
2.5°	673.9	675.7	679.2	680.1	680.1
5°	671.3	673.0	676.6	677.4	678.3
7.5°	666.8	667.7	672.1	673.9	674.8
10°	659.8	661.5	666.0	668.6	669.5
12.5°	650.1	652.7	658.0	661.5	662.4
15°	638.6	642.1	647.4	652.7	653.6
17.5°	626.2	629.7	636.8	643.0	644.8
20°	611.2	615.6	623.6	630.6	633.3
22.5°	596.2	599.7	609.4	618.3	620.9
25°	577.6	582.9	595.3	603.2	606.8
27.5°	558.2	564.4	576.7	587.3	590.9
30°	537.9	544.1	557.3	570.6	575.0
32.5°	516.7	523.8	539.7	552.9	557.3
35°	494.6	500.8	517.6	533.5	538.8
37.5°	471.6	476.9	496.4	513.2	518.5
40°	446.9	454.0	474.3	493.7	499.0
42.5°	422.2	430.1	450.4	471.6	476.9
45°	397.5	406.3	427.5	449.6	455.7
47.5°	373.6	380.7	404.5	425.7	434.5
50°	348.0	355.1	378.0	401.9	410.7
52.5°	321.5	331.2	355.9	378.9	389.5
55°	295.9	305.6	331.2	354.2	363.9
57.5°	272.0	280.0	306.5	330.3	340.0
60°	246.4	253.5	281.8	307.4	316.2
62.5°	219.0	229.6	258.8	282.6	293.2
65°	194.3	205.8	236.7	259.7	270.3
67.5°	171.3	181.9	212.0	236.7	248.2
70°	144.8	159.0	189.9	214.6	225.2
72.5°	123.7	136.0	167.8	192.5	204.0
75°	98.9	113.9	145.7	170.5	179.3
77.5°	78.6	93.6	123.7	143.1	147.5
80°	57.4	72.4	100.7	110.4	113.1
82.5°	38.9	53.0	72.4	75.1	76.0
85°	23.8	32.7	42.4	42.4	42.4
87.5°	11.5	13.2	15.0	14.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)