

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: P387751

Luminaire Tested: **22CZ2-24HE-SQR-UNV-L940-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P387751  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24HE-SQR-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1957.5 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

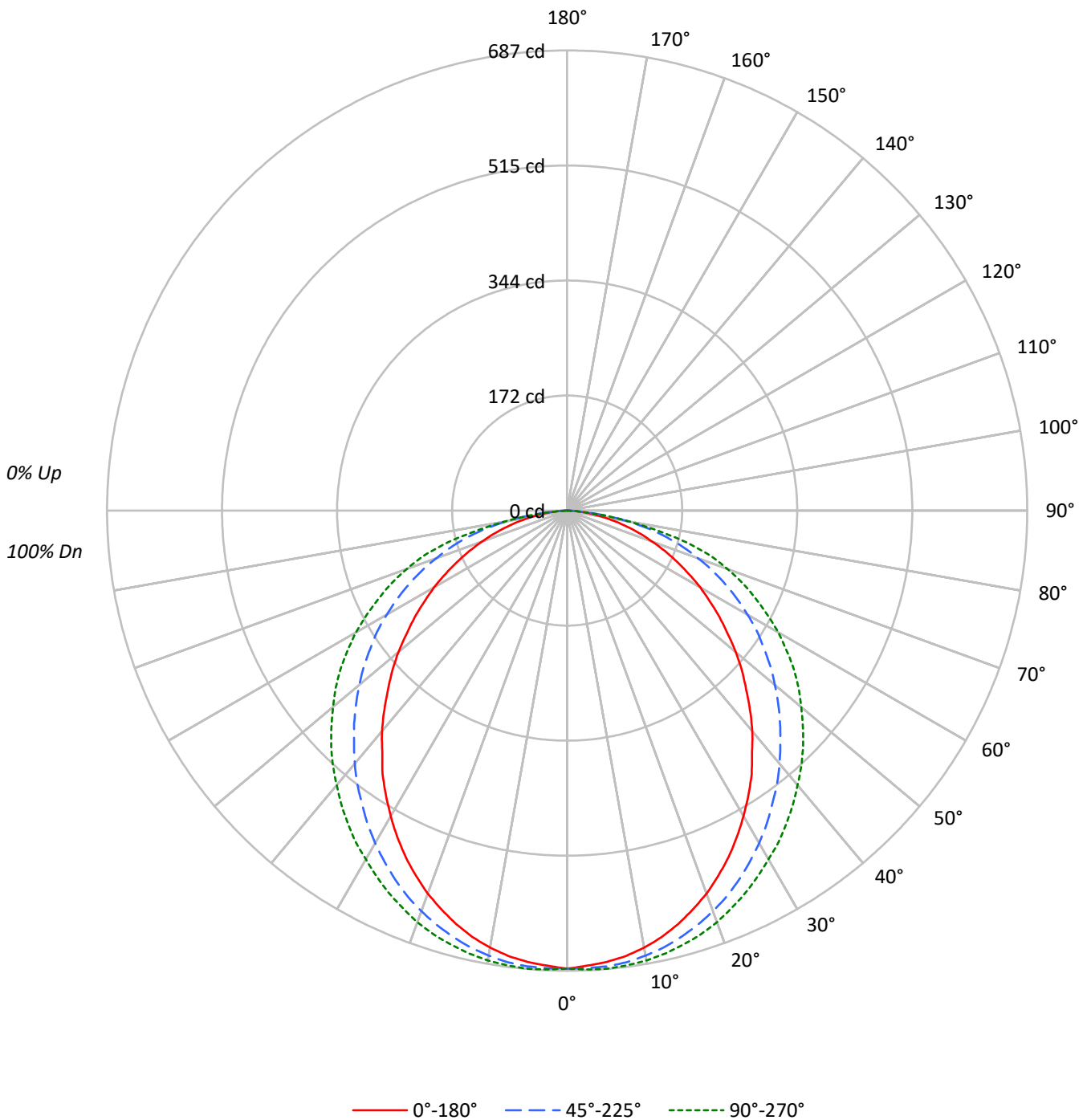
Input Watts (W): 19.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	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°	1840	1840	1840
5°	1827	1845	1855
10°	1810	1843	1863
15°	1781	1835	1869
20°	1743	1822	1873
25°	1694	1804	1870
30°	1637	1781	1868
35°	1578	1755	1874
40°	1511	1733	1880
45°	1439	1711	1895
50°	1377	1696	1910
55°	1303	1682	1939
60°	1235	1675	1960
65°	1154	1663	1976
70°	1060	1637	2003
75°	957	1594	1932
80°	821	1410	1454
85°	661	831	661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	3.3
10°-20°	185.3	9.5
20°-30°	278.4	14.2
30°-40°	332.0	17.0
40°-50°	343.3	17.5
50°-60°	315.6	16.1
60°-70°	251.2	12.8
70°-80°	153.5	7.8
80°-90°	33.3	1.7
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°	528.5	27.0
0°-40°	860.5	44.0
0°-60°	1519.4	77.6
0°-90°	1957.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1957.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	676	678	683	686	687	64
15°	639	647	659	668	671	180
25°	570	584	608	624	630	262
35°	480	501	534	562	570	300
45°	378	405	450	486	498	292
55°	278	308	359	400	413	248
65°	181	212	261	297	310	179
75°	92	119	153	180	186	98
85°	21	26	27	23	21	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	683.8	683.8	683.8	683.8	683.8
2.5°	680.1	681.0	683.8	685.7	685.7
5°	676.4	678.2	682.9	685.7	686.6
7.5°	670.8	673.6	680.1	683.8	684.7
10°	662.4	666.1	674.5	680.1	681.9
12.5°	652.2	657.8	668.0	675.4	677.3
15°	639.2	646.6	658.7	668.0	670.8
17.5°	624.3	633.6	648.5	659.6	663.4
20°	608.5	617.8	636.4	649.4	654.1
22.5°	590.0	602.0	623.4	638.3	642.0
25°	570.5	584.4	607.6	624.3	629.9
27.5°	549.1	565.8	590.9	611.3	616.0
30°	526.8	544.4	573.2	595.5	601.1
32.5°	503.6	524.0	554.7	579.7	587.2
35°	480.3	500.8	534.2	562.1	570.5
37.5°	453.4	477.5	514.7	543.5	553.7
40°	430.2	453.4	493.3	524.9	535.1
42.5°	404.1	429.2	471.0	505.4	517.5
45°	378.1	405.1	449.7	485.9	498.0
47.5°	354.0	380.9	427.4	465.5	477.5
50°	328.9	356.8	405.1	444.1	456.2
52.5°	302.0	332.6	382.8	421.8	435.7
55°	277.8	308.5	358.6	399.5	413.4
57.5°	252.7	284.3	336.3	375.3	388.4
60°	229.5	260.1	311.2	349.3	364.2
62.5°	204.4	236.0	286.2	323.3	337.3
65°	181.2	211.8	261.1	297.3	310.3
67.5°	157.9	188.6	235.1	269.4	284.3
70°	134.7	165.4	208.1	241.6	254.6
72.5°	114.3	141.2	182.1	212.8	224.8
75°	92.0	118.9	153.3	180.2	185.8
77.5°	71.5	95.7	124.5	136.6	138.4
80°	53.0	71.5	91.0	93.8	93.8
82.5°	35.3	49.2	56.7	57.6	56.7
85°	21.4	26.0	26.9	23.2	21.4
87.5°	7.4	7.4	4.6	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)