

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: P387727

Luminaire Tested: **22CZ2-24-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: P387727  
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: 22CZ2-24-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: 1985.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 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

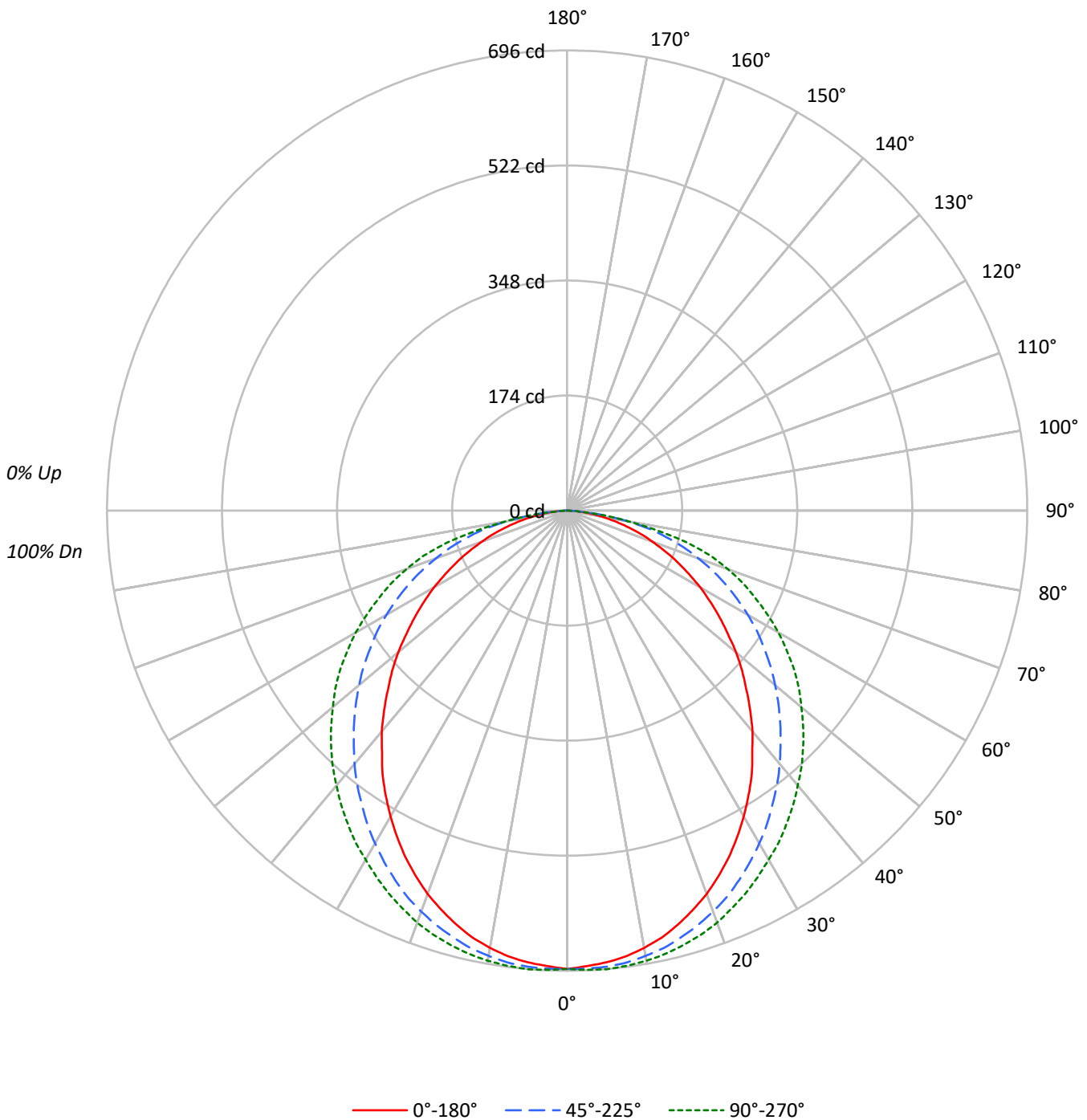
Input Watts (W): 21.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1866	1866	1866
5°	1853	1871	1881
10°	1835	1869	1890
15°	1806	1861	1895
20°	1767	1848	1899
25°	1718	1830	1897
30°	1660	1806	1894
35°	1600	1780	1900
40°	1532	1757	1906
45°	1459	1735	1922
50°	1396	1720	1937
55°	1322	1706	1967
60°	1252	1699	1988
65°	1170	1685	2004
70°	1075	1660	2031
75°	970	1617	1959
80°	832	1430	1475
85°	670	843	670



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	3.3
10°-20°	187.9	9.5
20°-30°	282.3	14.2
30°-40°	336.7	17.0
40°-50°	348.1	17.5
50°-60°	320.0	16.1
60°-70°	254.8	12.8
70°-80°	155.6	7.8
80°-90°	33.8	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°	536.0	27.0
0°-40°	872.6	44.0
0°-60°	1540.8	77.6
0°-90°	1985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1985.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	686	688	692	695	696	65
15°	648	656	668	677	680	183
25°	578	593	616	633	639	266
35°	487	508	542	570	578	304
45°	383	411	456	493	505	297
55°	282	313	364	405	419	252
65°	184	215	265	302	315	182
75°	93	121	156	183	188	99
85°	22	26	27	24	22	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	693.4	693.4	693.4	693.4	693.4
2.5°	689.6	690.6	693.4	695.3	695.3
5°	685.9	687.8	692.5	695.3	696.2
7.5°	680.2	683.0	689.6	693.4	694.4
10°	671.7	675.5	684.0	689.6	691.5
12.5°	661.4	667.0	677.4	684.9	686.8
15°	648.2	655.7	668.0	677.4	680.2
17.5°	633.1	642.5	657.6	668.9	672.7
20°	617.1	626.5	645.4	658.5	663.3
22.5°	598.3	610.5	632.2	647.2	651.0
25°	578.5	592.6	616.2	633.1	638.8
27.5°	556.8	573.8	599.2	619.9	624.6
30°	534.2	552.1	581.3	603.9	609.6
32.5°	510.6	531.4	562.5	587.9	595.4
35°	487.1	507.8	541.7	570.0	578.5
37.5°	459.8	484.3	521.9	551.1	561.5
40°	436.2	459.8	500.3	532.3	542.7
42.5°	409.8	435.3	477.7	512.5	524.8
45°	383.4	410.8	456.0	492.7	505.0
47.5°	359.0	386.3	433.4	472.0	484.3
50°	333.5	361.8	410.8	450.3	462.6
52.5°	306.2	337.3	388.2	427.7	441.9
55°	281.7	312.8	363.7	405.1	419.2
57.5°	256.3	288.3	341.1	380.6	393.8
60°	232.7	263.8	315.6	354.2	369.3
62.5°	207.3	239.3	290.2	327.9	342.0
65°	183.7	214.8	264.7	301.5	314.7
67.5°	160.2	191.3	238.4	273.2	288.3
70°	136.6	167.7	211.0	245.0	258.1
72.5°	115.9	143.2	184.7	215.7	228.0
75°	93.3	120.6	155.5	182.8	188.4
77.5°	72.5	97.0	126.2	138.5	140.4
80°	53.7	72.5	92.3	95.2	95.2
82.5°	35.8	49.9	57.5	58.4	57.5
85°	21.7	26.4	27.3	23.6	21.7
87.5°	7.5	7.5	4.7	2.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)