

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: P387841

Luminaire Tested: **22CZ2-32-SQR-UNV-L930-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: P387841  
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: 22CZ2-32-SQR-UNV-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2566.8 lumens  
Efficiency: N/A  
Efficacy: 96.1 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

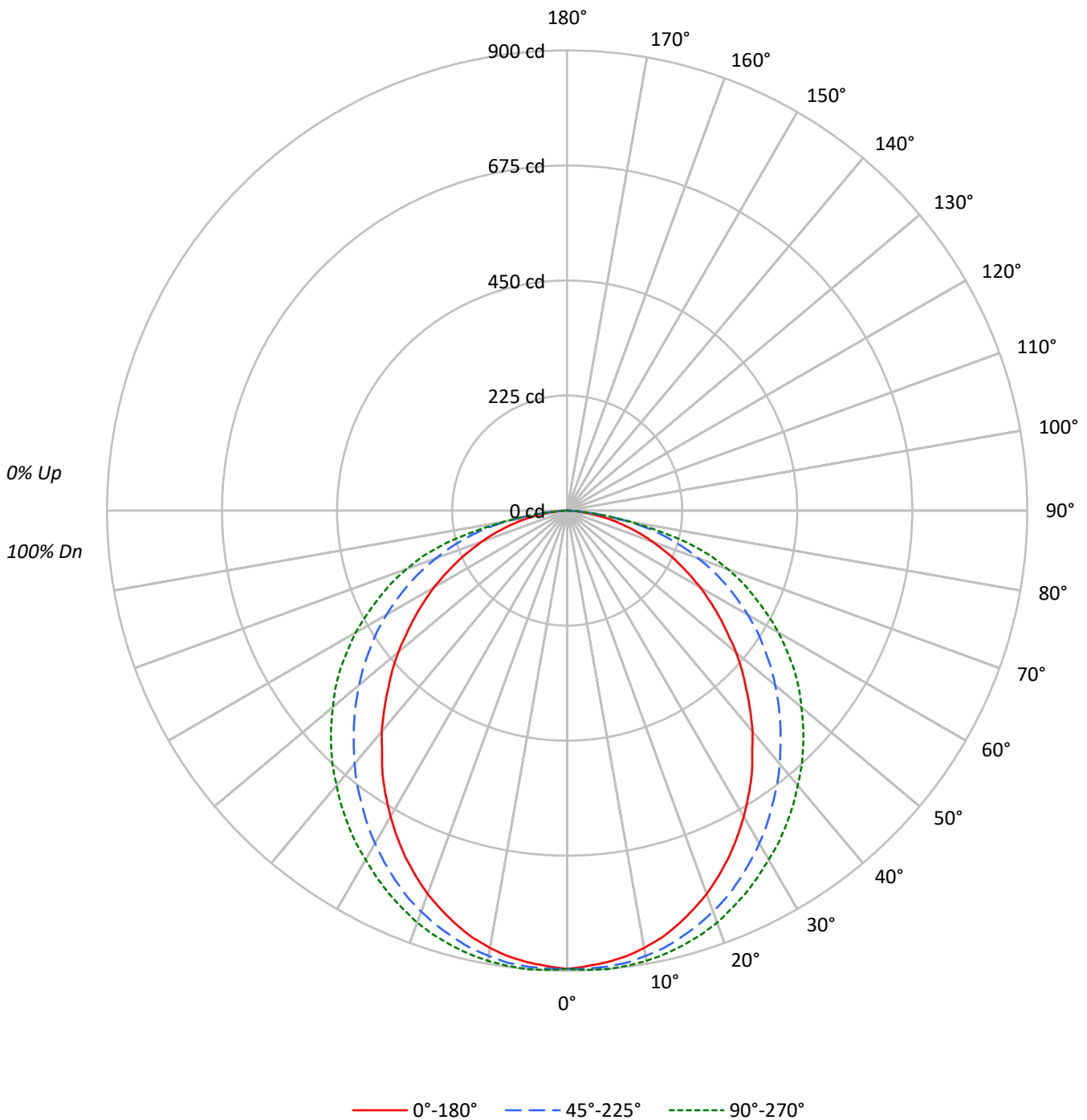
Input Watts (W): 26.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2413	2413	2413
5°	2396	2419	2432
10°	2373	2417	2443
15°	2335	2406	2450
20°	2285	2390	2456
25°	2221	2366	2453
30°	2147	2336	2449
35°	2069	2301	2457
40°	1982	2272	2465
45°	1887	2244	2485
50°	1806	2224	2504
55°	1709	2206	2543
60°	1619	2196	2570
65°	1513	2180	2591
70°	1389	2147	2626
75°	1254	2090	2534
80°	1075	1850	1906
85°	865	1090	865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.0	3.3
10°-20°	243.0	9.5
20°-30°	365.0	14.2
30°-40°	435.3	17.0
40°-50°	450.1	17.5
50°-60°	413.8	16.1
60°-70°	329.4	12.8
70°-80°	201.3	7.8
80°-90°	43.7	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°	693.1	27.0
0°-40°	1128.4	44.0
0°-60°	1992.3	77.6
0°-90°	2566.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2566.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	887	889	895	899	900	84
15°	838	848	864	876	880	236
25°	748	766	797	819	826	344
35°	630	657	700	737	748	393
45°	496	531	590	637	653	383
55°	364	404	470	524	542	326
65°	238	278	342	390	407	235
75°	121	156	201	236	244	128
85°	28	34	35	30	28	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	896.6	896.6	896.6	896.6	896.6
2.5°	891.8	893.0	896.6	899.1	899.1
5°	886.9	889.3	895.4	899.1	900.3
7.5°	879.6	883.2	891.8	896.6	897.9
10°	868.6	873.5	884.5	891.8	894.2
12.5°	855.2	862.5	875.9	885.7	888.1
15°	838.2	847.9	863.8	875.9	879.6
17.5°	818.7	830.9	850.4	865.0	869.8
20°	798.0	810.1	834.5	851.6	857.7
22.5°	773.6	789.4	817.5	836.9	841.8
25°	748.0	766.3	796.7	818.7	826.0
27.5°	720.0	741.9	774.8	801.6	807.7
30°	690.8	713.9	751.7	780.9	788.2
32.5°	660.3	687.1	727.3	760.2	769.9
35°	629.8	656.6	700.5	737.1	748.0
37.5°	594.5	626.2	674.9	712.7	726.1
40°	564.1	594.5	646.9	688.3	701.7
42.5°	529.9	562.8	617.7	662.7	678.6
45°	495.8	531.2	589.6	637.2	653.0
47.5°	464.2	499.5	560.4	610.4	626.2
50°	431.3	467.8	531.2	582.3	598.2
52.5°	395.9	436.1	501.9	553.1	571.4
55°	364.3	404.5	470.3	523.9	542.1
57.5°	331.4	372.8	441.0	492.2	509.2
60°	300.9	341.1	408.1	458.1	477.6
62.5°	268.0	309.4	375.2	424.0	442.2
65°	237.6	277.8	342.3	389.8	406.9
67.5°	207.1	247.3	308.2	353.3	372.8
70°	176.6	216.9	272.9	316.7	333.8
72.5°	149.8	185.2	238.8	279.0	294.8
75°	120.6	155.9	201.0	236.3	243.7
77.5°	93.8	125.5	163.2	179.1	181.5
80°	69.4	93.8	119.4	123.0	123.0
82.5°	46.3	64.6	74.3	75.5	74.3
85°	28.0	34.1	35.3	30.5	28.0
87.5°	9.7	9.7	6.1	3.7	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)