

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: P387607

Luminaire Tested: **22CZ2-100VHE-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: P387607  
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: 22CZ2-100VHE-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: 8189.6 lumens  
Efficiency: N/A  
Efficacy: 105.4 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

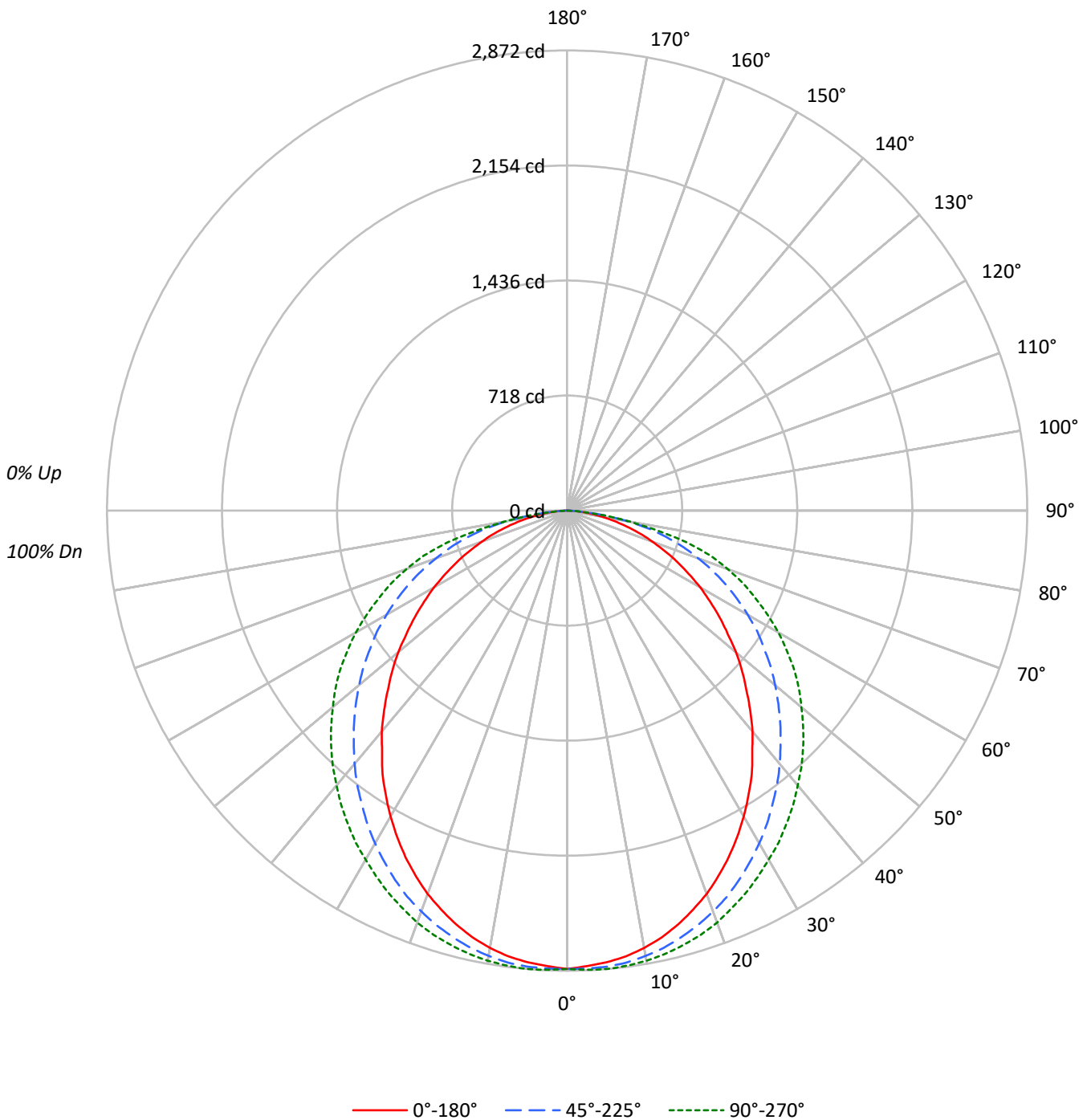
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	7698	7698	7698
5°	7644	7717	7759
10°	7573	7711	7796
15°	7450	7678	7818
20°	7291	7625	7836
25°	7086	7548	7825
30°	6848	7452	7814
35°	6602	7342	7840
40°	6322	7250	7865
45°	6020	7160	7929
50°	5761	7095	7990
55°	5453	7039	8115
60°	5167	7008	8200
65°	4826	6954	8267
70°	4434	6851	8379
75°	4001	6669	8083
80°	3434	5903	6084
85°	2760	3480	2760



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.2	3.3
10°-20°	775.4	9.5
20°-30°	1164.6	14.2
30°-40°	1389.0	17.0
40°-50°	1436.1	17.5
50°-60°	1320.3	16.1
60°-70°	1051.1	12.8
70°-80°	642.2	7.8
80°-90°	139.6	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°	2211.3	27.0
0°-40°	3600.3	44.0
0°-60°	6356.7	77.6
0°-90°	8189.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8189.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2861	2861	2861	2861	2861	
5°	2830	2838	2857	2869	2872	268
15°	2674	2705	2756	2795	2806	753
25°	2387	2445	2542	2612	2635	1098
35°	2010	2095	2235	2352	2387	1254
45°	1582	1695	1881	2033	2083	1223
55°	1162	1290	1500	1671	1730	1040
65°	758	886	1092	1244	1298	751
75°	385	498	641	754	777	410
85°	89	109	113	97	89	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2860.8	2860.8	2860.8	2860.8	2860.8
2.5°	2845.3	2849.2	2860.8	2868.6	2868.6
5°	2829.7	2837.5	2856.9	2868.6	2872.5
7.5°	2806.4	2818.1	2845.3	2860.8	2864.7
10°	2771.4	2787.0	2822.0	2845.3	2853.1
12.5°	2728.7	2752.0	2794.7	2825.8	2833.6
15°	2674.2	2705.3	2755.9	2794.7	2806.4
17.5°	2612.1	2650.9	2713.1	2759.8	2775.3
20°	2546.0	2584.8	2662.6	2717.0	2736.4
22.5°	2468.2	2518.8	2608.2	2670.4	2685.9
25°	2386.6	2444.9	2542.1	2612.1	2635.4
27.5°	2297.2	2367.2	2472.1	2557.6	2577.1
30°	2203.9	2277.8	2398.3	2491.6	2514.9
32.5°	2106.7	2192.3	2320.5	2425.5	2456.6
35°	2009.6	2095.1	2235.0	2351.6	2386.6
37.5°	1896.9	1997.9	2153.4	2273.9	2316.6
40°	1799.7	1896.9	2064.0	2196.1	2238.9
42.5°	1690.8	1795.8	1970.7	2114.5	2165.1
45°	1582.0	1694.7	1881.3	2032.9	2083.4
47.5°	1480.9	1593.7	1788.0	1947.4	1997.9
50°	1376.0	1492.6	1694.7	1858.0	1908.5
52.5°	1263.3	1391.5	1601.4	1764.7	1823.0
55°	1162.2	1290.5	1500.4	1671.4	1729.7
57.5°	1057.3	1189.4	1407.1	1570.3	1624.8
60°	960.1	1088.4	1302.1	1461.5	1523.7
62.5°	855.1	987.3	1197.2	1352.7	1411.0
65°	758.0	886.2	1092.2	1243.8	1298.3
67.5°	660.8	789.1	983.4	1127.2	1189.4
70°	563.6	691.9	870.7	1010.6	1065.0
72.5°	478.1	590.8	761.9	890.1	940.7
75°	384.8	497.5	641.4	754.1	777.4
77.5°	299.3	400.4	520.9	571.4	579.2
80°	221.6	299.3	380.9	392.6	392.6
82.5°	147.7	206.0	237.1	241.0	237.1
85°	89.4	108.8	112.7	97.2	89.4
87.5°	31.1	31.1	19.4	11.7	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)