

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: P387610

Luminaire Tested: **22CZ2-100VHE-SQR-UNV-L950-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: P387610  
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-L950-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8692.7 lumens  
Efficiency: N/A  
Efficacy: 111.9 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

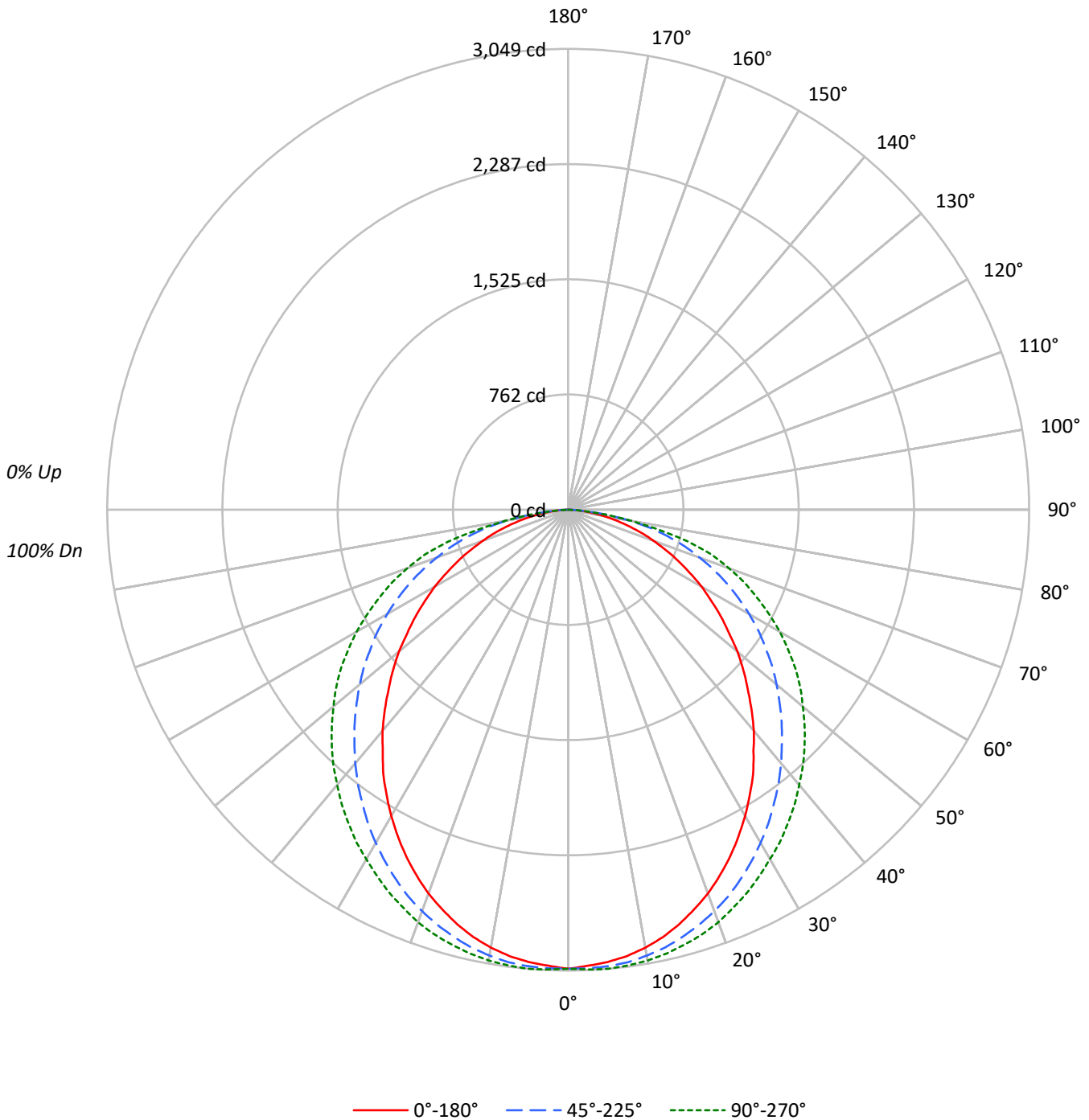
Input Watts (W): 77.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	8171	8171	8171
5°	8113	8191	8236
10°	8038	8185	8275
15°	7908	8149	8299
20°	7739	8093	8318
25°	7521	8012	8306
30°	7269	7910	8295
35°	7007	7793	8322
40°	6710	7696	8348
45°	6390	7599	8416
50°	6114	7531	8481
55°	5788	7471	8614
60°	5485	7438	8704
65°	5123	7382	8774
70°	4707	7272	8895
75°	4247	7078	8580
80°	3645	6265	6457
85°	2930	3693	2930



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.9	3.3
10°-20°	823.1	9.5
20°-30°	1236.2	14.2
30°-40°	1474.3	17.0
40°-50°	1524.3	17.5
50°-60°	1401.4	16.1
60°-70°	1115.7	12.8
70°-80°	681.6	7.8
80°-90°	148.2	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°	2347.1	27.0
0°-40°	3821.5	44.0
0°-60°	6747.2	77.6
0°-90°	8692.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8692.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3037	3037	3037	3037	3037	
5°	3004	3012	3032	3045	3049	285
15°	2838	2872	2925	2966	2979	799
25°	2533	2595	2698	2772	2797	1165
35°	2133	2224	2372	2496	2533	1331
45°	1679	1799	1997	2158	2211	1298
55°	1234	1370	1592	1774	1836	1103
65°	804	941	1159	1320	1378	797
75°	408	528	681	800	825	435
85°	95	116	120	103	95	109
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3036.6	3036.6	3036.6	3036.6	3036.6
2.5°	3020.1	3024.2	3036.6	3044.8	3044.8
5°	3003.6	3011.8	3032.4	3044.8	3048.9
7.5°	2978.8	2991.2	3020.1	3036.6	3040.7
10°	2941.7	2958.2	2995.3	3020.1	3028.3
12.5°	2896.3	2921.0	2966.4	2999.4	3007.7
15°	2838.5	2871.5	2925.2	2966.4	2978.8
17.5°	2772.5	2813.8	2879.8	2929.3	2945.8
20°	2702.4	2743.6	2826.2	2883.9	2904.5
22.5°	2619.9	2673.5	2768.4	2834.4	2850.9
25°	2533.2	2595.1	2698.3	2772.5	2797.3
27.5°	2438.3	2512.6	2624.0	2714.8	2735.4
30°	2339.3	2417.7	2545.6	2644.6	2669.4
32.5°	2236.2	2326.9	2463.1	2574.5	2607.5
35°	2133.0	2223.8	2372.3	2496.1	2533.2
37.5°	2013.4	2120.6	2285.7	2413.6	2459.0
40°	1910.2	2013.4	2190.8	2331.1	2376.4
42.5°	1794.7	1906.1	2091.8	2244.4	2298.1
45°	1679.2	1798.8	1996.9	2157.8	2211.4
47.5°	1571.9	1691.6	1897.9	2067.0	2120.6
50°	1460.5	1584.3	1798.8	1972.1	2025.8
52.5°	1340.9	1477.0	1699.8	1873.1	1935.0
55°	1233.6	1369.8	1592.5	1774.1	1836.0
57.5°	1122.2	1262.5	1493.5	1666.8	1724.6
60°	1019.1	1155.2	1382.1	1551.3	1617.3
62.5°	907.7	1047.9	1270.7	1435.8	1497.7
65°	804.5	940.7	1159.3	1320.2	1378.0
67.5°	701.4	837.5	1043.8	1196.5	1262.5
70°	598.2	734.4	924.2	1072.7	1130.5
72.5°	507.5	627.1	808.7	944.8	998.4
75°	408.5	528.1	680.8	800.4	825.2
77.5°	317.7	425.0	552.9	606.5	614.7
80°	235.2	317.7	404.3	416.7	416.7
82.5°	156.8	218.7	251.7	255.8	251.7
85°	94.9	115.5	119.6	103.1	94.9
87.5°	33.0	33.0	20.6	12.4	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)