

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: P388259

Luminaire Tested: **22CZ2-90VHE-SQR-UNV-L950-CD1-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: P388259
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: 22CZ2-90VHE-SQR-UNV-L950-CD1-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: 7945.9 lumens
Efficiency: N/A
Efficacy: 116.5 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

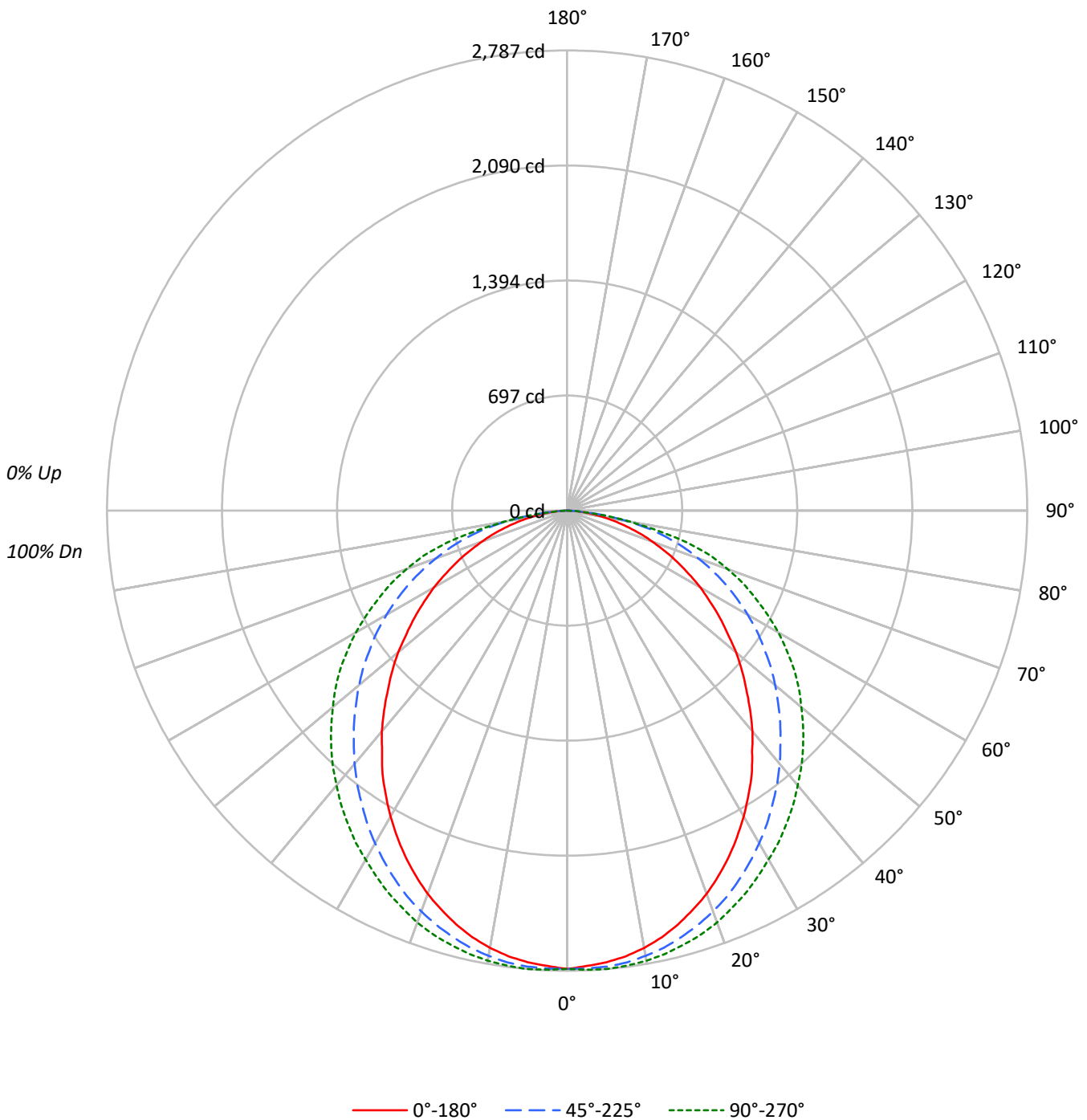
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7469	7469	7469
5°	7416	7488	7528
10°	7348	7482	7564
15°	7229	7449	7586
20°	7074	7398	7603
25°	6875	7323	7592
30°	6644	7230	7582
35°	6405	7124	7607
40°	6134	7035	7631
45°	5841	6946	7693
50°	5589	6884	7752
55°	5290	6830	7873
60°	5013	6800	7957
65°	4683	6748	8020
70°	4302	6647	8130
75°	3882	6470	7843
80°	3332	5728	5903
85°	2677	3378	2677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.1	3.3
10°-20°	752.4	9.5
20°-30°	1130.0	14.2
30°-40°	1347.7	17.0
40°-50°	1393.4	17.5
50°-60°	1281.0	16.1
60°-70°	1019.8	12.8
70°-80°	623.1	7.8
80°-90°	135.4	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°	2145.5	27.0
0°-40°	3493.1	44.0
0°-60°	6167.6	77.6
0°-90°	7945.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7945.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2776	2776	2776	2776	2776	
5°	2746	2753	2772	2783	2787	260
15°	2595	2625	2674	2712	2723	731
25°	2316	2372	2466	2534	2557	1065
35°	1950	2033	2168	2282	2316	1216
45°	1535	1644	1825	1972	2021	1187
55°	1128	1252	1456	1622	1678	1009
65°	735	860	1060	1207	1260	728
75°	373	483	622	732	754	398
85°	87	106	109	94	87	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2775.7	2775.7	2775.7	2775.7	2775.7
2.5°	2760.6	2764.4	2775.7	2783.2	2783.2
5°	2745.5	2753.1	2771.9	2783.2	2787.0
7.5°	2722.9	2734.2	2760.6	2775.7	2779.5
10°	2689.0	2704.0	2738.0	2760.6	2768.2
12.5°	2647.5	2670.1	2711.6	2741.8	2749.3
15°	2594.7	2624.8	2673.9	2711.6	2722.9
17.5°	2534.3	2572.0	2632.4	2677.6	2692.7
20°	2470.2	2507.9	2583.4	2636.2	2655.0
22.5°	2394.8	2443.8	2530.6	2590.9	2606.0
25°	2315.6	2372.2	2466.4	2534.3	2557.0
27.5°	2228.9	2296.7	2398.6	2481.5	2500.4
30°	2138.3	2210.0	2326.9	2417.4	2440.0
32.5°	2044.1	2127.0	2251.5	2353.3	2383.5
35°	1949.8	2032.7	2168.5	2281.7	2315.6
37.5°	1840.4	1938.5	2089.3	2206.2	2247.7
40°	1746.1	1840.4	2002.6	2130.8	2172.3
42.5°	1640.5	1742.4	1912.1	2051.6	2100.6
45°	1534.9	1644.3	1825.3	1972.4	2021.4
47.5°	1436.9	1546.2	1734.8	1889.4	1938.5
50°	1335.0	1448.2	1644.3	1802.7	1851.7
52.5°	1225.7	1350.1	1553.8	1712.2	1768.8
55°	1127.6	1252.1	1455.7	1621.7	1678.2
57.5°	1025.8	1154.0	1365.2	1523.6	1576.4
60°	931.5	1056.0	1263.4	1418.0	1478.4
62.5°	829.7	957.9	1161.6	1312.4	1369.0
65°	735.4	859.9	1059.7	1206.8	1259.6
67.5°	641.1	765.6	954.1	1093.7	1154.0
70°	546.8	671.3	844.8	980.5	1033.3
72.5°	463.9	573.2	739.2	863.6	912.7
75°	373.4	482.7	622.3	731.6	754.3
77.5°	290.4	388.4	505.4	554.4	561.9
80°	215.0	290.4	369.6	380.9	380.9
82.5°	143.3	199.9	230.1	233.8	230.1
85°	86.7	105.6	109.4	94.3	86.7
87.5°	30.2	30.2	18.9	11.3	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)