

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: P388252

Luminaire Tested: **22CZ2-90VHE-SQR-UNV-L935-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: P388252
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7317.4 lumens
Efficiency: N/A
Efficacy: 107.3 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

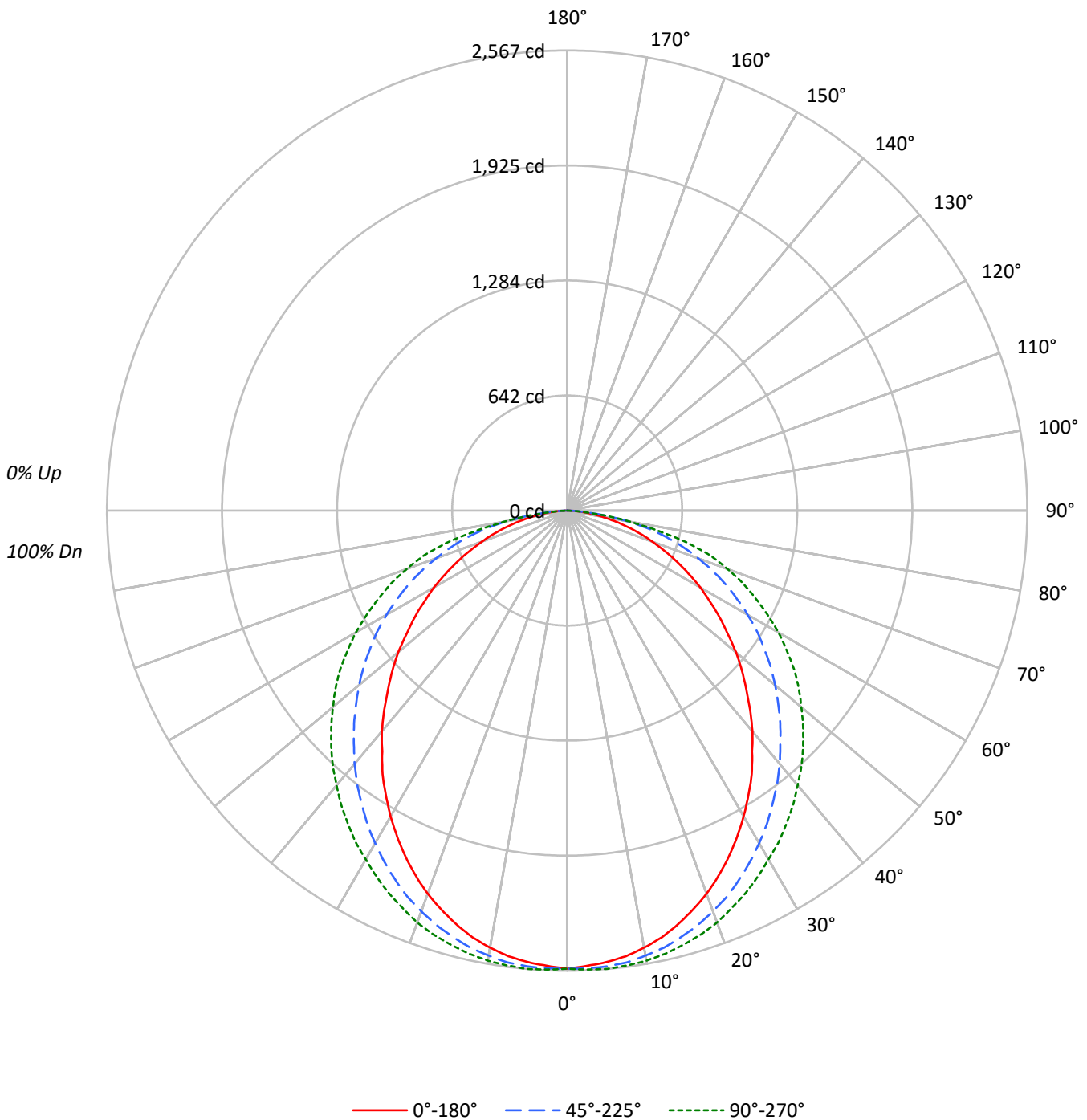
Input Watts (W): 68.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6878	6878	6878
5°	6830	6896	6933
10°	6766	6890	6966
15°	6657	6860	6986
20°	6514	6813	7002
25°	6331	6744	6991
30°	6119	6659	6982
35°	5899	6560	7005
40°	5649	6478	7027
45°	5379	6397	7084
50°	5147	6339	7139
55°	4872	6290	7251
60°	4617	6262	7327
65°	4312	6214	7386
70°	3962	6121	7487
75°	3575	5958	7222
80°	3068	5275	5436
85°	2467	3109	2467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.3	3.3
10°-20°	692.8	9.5
20°-30°	1040.6	14.2
30°-40°	1241.1	17.0
40°-50°	1283.2	17.5
50°-60°	1179.7	16.1
60°-70°	939.2	12.8
70°-80°	573.8	7.8
80°-90°	124.7	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°	1975.8	27.0
0°-40°	3216.9	44.0
0°-60°	5679.7	77.6
0°-90°	7317.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7317.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2556	2556	2556	2556	2556	
5°	2528	2535	2553	2563	2567	240
15°	2389	2417	2462	2497	2508	673
25°	2132	2184	2271	2334	2355	981
35°	1796	1872	1997	2101	2132	1120
45°	1414	1514	1681	1816	1862	1093
55°	1038	1153	1341	1493	1546	929
65°	677	792	976	1111	1160	671
75°	344	444	573	674	695	366
85°	80	97	101	87	80	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2556.1	2556.1	2556.1	2556.1	2556.1
2.5°	2542.3	2545.7	2556.1	2563.1	2563.1
5°	2528.4	2535.3	2552.7	2563.1	2566.6
7.5°	2507.5	2517.9	2542.3	2556.1	2559.6
10°	2476.3	2490.2	2521.4	2542.3	2549.2
12.5°	2438.1	2458.9	2497.1	2524.9	2531.8
15°	2389.4	2417.2	2462.4	2497.1	2507.5
17.5°	2333.9	2368.6	2424.2	2465.8	2479.7
20°	2274.8	2309.6	2379.0	2427.6	2445.0
22.5°	2205.4	2250.5	2330.4	2386.0	2399.9
25°	2132.4	2184.5	2271.4	2333.9	2354.7
27.5°	2052.6	2115.1	2208.8	2285.2	2302.6
30°	1969.2	2035.2	2142.9	2226.2	2247.0
32.5°	1882.4	1958.8	2073.4	2167.2	2194.9
35°	1795.6	1872.0	1997.0	2101.2	2132.4
37.5°	1694.8	1785.1	1924.1	2031.7	2069.9
40°	1608.0	1694.8	1844.2	1962.3	2000.5
42.5°	1510.8	1604.5	1760.8	1889.3	1934.5
45°	1413.5	1514.2	1680.9	1816.4	1861.5
47.5°	1323.2	1423.9	1597.6	1740.0	1785.1
50°	1229.4	1333.6	1514.2	1660.1	1705.3
52.5°	1128.7	1243.3	1430.9	1576.8	1628.8
55°	1038.4	1153.0	1340.6	1493.4	1545.5
57.5°	944.7	1062.7	1257.2	1403.1	1451.7
60°	857.8	972.4	1163.5	1305.9	1361.4
62.5°	764.1	882.1	1069.7	1208.6	1260.7
65°	677.2	791.8	975.9	1111.4	1160.0
67.5°	590.4	705.0	878.7	1007.2	1062.7
70°	503.6	618.2	778.0	903.0	951.6
72.5°	427.2	527.9	680.7	795.3	840.5
75°	343.8	444.5	573.0	673.8	694.6
77.5°	267.4	357.7	465.4	510.5	517.5
80°	198.0	267.4	340.4	350.8	350.8
82.5°	132.0	184.1	211.9	215.3	211.9
85°	79.9	97.2	100.7	86.8	79.9
87.5°	27.8	27.8	17.4	10.4	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)