

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: P389428

Luminaire Tested: **22CZ2-80VHE-S-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: P389428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-S-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7173.0 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

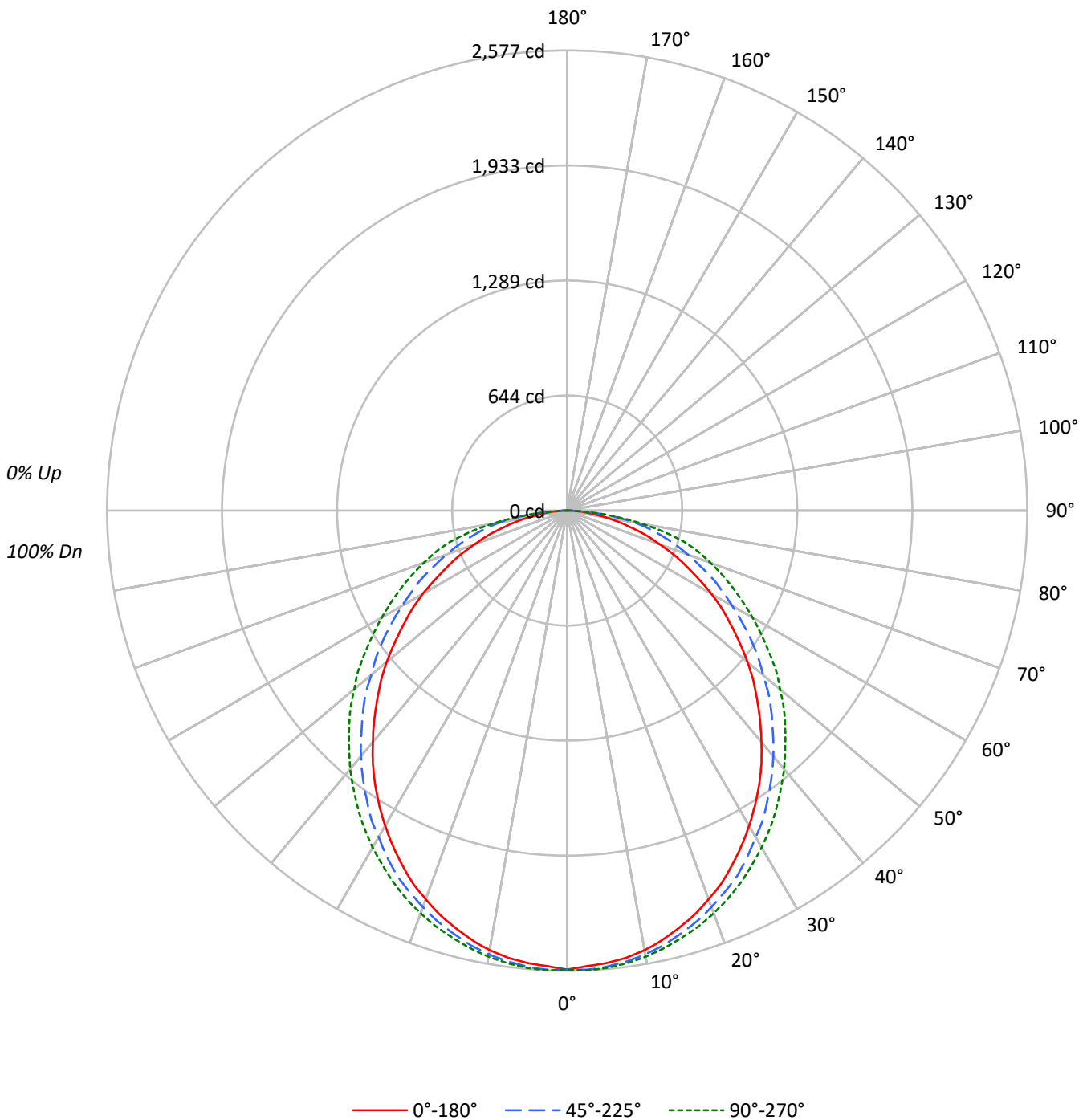
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	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	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6917	6917	6917
5°	6871	6925	6943
10°	6831	6895	6932
15°	6741	6834	6900
20°	6632	6766	6872
25°	6499	6698	6827
30°	6333	6562	6770
35°	6157	6443	6706
40°	5949	6313	6642
45°	5731	6164	6572
50°	5520	5997	6515
55°	5260	5888	6469
60°	5025	5746	6448
65°	4688	5711	6521
70°	4319	5662	6714
75°	3897	5741	7064
80°	3371	5912	6639
85°	2791	4959	4959



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.1	3.4
10°-20°	691.7	9.6
20°-30°	1035.0	14.4
30°-40°	1225.7	17.1
40°-50°	1249.1	17.4
50°-60°	1119.6	15.6
60°-70°	876.5	12.2
70°-80°	565.2	7.9
80°-90°	167.0	2.3
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°	1969.8	27.5
0°-40°	3195.5	44.5
0°-60°	5564.2	77.6
0°-90°	7173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2570	2570	2570	2570	2570	
5°	2544	2550	2564	2567	2570	241
15°	2420	2433	2453	2473	2477	682
25°	2189	2209	2256	2286	2299	1008
35°	1874	1898	1961	2021	2042	1171
45°	1506	1540	1620	1704	1727	1163
55°	1121	1158	1255	1342	1379	1005
65°	736	780	897	984	1024	731
75°	375	432	552	646	679	402
85°	90	124	161	161	161	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2570.3	2570.3	2570.3	2570.3	2570.3
2.5°	2553.6	2560.3	2573.7	2577.0	2577.0
5°	2543.5	2550.2	2563.6	2567.0	2570.3
7.5°	2526.8	2530.1	2546.9	2553.6	2556.9
10°	2500.0	2506.7	2523.5	2533.5	2536.8
12.5°	2463.2	2473.3	2493.3	2506.7	2510.1
15°	2419.7	2433.1	2453.2	2473.3	2476.6
17.5°	2372.9	2386.2	2413.0	2436.4	2443.1
20°	2316.0	2332.7	2362.8	2389.6	2399.6
22.5°	2259.1	2272.4	2309.3	2342.7	2352.8
25°	2188.8	2208.9	2255.7	2285.8	2299.2
27.5°	2115.2	2138.6	2185.4	2225.6	2239.0
30°	2038.2	2061.6	2111.8	2162.0	2178.7
32.5°	1957.9	1984.6	2044.9	2095.1	2111.8
35°	1874.2	1897.6	1961.2	2021.4	2041.5
37.5°	1787.2	1807.2	1880.9	1944.5	1964.5
40°	1693.5	1720.2	1797.2	1870.8	1890.9
42.5°	1599.7	1629.9	1706.8	1787.2	1807.2
45°	1506.0	1539.5	1619.8	1703.5	1726.9
47.5°	1415.7	1442.5	1532.8	1613.1	1646.6
50°	1318.6	1345.4	1432.4	1522.8	1556.2
52.5°	1218.2	1255.0	1348.7	1435.8	1475.9
55°	1121.2	1158.0	1255.0	1342.0	1378.9
57.5°	1030.8	1060.9	1161.3	1251.7	1288.5
60°	933.7	960.5	1067.6	1164.7	1198.1
62.5°	830.0	870.2	980.6	1071.0	1111.1
65°	736.3	779.8	896.9	983.9	1024.1
67.5°	649.3	689.4	803.2	896.9	940.4
70°	548.9	602.4	719.6	813.3	853.4
72.5°	468.5	515.4	635.9	729.6	773.1
75°	374.8	431.7	552.2	645.9	679.4
77.5°	297.9	354.8	468.5	542.2	558.9
80°	217.5	274.4	381.5	418.3	428.4
82.5°	147.3	200.8	274.4	284.5	287.8
85°	90.4	123.8	160.6	160.6	160.6
87.5°	43.5	50.2	56.9	53.5	53.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)