

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: P388541

Luminaire Tested: **22CZ2-90VHE-UNV-L940-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: P388541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

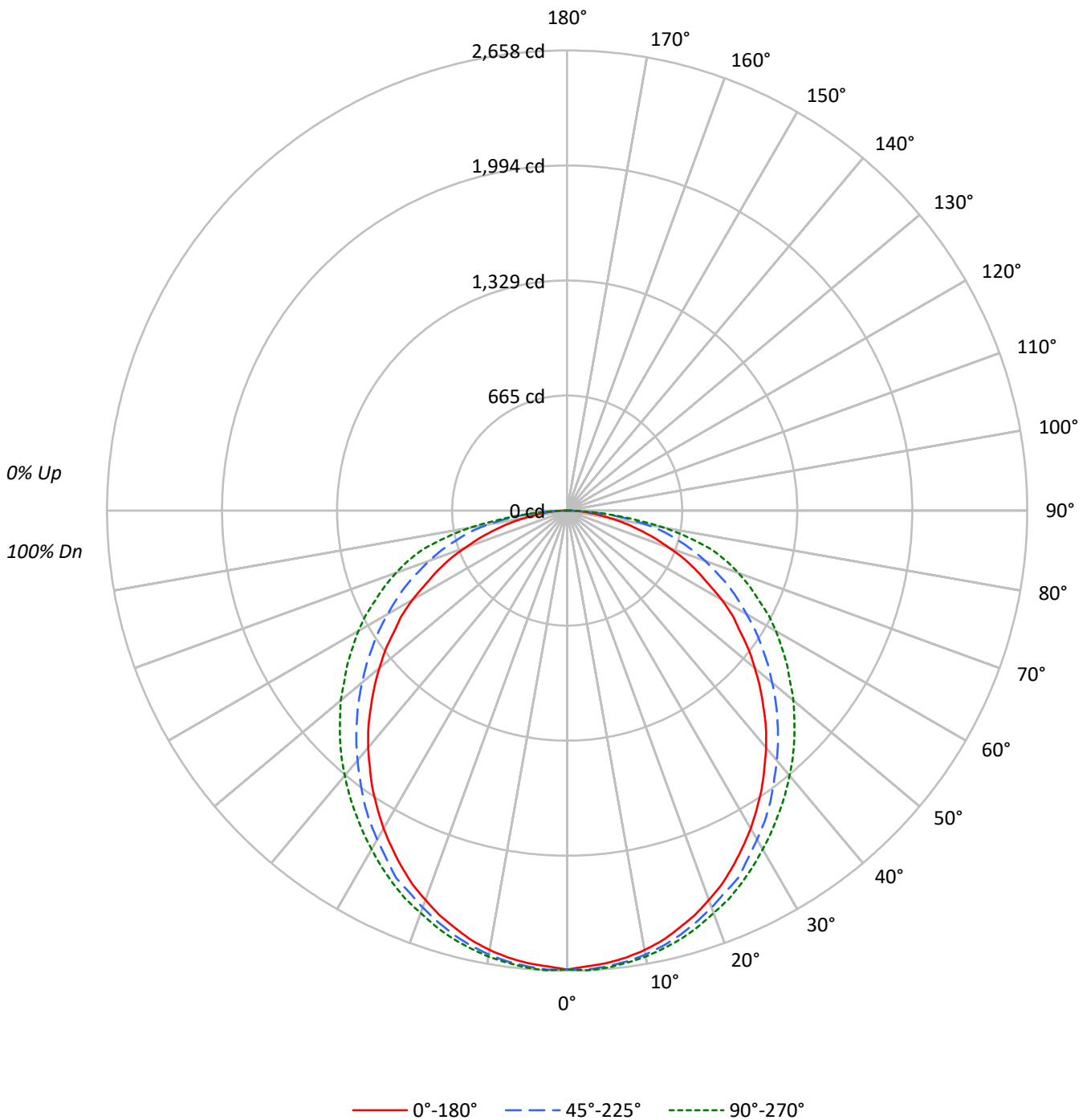
Lumens per Lamp: N/A
Luminaire Lumens: 7794.8 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7132	7132	7132
5°	7087	7139	7159
10°	7043	7116	7148
15°	6956	7063	7127
20°	6854	6986	7084
25°	6731	6947	7061
30°	6591	6817	7020
35°	6439	6728	7006
40°	6279	6616	7020
45°	6102	6539	7065
50°	5925	6471	7145
55°	5722	6442	7270
60°	5553	6441	7493
65°	5275	6545	7766
70°	4919	6670	8268
75°	4506	6900	8933
80°	3922	7192	8797
85°	3433	6394	6987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.7	3.2
10°-20°	713.9	9.2
20°-30°	1071.8	13.7
30°-40°	1280.7	16.4
40°-50°	1331.7	17.1
50°-60°	1234.3	15.8
60°-70°	1012.4	13.0
70°-80°	684.4	8.8
80°-90°	215.0	2.8
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°	2036.3	26.1
0°-40°	3317.0	42.6
0°-60°	5883.0	75.5
0°-90°	7794.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7794.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2650	2650	2650	2650	2650	
5°	2624	2627	2643	2646	2650	249
15°	2497	2508	2535	2551	2558	704
25°	2267	2286	2340	2366	2378	1044
35°	1960	1987	2048	2110	2133	1225
45°	1603	1634	1718	1818	1856	1238
55°	1220	1258	1373	1496	1550	1096
65°	828	874	1028	1162	1220	819
75°	433	506	664	798	859	460
85°	111	153	207	230	226	126
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2650.4	2650.4	2650.4	2650.4	2650.4
2.5°	2635.0	2642.7	2654.2	2658.0	2658.0
5°	2623.5	2627.4	2642.7	2646.5	2650.4
7.5°	2604.3	2612.0	2627.4	2631.2	2635.0
10°	2577.5	2585.2	2604.3	2612.0	2615.9
12.5°	2543.0	2550.7	2573.7	2585.2	2589.0
15°	2497.0	2508.5	2535.3	2550.7	2558.3
17.5°	2450.9	2462.4	2489.3	2512.3	2520.0
20°	2393.4	2420.2	2439.4	2470.1	2473.9
22.5°	2335.9	2351.2	2385.7	2416.4	2431.7
25°	2266.8	2286.0	2339.7	2366.5	2378.1
27.5°	2193.9	2220.8	2263.0	2305.2	2320.5
30°	2121.1	2140.2	2193.9	2243.8	2259.1
32.5°	2040.5	2067.4	2124.9	2174.8	2197.8
35°	1960.0	1986.8	2048.2	2109.6	2132.6
37.5°	1871.8	1902.4	1963.8	2036.7	2067.4
40°	1787.4	1810.4	1883.3	1971.5	1998.3
42.5°	1699.2	1726.0	1802.7	1898.6	1929.3
45°	1603.3	1634.0	1718.3	1818.1	1856.4
47.5°	1511.2	1541.9	1634.0	1733.7	1779.7
50°	1415.3	1453.7	1545.7	1660.8	1706.8
52.5°	1323.3	1357.8	1461.4	1580.3	1622.4
55°	1219.7	1258.1	1373.1	1495.9	1549.6
57.5°	1135.3	1162.2	1288.7	1415.3	1469.0
60°	1031.8	1066.3	1196.7	1330.9	1392.3
62.5°	920.5	978.1	1112.3	1250.4	1311.8
65°	828.5	874.5	1027.9	1162.2	1219.7
67.5°	732.6	782.5	932.0	1074.0	1139.2
70°	625.2	690.4	847.7	989.6	1050.9
72.5°	529.3	598.3	759.4	897.5	962.7
75°	433.4	506.3	663.6	797.8	859.2
77.5°	341.4	421.9	575.3	678.9	717.3
80°	253.1	329.9	464.1	537.0	567.7
82.5°	176.4	241.6	341.4	379.7	387.4
85°	111.2	153.4	207.1	230.1	226.3
87.5°	49.9	61.4	76.7	84.4	80.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)