

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: P390079

Luminaire Tested: **22CZ2-110VHE-HRP-UNV-L950-CD2-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: P390079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-HRP-UNV-L950-CD2-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8410.4 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

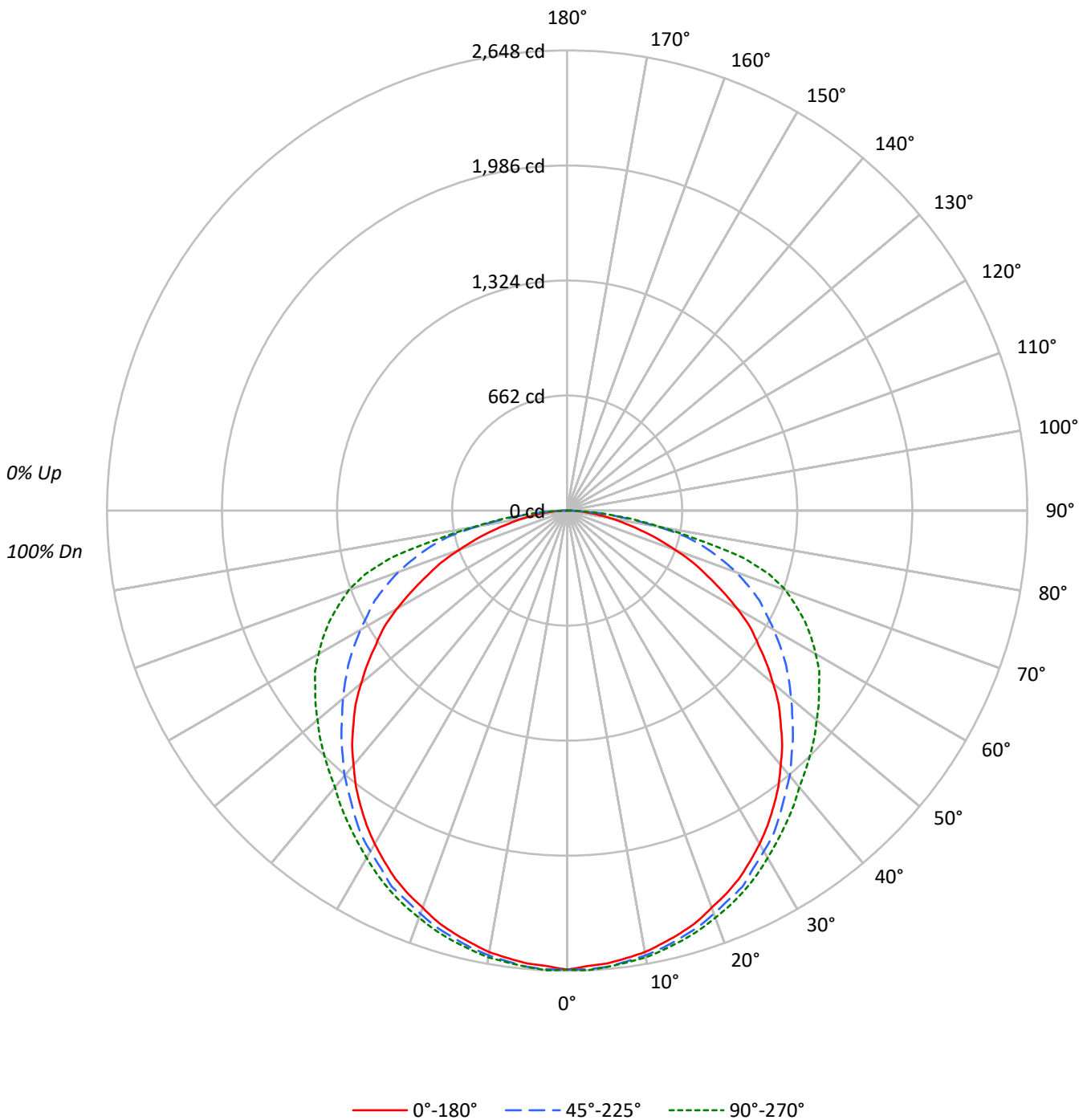
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7109	7109	7109
5°	7069	7120	7120
10°	7050	7100	7134
15°	7015	7084	7136
20°	6963	7069	7140
25°	6944	7091	7164
30°	6882	7036	7171
35°	6809	7012	7215
40°	6716	6998	7302
45°	6616	6993	7534
50°	6476	7045	7848
55°	6299	7199	8302
60°	6093	7392	8890
65°	5673	7761	9612
70°	5209	8129	10515
75°	4567	8556	10871
80°	3932	8150	8532
85°	3440	5922	6496



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.9	3.0
10°-20°	717.5	8.5
20°-30°	1094.7	13.0
30°-40°	1336.7	15.9
40°-50°	1429.2	17.0
50°-60°	1379.5	16.4
60°-70°	1187.5	14.1
70°-80°	803.4	9.6
80°-90°	212.0	2.5
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°	2062.1	24.5
0°-40°	3398.8	40.4
0°-60°	6207.5	73.8
0°-90°	8410.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8410.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2642	2642	2642	2642	2642	
5°	2617	2623	2636	2636	2636	249
15°	2518	2524	2543	2555	2561	710
25°	2339	2351	2388	2401	2413	1076
35°	2073	2091	2134	2178	2196	1297
45°	1738	1770	1838	1930	1980	1342
55°	1343	1386	1534	1689	1770	1203
65°	891	978	1219	1411	1510	886
75°	439	582	823	990	1046	471
85°	111	155	192	198	210	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2641.9	2641.9	2641.9	2641.9	2641.9
2.5°	2623.3	2629.5	2641.9	2641.9	2648.0
5°	2617.1	2623.3	2635.7	2635.7	2635.7
7.5°	2598.5	2604.7	2617.1	2623.3	2623.3
10°	2580.0	2586.2	2598.5	2604.7	2610.9
12.5°	2549.0	2555.2	2573.8	2586.2	2586.2
15°	2518.1	2524.3	2542.9	2555.2	2561.4
17.5°	2481.0	2493.4	2511.9	2524.3	2530.5
20°	2431.5	2443.9	2468.6	2487.2	2493.4
22.5°	2388.2	2400.6	2425.3	2443.9	2456.2
25°	2338.7	2351.1	2388.2	2400.6	2412.9
27.5°	2276.8	2289.2	2320.1	2344.9	2363.4
30°	2214.9	2227.3	2264.4	2295.4	2307.8
32.5°	2146.9	2165.5	2208.8	2233.5	2252.1
35°	2072.6	2091.2	2134.5	2177.8	2196.4
37.5°	1998.4	2017.0	2060.3	2116.0	2140.7
40°	1911.8	1936.5	1992.2	2066.5	2078.8
42.5°	1831.4	1862.3	1911.8	1998.4	2029.3
45°	1738.5	1769.5	1837.5	1930.3	1979.8
47.5°	1651.9	1682.9	1757.1	1868.5	1930.3
50°	1546.8	1590.1	1682.9	1812.8	1874.7
52.5°	1447.8	1484.9	1608.6	1750.9	1825.2
55°	1342.6	1385.9	1534.4	1689.1	1769.5
57.5°	1249.8	1286.9	1453.9	1627.2	1720.0
60°	1132.2	1181.7	1373.5	1559.1	1651.9
62.5°	1008.5	1082.7	1293.1	1484.9	1583.9
65°	890.9	977.5	1218.8	1410.6	1509.6
67.5°	785.8	878.6	1126.0	1330.2	1423.0
70°	662.0	779.6	1033.2	1231.2	1336.4
72.5°	550.6	680.6	928.1	1126.0	1218.8
75°	439.3	581.6	822.9	989.9	1045.6
77.5°	340.3	476.4	705.3	754.8	761.0
80°	253.7	377.4	525.9	532.1	550.6
82.5°	173.2	266.0	340.3	371.2	377.4
85°	111.4	154.7	191.8	198.0	210.4
87.5°	49.5	55.7	68.1	61.9	61.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)