

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: P390080

Luminaire Tested: **22CZ2-110VHE-HRP-UNV-L950-CD2-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: P390080
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-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: 8516.1 lumens
Efficiency: N/A
Efficacy: 97.1 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

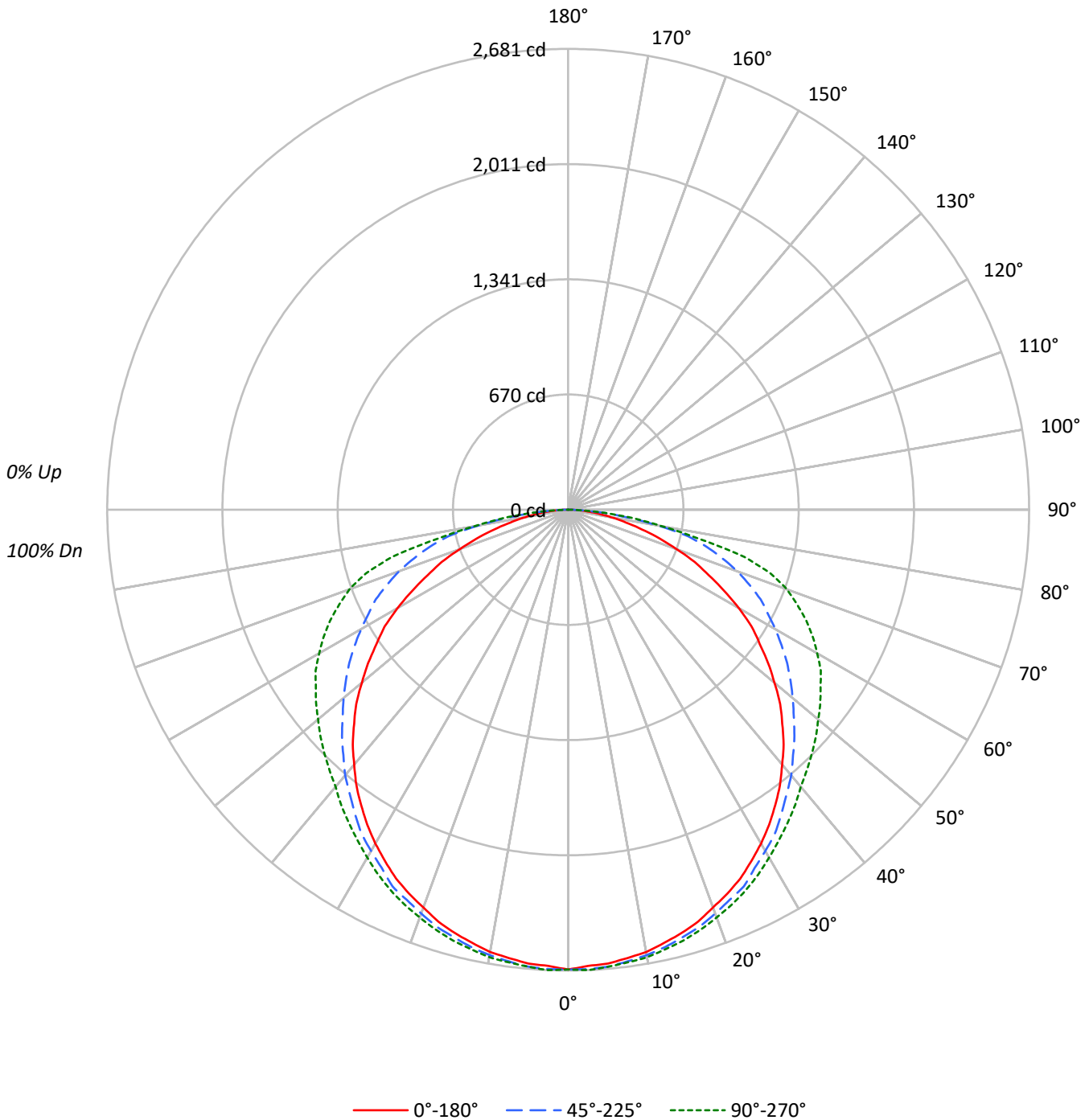
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7199	7199	7199
5°	7158	7209	7209
10°	7138	7190	7224
15°	7104	7173	7226
20°	7051	7158	7230
25°	7031	7180	7255
30°	6969	7125	7261
35°	6894	7100	7306
40°	6800	7086	7394
45°	6699	7081	7629
50°	6557	7134	7947
55°	6378	7289	8406
60°	6170	7485	9002
65°	5744	7859	9733
70°	5274	8231	10647
75°	4625	8663	11007
80°	3981	8252	8641
85°	3483	5996	6576



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.0	3.0
10°-20°	726.5	8.5
20°-30°	1108.5	13.0
30°-40°	1353.5	15.9
40°-50°	1447.2	17.0
50°-60°	1396.8	16.4
60°-70°	1202.4	14.1
70°-80°	813.6	9.6
80°-90°	214.7	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°	2088.0	24.5
0°-40°	3441.5	40.4
0°-60°	6285.5	73.8
0°-90°	8516.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8516.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2675	2675	2675	2675	2675	
5°	2650	2656	2669	2669	2669	252
15°	2550	2556	2575	2587	2594	719
25°	2368	2381	2418	2431	2443	1090
35°	2099	2118	2161	2205	2224	1313
45°	1760	1792	1861	1955	2005	1359
55°	1360	1403	1554	1710	1792	1218
65°	902	990	1234	1428	1529	897
75°	445	589	833	1002	1059	477
85°	113	157	194	200	213	127
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2675.1	2675.1	2675.1	2675.1	2675.1
2.5°	2656.3	2662.5	2675.1	2675.1	2681.3
5°	2650.0	2656.3	2668.8	2668.8	2668.8
7.5°	2631.2	2637.5	2650.0	2656.3	2656.3
10°	2612.4	2618.7	2631.2	2637.5	2643.7
12.5°	2581.1	2587.3	2606.1	2618.7	2618.7
15°	2549.8	2556.0	2574.8	2587.3	2593.6
17.5°	2512.2	2524.7	2543.5	2556.0	2562.3
20°	2462.1	2474.6	2499.6	2518.4	2524.7
22.5°	2418.2	2430.7	2455.8	2474.6	2487.1
25°	2368.1	2380.6	2418.2	2430.7	2443.3
27.5°	2305.4	2318.0	2349.3	2374.3	2393.1
30°	2242.8	2255.3	2292.9	2324.2	2336.8
32.5°	2173.9	2192.7	2236.5	2261.6	2280.4
35°	2098.7	2117.5	2161.3	2205.2	2224.0
37.5°	2023.5	2042.3	2086.2	2142.6	2167.6
40°	1935.8	1960.9	2017.3	2092.4	2105.0
42.5°	1854.4	1885.7	1935.8	2023.5	2054.8
45°	1760.4	1791.7	1860.6	1954.6	2004.7
47.5°	1672.7	1704.0	1779.2	1892.0	1954.6
50°	1566.2	1610.0	1704.0	1835.6	1898.2
52.5°	1466.0	1503.5	1628.8	1772.9	1848.1
55°	1359.5	1403.3	1553.7	1710.3	1791.7
57.5°	1265.5	1303.1	1472.2	1647.6	1741.6
60°	1146.5	1196.6	1390.8	1578.7	1672.7
62.5°	1021.2	1096.3	1309.3	1503.5	1603.8
65°	902.1	989.8	1234.2	1428.4	1528.6
67.5°	795.6	889.6	1140.2	1346.9	1440.9
70°	670.3	789.4	1046.2	1246.7	1353.2
72.5°	557.6	689.1	939.7	1140.2	1234.2
75°	444.8	588.9	833.2	1002.4	1058.7
77.5°	344.6	482.4	714.2	764.3	770.6
80°	256.9	382.2	532.5	538.8	557.6
82.5°	175.4	269.4	344.6	375.9	382.2
85°	112.8	156.6	194.2	200.5	213.0
87.5°	50.1	56.4	68.9	62.6	62.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)