

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: P390073

Luminaire Tested: **22CZ2-110VHE-HRP-UNV-L935-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: P390073
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-L935-CD2-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7842.5 lumens
Efficiency: N/A
Efficacy: 89.4 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

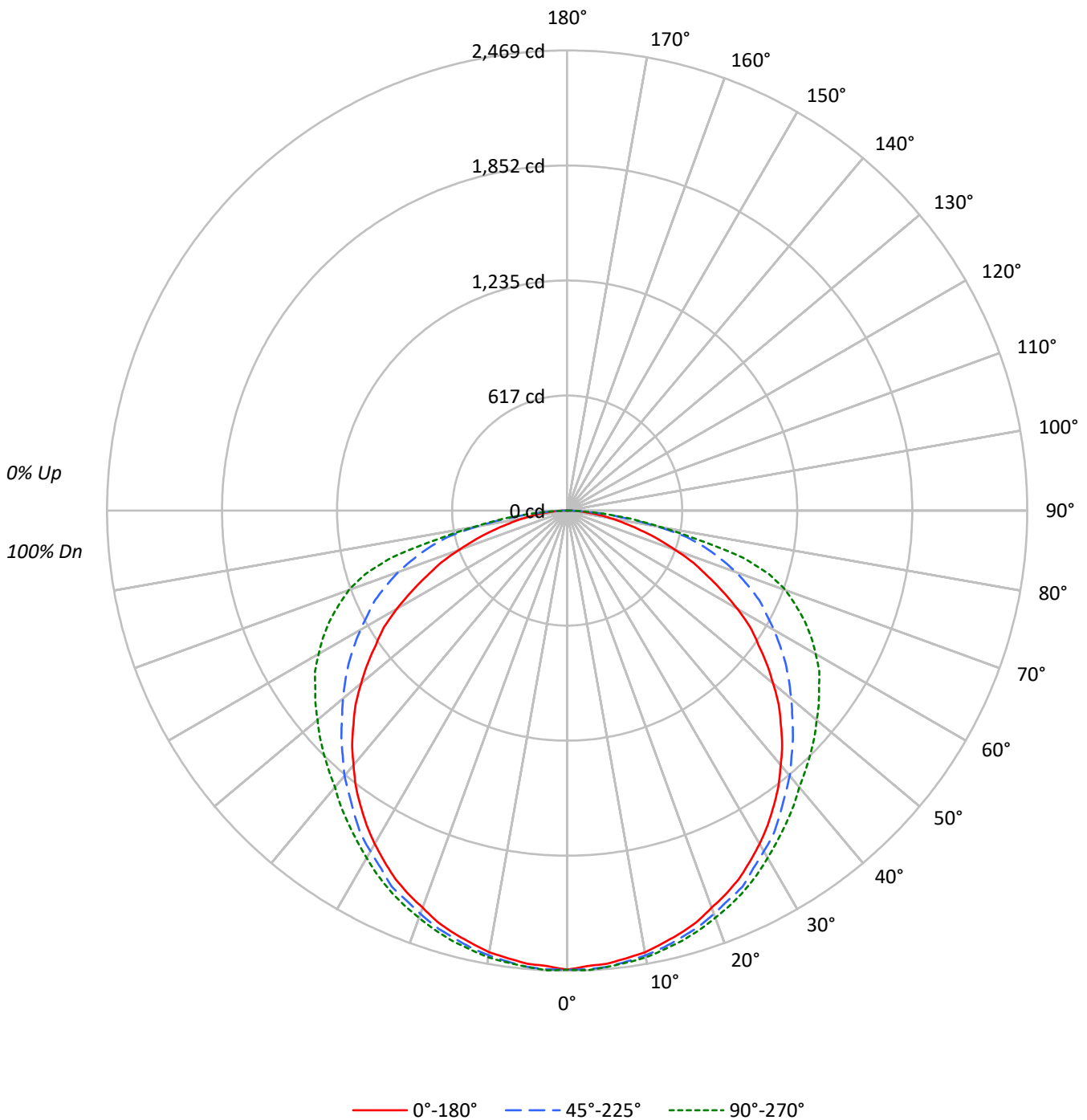
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6629	6629	6629
5°	6592	6639	6639
10°	6574	6621	6653
15°	6542	6606	6654
20°	6493	6592	6658
25°	6475	6612	6681
30°	6418	6561	6687
35°	6349	6539	6728
40°	6262	6526	6810
45°	6170	6521	7026
50°	6038	6569	7318
55°	5873	6713	7741
60°	5682	6893	8290
65°	5290	7237	8963
70°	4857	7581	9805
75°	4259	7978	10137
80°	3665	7600	7958
85°	3205	5521	6058



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.0	3.0
10°-20°	669.1	8.5
20°-30°	1020.8	13.0
30°-40°	1246.4	15.9
40°-50°	1332.7	17.0
50°-60°	1286.3	16.4
60°-70°	1107.3	14.1
70°-80°	749.2	9.6
80°-90°	197.7	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°	1922.9	24.5
0°-40°	3169.3	40.4
0°-60°	5788.3	73.8
0°-90°	7842.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7842.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2464	2464	2464	2464	2464	
5°	2440	2446	2458	2458	2458	232
15°	2348	2354	2371	2383	2388	662
25°	2181	2192	2227	2238	2250	1004
35°	1933	1950	1990	2031	2048	1209
45°	1621	1650	1714	1800	1846	1251
55°	1252	1292	1431	1575	1650	1122
65°	831	912	1136	1315	1408	826
75°	410	542	767	923	975	439
85°	104	144	179	185	196	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2463.5	2463.5	2463.5	2463.5	2463.5
2.5°	2446.2	2451.9	2463.5	2463.5	2469.2
5°	2440.4	2446.2	2457.7	2457.7	2457.7
7.5°	2423.1	2428.9	2440.4	2446.2	2446.2
10°	2405.8	2411.5	2423.1	2428.9	2434.6
12.5°	2376.9	2382.7	2400.0	2411.5	2411.5
15°	2348.1	2353.9	2371.2	2382.7	2388.5
17.5°	2313.5	2325.0	2342.3	2353.9	2359.6
20°	2267.3	2278.9	2301.9	2319.2	2325.0
22.5°	2226.9	2238.5	2261.5	2278.9	2290.4
25°	2180.8	2192.3	2226.9	2238.5	2250.0
27.5°	2123.1	2134.6	2163.5	2186.5	2203.8
30°	2065.4	2076.9	2111.5	2140.4	2151.9
32.5°	2001.9	2019.2	2059.6	2082.7	2100.0
35°	1932.7	1950.0	1990.4	2030.8	2048.1
37.5°	1863.5	1880.8	1921.2	1973.1	1996.2
40°	1782.7	1805.8	1857.7	1926.9	1938.5
42.5°	1707.7	1736.5	1782.7	1863.5	1892.3
45°	1621.2	1650.0	1713.5	1800.0	1846.2
47.5°	1540.4	1569.2	1638.5	1742.3	1800.0
50°	1442.3	1482.7	1569.2	1690.4	1748.1
52.5°	1350.0	1384.6	1500.0	1632.7	1701.9
55°	1251.9	1292.3	1430.8	1575.0	1650.0
57.5°	1165.4	1200.0	1355.8	1517.3	1603.8
60°	1055.8	1101.9	1280.8	1453.8	1540.4
62.5°	940.4	1009.6	1205.8	1384.6	1476.9
65°	830.8	911.5	1136.5	1315.4	1407.7
67.5°	732.7	819.2	1050.0	1240.4	1326.9
70°	617.3	726.9	963.5	1148.1	1246.2
72.5°	513.5	634.6	865.4	1050.0	1136.5
75°	409.6	542.3	767.3	923.1	975.0
77.5°	317.3	444.2	657.7	703.8	709.6
80°	236.5	351.9	490.4	496.2	513.5
82.5°	161.5	248.1	317.3	346.2	351.9
85°	103.8	144.2	178.8	184.6	196.2
87.5°	46.2	51.9	63.5	57.7	57.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)