

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: P390075

Luminaire Tested: **22CZ2-110VHE-HRP-UNV-L940-CD2-SDWPD1-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: P390075
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-L940-CD2-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7828.1 lumens
Efficiency: N/A
Efficacy: 89.3 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

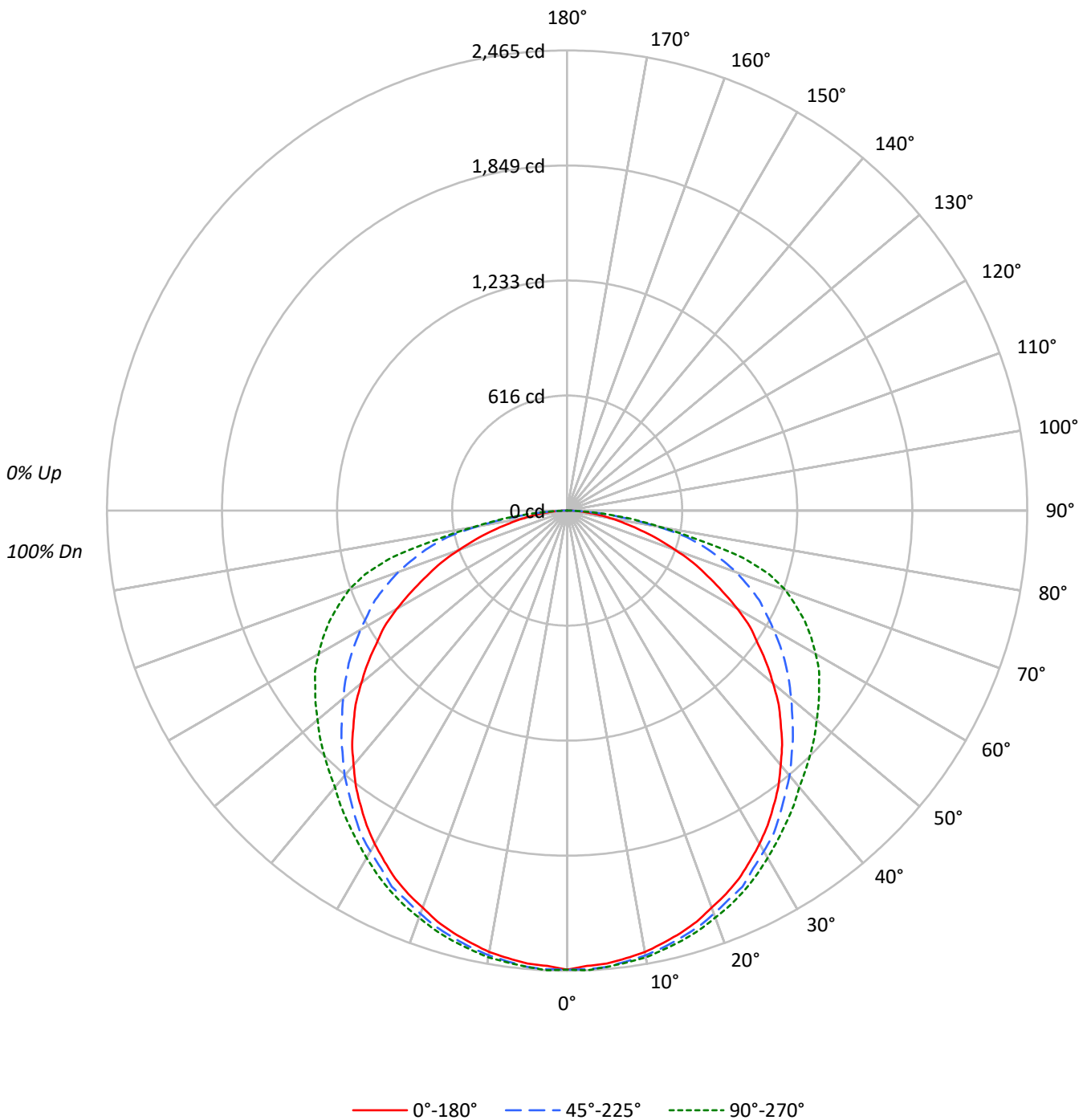
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6617	6617	6617
5°	6580	6627	6627
10°	6562	6609	6640
15°	6530	6594	6642
20°	6481	6580	6646
25°	6463	6600	6668
30°	6406	6549	6674
35°	6337	6526	6716
40°	6251	6514	6797
45°	6158	6509	7013
50°	6027	6558	7305
55°	5863	6700	7727
60°	5672	6880	8275
65°	5280	7224	8947
70°	4848	7567	9787
75°	4251	7963	10119
80°	3659	7586	7942
85°	3202	5511	6045



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.6	3.0
10°-20°	667.8	8.5
20°-30°	1018.9	13.0
30°-40°	1244.1	15.9
40°-50°	1330.3	17.0
50°-60°	1284.0	16.4
60°-70°	1105.3	14.1
70°-80°	747.8	9.6
80°-90°	197.3	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°	1919.4	24.5
0°-40°	3163.5	40.4
0°-60°	5777.7	73.8
0°-90°	7828.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7828.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2459	2459	2459	2459	2459	
5°	2436	2442	2453	2453	2453	231
15°	2344	2350	2367	2378	2384	661
25°	2177	2188	2223	2234	2246	1002
35°	1929	1946	1987	2027	2044	1207
45°	1618	1647	1710	1797	1843	1249
55°	1250	1290	1428	1572	1647	1120
65°	829	910	1134	1313	1405	825
75°	409	541	766	921	973	439
85°	104	144	178	184	196	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2458.9	2458.9	2458.9	2458.9	2458.9
2.5°	2441.7	2447.4	2458.9	2458.9	2464.7
5°	2435.9	2441.7	2453.2	2453.2	2453.2
7.5°	2418.6	2424.4	2435.9	2441.7	2441.7
10°	2401.4	2407.1	2418.6	2424.4	2430.1
12.5°	2372.6	2378.3	2395.6	2407.1	2407.1
15°	2343.8	2349.5	2366.8	2378.3	2384.1
17.5°	2309.2	2320.7	2338.0	2349.5	2355.3
20°	2263.1	2274.7	2297.7	2315.0	2320.7
22.5°	2222.8	2234.4	2257.4	2274.7	2286.2
25°	2176.8	2188.3	2222.8	2234.4	2245.9
27.5°	2119.2	2130.7	2159.5	2182.5	2199.8
30°	2061.6	2073.1	2107.7	2136.5	2148.0
32.5°	1998.3	2015.5	2055.8	2078.9	2096.1
35°	1929.1	1946.4	1986.7	2027.0	2044.3
37.5°	1860.0	1877.3	1917.6	1969.5	1992.5
40°	1779.4	1802.5	1854.3	1923.4	1934.9
42.5°	1704.6	1733.4	1779.4	1860.0	1888.8
45°	1618.2	1647.0	1710.3	1796.7	1842.8
47.5°	1537.6	1566.4	1635.5	1739.1	1796.7
50°	1439.7	1480.0	1566.4	1687.3	1744.9
52.5°	1347.5	1382.1	1497.2	1629.7	1698.8
55°	1249.6	1289.9	1428.1	1572.1	1647.0
57.5°	1163.2	1197.8	1353.3	1514.5	1600.9
60°	1053.8	1099.9	1278.4	1451.2	1537.6
62.5°	938.7	1007.8	1203.6	1382.1	1474.2
65°	829.2	909.9	1134.5	1313.0	1405.1
67.5°	731.3	817.7	1048.1	1238.1	1324.5
70°	616.2	725.6	961.7	1146.0	1243.9
72.5°	512.5	633.5	863.8	1048.1	1134.5
75°	408.9	541.3	765.9	921.4	973.2
77.5°	316.7	443.4	656.5	702.6	708.3
80°	236.1	351.3	489.5	495.2	512.5
82.5°	161.2	247.6	316.7	345.5	351.3
85°	103.7	144.0	178.5	184.3	195.8
87.5°	46.1	51.8	63.3	57.6	57.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)