

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: P388182

Luminaire Tested: **22CZ2-110VHE-UNV-L950-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: P388182
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: 22CZ2-110VHE-UNV-L950-CD2-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9788.7 lumens
Efficiency: N/A
Efficacy: 111.6 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

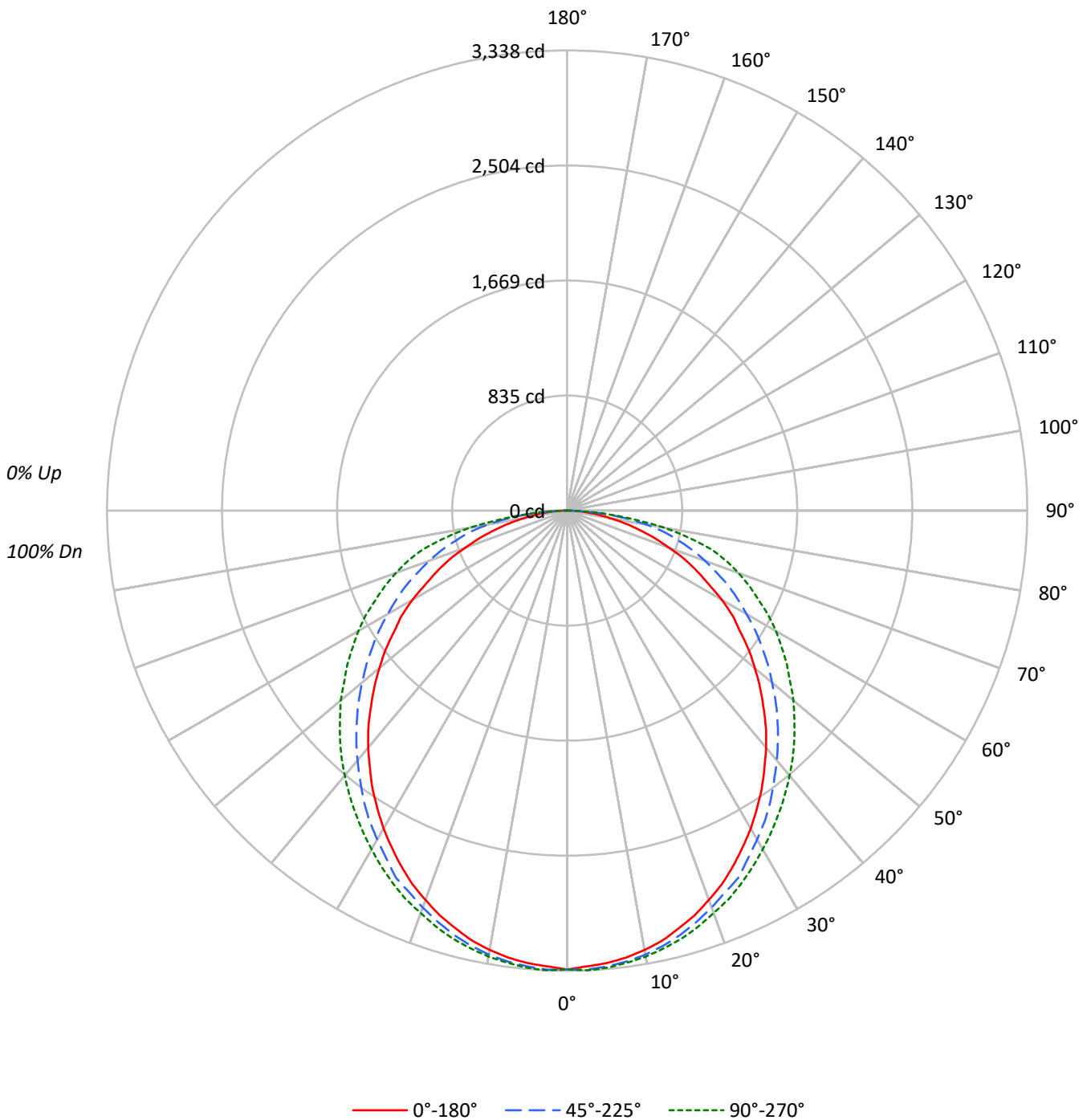
Input Watts (W): 87.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82					82			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68					68			
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48					48			
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41					41			
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36					36			
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32					32			
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28					28			
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25					25			
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8956	8956	8956
5°	8900	8965	8991
10°	8845	8937	8976
15°	8736	8870	8950
20°	8607	8773	8897
25°	8452	8724	8867
30°	8277	8561	8815
35°	8086	8450	8798
40°	7885	8308	8815
45°	7662	8212	8872
50°	7441	8126	8973
55°	7186	8090	9129
60°	6973	8088	9410
65°	6625	8220	9753
70°	6177	8375	10384
75°	5659	8664	11217
80°	4926	9031	11048
85°	4313	8031	8775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.8	3.2
10°-20°	896.6	9.2
20°-30°	1345.9	13.7
30°-40°	1608.2	16.4
40°-50°	1672.3	17.1
50°-60°	1550.0	15.8
60°-70°	1271.4	13.0
70°-80°	859.4	8.8
80°-90°	270.1	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°	2557.2	26.1
0°-40°	4165.5	42.6
0°-60°	7387.8	75.5
0°-90°	9788.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9788.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3328	3328	3328	3328	3328	
5°	3295	3299	3319	3324	3328	313
15°	3136	3150	3184	3203	3213	885
25°	2847	2871	2938	2972	2986	1311
35°	2461	2495	2572	2649	2678	1538
45°	2013	2052	2158	2283	2331	1555
55°	1532	1580	1724	1878	1946	1377
65°	1040	1098	1291	1460	1532	1028
75°	544	636	833	1002	1079	577
85°	140	193	260	289	284	159
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3328.3	3328.3	3328.3	3328.3	3328.3
2.5°	3309.1	3318.7	3333.2	3338.0	3338.0
5°	3294.6	3299.4	3318.7	3323.5	3328.3
7.5°	3270.5	3280.2	3299.4	3304.3	3309.1
10°	3236.8	3246.5	3270.5	3280.2	3285.0
12.5°	3193.5	3203.1	3232.0	3246.5	3251.3
15°	3135.7	3150.1	3183.8	3203.1	3212.7
17.5°	3077.9	3092.3	3126.0	3154.9	3164.6
20°	3005.6	3039.3	3063.4	3102.0	3106.8
22.5°	2933.4	2952.6	2996.0	3034.5	3053.8
25°	2846.7	2870.8	2938.2	2971.9	2986.4
27.5°	2755.2	2788.9	2841.9	2894.8	2914.1
30°	2663.6	2687.7	2755.2	2817.8	2837.0
32.5°	2562.5	2596.2	2668.5	2731.1	2760.0
35°	2461.3	2495.0	2572.1	2649.2	2678.1
37.5°	2350.5	2389.1	2466.1	2557.7	2596.2
40°	2244.6	2273.5	2365.0	2475.8	2509.5
42.5°	2133.8	2167.5	2263.8	2384.3	2422.8
45°	2013.4	2051.9	2157.9	2283.1	2331.3
47.5°	1897.8	1936.3	2051.9	2177.1	2234.9
50°	1777.4	1825.5	1941.1	2085.6	2143.4
52.5°	1661.8	1705.1	1835.2	1984.5	2037.5
55°	1531.7	1579.9	1724.4	1878.5	1945.9
57.5°	1425.7	1459.5	1618.4	1777.4	1844.8
60°	1295.7	1339.0	1502.8	1671.4	1748.5
62.5°	1156.0	1228.3	1396.8	1570.2	1647.3
65°	1040.4	1098.2	1290.9	1459.5	1531.7
67.5°	920.0	982.6	1170.5	1348.7	1430.6
70°	785.1	867.0	1064.5	1242.7	1319.8
72.5°	664.7	751.4	953.7	1127.1	1209.0
75°	544.3	635.8	833.3	1001.9	1078.9
77.5°	428.7	529.8	722.5	852.6	900.7
80°	317.9	414.2	582.8	674.3	712.9
82.5°	221.6	303.5	428.7	476.9	486.5
85°	139.7	192.7	260.1	289.0	284.2
87.5°	62.6	77.1	96.3	106.0	101.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)