

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: P389120

Luminaire Tested: **22CZ2-110VHE-S-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: P389120
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-S-UNV-L950-CD2-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

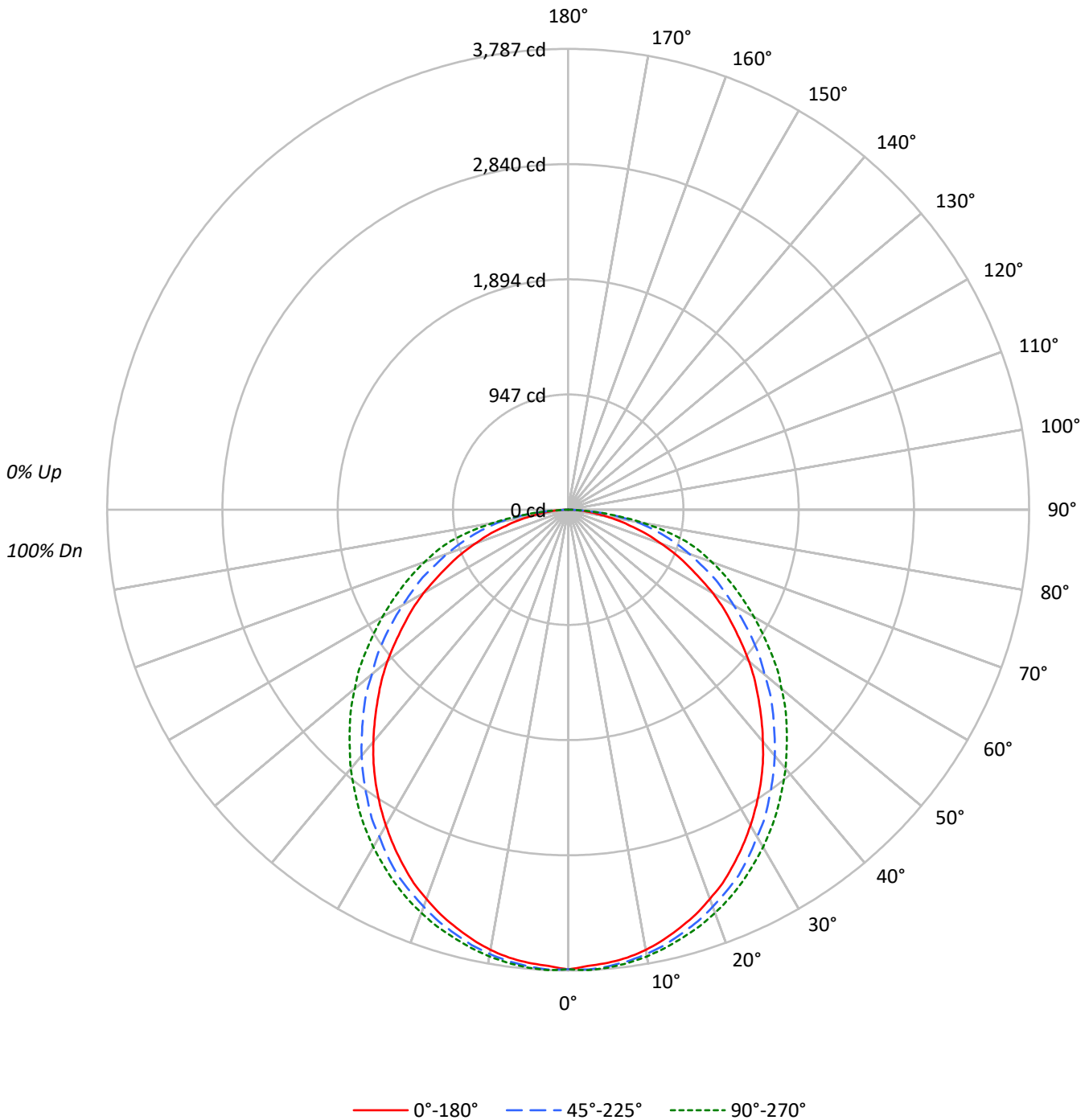
Lumens per Lamp: N/A
Luminaire Lumens: 10541.7 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10165	10165	10165
5°	10098	10177	10204
10°	10039	10134	10187
15°	9907	10044	10140
20°	9747	9944	10099
25°	9551	9843	10033
30°	9308	9644	9949
35°	9048	9468	9856
40°	8743	9278	9762
45°	8423	9060	9659
50°	8113	8813	9575
55°	7730	8653	9507
60°	7386	8444	9477
65°	6890	8394	9584
70°	6346	8320	9868
75°	5728	8438	10382
80°	4954	8689	9757
85°	4100	7290	7290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.2	3.4
10°-20°	1016.6	9.6
20°-30°	1521.1	14.4
30°-40°	1801.4	17.1
40°-50°	1835.8	17.4
50°-60°	1645.4	15.6
60°-70°	1288.2	12.2
70°-80°	830.7	7.9
80°-90°	245.4	2.3
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°	2894.9	27.5
0°-40°	4696.3	44.5
0°-60°	8177.4	77.6
0°-90°	10541.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10541.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3777	3777	3777	3777	3777	
5°	3738	3748	3768	3772	3777	355
15°	3556	3576	3605	3635	3640	1003
25°	3217	3246	3315	3359	3379	1481
35°	2754	2789	2882	2971	3000	1721
45°	2213	2262	2381	2504	2538	1709
55°	1648	1702	1844	1972	2026	1477
65°	1082	1146	1318	1446	1505	1075
75°	551	634	812	949	998	591
85°	133	182	236	236	236	156
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3777.4	3777.4	3777.4	3777.4	3777.4
2.5°	3752.8	3762.7	3782.3	3787.3	3787.3
5°	3738.1	3747.9	3767.6	3772.5	3777.4
7.5°	3713.5	3718.4	3743.0	3752.8	3757.7
10°	3674.1	3684.0	3708.6	3723.3	3728.2
12.5°	3620.0	3634.8	3664.3	3684.0	3688.9
15°	3556.1	3575.8	3605.3	3634.8	3639.7
17.5°	3487.2	3506.9	3546.2	3580.7	3590.5
20°	3403.6	3428.2	3472.5	3511.8	3526.6
22.5°	3320.0	3339.7	3393.8	3443.0	3457.7
25°	3216.7	3246.2	3315.1	3359.3	3379.0
27.5°	3108.5	3142.9	3211.8	3270.8	3290.5
30°	2995.4	3029.8	3103.6	3177.4	3202.0
32.5°	2877.3	2916.7	3005.2	3079.0	3103.6
35°	2754.4	2788.8	2882.2	2970.8	3000.3
37.5°	2626.5	2656.0	2764.2	2857.7	2887.2
40°	2488.8	2528.1	2641.2	2749.5	2779.0
42.5°	2351.1	2395.3	2508.4	2626.5	2656.0
45°	2213.3	2262.5	2380.6	2503.5	2538.0
47.5°	2080.5	2119.9	2252.7	2370.7	2419.9
50°	1937.9	1977.2	2105.1	2237.9	2287.1
52.5°	1790.3	1844.4	1982.2	2110.0	2169.1
55°	1647.7	1701.8	1844.4	1972.3	2026.4
57.5°	1514.9	1559.2	1706.7	1839.5	1893.6
60°	1372.3	1411.6	1569.0	1711.6	1760.8
62.5°	1219.8	1278.8	1441.1	1573.9	1632.9
65°	1082.1	1146.0	1318.2	1446.0	1505.1
67.5°	954.2	1013.2	1180.4	1318.2	1382.1
70°	806.6	885.3	1057.5	1195.2	1254.2
72.5°	688.6	757.5	934.5	1072.2	1136.2
75°	550.9	634.5	811.6	949.3	998.5
77.5°	437.7	521.4	688.6	796.8	821.4
80°	319.7	403.3	560.7	614.8	629.6
82.5°	216.4	295.1	403.3	418.1	423.0
85°	132.8	182.0	236.1	236.1	236.1
87.5°	63.9	73.8	83.6	78.7	78.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)