

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: P388184

Luminaire Tested: **22CZ2-110VHE-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: P388184
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-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

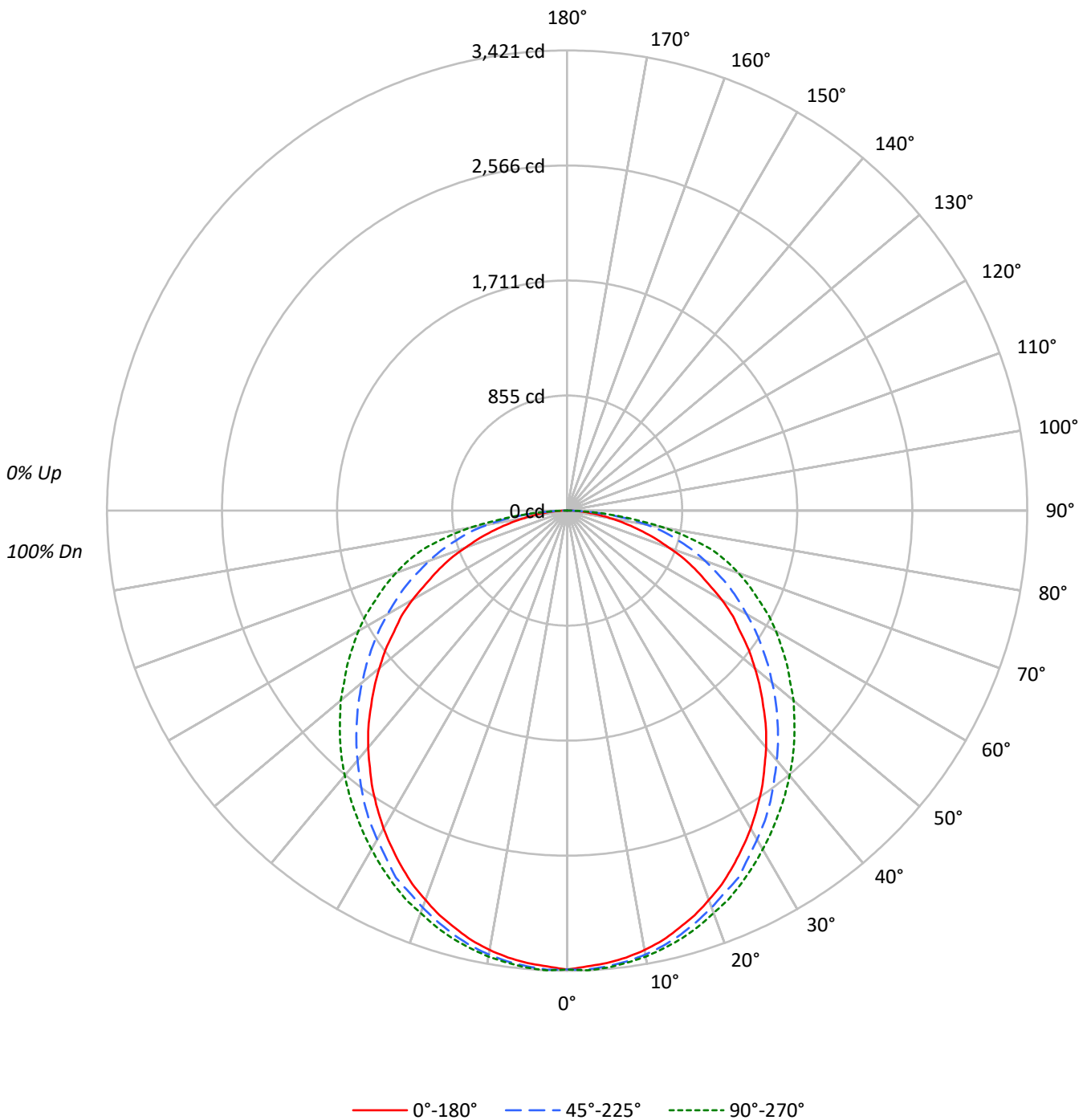
Lumens per Lamp: N/A
Luminaire Lumens: 10032.7 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9180	9180	9180
5°	9121	9188	9215
10°	9065	9160	9200
15°	8953	9091	9173
20°	8822	8991	9119
25°	8663	8941	9088
30°	8483	8774	9035
35°	8287	8660	9017
40°	8081	8515	9035
45°	7853	8417	9093
50°	7626	8329	9197
55°	7365	8292	9357
60°	7147	8290	9644
65°	6790	8425	9996
70°	6331	8584	10643
75°	5801	8880	11497
80°	5049	9256	11322
85°	4421	8231	8994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.6	3.2
10°-20°	918.9	9.2
20°-30°	1379.5	13.7
30°-40°	1648.3	16.4
40°-50°	1714.0	17.1
50°-60°	1588.6	15.8
60°-70°	1303.1	13.0
70°-80°	880.9	8.8
80°-90°	276.8	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°	2621.0	26.1
0°-40°	4269.3	42.6
0°-60°	7572.0	75.5
0°-90°	10032.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10032.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3411	3411	3411	3411	3411	
5°	3377	3382	3401	3406	3411	320
15°	3214	3229	3263	3283	3293	907
25°	2918	2942	3011	3046	3061	1344
35°	2523	2557	2636	2715	2745	1577
45°	2064	2103	2212	2340	2389	1594
55°	1570	1619	1767	1925	1994	1411
65°	1066	1126	1323	1496	1570	1054
75°	558	652	854	1027	1106	592
85°	143	198	267	296	291	163
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3411.3	3411.3	3411.3	3411.3	3411.3
2.5°	3391.6	3401.4	3416.2	3421.2	3421.2
5°	3376.7	3381.7	3401.4	3406.4	3411.3
7.5°	3352.1	3361.9	3381.7	3386.6	3391.6
10°	3317.5	3327.4	3352.1	3361.9	3366.9
12.5°	3273.1	3282.9	3312.6	3327.4	3332.3
15°	3213.8	3228.6	3263.2	3282.9	3292.8
17.5°	3154.6	3169.4	3204.0	3233.6	3243.5
20°	3080.5	3115.1	3139.8	3179.3	3184.2
22.5°	3006.5	3026.2	3070.7	3110.2	3129.9
25°	2917.6	2942.3	3011.4	3046.0	3060.8
27.5°	2823.8	2858.4	2912.7	2967.0	2986.7
30°	2730.0	2754.7	2823.8	2888.0	2907.8
32.5°	2626.4	2660.9	2735.0	2799.1	2828.8
35°	2522.7	2557.2	2636.2	2715.2	2744.8
37.5°	2409.1	2448.6	2527.6	2621.4	2660.9
40°	2300.5	2330.2	2424.0	2537.5	2572.1
42.5°	2187.0	2221.5	2320.3	2443.7	2483.2
45°	2063.6	2103.1	2211.7	2340.0	2389.4
47.5°	1945.1	1984.6	2103.1	2231.4	2290.7
50°	1821.7	1871.0	1989.5	2137.6	2196.9
52.5°	1703.2	1747.6	1880.9	2033.9	2088.3
55°	1569.9	1619.3	1767.4	1925.3	1994.5
57.5°	1461.3	1495.8	1658.8	1821.7	1890.8
60°	1328.0	1372.4	1540.3	1713.1	1792.0
62.5°	1184.8	1258.9	1431.7	1609.4	1688.4
65°	1066.3	1125.6	1323.1	1495.8	1569.9
67.5°	942.9	1007.1	1199.6	1382.3	1466.2
70°	804.7	888.6	1091.0	1273.7	1352.7
72.5°	681.3	770.1	977.5	1155.2	1239.1
75°	557.9	651.7	854.1	1026.8	1105.8
77.5°	439.4	543.0	740.5	873.8	923.2
80°	325.8	424.6	597.3	691.1	730.6
82.5°	227.1	311.0	439.4	488.7	498.6
85°	143.2	197.5	266.6	296.2	291.3
87.5°	64.2	79.0	98.7	108.6	103.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)