

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: P388544

Luminaire Tested: **22CZ2-90VHE-UNV-L950-CD1-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: P388544
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: 22CZ2-90VHE-UNV-L950-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

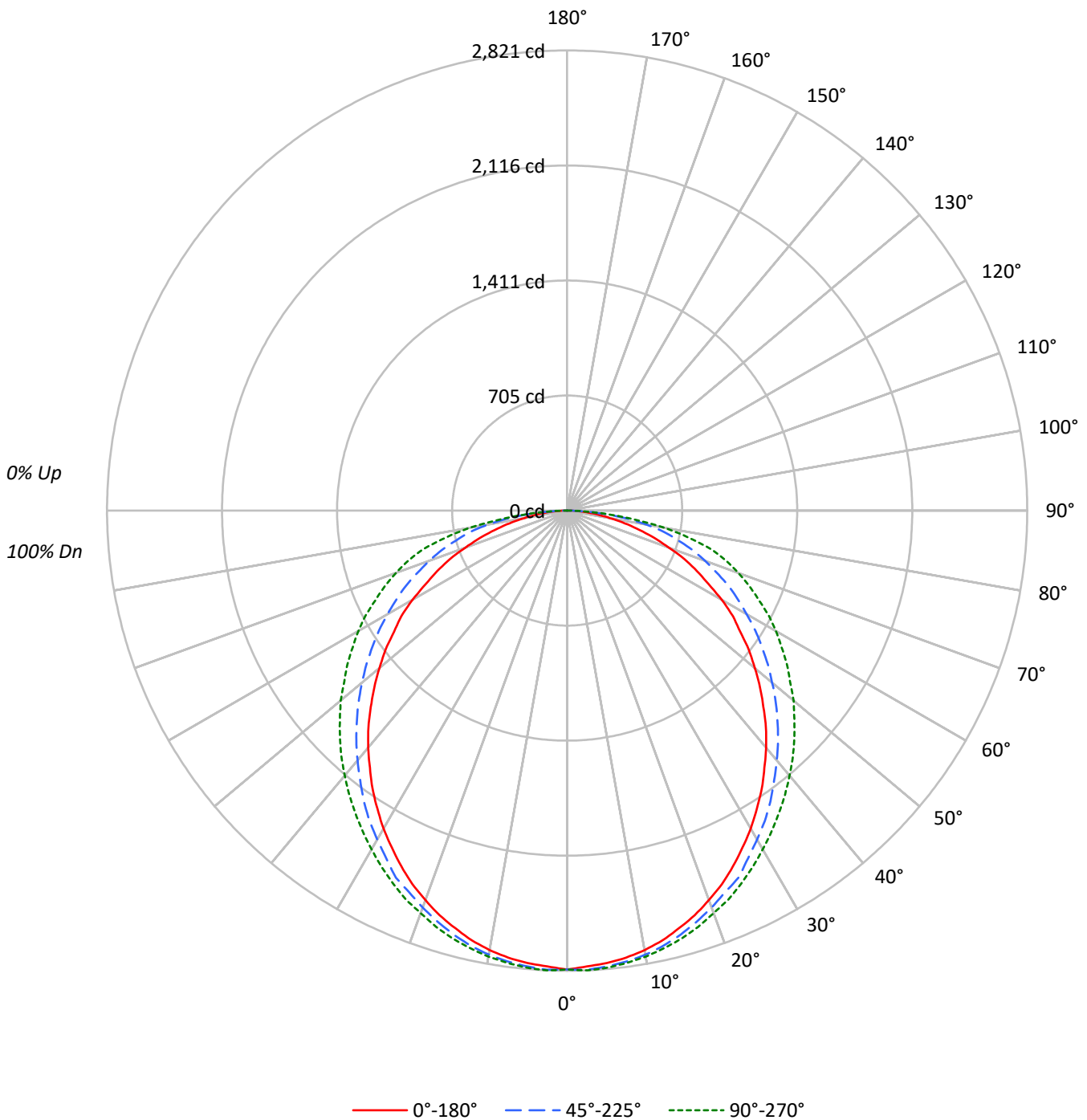
Lumens per Lamp: N/A
Luminaire Lumens: 8273.7 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 68.2
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°	7570	7570	7570
5°	7522	7577	7599
10°	7476	7554	7587
15°	7384	7497	7565
20°	7275	7415	7520
25°	7144	7374	7495
30°	6996	7236	7451
35°	6834	7142	7436
40°	6665	7022	7451
45°	6476	6941	7499
50°	6289	6869	7585
55°	6074	6838	7717
60°	5894	6836	7954
65°	5599	6947	8243
70°	5221	7079	8777
75°	4783	7323	9482
80°	4164	7634	9337
85°	3646	6786	7416



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.1	3.2
10°-20°	757.8	9.2
20°-30°	1137.6	13.7
30°-40°	1359.3	16.4
40°-50°	1413.5	17.1
50°-60°	1310.1	15.8
60°-70°	1074.6	13.0
70°-80°	726.4	8.8
80°-90°	228.3	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°	2161.5	26.1
0°-40°	3520.8	42.6
0°-60°	6244.4	75.5
0°-90°	8273.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8273.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2813	2813	2813	2813	2813	
5°	2785	2789	2805	2809	2813	264
15°	2650	2663	2691	2707	2716	748
25°	2406	2426	2483	2512	2524	1108
35°	2080	2109	2174	2239	2264	1300
45°	1702	1734	1824	1930	1970	1314
55°	1295	1335	1458	1588	1645	1164
65°	879	928	1091	1234	1295	869
75°	460	537	704	847	912	488
85°	118	163	220	244	240	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2813.2	2813.2	2813.2	2813.2	2813.2
2.5°	2796.9	2805.1	2817.3	2821.4	2821.4
5°	2784.7	2788.8	2805.1	2809.1	2813.2
7.5°	2764.4	2772.5	2788.8	2792.9	2796.9
10°	2735.9	2744.0	2764.4	2772.5	2776.6
12.5°	2699.2	2707.4	2731.8	2744.0	2748.1
15°	2650.4	2662.6	2691.1	2707.4	2715.5
17.5°	2601.5	2613.7	2642.2	2666.6	2674.8
20°	2540.4	2568.9	2589.3	2621.9	2625.9
22.5°	2479.4	2495.7	2532.3	2564.9	2581.2
25°	2406.1	2426.4	2483.4	2511.9	2524.2
27.5°	2328.7	2357.2	2402.0	2446.8	2463.1
30°	2251.4	2271.7	2328.7	2381.7	2397.9
32.5°	2165.9	2194.4	2255.5	2308.4	2332.8
35°	2080.4	2108.9	2174.0	2239.2	2263.6
37.5°	1986.8	2019.3	2084.5	2161.8	2194.4
40°	1897.2	1921.6	1999.0	2092.6	2121.1
42.5°	1803.5	1832.0	1913.5	2015.3	2047.8
45°	1701.8	1734.3	1823.9	1929.8	1970.5
47.5°	1604.1	1636.6	1734.3	1840.2	1889.0
50°	1502.3	1543.0	1640.7	1762.8	1811.7
52.5°	1404.6	1441.2	1551.1	1677.3	1722.1
55°	1294.6	1335.4	1457.5	1587.8	1644.8
57.5°	1205.1	1233.6	1367.9	1502.3	1559.3
60°	1095.2	1131.8	1270.2	1412.7	1477.9
62.5°	977.1	1038.2	1180.7	1327.2	1392.4
65°	879.4	928.2	1091.1	1233.6	1294.6
67.5°	777.6	830.5	989.3	1139.9	1209.2
70°	663.6	732.8	899.7	1050.4	1115.5
72.5°	561.8	635.1	806.1	952.7	1021.9
75°	460.0	537.4	704.3	846.8	912.0
77.5°	362.3	447.8	610.7	720.6	761.3
80°	268.7	350.1	492.6	570.0	602.5
82.5°	187.3	256.5	362.3	403.1	411.2
85°	118.1	162.8	219.8	244.3	240.2
87.5°	52.9	65.1	81.4	89.6	85.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)