

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: P389087

Luminaire Tested: **22CZ2-100VHE-S-UNV-L930-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: P389087
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: 22CZ2-100VHE-S-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8763.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

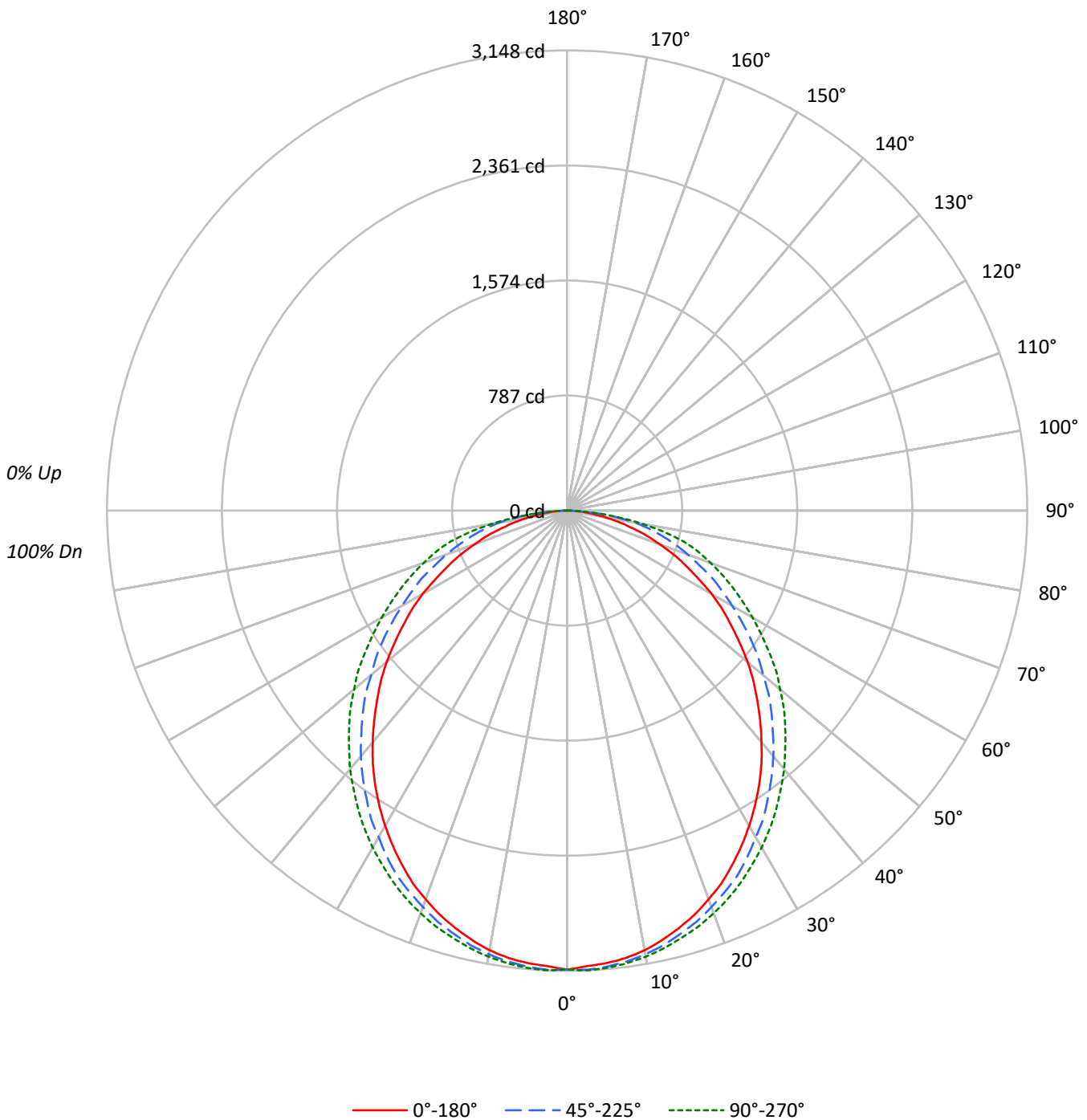
Input Watts (W): 77.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	8450	8450	8450
5°	8394	8460	8482
10°	8346	8424	8469
15°	8235	8349	8429
20°	8102	8266	8395
25°	7940	8182	8340
30°	7737	8016	8271
35°	7522	7871	8193
40°	7267	7713	8115
45°	7002	7531	8029
50°	6744	7326	7959
55°	6426	7193	7903
60°	6139	7020	7878
65°	5727	6977	7966
70°	5275	6917	8203
75°	4761	7014	8630
80°	4119	7223	8109
85°	3409	6061	6061



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.9	3.4
10°-20°	845.1	9.6
20°-30°	1264.4	14.4
30°-40°	1497.4	17.1
40°-50°	1526.0	17.4
50°-60°	1367.7	15.6
60°-70°	1070.8	12.2
70°-80°	690.5	7.9
80°-90°	204.0	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°	2406.4	27.5
0°-40°	3903.9	44.5
0°-60°	6797.6	77.6
0°-90°	8763.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8763.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3140	3140	3140	3140	3140	
5°	3107	3116	3132	3136	3140	295
15°	2956	2972	2997	3022	3026	833
25°	2674	2698	2756	2792	2809	1231
35°	2290	2318	2396	2470	2494	1431
45°	1840	1881	1979	2081	2110	1421
55°	1370	1415	1533	1640	1684	1228
65°	900	953	1096	1202	1251	894
75°	458	527	675	789	830	491
85°	110	151	196	196	196	130
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3140.1	3140.1	3140.1	3140.1	3140.1
2.5°	3119.6	3127.8	3144.1	3148.2	3148.2
5°	3107.3	3115.5	3131.9	3136.0	3140.1
7.5°	3086.9	3091.0	3111.4	3119.6	3123.7
10°	3054.2	3062.4	3082.8	3095.1	3099.2
12.5°	3009.2	3021.5	3046.0	3062.4	3066.5
15°	2956.1	2972.4	2997.0	3021.5	3025.6
17.5°	2898.8	2915.2	2947.9	2976.5	2984.7
20°	2829.3	2849.8	2886.6	2919.3	2931.5
22.5°	2759.8	2776.2	2821.1	2862.0	2874.3
25°	2674.0	2698.5	2755.7	2792.5	2808.9
27.5°	2584.0	2612.6	2669.9	2718.9	2735.3
30°	2490.0	2518.6	2579.9	2641.2	2661.7
32.5°	2391.8	2424.5	2498.1	2559.5	2579.9
35°	2289.6	2318.2	2395.9	2469.5	2494.1
37.5°	2183.3	2207.9	2297.8	2375.5	2400.0
40°	2068.8	2101.5	2195.6	2285.5	2310.1
42.5°	1954.4	1991.2	2085.2	2183.3	2207.9
45°	1839.9	1880.8	1978.9	2081.1	2109.7
47.5°	1729.5	1762.2	1872.6	1970.7	2011.6
50°	1610.9	1643.6	1749.9	1860.3	1901.2
52.5°	1488.3	1533.2	1647.7	1754.0	1803.1
55°	1369.7	1414.7	1533.2	1639.5	1684.5
57.5°	1259.3	1296.1	1418.7	1529.1	1574.1
60°	1140.7	1173.4	1304.3	1422.8	1463.7
62.5°	1014.0	1063.0	1198.0	1308.4	1357.4
65°	899.5	952.6	1095.7	1202.1	1251.1
67.5°	793.2	842.3	981.3	1095.7	1148.9
70°	670.5	736.0	879.1	993.5	1042.6
72.5°	572.4	629.6	776.8	891.3	944.5
75°	457.9	527.4	674.6	789.1	830.0
77.5°	363.9	433.4	572.4	662.4	682.8
80°	265.8	335.3	466.1	511.1	523.3
82.5°	179.9	245.3	335.3	347.5	351.6
85°	110.4	151.3	196.3	196.3	196.3
87.5°	53.2	61.3	69.5	65.4	65.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)