

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: P388654

Luminaire Tested: **24CZ2-130VHE-UNV-L930-CD2-SWPD1-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: P388654
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-UNV-L930-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10813.7 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

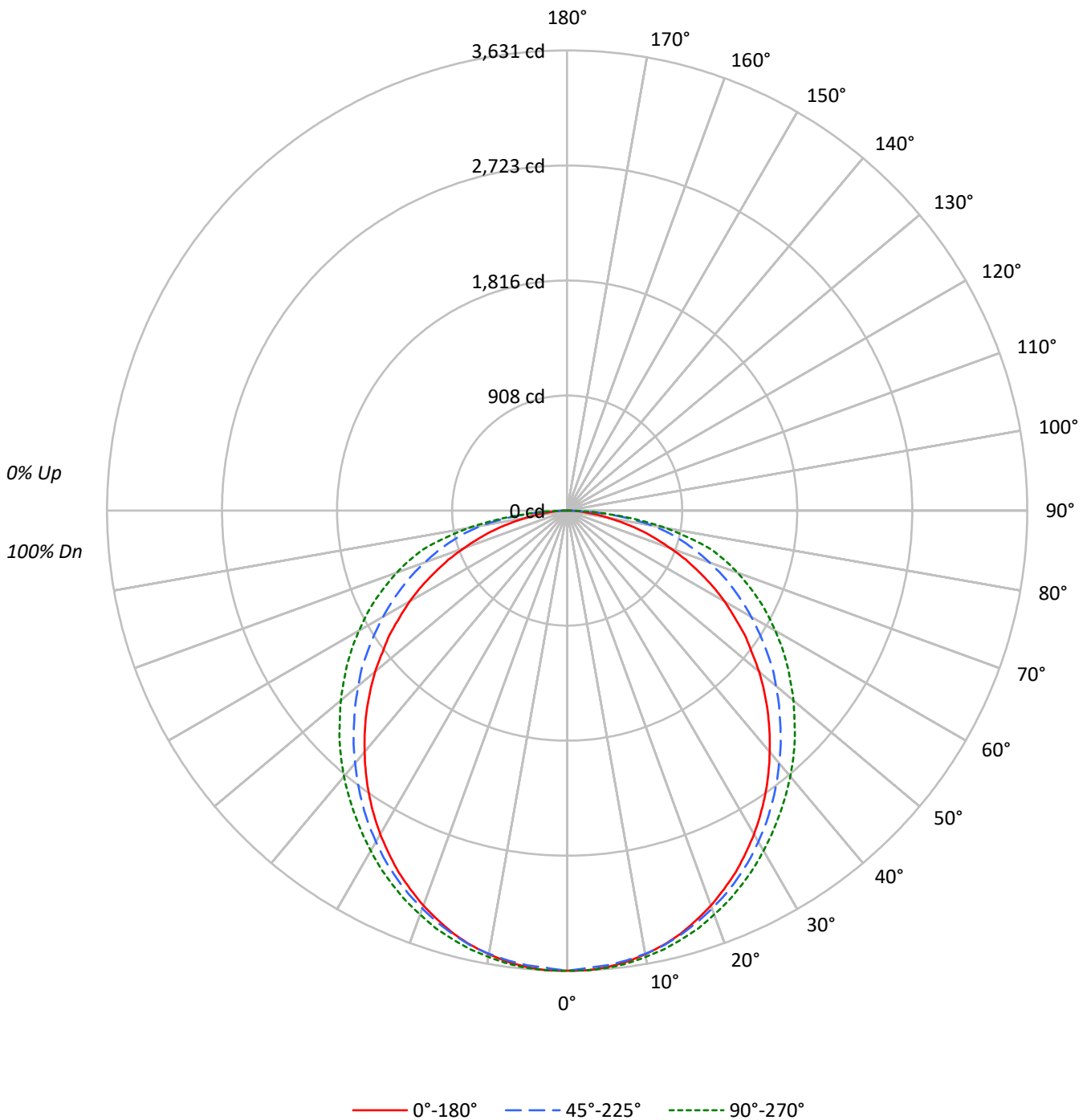
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4885	4885	4885
5°	4884	4865	4894
10°	4857	4852	4886
15°	4816	4826	4876
20°	4749	4785	4858
25°	4672	4742	4838
30°	4581	4687	4816
35°	4482	4630	4802
40°	4367	4570	4811
45°	4258	4525	4834
50°	4140	4502	4880
55°	4013	4495	4970
60°	3856	4516	5099
65°	3654	4585	5320
70°	3393	4699	5622
75°	3096	4934	6097
80°	2545	5313	6096
85°	1950	4903	5236



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.4	3.2
10°-20°	980.3	9.1
20°-30°	1475.2	13.6
30°-40°	1767.9	16.3
40°-50°	1842.3	17.0
50°-60°	1714.1	15.9
60°-70°	1411.7	13.1
70°-80°	961.5	8.9
80°-90°	317.4	2.9
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°	2798.9	25.9
0°-40°	4566.7	42.2
0°-60°	8123.1	75.1
0°-90°	10813.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10813.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3631	3631	3631	3631	3631	
5°	3616	3616	3602	3620	3623	343
15°	3457	3461	3465	3497	3501	974
25°	3147	3162	3194	3248	3259	1449
35°	2728	2761	2819	2894	2923	1705
45°	2238	2284	2378	2497	2541	1726
55°	1711	1768	1916	2068	2118	1525
65°	1148	1245	1440	1610	1671	1139
75°	596	729	949	1119	1173	628
85°	126	245	318	339	339	157
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3630.7	3630.7	3630.7	3630.7	3630.7
2.5°	3630.7	3630.7	3612.6	3630.7	3630.7
5°	3616.2	3616.2	3601.8	3619.8	3623.4
7.5°	3591.0	3594.6	3580.1	3601.8	3605.4
10°	3554.9	3558.5	3551.3	3572.9	3576.5
12.5°	3511.6	3515.2	3515.2	3540.4	3544.0
15°	3457.4	3461.0	3464.6	3497.1	3500.7
17.5°	3388.9	3399.7	3406.9	3446.6	3453.8
20°	3316.7	3327.5	3341.9	3385.2	3392.5
22.5°	3233.7	3248.1	3273.4	3320.3	3331.1
25°	3147.1	3161.5	3194.0	3248.1	3258.9
27.5°	3049.6	3071.3	3111.0	3168.7	3183.1
30°	2948.6	2970.2	3017.1	3078.5	3100.1
32.5°	2840.3	2869.2	2923.3	2991.9	3013.5
35°	2728.4	2760.9	2818.6	2894.4	2923.3
37.5°	2609.3	2645.4	2714.0	2797.0	2833.1
40°	2486.6	2529.9	2602.1	2699.5	2739.2
42.5°	2363.9	2403.6	2493.8	2598.5	2641.8
45°	2237.6	2284.5	2378.3	2497.4	2540.7
47.5°	2107.7	2154.6	2266.5	2392.8	2432.5
50°	1977.7	2024.7	2151.0	2284.5	2331.4
52.5°	1837.0	1898.3	2042.7	2176.2	2223.1
55°	1710.7	1768.4	1916.4	2068.0	2118.5
57.5°	1566.3	1634.9	1797.3	1956.1	2010.2
60°	1432.8	1505.0	1678.2	1840.6	1894.7
62.5°	1295.6	1375.0	1559.1	1725.1	1786.5
65°	1147.7	1245.1	1440.0	1609.6	1671.0
67.5°	1014.1	1115.2	1320.9	1494.1	1548.3
70°	862.6	985.3	1194.6	1367.8	1429.2
72.5°	732.6	855.3	1075.5	1245.1	1306.5
75°	595.5	729.0	949.2	1118.8	1172.9
77.5°	458.3	606.3	826.5	956.4	974.4
80°	328.4	483.6	685.7	761.5	786.8
82.5°	231.0	371.7	505.3	555.8	570.2
85°	126.3	245.4	317.6	339.2	339.2
87.5°	54.1	104.7	126.3	129.9	133.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)