

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: P391037

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L940-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: P391037
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-HRP-UNV-L940-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9622.7 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

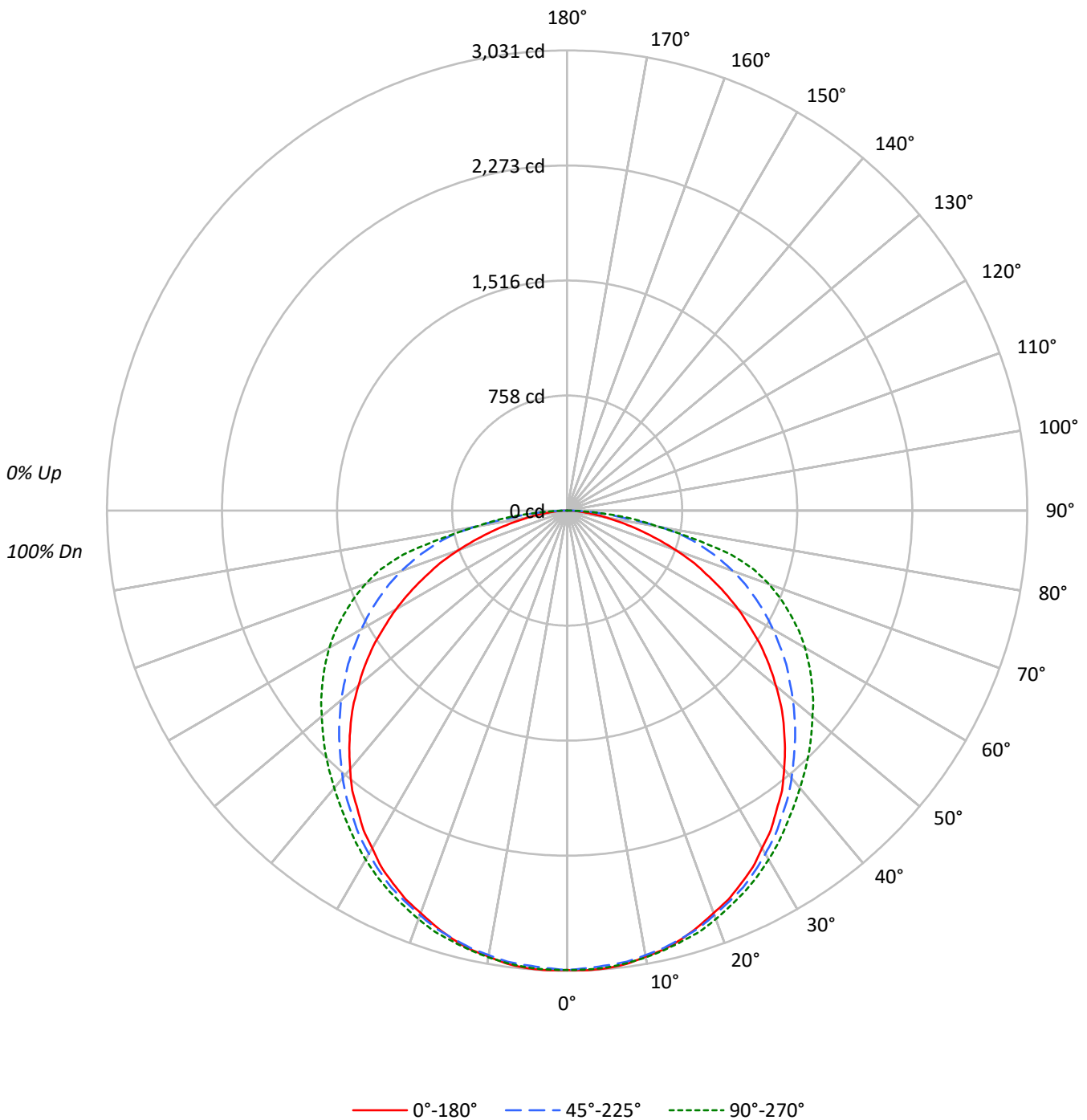
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4072	4072	4072
5°	4087	4061	4081
10°	4076	4063	4082
15°	4069	4062	4089
20°	4039	4059	4101
25°	4025	4067	4110
30°	3990	4056	4123
35°	3951	4045	4139
40°	3907	4041	4192
45°	3842	4042	4287
50°	3756	4066	4416
55°	3661	4131	4613
60°	3506	4213	4868
65°	3282	4361	5167
70°	2985	4563	5558
75°	2531	4814	5806
80°	1997	4845	4697
85°	1474	3683	4127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.1	3.0
10°-20°	826.1	8.6
20°-30°	1263.3	13.1
30°-40°	1544.4	16.0
40°-50°	1646.0	17.1
50°-60°	1573.8	16.4
60°-70°	1333.2	13.9
70°-80°	896.0	9.3
80°-90°	252.7	2.6
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°	2376.5	24.7
0°-40°	3920.9	40.7
0°-60°	7140.7	74.2
0°-90°	9622.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9622.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3026	3026	3026	3026	3026	
5°	3026	3021	3007	3021	3021	288
15°	2921	2921	2916	2940	2935	824
25°	2711	2721	2740	2764	2768	1250
35°	2406	2425	2463	2511	2520	1507
45°	2019	2052	2124	2215	2253	1557
55°	1561	1618	1761	1900	1966	1390
65°	1031	1136	1370	1551	1623	1024
75°	487	663	926	1084	1117	521
85°	96	196	239	258	267	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3026.1	3026.1	3026.1	3026.1	3026.1
2.5°	3030.8	3030.8	3016.5	3026.1	3026.1
5°	3026.1	3021.3	3007.0	3021.3	3021.3
7.5°	3011.7	3007.0	2997.4	3011.7	3007.0
10°	2983.1	2983.1	2973.6	2987.9	2987.9
12.5°	2959.2	2954.5	2949.7	2968.8	2964.0
15°	2921.1	2921.1	2916.3	2940.2	2935.4
17.5°	2873.3	2878.1	2882.9	2902.0	2906.7
20°	2820.8	2830.4	2835.1	2863.8	2863.8
22.5°	2773.1	2777.9	2787.4	2816.1	2816.1
25°	2711.0	2720.6	2739.7	2763.6	2768.3
27.5°	2649.0	2653.8	2677.6	2711.0	2715.8
30°	2567.9	2582.2	2610.8	2649.0	2653.8
32.5°	2496.3	2510.6	2544.0	2582.2	2591.7
35°	2405.6	2424.7	2462.9	2510.6	2520.1
37.5°	2324.4	2338.8	2386.5	2439.0	2453.3
40°	2224.2	2252.8	2300.6	2362.6	2386.5
42.5°	2124.0	2152.6	2209.9	2291.0	2319.7
45°	2019.0	2052.4	2124.0	2214.7	2252.8
47.5°	1914.0	1952.1	2033.3	2138.3	2181.2
50°	1794.6	1842.4	1942.6	2061.9	2109.7
52.5°	1680.1	1737.4	1847.1	1980.8	2042.8
55°	1560.8	1618.0	1761.2	1899.6	1966.5
57.5°	1427.1	1503.5	1661.0	1818.5	1890.1
60°	1303.0	1374.6	1565.5	1737.4	1809.0
62.5°	1169.4	1264.8	1470.1	1651.4	1723.0
65°	1031.0	1136.0	1369.8	1551.2	1622.8
67.5°	906.9	1021.4	1269.6	1451.0	1522.6
70°	758.9	902.1	1159.8	1341.2	1412.8
72.5°	620.5	778.0	1045.3	1221.9	1288.7
75°	486.8	663.4	926.0	1083.5	1116.9
77.5°	362.7	548.9	801.9	868.7	844.8
80°	257.7	439.1	625.3	591.8	606.2
82.5°	167.1	334.1	386.6	439.1	453.4
85°	95.5	195.7	238.6	257.7	267.3
87.5°	43.0	71.6	95.5	95.5	90.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)