

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: P391031

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L930-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: P391031
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-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9294.3 lumens
Efficiency: N/A
Efficacy: 102.5 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

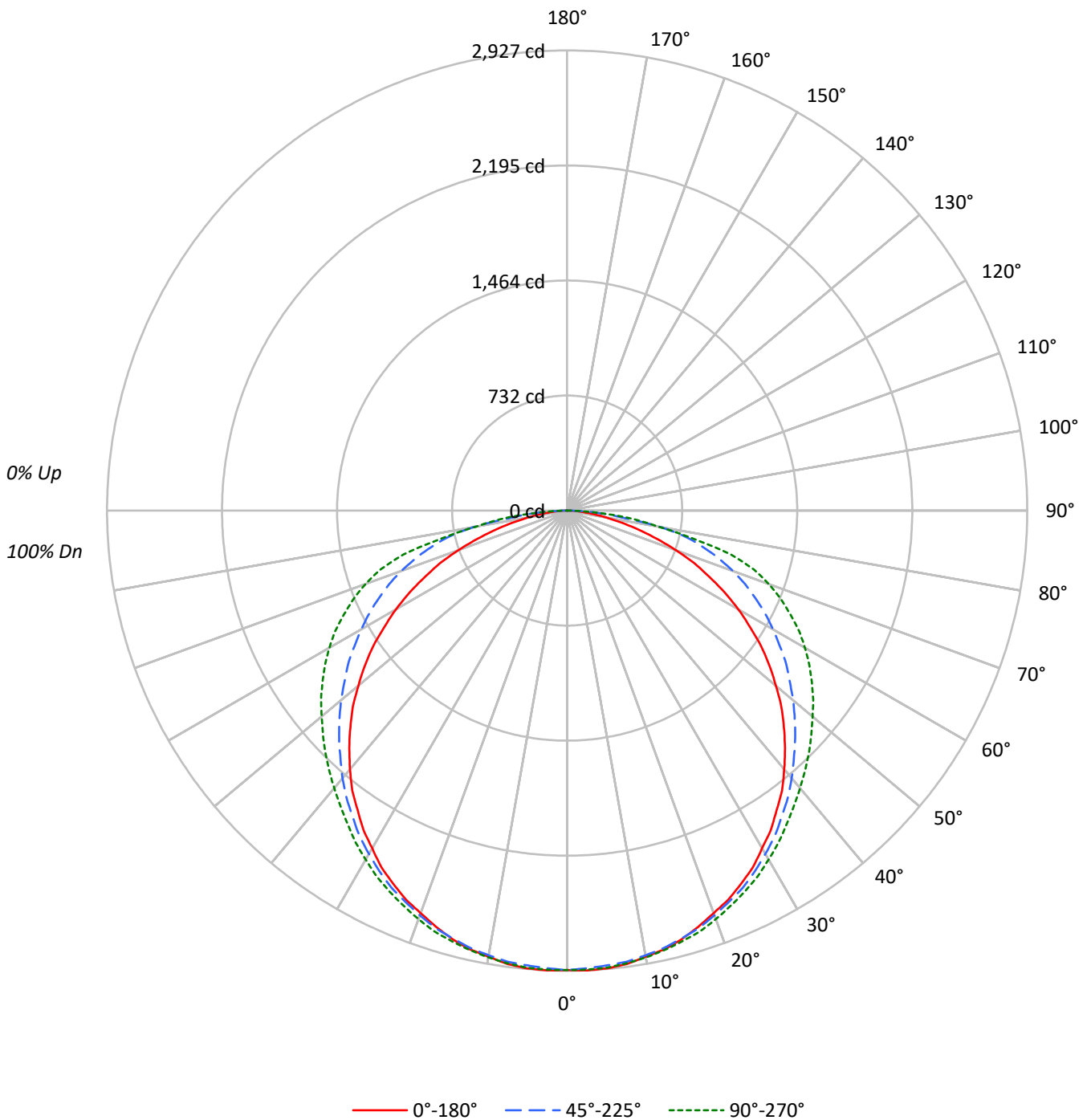
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3933	3933	3933
5°	3948	3923	3941
10°	3937	3924	3943
15°	3930	3924	3949
20°	3901	3921	3960
25°	3887	3929	3969
30°	3853	3918	3982
35°	3816	3907	3998
40°	3773	3903	4049
45°	3711	3904	4141
50°	3628	3927	4265
55°	3536	3990	4456
60°	3387	4069	4702
65°	3170	4212	4990
70°	2884	4407	5368
75°	2444	4650	5608
80°	1929	4679	4537
85°	1423	3558	3986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.3	3.0
10°-20°	797.9	8.6
20°-30°	1220.2	13.1
30°-40°	1491.7	16.0
40°-50°	1589.8	17.1
50°-60°	1520.1	16.4
60°-70°	1287.7	13.9
70°-80°	865.4	9.3
80°-90°	244.1	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°	2295.4	24.7
0°-40°	3787.1	40.7
0°-60°	6897.0	74.2
0°-90°	9294.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9294.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2923	2923	2923	2923	2923	
5°	2923	2918	2904	2918	2918	278
15°	2821	2821	2817	2840	2835	795
25°	2618	2628	2646	2669	2674	1207
35°	2324	2342	2379	2425	2434	1456
45°	1950	1982	2052	2139	2176	1504
55°	1508	1563	1701	1835	1899	1343
65°	996	1097	1323	1498	1567	989
75°	470	641	894	1046	1079	503
85°	92	189	230	249	258	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2922.8	2922.8	2922.8	2922.8	2922.8
2.5°	2927.4	2927.4	2913.6	2922.8	2922.8
5°	2922.8	2918.2	2904.4	2918.2	2918.2
7.5°	2909.0	2904.4	2895.1	2909.0	2904.4
10°	2881.3	2881.3	2872.1	2885.9	2885.9
12.5°	2858.3	2853.6	2849.0	2867.5	2862.9
15°	2821.4	2821.4	2816.8	2839.8	2835.2
17.5°	2775.3	2779.9	2784.5	2802.9	2807.5
20°	2724.6	2733.8	2738.4	2766.0	2766.0
22.5°	2678.5	2683.1	2692.3	2719.9	2719.9
25°	2618.5	2627.7	2646.2	2669.2	2673.8
27.5°	2558.6	2563.2	2586.3	2618.5	2623.1
30°	2480.2	2494.1	2521.7	2558.6	2563.2
32.5°	2411.1	2424.9	2457.2	2494.1	2503.3
35°	2323.5	2341.9	2378.8	2424.9	2434.1
37.5°	2245.1	2258.9	2305.0	2355.8	2369.6
40°	2148.3	2176.0	2222.1	2282.0	2305.0
42.5°	2051.5	2079.1	2134.5	2212.8	2240.5
45°	1950.1	1982.3	2051.5	2139.1	2176.0
47.5°	1848.6	1885.5	1963.9	2065.3	2106.8
50°	1733.4	1779.5	1876.3	1991.6	2037.7
52.5°	1622.7	1678.1	1784.1	1913.2	1973.1
55°	1507.5	1562.8	1701.1	1834.8	1899.4
57.5°	1378.4	1452.2	1604.3	1756.4	1825.6
60°	1258.6	1327.7	1512.1	1678.1	1747.2
62.5°	1129.5	1221.7	1419.9	1595.1	1664.2
65°	995.8	1097.2	1323.1	1498.3	1567.4
67.5°	875.9	986.6	1226.3	1401.5	1470.6
70°	733.0	871.3	1120.2	1295.4	1364.6
72.5°	599.3	751.4	1009.6	1180.2	1244.7
75°	470.2	640.8	894.4	1046.5	1078.8
77.5°	350.4	530.2	774.5	839.0	816.0
80°	248.9	424.1	603.9	571.7	585.5
82.5°	161.4	322.7	373.4	424.1	438.0
85°	92.2	189.0	230.5	248.9	258.2
87.5°	41.5	69.2	92.2	92.2	87.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)