

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: P391032

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L935-CD2-SDWPD1-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: P391032
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-L935-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9292.6 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

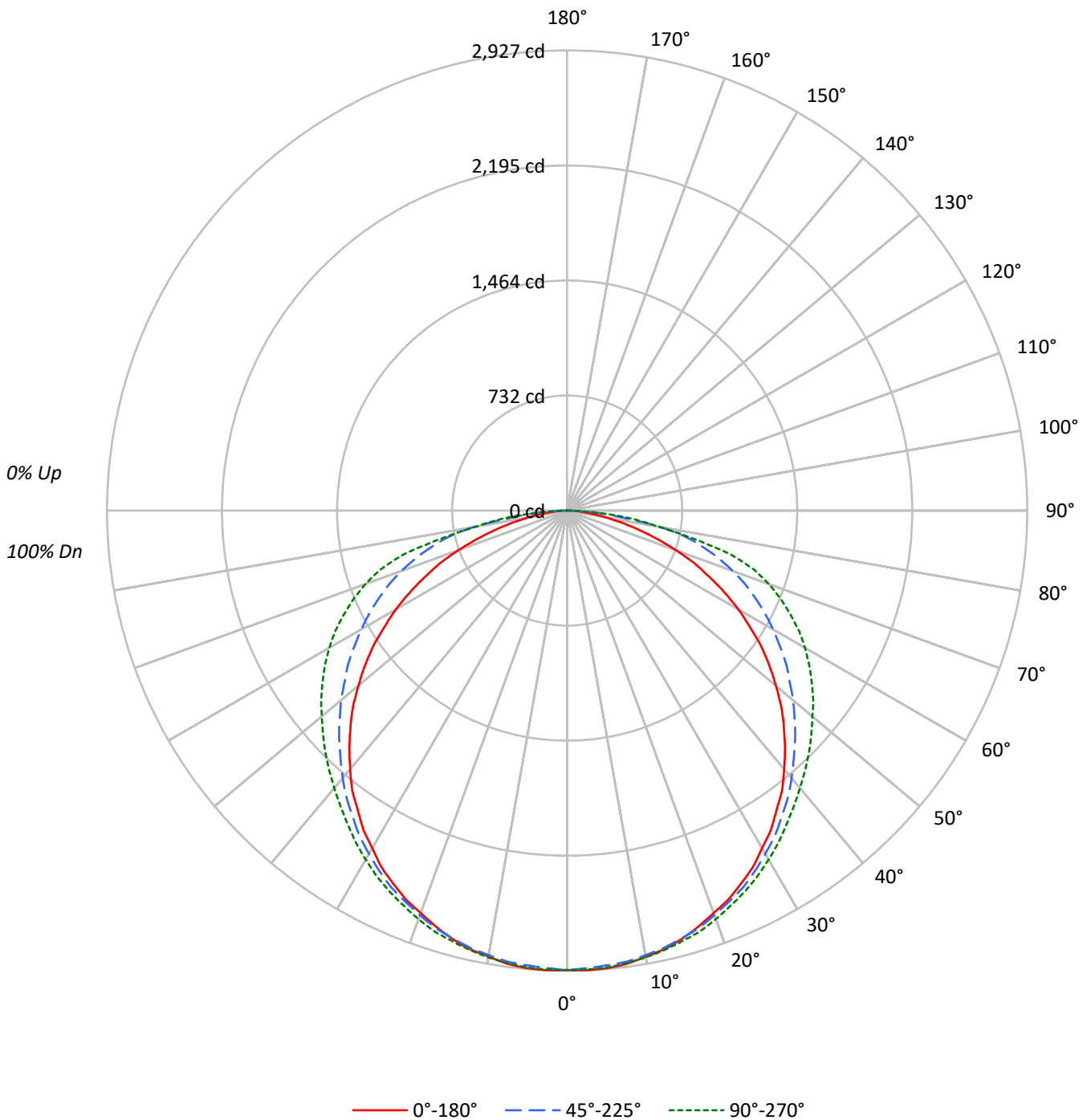
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3932	3932	3932
5°	3947	3922	3941
10°	3936	3923	3942
15°	3929	3923	3949
20°	3900	3920	3960
25°	3887	3928	3969
30°	3853	3917	3982
35°	3816	3907	3997
40°	3773	3902	4048
45°	3710	3903	4140
50°	3628	3927	4264
55°	3536	3990	4455
60°	3386	4068	4701
65°	3170	4212	4989
70°	2883	4406	5367
75°	2444	4649	5607
80°	1929	4678	4536
85°	1423	3558	3984



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.2	3.0
10°-20°	797.8	8.6
20°-30°	1220.0	13.1
30°-40°	1491.4	16.0
40°-50°	1589.6	17.1
50°-60°	1519.8	16.4
60°-70°	1287.5	13.9
70°-80°	865.3	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°	2295.0	24.7
0°-40°	3786.4	40.7
0°-60°	6895.8	74.2
0°-90°	9292.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9292.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2922	2922	2922	2922	2922	
5°	2922	2918	2904	2918	2918	278
15°	2821	2821	2816	2839	2835	795
25°	2618	2627	2646	2669	2673	1207
35°	2323	2342	2378	2424	2434	1455
45°	1950	1982	2051	2139	2176	1504
55°	1507	1562	1701	1834	1899	1342
65°	996	1097	1323	1498	1567	988
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°	2922.3	2922.3	2922.3	2922.3	2922.3
2.5°	2926.9	2926.9	2913.0	2922.3	2922.3
5°	2922.3	2917.6	2903.8	2917.6	2917.6
7.5°	2908.4	2903.8	2894.6	2908.4	2903.8
10°	2880.8	2880.8	2871.6	2885.4	2885.4
12.5°	2857.7	2853.1	2848.5	2866.9	2862.3
15°	2820.9	2820.9	2816.2	2839.3	2834.7
17.5°	2774.8	2779.4	2784.0	2802.4	2807.0
20°	2724.1	2733.3	2737.9	2765.5	2765.5
22.5°	2678.0	2682.6	2691.8	2719.5	2719.5
25°	2618.0	2627.3	2645.7	2668.7	2673.4
27.5°	2558.1	2562.7	2585.8	2618.0	2622.7
30°	2479.8	2493.6	2521.3	2558.1	2562.7
32.5°	2410.6	2424.5	2456.7	2493.6	2502.8
35°	2323.1	2341.5	2378.4	2424.5	2433.7
37.5°	2244.7	2258.5	2304.6	2355.3	2369.1
40°	2147.9	2175.6	2221.7	2281.6	2304.6
42.5°	2051.1	2078.8	2134.1	2212.4	2240.1
45°	1949.7	1982.0	2051.1	2138.7	2175.6
47.5°	1848.3	1885.2	1963.5	2064.9	2106.4
50°	1733.1	1779.2	1876.0	1991.2	2037.3
52.5°	1622.5	1677.8	1783.8	1912.8	1972.8
55°	1507.2	1562.5	1700.8	1834.5	1899.0
57.5°	1378.2	1451.9	1604.0	1756.1	1825.3
60°	1258.3	1327.5	1511.8	1677.8	1746.9
62.5°	1129.3	1221.4	1419.6	1594.8	1663.9
65°	995.6	1097.0	1322.9	1498.0	1567.1
67.5°	875.8	986.4	1226.1	1401.2	1470.3
70°	732.9	871.1	1120.0	1295.2	1364.3
72.5°	599.2	751.3	1009.4	1180.0	1244.5
75°	470.1	640.7	894.2	1046.3	1078.6
77.5°	350.3	530.1	774.4	838.9	815.8
80°	248.9	424.0	603.8	571.5	585.4
82.5°	161.3	322.6	373.3	424.0	437.9
85°	92.2	189.0	230.5	248.9	258.1
87.5°	41.5	69.1	92.2	92.2	87.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)