

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: P391035

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L940-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: P391035
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-SDWPD1-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: 9388.7 lumens
Efficiency: N/A
Efficacy: 103.5 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

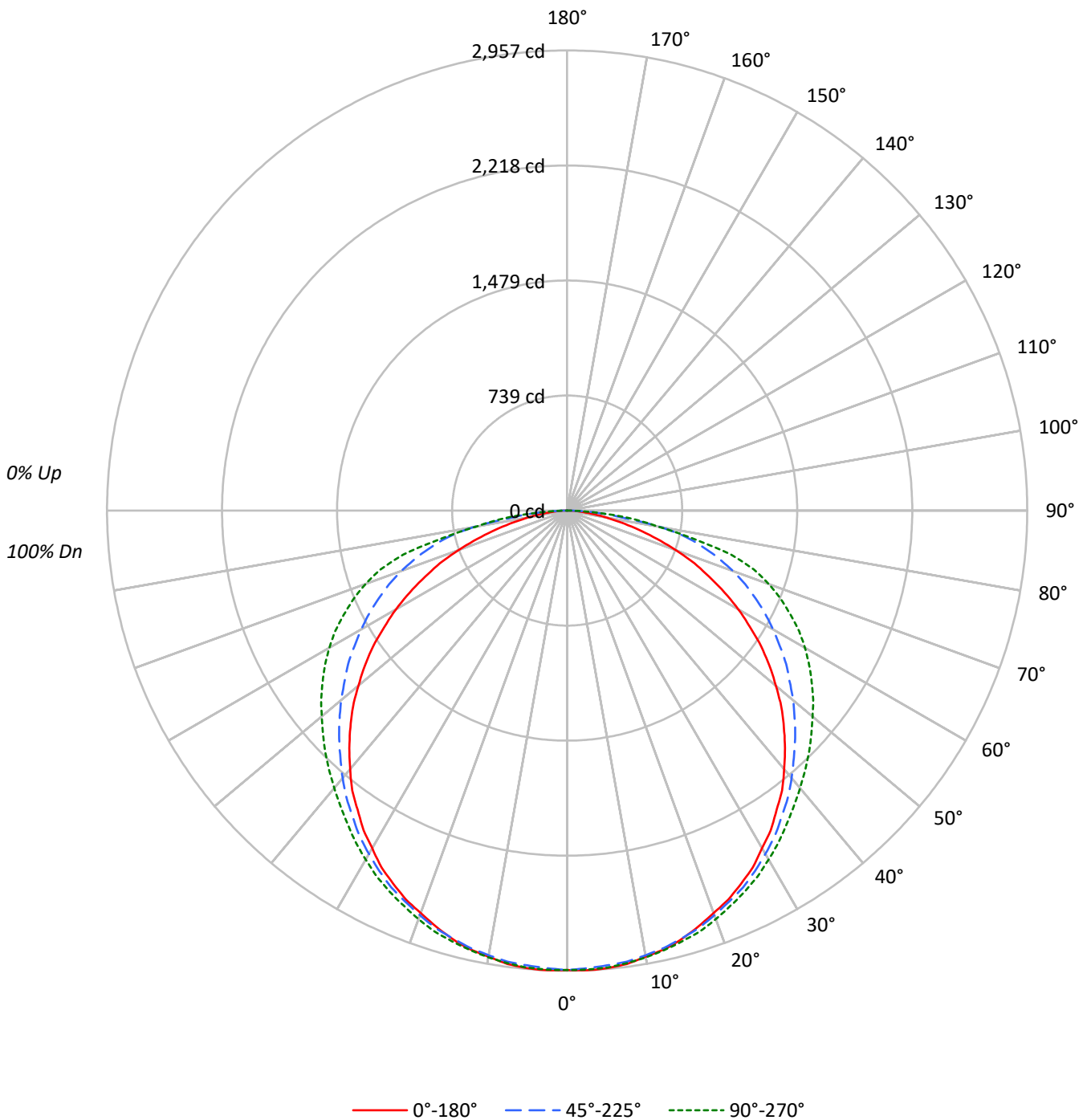
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3973	3973	3973
5°	3988	3963	3981
10°	3977	3964	3983
15°	3970	3964	3989
20°	3941	3961	4001
25°	3927	3968	4010
30°	3892	3958	4023
35°	3855	3947	4039
40°	3812	3942	4090
45°	3748	3943	4183
50°	3665	3967	4309
55°	3572	4031	4501
60°	3421	4110	4750
65°	3202	4255	5041
70°	2913	4452	5423
75°	2469	4696	5665
80°	1949	4727	4582
85°	1437	3594	4026



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.1	3.0
10°-20°	806.0	8.6
20°-30°	1232.6	13.1
30°-40°	1506.8	16.0
40°-50°	1606.0	17.1
50°-60°	1535.5	16.4
60°-70°	1300.8	13.9
70°-80°	874.2	9.3
80°-90°	246.6	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°	2318.7	24.7
0°-40°	3825.6	40.7
0°-60°	6967.1	74.2
0°-90°	9388.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9388.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2952	2952	2952	2952	2952	
5°	2952	2948	2934	2948	2948	281
15°	2850	2850	2845	2869	2864	804
25°	2645	2654	2673	2696	2701	1219
35°	2347	2366	2403	2450	2459	1470
45°	1970	2002	2072	2161	2198	1519
55°	1523	1579	1718	1853	1919	1356
65°	1006	1108	1336	1514	1583	999
75°	475	647	903	1057	1090	509
85°	93	191	233	252	261	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2952.5	2952.5	2952.5	2952.5	2952.5
2.5°	2957.1	2957.1	2943.2	2952.5	2952.5
5°	2952.5	2947.8	2933.9	2947.8	2947.8
7.5°	2938.5	2933.9	2924.5	2938.5	2933.9
10°	2910.6	2910.6	2901.3	2915.2	2915.2
12.5°	2887.3	2882.6	2878.0	2896.6	2891.9
15°	2850.0	2850.0	2845.4	2868.7	2864.0
17.5°	2803.5	2808.1	2812.8	2831.4	2836.1
20°	2752.2	2761.5	2766.2	2794.1	2794.1
22.5°	2705.7	2710.3	2719.6	2747.6	2747.6
25°	2645.1	2654.4	2673.1	2696.3	2701.0
27.5°	2584.6	2589.2	2612.5	2645.1	2649.8
30°	2505.4	2519.4	2547.3	2584.6	2589.2
32.5°	2435.6	2449.5	2482.1	2519.4	2528.7
35°	2347.1	2365.7	2403.0	2449.5	2458.8
37.5°	2267.9	2281.9	2328.5	2379.7	2393.6
40°	2170.1	2198.1	2244.6	2305.2	2328.5
42.5°	2072.3	2100.3	2156.1	2235.3	2263.3
45°	1969.9	2002.5	2072.3	2160.8	2198.1
47.5°	1867.4	1904.7	1983.8	2086.3	2128.2
50°	1751.0	1797.6	1895.4	2011.8	2058.4
52.5°	1639.2	1695.1	1802.2	1932.6	1993.2
55°	1522.8	1578.7	1718.4	1853.4	1918.6
57.5°	1392.4	1466.9	1620.6	1774.3	1844.1
60°	1271.3	1341.2	1527.5	1695.1	1765.0
62.5°	1140.9	1234.1	1434.3	1611.3	1681.1
65°	1005.9	1108.3	1336.5	1513.5	1583.3
67.5°	884.8	996.6	1238.7	1415.7	1485.6
70°	740.4	880.2	1131.6	1308.6	1378.4
72.5°	605.4	759.1	1019.9	1192.2	1257.4
75°	475.0	647.3	903.4	1057.1	1089.7
77.5°	353.9	535.5	782.4	847.6	824.3
80°	251.5	428.4	610.1	577.5	591.4
82.5°	163.0	326.0	377.2	428.4	442.4
85°	93.1	190.9	232.8	251.5	260.8
87.5°	41.9	69.9	93.1	93.1	88.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)