

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: P391036

Luminaire Tested: **24CZ2-130VHE-HRP-UNV-L940-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: P391036
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-SWPD1-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: 9503.3 lumens
Efficiency: N/A
Efficacy: 104.8 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

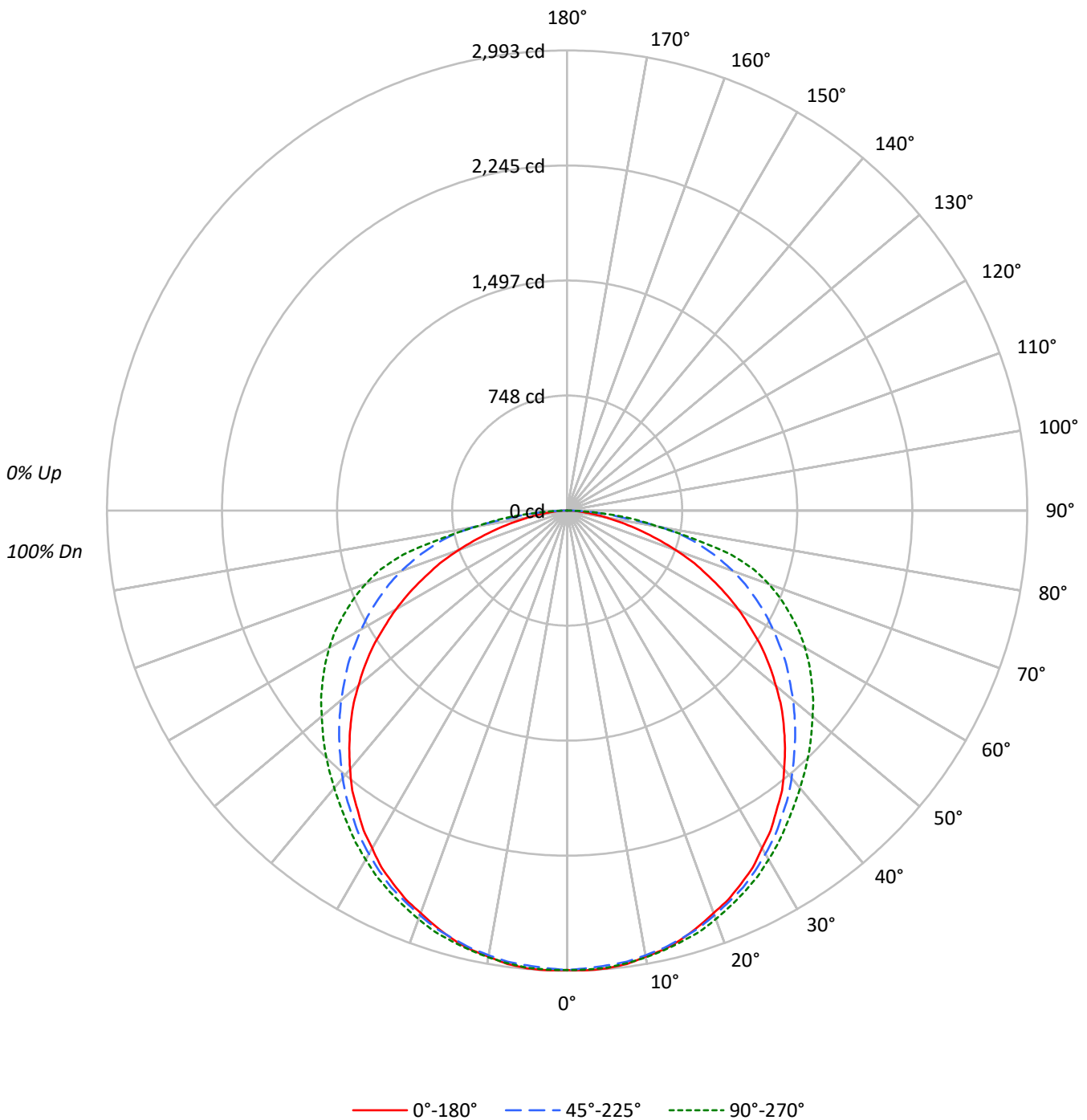
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4021	4021	4021
5°	4036	4011	4030
10°	4025	4012	4032
15°	4018	4012	4038
20°	3989	4009	4050
25°	3975	4017	4059
30°	3940	4006	4072
35°	3902	3995	4088
40°	3858	3991	4140
45°	3794	3991	4234
50°	3710	4016	4361
55°	3616	4080	4556
60°	3463	4161	4807
65°	3242	4307	5103
70°	2948	4506	5489
75°	2499	4754	5734
80°	1972	4785	4638
85°	1456	3639	4076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.5	3.0
10°-20°	815.9	8.6
20°-30°	1247.6	13.1
30°-40°	1525.2	16.0
40°-50°	1625.6	17.1
50°-60°	1554.3	16.4
60°-70°	1316.7	13.9
70°-80°	884.9	9.3
80°-90°	249.6	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°	2347.0	24.7
0°-40°	3872.2	40.7
0°-60°	7052.1	74.2
0°-90°	9503.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9503.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2988	2988	2988	2988	2988	
5°	2988	2984	2970	2984	2984	284
15°	2885	2885	2880	2904	2899	813
25°	2677	2687	2706	2729	2734	1234
35°	2376	2395	2432	2479	2489	1488
45°	1994	2027	2098	2187	2225	1538
55°	1541	1598	1739	1876	1942	1373
65°	1018	1122	1353	1532	1603	1011
75°	481	655	914	1070	1103	515
85°	94	193	236	254	264	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2988.5	2988.5	2988.5	2988.5	2988.5
2.5°	2993.2	2993.2	2979.1	2988.5	2988.5
5°	2988.5	2983.8	2969.7	2983.8	2983.8
7.5°	2974.4	2969.7	2960.2	2974.4	2969.7
10°	2946.1	2946.1	2936.7	2950.8	2950.8
12.5°	2922.5	2917.8	2913.1	2932.0	2927.2
15°	2884.8	2884.8	2880.1	2903.7	2899.0
17.5°	2837.7	2842.4	2847.1	2866.0	2870.7
20°	2785.8	2795.3	2800.0	2828.2	2828.2
22.5°	2738.7	2743.4	2752.8	2781.1	2781.1
25°	2677.4	2686.8	2705.7	2729.3	2734.0
27.5°	2616.1	2620.8	2644.4	2677.4	2682.1
30°	2536.0	2550.1	2578.4	2616.1	2620.8
32.5°	2465.3	2479.4	2512.4	2550.1	2559.6
35°	2375.7	2394.6	2432.3	2479.4	2488.9
37.5°	2295.6	2309.7	2356.9	2408.7	2422.9
40°	2196.6	2224.9	2272.0	2333.3	2356.9
42.5°	2097.6	2125.9	2182.5	2262.6	2290.9
45°	1993.9	2026.9	2097.6	2187.2	2224.9
47.5°	1890.2	1927.9	2008.1	2111.8	2154.2
50°	1772.4	1819.5	1918.5	2036.3	2083.5
52.5°	1659.2	1715.8	1824.2	1956.2	2017.5
55°	1541.4	1598.0	1739.4	1876.1	1942.1
57.5°	1409.4	1484.8	1640.4	1795.9	1866.6
60°	1286.9	1357.6	1546.1	1715.8	1786.5
62.5°	1154.9	1249.1	1451.8	1631.0	1701.7
65°	1018.2	1121.9	1352.8	1532.0	1602.7
67.5°	895.6	1008.7	1253.9	1433.0	1503.7
70°	749.5	890.9	1145.4	1324.6	1395.3
72.5°	612.8	768.3	1032.3	1206.7	1272.7
75°	480.8	655.2	914.5	1070.0	1103.0
77.5°	358.2	542.1	791.9	857.9	834.3
80°	254.5	433.7	617.5	584.5	598.6
82.5°	165.0	330.0	381.8	433.7	447.8
85°	94.3	193.3	235.7	254.5	264.0
87.5°	42.4	70.7	94.3	94.3	89.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)