

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: P391109

Luminaire Tested: **24CZ2-150VHE-RDP-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: P391109
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: 24CZ2-150VHE-RDP-UNV-L940-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8621.3 lumens
Efficiency: N/A
Efficacy: 82.7 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

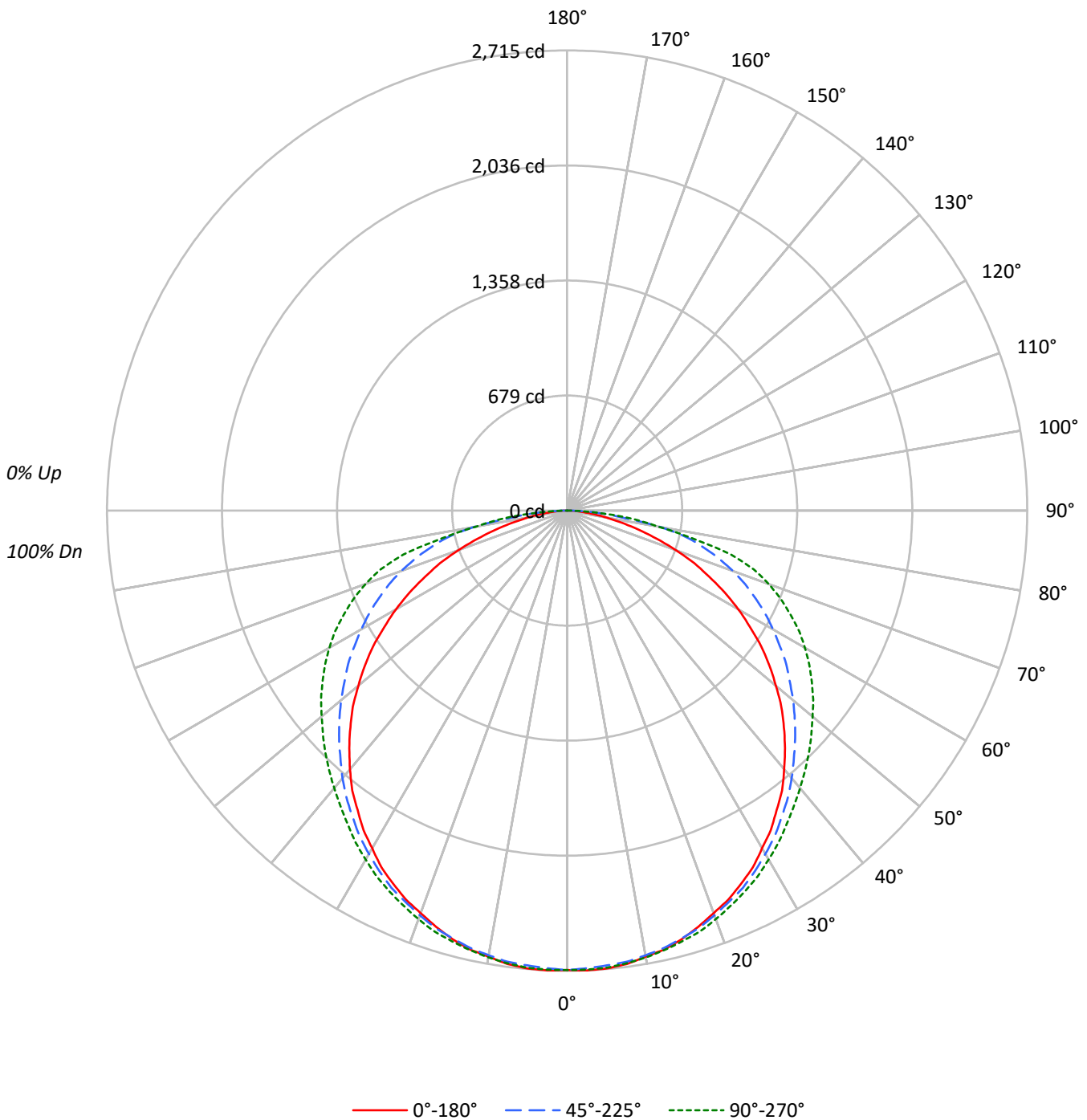
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3648	3648	3648
5°	3662	3639	3656
10°	3652	3640	3657
15°	3645	3640	3663
20°	3619	3637	3674
25°	3606	3644	3682
30°	3574	3634	3694
35°	3540	3624	3709
40°	3500	3620	3755
45°	3442	3621	3841
50°	3366	3643	3956
55°	3280	3701	4133
60°	3141	3774	4361
65°	2941	3907	4629
70°	2675	4088	4980
75°	2268	4313	5202
80°	1789	4341	4208
85°	1320	3301	3697



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.2	3.0
10°-20°	740.2	8.6
20°-30°	1131.9	13.1
30°-40°	1383.7	16.0
40°-50°	1474.7	17.1
50°-60°	1410.0	16.4
60°-70°	1194.5	13.9
70°-80°	802.8	9.3
80°-90°	226.4	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°	2129.2	24.7
0°-40°	3512.9	40.7
0°-60°	6397.6	74.2
0°-90°	8621.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8621.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2711	2711	2711	2711	2711	
5°	2711	2707	2694	2707	2707	258
15°	2617	2617	2613	2634	2630	738
25°	2429	2438	2455	2476	2480	1119
35°	2155	2172	2207	2249	2258	1350
45°	1809	1839	1903	1984	2018	1395
55°	1398	1450	1578	1702	1762	1245
65°	924	1018	1227	1390	1454	917
75°	436	594	830	971	1001	467
85°	86	175	214	231	240	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2711.2	2711.2	2711.2	2711.2	2711.2
2.5°	2715.4	2715.4	2702.6	2711.2	2711.2
5°	2711.2	2706.9	2694.0	2706.9	2706.9
7.5°	2698.3	2694.0	2685.5	2698.3	2694.0
10°	2672.7	2672.7	2664.1	2676.9	2676.9
12.5°	2651.3	2647.0	2642.7	2659.8	2655.6
15°	2617.1	2617.1	2612.8	2634.2	2629.9
17.5°	2574.3	2578.6	2582.9	2600.0	2604.2
20°	2527.3	2535.8	2540.1	2565.8	2565.8
22.5°	2484.5	2488.8	2497.3	2523.0	2523.0
25°	2428.9	2437.5	2454.6	2476.0	2480.2
27.5°	2373.3	2377.6	2399.0	2428.9	2433.2
30°	2300.6	2313.5	2339.1	2373.3	2377.6
32.5°	2236.5	2249.3	2279.2	2313.5	2322.0
35°	2155.2	2172.3	2206.6	2249.3	2257.9
37.5°	2082.5	2095.4	2138.1	2185.2	2198.0
40°	1992.7	2018.4	2061.2	2116.8	2138.1
42.5°	1902.9	1928.6	1979.9	2052.6	2078.3
45°	1808.9	1838.8	1902.9	1984.2	2018.4
47.5°	1714.8	1749.0	1821.7	1915.8	1954.3
50°	1607.9	1650.6	1740.4	1847.3	1890.1
52.5°	1505.2	1556.6	1654.9	1774.7	1830.2
55°	1398.3	1449.7	1577.9	1702.0	1761.8
57.5°	1278.6	1347.0	1488.1	1629.3	1693.4
60°	1167.4	1231.6	1402.6	1556.6	1620.7
62.5°	1047.7	1133.2	1317.1	1479.6	1543.7
65°	923.7	1017.8	1227.3	1389.8	1453.9
67.5°	812.5	915.1	1137.5	1300.0	1364.1
70°	679.9	808.2	1039.1	1201.6	1265.8
72.5°	555.9	697.0	936.5	1094.7	1154.6
75°	436.2	594.4	829.6	970.7	1000.6
77.5°	325.0	491.8	718.4	778.3	756.9
80°	230.9	393.4	560.2	530.3	543.1
82.5°	149.7	299.3	346.4	393.4	406.2
85°	85.5	175.3	213.8	230.9	239.5
87.5°	38.5	64.1	85.5	85.5	81.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)