

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: P391108

Luminaire Tested: **24CZ2-150VHE-RDP-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: P391108  
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-SWPD1-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: 8514.3 lumens  
Efficiency: N/A  
Efficacy: 81.7 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

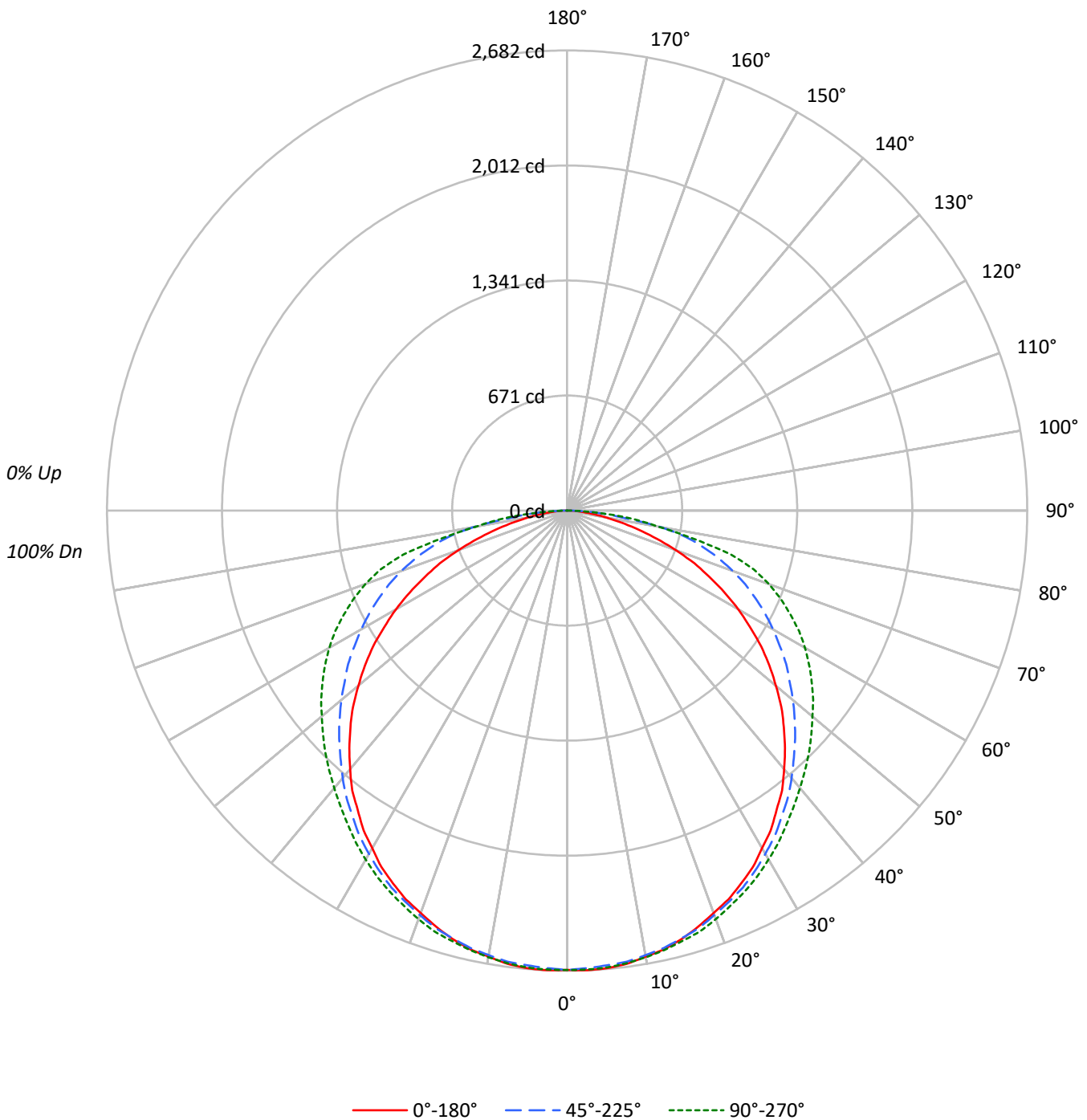
Input Watts (W): 104.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3603	3603	3603
5°	3616	3593	3611
10°	3606	3595	3612
15°	3600	3594	3618
20°	3574	3592	3628
25°	3561	3599	3636
30°	3530	3589	3648
35°	3496	3579	3663
40°	3457	3575	3709
45°	3399	3576	3793
50°	3324	3598	3907
55°	3240	3656	4082
60°	3102	3728	4307
65°	2904	3859	4571
70°	2642	4037	4918
75°	2240	4259	5137
80°	1767	4286	4155
85°	1304	3260	3651



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.0	3.0
10°-20°	731.0	8.6
20°-30°	1117.8	13.1
30°-40°	1366.5	16.0
40°-50°	1456.4	17.1
50°-60°	1392.5	16.4
60°-70°	1179.6	13.9
70°-80°	792.8	9.3
80°-90°	223.6	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°	2102.8	24.7
0°-40°	3469.3	40.7
0°-60°	6318.2	74.2
0°-90°	8514.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8514.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2678	2678	2678	2678	2678	
5°	2678	2673	2661	2673	2673	254
15°	2585	2585	2580	2602	2597	729
25°	2399	2407	2424	2445	2450	1106
35°	2128	2145	2179	2221	2230	1333
45°	1786	1816	1879	1960	1993	1378
55°	1381	1432	1558	1681	1740	1230
65°	912	1005	1212	1372	1436	906
75°	431	587	819	959	988	461
85°	84	173	211	228	236	105
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2677.5	2677.5	2677.5	2677.5	2677.5
2.5°	2681.7	2681.7	2669.1	2677.5	2677.5
5°	2677.5	2673.3	2660.6	2673.3	2673.3
7.5°	2664.8	2660.6	2652.2	2664.8	2660.6
10°	2639.5	2639.5	2631.0	2643.7	2643.7
12.5°	2618.4	2614.2	2609.9	2626.8	2622.6
15°	2584.6	2584.6	2580.4	2601.5	2597.3
17.5°	2542.4	2546.6	2550.8	2567.7	2571.9
20°	2495.9	2504.4	2508.6	2533.9	2533.9
22.5°	2453.7	2457.9	2466.3	2491.7	2491.7
25°	2398.8	2407.2	2424.1	2445.2	2449.5
27.5°	2343.9	2348.1	2369.2	2398.8	2403.0
30°	2272.1	2284.7	2310.1	2343.9	2348.1
32.5°	2208.7	2221.4	2251.0	2284.7	2293.2
35°	2128.5	2145.4	2179.2	2221.4	2229.8
37.5°	2056.7	2069.4	2111.6	2158.1	2170.7
40°	1968.0	1993.3	2035.6	2090.5	2111.6
42.5°	1879.3	1904.7	1955.3	2027.1	2052.5
45°	1786.4	1816.0	1879.3	1959.6	1993.3
47.5°	1693.5	1727.3	1799.1	1892.0	1930.0
50°	1587.9	1630.2	1718.8	1824.4	1866.7
52.5°	1486.6	1537.2	1634.4	1752.6	1807.5
55°	1381.0	1431.7	1558.4	1680.8	1740.0
57.5°	1262.7	1330.3	1469.7	1609.0	1672.4
60°	1152.9	1216.3	1385.2	1537.2	1600.6
62.5°	1034.7	1119.1	1300.7	1461.2	1524.6
65°	912.2	1005.1	1212.1	1372.5	1435.9
67.5°	802.4	903.8	1123.4	1283.9	1347.2
70°	671.5	798.2	1026.2	1186.7	1250.1
72.5°	549.0	688.4	924.9	1081.1	1140.3
75°	430.8	587.0	819.3	958.7	988.2
77.5°	321.0	485.7	709.5	768.6	747.5
80°	228.1	388.5	553.2	523.7	536.3
82.5°	147.8	295.6	342.1	388.5	401.2
85°	84.5	173.2	211.2	228.1	236.5
87.5°	38.0	63.3	84.5	84.5	80.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)