

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: P391106

Luminaire Tested: **24CZ2-150VHE-RDP-UNV-L935-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: P391106
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-L935-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8533.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

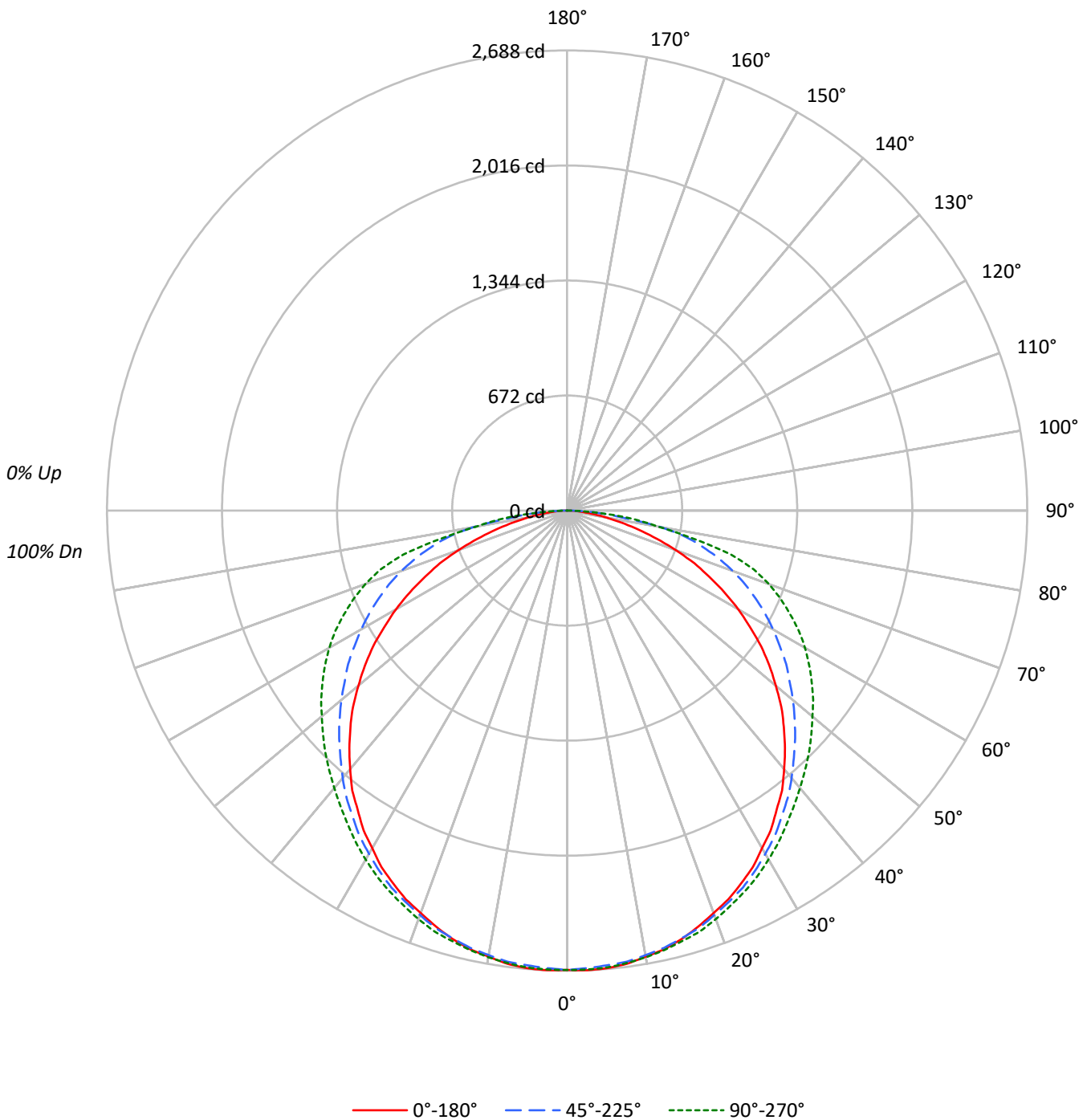
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3610	3610	3610
5°	3624	3601	3619
10°	3614	3603	3620
15°	3608	3602	3626
20°	3582	3600	3636
25°	3569	3607	3644
30°	3538	3597	3656
35°	3504	3587	3671
40°	3464	3583	3717
45°	3407	3584	3801
50°	3331	3606	3916
55°	3247	3664	4091
60°	3109	3736	4317
65°	2911	3867	4581
70°	2648	4046	4928
75°	2244	4269	5149
80°	1771	4296	4165
85°	1306	3267	3659



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.5	3.0
10°-20°	732.6	8.6
20°-30°	1120.3	13.1
30°-40°	1369.5	16.0
40°-50°	1459.6	17.1
50°-60°	1395.6	16.4
60°-70°	1182.2	13.9
70°-80°	794.6	9.3
80°-90°	224.1	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°	2107.4	24.7
0°-40°	3476.9	40.7
0°-60°	6332.1	74.2
0°-90°	8533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8533.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2683	2683	2683	2683	2683	
5°	2683	2679	2666	2679	2679	255
15°	2590	2590	2586	2607	2603	730
25°	2404	2412	2429	2451	2455	1108
35°	2133	2150	2184	2226	2235	1336
45°	1790	1820	1883	1964	1998	1381
55°	1384	1435	1562	1684	1744	1233
65°	914	1007	1215	1376	1439	908
75°	432	588	821	961	990	462
85°	85	174	212	229	237	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2683.4	2683.4	2683.4	2683.4	2683.4
2.5°	2687.6	2687.6	2674.9	2683.4	2683.4
5°	2683.4	2679.2	2666.5	2679.2	2679.2
7.5°	2670.7	2666.5	2658.0	2670.7	2666.5
10°	2645.3	2645.3	2636.8	2649.5	2649.5
12.5°	2624.1	2619.9	2615.7	2632.6	2628.4
15°	2590.3	2590.3	2586.0	2607.2	2603.0
17.5°	2547.9	2552.2	2556.4	2573.3	2577.6
20°	2501.4	2509.9	2514.1	2539.5	2539.5
22.5°	2459.1	2463.3	2471.8	2497.2	2497.2
25°	2404.0	2412.5	2429.4	2450.6	2454.8
27.5°	2349.0	2353.3	2374.4	2404.0	2408.3
30°	2277.1	2289.8	2315.2	2349.0	2353.3
32.5°	2213.6	2226.3	2255.9	2289.8	2298.2
35°	2133.2	2150.1	2184.0	2226.3	2234.7
37.5°	2061.2	2073.9	2116.2	2162.8	2175.5
40°	1972.3	1997.7	2040.0	2095.1	2116.2
42.5°	1883.4	1908.8	1959.6	2031.6	2057.0
45°	1790.3	1820.0	1883.4	1963.9	1997.7
47.5°	1697.2	1731.1	1803.0	1896.1	1934.2
50°	1591.4	1633.7	1722.6	1828.4	1870.8
52.5°	1489.8	1540.6	1638.0	1756.5	1811.5
55°	1384.0	1434.8	1561.8	1684.5	1743.8
57.5°	1265.5	1333.2	1472.9	1612.6	1676.1
60°	1155.5	1219.0	1388.2	1540.6	1604.1
62.5°	1037.0	1121.6	1303.6	1464.4	1527.9
65°	914.2	1007.3	1214.7	1375.6	1439.0
67.5°	804.2	905.7	1125.8	1286.7	1350.2
70°	673.0	799.9	1028.5	1189.3	1252.8
72.5°	550.2	689.9	926.9	1083.5	1142.8
75°	431.7	588.3	821.1	960.8	990.4
77.5°	321.7	486.7	711.1	770.3	749.1
80°	228.6	389.4	554.5	524.8	537.5
82.5°	148.1	296.3	342.8	389.4	402.1
85°	84.6	173.5	211.6	228.6	237.0
87.5°	38.1	63.5	84.6	84.6	80.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)