

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: P391101

Luminaire Tested: **24CZ2-150VHE-RDP-UNV-L930-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: P391101
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-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8124.5 lumens
Efficiency: N/A
Efficacy: 78.0 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

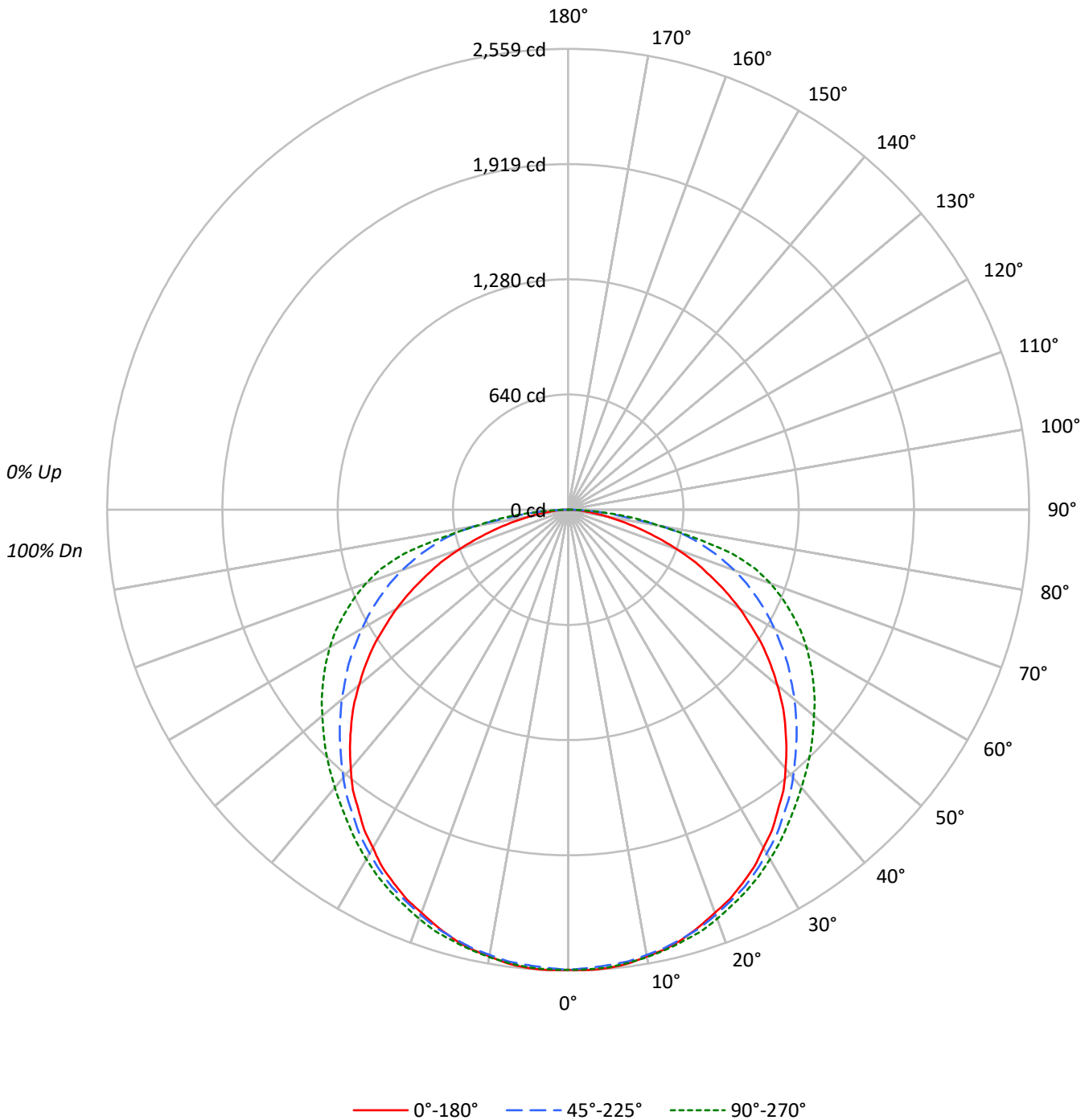
Input Watts (W): 104.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3438	3438	3438
5°	3451	3429	3445
10°	3441	3430	3447
15°	3435	3430	3452
20°	3410	3427	3462
25°	3398	3434	3470
30°	3368	3425	3481
35°	3336	3415	3495
40°	3298	3412	3539
45°	3244	3412	3619
50°	3172	3433	3728
55°	3091	3488	3895
60°	2960	3557	4110
65°	2771	3682	4362
70°	2520	3853	4692
75°	2137	4064	4902
80°	1686	4090	3966
85°	1244	3111	3484



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.4	3.0
10°-20°	697.5	8.6
20°-30°	1066.6	13.1
30°-40°	1303.9	16.0
40°-50°	1389.7	17.1
50°-60°	1328.8	16.4
60°-70°	1125.6	13.9
70°-80°	756.5	9.3
80°-90°	213.4	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°	2006.5	24.7
0°-40°	3310.4	40.7
0°-60°	6028.9	74.2
0°-90°	8124.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8124.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2555	2555	2555	2555	2555	
5°	2555	2551	2539	2551	2551	243
15°	2466	2466	2462	2482	2478	695
25°	2289	2297	2313	2333	2337	1055
35°	2031	2047	2079	2120	2128	1272
45°	1705	1733	1793	1870	1902	1315
55°	1318	1366	1487	1604	1660	1174
65°	870	959	1157	1310	1370	864
75°	411	560	782	915	943	440
85°	81	165	202	218	226	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2554.9	2554.9	2554.9	2554.9	2554.9
2.5°	2559.0	2559.0	2546.9	2554.9	2554.9
5°	2554.9	2550.9	2538.8	2550.9	2550.9
7.5°	2542.8	2538.8	2530.7	2542.8	2538.8
10°	2518.7	2518.7	2510.6	2522.7	2522.7
12.5°	2498.5	2494.5	2490.4	2506.6	2502.5
15°	2466.3	2466.3	2462.2	2482.4	2478.4
17.5°	2426.0	2430.0	2434.0	2450.1	2454.2
20°	2381.6	2389.7	2393.7	2417.9	2417.9
22.5°	2341.3	2345.4	2353.4	2377.6	2377.6
25°	2289.0	2297.0	2313.1	2333.3	2337.3
27.5°	2236.6	2240.6	2260.7	2289.0	2293.0
30°	2168.1	2180.1	2204.3	2236.6	2240.6
32.5°	2107.6	2119.7	2147.9	2180.1	2188.2
35°	2031.0	2047.2	2079.4	2119.7	2127.8
37.5°	1962.5	1974.6	2014.9	2059.3	2071.3
40°	1877.9	1902.1	1942.4	1994.8	2014.9
42.5°	1793.3	1817.5	1865.8	1934.3	1958.5
45°	1704.6	1732.8	1793.3	1869.8	1902.1
47.5°	1616.0	1648.2	1716.7	1805.4	1841.6
50°	1515.2	1555.5	1640.1	1740.9	1781.2
52.5°	1418.5	1466.9	1559.6	1672.4	1724.8
55°	1317.8	1366.1	1487.0	1603.9	1660.3
57.5°	1204.9	1269.4	1402.4	1535.4	1595.8
60°	1100.1	1160.6	1321.8	1466.9	1527.3
62.5°	987.3	1067.9	1241.2	1394.3	1454.8
65°	870.4	959.1	1156.6	1309.7	1370.1
67.5°	765.7	862.4	1071.9	1225.1	1285.5
70°	640.7	761.6	979.3	1132.4	1192.8
72.5°	523.9	656.9	882.5	1031.6	1088.1
75°	411.0	560.1	781.8	914.8	943.0
77.5°	306.3	463.4	677.0	733.4	713.3
80°	217.6	370.7	527.9	499.7	511.8
82.5°	141.0	282.1	326.4	370.7	382.8
85°	80.6	165.2	201.5	217.6	225.7
87.5°	36.3	60.4	80.6	80.6	76.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)