

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: P391153

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L935-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: P391153
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: 24CZ2-170VHE-RDP-UNV-L935-CD2-SWPD1-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: 9558.7 lumens
Efficiency: N/A
Efficacy: 77.5 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

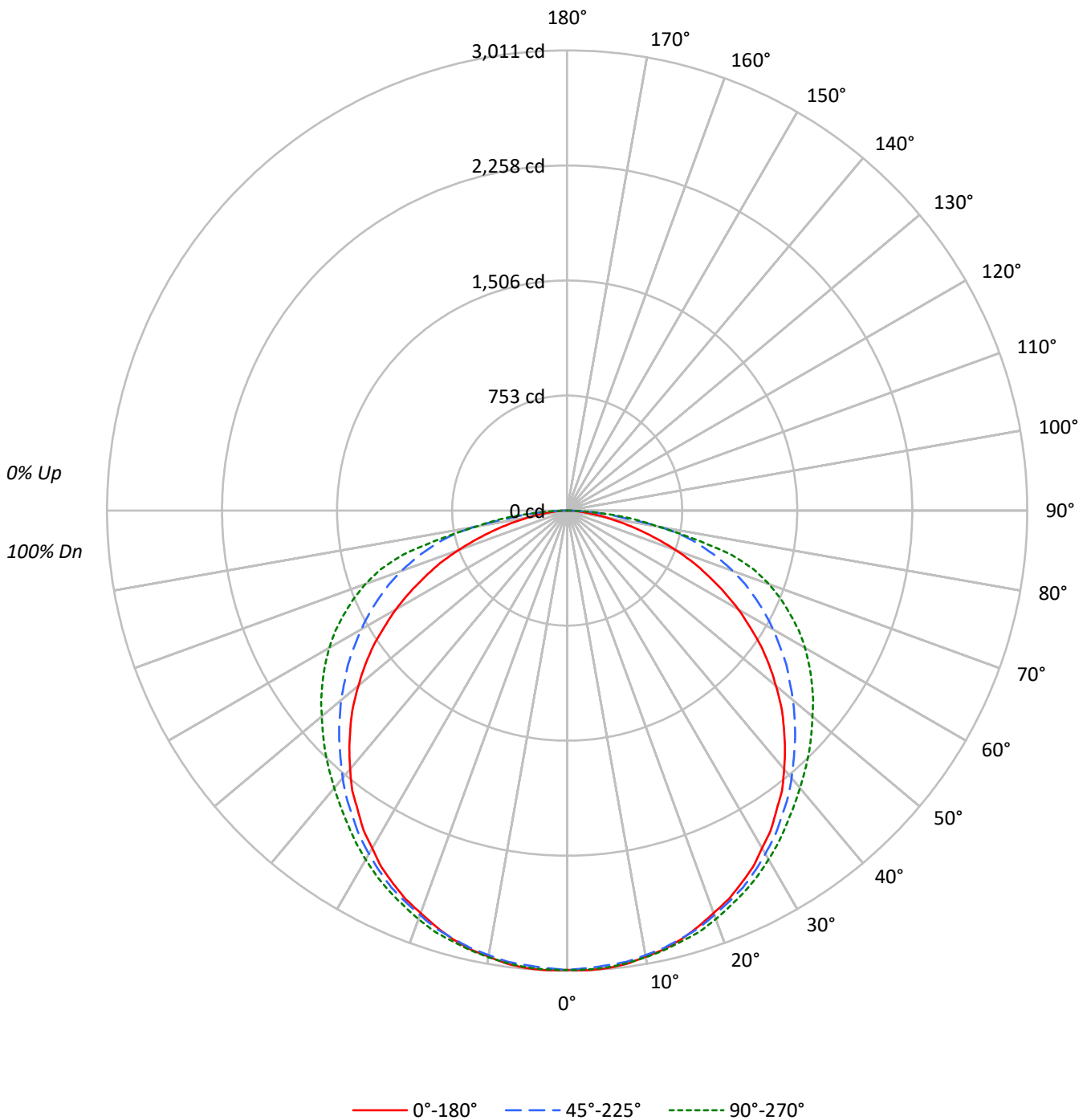
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4044	4044	4044
5°	4060	4034	4054
10°	4049	4036	4055
15°	4042	4035	4062
20°	4012	4032	4073
25°	3998	4040	4082
30°	3963	4029	4096
35°	3925	4018	4112
40°	3881	4014	4164
45°	3816	4015	4258
50°	3732	4039	4387
55°	3637	4104	4582
60°	3483	4185	4835
65°	3260	4332	5132
70°	2966	4532	5521
75°	2514	4782	5767
80°	1984	4813	4665
85°	1463	3660	4099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	3.0
10°-20°	820.6	8.6
20°-30°	1254.9	13.1
30°-40°	1534.1	16.0
40°-50°	1635.1	17.1
50°-60°	1563.3	16.4
60°-70°	1324.3	13.9
70°-80°	890.1	9.3
80°-90°	251.1	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°	2360.7	24.7
0°-40°	3894.8	40.7
0°-60°	7093.2	74.2
0°-90°	9558.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9558.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3006	3006	3006	3006	3006	
5°	3006	3001	2987	3001	3001	286
15°	2902	2902	2897	2921	2916	818
25°	2693	2702	2722	2745	2750	1241
35°	2390	2408	2446	2494	2503	1497
45°	2006	2039	2110	2200	2238	1547
55°	1550	1607	1750	1887	1953	1381
65°	1024	1128	1361	1541	1612	1017
75°	484	659	920	1076	1109	518
85°	95	194	237	256	266	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3005.9	3005.9	3005.9	3005.9	3005.9
2.5°	3010.7	3010.7	2996.5	3005.9	3005.9
5°	3005.9	3001.2	2987.0	3001.2	3001.2
7.5°	2991.7	2987.0	2977.5	2991.7	2987.0
10°	2963.3	2963.3	2953.8	2968.0	2968.0
12.5°	2939.6	2934.8	2930.1	2949.0	2944.3
15°	2901.6	2901.6	2896.9	2920.6	2915.9
17.5°	2854.2	2859.0	2863.7	2882.7	2887.4
20°	2802.1	2811.5	2816.3	2844.7	2844.7
22.5°	2754.7	2759.4	2768.9	2797.3	2797.3
25°	2693.0	2702.5	2721.5	2745.2	2749.9
27.5°	2631.4	2636.1	2659.8	2693.0	2697.8
30°	2550.8	2565.0	2593.5	2631.4	2636.1
32.5°	2479.7	2493.9	2527.1	2565.0	2574.5
35°	2389.6	2408.5	2446.5	2493.9	2503.4
37.5°	2309.0	2323.2	2370.6	2422.8	2437.0
40°	2209.4	2237.9	2285.3	2346.9	2370.6
42.5°	2109.8	2138.3	2195.2	2275.8	2304.2
45°	2005.5	2038.7	2109.8	2199.9	2237.9
47.5°	1901.2	1939.2	2019.8	2124.1	2166.7
50°	1782.7	1830.1	1929.7	2048.2	2095.6
52.5°	1668.9	1725.8	1834.9	1967.6	2029.2
55°	1550.4	1607.3	1749.5	1887.0	1953.4
57.5°	1417.6	1493.5	1649.9	1806.4	1877.5
60°	1294.4	1365.5	1555.1	1725.8	1796.9
62.5°	1161.6	1256.4	1460.3	1640.5	1711.6
65°	1024.1	1128.4	1360.7	1540.9	1612.0
67.5°	900.8	1014.6	1261.2	1441.3	1512.5
70°	753.9	896.1	1152.1	1332.3	1403.4
72.5°	616.4	772.8	1038.3	1213.8	1280.1
75°	483.6	659.0	919.8	1076.3	1109.4
77.5°	360.3	545.2	796.5	862.9	839.2
80°	256.0	436.2	621.1	587.9	602.1
82.5°	165.9	331.9	384.0	436.2	450.4
85°	94.8	194.4	237.1	256.0	265.5
87.5°	42.7	71.1	94.8	94.8	90.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)