

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: P391152

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L935-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: P391152
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-SDWPD1-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: 9443.5 lumens
Efficiency: N/A
Efficacy: 76.5 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

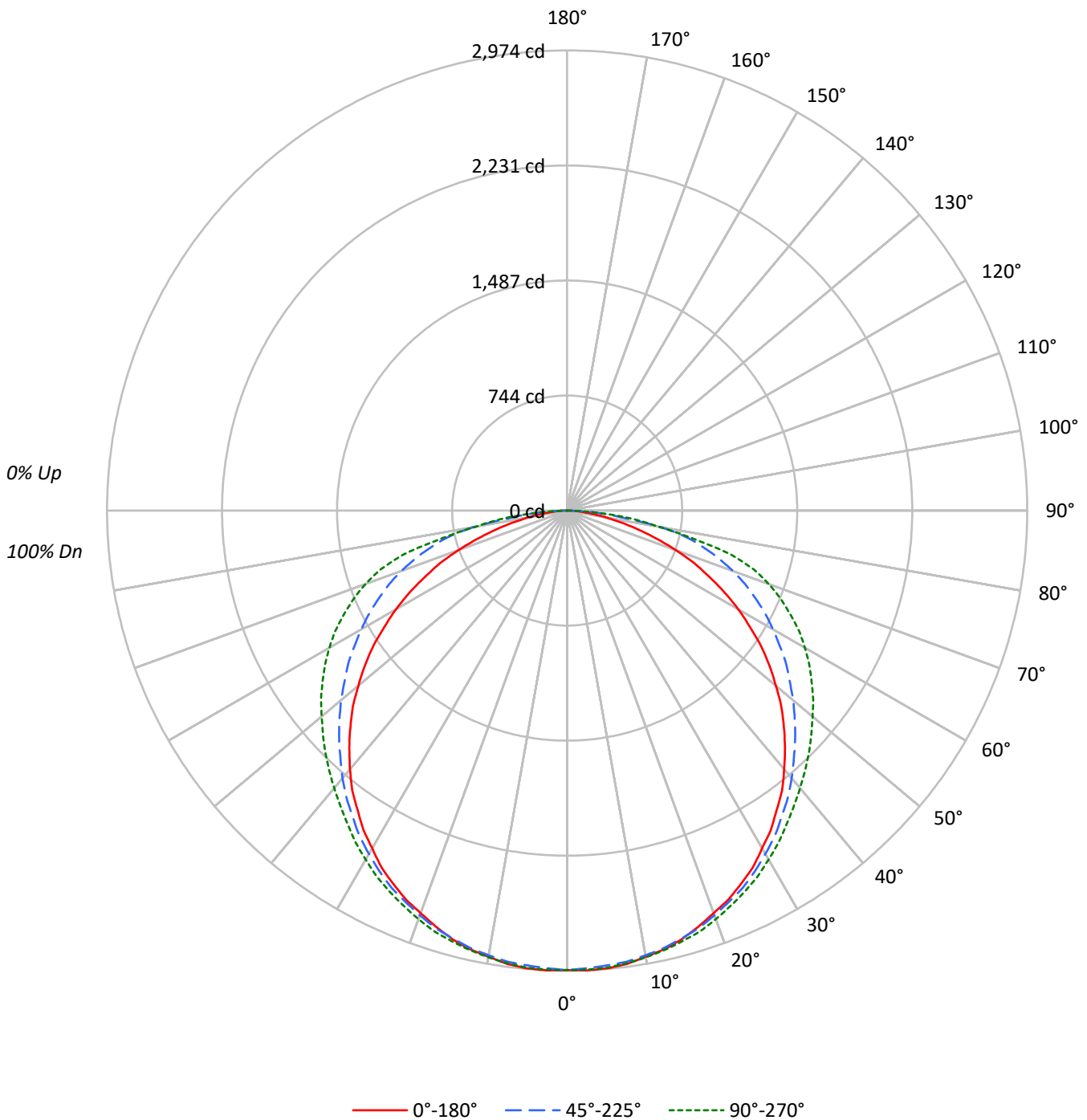
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3996	3996	3996
5°	4011	3986	4005
10°	4000	3987	4006
15°	3993	3987	4013
20°	3964	3984	4024
25°	3950	3992	4033
30°	3915	3981	4046
35°	3878	3970	4062
40°	3834	3965	4114
45°	3770	3966	4207
50°	3687	3990	4334
55°	3593	4054	4527
60°	3441	4134	4777
65°	3221	4280	5070
70°	2930	4478	5454
75°	2484	4724	5698
80°	1960	4754	4610
85°	1447	3616	4049



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.7	3.0
10°-20°	810.7	8.6
20°-30°	1239.8	13.1
30°-40°	1515.6	16.0
40°-50°	1615.4	17.1
50°-60°	1544.5	16.4
60°-70°	1308.4	13.9
70°-80°	879.3	9.3
80°-90°	248.0	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°	2332.3	24.7
0°-40°	3847.9	40.7
0°-60°	7007.7	74.2
0°-90°	9443.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9443.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2970	2970	2970	2970	2970	
5°	2970	2965	2951	2965	2965	282
15°	2867	2867	2862	2885	2881	808
25°	2661	2670	2689	2712	2717	1226
35°	2361	2380	2417	2464	2473	1479
45°	1981	2014	2084	2173	2211	1528
55°	1532	1588	1728	1864	1930	1364
65°	1012	1115	1344	1522	1593	1004
75°	478	651	909	1063	1096	512
85°	94	192	234	253	262	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2969.7	2969.7	2969.7	2969.7	2969.7
2.5°	2974.4	2974.4	2960.3	2969.7	2969.7
5°	2969.7	2965.0	2951.0	2965.0	2965.0
7.5°	2955.7	2951.0	2941.6	2955.7	2951.0
10°	2927.6	2927.6	2918.2	2932.2	2932.2
12.5°	2904.1	2899.4	2894.8	2913.5	2908.8
15°	2866.7	2866.7	2862.0	2885.4	2880.7
17.5°	2819.8	2824.5	2829.2	2847.9	2852.6
20°	2768.3	2777.7	2782.3	2810.5	2810.5
22.5°	2721.5	2726.1	2735.5	2763.6	2763.6
25°	2660.6	2669.9	2688.7	2712.1	2716.8
27.5°	2599.7	2604.4	2627.8	2660.6	2665.2
30°	2520.0	2534.1	2562.2	2599.7	2604.4
32.5°	2449.8	2463.8	2496.6	2534.1	2543.5
35°	2360.8	2379.5	2417.0	2463.8	2473.2
37.5°	2281.2	2295.2	2342.0	2393.6	2407.6
40°	2182.8	2210.9	2257.7	2318.6	2342.0
42.5°	2084.4	2112.5	2168.7	2248.4	2276.5
45°	1981.4	2014.2	2084.4	2173.4	2210.9
47.5°	1878.3	1915.8	1995.4	2098.5	2140.6
50°	1761.2	1808.1	1906.4	2023.5	2070.4
52.5°	1648.8	1705.0	1812.7	1943.9	2004.8
55°	1531.7	1587.9	1728.4	1864.3	1929.8
57.5°	1400.5	1475.5	1630.1	1784.6	1854.9
60°	1278.8	1349.0	1536.4	1705.0	1775.3
62.5°	1147.6	1241.3	1442.7	1620.7	1691.0
65°	1011.8	1114.8	1344.3	1522.3	1592.6
67.5°	890.0	1002.4	1246.0	1424.0	1494.2
70°	744.8	885.3	1138.2	1316.2	1386.5
72.5°	608.9	763.5	1025.8	1199.1	1264.7
75°	477.8	651.1	908.7	1063.3	1096.1
77.5°	356.0	538.7	786.9	852.5	829.1
80°	252.9	430.9	613.6	580.8	594.9
82.5°	163.9	327.9	379.4	430.9	445.0
85°	93.7	192.0	234.2	252.9	262.3
87.5°	42.2	70.3	93.7	93.7	89.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)