

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: P389906

Luminaire Tested: **24CZ2-75VHE-S-UNV-L935-CD1-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: P389906
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-S-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6806.7 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

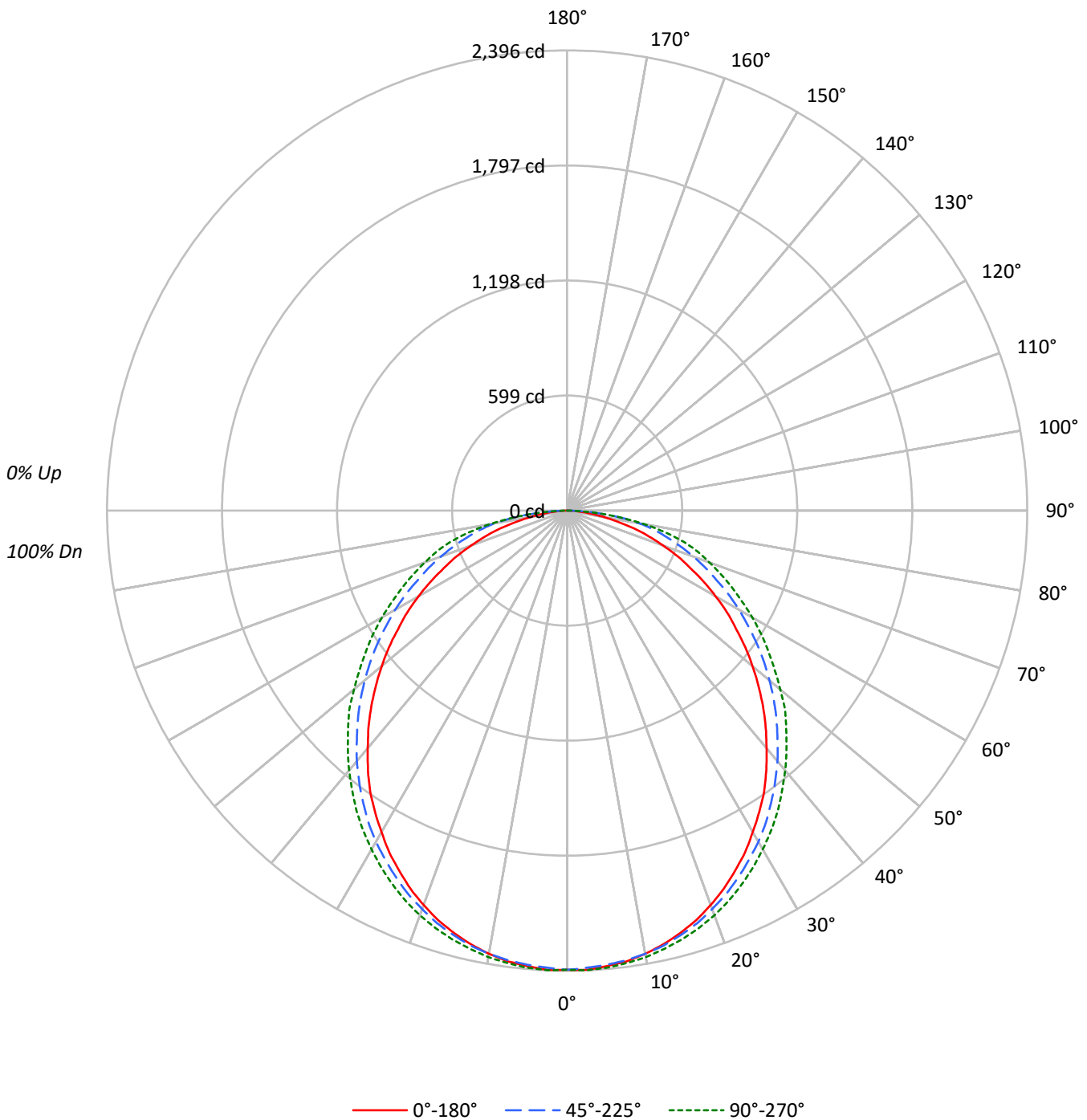
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3217	3217	3217
5°	3215	3206	3227
10°	3202	3202	3226
15°	3171	3186	3219
20°	3130	3161	3210
25°	3072	3130	3191
30°	3003	3094	3164
35°	2937	3043	3139
40°	2837	2992	3103
45°	2744	2933	3069
50°	2638	2878	3032
55°	2521	2825	3002
60°	2403	2781	2996
65°	2251	2733	3015
70°	2084	2747	3096
75°	1866	2799	3271
80°	1508	2965	3200
85°	1135	2603	2536



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.4	3.3
10°-20°	646.9	9.5
20°-30°	972.4	14.3
30°-40°	1158.2	17.0
40°-50°	1185.4	17.4
50°-60°	1067.2	15.7
60°-70°	838.1	12.3
70°-80°	543.9	8.0
80°-90°	168.2	2.5
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°	1845.6	27.1
0°-40°	3003.8	44.1
0°-60°	5256.4	77.2
0°-90°	6806.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6806.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2391	2391	2391	2391	2391	
5°	2380	2385	2374	2387	2389	226
15°	2277	2283	2288	2307	2311	642
25°	2069	2086	2108	2143	2149	953
35°	1788	1810	1853	1898	1911	1115
45°	1442	1477	1542	1600	1613	1112
55°	1074	1122	1204	1267	1280	963
65°	707	761	858	930	947	704
75°	359	428	538	612	629	380
85°	74	136	169	164	164	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2391.2	2391.2	2391.2	2391.2	2391.2
2.5°	2393.4	2393.4	2382.6	2393.4	2395.6
5°	2380.4	2384.8	2373.9	2386.9	2389.1
7.5°	2367.5	2367.5	2361.0	2373.9	2376.1
10°	2343.7	2345.8	2343.7	2358.8	2361.0
12.5°	2313.4	2317.7	2319.9	2335.0	2337.2
15°	2276.6	2283.1	2287.5	2306.9	2311.2
17.5°	2235.6	2242.1	2252.9	2274.5	2278.8
20°	2185.8	2194.5	2207.5	2235.6	2242.1
22.5°	2131.8	2140.4	2162.1	2188.0	2198.8
25°	2069.1	2086.4	2108.0	2142.6	2149.1
27.5°	2006.4	2021.5	2049.6	2086.4	2095.0
30°	1932.9	1956.7	1991.3	2028.0	2036.7
32.5°	1861.5	1885.3	1926.4	1965.3	1976.1
35°	1788.0	1809.6	1852.9	1898.3	1911.3
37.5°	1703.7	1731.8	1779.4	1824.8	1837.8
40°	1615.1	1649.7	1703.7	1751.3	1766.4
42.5°	1530.7	1567.5	1621.5	1673.4	1690.7
45°	1442.1	1476.7	1541.5	1599.9	1612.9
47.5°	1351.3	1390.2	1459.4	1517.8	1539.4
50°	1260.5	1301.6	1375.1	1435.6	1448.6
52.5°	1169.7	1212.9	1290.7	1355.6	1362.1
55°	1074.5	1122.1	1204.3	1267.0	1279.9
57.5°	988.1	1029.1	1117.8	1182.6	1197.8
60°	892.9	938.3	1033.5	1094.0	1113.5
62.5°	802.1	849.7	949.1	1009.7	1027.0
65°	707.0	761.0	858.3	929.7	947.0
67.5°	624.8	676.7	780.5	849.7	867.0
70°	529.7	588.1	698.3	769.7	787.0
72.5°	447.5	508.1	618.3	687.5	713.5
75°	358.9	428.1	538.4	611.9	629.2
77.5°	272.4	352.4	464.8	521.1	521.1
80°	194.6	278.9	382.7	408.6	413.0
82.5°	127.6	209.7	283.2	281.1	281.1
85°	73.5	136.2	168.6	164.3	164.3
87.5°	28.1	56.2	60.5	60.5	58.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)