

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: P389068

Luminaire Tested: **24CZ2-95VHE-UNV-L940-CD1-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: P389068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8032.2 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

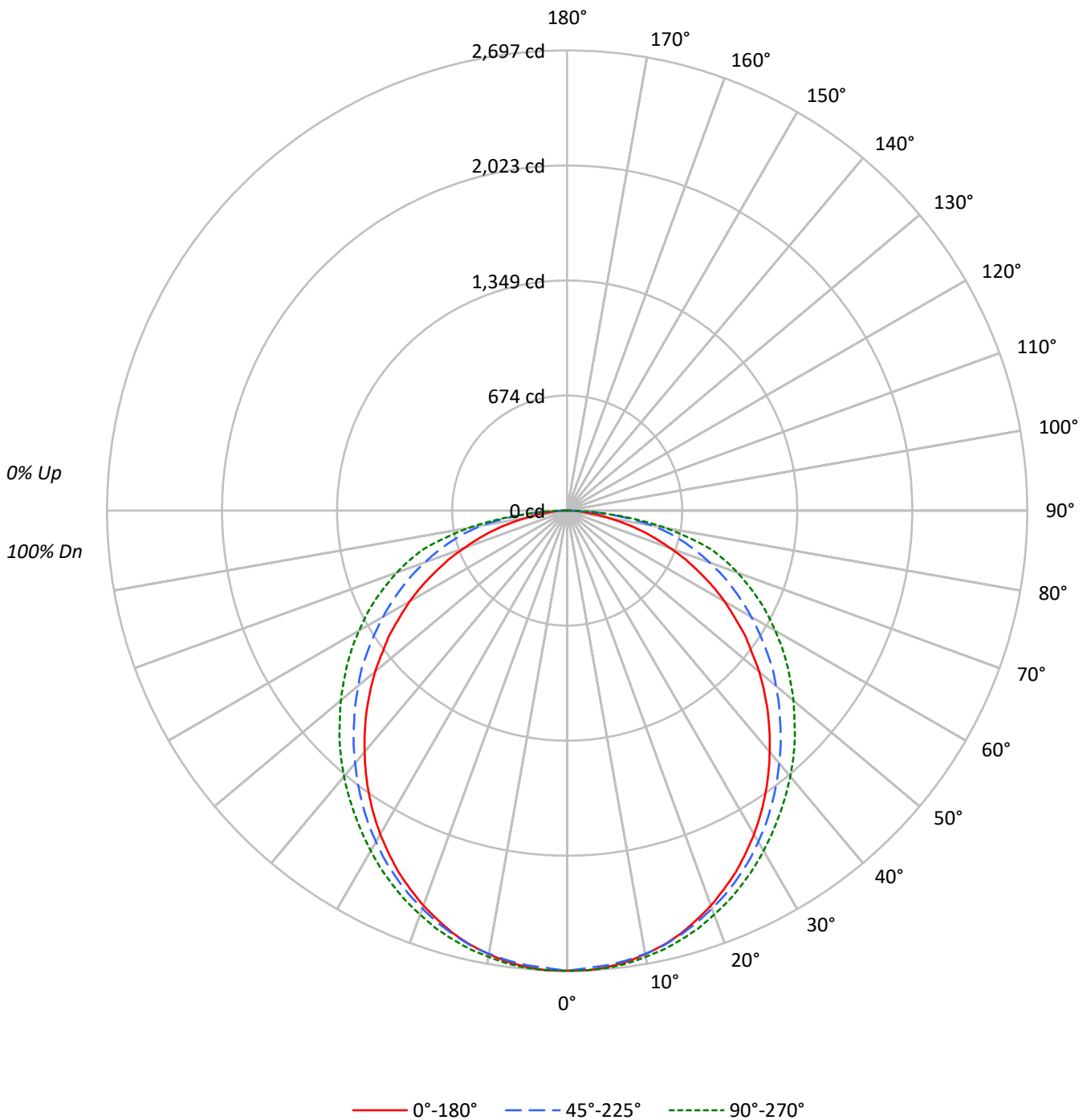
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3629	3629	3629
5°	3628	3613	3635
10°	3608	3604	3630
15°	3577	3585	3622
20°	3527	3554	3608
25°	3470	3522	3594
30°	3403	3482	3578
35°	3329	3439	3567
40°	3244	3395	3574
45°	3162	3362	3591
50°	3075	3344	3625
55°	2981	3339	3691
60°	2864	3354	3787
65°	2714	3405	3952
70°	2520	3491	4176
75°	2299	3665	4529
80°	1890	3946	4528
85°	1448	3642	3890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.1	3.2
10°-20°	728.2	9.1
20°-30°	1095.8	13.6
30°-40°	1313.1	16.3
40°-50°	1368.4	17.0
50°-60°	1273.2	15.9
60°-70°	1048.6	13.1
70°-80°	714.1	8.9
80°-90°	235.8	2.9
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°	2079.0	25.9
0°-40°	3392.1	42.2
0°-60°	6033.7	75.1
0°-90°	8032.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8032.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2697	2697	2697	2697	2697	
5°	2686	2686	2675	2689	2691	255
15°	2568	2571	2574	2598	2600	723
25°	2338	2348	2372	2413	2421	1076
35°	2027	2051	2094	2150	2171	1267
45°	1662	1697	1767	1855	1887	1282
55°	1271	1314	1424	1536	1574	1133
65°	852	925	1070	1196	1241	846
75°	442	542	705	831	871	466
85°	94	182	236	252	252	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2696.8	2696.8	2696.8	2696.8	2696.8
2.5°	2696.8	2696.8	2683.4	2696.8	2696.8
5°	2686.1	2686.1	2675.3	2688.7	2691.4
7.5°	2667.3	2670.0	2659.3	2675.3	2678.0
10°	2640.5	2643.2	2637.8	2653.9	2656.6
12.5°	2608.3	2611.0	2611.0	2629.8	2632.4
15°	2568.1	2570.8	2573.5	2597.6	2600.3
17.5°	2517.2	2525.2	2530.6	2560.1	2565.4
20°	2463.6	2471.6	2482.3	2514.5	2519.9
22.5°	2401.9	2412.6	2431.4	2466.2	2474.3
25°	2337.6	2348.3	2372.4	2412.6	2420.7
27.5°	2265.2	2281.3	2310.8	2353.7	2364.4
30°	2190.1	2206.2	2241.1	2286.6	2302.7
32.5°	2109.7	2131.2	2171.4	2222.3	2238.4
35°	2026.6	2050.7	2093.6	2149.9	2171.4
37.5°	1938.1	1965.0	2015.9	2077.5	2104.3
40°	1847.0	1879.2	1932.8	2005.2	2034.7
42.5°	1755.9	1785.3	1852.4	1930.1	1962.3
45°	1662.0	1696.9	1766.6	1855.0	1887.2
47.5°	1565.5	1600.4	1683.5	1777.3	1806.8
50°	1469.0	1503.9	1597.7	1696.9	1731.7
52.5°	1364.5	1410.0	1517.3	1616.5	1651.3
55°	1270.7	1313.5	1423.5	1536.0	1573.6
57.5°	1163.4	1214.4	1335.0	1452.9	1493.1
60°	1064.2	1117.9	1246.5	1367.2	1407.4
62.5°	962.4	1021.3	1158.1	1281.4	1326.9
65°	852.5	924.8	1069.6	1195.6	1241.2
67.5°	753.3	828.3	981.1	1109.8	1150.0
70°	640.7	731.8	887.3	1016.0	1061.6
72.5°	544.2	635.3	798.8	924.8	970.4
75°	442.3	541.5	705.0	831.0	871.2
77.5°	340.4	450.4	613.9	710.4	723.8
80°	243.9	359.2	509.3	565.6	584.4
82.5°	171.6	276.1	375.3	412.8	423.6
85°	93.8	182.3	235.9	252.0	252.0
87.5°	40.2	77.7	93.8	96.5	99.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)