

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: P388588

Luminaire Tested: **24CZ2-100VHE-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: P388588
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: 24CZ2-100VHE-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: 8597.4 lumens
Efficiency: N/A
Efficacy: 123.5 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

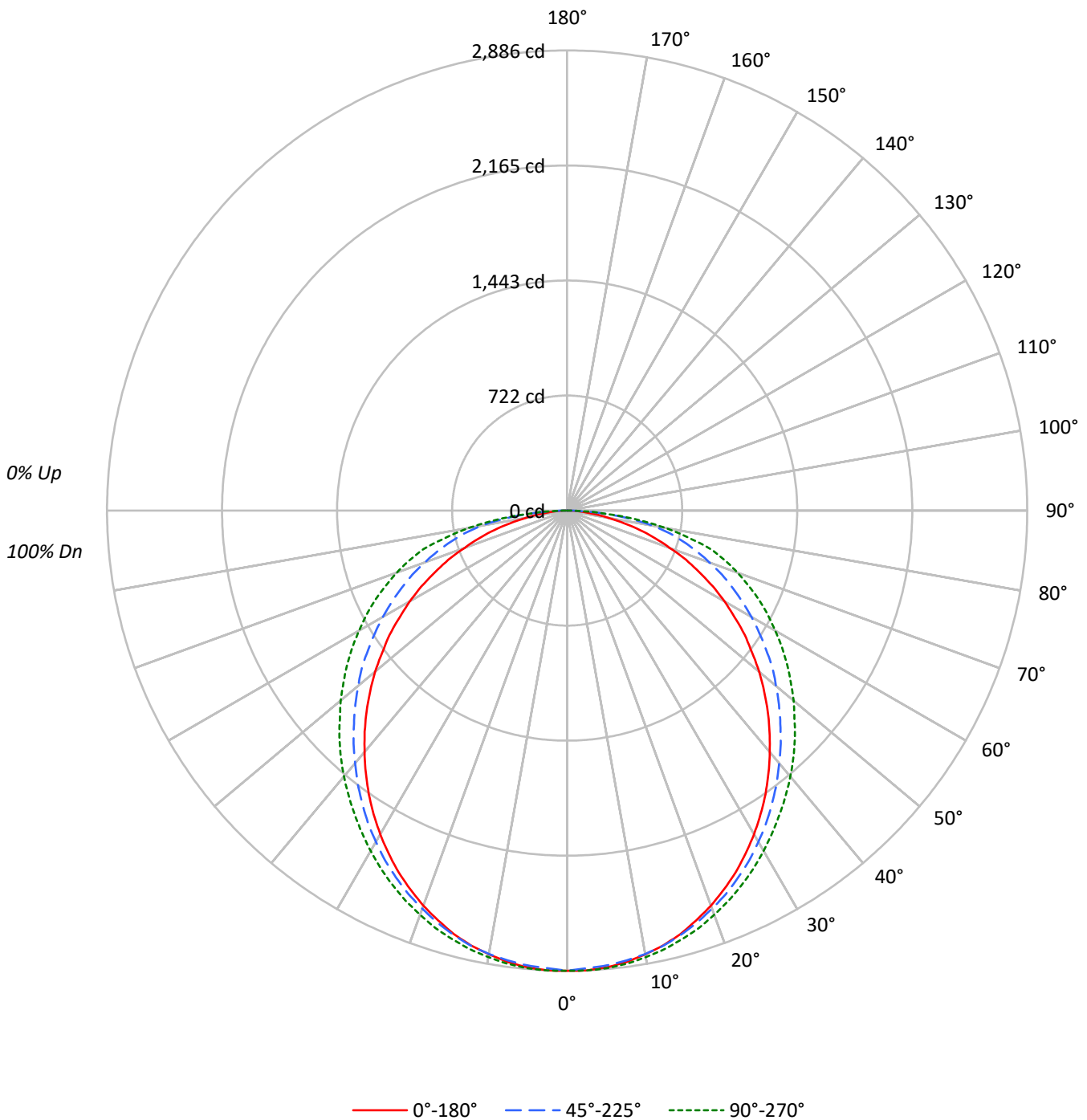
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3884	3884	3884
5°	3883	3868	3891
10°	3861	3857	3885
15°	3829	3837	3877
20°	3776	3804	3862
25°	3715	3770	3847
30°	3642	3727	3829
35°	3563	3681	3818
40°	3472	3634	3825
45°	3385	3598	3844
50°	3291	3580	3880
55°	3191	3574	3951
60°	3065	3590	4054
65°	2905	3645	4230
70°	2698	3736	4470
75°	2461	3923	4848
80°	2023	4224	4847
85°	1550	3898	4164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.0	3.2
10°-20°	779.4	9.1
20°-30°	1172.9	13.6
30°-40°	1405.5	16.3
40°-50°	1464.7	17.0
50°-60°	1362.7	15.9
60°-70°	1122.4	13.1
70°-80°	764.4	8.9
80°-90°	252.4	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°	2225.2	25.9
0°-40°	3630.8	42.2
0°-60°	6458.2	75.1
0°-90°	8597.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8597.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2886	2886	2886	2886	2886	
5°	2875	2875	2864	2878	2881	273
15°	2749	2752	2755	2780	2783	774
25°	2502	2514	2539	2582	2591	1152
35°	2169	2195	2241	2301	2324	1356
45°	1779	1816	1891	1986	2020	1372
55°	1360	1406	1524	1644	1684	1212
65°	912	990	1145	1280	1328	906
75°	473	580	755	890	932	499
85°	100	195	252	270	270	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2886.5	2886.5	2886.5	2886.5	2886.5
2.5°	2886.5	2886.5	2872.2	2886.5	2886.5
5°	2875.1	2875.1	2863.6	2877.9	2880.8
7.5°	2855.0	2857.9	2846.4	2863.6	2866.5
10°	2826.3	2829.2	2823.4	2840.6	2843.5
12.5°	2791.9	2794.7	2794.7	2814.8	2817.7
15°	2748.8	2751.7	2754.6	2780.4	2783.3
17.5°	2694.3	2702.9	2708.6	2740.2	2745.9
20°	2636.9	2645.5	2657.0	2691.4	2697.2
22.5°	2570.9	2582.4	2602.5	2639.8	2648.4
25°	2502.1	2513.5	2539.4	2582.4	2591.0
27.5°	2424.6	2441.8	2473.4	2519.3	2530.7
30°	2344.2	2361.5	2398.8	2447.5	2464.8
32.5°	2258.2	2281.1	2324.2	2378.7	2395.9
35°	2169.2	2195.0	2240.9	2301.2	2324.2
37.5°	2074.5	2103.2	2157.7	2223.7	2252.4
40°	1977.0	2011.4	2068.8	2146.3	2177.8
42.5°	1879.4	1911.0	1982.7	2065.9	2100.4
45°	1779.0	1816.3	1890.9	1985.6	2020.0
47.5°	1675.7	1713.0	1801.9	1902.4	1933.9
50°	1572.4	1609.7	1710.1	1816.3	1853.6
52.5°	1460.5	1509.3	1624.0	1730.2	1767.5
55°	1360.1	1406.0	1523.6	1644.1	1684.3
57.5°	1245.3	1299.8	1428.9	1555.2	1598.2
60°	1139.1	1196.5	1334.2	1463.4	1506.4
62.5°	1030.1	1093.2	1239.6	1371.5	1420.3
65°	912.4	989.9	1144.9	1279.7	1328.5
67.5°	806.3	886.6	1050.2	1187.9	1230.9
70°	685.8	783.3	949.7	1087.5	1136.3
72.5°	582.5	680.0	855.1	989.9	1038.7
75°	473.4	579.6	754.6	889.5	932.5
77.5°	364.4	482.0	657.1	760.4	774.7
80°	261.1	384.5	545.2	605.4	625.5
82.5°	183.6	295.5	401.7	441.9	453.4
85°	100.4	195.1	252.5	269.7	269.7
87.5°	43.0	83.2	100.4	103.3	106.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)