

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: P388301

Luminaire Tested: **24CZ2-100VHE-SQR-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: P388301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8274.9 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

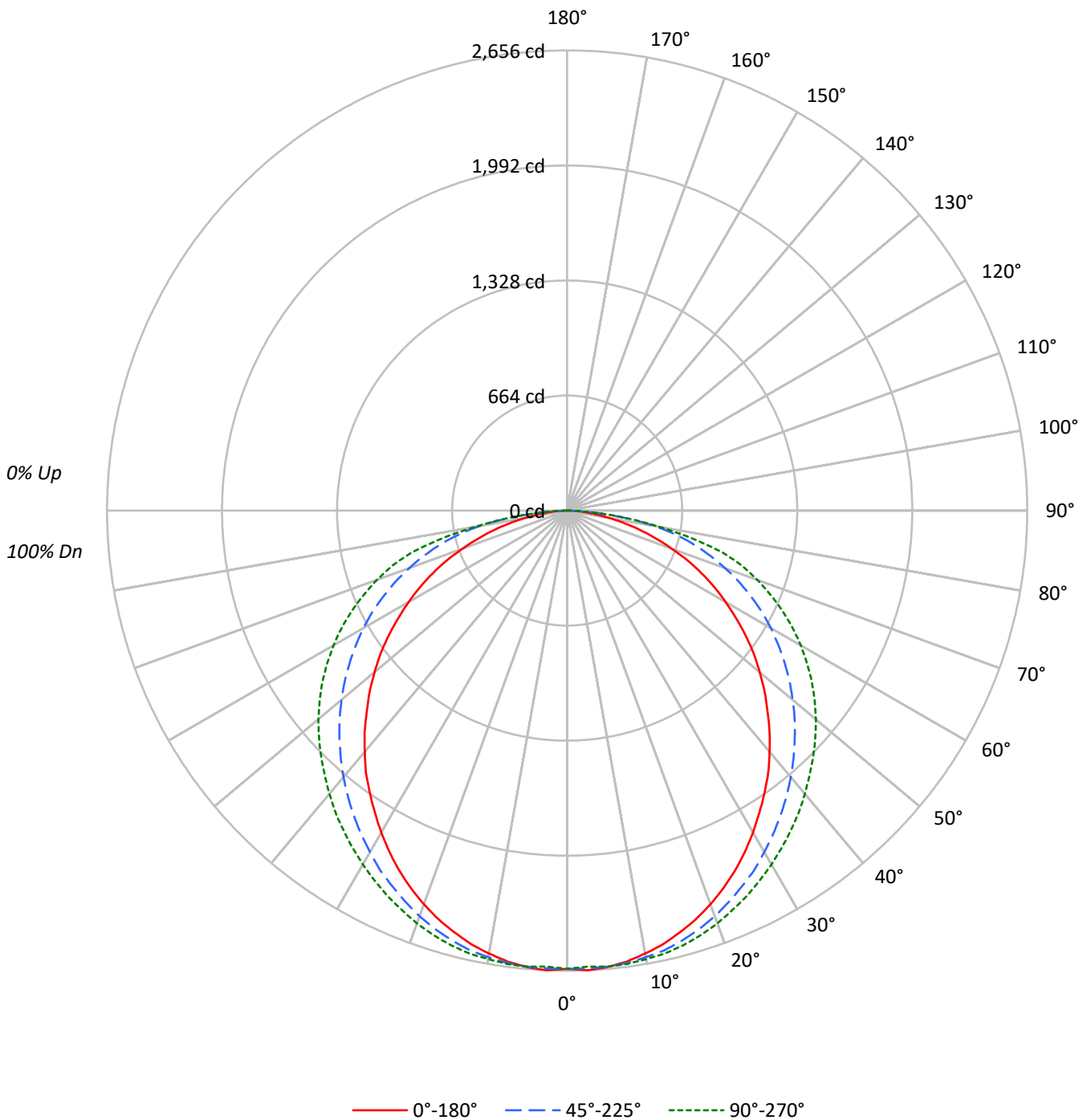
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3559	3559	3559
5°	3573	3569	3569
10°	3547	3576	3591
15°	3509	3578	3616
20°	3463	3568	3631
25°	3404	3549	3643
30°	3333	3536	3664
35°	3263	3528	3698
40°	3192	3528	3748
45°	3109	3536	3822
50°	3037	3558	3924
55°	2949	3596	4045
60°	2846	3655	4191
65°	2723	3723	4367
70°	2526	3816	4590
75°	2287	3949	4801
80°	1927	3959	4128
85°	1476	2995	2995



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.1	3.0
10°-20°	722.4	8.7
20°-30°	1097.2	13.3
30°-40°	1334.6	16.1
40°-50°	1421.0	17.2
50°-60°	1353.4	16.4
60°-70°	1131.8	13.7
70°-80°	754.6	9.1
80°-90°	208.8	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°	2070.7	25.0
0°-40°	3405.3	41.2
0°-60°	6179.7	74.7
0°-90°	8274.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8274.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2645	2645	2645	2645	2645	
5°	2645	2629	2642	2642	2642	251
15°	2519	2525	2569	2588	2596	711
25°	2293	2323	2391	2432	2454	1056
35°	1986	2044	2148	2219	2252	1243
45°	1634	1722	1858	1962	2008	1263
55°	1257	1366	1533	1667	1724	1124
65°	855	981	1170	1314	1372	845
75°	440	579	760	888	924	466
85°	96	178	194	191	194	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2645.1	2645.1	2645.1	2645.1	2645.1
2.5°	2656.0	2636.9	2645.1	2645.1	2634.1
5°	2645.1	2628.7	2642.3	2642.3	2642.3
7.5°	2625.9	2612.3	2634.1	2639.6	2639.6
10°	2595.9	2590.4	2617.7	2625.9	2628.7
12.5°	2563.1	2560.4	2598.6	2609.5	2617.7
15°	2519.4	2524.8	2568.6	2587.7	2595.9
17.5°	2472.9	2483.8	2533.0	2560.4	2568.6
20°	2418.3	2434.7	2492.0	2519.4	2535.8
22.5°	2358.1	2382.7	2442.9	2475.6	2494.8
25°	2292.6	2322.6	2390.9	2431.9	2453.8
27.5°	2221.5	2259.8	2339.0	2385.5	2407.3
30°	2145.0	2188.7	2276.2	2330.8	2358.1
32.5°	2065.8	2117.7	2213.3	2273.4	2306.2
35°	1986.5	2043.9	2147.7	2218.8	2251.6
37.5°	1907.3	1964.7	2079.4	2155.9	2196.9
40°	1817.1	1885.4	2008.4	2093.1	2134.1
42.5°	1729.7	1803.5	1934.6	2027.5	2071.2
45°	1634.0	1721.5	1858.1	1961.9	2008.4
47.5°	1546.6	1634.0	1781.6	1890.9	1942.8
50°	1451.0	1543.9	1699.6	1819.8	1874.5
52.5°	1358.1	1453.7	1617.6	1746.1	1800.7
55°	1257.0	1366.3	1532.9	1666.8	1724.2
57.5°	1155.8	1273.3	1445.5	1584.9	1642.2
60°	1057.5	1177.7	1358.1	1497.4	1557.5
62.5°	959.1	1079.3	1267.9	1410.0	1467.4
65°	855.3	981.0	1169.5	1314.3	1371.7
67.5°	751.4	882.6	1071.1	1216.0	1270.6
70°	642.1	781.5	970.0	1112.1	1166.8
72.5°	541.0	680.4	866.2	1005.6	1057.5
75°	439.9	579.3	759.6	888.1	923.6
77.5°	341.6	480.9	642.1	726.8	735.0
80°	248.7	379.8	511.0	535.6	532.8
82.5°	166.7	284.2	352.5	355.2	363.4
85°	95.6	177.6	194.0	191.3	194.0
87.5°	38.3	62.8	54.7	41.0	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)