

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: P388302

Luminaire Tested: **24CZ2-100VHE-SQR-UNV-L940-CD1-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: P388302
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-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8157.2 lumens
Efficiency: N/A
Efficacy: 117.2 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

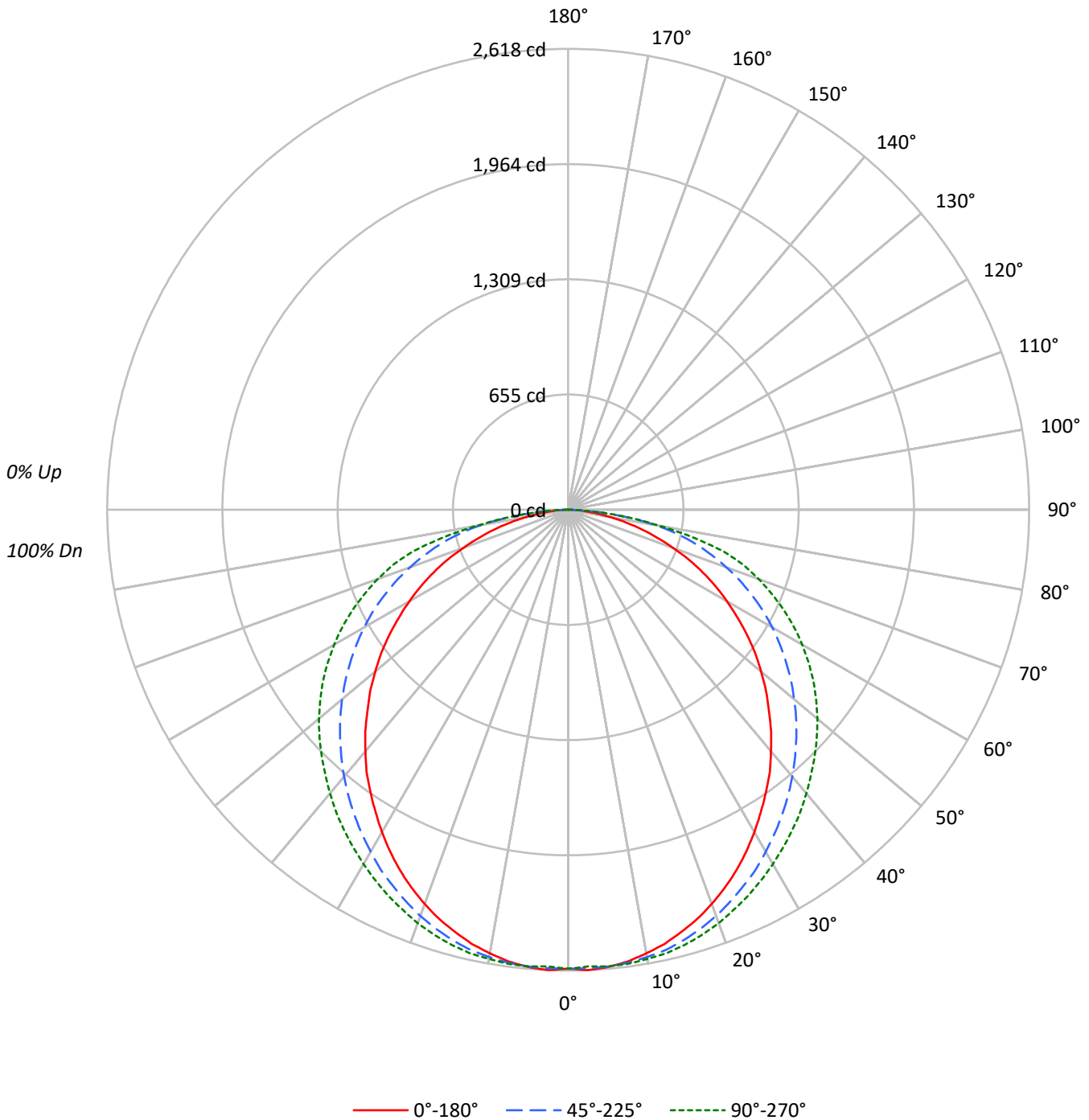
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3508	3508	3508
5°	3522	3518	3518
10°	3496	3526	3540
15°	3459	3527	3565
20°	3413	3517	3579
25°	3355	3499	3591
30°	3285	3486	3612
35°	3217	3478	3646
40°	3146	3477	3695
45°	3065	3485	3767
50°	2994	3507	3868
55°	2907	3545	3987
60°	2805	3602	4132
65°	2684	3670	4305
70°	2490	3762	4525
75°	2255	3893	4733
80°	1899	3903	4070
85°	1456	2952	2952



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.5	3.0
10°-20°	712.1	8.7
20°-30°	1081.6	13.3
30°-40°	1315.7	16.1
40°-50°	1400.7	17.2
50°-60°	1334.1	16.4
60°-70°	1115.7	13.7
70°-80°	743.9	9.1
80°-90°	205.8	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°	2041.2	25.0
0°-40°	3356.9	41.2
0°-60°	6091.8	74.7
0°-90°	8157.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8157.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2607	2607	2607	2607	2607	
5°	2607	2591	2605	2605	2605	247
15°	2484	2489	2532	2551	2559	700
25°	2260	2290	2357	2397	2419	1041
35°	1958	2015	2117	2187	2220	1225
45°	1611	1697	1832	1934	1980	1245
55°	1239	1347	1511	1643	1700	1108
65°	843	967	1153	1296	1352	833
75°	434	571	749	875	910	459
85°	94	175	191	189	191	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2607.4	2607.4	2607.4	2607.4	2607.4
2.5°	2618.2	2599.4	2607.4	2607.4	2596.7
5°	2607.4	2591.3	2604.7	2604.7	2604.7
7.5°	2588.6	2575.1	2596.7	2602.1	2602.1
10°	2559.0	2553.6	2580.5	2588.6	2591.3
12.5°	2526.6	2523.9	2561.6	2572.4	2580.5
15°	2483.5	2488.9	2532.0	2550.9	2559.0
17.5°	2437.7	2448.5	2497.0	2523.9	2532.0
20°	2383.9	2400.0	2456.6	2483.5	2499.7
22.5°	2324.6	2348.8	2408.1	2440.4	2459.3
25°	2260.0	2289.6	2356.9	2397.3	2418.9
27.5°	2189.9	2227.6	2305.8	2351.5	2373.1
30°	2114.5	2157.6	2243.8	2297.7	2324.6
32.5°	2036.4	2087.6	2181.8	2241.1	2273.4
35°	1958.3	2014.8	2117.2	2187.2	2219.6
37.5°	1880.2	1936.7	2049.9	2125.3	2165.7
40°	1791.3	1858.6	1979.8	2063.3	2103.7
42.5°	1705.1	1777.8	1907.1	1998.7	2041.8
45°	1610.8	1697.0	1831.7	1934.0	1979.8
47.5°	1524.6	1610.8	1756.2	1864.0	1915.2
50°	1430.3	1521.9	1675.4	1794.0	1847.8
52.5°	1338.7	1433.0	1594.6	1721.2	1775.1
55°	1239.1	1346.8	1511.1	1643.1	1699.7
57.5°	1139.4	1255.2	1424.9	1562.3	1618.9
60°	1042.4	1161.0	1338.7	1476.1	1535.4
62.5°	945.5	1064.0	1249.8	1389.9	1446.5
65°	843.1	967.0	1152.9	1295.6	1352.2
67.5°	740.7	870.0	1055.9	1198.7	1252.5
70°	633.0	770.4	956.2	1096.3	1150.2
72.5°	533.3	670.7	853.9	991.3	1042.4
75°	433.7	571.1	748.8	875.4	910.4
77.5°	336.7	474.1	633.0	716.5	724.6
80°	245.1	374.4	503.7	528.0	525.3
82.5°	164.3	280.1	347.5	350.2	358.3
85°	94.3	175.1	191.2	188.6	191.2
87.5°	37.7	62.0	53.9	40.4	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)