

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: P389120

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L940-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: P389120
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: 24CZ2-75VHE-SQR-UNV-L940-CD1-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: 6285.8 lumens
Efficiency: N/A
Efficacy: 126.0 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

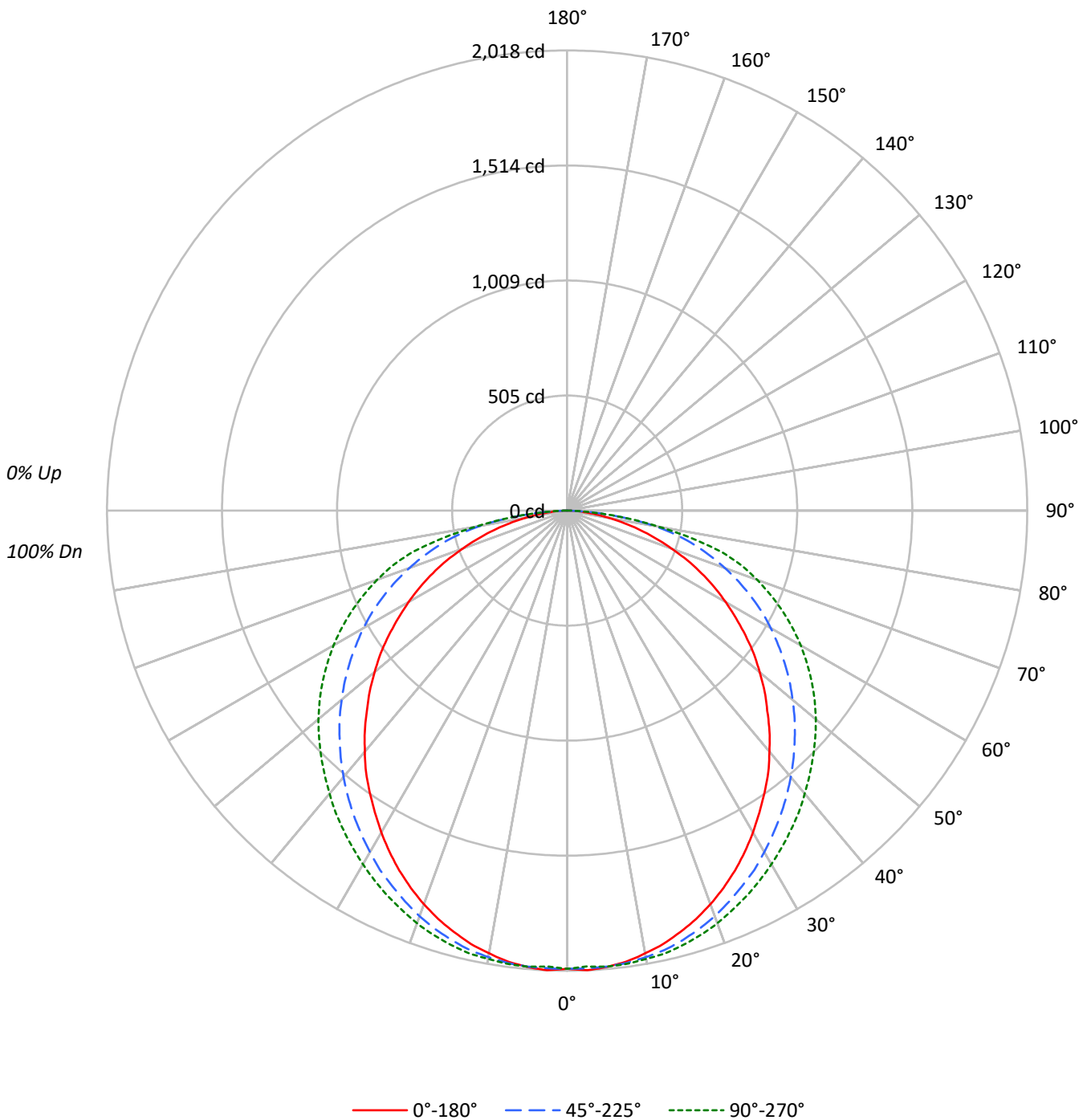
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2703	2703	2703
5°	2714	2711	2711
10°	2694	2717	2728
15°	2666	2718	2747
20°	2630	2710	2758
25°	2585	2696	2767
30°	2531	2686	2783
35°	2479	2680	2809
40°	2424	2680	2847
45°	2362	2686	2903
50°	2307	2703	2981
55°	2240	2732	3072
60°	2162	2776	3184
65°	2068	2828	3317
70°	1919	2899	3487
75°	1737	3000	3647
80°	1464	3008	3137
85°	1121	2276	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.7	3.0
10°-20°	548.7	8.7
20°-30°	833.5	13.3
30°-40°	1013.8	16.1
40°-50°	1079.4	17.2
50°-60°	1028.1	16.4
60°-70°	859.8	13.7
70°-80°	573.2	9.1
80°-90°	158.6	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°	1572.9	25.0
0°-40°	2586.8	41.2
0°-60°	4694.2	74.7
0°-90°	6285.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6285.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2009	2009	2009	2009	2009	
5°	2009	1997	2007	2007	2007	191
15°	1914	1918	1951	1966	1972	540
25°	1742	1764	1816	1847	1864	802
35°	1509	1553	1632	1685	1710	944
45°	1241	1308	1412	1490	1526	960
55°	955	1038	1164	1266	1310	854
65°	650	745	888	998	1042	642
75°	334	440	577	675	702	354
85°	73	135	147	145	147	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2009.2	2009.2	2009.2	2009.2	2009.2
2.5°	2017.6	2003.0	2009.2	2009.2	2000.9
5°	2009.2	1996.8	2007.2	2007.2	2007.2
7.5°	1994.7	1984.3	2000.9	2005.1	2005.1
10°	1971.9	1967.7	1988.5	1994.7	1996.8
12.5°	1947.0	1944.9	1974.0	1982.3	1988.5
15°	1913.8	1917.9	1951.1	1965.7	1971.9
17.5°	1878.5	1886.8	1924.1	1944.9	1951.1
20°	1837.0	1849.4	1893.0	1913.8	1926.2
22.5°	1791.3	1810.0	1855.6	1880.6	1895.1
25°	1741.5	1764.3	1816.2	1847.3	1864.0
27.5°	1687.5	1716.6	1776.8	1812.1	1828.7
30°	1629.4	1662.6	1729.0	1770.5	1791.3
32.5°	1569.2	1608.6	1681.3	1727.0	1751.9
35°	1509.0	1552.6	1631.5	1685.4	1710.4
37.5°	1448.8	1492.4	1579.6	1637.7	1668.8
40°	1380.3	1432.2	1525.6	1590.0	1621.1
42.5°	1313.9	1369.9	1469.6	1540.1	1573.4
45°	1241.3	1307.7	1411.5	1490.3	1525.6
47.5°	1174.8	1241.3	1353.3	1436.4	1475.8
50°	1102.2	1172.8	1291.1	1382.4	1423.9
52.5°	1031.6	1104.3	1228.8	1326.4	1367.9
55°	954.8	1037.8	1164.5	1266.2	1309.7
57.5°	878.0	967.3	1098.0	1203.9	1247.5
60°	803.3	894.6	1031.6	1137.5	1183.1
62.5°	728.6	819.9	963.1	1071.0	1114.6
65°	649.7	745.2	888.4	998.4	1042.0
67.5°	570.8	670.4	813.7	923.7	965.2
70°	487.8	593.6	736.9	844.8	886.3
72.5°	411.0	516.8	658.0	763.8	803.3
75°	334.2	440.0	577.0	674.6	701.6
77.5°	259.5	365.3	487.8	552.1	558.4
80°	188.9	288.5	388.2	406.8	404.8
82.5°	126.6	215.9	267.8	269.8	276.1
85°	72.6	134.9	147.4	145.3	147.4
87.5°	29.1	47.7	41.5	31.1	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)