

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: P389119

Luminaire Tested: **24CZ2-75VHE-SQR-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: P389119
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-SWPD1-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: 6207.7 lumens
Efficiency: N/A
Efficacy: 124.4 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

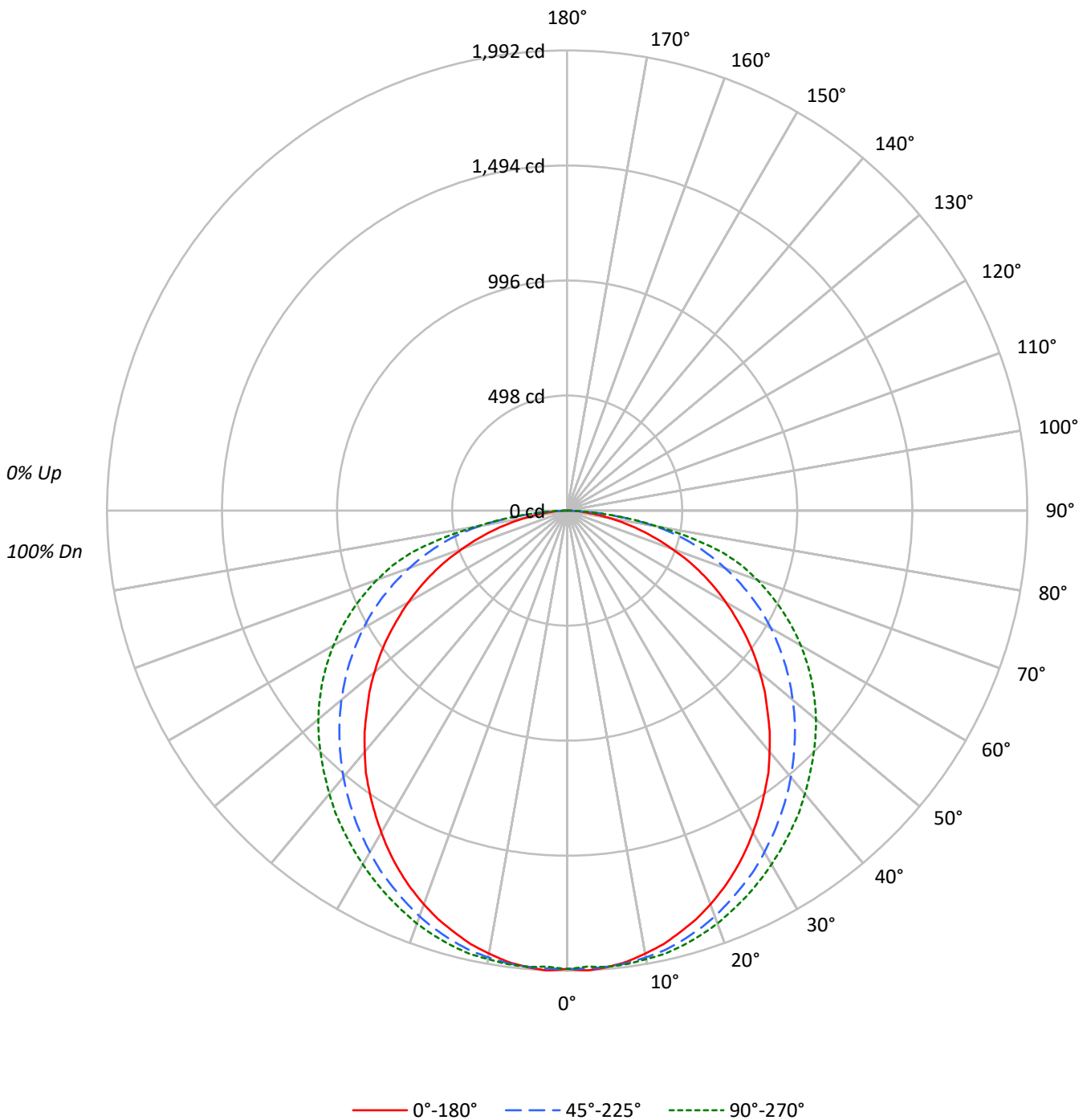
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2670	2670	2670
5°	2680	2677	2677
10°	2661	2683	2694
15°	2633	2684	2713
20°	2598	2677	2724
25°	2553	2663	2733
30°	2500	2653	2749
35°	2448	2646	2774
40°	2394	2646	2812
45°	2332	2652	2867
50°	2278	2669	2943
55°	2212	2698	3034
60°	2135	2742	3144
65°	2043	2793	3276
70°	1895	2863	3443
75°	1716	2963	3602
80°	1445	2970	3097
85°	1107	2246	2246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	3.0
10°-20°	541.9	8.7
20°-30°	823.1	13.3
30°-40°	1001.2	16.1
40°-50°	1066.0	17.2
50°-60°	1015.3	16.4
60°-70°	849.1	13.7
70°-80°	566.1	9.1
80°-90°	156.6	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°	1553.4	25.0
0°-40°	2554.7	41.2
0°-60°	4636.0	74.7
0°-90°	6207.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6207.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1984	1984	1984	1984	1984	
5°	1984	1972	1982	1982	1982	188
15°	1890	1894	1927	1941	1947	533
25°	1720	1742	1794	1824	1841	792
35°	1490	1533	1611	1664	1689	933
45°	1226	1291	1394	1472	1507	948
55°	943	1025	1150	1250	1294	843
65°	642	736	877	986	1029	634
75°	330	435	570	666	693	350
85°	72	133	146	144	146	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1984.3	1984.3	1984.3	1984.3	1984.3
2.5°	1992.5	1978.2	1984.3	1984.3	1976.1
5°	1984.3	1972.0	1982.3	1982.3	1982.3
7.5°	1970.0	1959.7	1976.1	1980.2	1980.2
10°	1947.4	1943.3	1963.8	1970.0	1972.0
12.5°	1922.8	1920.8	1949.5	1957.7	1963.8
15°	1890.0	1894.1	1926.9	1941.3	1947.4
17.5°	1855.2	1863.4	1900.3	1920.8	1926.9
20°	1814.2	1826.5	1869.5	1890.0	1902.3
22.5°	1769.1	1787.5	1832.6	1857.2	1871.6
25°	1719.9	1742.4	1793.7	1824.4	1840.8
27.5°	1666.6	1695.3	1754.7	1789.6	1806.0
30°	1609.2	1642.0	1707.6	1748.6	1769.1
32.5°	1549.7	1588.7	1660.4	1705.5	1730.1
35°	1490.3	1533.3	1611.2	1664.5	1689.1
37.5°	1430.8	1473.9	1560.0	1617.4	1648.1
40°	1363.2	1414.4	1506.7	1570.2	1601.0
42.5°	1297.6	1352.9	1451.3	1521.0	1553.8
45°	1225.8	1291.4	1393.9	1471.8	1506.7
47.5°	1160.3	1225.8	1336.5	1418.5	1457.5
50°	1088.5	1158.2	1275.0	1365.2	1406.2
52.5°	1018.8	1090.6	1213.5	1309.9	1350.9
55°	943.0	1025.0	1150.0	1250.4	1293.5
57.5°	867.1	955.3	1084.4	1188.9	1232.0
60°	793.3	883.5	1018.8	1123.4	1168.4
62.5°	719.5	809.7	951.2	1057.8	1100.8
65°	641.6	735.9	877.4	986.0	1029.1
67.5°	563.7	662.1	803.6	912.2	953.2
70°	481.7	586.3	727.7	834.3	875.3
72.5°	405.9	510.4	649.8	754.4	793.3
75°	330.0	434.6	569.9	666.2	692.9
77.5°	256.2	360.8	481.7	545.3	551.4
80°	186.5	284.9	383.3	401.8	399.7
82.5°	125.0	213.2	264.4	266.5	272.6
85°	71.7	133.2	145.5	143.5	145.5
87.5°	28.7	47.1	41.0	30.7	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)