

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: P389116

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L935-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: P389116
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-L935-CD1-SWPD1-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: 6144.2 lumens
Efficiency: N/A
Efficacy: 123.1 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

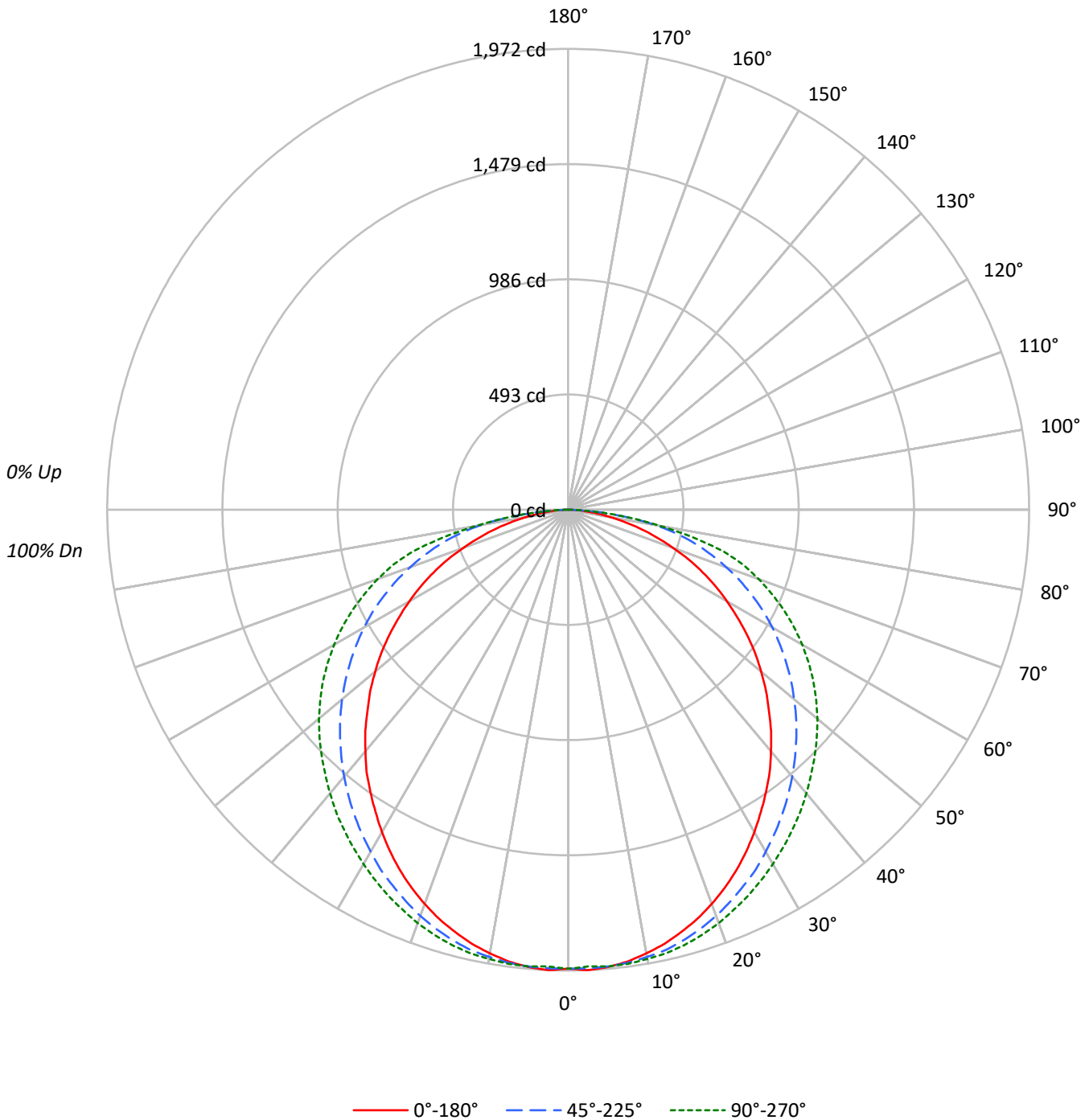
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2643	2643	2643
5°	2653	2650	2650
10°	2633	2656	2667
15°	2606	2657	2685
20°	2571	2649	2696
25°	2527	2636	2705
30°	2474	2626	2720
35°	2423	2619	2746
40°	2370	2619	2783
45°	2309	2625	2837
50°	2255	2642	2913
55°	2189	2670	3003
60°	2113	2714	3112
65°	2022	2765	3243
70°	1876	2834	3408
75°	1698	2932	3565
80°	1430	2940	3065
85°	1096	2225	2225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.4	3.0
10°-20°	536.4	8.7
20°-30°	814.7	13.3
30°-40°	991.0	16.1
40°-50°	1055.1	17.2
50°-60°	1004.9	16.4
60°-70°	840.4	13.7
70°-80°	560.3	9.1
80°-90°	155.0	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°	1537.5	25.0
0°-40°	2528.5	41.2
0°-60°	4588.5	74.7
0°-90°	6144.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6144.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1964	1952	1962	1962	1962	186
15°	1871	1875	1907	1921	1928	528
25°	1702	1725	1775	1806	1822	784
35°	1475	1518	1595	1648	1672	923
45°	1213	1278	1380	1457	1491	938
55°	933	1014	1138	1238	1280	834
65°	635	728	868	976	1018	627
75°	327	430	564	659	686	346
85°	71	132	144	142	144	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1964.0	1964.0	1964.0	1964.0	1964.0
2.5°	1972.1	1957.9	1964.0	1964.0	1955.9
5°	1964.0	1951.8	1962.0	1962.0	1962.0
7.5°	1949.8	1939.6	1955.9	1959.9	1959.9
10°	1927.5	1923.4	1943.7	1949.8	1951.8
12.5°	1903.1	1901.1	1929.5	1937.6	1943.7
15°	1870.7	1874.7	1907.2	1921.4	1927.5
17.5°	1836.2	1844.3	1880.8	1901.1	1907.2
20°	1795.6	1807.8	1850.4	1870.7	1882.8
22.5°	1750.9	1769.2	1813.8	1838.2	1852.4
25°	1702.3	1724.6	1775.3	1805.7	1822.0
27.5°	1649.5	1677.9	1736.7	1771.2	1787.5
30°	1592.7	1625.2	1690.1	1730.7	1750.9
32.5°	1533.9	1572.4	1643.4	1688.1	1712.4
35°	1475.0	1517.6	1594.7	1647.5	1671.8
37.5°	1416.2	1458.8	1544.0	1600.8	1631.2
40°	1349.2	1399.9	1491.2	1554.1	1584.6
42.5°	1284.3	1339.1	1436.5	1505.5	1537.9
45°	1213.3	1278.2	1379.7	1456.8	1491.2
47.5°	1148.4	1213.3	1322.8	1404.0	1442.6
50°	1077.4	1146.3	1262.0	1351.3	1391.8
52.5°	1008.4	1079.4	1201.1	1296.5	1337.1
55°	933.3	1014.5	1138.2	1237.6	1280.2
57.5°	858.2	945.5	1073.3	1176.8	1219.4
60°	785.2	874.5	1008.4	1111.8	1156.5
62.5°	712.1	801.4	941.4	1046.9	1089.5
65°	635.0	728.4	868.4	975.9	1018.5
67.5°	558.0	655.3	795.3	902.9	943.4
70°	476.8	580.3	720.3	825.8	866.3
72.5°	401.7	505.2	643.2	746.6	785.2
75°	326.7	430.1	564.0	659.4	685.8
77.5°	253.6	357.1	476.8	539.7	545.8
80°	184.6	282.0	379.4	397.7	395.6
82.5°	123.8	211.0	261.7	263.8	269.8
85°	71.0	131.9	144.1	142.0	144.1
87.5°	28.4	46.7	40.6	30.4	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)