

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: P389121

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L950-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: P389121
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-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6509.7 lumens
Efficiency: N/A
Efficacy: 130.5 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

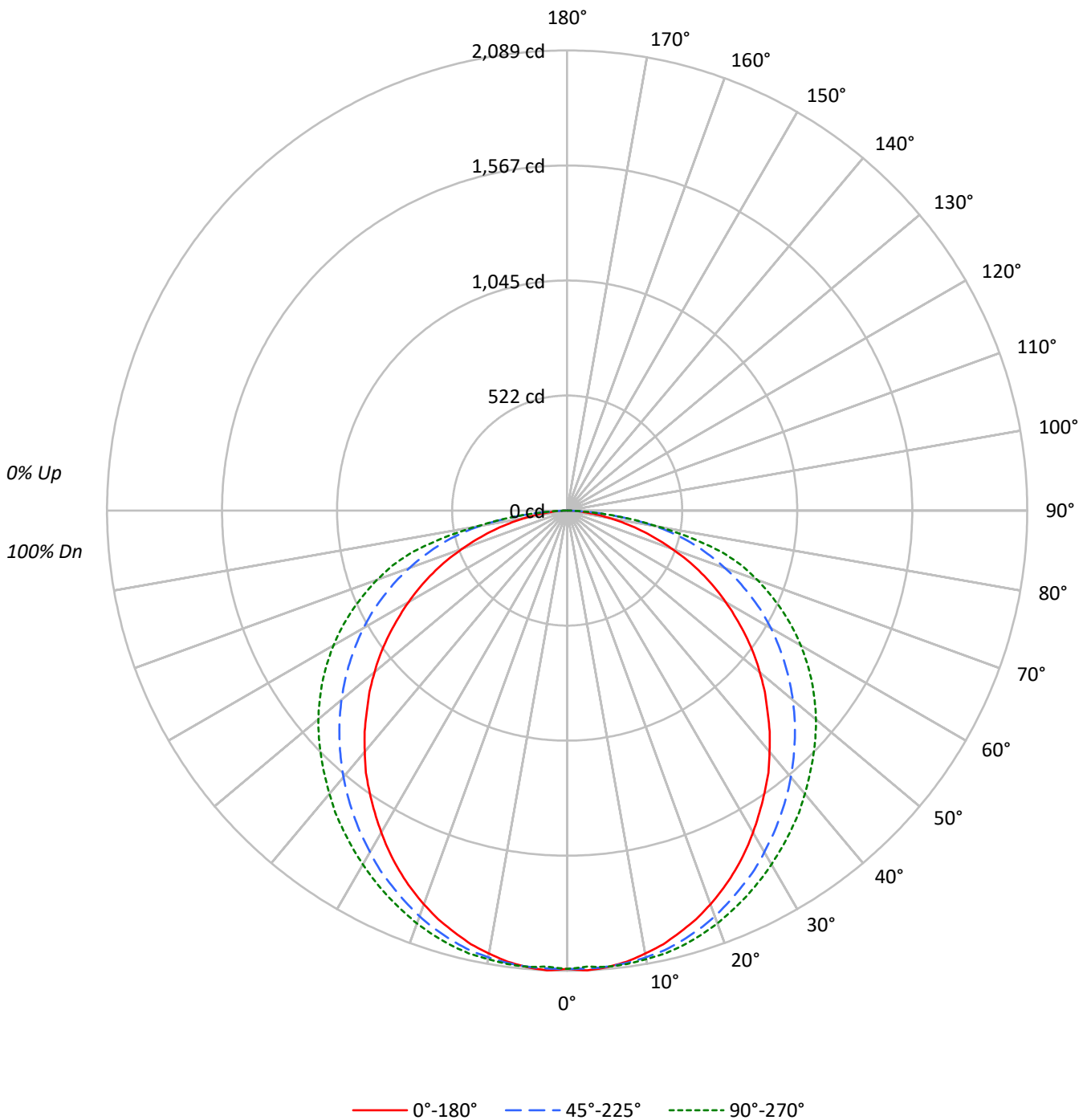
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2800	2800	2800
5°	2810	2808	2808
10°	2790	2814	2825
15°	2761	2815	2845
20°	2724	2807	2856
25°	2677	2792	2866
30°	2622	2782	2882
35°	2567	2775	2909
40°	2511	2775	2949
45°	2446	2781	3006
50°	2389	2799	3087
55°	2320	2829	3182
60°	2239	2875	3297
65°	2142	2929	3436
70°	1987	3002	3611
75°	1799	3107	3777
80°	1516	3115	3248
85°	1161	2356	2356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.5	3.0
10°-20°	568.3	8.7
20°-30°	863.2	13.3
30°-40°	1049.9	16.1
40°-50°	1117.8	17.2
50°-60°	1064.7	16.4
60°-70°	890.4	13.7
70°-80°	593.6	9.1
80°-90°	164.2	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°	1629.0	25.0
0°-40°	2678.9	41.2
0°-60°	4861.4	74.7
0°-90°	6509.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6509.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2081	2081	2081	2081	2081	
5°	2081	2068	2079	2079	2079	197
15°	1982	1986	2021	2036	2042	559
25°	1804	1827	1881	1913	1930	830
35°	1563	1608	1690	1746	1771	978
45°	1286	1354	1462	1543	1580	994
55°	989	1075	1206	1311	1356	884
65°	673	772	920	1034	1079	665
75°	346	456	598	699	727	367
85°	75	140	153	150	153	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2080.8	2080.8	2080.8	2080.8	2080.8
2.5°	2089.4	2074.4	2080.8	2080.8	2072.2
5°	2080.8	2067.9	2078.7	2078.7	2078.7
7.5°	2065.8	2055.0	2072.2	2076.5	2076.5
10°	2042.1	2037.8	2059.3	2065.8	2067.9
12.5°	2016.3	2014.2	2044.3	2052.9	2059.3
15°	1981.9	1986.2	2020.6	2035.7	2042.1
17.5°	1945.4	1954.0	1992.7	2014.2	2020.6
20°	1902.4	1915.3	1960.4	1981.9	1994.8
22.5°	1855.1	1874.5	1921.7	1947.5	1962.6
25°	1803.5	1827.2	1880.9	1913.1	1930.3
27.5°	1747.6	1777.7	1840.1	1876.6	1893.8
30°	1687.4	1721.8	1790.6	1833.6	1855.1
32.5°	1625.1	1665.9	1741.2	1788.5	1814.3
35°	1562.8	1607.9	1689.6	1745.5	1771.3
37.5°	1500.4	1545.6	1635.8	1696.0	1728.3
40°	1429.5	1483.2	1580.0	1646.6	1678.8
42.5°	1360.7	1418.7	1521.9	1595.0	1629.4
45°	1285.5	1354.3	1461.7	1543.4	1580.0
47.5°	1216.7	1285.5	1401.5	1487.5	1528.4
50°	1141.4	1214.5	1337.1	1431.6	1474.6
52.5°	1068.4	1143.6	1272.6	1373.6	1416.6
55°	988.8	1074.8	1205.9	1311.3	1356.4
57.5°	909.3	1001.7	1137.1	1246.8	1291.9
60°	831.9	926.5	1068.4	1178.0	1225.3
62.5°	754.5	849.1	997.4	1109.2	1154.3
65°	672.8	771.7	920.0	1034.0	1079.1
67.5°	591.1	694.3	842.6	956.6	999.6
70°	505.2	614.8	763.1	874.9	917.9
72.5°	425.6	535.3	681.4	791.1	831.9
75°	346.1	455.7	597.6	698.6	726.6
77.5°	268.7	378.3	505.2	571.8	578.2
80°	195.6	298.8	402.0	421.3	419.2
82.5°	131.1	223.6	277.3	279.4	285.9
85°	75.2	139.7	152.6	150.5	152.6
87.5°	30.1	49.4	43.0	32.2	32.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)