

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: P389122

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L950-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: P389122
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-SWPD1-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: 6589.2 lumens
Efficiency: N/A
Efficacy: 132.0 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

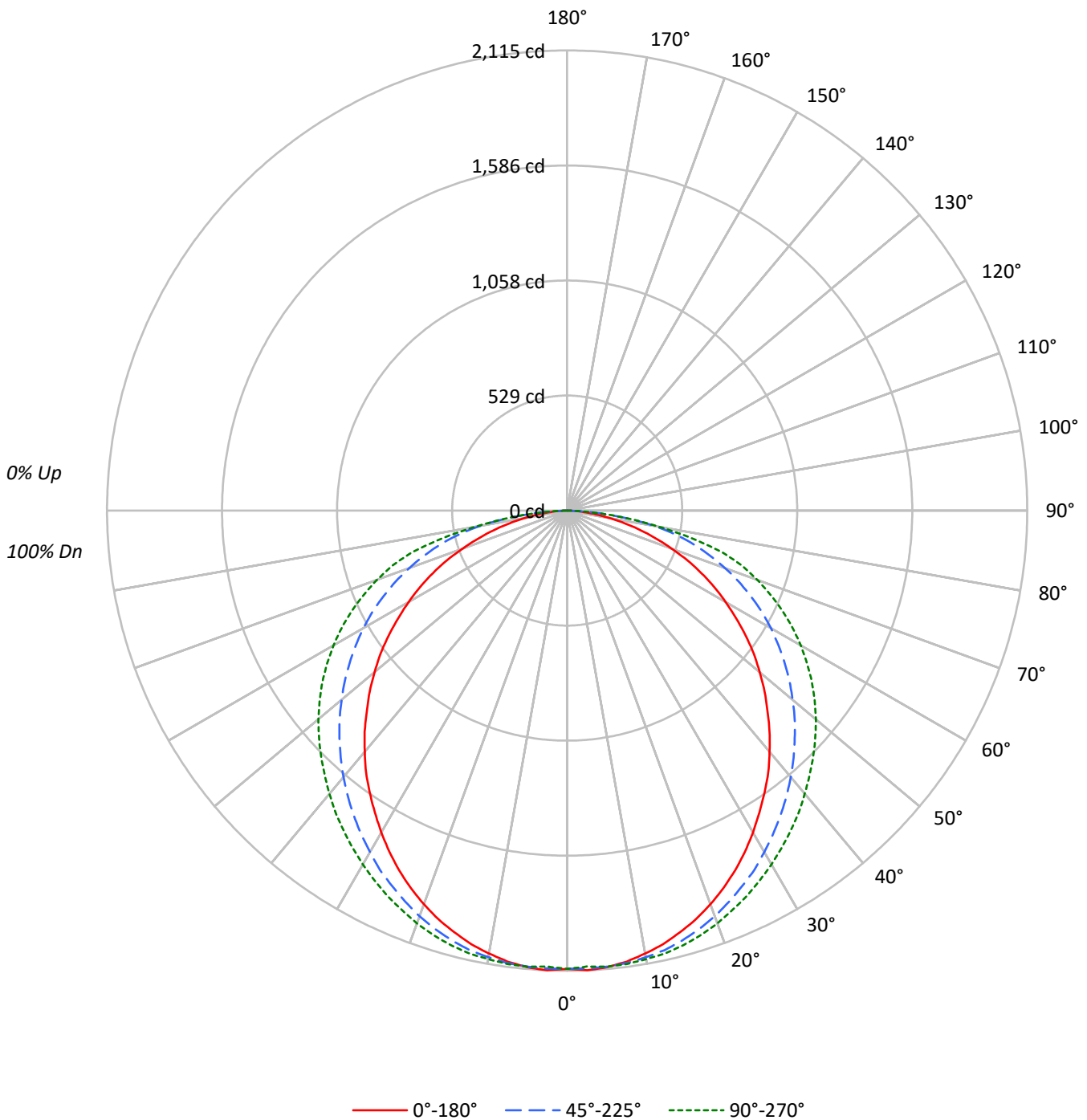
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2834	2834	2834
5°	2845	2842	2842
10°	2824	2848	2860
15°	2794	2849	2879
20°	2757	2841	2891
25°	2710	2826	2901
30°	2654	2816	2917
35°	2598	2809	2945
40°	2541	2809	2985
45°	2476	2815	3043
50°	2418	2833	3124
55°	2348	2864	3221
60°	2266	2910	3337
65°	2168	2965	3478
70°	2011	3039	3655
75°	1821	3145	3823
80°	1534	3153	3288
85°	1176	2385	2385



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.9	3.0
10°-20°	575.2	8.7
20°-30°	873.7	13.3
30°-40°	1062.7	16.1
40°-50°	1131.5	17.2
50°-60°	1077.7	16.4
60°-70°	901.3	13.7
70°-80°	600.9	9.1
80°-90°	166.3	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°	1648.9	25.0
0°-40°	2711.6	41.2
0°-60°	4920.8	74.7
0°-90°	6589.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6589.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2106	2106	2106	2106	2106	
5°	2106	2093	2104	2104	2104	200
15°	2006	2010	2045	2060	2067	566
25°	1826	1850	1904	1936	1954	841
35°	1582	1628	1710	1767	1793	990
45°	1301	1371	1480	1562	1599	1006
55°	1001	1088	1221	1327	1373	895
65°	681	781	931	1047	1092	673
75°	350	461	605	707	735	371
85°	76	141	154	152	154	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2114.9	2099.7	2106.2	2106.2	2097.5
5°	2106.2	2093.2	2104.1	2104.1	2104.1
7.5°	2091.0	2080.1	2097.5	2101.9	2101.9
10°	2067.1	2062.7	2084.5	2091.0	2093.2
12.5°	2041.0	2038.8	2069.2	2077.9	2084.5
15°	2006.1	2010.5	2045.3	2060.5	2067.1
17.5°	1969.2	1977.9	2017.0	2038.8	2045.3
20°	1925.6	1938.7	1984.4	2006.1	2019.2
22.5°	1877.8	1897.3	1945.2	1971.3	1986.6
25°	1825.5	1849.5	1903.9	1936.5	1953.9
27.5°	1769.0	1799.4	1862.5	1899.5	1916.9
30°	1708.0	1742.9	1812.5	1856.0	1877.8
32.5°	1644.9	1686.3	1762.4	1810.3	1836.4
35°	1581.8	1627.5	1710.2	1766.8	1792.9
37.5°	1518.7	1564.4	1655.8	1716.8	1749.4
40°	1446.9	1501.3	1599.3	1666.7	1699.3
42.5°	1377.3	1436.1	1540.5	1614.5	1649.3
45°	1301.2	1370.8	1479.6	1562.3	1599.3
47.5°	1231.5	1301.2	1418.7	1505.7	1547.0
50°	1155.4	1229.4	1353.4	1449.1	1492.6
52.5°	1081.4	1157.6	1288.1	1390.4	1433.9
55°	1000.9	1087.9	1220.7	1327.3	1373.0
57.5°	920.4	1013.9	1151.0	1262.0	1307.7
60°	842.1	937.8	1081.4	1192.4	1240.2
62.5°	763.7	859.5	1009.6	1122.7	1168.4
65°	681.0	781.1	931.3	1046.6	1092.3
67.5°	598.4	702.8	852.9	968.3	1011.8
70°	511.3	622.3	772.4	885.6	929.1
72.5°	430.8	541.8	689.7	800.7	842.1
75°	350.3	461.3	604.9	707.2	735.4
77.5°	272.0	383.0	511.3	578.8	585.3
80°	198.0	302.4	406.9	426.5	424.3
82.5°	132.7	226.3	280.7	282.9	289.4
85°	76.2	141.4	154.5	152.3	154.5
87.5°	30.5	50.0	43.5	32.6	32.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)