

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: P388969

Luminaire Tested: **24CZ2-75VHE-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: P388969
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6397.7 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

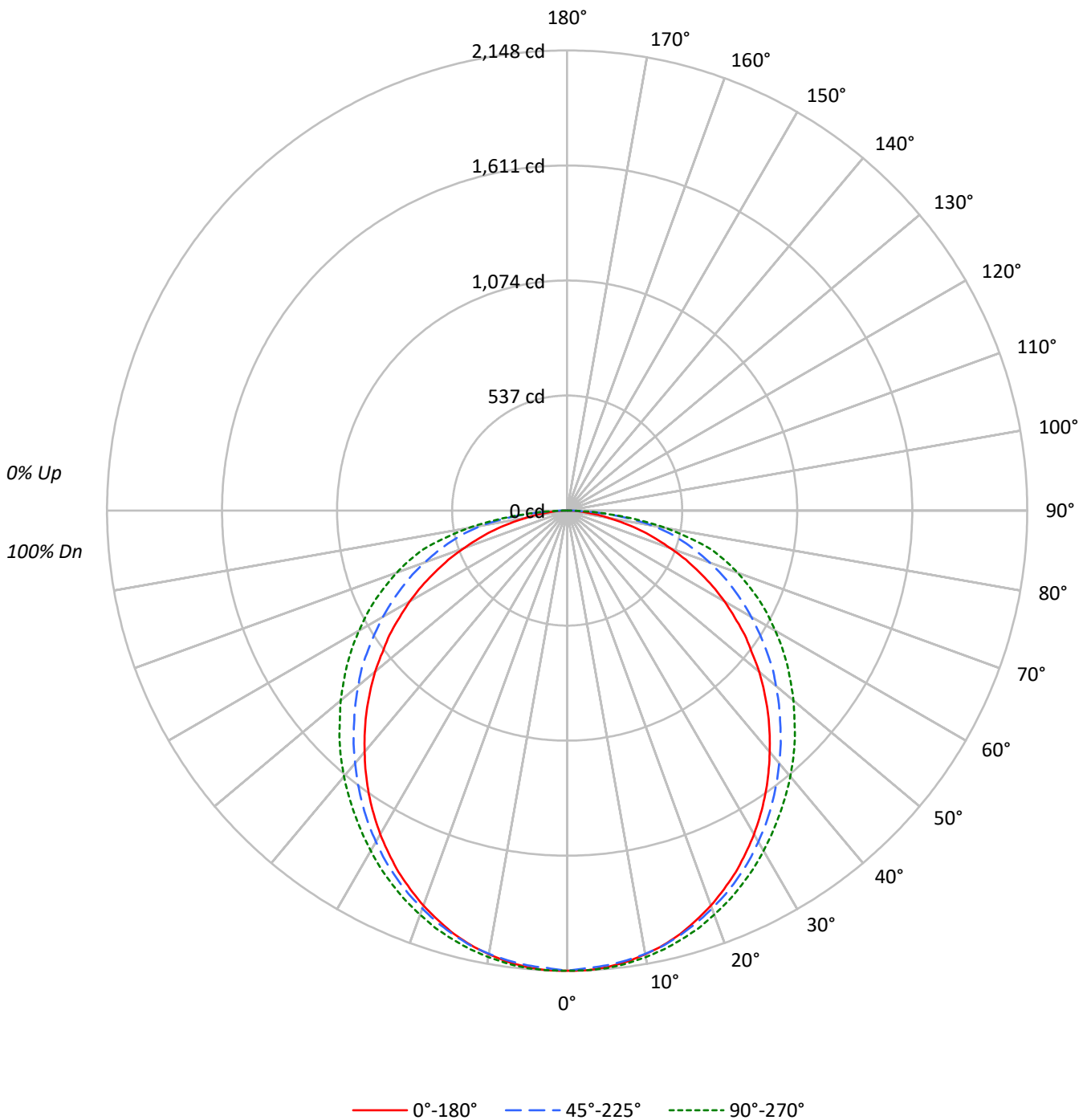
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2890	2890	2890
5°	2890	2878	2895
10°	2873	2870	2891
15°	2849	2855	2885
20°	2810	2831	2874
25°	2764	2805	2862
30°	2710	2773	2850
35°	2651	2739	2841
40°	2584	2704	2846
45°	2519	2677	2860
50°	2449	2664	2887
55°	2374	2660	2940
60°	2281	2672	3017
65°	2162	2712	3147
70°	2007	2780	3326
75°	1831	2920	3607
80°	1506	3144	3607
85°	1153	2901	3098



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.1	3.2
10°-20°	580.0	9.1
20°-30°	872.8	13.6
30°-40°	1045.9	16.3
40°-50°	1090.0	17.0
50°-60°	1014.1	15.9
60°-70°	835.2	13.1
70°-80°	568.8	8.9
80°-90°	187.8	2.9
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°	1655.9	25.9
0°-40°	2701.8	42.2
0°-60°	4805.9	75.1
0°-90°	6397.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6397.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2148	2148	2148	2148	2148	
5°	2140	2140	2131	2142	2144	203
15°	2046	2048	2050	2069	2071	576
25°	1862	1870	1890	1922	1928	857
35°	1614	1633	1668	1712	1730	1009
45°	1324	1352	1407	1478	1503	1021
55°	1012	1046	1134	1224	1253	902
65°	679	737	852	952	989	674
75°	352	431	562	662	694	371
85°	75	145	188	201	201	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2148.0	2148.0	2148.0	2148.0	2148.0
2.5°	2148.0	2148.0	2137.3	2148.0	2148.0
5°	2139.5	2139.5	2130.9	2141.6	2143.7
7.5°	2124.5	2126.7	2118.1	2130.9	2133.1
10°	2103.2	2105.3	2101.0	2113.8	2116.0
12.5°	2077.5	2079.7	2079.7	2094.6	2096.8
15°	2045.5	2047.7	2049.8	2069.0	2071.1
17.5°	2004.9	2011.4	2015.6	2039.1	2043.4
20°	1962.2	1968.6	1977.2	2002.8	2007.1
22.5°	1913.1	1921.7	1936.6	1964.4	1970.8
25°	1861.9	1870.4	1889.6	1921.7	1928.1
27.5°	1804.2	1817.1	1840.5	1874.7	1883.2
30°	1744.5	1757.3	1785.0	1821.3	1834.1
32.5°	1680.4	1697.5	1729.5	1770.1	1782.9
35°	1614.2	1633.4	1667.6	1712.4	1729.5
37.5°	1543.7	1565.1	1605.7	1654.8	1676.1
40°	1471.1	1496.8	1539.5	1597.1	1620.6
42.5°	1398.6	1422.0	1475.4	1537.3	1563.0
45°	1323.8	1351.6	1407.1	1477.6	1503.2
47.5°	1247.0	1274.7	1340.9	1415.6	1439.1
50°	1170.1	1197.8	1272.6	1351.6	1379.3
52.5°	1086.8	1123.1	1208.5	1287.5	1315.3
55°	1012.1	1046.2	1133.8	1223.5	1253.4
57.5°	926.7	967.2	1063.3	1157.3	1189.3
60°	847.7	890.4	992.9	1088.9	1121.0
62.5°	766.5	813.5	922.4	1020.6	1056.9
65°	679.0	736.6	851.9	952.3	988.6
67.5°	600.0	659.8	781.5	884.0	916.0
70°	510.3	582.9	706.7	809.2	845.5
72.5°	433.4	506.0	636.3	736.6	772.9
75°	352.3	431.3	561.6	661.9	693.9
77.5°	271.2	358.7	489.0	565.8	576.5
80°	194.3	286.1	405.7	450.5	465.5
82.5°	136.7	219.9	298.9	328.8	337.4
85°	74.7	145.2	187.9	200.7	200.7
87.5°	32.0	61.9	74.7	76.9	79.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)