

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: P388973

Luminaire Tested: **24CZ2-75VHE-UNV-L940-CD1-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: P388973
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-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

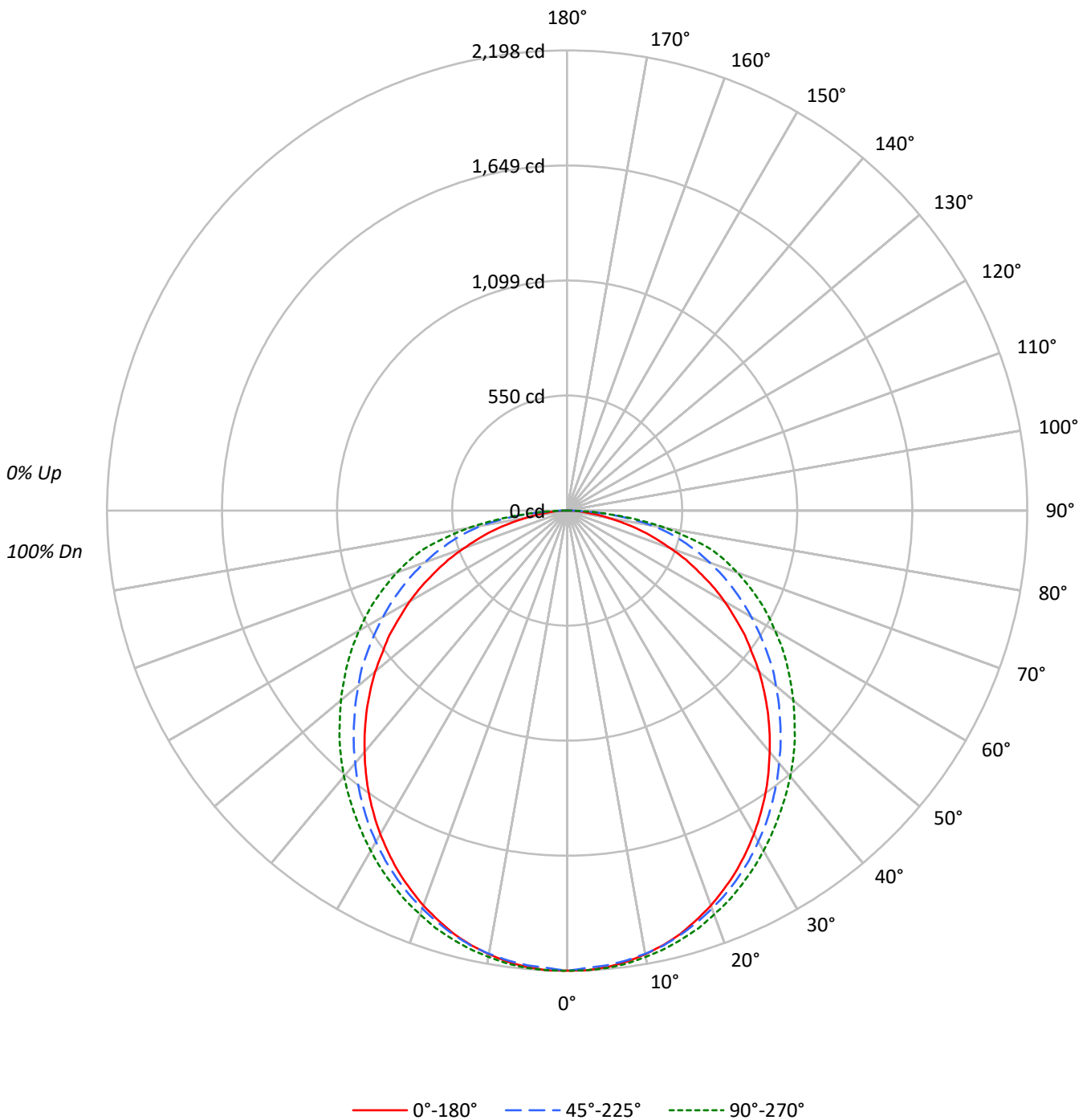
Lumens per Lamp: N/A
Luminaire Lumens: 6545.1 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2957	2957	2957
5°	2956	2944	2962
10°	2940	2937	2958
15°	2915	2921	2952
20°	2874	2896	2940
25°	2828	2870	2928
30°	2773	2837	2915
35°	2712	2802	2906
40°	2643	2766	2912
45°	2577	2739	2926
50°	2506	2725	2954
55°	2429	2721	3008
60°	2334	2733	3086
65°	2211	2775	3220
70°	2054	2844	3403
75°	1874	2987	3690
80°	1540	3216	3690
85°	1181	2967	3169



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.8	3.2
10°-20°	593.3	9.1
20°-30°	892.9	13.6
30°-40°	1070.0	16.3
40°-50°	1115.1	17.0
50°-60°	1037.4	15.9
60°-70°	854.5	13.1
70°-80°	581.9	8.9
80°-90°	192.1	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°	1694.0	25.9
0°-40°	2764.1	42.2
0°-60°	4916.6	75.1
0°-90°	6545.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6545.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2198	2198	2198	2198	2198	
5°	2189	2189	2180	2191	2193	208
15°	2093	2095	2097	2117	2119	590
25°	1905	1914	1933	1966	1972	877
35°	1651	1671	1706	1752	1769	1032
45°	1354	1383	1440	1512	1538	1045
55°	1035	1070	1160	1252	1282	923
65°	695	754	872	974	1011	689
75°	360	441	574	677	710	380
85°	76	148	192	205	205	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2197.5	2197.5	2197.5	2197.5	2197.5
2.5°	2197.5	2197.5	2186.6	2197.5	2197.5
5°	2188.8	2188.8	2180.0	2190.9	2193.1
7.5°	2173.5	2175.7	2166.9	2180.0	2182.2
10°	2151.6	2153.8	2149.4	2162.5	2164.7
12.5°	2125.4	2127.6	2127.6	2142.9	2145.1
15°	2092.6	2094.8	2097.0	2116.7	2118.9
17.5°	2051.1	2057.7	2062.1	2086.1	2090.5
20°	2007.5	2014.0	2022.7	2049.0	2053.3
22.5°	1957.2	1965.9	1981.2	2009.6	2016.2
25°	1904.8	1913.5	1933.2	1965.9	1972.5
27.5°	1845.8	1858.9	1882.9	1917.9	1926.6
30°	1784.6	1797.8	1826.1	1863.3	1876.4
32.5°	1719.1	1736.6	1769.4	1810.9	1824.0
35°	1651.4	1671.1	1706.0	1751.9	1769.4
37.5°	1579.3	1601.2	1642.7	1692.9	1714.7
40°	1505.0	1531.3	1574.9	1633.9	1658.0
42.5°	1430.8	1454.8	1509.4	1572.8	1599.0
45°	1354.3	1382.7	1439.5	1511.6	1537.8
47.5°	1275.7	1304.1	1371.8	1448.2	1472.3
50°	1197.0	1225.4	1301.9	1382.7	1411.1
52.5°	1111.9	1149.0	1236.4	1317.2	1345.6
55°	1035.4	1070.4	1159.9	1251.7	1282.2
57.5°	948.0	989.5	1087.8	1183.9	1216.7
60°	867.2	910.9	1015.7	1114.0	1146.8
62.5°	784.2	832.3	943.7	1044.1	1081.3
65°	694.6	753.6	871.6	974.2	1011.4
67.5°	613.8	675.0	799.5	904.3	937.1
70°	522.1	596.3	723.0	827.9	865.0
72.5°	443.4	517.7	650.9	753.6	790.7
75°	360.4	441.2	574.5	677.2	709.9
77.5°	277.4	367.0	500.2	578.9	589.8
80°	198.8	292.7	415.0	460.9	476.2
82.5°	139.8	225.0	305.8	336.4	345.1
85°	76.5	148.5	192.2	205.3	205.3
87.5°	32.8	63.3	76.5	78.6	80.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)