

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: P388990

Luminaire Tested: **24CZ2-80VHE-UNV-L930-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: P388990
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: 24CZ2-80VHE-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6623.0 lumens
Efficiency: N/A
Efficacy: 123.1 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

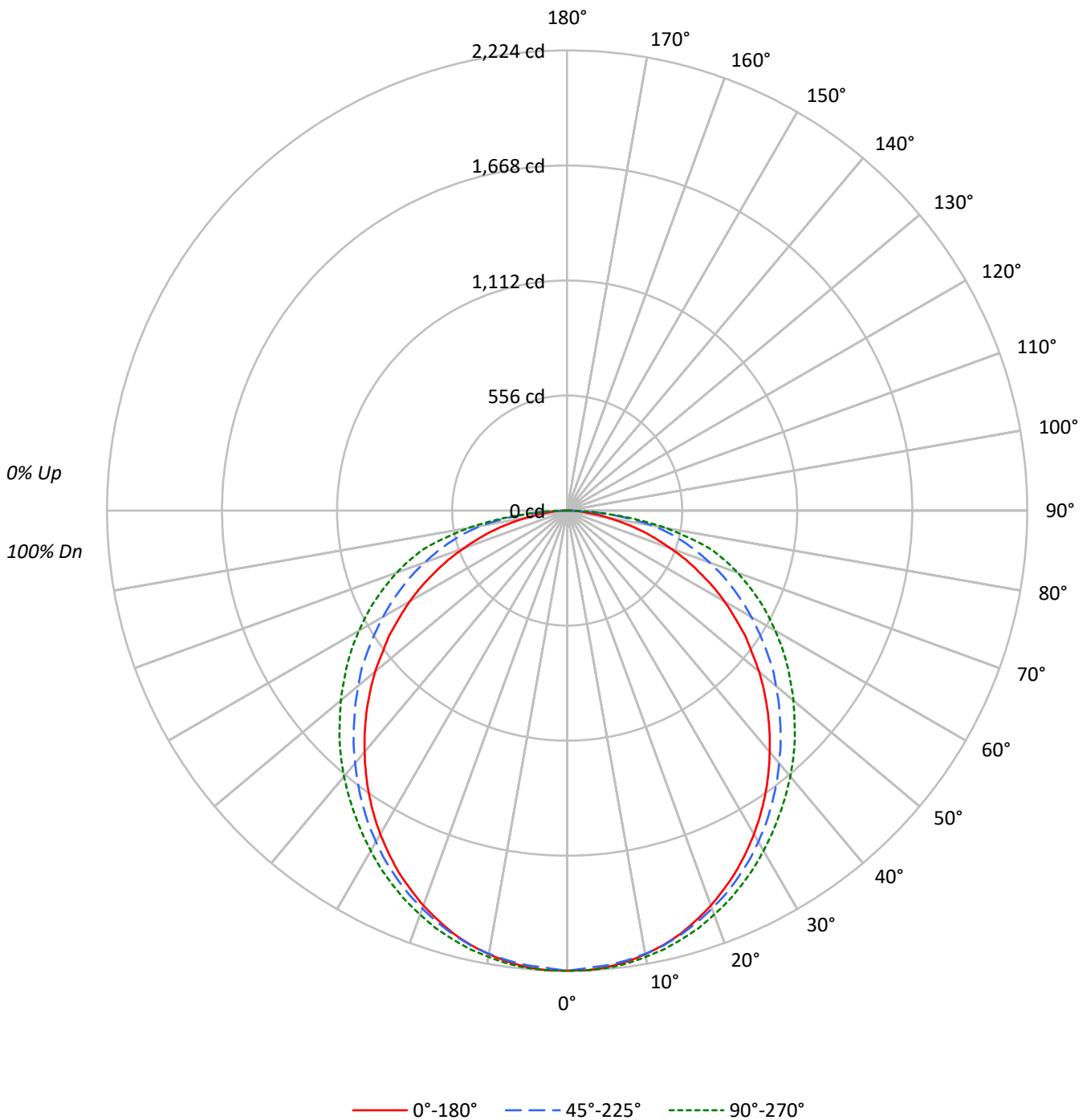
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2992	2992	2992
5°	2991	2979	2997
10°	2975	2972	2993
15°	2950	2956	2987
20°	2908	2931	2975
25°	2862	2904	2963
30°	2806	2871	2950
35°	2745	2836	2941
40°	2675	2799	2947
45°	2608	2772	2961
50°	2536	2758	2989
55°	2458	2753	3044
60°	2361	2766	3123
65°	2238	2808	3258
70°	2078	2878	3443
75°	1896	3022	3735
80°	1558	3254	3734
85°	1195	3003	3208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.3	3.2
10°-20°	600.4	9.1
20°-30°	903.5	13.6
30°-40°	1082.8	16.3
40°-50°	1128.3	17.0
50°-60°	1049.8	15.9
60°-70°	864.6	13.1
70°-80°	588.9	8.9
80°-90°	194.4	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°	1714.2	25.9
0°-40°	2797.0	42.2
0°-60°	4975.1	75.1
0°-90°	6623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2224	2224	2224	2224	2224	
5°	2215	2215	2206	2217	2219	210
15°	2118	2120	2122	2142	2144	597
25°	1928	1936	1956	1989	1996	887
35°	1671	1691	1726	1773	1790	1045
45°	1370	1399	1457	1530	1556	1057
55°	1048	1083	1174	1267	1298	934
65°	703	763	882	986	1023	698
75°	365	446	581	685	718	385
85°	77	150	194	208	208	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2223.6	2223.6	2223.6	2223.6	2223.6
2.5°	2223.6	2223.6	2212.6	2223.6	2223.6
5°	2214.8	2214.8	2206.0	2217.0	2219.2
7.5°	2199.3	2201.5	2192.7	2206.0	2208.2
10°	2177.2	2179.4	2175.0	2188.3	2190.5
12.5°	2150.7	2152.9	2152.9	2168.4	2170.6
15°	2117.6	2119.8	2122.0	2141.9	2144.1
17.5°	2075.6	2082.2	2086.6	2110.9	2115.3
20°	2031.3	2038.0	2046.8	2073.3	2077.8
22.5°	1980.5	1989.3	2004.8	2033.6	2040.2
25°	1927.5	1936.3	1956.2	1989.3	1996.0
27.5°	1867.8	1881.0	1905.4	1940.7	1949.6
30°	1805.9	1819.1	1847.9	1885.5	1898.7
32.5°	1739.6	1757.3	1790.4	1832.4	1845.7
35°	1671.1	1690.9	1726.3	1772.7	1790.4
37.5°	1598.1	1620.2	1662.2	1713.0	1735.2
40°	1523.0	1549.5	1593.7	1653.4	1677.7
42.5°	1447.8	1472.1	1527.4	1591.5	1618.0
45°	1370.4	1399.2	1456.6	1529.6	1556.1
47.5°	1290.9	1319.6	1388.1	1465.5	1489.8
50°	1211.3	1240.0	1317.4	1399.2	1427.9
52.5°	1125.1	1162.7	1251.1	1332.9	1361.6
55°	1047.7	1083.1	1173.7	1266.6	1297.5
57.5°	959.3	1001.3	1100.8	1198.0	1231.2
60°	877.5	921.7	1027.8	1127.3	1160.5
62.5°	793.5	842.2	954.9	1056.6	1094.1
65°	702.9	762.6	881.9	985.8	1023.4
67.5°	621.1	683.0	809.0	915.1	948.3
70°	528.3	603.4	731.6	837.7	875.3
72.5°	448.7	523.9	658.7	762.6	800.2
75°	364.7	446.5	581.3	685.2	718.4
77.5°	280.7	371.3	506.2	585.8	596.8
80°	201.1	296.2	420.0	466.4	481.9
82.5°	141.5	227.7	309.5	340.4	349.2
85°	77.4	150.3	194.5	207.8	207.8
87.5°	33.2	64.1	77.4	79.6	81.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)