

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: P388950

Luminaire Tested: **24CZ2-70VHE-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: P388950
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: 24CZ2-70VHE-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6244.8 lumens
Efficiency: N/A
Efficacy: 136.6 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

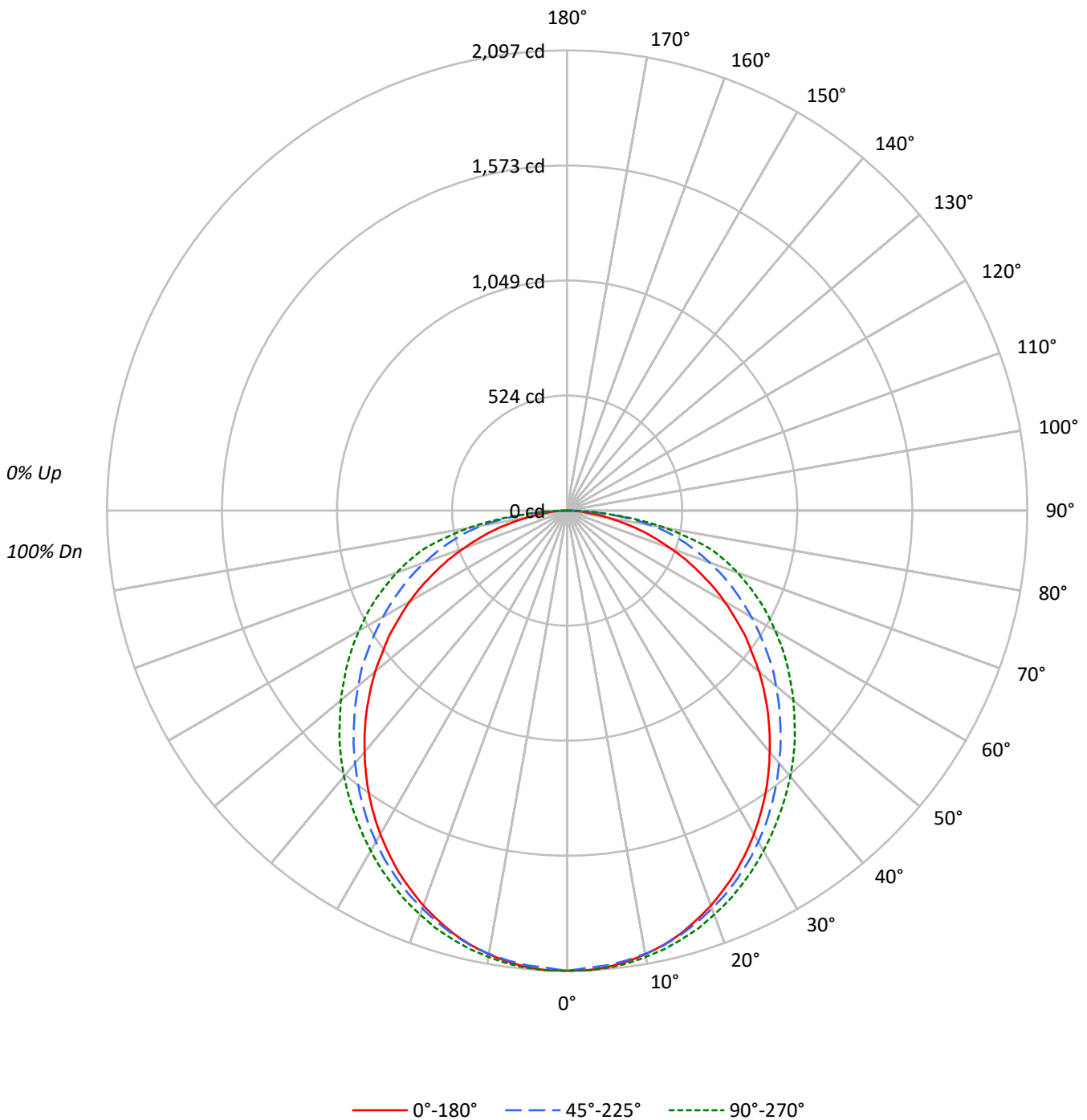
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2821	2821	2821
5°	2821	2809	2826
10°	2805	2802	2822
15°	2781	2787	2816
20°	2742	2763	2805
25°	2698	2738	2794
30°	2646	2707	2781
35°	2588	2674	2773
40°	2522	2639	2778
45°	2459	2614	2792
50°	2391	2600	2818
55°	2317	2596	2870
60°	2227	2608	2944
65°	2110	2648	3072
70°	1959	2714	3247
75°	1788	2849	3522
80°	1470	3068	3520
85°	1125	2831	3024



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.3	3.2
10°-20°	566.1	9.1
20°-30°	851.9	13.6
30°-40°	1020.9	16.3
40°-50°	1063.9	17.0
50°-60°	989.8	15.9
60°-70°	815.3	13.1
70°-80°	555.2	8.9
80°-90°	183.3	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°	1616.3	25.9
0°-40°	2637.2	42.2
0°-60°	4691.0	75.1
0°-90°	6244.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6244.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2097	2097	2097	2097	2097	
5°	2088	2088	2080	2090	2092	198
15°	1997	1999	2001	2020	2022	562
25°	1817	1826	1844	1876	1882	837
35°	1576	1594	1628	1672	1688	985
45°	1292	1319	1374	1442	1467	997
55°	988	1021	1107	1194	1223	881
65°	663	719	832	930	965	658
75°	344	421	548	646	677	363
85°	73	142	183	196	196	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2096.7	2096.7	2096.7	2096.7	2096.7
2.5°	2096.7	2096.7	2086.2	2096.7	2096.7
5°	2088.3	2088.3	2080.0	2090.4	2092.5
7.5°	2073.7	2075.8	2067.5	2080.0	2082.1
10°	2052.9	2055.0	2050.8	2063.3	2065.4
12.5°	2027.9	2030.0	2030.0	2044.6	2046.6
15°	1996.6	1998.7	2000.8	2019.6	2021.6
17.5°	1957.0	1963.3	1967.5	1990.4	1994.5
20°	1915.3	1921.6	1929.9	1954.9	1959.1
22.5°	1867.4	1875.7	1890.3	1917.4	1923.7
25°	1817.4	1825.7	1844.5	1875.7	1882.0
27.5°	1761.1	1773.6	1796.6	1829.9	1838.2
30°	1702.8	1715.3	1742.4	1777.8	1790.3
32.5°	1640.2	1656.9	1688.2	1727.8	1740.3
35°	1575.6	1594.4	1627.7	1671.5	1688.2
37.5°	1506.9	1527.7	1567.3	1615.2	1636.1
40°	1436.0	1461.0	1502.7	1559.0	1581.9
42.5°	1365.1	1388.1	1440.2	1500.6	1525.6
45°	1292.2	1319.3	1373.5	1442.2	1467.3
47.5°	1217.2	1244.2	1308.9	1381.8	1404.7
50°	1142.1	1169.2	1242.2	1319.3	1346.4
52.5°	1060.8	1096.3	1179.6	1256.8	1283.8
55°	987.9	1021.2	1106.7	1194.2	1223.4
57.5°	904.5	944.1	1037.9	1129.6	1160.9
60°	827.4	869.1	969.1	1062.9	1094.2
62.5°	748.2	794.1	900.4	996.2	1031.7
65°	662.8	719.0	831.6	929.5	965.0
67.5°	585.7	644.0	762.8	862.8	894.1
70°	498.1	569.0	689.9	789.9	825.3
72.5°	423.1	493.9	621.1	719.0	754.5
75°	343.9	421.0	548.1	646.1	677.4
77.5°	264.7	350.1	477.3	552.3	562.7
80°	189.7	279.3	396.0	439.8	454.3
82.5°	133.4	214.7	291.8	321.0	329.3
85°	72.9	141.7	183.4	195.9	195.9
87.5°	31.3	60.4	72.9	75.0	77.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)