

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: P391151

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L930-CD2-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: P391151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-RDP-UNV-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9445.2 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

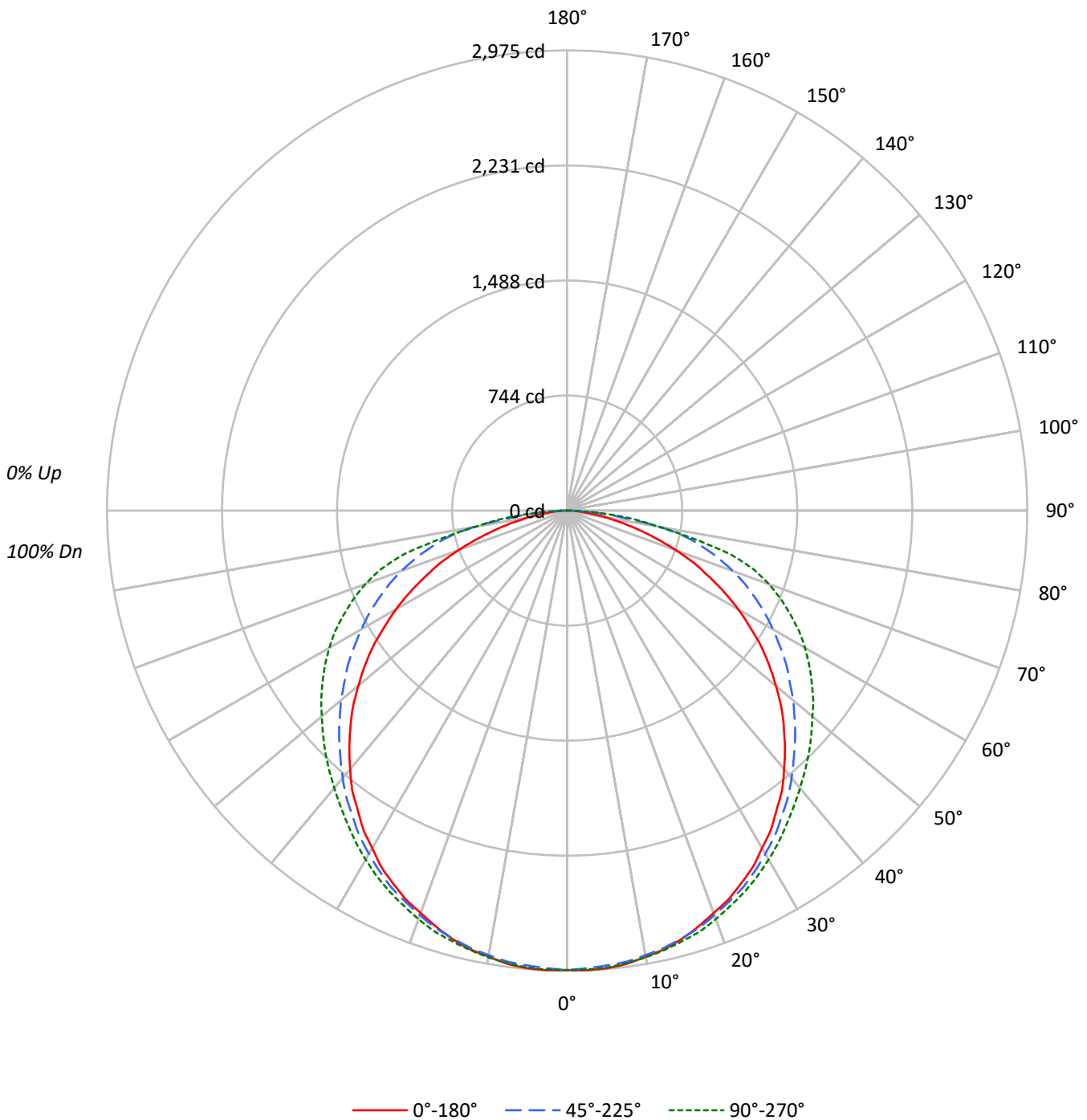
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3996	3996	3996
5°	4012	3986	4005
10°	4001	3988	4007
15°	3994	3987	4013
20°	3964	3985	4025
25°	3950	3992	4034
30°	3916	3982	4047
35°	3878	3971	4063
40°	3835	3966	4114
45°	3771	3967	4208
50°	3687	3991	4334
55°	3594	4055	4528
60°	3442	4135	4778
65°	3222	4281	5071
70°	2930	4478	5455
75°	2484	4725	5699
80°	1960	4755	4610
85°	1447	3616	4051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.8	3.0
10°-20°	810.9	8.6
20°-30°	1240.0	13.1
30°-40°	1515.9	16.0
40°-50°	1615.6	17.1
50°-60°	1544.8	16.4
60°-70°	1308.6	13.9
70°-80°	879.5	9.3
80°-90°	248.1	2.6
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°	2332.7	24.7
0°-40°	3848.6	40.7
0°-60°	7009.0	74.2
0°-90°	9445.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9445.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2970	2970	2970	2970	2970	
5°	2970	2966	2952	2966	2966	282
15°	2867	2867	2862	2886	2881	808
25°	2661	2670	2689	2713	2717	1226
35°	2361	2380	2417	2464	2474	1479
45°	1982	2014	2085	2174	2211	1529
55°	1532	1588	1729	1865	1930	1364
65°	1012	1115	1345	1523	1593	1005
75°	478	651	909	1064	1096	512
85°	94	192	234	253	262	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2970.2	2970.2	2970.2	2970.2	2970.2
2.5°	2974.9	2974.9	2960.9	2970.2	2970.2
5°	2970.2	2965.6	2951.5	2965.6	2965.6
7.5°	2956.2	2951.5	2942.1	2956.2	2951.5
10°	2928.1	2928.1	2918.7	2932.8	2932.8
12.5°	2904.7	2900.0	2895.3	2914.0	2909.3
15°	2867.2	2867.2	2862.5	2885.9	2881.2
17.5°	2820.3	2825.0	2829.7	2848.4	2853.1
20°	2768.8	2778.2	2782.8	2811.0	2811.0
22.5°	2721.9	2726.6	2736.0	2764.1	2764.1
25°	2661.0	2670.4	2689.1	2712.6	2717.3
27.5°	2600.1	2604.8	2628.2	2661.0	2665.7
30°	2520.5	2534.5	2562.7	2600.1	2604.8
32.5°	2450.2	2464.3	2497.1	2534.5	2543.9
35°	2361.2	2379.9	2417.4	2464.3	2473.6
37.5°	2281.6	2295.6	2342.5	2394.0	2408.1
40°	2183.2	2211.3	2258.1	2319.0	2342.5
42.5°	2084.8	2112.9	2169.1	2248.8	2276.9
45°	1981.7	2014.5	2084.8	2173.8	2211.3
47.5°	1878.7	1916.1	1995.8	2098.8	2141.0
50°	1761.5	1808.4	1906.8	2023.9	2070.7
52.5°	1649.1	1705.3	1813.1	1944.2	2005.2
55°	1532.0	1588.2	1728.7	1864.6	1930.2
57.5°	1400.8	1475.8	1630.4	1785.0	1855.2
60°	1279.0	1349.3	1536.7	1705.3	1775.6
62.5°	1147.8	1241.5	1443.0	1621.0	1691.3
65°	1011.9	1115.0	1344.6	1522.6	1592.9
67.5°	890.1	1002.6	1246.2	1424.2	1494.5
70°	744.9	885.5	1138.4	1316.5	1386.7
72.5°	609.0	763.6	1026.0	1199.3	1264.9
75°	477.9	651.2	908.9	1063.5	1096.3
77.5°	356.1	538.8	787.1	852.7	829.2
80°	253.0	431.0	613.7	580.9	595.0
82.5°	164.0	327.9	379.5	431.0	445.1
85°	93.7	192.1	234.2	253.0	262.4
87.5°	42.2	70.3	93.7	93.7	89.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)