

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: P391661

Luminaire Tested: **24CZ2-75VHE-HRP-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: P391661
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: 24CZ2-75VHE-HRP-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5555.7 lumens
Efficiency: N/A
Efficacy: 111.3 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

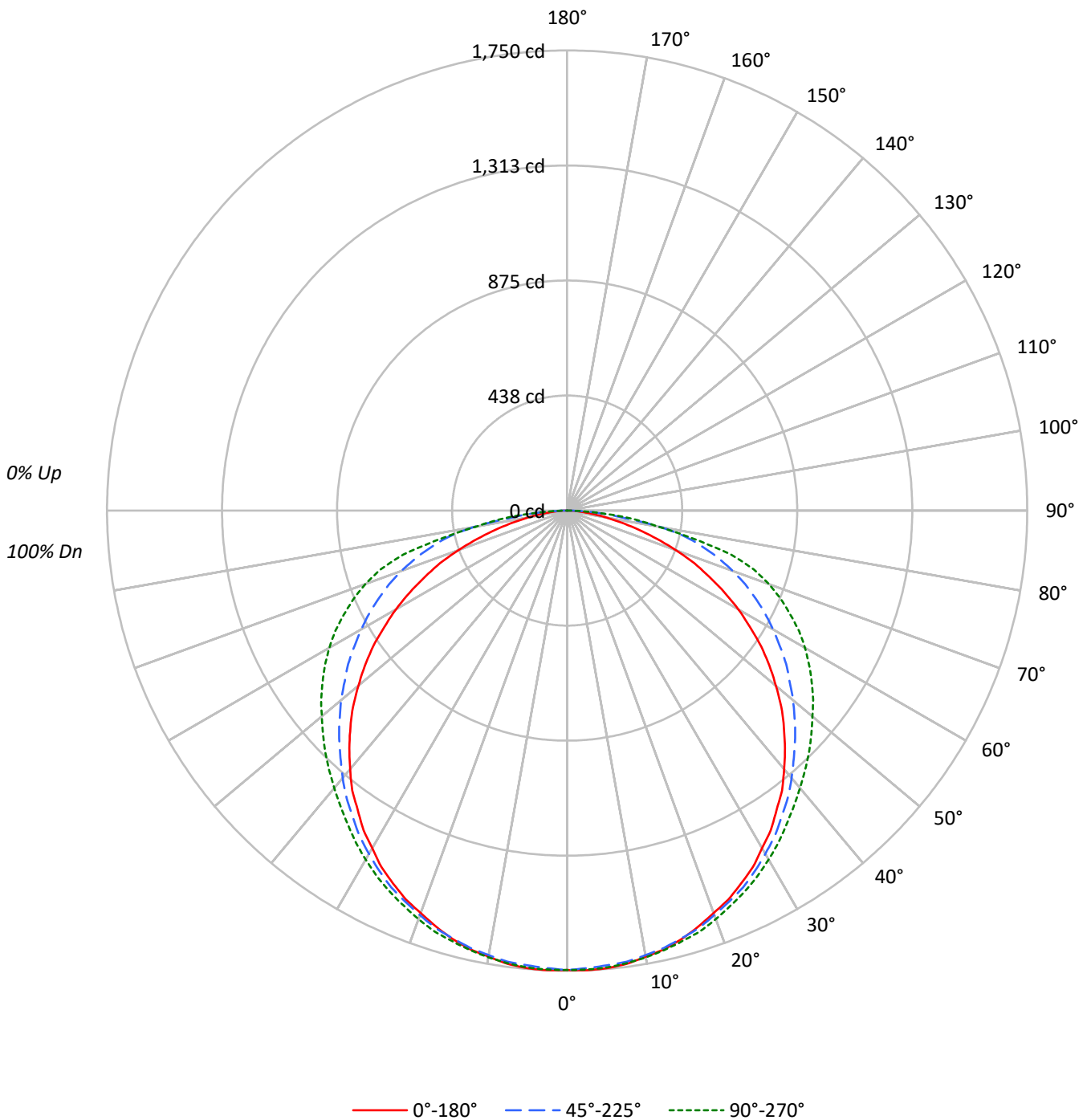
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2351	2351	2351
5°	2360	2345	2356
10°	2353	2346	2357
15°	2349	2345	2361
20°	2332	2344	2367
25°	2324	2348	2373
30°	2303	2342	2380
35°	2281	2336	2390
40°	2256	2333	2420
45°	2218	2333	2475
50°	2169	2348	2550
55°	2114	2385	2663
60°	2024	2432	2810
65°	1895	2518	2983
70°	1724	2634	3209
75°	1461	2779	3352
80°	1153	2797	2712
85°	851	2127	2382



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.7	3.0
10°-20°	477.0	8.6
20°-30°	729.4	13.1
30°-40°	891.7	16.0
40°-50°	950.3	17.1
50°-60°	908.6	16.4
60°-70°	769.7	13.9
70°-80°	517.3	9.3
80°-90°	145.9	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°	1372.1	24.7
0°-40°	2263.7	40.7
0°-60°	4122.7	74.2
0°-90°	5555.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5555.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1747	1747	1747	1747	1747	
5°	1747	1744	1736	1744	1744	166
15°	1686	1686	1684	1698	1695	476
25°	1565	1571	1582	1596	1598	721
35°	1389	1400	1422	1450	1455	870
45°	1166	1185	1226	1279	1301	899
55°	901	934	1017	1097	1135	803
65°	595	656	791	896	937	591
75°	281	383	535	626	645	301
85°	55	113	138	149	154	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1747.1	1747.1	1747.1	1747.1	1747.1
2.5°	1749.9	1749.9	1741.6	1747.1	1747.1
5°	1747.1	1744.4	1736.1	1744.4	1744.4
7.5°	1738.8	1736.1	1730.6	1738.8	1736.1
10°	1722.3	1722.3	1716.8	1725.1	1725.1
12.5°	1708.5	1705.8	1703.0	1714.0	1711.3
15°	1686.5	1686.5	1683.7	1697.5	1694.8
17.5°	1658.9	1661.7	1664.4	1675.5	1678.2
20°	1628.6	1634.1	1636.9	1653.4	1653.4
22.5°	1601.1	1603.8	1609.3	1625.9	1625.9
25°	1565.2	1570.7	1581.8	1595.5	1598.3
27.5°	1529.4	1532.2	1545.9	1565.2	1568.0
30°	1482.6	1490.8	1507.4	1529.4	1532.2
32.5°	1441.2	1449.5	1468.8	1490.8	1496.3
35°	1388.9	1399.9	1421.9	1449.5	1455.0
37.5°	1342.0	1350.3	1377.8	1408.2	1416.4
40°	1284.2	1300.7	1328.2	1364.1	1377.8
42.5°	1226.3	1242.8	1275.9	1322.7	1339.3
45°	1165.7	1184.9	1226.3	1278.6	1300.7
47.5°	1105.0	1127.1	1173.9	1234.6	1259.4
50°	1036.1	1063.7	1121.6	1190.5	1218.0
52.5°	970.0	1003.1	1066.5	1143.6	1179.4
55°	901.1	934.2	1016.9	1096.8	1135.3
57.5°	824.0	868.0	959.0	1049.9	1091.3
60°	752.3	793.6	903.9	1003.1	1044.4
62.5°	675.1	730.3	848.8	953.5	994.8
65°	595.2	655.9	790.9	895.6	936.9
67.5°	523.6	589.7	733.0	837.7	879.1
70°	438.2	520.8	669.6	774.3	815.7
72.5°	358.2	449.2	603.5	705.5	744.0
75°	281.1	383.0	534.6	625.5	644.8
77.5°	209.4	316.9	463.0	501.5	487.8
80°	148.8	253.5	361.0	341.7	350.0
82.5°	96.4	192.9	223.2	253.5	261.8
85°	55.1	113.0	137.8	148.8	154.3
87.5°	24.8	41.3	55.1	55.1	52.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)