

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: P391663

Luminaire Tested: **24CZ2-75VHE-HRP-UNV-L950-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: P391663
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5823.8 lumens
Efficiency: N/A
Efficacy: 116.7 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

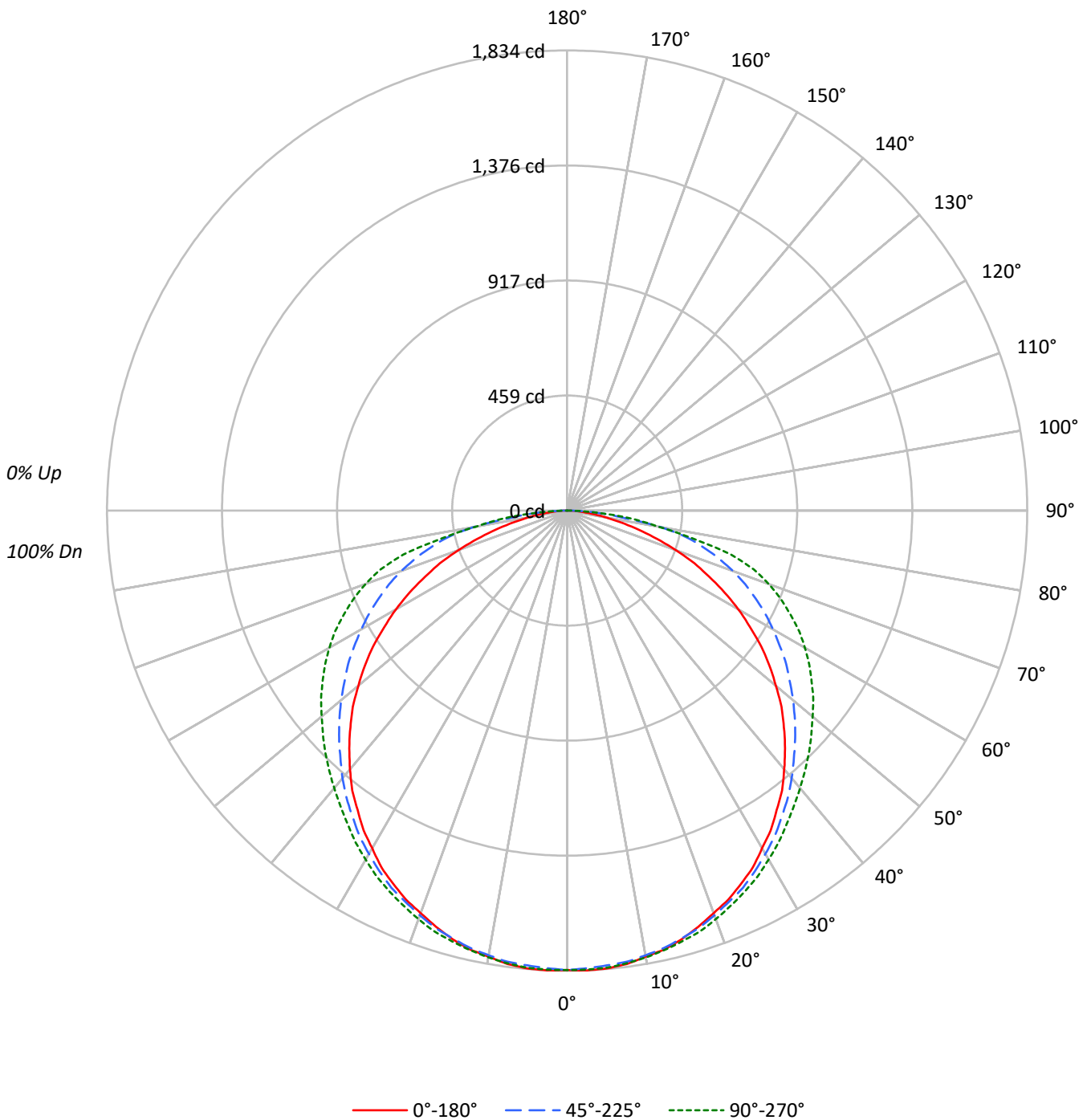
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2464	2464	2464
5°	2474	2458	2470
10°	2467	2459	2471
15°	2463	2459	2475
20°	2444	2457	2482
25°	2436	2462	2487
30°	2415	2455	2495
35°	2391	2448	2505
40°	2364	2445	2537
45°	2325	2446	2594
50°	2273	2461	2673
55°	2216	2500	2792
60°	2122	2550	2946
65°	1987	2639	3127
70°	1807	2761	3364
75°	1531	2913	3514
80°	1209	2932	2843
85°	892	2229	2498



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.7	3.0
10°-20°	500.0	8.6
20°-30°	764.6	13.1
30°-40°	934.7	16.0
40°-50°	996.2	17.1
50°-60°	952.5	16.4
60°-70°	806.9	13.9
70°-80°	542.3	9.3
80°-90°	153.0	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°	1438.3	24.7
0°-40°	2373.0	40.7
0°-60°	4321.7	74.2
0°-90°	5823.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5823.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1831	1828	1820	1828	1828	174
15°	1768	1768	1765	1779	1776	498
25°	1641	1646	1658	1672	1675	756
35°	1456	1467	1491	1519	1525	912
45°	1222	1242	1286	1340	1364	942
55°	945	979	1066	1150	1190	841
65°	624	688	829	939	982	619
75°	295	402	560	656	676	315
85°	58	118	144	156	162	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1831.4	1831.4	1831.4	1831.4	1831.4
2.5°	1834.3	1834.3	1825.6	1831.4	1831.4
5°	1831.4	1828.5	1819.9	1828.5	1828.5
7.5°	1822.8	1819.9	1814.1	1822.8	1819.9
10°	1805.4	1805.4	1799.6	1808.3	1808.3
12.5°	1791.0	1788.1	1785.2	1796.8	1793.9
15°	1767.9	1767.9	1765.0	1779.4	1776.5
17.5°	1739.0	1741.9	1744.8	1756.3	1759.2
20°	1707.2	1713.0	1715.9	1733.2	1733.2
22.5°	1678.3	1681.2	1687.0	1704.3	1704.3
25°	1640.8	1646.5	1658.1	1672.5	1675.4
27.5°	1603.2	1606.1	1620.5	1640.8	1643.7
30°	1554.1	1562.8	1580.1	1603.2	1606.1
32.5°	1510.8	1519.4	1539.7	1562.8	1568.5
35°	1455.9	1467.4	1490.6	1519.4	1525.2
37.5°	1406.8	1415.4	1444.3	1476.1	1484.8
40°	1346.1	1363.5	1392.3	1429.9	1444.3
42.5°	1285.5	1302.8	1337.5	1386.6	1403.9
45°	1221.9	1242.1	1285.5	1340.3	1363.5
47.5°	1158.4	1181.5	1230.6	1294.1	1320.1
50°	1086.1	1115.0	1175.7	1247.9	1276.8
52.5°	1016.8	1051.5	1117.9	1198.8	1236.4
55°	944.6	979.3	1065.9	1149.7	1190.1
57.5°	863.7	909.9	1005.3	1100.6	1143.9
60°	788.6	831.9	947.5	1051.5	1094.8
62.5°	707.7	765.5	889.7	999.5	1042.8
65°	624.0	687.5	829.0	938.8	982.1
67.5°	548.8	618.2	768.4	878.2	921.5
70°	459.3	546.0	701.9	811.7	855.0
72.5°	375.5	470.9	632.6	739.5	779.9
75°	294.6	401.5	560.4	655.7	675.9
77.5°	219.5	332.2	485.3	525.7	511.3
80°	156.0	265.8	378.4	358.2	366.9
82.5°	101.1	202.2	234.0	265.8	274.4
85°	57.8	118.4	144.4	156.0	161.8
87.5°	26.0	43.3	57.8	57.8	54.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)