

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: P391662

Luminaire Tested: **24CZ2-75VHE-HRP-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: P391662  
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-SDWPD1-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: 5753.6 lumens  
Efficiency: N/A  
Efficacy: 115.3 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

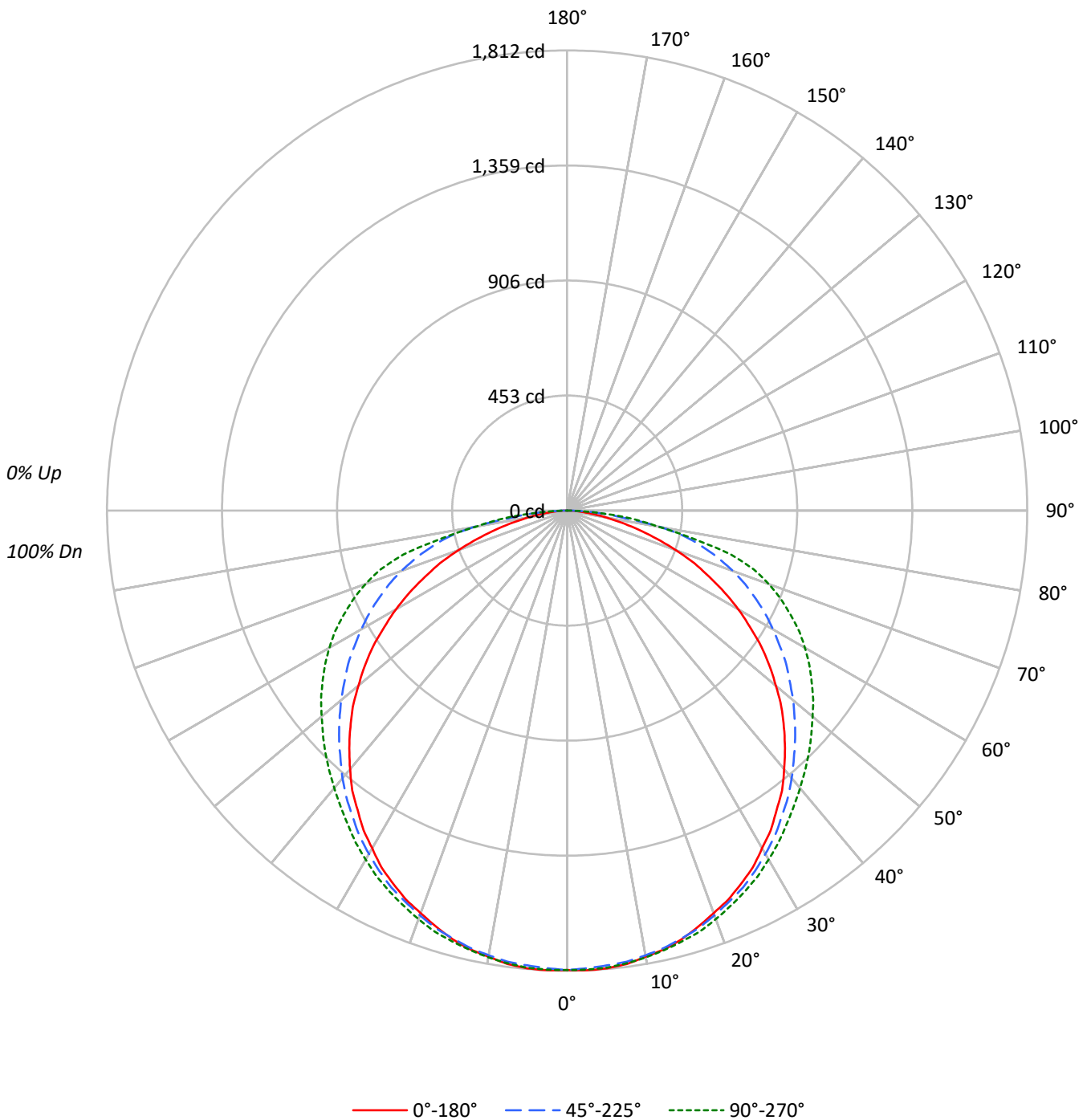
Input Watts (W): 49.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2434	2434	2434
5°	2444	2428	2440
10°	2437	2429	2441
15°	2433	2429	2445
20°	2415	2427	2452
25°	2407	2432	2457
30°	2385	2425	2465
35°	2362	2419	2475
40°	2336	2416	2506
45°	2297	2417	2563
50°	2246	2431	2640
55°	2189	2470	2758
60°	2097	2519	2911
65°	1962	2608	3089
70°	1785	2728	3323
75°	1513	2878	3472
80°	1194	2897	2808
85°	881	2203	2467



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.6	3.0
10°-20°	494.0	8.6
20°-30°	755.4	13.1
30°-40°	923.4	16.0
40°-50°	984.2	17.1
50°-60°	941.0	16.4
60°-70°	797.2	13.9
70°-80°	535.7	9.3
80°-90°	151.1	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°	1421.0	24.7
0°-40°	2344.4	40.7
0°-60°	4269.6	74.2
0°-90°	5753.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5753.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1809	1809	1809	1809	1809	
5°	1809	1806	1798	1806	1806	172
15°	1747	1747	1744	1758	1755	492
25°	1621	1627	1638	1652	1655	747
35°	1438	1450	1473	1501	1507	901
45°	1207	1227	1270	1324	1347	931
55°	933	968	1053	1136	1176	831
65°	616	679	819	928	970	612
75°	291	397	554	648	668	312
85°	57	117	143	154	160	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1809.3	1809.3	1809.3	1809.3	1809.3
2.5°	1812.2	1812.2	1803.6	1809.3	1809.3
5°	1809.3	1806.5	1797.9	1806.5	1806.5
7.5°	1800.8	1797.9	1792.2	1800.8	1797.9
10°	1783.7	1783.7	1778.0	1786.5	1786.5
12.5°	1769.4	1766.5	1763.7	1775.1	1772.2
15°	1746.6	1746.6	1743.7	1758.0	1755.1
17.5°	1718.0	1720.9	1723.7	1735.1	1738.0
20°	1686.6	1692.3	1695.2	1712.3	1712.3
22.5°	1658.1	1660.9	1666.7	1683.8	1683.8
25°	1621.0	1626.7	1638.1	1652.4	1655.2
27.5°	1583.9	1586.7	1601.0	1621.0	1623.8
30°	1535.4	1543.9	1561.1	1583.9	1586.7
32.5°	1492.6	1501.1	1521.1	1543.9	1549.6
35°	1438.3	1449.8	1472.6	1501.1	1506.8
37.5°	1389.8	1398.4	1426.9	1458.3	1466.9
40°	1329.9	1347.0	1375.6	1412.7	1426.9
42.5°	1270.0	1287.1	1321.3	1369.8	1387.0
45°	1207.2	1227.2	1270.0	1324.2	1347.0
47.5°	1144.4	1167.2	1215.7	1278.5	1304.2
50°	1073.0	1101.6	1161.5	1232.9	1261.4
52.5°	1004.6	1038.8	1104.4	1184.3	1221.4
55°	933.2	967.5	1053.1	1135.8	1175.8
57.5°	853.3	899.0	993.1	1087.3	1130.1
60°	779.1	821.9	936.1	1038.8	1081.6
62.5°	699.2	756.3	879.0	987.4	1030.2
65°	616.4	679.2	819.1	927.5	970.3
67.5°	542.2	610.7	759.1	867.6	910.4
70°	453.8	539.4	693.5	801.9	844.7
72.5°	371.0	465.2	625.0	730.6	770.5
75°	291.1	396.7	553.6	647.8	667.8
77.5°	216.9	328.2	479.4	519.4	505.1
80°	154.1	262.6	373.9	353.9	362.4
82.5°	99.9	199.8	231.2	262.6	271.1
85°	57.1	117.0	142.7	154.1	159.8
87.5°	25.7	42.8	57.1	57.1	54.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)