

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: P388976

Luminaire Tested: **24CZ2-75VHE-UNV-L950-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: P388976  
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: 24CZ2-75VHE-UNV-L950-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

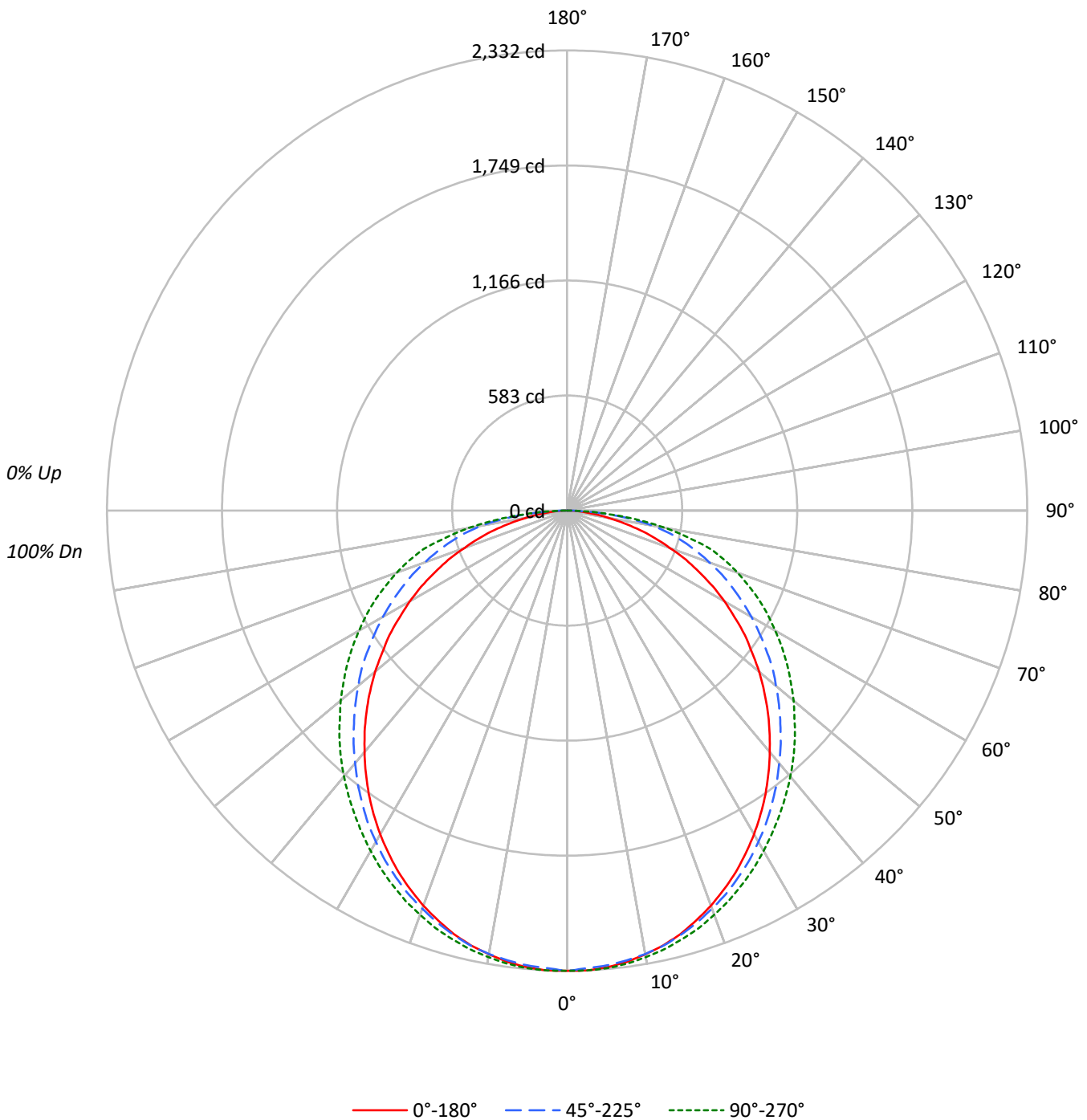
Lumens per Lamp: N/A  
Luminaire Lumens: 6947.2 lumens  
Efficiency: N/A  
Efficacy: 139.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3138	3138	3138
5°	3138	3125	3144
10°	3120	3117	3139
15°	3094	3100	3133
20°	3051	3074	3121
25°	3002	3046	3108
30°	2943	3011	3094
35°	2879	2974	3085
40°	2806	2936	3091
45°	2735	2907	3106
50°	2660	2893	3135
55°	2578	2888	3193
60°	2477	2901	3276
65°	2347	2945	3418
70°	2180	3019	3612
75°	1989	3170	3917
80°	1635	3413	3917
85°	1254	3149	3364



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.6	3.2
10°-20°	629.8	9.1
20°-30°	947.7	13.6
30°-40°	1135.8	16.3
40°-50°	1183.6	17.0
50°-60°	1101.2	15.9
60°-70°	907.0	13.1
70°-80°	617.7	8.9
80°-90°	203.9	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°	1798.1	25.9
0°-40°	2933.9	42.2
0°-60°	5218.6	75.1
0°-90°	6947.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6947.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2332	2332	2332	2332	2332	
5°	2323	2323	2314	2326	2328	221
15°	2221	2224	2226	2247	2249	626
25°	2022	2031	2052	2087	2094	931
35°	1753	1774	1811	1860	1878	1096
45°	1438	1468	1528	1604	1632	1109
55°	1099	1136	1231	1329	1361	980
65°	737	800	925	1034	1074	732
75°	383	468	610	719	754	403
85°	81	158	204	218	218	101
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2332.5	2332.5	2332.5	2332.5	2332.5
2.5°	2332.5	2332.5	2320.9	2332.5	2332.5
5°	2323.2	2323.2	2313.9	2325.5	2327.9
7.5°	2307.0	2309.3	2300.0	2313.9	2316.3
10°	2283.8	2286.1	2281.5	2295.4	2297.7
12.5°	2256.0	2258.3	2258.3	2274.5	2276.9
15°	2221.2	2223.5	2225.8	2246.7	2249.0
17.5°	2177.2	2184.1	2188.7	2214.3	2218.9
20°	2130.8	2137.7	2147.0	2174.8	2179.5
22.5°	2077.5	2086.7	2103.0	2133.1	2140.1
25°	2021.8	2031.1	2051.9	2086.7	2093.7
27.5°	1959.2	1973.1	1998.6	2035.7	2045.0
30°	1894.3	1908.2	1938.3	1977.8	1991.7
32.5°	1824.7	1843.3	1878.1	1922.1	1936.0
35°	1752.9	1773.7	1810.8	1859.5	1878.1
37.5°	1676.3	1699.5	1743.6	1796.9	1820.1
40°	1597.5	1625.3	1671.7	1734.3	1759.8
42.5°	1518.7	1544.2	1602.1	1669.4	1697.2
45°	1437.5	1467.7	1527.9	1604.5	1632.3
47.5°	1354.1	1384.2	1456.1	1537.2	1562.7
50°	1270.6	1300.7	1381.9	1467.7	1497.8
52.5°	1180.2	1219.6	1312.3	1398.1	1428.2
55°	1099.0	1136.1	1231.2	1328.6	1361.0
57.5°	1006.3	1050.3	1154.7	1256.7	1291.5
60°	920.5	966.9	1078.1	1182.5	1217.3
62.5°	832.4	883.4	1001.6	1108.3	1147.7
65°	737.3	799.9	925.1	1034.1	1073.5
67.5°	651.5	716.4	848.6	959.9	994.7
70°	554.1	633.0	767.5	878.7	918.2
72.5°	470.7	549.5	690.9	799.9	839.3
75°	382.6	468.4	609.8	718.8	753.5
77.5°	294.5	389.5	531.0	614.4	626.0
80°	211.0	310.7	440.5	489.2	505.5
82.5°	148.4	238.8	324.6	357.1	366.3
85°	81.2	157.7	204.0	217.9	217.9
87.5°	34.8	67.2	81.2	83.5	85.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)