

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: P388970

Luminaire Tested: **24CZ2-75VHE-UNV-L935-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: P388970  
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-L935-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

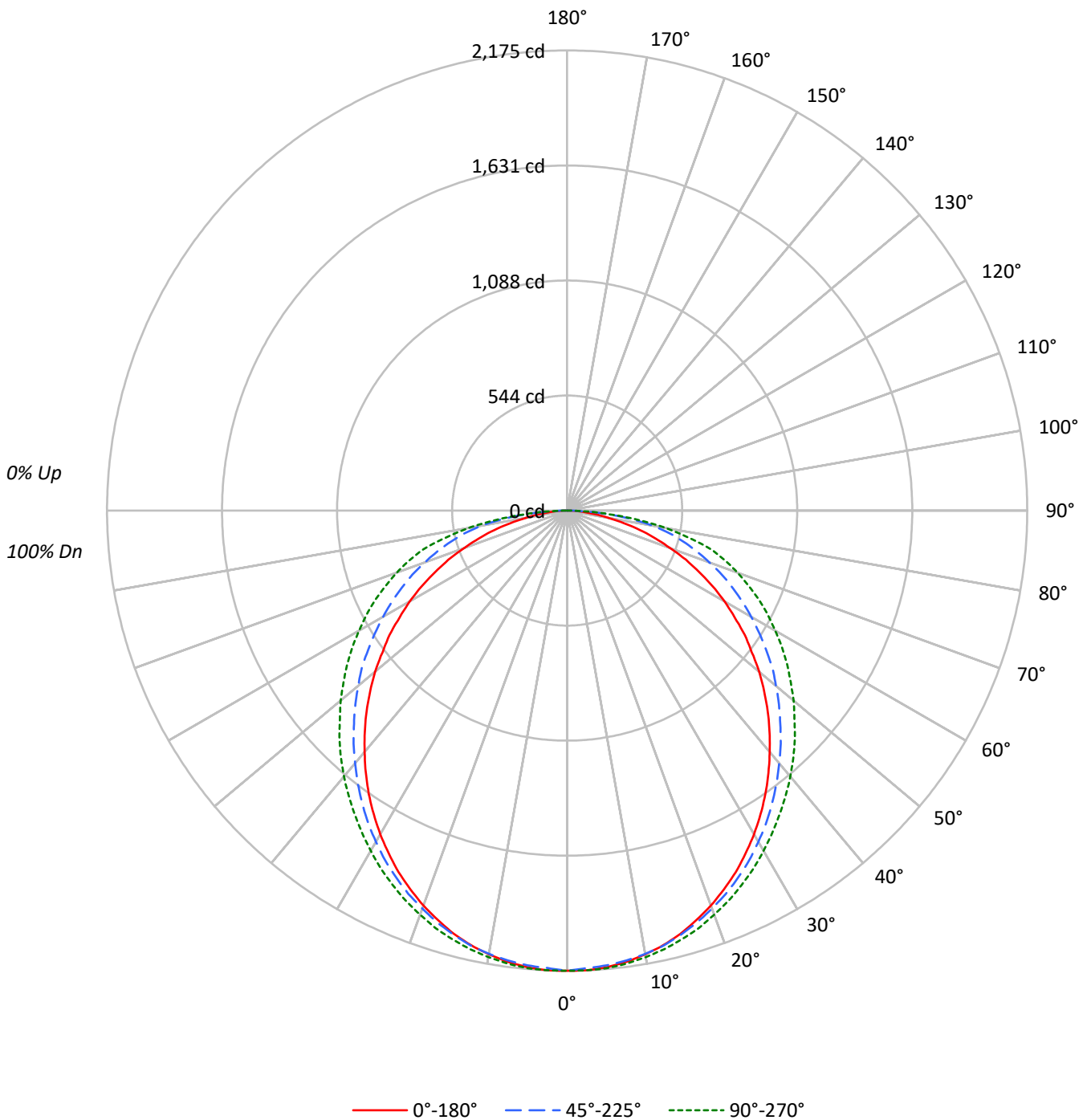
Lumens per Lamp: N/A  
Luminaire Lumens: 6478.1 lumens  
Efficiency: N/A  
Efficacy: 129.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	2926	2926	2926
5°	2926	2914	2932
10°	2910	2907	2927
15°	2885	2891	2921
20°	2845	2867	2910
25°	2799	2841	2898
30°	2744	2808	2885
35°	2685	2773	2876
40°	2616	2738	2882
45°	2551	2711	2896
50°	2480	2697	2924
55°	2404	2693	2977
60°	2310	2705	3055
65°	2189	2746	3187
70°	2033	2815	3368
75°	1854	2956	3653
80°	1524	3183	3652
85°	1169	2938	3137



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.7	3.2
10°-20°	587.3	9.1
20°-30°	883.7	13.6
30°-40°	1059.1	16.3
40°-50°	1103.7	17.0
50°-60°	1026.8	15.9
60°-70°	845.7	13.1
70°-80°	576.0	8.9
80°-90°	190.2	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°	1676.7	25.9
0°-40°	2735.8	42.2
0°-60°	4866.3	75.1
0°-90°	6478.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6478.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2175	2175	2175	2175	2175	
5°	2166	2166	2158	2168	2171	206
15°	2071	2073	2076	2095	2097	584
25°	1885	1894	1913	1946	1952	868
35°	1634	1654	1688	1734	1751	1022
45°	1340	1369	1425	1496	1522	1034
55°	1025	1059	1148	1239	1269	913
65°	688	746	863	964	1001	682
75°	357	437	569	670	703	376
85°	76	147	190	203	203	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2175.0	2175.0	2175.0	2175.0	2175.0
2.5°	2175.0	2175.0	2164.2	2175.0	2175.0
5°	2166.4	2166.4	2157.7	2168.5	2170.7
7.5°	2151.2	2153.4	2144.7	2157.7	2159.9
10°	2129.6	2131.8	2127.4	2140.4	2142.6
12.5°	2103.7	2105.8	2105.8	2120.9	2123.1
15°	2071.2	2073.4	2075.5	2095.0	2097.2
17.5°	2030.1	2036.6	2041.0	2064.7	2069.1
20°	1986.9	1993.4	2002.0	2028.0	2032.3
22.5°	1937.2	1945.8	1961.0	1989.1	1995.6
25°	1885.3	1893.9	1913.4	1945.8	1952.3
27.5°	1826.9	1839.9	1863.7	1898.3	1906.9
30°	1766.4	1779.3	1807.5	1844.2	1857.2
32.5°	1701.5	1718.8	1751.2	1792.3	1805.3
35°	1634.5	1654.0	1688.5	1733.9	1751.2
37.5°	1563.1	1584.8	1625.8	1675.6	1697.2
40°	1489.6	1515.6	1558.8	1617.2	1641.0
42.5°	1416.1	1439.9	1494.0	1556.7	1582.6
45°	1340.5	1368.6	1424.8	1496.1	1522.1
47.5°	1262.6	1290.7	1357.8	1433.4	1457.2
50°	1184.8	1212.9	1288.6	1368.6	1396.7
52.5°	1100.5	1137.2	1223.7	1303.7	1331.8
55°	1024.8	1059.4	1148.0	1238.8	1269.1
57.5°	938.3	979.4	1076.7	1171.8	1204.2
60°	858.3	901.6	1005.3	1102.6	1135.1
62.5°	776.2	823.7	934.0	1033.4	1070.2
65°	687.5	745.9	862.6	964.3	1001.0
67.5°	607.5	668.1	791.3	895.1	927.5
70°	516.7	590.2	715.6	819.4	856.2
72.5°	438.9	512.4	644.3	745.9	782.7
75°	356.7	436.7	568.6	670.2	702.7
77.5°	274.6	363.2	495.1	572.9	583.7
80°	196.7	289.7	410.8	456.2	471.3
82.5°	138.4	222.7	302.7	333.0	341.6
85°	75.7	147.0	190.3	203.2	203.2
87.5°	32.4	62.7	75.7	77.8	80.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)