

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: P389065

Luminaire Tested: **24CZ2-95VHE-UNV-L935-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: P389065  
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: 24CZ2-95VHE-UNV-L935-CD1-SWPD1-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: 7950.0 lumens  
Efficiency: N/A  
Efficacy: 121.2 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

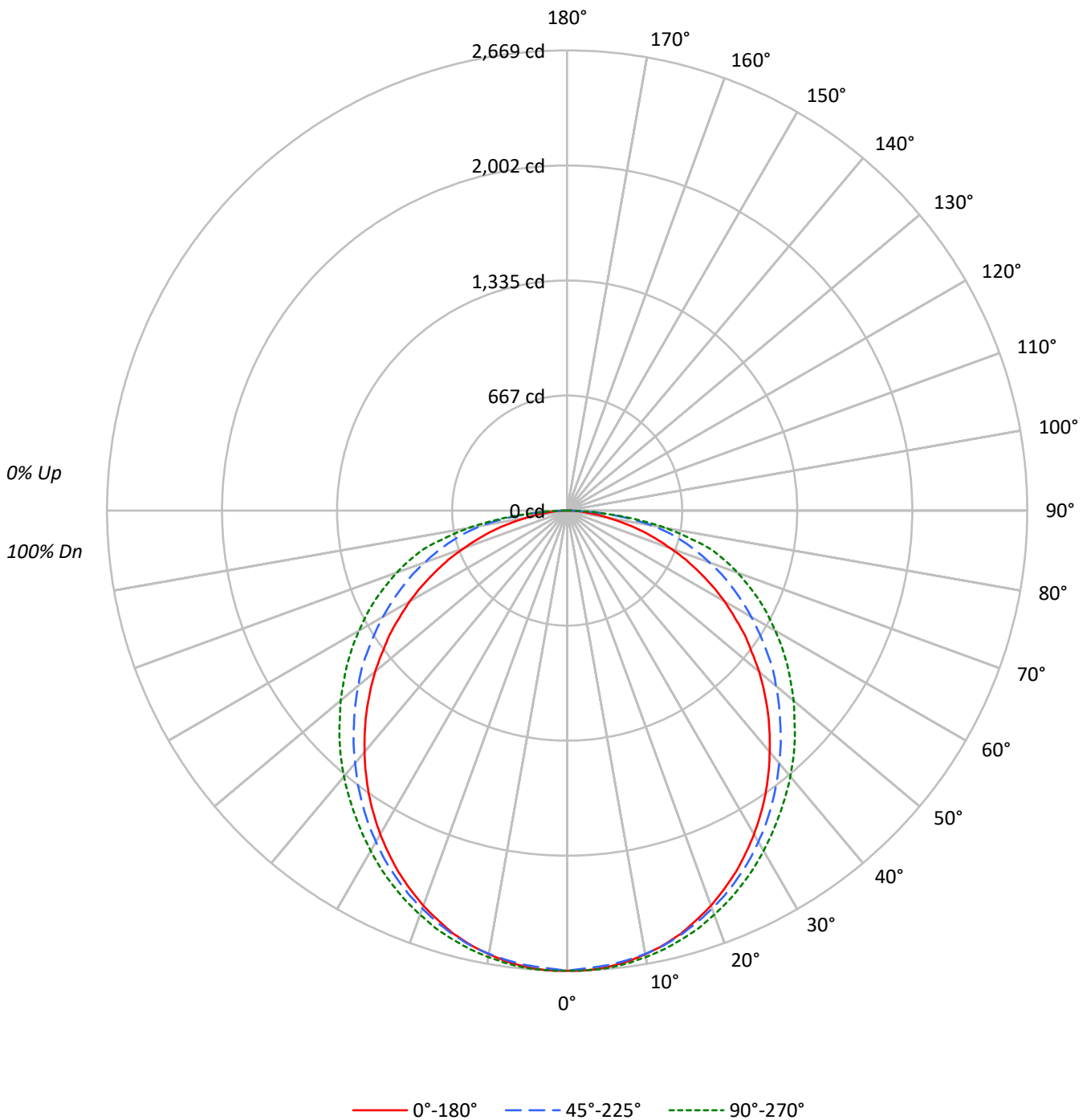
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3591	3591	3591
5°	3591	3576	3598
10°	3571	3567	3592
15°	3541	3548	3585
20°	3491	3518	3571
25°	3435	3486	3557
30°	3368	3446	3541
35°	3295	3404	3530
40°	3211	3360	3537
45°	3130	3327	3554
50°	3044	3310	3588
55°	2950	3305	3654
60°	2834	3320	3749
65°	2686	3371	3911
70°	2495	3455	4133
75°	2276	3628	4483
80°	1870	3906	4482
85°	1434	3605	3850



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.4	3.2
10°-20°	720.7	9.1
20°-30°	1084.5	13.6
30°-40°	1299.7	16.3
40°-50°	1354.4	17.0
50°-60°	1260.1	15.9
60°-70°	1037.9	13.1
70°-80°	706.8	8.9
80°-90°	233.4	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°	2057.7	25.9
0°-40°	3357.4	42.2
0°-60°	5971.9	75.1
0°-90°	7950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7950.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2669	2669	2669	2669	2669	
5°	2659	2659	2648	2661	2664	252
15°	2542	2544	2547	2571	2574	716
25°	2314	2324	2348	2388	2396	1065
35°	2006	2030	2072	2128	2149	1254
45°	1645	1680	1748	1836	1868	1269
55°	1258	1300	1409	1520	1558	1121
65°	844	915	1059	1183	1228	837
75°	438	536	698	822	862	462
85°	93	180	234	249	249	115
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2669.2	2669.2	2669.2	2669.2	2669.2
2.5°	2669.2	2669.2	2655.9	2669.2	2669.2
5°	2658.6	2658.6	2648.0	2661.2	2663.9
7.5°	2640.0	2642.7	2632.0	2648.0	2650.6
10°	2613.5	2616.1	2610.8	2626.7	2629.4
12.5°	2581.6	2584.3	2584.3	2602.9	2605.5
15°	2541.8	2544.5	2547.1	2571.0	2573.7
17.5°	2491.4	2499.4	2504.7	2533.9	2539.2
20°	2438.4	2446.3	2456.9	2488.8	2494.1
22.5°	2377.3	2387.9	2406.5	2441.0	2449.0
25°	2313.6	2324.3	2348.1	2387.9	2395.9
27.5°	2242.0	2257.9	2287.1	2329.6	2340.2
30°	2167.7	2183.6	2218.1	2263.2	2279.2
32.5°	2088.1	2109.3	2149.1	2199.6	2215.5
35°	2005.9	2029.7	2072.2	2127.9	2149.1
37.5°	1918.3	1944.8	1995.3	2056.3	2082.8
40°	1828.1	1859.9	1913.0	1984.6	2013.8
42.5°	1737.9	1767.1	1833.4	1910.4	1942.2
45°	1645.0	1679.5	1748.5	1836.1	1867.9
47.5°	1549.5	1584.0	1666.3	1759.1	1788.3
50°	1454.0	1488.5	1581.3	1679.5	1714.0
52.5°	1350.5	1395.6	1501.7	1599.9	1634.4
55°	1257.6	1300.1	1408.9	1520.3	1557.5
57.5°	1151.5	1201.9	1321.3	1438.1	1477.9
60°	1053.3	1106.4	1233.8	1353.2	1393.0
62.5°	952.5	1010.9	1146.2	1268.3	1313.4
65°	843.7	915.4	1058.7	1183.4	1228.5
67.5°	745.6	819.9	971.1	1098.5	1138.3
70°	634.1	724.3	878.2	1005.6	1050.7
72.5°	538.6	628.8	790.7	915.4	960.5
75°	437.8	536.0	697.8	822.5	862.3
77.5°	337.0	445.7	607.6	703.1	716.4
80°	241.4	355.5	504.1	559.8	578.4
82.5°	169.8	273.3	371.5	408.6	419.2
85°	92.9	180.4	233.5	249.4	249.4
87.5°	39.8	76.9	92.9	95.5	98.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)