

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: P389067

Luminaire Tested: **24CZ2-95VHE-UNV-L940-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: P389067  
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-L940-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

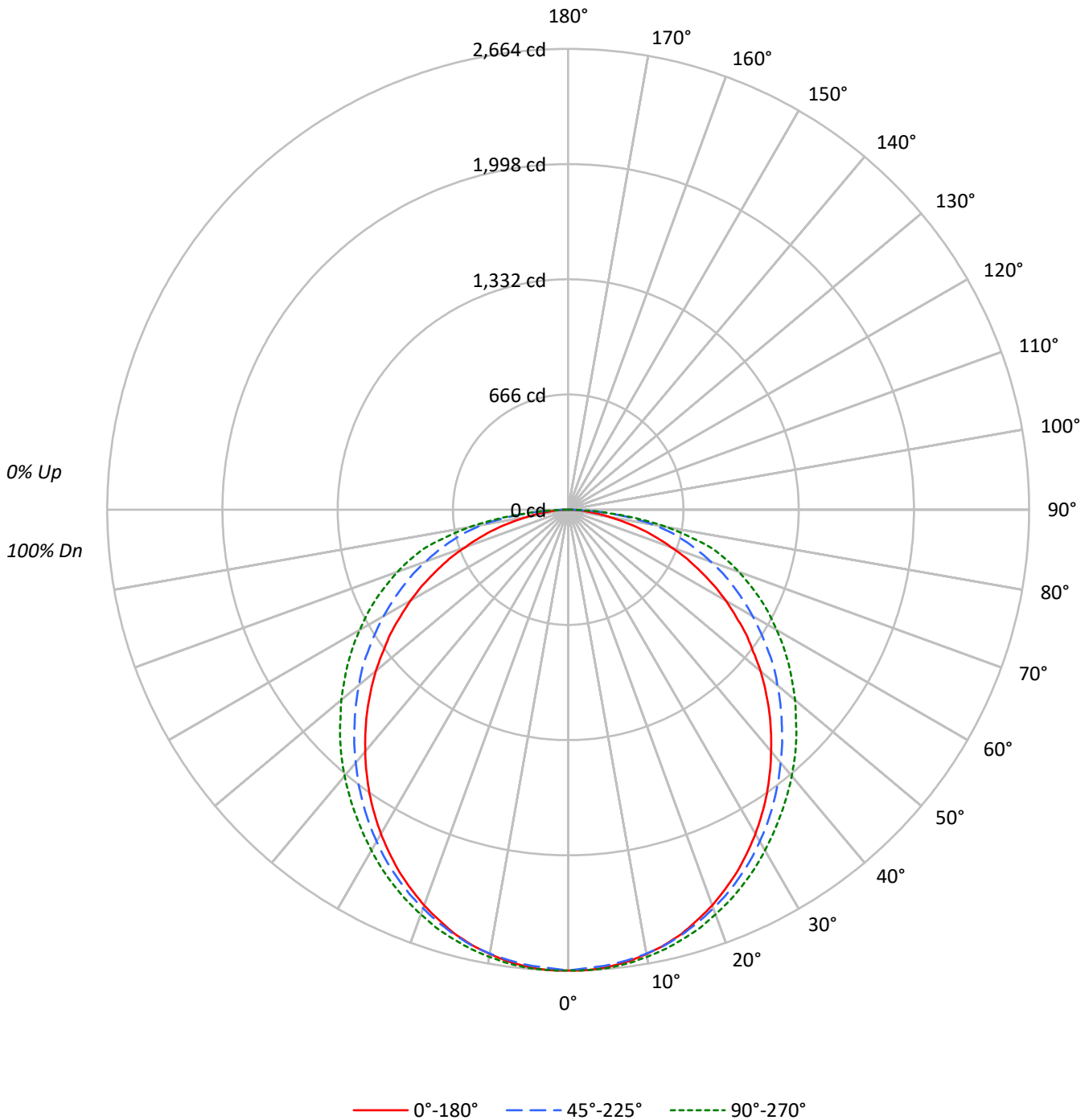
Lumens per Lamp: N/A  
Luminaire Lumens: 7935.3 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

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

	0°	45°	90°
0°	3585	3585	3585
5°	3584	3570	3591
10°	3564	3560	3586
15°	3534	3541	3578
20°	3485	3511	3565
25°	3428	3480	3550
30°	3362	3440	3534
35°	3289	3397	3524
40°	3205	3354	3531
45°	3124	3321	3548
50°	3038	3304	3581
55°	2945	3299	3647
60°	2829	3314	3742
65°	2681	3364	3904
70°	2490	3448	4126
75°	2272	3621	4474
80°	1867	3899	4473
85°	1431	3599	3842



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.0	3.2
10°-20°	719.4	9.1
20°-30°	1082.5	13.6
30°-40°	1297.3	16.3
40°-50°	1351.9	17.0
50°-60°	1257.8	15.9
60°-70°	1036.0	13.1
70°-80°	705.5	8.9
80°-90°	232.9	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°	2053.9	25.9
0°-40°	3351.2	42.2
0°-60°	5960.9	75.1
0°-90°	7935.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7935.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2664	2664	2664	2664	2664	
5°	2654	2654	2643	2656	2659	252
15°	2537	2540	2542	2566	2569	715
25°	2309	2320	2344	2384	2392	1063
35°	2002	2026	2068	2124	2145	1252
45°	1642	1676	1745	1833	1864	1266
55°	1255	1298	1406	1518	1555	1119
65°	842	914	1057	1181	1226	836
75°	437	535	696	821	861	461
85°	93	180	233	249	249	115
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2664.2	2664.2	2664.2	2664.2	2664.2
2.5°	2664.2	2664.2	2651.0	2664.2	2664.2
5°	2653.7	2653.7	2643.1	2656.3	2659.0
7.5°	2635.1	2637.8	2627.2	2643.1	2645.7
10°	2608.6	2611.3	2606.0	2621.9	2624.5
12.5°	2576.9	2579.5	2579.5	2598.0	2600.7
15°	2537.1	2539.8	2542.4	2566.3	2568.9
17.5°	2486.8	2494.8	2500.1	2529.2	2534.5
20°	2433.8	2441.8	2452.4	2484.2	2489.5
22.5°	2372.9	2383.5	2402.1	2436.5	2444.4
25°	2309.4	2320.0	2343.8	2383.5	2391.5
27.5°	2237.9	2253.8	2282.9	2325.3	2335.9
30°	2163.7	2179.6	2214.0	2259.1	2274.9
32.5°	2084.3	2105.4	2145.2	2195.5	2211.4
35°	2002.2	2026.0	2068.4	2124.0	2145.2
37.5°	1914.8	1941.2	1991.6	2052.5	2079.0
40°	1824.7	1856.5	1909.5	1981.0	2010.1
42.5°	1734.7	1763.8	1830.0	1906.8	1938.6
45°	1642.0	1676.4	1745.3	1832.7	1864.4
47.5°	1546.6	1581.1	1663.2	1755.9	1785.0
50°	1451.3	1485.7	1578.4	1676.4	1710.8
52.5°	1348.0	1393.0	1499.0	1597.0	1631.4
55°	1255.3	1297.7	1406.3	1517.5	1554.6
57.5°	1149.4	1199.7	1318.9	1435.4	1475.1
60°	1051.4	1104.4	1231.5	1350.7	1390.4
62.5°	950.8	1009.0	1144.1	1265.9	1310.9
65°	842.2	913.7	1056.7	1181.2	1226.2
67.5°	744.2	818.3	969.3	1096.4	1136.1
70°	633.0	723.0	876.6	1003.7	1048.8
72.5°	537.6	627.7	789.2	913.7	958.7
75°	437.0	535.0	696.5	821.0	860.7
77.5°	336.3	444.9	606.5	701.8	715.1
80°	241.0	354.9	503.2	558.8	577.3
82.5°	169.5	272.8	370.8	407.8	418.4
85°	92.7	180.1	233.1	248.9	248.9
87.5°	39.7	76.8	92.7	95.3	98.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)