

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: P389218

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L950-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: P389218  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-95VHE-SQR-UNV-L950-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8187.9 lumens  
Efficiency: N/A  
Efficacy: 124.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

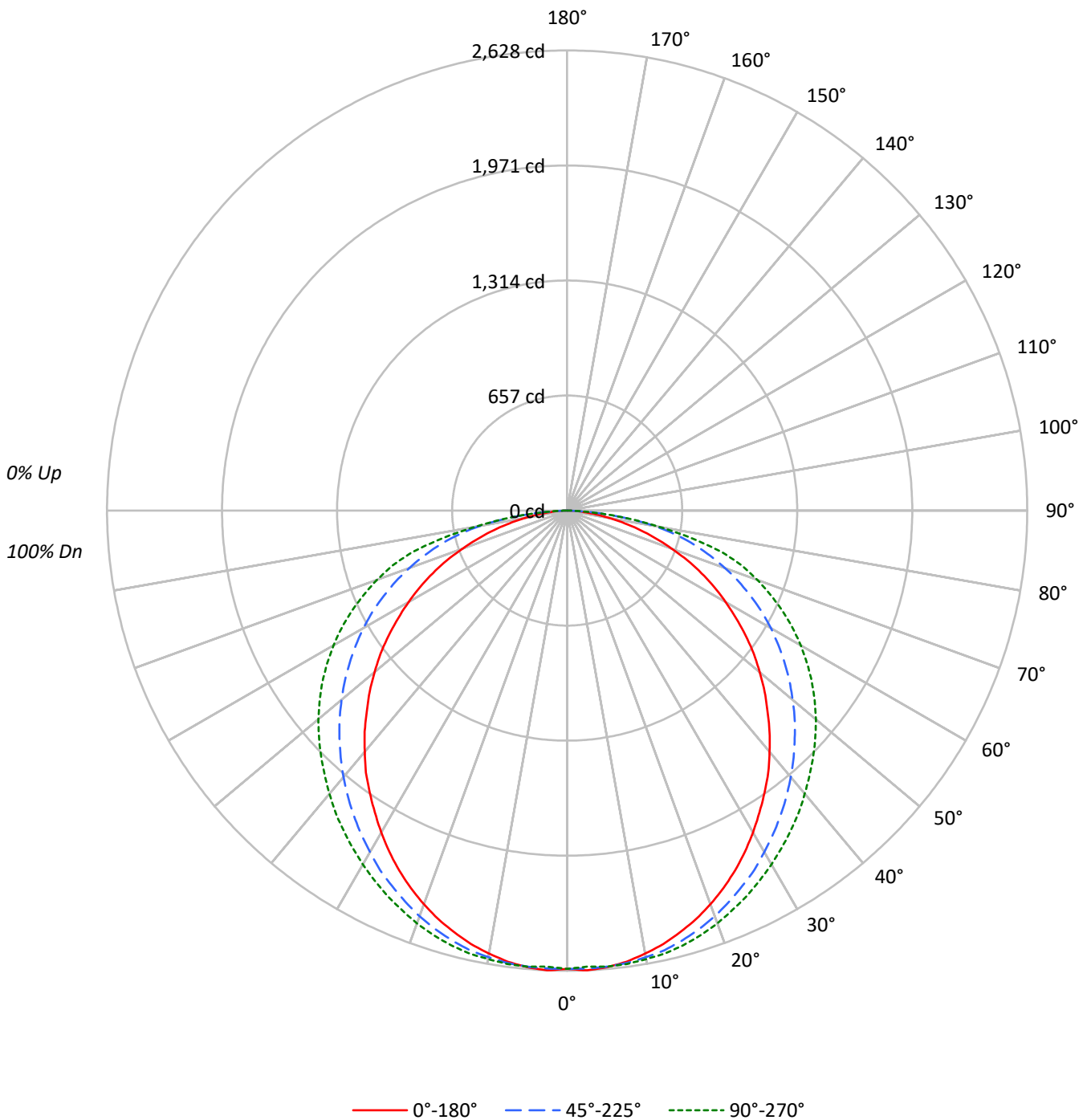
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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

	0°	45°	90°
0°	3522	3522	3522
5°	3535	3531	3531
10°	3509	3539	3554
15°	3472	3540	3578
20°	3426	3531	3593
25°	3368	3512	3605
30°	3298	3499	3625
35°	3229	3491	3659
40°	3158	3491	3709
45°	3077	3499	3781
50°	3005	3520	3882
55°	2917	3558	4002
60°	2816	3616	4147
65°	2694	3684	4321
70°	2500	3776	4542
75°	2263	3907	4751
80°	1906	3918	4085
85°	1460	2964	2964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.4	3.0
10°-20°	714.8	8.7
20°-30°	1085.7	13.3
30°-40°	1320.6	16.1
40°-50°	1406.0	17.2
50°-60°	1339.2	16.4
60°-70°	1119.9	13.7
70°-80°	746.7	9.1
80°-90°	206.6	2.5
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°	2048.9	25.0
0°-40°	3369.5	41.2
0°-60°	6114.7	74.7
0°-90°	8187.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8187.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2617	2617	2617	2617	2617	
5°	2617	2601	2614	2614	2614	248
15°	2493	2498	2542	2560	2569	703
25°	2268	2298	2366	2406	2428	1044
35°	1966	2022	2125	2196	2228	1230
45°	1617	1703	1839	1941	1987	1250
55°	1244	1352	1517	1649	1706	1112
65°	846	971	1157	1300	1357	836
75°	435	573	752	879	914	461
85°	95	176	192	189	192	114
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2617.3	2617.3	2617.3	2617.3	2617.3
2.5°	2628.1	2609.1	2617.3	2617.3	2606.4
5°	2617.3	2601.0	2614.5	2614.5	2614.5
7.5°	2598.3	2584.8	2606.4	2611.8	2611.8
10°	2568.6	2563.2	2590.2	2598.3	2601.0
12.5°	2536.1	2533.4	2571.3	2582.1	2590.2
15°	2492.9	2498.3	2541.5	2560.5	2568.6
17.5°	2446.9	2457.7	2506.4	2533.4	2541.5
20°	2392.8	2409.1	2465.8	2492.9	2509.1
22.5°	2333.4	2357.7	2417.2	2449.6	2468.5
25°	2268.5	2298.2	2365.8	2406.4	2428.0
27.5°	2198.2	2236.0	2314.4	2360.4	2382.0
30°	2122.5	2165.7	2252.2	2306.3	2333.4
32.5°	2044.1	2095.4	2190.1	2249.5	2282.0
35°	1965.6	2022.4	2125.2	2195.5	2227.9
37.5°	1887.2	1944.0	2057.6	2133.3	2173.8
40°	1798.0	1865.6	1987.3	2071.1	2111.6
42.5°	1711.5	1784.5	1914.3	2006.2	2049.5
45°	1616.9	1703.4	1838.6	1941.3	1987.3
47.5°	1530.3	1616.9	1762.9	1871.0	1922.4
50°	1435.7	1527.6	1681.7	1800.7	1854.8
52.5°	1343.8	1438.4	1600.6	1727.7	1781.8
55°	1243.7	1351.9	1516.8	1649.3	1706.1
57.5°	1143.7	1260.0	1430.3	1568.2	1625.0
60°	1046.4	1165.3	1343.8	1481.7	1541.2
62.5°	949.0	1068.0	1254.6	1395.1	1451.9
65°	846.3	970.7	1157.2	1300.5	1357.3
67.5°	743.5	873.3	1059.9	1203.2	1257.3
70°	635.4	773.3	959.8	1100.4	1154.5
72.5°	535.3	673.2	857.1	995.0	1046.4
75°	435.3	573.2	751.6	878.7	913.9
77.5°	338.0	475.9	635.4	719.2	727.3
80°	246.0	375.8	505.6	529.9	527.2
82.5°	164.9	281.2	348.8	351.5	359.6
85°	94.6	175.7	192.0	189.3	192.0
87.5°	37.9	62.2	54.1	40.6	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)