

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: P388307

Luminaire Tested: **24CZ2-100VHE-SQR-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: P388307  
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: 24CZ2-100VHE-SQR-UNV-L950-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

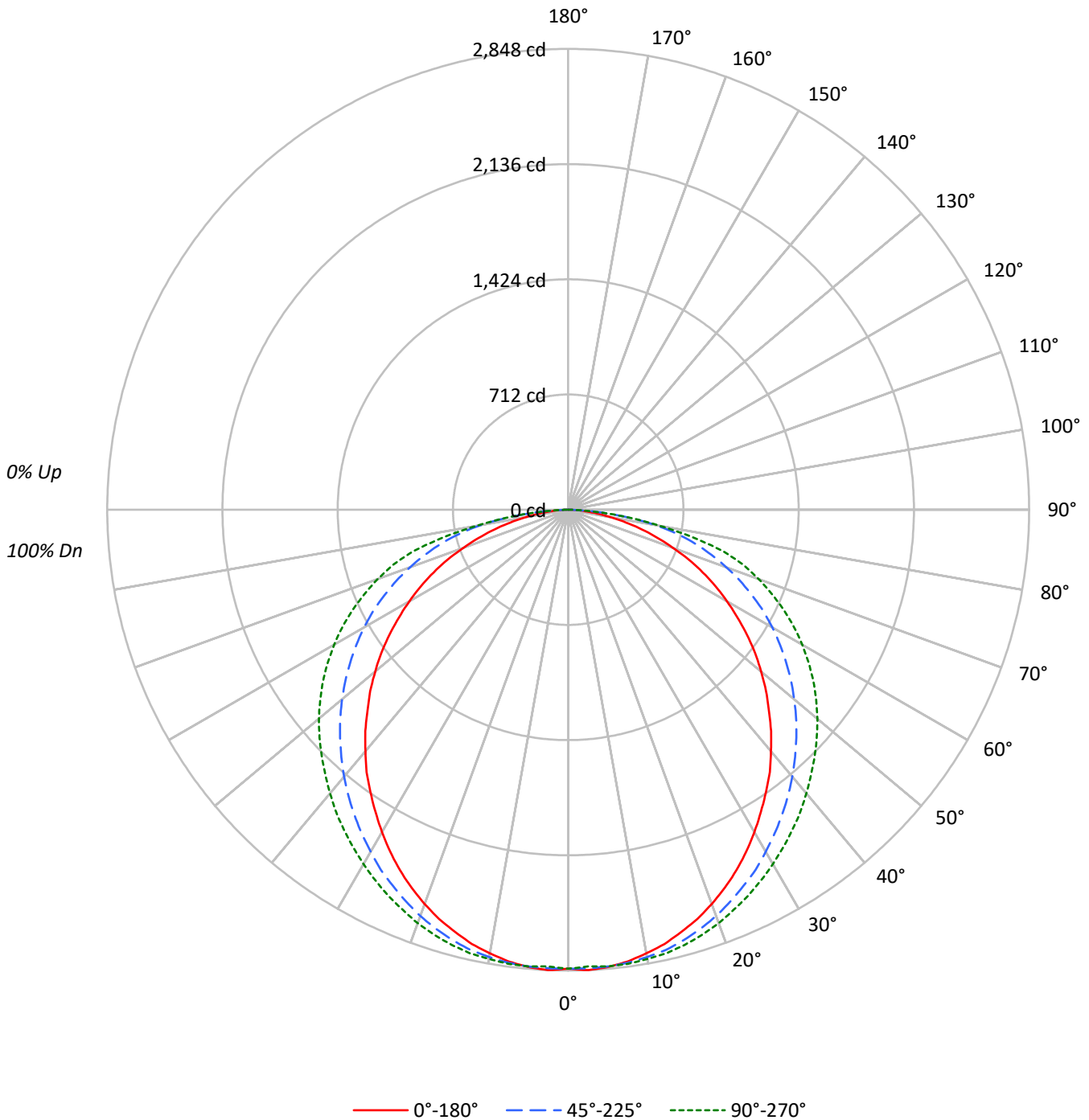
Lumens per Lamp: N/A  
Luminaire Lumens: 8874.1 lumens  
Efficiency: N/A  
Efficacy: 127.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 69.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	3817	3817	3817
5°	3831	3827	3827
10°	3803	3835	3851
15°	3763	3837	3878
20°	3713	3827	3894
25°	3650	3807	3907
30°	3574	3792	3929
35°	3499	3783	3966
40°	3423	3783	4020
45°	3334	3792	4098
50°	3257	3815	4208
55°	3162	3856	4338
60°	3052	3919	4495
65°	2920	3993	4683
70°	2709	4092	4923
75°	2453	4235	5149
80°	2066	4246	4427
85°	1584	3213	3213



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.3	3.0
10°-20°	774.7	8.7
20°-30°	1176.7	13.3
30°-40°	1431.3	16.1
40°-50°	1523.8	17.2
50°-60°	1451.4	16.4
60°-70°	1213.8	13.7
70°-80°	809.2	9.1
80°-90°	223.9	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°	2220.6	25.0
0°-40°	3651.9	41.2
0°-60°	6627.2	74.7
0°-90°	8874.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8874.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2837	2837	2837	2837	2837	
5°	2837	2819	2834	2834	2834	269
15°	2702	2708	2754	2775	2784	762
25°	2459	2491	2564	2608	2632	1132
35°	2130	2192	2303	2380	2415	1333
45°	1752	1846	1993	2104	2154	1355
55°	1348	1465	1644	1788	1849	1205
65°	917	1052	1254	1410	1471	906
75°	472	621	815	952	990	500
85°	103	190	208	205	208	124
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2836.6	2836.6	2836.6	2836.6	2836.6
2.5°	2848.3	2827.8	2836.6	2836.6	2824.9
5°	2836.6	2819.0	2833.7	2833.7	2833.7
7.5°	2816.1	2801.4	2824.9	2830.7	2830.7
10°	2783.8	2778.0	2807.3	2816.1	2819.0
12.5°	2748.7	2745.8	2786.8	2798.5	2807.3
15°	2701.8	2707.7	2754.5	2775.1	2783.8
17.5°	2652.0	2663.7	2716.4	2745.8	2754.5
20°	2593.4	2611.0	2672.5	2701.8	2719.4
22.5°	2528.9	2555.3	2619.7	2654.9	2675.4
25°	2458.6	2490.8	2564.1	2608.0	2631.5
27.5°	2382.4	2423.4	2508.4	2558.2	2581.7
30°	2300.3	2347.2	2441.0	2499.6	2528.9
32.5°	2215.4	2271.0	2373.6	2438.1	2473.2
35°	2130.4	2191.9	2303.3	2379.5	2414.6
37.5°	2045.4	2106.9	2230.0	2312.1	2356.0
40°	1948.7	2022.0	2153.8	2244.7	2288.6
42.5°	1854.9	1934.0	2074.7	2174.3	2221.2
45°	1752.4	1846.1	1992.6	2104.0	2153.8
47.5°	1658.6	1752.4	1910.6	2027.8	2083.5
50°	1556.0	1655.7	1822.7	1951.6	2010.2
52.5°	1456.4	1559.0	1734.8	1872.5	1931.1
55°	1348.0	1465.2	1643.9	1787.5	1849.1
57.5°	1239.5	1365.6	1550.2	1699.6	1761.1
60°	1134.1	1263.0	1456.4	1605.8	1670.3
62.5°	1028.6	1157.5	1359.7	1512.1	1573.6
65°	917.2	1052.0	1254.2	1409.5	1471.0
67.5°	805.9	946.5	1148.7	1304.0	1362.6
70°	688.6	838.1	1040.3	1192.7	1251.3
72.5°	580.2	729.7	928.9	1078.4	1134.1
75°	471.8	621.2	814.6	952.4	990.5
77.5°	366.3	515.7	688.6	779.5	788.3
80°	266.7	407.3	548.0	574.4	571.4
82.5°	178.8	304.8	378.0	380.9	389.7
85°	102.6	190.5	208.1	205.1	208.1
87.5°	41.0	67.4	58.6	44.0	44.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)