

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: P389976

Luminaire Tested: **24CZ2-90VHE-S-UNV-L935-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: P389976
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7846.9 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

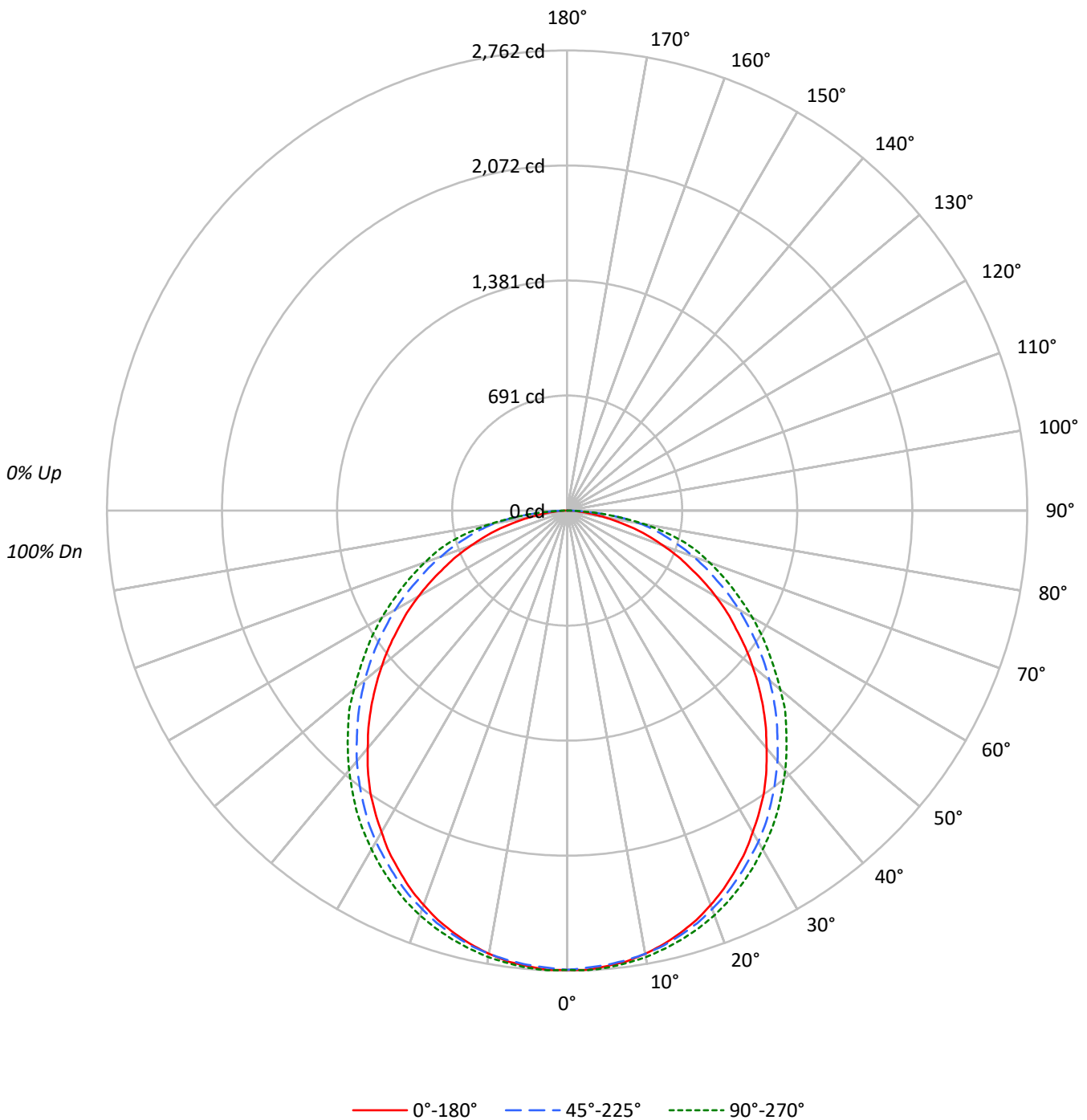
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3709	3709	3709
5°	3706	3696	3720
10°	3691	3691	3719
15°	3656	3673	3711
20°	3608	3644	3701
25°	3541	3608	3678
30°	3462	3567	3648
35°	3386	3508	3619
40°	3270	3450	3577
45°	3163	3381	3538
50°	3042	3318	3496
55°	2906	3257	3461
60°	2770	3206	3454
65°	2595	3150	3476
70°	2402	3167	3569
75°	2151	3226	3771
80°	1738	3419	3689
85°	1308	3001	2924



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.0	3.3
10°-20°	745.7	9.5
20°-30°	1121.0	14.3
30°-40°	1335.2	17.0
40°-50°	1366.6	17.4
50°-60°	1230.3	15.7
60°-70°	966.2	12.3
70°-80°	627.1	8.0
80°-90°	193.9	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°	2127.6	27.1
0°-40°	3462.9	44.1
0°-60°	6059.7	77.2
0°-90°	7846.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7846.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2757	2757	2757	2757	2757	
5°	2744	2749	2737	2752	2754	261
15°	2625	2632	2637	2660	2664	740
25°	2385	2405	2430	2470	2478	1099
35°	2061	2086	2136	2188	2203	1286
45°	1662	1702	1777	1844	1859	1282
55°	1239	1294	1388	1461	1476	1111
65°	815	877	990	1072	1092	811
75°	414	494	621	705	725	438
85°	85	157	194	189	189	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2756.7	2756.7	2756.7	2756.7	2756.7
2.5°	2759.2	2759.2	2746.7	2759.2	2761.7
5°	2744.2	2749.2	2736.7	2751.7	2754.2
7.5°	2729.3	2729.3	2721.8	2736.7	2739.2
10°	2701.8	2704.3	2701.8	2719.3	2721.8
12.5°	2666.9	2671.9	2674.4	2691.9	2694.4
15°	2624.6	2632.0	2637.0	2659.5	2664.4
17.5°	2577.2	2584.7	2597.1	2622.1	2627.1
20°	2519.9	2529.9	2544.8	2577.2	2584.7
22.5°	2457.6	2467.5	2492.5	2522.4	2534.8
25°	2385.3	2405.2	2430.2	2470.0	2477.5
27.5°	2313.0	2330.5	2362.9	2405.2	2415.2
30°	2228.3	2255.7	2295.6	2337.9	2347.9
32.5°	2146.0	2173.4	2220.8	2265.7	2278.1
35°	2061.3	2086.2	2136.0	2188.4	2203.3
37.5°	1964.1	1996.5	2051.3	2103.6	2118.6
40°	1861.9	1901.8	1964.1	2018.9	2036.3
42.5°	1764.7	1807.0	1869.3	1929.2	1949.1
45°	1662.5	1702.4	1777.1	1844.4	1859.4
47.5°	1557.8	1602.7	1682.4	1749.7	1774.6
50°	1453.1	1500.5	1585.2	1655.0	1670.0
52.5°	1348.4	1398.3	1488.0	1562.8	1570.3
55°	1238.8	1293.6	1388.3	1460.6	1475.5
57.5°	1139.1	1186.4	1288.6	1363.4	1380.8
60°	1029.4	1081.7	1191.4	1261.2	1283.6
62.5°	924.7	979.5	1094.2	1164.0	1183.9
65°	815.0	877.3	989.5	1071.8	1091.7
67.5°	720.3	780.1	899.8	979.5	999.5
70°	610.7	678.0	805.1	887.3	907.3
72.5°	515.9	585.7	712.8	792.6	822.5
75°	413.7	493.5	620.6	705.4	725.3
77.5°	314.1	406.3	535.9	600.7	600.7
80°	224.3	321.5	441.2	471.1	476.1
82.5°	147.1	241.8	326.5	324.0	324.0
85°	84.7	157.0	194.4	189.4	189.4
87.5°	32.4	64.8	69.8	69.8	67.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)