

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: P388376

Luminaire Tested: **24CZ2-130VHE-SQR-UNV-L940-CD2-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: P388376
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: 24CZ2-130VHE-SQR-UNV-L940-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10887.3 lumens
Efficiency: N/A
Efficacy: 120.0 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

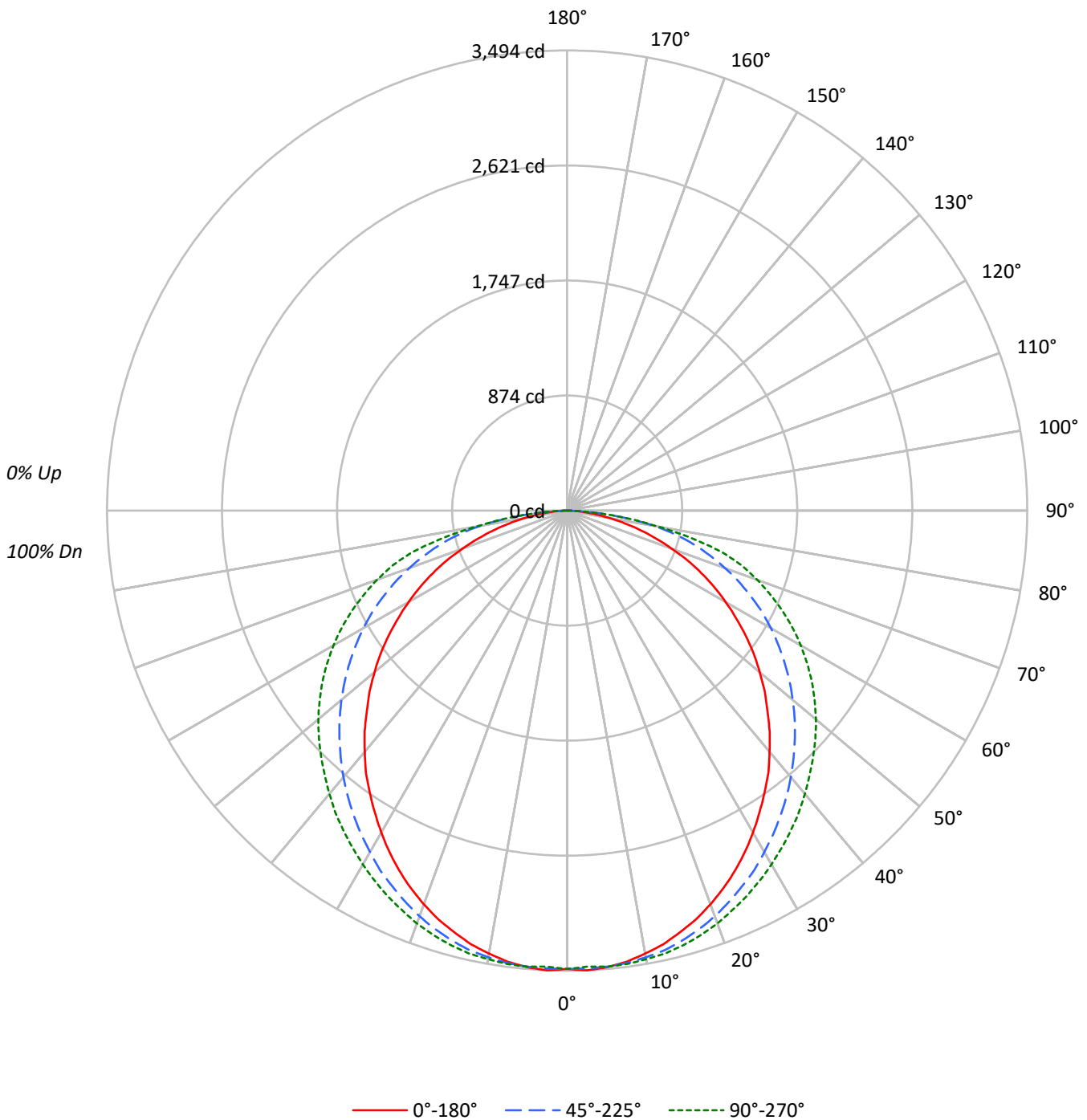
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4682	4682	4682
5°	4700	4695	4695
10°	4666	4706	4725
15°	4617	4707	4757
20°	4556	4695	4777
25°	4478	4670	4793
30°	4385	4653	4820
35°	4293	4641	4866
40°	4199	4641	4932
45°	4091	4652	5028
50°	3996	4681	5162
55°	3879	4731	5321
60°	3744	4808	5514
65°	3583	4899	5746
70°	3324	5021	6039
75°	3009	5196	6317
80°	2535	5209	5432
85°	1942	3941	3941



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.3	3.0
10°-20°	950.4	8.7
20°-30°	1443.6	13.3
30°-40°	1756.0	16.1
40°-50°	1869.6	17.2
50°-60°	1780.7	16.4
60°-70°	1489.1	13.7
70°-80°	992.8	9.1
80°-90°	274.7	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°	2724.4	25.0
0°-40°	4480.4	41.2
0°-60°	8130.6	74.7
0°-90°	10887.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10887.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3480	3480	3480	3480	3480	
5°	3480	3458	3476	3476	3476	330
15°	3315	3322	3379	3405	3415	935
25°	3016	3056	3146	3200	3228	1389
35°	2614	2689	2826	2919	2962	1636
45°	2150	2265	2445	2581	2642	1662
55°	1654	1798	2017	2193	2268	1478
65°	1125	1291	1539	1729	1805	1112
75°	579	762	1000	1168	1215	613
85°	126	234	255	252	255	152
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3480.1	3480.1	3480.1	3480.1	3480.1
2.5°	3494.5	3469.3	3480.1	3480.1	3465.7
5°	3480.1	3458.5	3476.5	3476.5	3476.5
7.5°	3454.9	3437.0	3465.7	3472.9	3472.9
10°	3415.4	3408.2	3444.2	3454.9	3458.5
12.5°	3372.3	3368.7	3419.0	3433.4	3444.2
15°	3314.7	3321.9	3379.4	3404.6	3415.4
17.5°	3253.6	3268.0	3332.7	3368.7	3379.4
20°	3181.7	3203.3	3278.8	3314.7	3336.3
22.5°	3102.6	3135.0	3214.1	3257.2	3282.4
25°	3016.3	3055.9	3145.8	3199.7	3228.4
27.5°	2922.9	2973.2	3077.5	3138.6	3167.3
30°	2822.2	2879.7	2994.8	3066.7	3102.6
32.5°	2717.9	2786.2	2912.1	2991.2	3034.3
35°	2613.7	2689.2	2825.8	2919.3	2962.4
37.5°	2509.4	2584.9	2735.9	2836.6	2890.5
40°	2390.8	2480.7	2642.4	2753.9	2807.8
42.5°	2275.7	2372.8	2545.4	2667.6	2725.1
45°	2149.9	2264.9	2444.7	2581.3	2642.4
47.5°	2034.9	2149.9	2344.0	2487.8	2556.2
50°	1909.0	2031.3	2236.2	2394.4	2466.3
52.5°	1786.8	1912.6	2128.3	2297.3	2369.2
55°	1653.8	1797.6	2016.9	2193.0	2268.5
57.5°	1520.8	1675.3	1901.8	2085.2	2160.7
60°	1391.3	1549.5	1786.8	1970.1	2049.2
62.5°	1261.9	1420.1	1668.2	1855.1	1930.6
65°	1125.3	1290.7	1538.7	1729.3	1804.8
67.5°	988.7	1161.2	1409.3	1599.8	1671.7
70°	844.9	1028.2	1276.3	1463.2	1535.1
72.5°	711.8	895.2	1139.7	1323.0	1391.3
75°	578.8	762.2	999.5	1168.4	1215.2
77.5°	449.4	632.7	844.9	956.3	967.1
80°	327.2	499.7	672.3	704.7	701.1
82.5°	219.3	373.9	463.8	467.4	478.2
85°	125.8	233.7	255.3	251.7	255.3
87.5°	50.3	82.7	71.9	53.9	53.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)