

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: P389597

Luminaire Tested: **24CZ2-130VHE-S-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: P389597
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: 24CZ2-130VHE-S-UNV-L940-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11911.6 lumens
Efficiency: N/A
Efficacy: 131.3 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

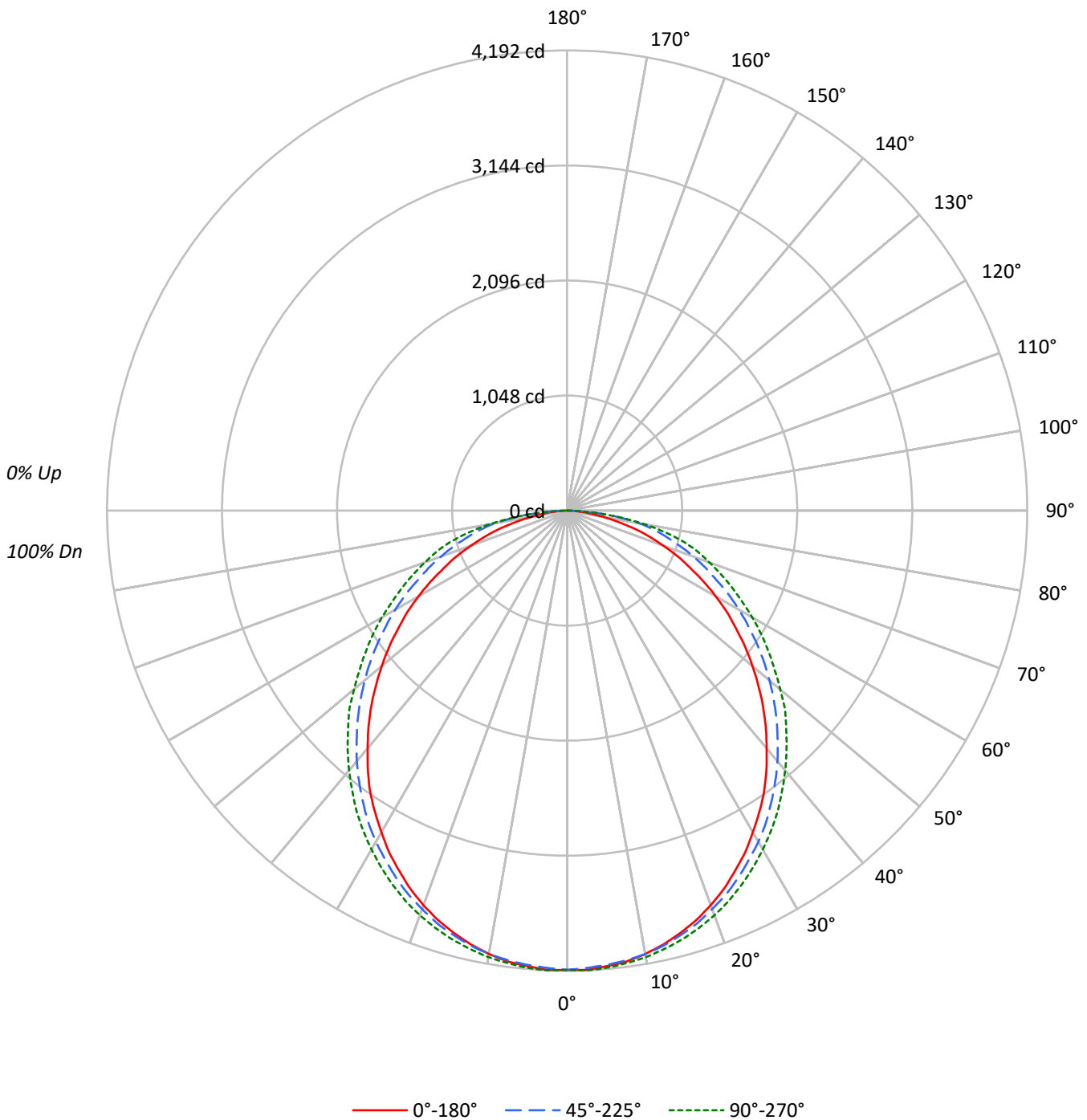
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389597

CATALOG NUMBER: 24CZ2-130VHE-S-UNV-L940-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P389597

CATALOG NUMBER: 24CZ2-130VHE-S-UNV-L940-CD2-U

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5630	5630	5630
5°	5626	5611	5647
10°	5604	5604	5645
15°	5550	5576	5634
20°	5477	5531	5618
25°	5376	5477	5583
30°	5255	5414	5537
35°	5140	5326	5494
40°	4964	5237	5429
45°	4802	5133	5371
50°	4617	5037	5306
55°	4411	4944	5254
60°	4205	4867	5243
65°	3939	4782	5276
70°	3647	4808	5418
75°	3265	4898	5724
80°	2638	5189	5600
85°	1985	4556	4440



TEST NUMBER: P389597

CATALOG NUMBER: 24CZ2-130VHE-S-UNV-L940-CD2-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	396.2	3.3
10°-20°	1132.0	9.5
20°-30°	1701.6	14.3
30°-40°	2026.9	17.0
40°-50°	2074.4	17.4
50°-60°	1867.6	15.7
60°-70°	1466.7	12.3
70°-80°	951.9	8.0
80°-90°	294.4	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°	3229.7	27.1
0°-40°	5256.6	44.1
0°-60°	9198.7	77.2
0°-90°	11911.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11911.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4185	4185	4185	4185	4185	
5°	4166	4173	4154	4177	4181	396
15°	3984	3995	4003	4037	4045	1123
25°	3621	3651	3689	3750	3761	1668
35°	3129	3167	3242	3322	3345	1952
45°	2524	2584	2698	2800	2822	1946
55°	1880	1964	2107	2217	2240	1686
65°	1237	1332	1502	1627	1657	1232
75°	628	749	942	1071	1101	665
85°	129	238	295	288	288	155
90°	0	0	0	0	0	



TEST NUMBER: P389597

CATALOG NUMBER: 24CZ2-130VHE-S-UNV-L940-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4184.6	4184.6	4184.6	4184.6	4184.6
2.5°	4188.4	4188.4	4169.5	4188.4	4192.2
5°	4165.7	4173.3	4154.4	4177.1	4180.8
7.5°	4143.0	4143.0	4131.7	4154.4	4158.1
10°	4101.4	4105.2	4101.4	4127.9	4131.7
12.5°	4048.4	4056.0	4059.8	4086.3	4090.0
15°	3984.1	3995.4	4003.0	4037.1	4044.6
17.5°	3912.2	3923.6	3942.5	3980.3	3987.9
20°	3825.2	3840.3	3863.0	3912.2	3923.6
22.5°	3730.6	3745.7	3783.6	3829.0	3847.9
25°	3620.9	3651.1	3689.0	3749.5	3760.9
27.5°	3511.1	3537.6	3586.8	3651.1	3666.3
30°	3382.5	3424.1	3484.7	3549.0	3564.1
32.5°	3257.6	3299.3	3371.2	3439.3	3458.2
35°	3129.0	3166.8	3242.5	3322.0	3344.7
37.5°	2981.4	3030.6	3113.9	3193.3	3216.0
40°	2826.3	2886.9	2981.4	3064.7	3091.2
42.5°	2678.8	2743.1	2837.7	2928.5	2958.7
45°	2523.6	2584.2	2697.7	2799.8	2822.5
47.5°	2364.7	2432.8	2553.9	2656.1	2693.9
50°	2205.8	2277.7	2406.3	2512.3	2535.0
52.5°	2046.9	2122.6	2258.8	2372.3	2383.6
55°	1880.4	1963.7	2107.4	2217.2	2239.9
57.5°	1729.1	1801.0	1956.1	2069.6	2096.1
60°	1562.6	1642.1	1808.5	1914.5	1948.5
62.5°	1403.7	1486.9	1661.0	1766.9	1797.2
65°	1237.2	1331.8	1502.1	1626.9	1657.2
67.5°	1093.5	1184.3	1365.9	1486.9	1517.2
70°	927.0	1029.1	1222.1	1346.9	1377.2
72.5°	783.2	889.1	1082.1	1203.2	1248.6
75°	628.1	749.1	942.1	1070.7	1101.0
77.5°	476.7	616.7	813.5	911.8	911.8
80°	340.5	488.1	669.7	715.1	722.7
82.5°	223.2	367.0	495.6	491.9	491.9
85°	128.6	238.4	295.1	287.6	287.6
87.5°	49.2	98.4	105.9	105.9	102.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)