

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: P389591

Luminaire Tested: **24CZ2-130VHE-S-UNV-L930-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: P389591
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-L930-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11505.1 lumens
Efficiency: N/A
Efficacy: 126.8 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

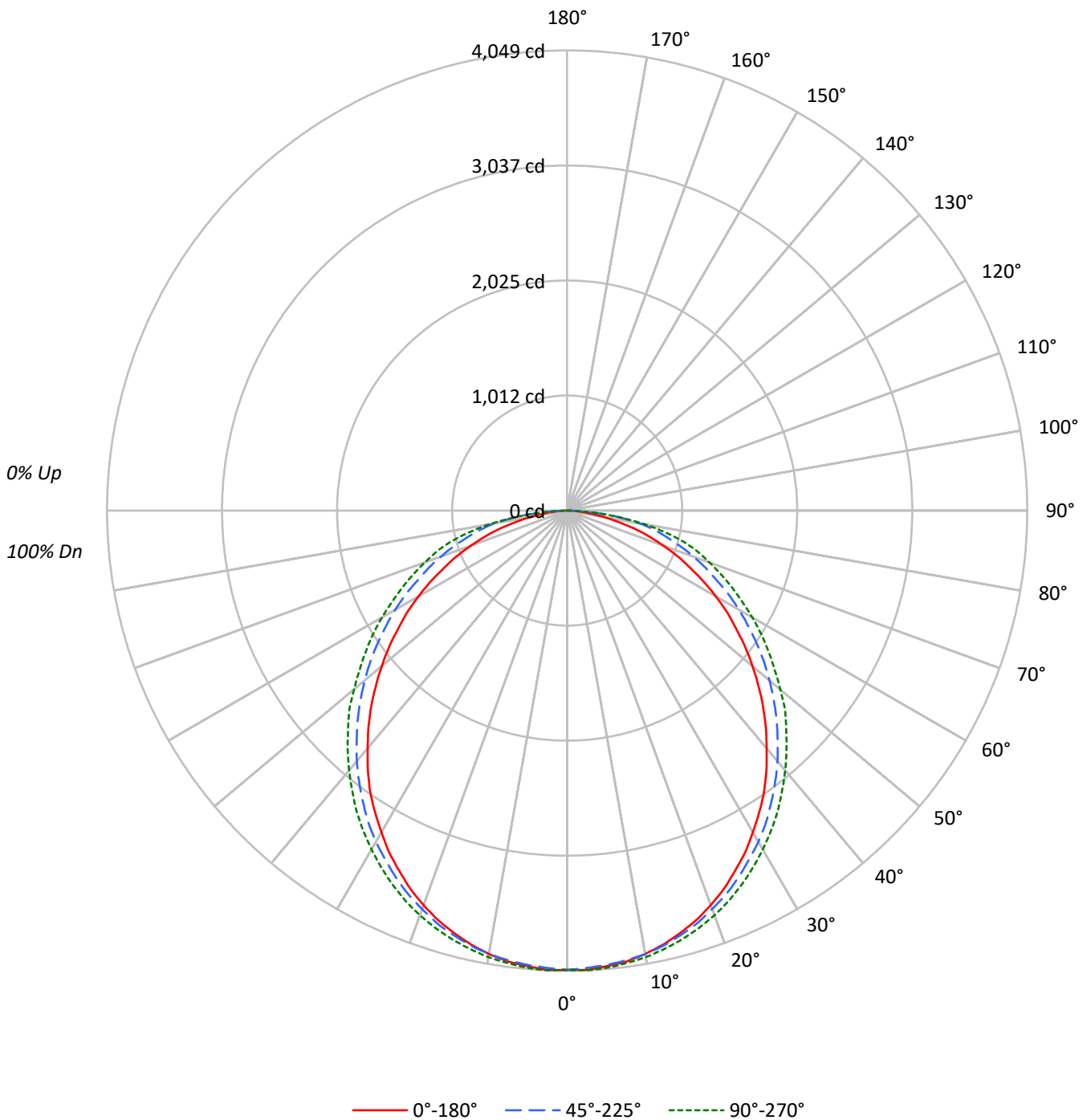
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	5438	5438	5438
5°	5434	5420	5454
10°	5412	5412	5452
15°	5360	5386	5442
20°	5290	5342	5426
25°	5192	5290	5393
30°	5076	5229	5348
35°	4964	5144	5306
40°	4795	5058	5244
45°	4638	4958	5187
50°	4460	4865	5125
55°	4261	4775	5075
60°	4061	4701	5064
65°	3805	4619	5096
70°	3522	4644	5233
75°	3153	4731	5528
80°	2548	5012	5408
85°	1919	4400	4287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.6	3.3
10°-20°	1093.3	9.5
20°-30°	1643.5	14.3
30°-40°	1957.7	17.0
40°-50°	2003.6	17.4
50°-60°	1803.9	15.7
60°-70°	1416.6	12.3
70°-80°	919.4	8.0
80°-90°	284.3	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°	3119.5	27.1
0°-40°	5077.3	44.1
0°-60°	8884.7	77.2
0°-90°	11505.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11505.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4042	4042	4042	4042	4042	
5°	4024	4031	4013	4034	4038	382
15°	3848	3859	3866	3899	3907	1085
25°	3497	3526	3563	3622	3632	1611
35°	3022	3059	3132	3209	3230	1885
45°	2438	2496	2606	2704	2726	1879
55°	1816	1897	2036	2142	2163	1628
65°	1195	1286	1451	1571	1601	1190
75°	607	724	910	1034	1063	642
85°	124	230	285	278	278	150
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4041.8	4041.8	4041.8	4041.8	4041.8
2.5°	4045.5	4045.5	4027.2	4045.5	4049.1
5°	4023.5	4030.9	4012.6	4034.5	4038.2
7.5°	4001.6	4001.6	3990.7	4012.6	4016.2
10°	3961.4	3965.1	3961.4	3987.0	3990.7
12.5°	3910.3	3917.6	3921.2	3946.8	3950.5
15°	3848.1	3859.1	3866.4	3899.3	3906.6
17.5°	3778.7	3789.7	3807.9	3844.5	3851.8
20°	3694.6	3709.3	3731.2	3778.7	3789.7
22.5°	3603.3	3617.9	3654.4	3698.3	3716.6
25°	3497.3	3526.5	3563.1	3621.6	3632.5
27.5°	3391.3	3416.9	3464.4	3526.5	3541.2
30°	3267.1	3307.3	3365.7	3427.9	3442.5
32.5°	3146.5	3186.7	3256.1	3321.9	3340.2
35°	3022.2	3058.8	3131.9	3208.6	3230.5
37.5°	2879.7	2927.2	3007.6	3084.4	3106.3
40°	2729.9	2788.3	2879.7	2960.1	2985.7
42.5°	2587.3	2649.5	2740.8	2828.5	2857.8
45°	2437.5	2496.0	2605.6	2704.3	2726.2
47.5°	2284.0	2349.8	2466.8	2565.4	2602.0
50°	2130.5	2200.0	2324.2	2426.6	2448.5
52.5°	1977.1	2050.1	2181.7	2291.3	2302.3
55°	1816.3	1896.7	2035.5	2141.5	2163.4
57.5°	1670.1	1739.5	1889.3	1999.0	2024.6
60°	1509.3	1586.0	1746.8	1849.1	1882.0
62.5°	1355.8	1436.2	1604.3	1706.6	1735.9
65°	1195.0	1286.4	1450.8	1571.4	1600.6
67.5°	1056.1	1143.8	1319.3	1436.2	1465.4
70°	895.3	994.0	1180.4	1301.0	1330.2
72.5°	756.5	858.8	1045.2	1162.1	1206.0
75°	606.6	723.6	910.0	1034.2	1063.4
77.5°	460.5	595.7	785.7	880.7	880.7
80°	328.9	471.4	646.8	690.7	698.0
82.5°	215.6	354.5	478.7	475.1	475.1
85°	124.3	230.2	285.0	277.7	277.7
87.5°	47.5	95.0	102.3	102.3	98.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)