

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: P389594

Luminaire Tested: **24CZ2-130VHE-S-UNV-L935-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: P389594
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-L935-CD2-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: 11789.6 lumens
Efficiency: N/A
Efficacy: 130.0 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

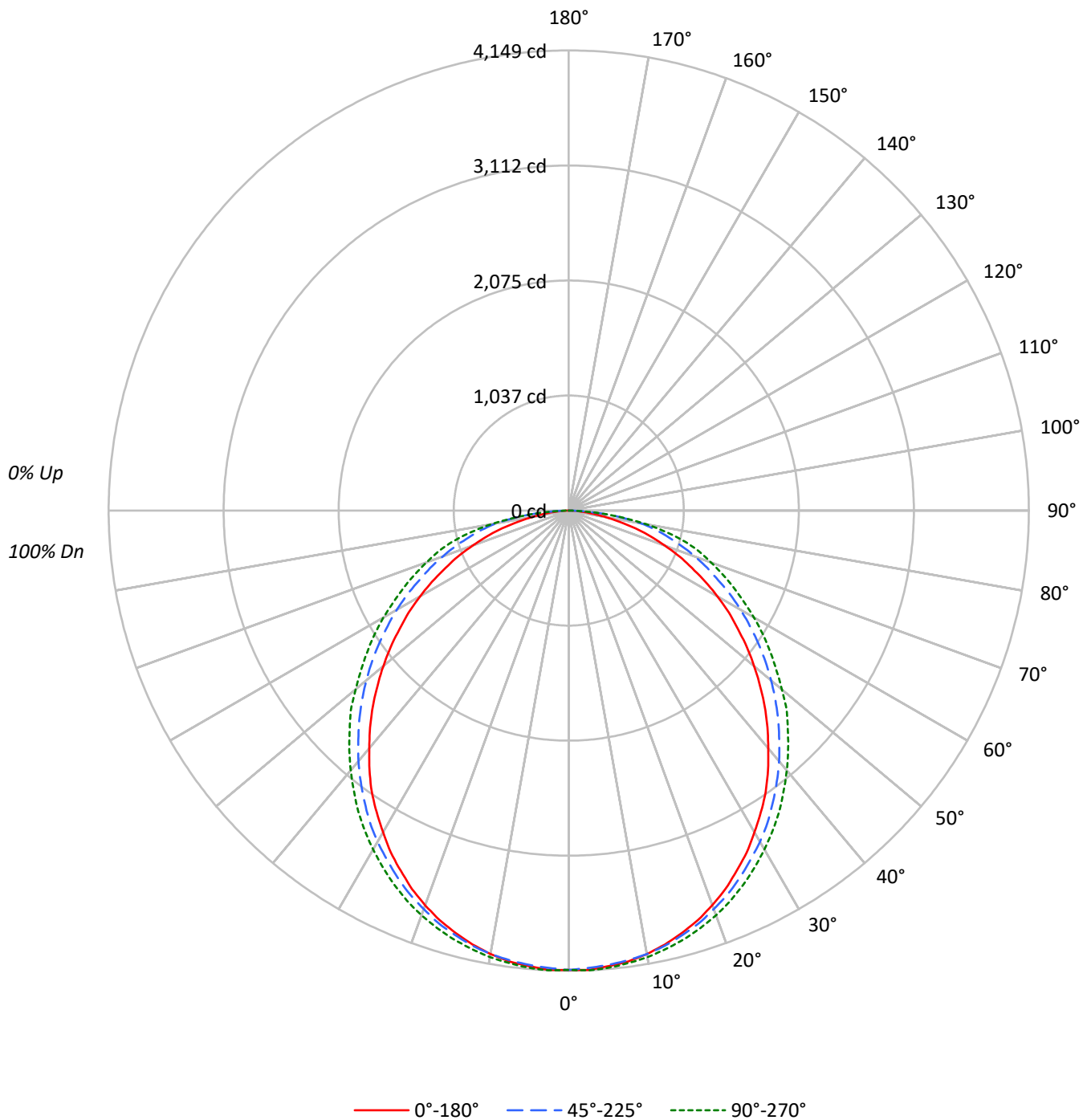
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	108	103	99	95	106	101	97	93		97	93	90			93	90	88			89
2	98	90	83	77	96	88	81	76		84	79	74			81	76	72			78
3	89	79	70	64	87	77	69	63		74	67	62			71	66	61			69
4	82	70	61	54	80	68	60	54		66	59	53			63	57	52			61
5	75	62	53	46	73	61	53	46		59	51	46			57	50	45			55
6	70	56	47	40	68	55	47	40		53	46	40			52	45	40			50
7	64	51	42	36	63	50	42	36		48	41	35			47	40	35			46
8	60	46	38	32	58	46	37	32		44	37	32			43	36	31			42
9	56	43	34	29	55	42	34	29		41	34	28			40	33	28			39
10	53	39	31	26	51	39	31	26		38	31	26			37	30	26			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5573	5573	5573
5°	5569	5554	5589
10°	5546	5546	5587
15°	5493	5519	5576
20°	5421	5475	5560
25°	5320	5421	5526
30°	5201	5358	5481
35°	5087	5271	5437
40°	4913	5183	5374
45°	4753	5081	5316
50°	4570	4985	5252
55°	4366	4893	5200
60°	4162	4817	5190
65°	3899	4733	5222
70°	3609	4759	5362
75°	3231	4848	5665
80°	2611	5136	5542
85°	1965	4509	4394



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.1	3.3
10°-20°	1120.4	9.5
20°-30°	1684.2	14.3
30°-40°	2006.1	17.0
40°-50°	2053.2	17.4
50°-60°	1848.5	15.7
60°-70°	1451.6	12.3
70°-80°	942.1	8.0
80°-90°	291.4	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°	3196.7	27.1
0°-40°	5202.8	44.1
0°-60°	9104.4	77.2
0°-90°	11789.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11789.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4142	4142	4142	4142	4142	
5°	4123	4130	4112	4134	4138	392
15°	3943	3954	3962	3996	4003	1112
25°	3584	3614	3651	3711	3722	1651
35°	3097	3134	3209	3288	3310	1932
45°	2498	2558	2670	2771	2794	1926
55°	1861	1944	2086	2194	2217	1669
65°	1225	1318	1487	1610	1640	1219
75°	622	742	932	1060	1090	658
85°	127	236	292	285	285	154
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4141.8	4141.8	4141.8	4141.8	4141.8
2.5°	4145.5	4145.5	4126.8	4145.5	4149.3
5°	4123.0	4130.5	4111.8	4134.3	4138.0
7.5°	4100.6	4100.6	4089.3	4111.8	4115.5
10°	4059.4	4063.1	4059.4	4085.6	4089.3
12.5°	4007.0	4014.4	4018.2	4044.4	4048.1
15°	3943.3	3954.5	3962.0	3995.7	4003.2
17.5°	3872.1	3883.4	3902.1	3939.5	3947.0
20°	3786.0	3801.0	3823.5	3872.1	3883.4
22.5°	3692.4	3707.4	3744.8	3789.8	3808.5
25°	3583.8	3613.7	3651.2	3711.1	3722.3
27.5°	3475.2	3501.4	3550.1	3613.7	3628.7
30°	3347.9	3389.1	3449.0	3512.6	3527.6
32.5°	3224.3	3265.5	3336.6	3404.0	3422.8
35°	3097.0	3134.4	3209.3	3287.9	3310.4
37.5°	2950.9	2999.6	3082.0	3160.6	3183.1
40°	2797.4	2857.3	2950.9	3033.3	3059.5
42.5°	2651.3	2715.0	2808.6	2898.5	2928.4
45°	2497.8	2557.7	2670.1	2771.2	2793.6
47.5°	2340.5	2407.9	2527.7	2628.9	2666.3
50°	2183.2	2254.4	2381.7	2486.6	2509.0
52.5°	2025.9	2100.8	2235.7	2348.0	2359.2
55°	1861.2	1943.6	2085.9	2194.5	2216.9
57.5°	1711.4	1782.5	1936.1	2048.4	2074.6
60°	1546.6	1625.2	1790.0	1894.9	1928.6
62.5°	1389.3	1471.7	1644.0	1748.8	1778.8
65°	1224.6	1318.2	1486.7	1610.3	1640.2
67.5°	1082.3	1172.1	1351.9	1471.7	1501.7
70°	917.5	1018.6	1209.6	1333.2	1363.1
72.5°	775.2	880.0	1071.0	1190.9	1235.8
75°	621.6	741.5	932.5	1059.8	1089.7
77.5°	471.8	610.4	805.1	902.5	902.5
80°	337.0	483.1	662.8	707.8	715.3
82.5°	220.9	363.2	490.6	486.8	486.8
85°	127.3	235.9	292.1	284.6	284.6
87.5°	48.7	97.4	104.9	104.9	101.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)