

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: P389567

Luminaire Tested: **24CZ2-120VHE-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: P389567
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: 24CZ2-120VHE-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

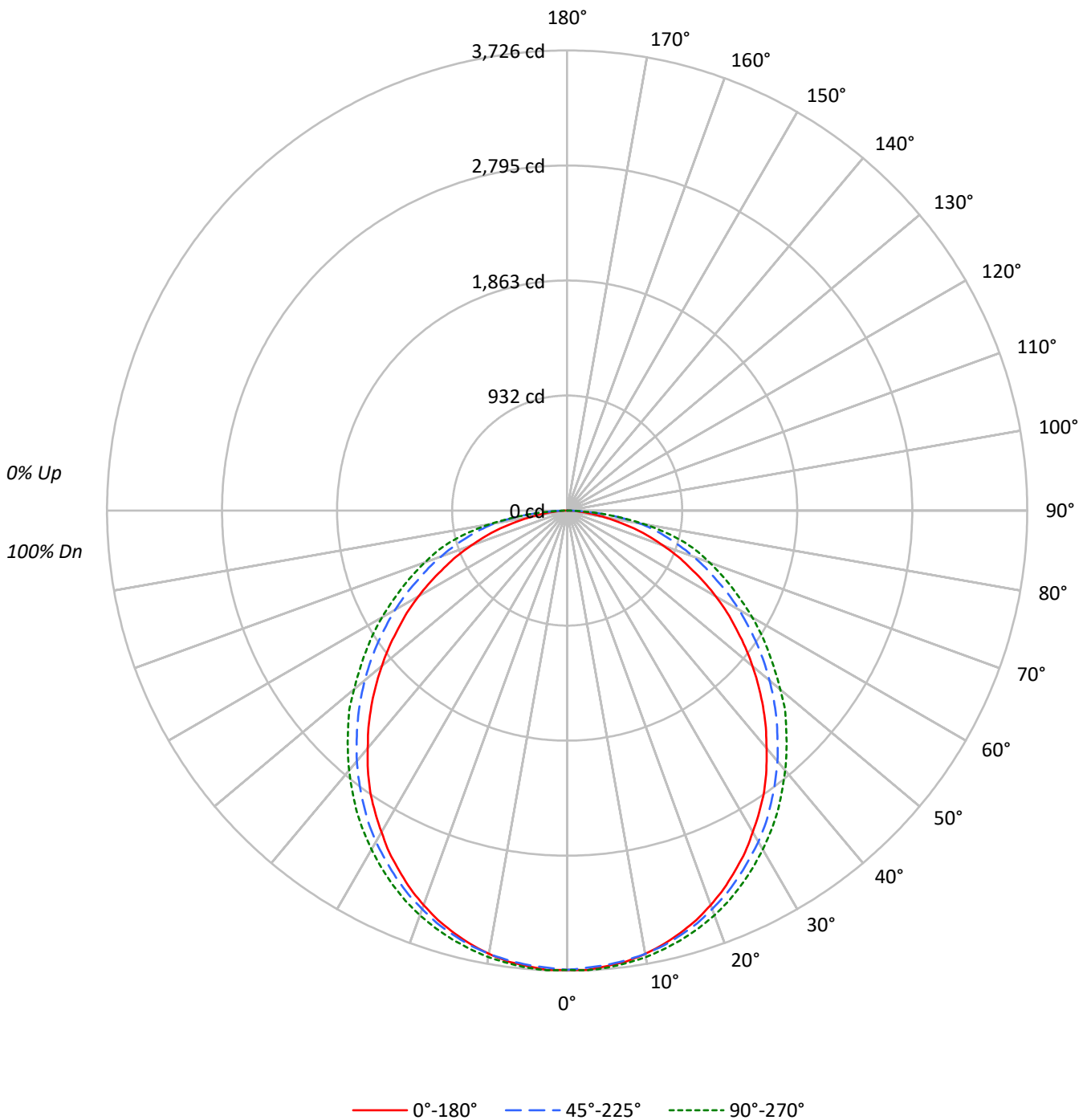
Lumens per Lamp: N/A
Luminaire Lumens: 10586.1 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 83.6
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°	5004	5004	5004
5°	5000	4987	5018
10°	4980	4980	5017
15°	4932	4956	5007
20°	4868	4916	4993
25°	4777	4867	4962
30°	4670	4811	4921
35°	4568	4733	4882
40°	4412	4654	4825
45°	4268	4562	4773
50°	4104	4477	4716
55°	3920	4393	4670
60°	3737	4325	4660
65°	3500	4250	4689
70°	3241	4273	4815
75°	2902	4353	5087
80°	2345	4612	4976
85°	1765	4049	3946



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.1	3.3
10°-20°	1006.0	9.5
20°-30°	1512.3	14.3
30°-40°	1801.3	17.0
40°-50°	1843.6	17.4
50°-60°	1659.8	15.7
60°-70°	1303.5	12.3
70°-80°	846.0	8.0
80°-90°	261.6	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°	2870.3	27.1
0°-40°	4671.7	44.1
0°-60°	8175.0	77.2
0°-90°	10586.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10586.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3719	3719	3719	3719	3719	
5°	3702	3709	3692	3712	3716	352
15°	3541	3551	3558	3588	3595	998
25°	3218	3245	3278	3332	3342	1482
35°	2781	2814	2882	2952	2972	1735
45°	2243	2297	2398	2488	2508	1729
55°	1671	1745	1873	1970	1991	1498
65°	1100	1184	1335	1446	1473	1095
75°	558	666	837	952	978	591
85°	114	212	262	256	256	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3719.0	3719.0	3719.0	3719.0	3719.0
2.5°	3722.3	3722.3	3705.5	3722.3	3725.7
5°	3702.2	3708.9	3692.1	3712.2	3715.6
7.5°	3682.0	3682.0	3671.9	3692.1	3695.4
10°	3645.0	3648.4	3645.0	3668.5	3671.9
12.5°	3597.9	3604.6	3608.0	3631.5	3634.9
15°	3540.8	3550.8	3557.6	3587.8	3594.6
17.5°	3476.9	3487.0	3503.8	3537.4	3544.1
20°	3399.5	3413.0	3433.2	3476.9	3487.0
22.5°	3315.5	3328.9	3362.5	3402.9	3419.7
25°	3217.9	3244.8	3278.5	3332.3	3342.4
27.5°	3120.4	3144.0	3187.7	3244.8	3258.3
30°	3006.1	3043.1	3096.9	3154.1	3167.5
32.5°	2895.1	2932.1	2996.0	3056.5	3073.4
35°	2780.8	2814.4	2881.7	2952.3	2972.5
37.5°	2649.7	2693.4	2767.4	2838.0	2858.2
40°	2511.8	2565.6	2649.7	2723.7	2747.2
42.5°	2380.7	2437.8	2521.9	2602.6	2629.5
45°	2242.8	2296.6	2397.5	2488.3	2508.5
47.5°	2101.6	2162.1	2269.7	2360.5	2394.1
50°	1960.4	2024.2	2138.6	2232.7	2252.9
52.5°	1819.1	1886.4	2007.4	2108.3	2118.4
55°	1671.2	1745.2	1872.9	1970.4	1990.6
57.5°	1536.7	1600.6	1738.4	1839.3	1862.8
60°	1388.7	1459.3	1607.3	1701.4	1731.7
62.5°	1247.5	1321.5	1476.2	1570.3	1597.2
65°	1099.5	1183.6	1334.9	1445.9	1472.8
67.5°	971.8	1052.5	1213.9	1321.5	1348.4
70°	823.8	914.6	1086.1	1197.1	1224.0
72.5°	696.0	790.2	961.7	1069.3	1109.6
75°	558.2	665.8	837.3	951.6	978.5
77.5°	423.7	548.1	722.9	810.4	810.4
80°	302.6	433.8	595.2	635.5	642.2
82.5°	198.4	326.2	440.5	437.1	437.1
85°	114.3	211.8	262.3	255.6	255.6
87.5°	43.7	87.4	94.2	94.2	90.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)