

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: P389568

Luminaire Tested: **24CZ2-120VHE-S-UNV-L935-CD2-SDWPD1-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: P389568  
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-L935-CD2-SDWPD1-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: 10584.2 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

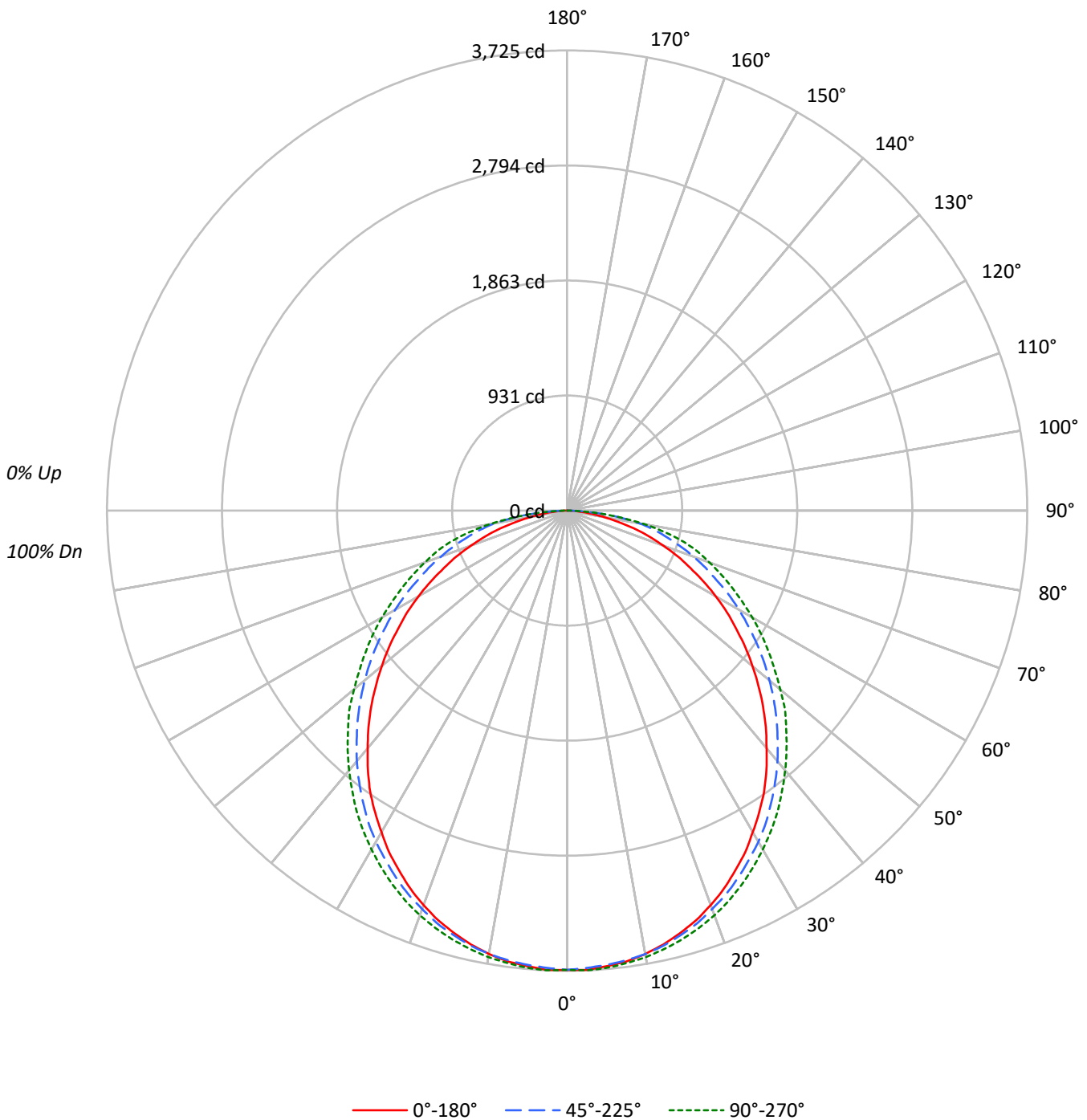
Input Watts (W): 83.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5003	5003	5003
5°	4999	4986	5017
10°	4979	4979	5016
15°	4931	4955	5006
20°	4867	4915	4992
25°	4776	4866	4961
30°	4670	4811	4920
35°	4567	4732	4881
40°	4411	4653	4824
45°	4267	4561	4772
50°	4103	4476	4715
55°	3920	4393	4669
60°	3736	4324	4659
65°	3500	4249	4688
70°	3240	4272	4814
75°	2901	4352	5086
80°	2345	4611	4975
85°	1765	4048	3944



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	352.0	3.3
10°-20°	1005.8	9.5
20°-30°	1512.0	14.3
30°-40°	1801.0	17.0
40°-50°	1843.3	17.4
50°-60°	1659.5	15.7
60°-70°	1303.2	12.3
70°-80°	845.8	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°	2869.8	27.1
0°-40°	4670.8	44.1
0°-60°	8173.6	77.2
0°-90°	10584.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10584.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3718	3718	3718	3718	3718	
5°	3702	3708	3691	3712	3715	352
15°	3540	3550	3557	3587	3594	998
25°	3217	3244	3278	3332	3342	1482
35°	2780	2814	2881	2952	2972	1734
45°	2242	2296	2397	2488	2508	1729
55°	1671	1745	1873	1970	1990	1498
65°	1099	1183	1335	1446	1472	1094
75°	558	666	837	951	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°	3718.3	3718.3	3718.3	3718.3	3718.3
2.5°	3721.7	3721.7	3704.9	3721.7	3725.0
5°	3701.5	3708.2	3691.4	3711.6	3714.9
7.5°	3681.3	3681.3	3671.2	3691.4	3694.8
10°	3644.3	3647.7	3644.3	3667.9	3671.2
12.5°	3597.3	3604.0	3607.4	3630.9	3634.3
15°	3540.1	3550.2	3556.9	3587.2	3593.9
17.5°	3476.2	3486.3	3503.1	3536.8	3543.5
20°	3398.9	3412.4	3432.5	3476.2	3486.3
22.5°	3314.9	3328.3	3361.9	3402.3	3419.1
25°	3217.4	3244.3	3277.9	3331.7	3341.8
27.5°	3119.9	3143.4	3187.1	3244.3	3257.7
30°	3005.6	3042.5	3096.3	3153.5	3166.9
32.5°	2894.6	2931.6	2995.5	3056.0	3072.8
35°	2780.3	2813.9	2881.2	2951.8	2971.9
37.5°	2649.2	2692.9	2766.9	2837.5	2857.6
40°	2511.4	2565.2	2649.2	2723.2	2746.7
42.5°	2380.2	2437.4	2521.5	2602.1	2629.0
45°	2242.4	2296.2	2397.1	2487.8	2508.0
47.5°	2101.2	2161.7	2269.3	2360.1	2393.7
50°	1960.0	2023.9	2138.2	2232.3	2252.5
52.5°	1818.8	1886.0	2007.1	2107.9	2118.0
55°	1670.9	1744.8	1872.6	1970.1	1990.3
57.5°	1536.4	1600.3	1738.1	1839.0	1862.5
60°	1388.5	1459.1	1607.0	1701.1	1731.4
62.5°	1247.3	1321.2	1475.9	1570.0	1596.9
65°	1099.4	1183.4	1334.7	1445.6	1472.5
67.5°	971.6	1052.3	1213.7	1321.2	1348.1
70°	823.7	914.4	1085.9	1196.8	1223.7
72.5°	695.9	790.1	961.5	1069.1	1109.4
75°	558.1	665.7	837.1	951.4	978.3
77.5°	423.6	548.0	722.8	810.2	810.2
80°	302.6	433.7	595.1	635.4	642.1
82.5°	198.4	326.1	440.4	437.1	437.1
85°	114.3	211.8	262.2	255.5	255.5
87.5°	43.7	87.4	94.1	94.1	90.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)