

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: P389573

Luminaire Tested: **24CZ2-120VHE-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: P389573
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-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

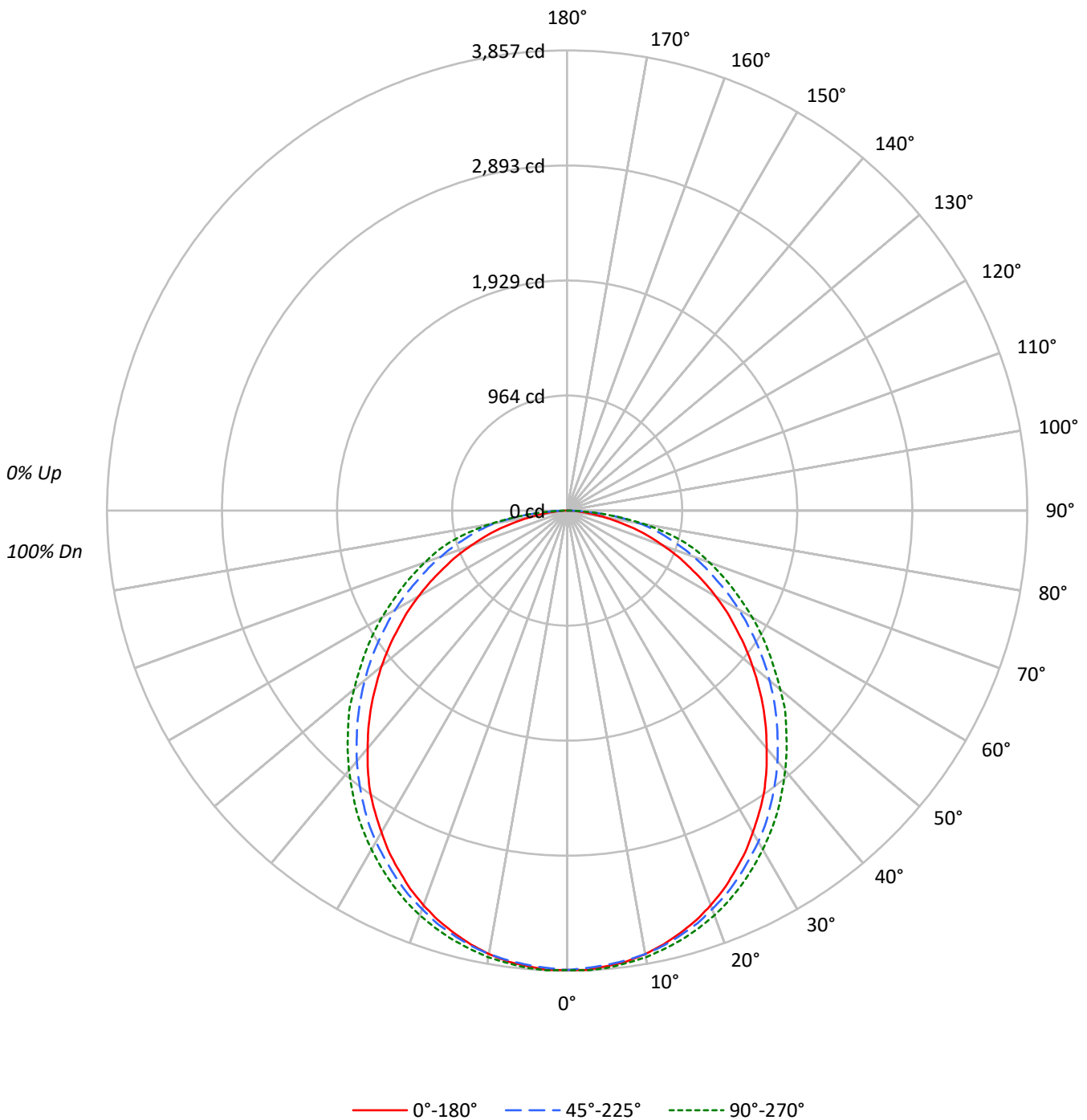
Lumens per Lamp: N/A
Luminaire Lumens: 10960.2 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5181	5181	5181
5°	5177	5163	5196
10°	5156	5156	5194
15°	5106	5131	5184
20°	5040	5089	5169
25°	4946	5039	5137
30°	4835	4981	5095
35°	4729	4901	5055
40°	4568	4818	4996
45°	4419	4723	4942
50°	4248	4635	4882
55°	4059	4549	4835
60°	3869	4478	4825
65°	3624	4400	4855
70°	3355	4424	4985
75°	3004	4507	5267
80°	2428	4775	5152
85°	1828	4191	4085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.5	3.3
10°-20°	1041.6	9.5
20°-30°	1565.7	14.3
30°-40°	1865.0	17.0
40°-50°	1908.7	17.4
50°-60°	1718.4	15.7
60°-70°	1349.5	12.3
70°-80°	875.9	8.0
80°-90°	270.9	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°	2971.8	27.1
0°-40°	4836.8	44.1
0°-60°	8463.9	77.2
0°-90°	10960.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10960.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3850	3850	3850	3850	3850	
5°	3833	3840	3822	3843	3847	364
15°	3666	3676	3683	3715	3722	1034
25°	3332	3360	3394	3450	3460	1535
35°	2879	2914	2984	3057	3078	1796
45°	2322	2378	2482	2576	2597	1790
55°	1730	1807	1939	2040	2061	1551
65°	1138	1225	1382	1497	1525	1133
75°	578	689	867	985	1013	612
85°	118	219	272	265	265	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3850.4	3850.4	3850.4	3850.4	3850.4
2.5°	3853.9	3853.9	3836.5	3853.9	3857.4
5°	3833.0	3839.9	3822.5	3843.4	3846.9
7.5°	3812.1	3812.1	3801.7	3822.5	3826.0
10°	3773.8	3777.3	3773.8	3798.2	3801.7
12.5°	3725.1	3732.0	3735.5	3759.9	3763.4
15°	3665.9	3676.3	3683.3	3714.6	3721.6
17.5°	3599.7	3610.2	3627.6	3662.4	3669.4
20°	3519.7	3533.6	3554.5	3599.7	3610.2
22.5°	3432.6	3446.6	3481.4	3523.1	3540.5
25°	3331.7	3359.5	3394.3	3450.0	3460.5
27.5°	3230.7	3255.1	3300.3	3359.5	3373.4
30°	3112.3	3150.6	3206.3	3265.5	3279.4
32.5°	2997.5	3035.8	3101.9	3164.6	3182.0
35°	2879.1	2913.9	2983.5	3056.6	3077.5
37.5°	2743.3	2788.6	2865.2	2938.3	2959.2
40°	2600.6	2656.3	2743.3	2819.9	2844.3
42.5°	2464.8	2524.0	2611.0	2694.6	2722.4
45°	2322.1	2377.8	2482.2	2576.2	2597.1
47.5°	2175.9	2238.5	2349.9	2443.9	2478.7
50°	2029.6	2095.8	2214.1	2311.6	2332.5
52.5°	1883.4	1953.0	2078.4	2182.8	2193.3
55°	1730.2	1806.8	1939.1	2040.1	2061.0
57.5°	1591.0	1657.1	1799.9	1904.3	1928.7
60°	1437.8	1510.9	1664.1	1761.6	1792.9
62.5°	1291.6	1368.2	1528.3	1625.8	1653.6
65°	1138.4	1225.4	1382.1	1497.0	1524.8
67.5°	1006.1	1089.7	1256.8	1368.2	1396.0
70°	852.9	946.9	1124.5	1239.4	1267.2
72.5°	720.6	818.1	995.7	1107.1	1148.9
75°	577.9	689.3	866.9	985.2	1013.1
77.5°	438.7	567.5	748.5	839.0	839.0
80°	313.3	449.1	616.2	658.0	664.9
82.5°	205.4	337.7	456.1	452.6	452.6
85°	118.4	219.3	271.5	264.6	264.6
87.5°	45.3	90.5	97.5	97.5	94.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)