

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: P388640

Luminaire Tested: **24CZ2-120VHE-UNV-L950-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: P388640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-120VHE-UNV-L950-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11071.8 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

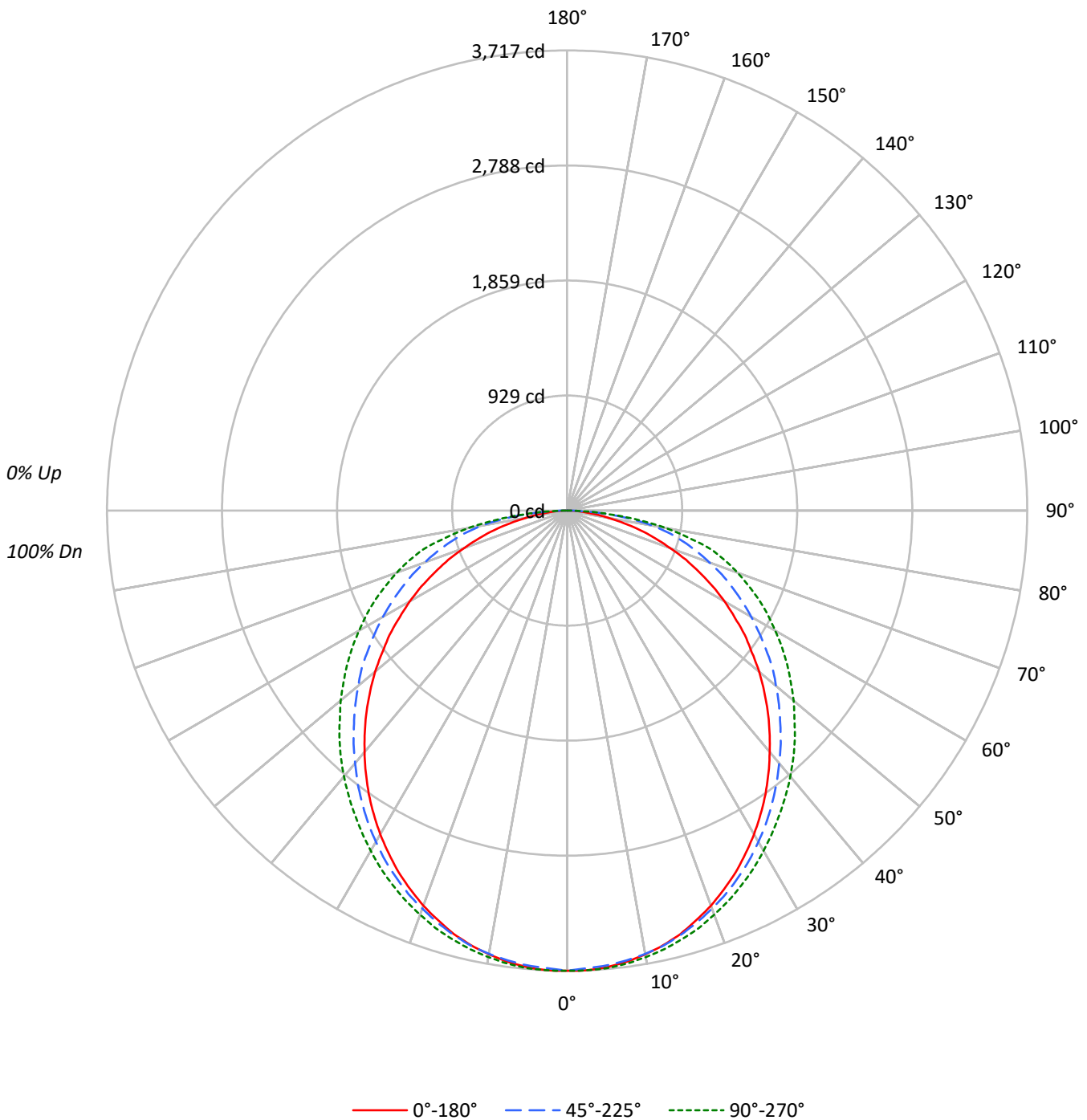
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89		92	89	87		89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	44	38		49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34		46	39	34		45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27		39	32	27		38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25		36	29	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5002	5002	5002
5°	5001	4981	5011
10°	4973	4968	5003
15°	4931	4941	4993
20°	4862	4899	4973
25°	4784	4855	4954
30°	4690	4799	4931
35°	4588	4740	4916
40°	4472	4679	4926
45°	4359	4634	4950
50°	4239	4610	4997
55°	4109	4603	5088
60°	3948	4624	5220
65°	3741	4694	5447
70°	3474	4812	5757
75°	3170	5052	6243
80°	2606	5440	6241
85°	1996	5020	5362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.6	3.2
10°-20°	1003.7	9.1
20°-30°	1510.4	13.6
30°-40°	1810.1	16.3
40°-50°	1886.3	17.0
50°-60°	1755.0	15.9
60°-70°	1445.4	13.1
70°-80°	984.4	8.9
80°-90°	325.0	2.9
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°	2865.7	25.9
0°-40°	4675.7	42.2
0°-60°	8317.0	75.1
0°-90°	11071.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11071.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3717	3717	3717	3717	3717	
5°	3702	3702	3688	3706	3710	351
15°	3540	3544	3547	3581	3584	997
25°	3222	3237	3270	3326	3337	1483
35°	2794	2827	2886	2964	2993	1746
45°	2291	2339	2435	2557	2601	1767
55°	1752	1811	1962	2117	2169	1561
65°	1175	1275	1474	1648	1711	1166
75°	610	746	972	1146	1201	643
85°	129	251	325	347	347	160
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3717.3	3717.3	3717.3	3717.3	3717.3
2.5°	3717.3	3717.3	3698.8	3717.3	3717.3
5°	3702.5	3702.5	3687.8	3706.2	3709.9
7.5°	3676.7	3680.4	3665.6	3687.8	3691.5
10°	3639.7	3643.4	3636.0	3658.2	3661.9
12.5°	3595.4	3599.1	3599.1	3624.9	3628.6
15°	3540.0	3543.6	3547.3	3580.6	3584.3
17.5°	3469.7	3480.8	3488.2	3528.9	3536.3
20°	3395.8	3406.9	3421.7	3466.0	3473.4
22.5°	3310.9	3325.6	3351.5	3399.5	3410.6
25°	3222.2	3236.9	3270.2	3325.6	3336.7
27.5°	3122.4	3144.6	3185.2	3244.3	3259.1
30°	3018.9	3041.1	3089.1	3152.0	3174.1
32.5°	2908.1	2937.6	2993.1	3063.3	3085.4
35°	2793.5	2826.8	2885.9	2963.5	2993.1
37.5°	2671.6	2708.5	2778.8	2863.7	2900.7
40°	2546.0	2590.3	2664.2	2764.0	2804.6
42.5°	2420.3	2461.0	2553.3	2660.5	2704.8
45°	2291.0	2339.0	2435.1	2557.0	2601.4
47.5°	2158.0	2206.0	2320.6	2449.9	2490.5
50°	2024.9	2073.0	2202.3	2339.0	2387.1
52.5°	1880.8	1943.6	2091.5	2228.2	2276.2
55°	1751.5	1810.6	1962.1	2117.3	2169.1
57.5°	1603.7	1673.9	1840.2	2002.8	2058.2
60°	1467.0	1540.9	1718.2	1884.5	1940.0
62.5°	1326.6	1407.9	1596.3	1766.3	1829.1
65°	1175.1	1274.8	1474.4	1648.0	1710.9
67.5°	1038.3	1141.8	1352.4	1529.8	1585.2
70°	883.1	1008.8	1223.1	1400.5	1463.3
72.5°	750.1	875.7	1101.2	1274.8	1337.6
75°	609.7	746.4	971.8	1145.5	1200.9
77.5°	469.3	620.8	846.2	979.2	997.7
80°	336.3	495.1	702.1	779.7	805.5
82.5°	236.5	380.6	517.3	569.1	583.8
85°	129.3	251.3	325.2	347.3	347.3
87.5°	55.4	107.2	129.3	133.0	136.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)