

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: P389575

Luminaire Tested: **24CZ2-120VHE-S-UNV-L950-CD2-SWPD1-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: P389575
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-L950-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11489.2 lumens
Efficiency: N/A
Efficacy: 137.4 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

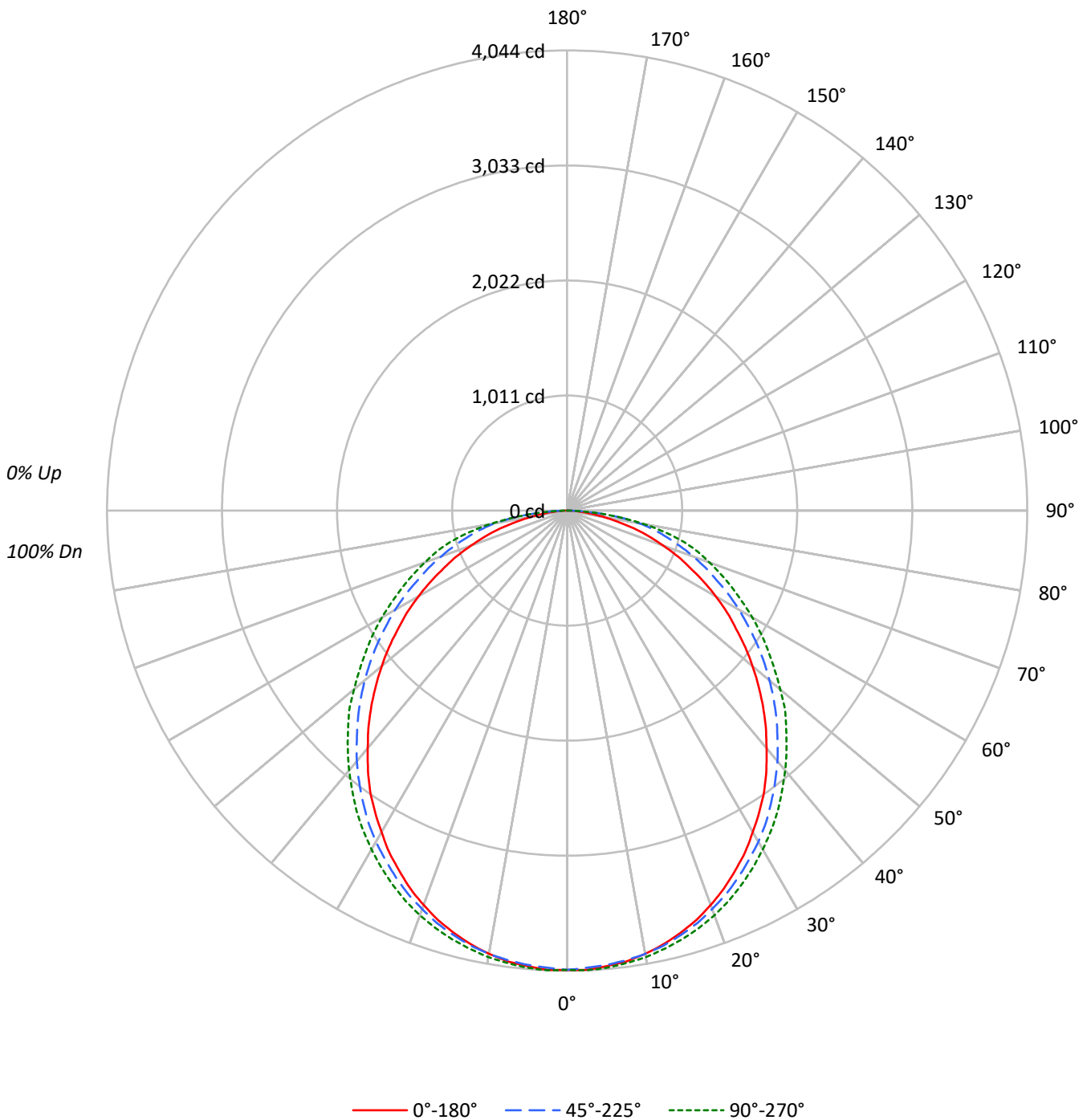
Input Watts (W): 83.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5431	5431	5431
5°	5427	5412	5447
10°	5405	5405	5445
15°	5353	5378	5434
20°	5283	5335	5419
25°	5185	5282	5385
30°	5069	5222	5341
35°	4957	5137	5299
40°	4788	5051	5237
45°	4632	4951	5180
50°	4454	4858	5118
55°	4255	4768	5068
60°	4056	4694	5057
65°	3799	4613	5089
70°	3517	4637	5226
75°	3149	4724	5521
80°	2545	5005	5401
85°	1916	4395	4282



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.1	3.3
10°-20°	1091.8	9.5
20°-30°	1641.3	14.3
30°-40°	1955.0	17.0
40°-50°	2000.9	17.4
50°-60°	1801.4	15.7
60°-70°	1414.7	12.3
70°-80°	918.1	8.0
80°-90°	284.0	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°	3115.2	27.1
0°-40°	5070.2	44.1
0°-60°	8872.4	77.2
0°-90°	11489.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11489.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4036	4036	4036	4036	4036	
5°	4018	4025	4007	4029	4033	382
15°	3843	3854	3861	3894	3901	1084
25°	3492	3522	3558	3617	3628	1609
35°	3018	3054	3128	3204	3226	1883
45°	2434	2492	2602	2701	2722	1877
55°	1814	1894	2033	2138	2160	1626
65°	1193	1285	1449	1569	1598	1188
75°	606	723	909	1033	1062	641
85°	124	230	285	277	277	150
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4036.2	4036.2	4036.2	4036.2	4036.2
2.5°	4039.9	4039.9	4021.6	4039.9	4043.5
5°	4018.0	4025.3	4007.0	4028.9	4032.6
7.5°	3996.1	3996.1	3985.1	4007.0	4010.7
10°	3955.9	3959.6	3955.9	3981.5	3985.1
12.5°	3904.9	3912.2	3915.8	3941.3	3945.0
15°	3842.8	3853.8	3861.1	3893.9	3901.2
17.5°	3773.5	3784.4	3802.7	3839.2	3846.5
20°	3689.5	3704.1	3726.0	3773.5	3784.4
22.5°	3598.3	3612.9	3649.4	3693.2	3711.4
25°	3492.5	3521.7	3558.2	3616.6	3627.5
27.5°	3386.6	3412.2	3459.6	3521.7	3536.3
30°	3262.6	3302.7	3361.1	3423.1	3437.7
32.5°	3142.1	3182.3	3251.6	3317.3	3335.5
35°	3018.0	3054.5	3127.5	3204.2	3226.1
37.5°	2875.7	2923.2	3003.5	3080.1	3102.0
40°	2726.1	2784.5	2875.7	2956.0	2981.6
42.5°	2583.8	2645.8	2737.0	2824.6	2853.8
45°	2434.1	2492.5	2602.0	2700.6	2722.4
47.5°	2280.9	2346.6	2463.3	2561.9	2598.4
50°	2127.6	2196.9	2321.0	2423.2	2445.1
52.5°	1974.3	2047.3	2178.7	2288.2	2299.1
55°	1813.7	1894.0	2032.7	2138.5	2160.4
57.5°	1667.8	1737.1	1886.7	1996.2	2021.8
60°	1507.2	1583.8	1744.4	1846.6	1879.4
62.5°	1353.9	1434.2	1602.1	1704.3	1733.5
65°	1193.4	1284.6	1448.8	1569.2	1598.4
67.5°	1054.7	1142.3	1317.4	1434.2	1463.4
70°	894.1	992.6	1178.8	1299.2	1328.4
72.5°	755.4	857.6	1043.7	1160.5	1204.3
75°	605.8	722.6	908.7	1032.8	1062.0
77.5°	459.8	594.9	784.6	879.5	879.5
80°	328.4	470.8	645.9	689.7	697.0
82.5°	215.3	354.0	478.1	474.4	474.4
85°	124.1	229.9	284.7	277.4	277.4
87.5°	47.4	94.9	102.2	102.2	98.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)