

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: P391160

Luminaire Tested: **24CZ2-170VHE-RDP-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: P391160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-RDP-UNV-L950-CD2-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10379.7 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

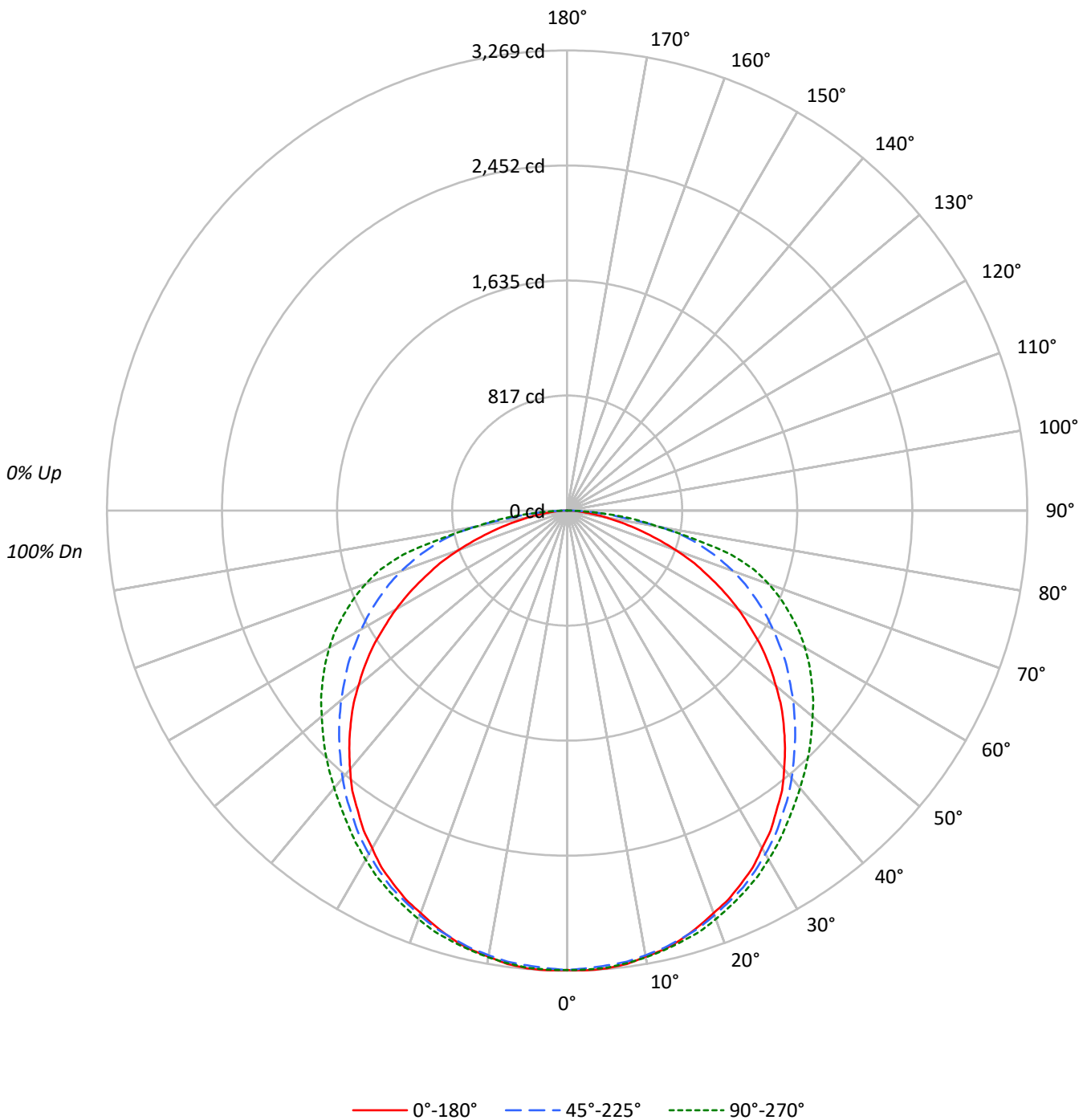
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4392	4392	4392
5°	4409	4381	4402
10°	4396	4382	4403
15°	4389	4382	4411
20°	4357	4379	4423
25°	4341	4387	4433
30°	4303	4375	4447
35°	4262	4364	4465
40°	4214	4359	4521
45°	4144	4360	4624
50°	4052	4386	4763
55°	3949	4457	4976
60°	3782	4544	5251
65°	3541	4704	5573
70°	3220	4922	5995
75°	2730	5192	6263
80°	2154	5225	5067
85°	1590	3974	4451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.6	3.0
10°-20°	891.1	8.6
20°-30°	1362.7	13.1
30°-40°	1665.9	16.0
40°-50°	1775.5	17.1
50°-60°	1697.6	16.4
60°-70°	1438.1	13.9
70°-80°	966.5	9.3
80°-90°	272.6	2.6
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°	2563.5	24.7
0°-40°	4229.4	40.7
0°-60°	7702.5	74.2
0°-90°	10379.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10379.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3264	3264	3264	3264	3264	
5°	3264	3259	3244	3259	3259	310
15°	3151	3151	3146	3171	3166	888
25°	2924	2935	2955	2981	2986	1348
35°	2595	2615	2657	2708	2718	1626
45°	2178	2214	2291	2389	2430	1680
55°	1684	1745	1900	2049	2121	1499
65°	1112	1225	1478	1673	1750	1104
75°	525	716	999	1169	1205	562
85°	103	211	257	278	288	127
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3264.1	3264.1	3264.1	3264.1	3264.1
2.5°	3269.3	3269.3	3253.8	3264.1	3264.1
5°	3264.1	3259.0	3243.5	3259.0	3259.0
7.5°	3248.7	3243.5	3233.2	3248.7	3243.5
10°	3217.8	3217.8	3207.5	3222.9	3222.9
12.5°	3192.0	3186.9	3181.7	3202.3	3197.2
15°	3150.9	3150.9	3145.7	3171.4	3166.3
17.5°	3099.4	3104.5	3109.7	3130.3	3135.4
20°	3042.7	3053.0	3058.2	3089.1	3089.1
22.5°	2991.3	2996.4	3006.7	3037.6	3037.6
25°	2924.3	2934.6	2955.2	2981.0	2986.1
27.5°	2857.4	2862.5	2888.3	2924.3	2929.5
30°	2769.9	2785.3	2816.2	2857.4	2862.5
32.5°	2692.6	2708.1	2744.1	2785.3	2795.6
35°	2594.8	2615.4	2656.6	2708.1	2718.4
37.5°	2507.3	2522.7	2574.2	2630.9	2646.3
40°	2399.2	2430.1	2481.6	2548.5	2574.2
42.5°	2291.1	2322.0	2383.7	2471.3	2502.1
45°	2177.8	2213.8	2291.1	2388.9	2430.1
47.5°	2064.5	2105.7	2193.2	2306.5	2352.8
50°	1935.8	1987.3	2095.4	2224.1	2275.6
52.5°	1812.3	1874.0	1992.5	2136.6	2203.5
55°	1683.5	1745.3	1899.8	2049.1	2121.2
57.5°	1539.4	1621.8	1791.7	1961.6	2038.8
60°	1405.5	1482.8	1688.7	1874.0	1951.3
62.5°	1261.4	1364.3	1585.7	1781.4	1858.6
65°	1112.1	1225.3	1477.6	1673.2	1750.5
67.5°	978.2	1101.8	1369.5	1565.1	1642.4
70°	818.6	973.1	1251.1	1446.7	1523.9
72.5°	669.3	839.2	1127.5	1318.0	1390.1
75°	525.1	715.6	998.8	1168.7	1204.7
77.5°	391.3	592.1	864.9	937.0	911.3
80°	278.0	473.7	674.4	638.4	653.9
82.5°	180.2	360.4	417.0	473.7	489.1
85°	103.0	211.1	257.4	278.0	288.3
87.5°	46.3	77.2	103.0	103.0	97.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)