

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: P389646

Luminaire Tested: **24CZ2-170VHE-S-UNV-L950-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: P389646
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: 24CZ2-170VHE-S-UNV-L950-CD2-SDWPD1-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: 15821.7 lumens
Efficiency: N/A
Efficacy: 128.2 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

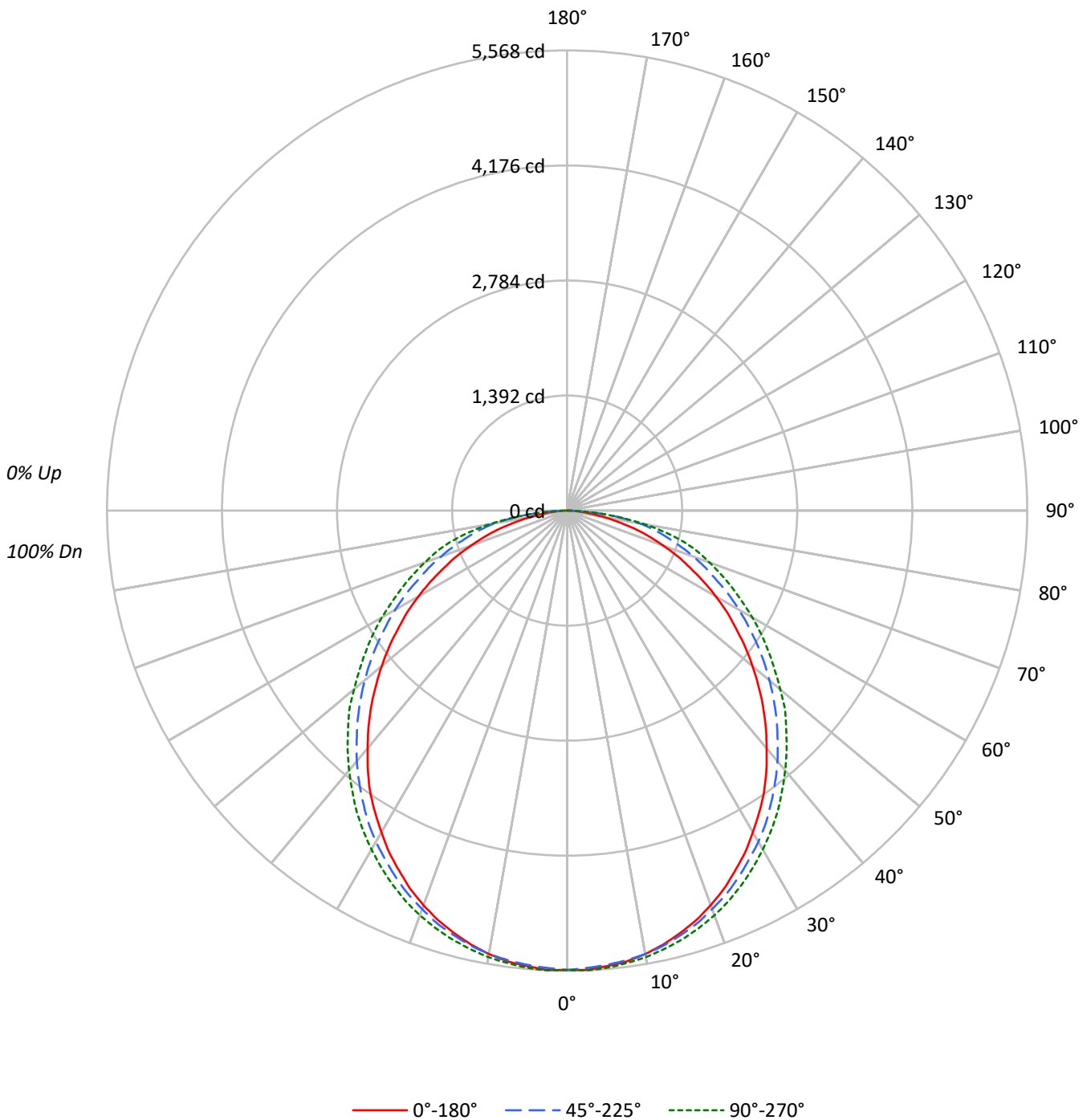
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	7479	7479	7479
5°	7473	7453	7500
10°	7443	7443	7498
15°	7371	7406	7483
20°	7275	7347	7462
25°	7140	7274	7416
30°	6980	7191	7355
35°	6827	7074	7297
40°	6594	6956	7212
45°	6378	6818	7134
50°	6133	6691	7048
55°	5859	6566	6979
60°	5585	6464	6965
65°	5232	6352	7008
70°	4844	6386	7196
75°	4337	6505	7602
80°	3505	6892	7438
85°	2638	6052	5896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	526.2	3.3
10°-20°	1503.6	9.5
20°-30°	2260.2	14.3
30°-40°	2692.2	17.0
40°-50°	2755.4	17.4
50°-60°	2480.7	15.7
60°-70°	1948.1	12.3
70°-80°	1264.4	8.0
80°-90°	391.0	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°	4289.9	27.1
0°-40°	6982.2	44.1
0°-60°	12218.2	77.2
0°-90°	15821.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15821.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5558	5558	5558	5558	5558	
5°	5533	5543	5518	5548	5553	526
15°	5292	5307	5317	5362	5372	1492
25°	4810	4850	4900	4980	4995	2216
35°	4156	4206	4307	4412	4443	2593
45°	3352	3432	3583	3719	3749	2584
55°	2498	2608	2799	2945	2975	2239
65°	1643	1769	1995	2161	2201	1636
75°	834	995	1251	1422	1462	883
85°	171	317	392	382	382	206
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5558.3	5558.3	5558.3	5558.3	5558.3
2.5°	5563.3	5563.3	5538.2	5563.3	5568.3
5°	5533.1	5543.2	5518.1	5548.2	5553.2
7.5°	5503.0	5503.0	5487.9	5518.1	5523.1
10°	5447.7	5452.7	5447.7	5482.9	5487.9
12.5°	5377.3	5387.4	5392.4	5427.6	5432.6
15°	5291.9	5307.0	5317.0	5362.3	5372.3
17.5°	5196.4	5211.5	5236.6	5286.9	5296.9
20°	5080.8	5100.9	5131.1	5196.4	5211.5
22.5°	4955.2	4975.3	5025.6	5085.9	5111.0
25°	4809.5	4849.7	4899.9	4980.3	4995.4
27.5°	4663.7	4698.9	4764.2	4849.7	4869.8
30°	4492.8	4548.1	4628.5	4714.0	4734.1
32.5°	4327.0	4382.3	4477.8	4568.2	4593.4
35°	4156.1	4206.4	4306.9	4412.4	4442.6
37.5°	3960.1	4025.5	4136.0	4241.6	4271.7
40°	3754.1	3834.5	3960.1	4070.7	4105.9
42.5°	3558.1	3643.5	3769.2	3889.8	3930.0
45°	3352.0	3432.5	3583.2	3718.9	3749.1
47.5°	3141.0	3231.4	3392.3	3527.9	3578.2
50°	2929.9	3025.4	3196.3	3337.0	3367.1
52.5°	2718.8	2819.3	3000.3	3151.0	3166.1
55°	2497.7	2608.3	2799.2	2945.0	2975.1
57.5°	2296.7	2392.2	2598.2	2749.0	2784.2
60°	2075.6	2181.1	2402.2	2542.9	2588.2
62.5°	1864.5	1975.0	2206.2	2346.9	2387.1
65°	1643.4	1769.0	1995.1	2161.0	2201.2
67.5°	1452.4	1573.0	1814.2	1975.0	2015.2
70°	1231.3	1367.0	1623.3	1789.1	1829.3
72.5°	1040.3	1181.0	1437.3	1598.1	1658.4
75°	834.2	995.1	1251.4	1422.2	1462.4
77.5°	633.2	819.2	1080.5	1211.2	1211.2
80°	452.3	648.3	889.5	949.8	959.9
82.5°	296.5	487.5	658.3	653.3	653.3
85°	170.9	316.6	392.0	381.9	381.9
87.5°	65.3	130.7	140.7	140.7	135.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)