

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: P389643

Luminaire Tested: **24CZ2-170VHE-S-UNV-L940-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: P389643
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-L940-CD2-SDWPD1-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: 14906.0 lumens
Efficiency: N/A
Efficacy: 120.8 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

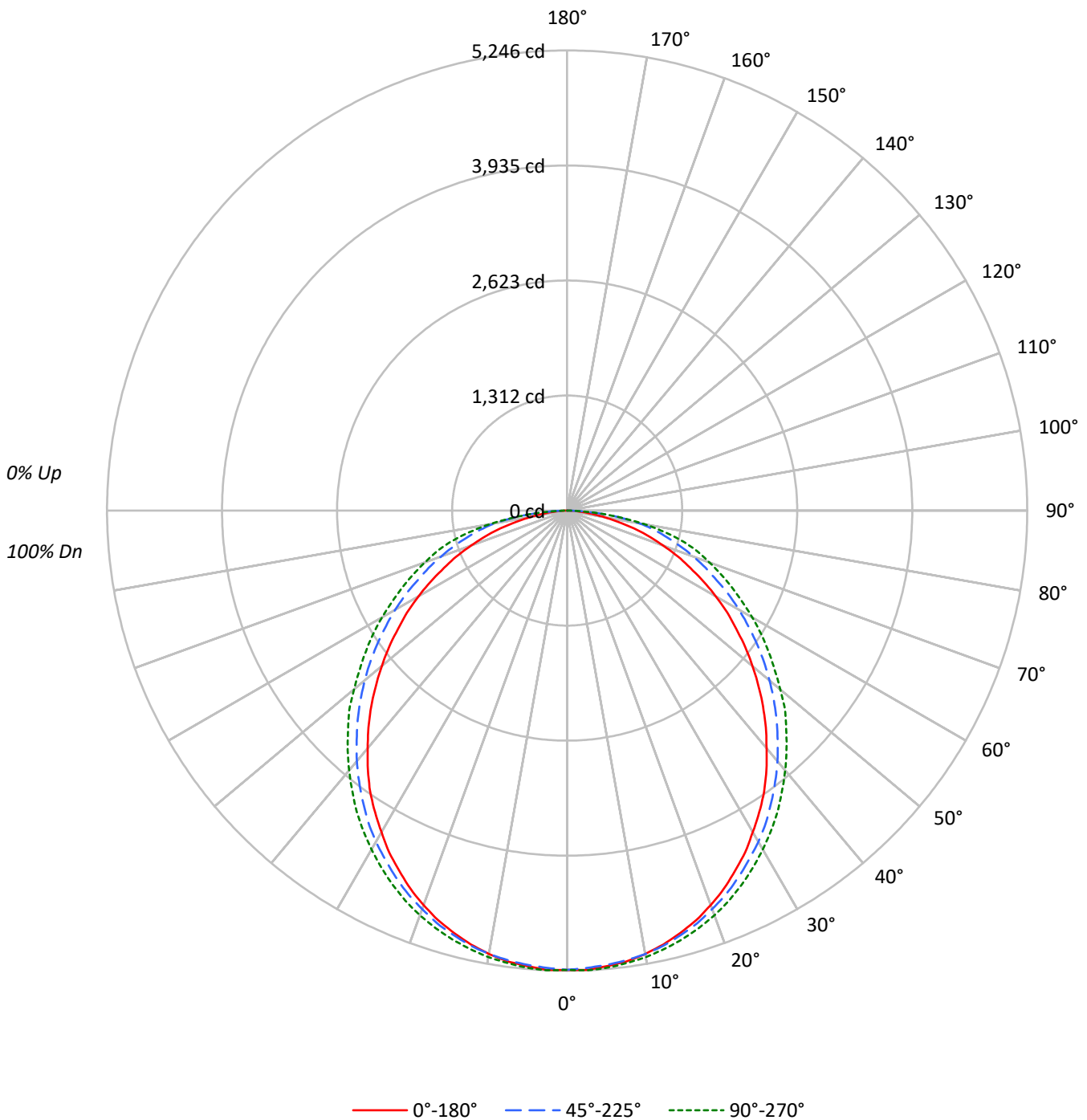
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7046	7046	7046
5°	7041	7022	7066
10°	7012	7012	7064
15°	6945	6978	7050
20°	6854	6922	7030
25°	6727	6853	6987
30°	6576	6775	6929
35°	6432	6665	6875
40°	6212	6553	6794
45°	6009	6424	6721
50°	5778	6303	6640
55°	5520	6186	6575
60°	5262	6090	6562
65°	4929	5984	6602
70°	4563	6016	6780
75°	4086	6129	7163
80°	3302	6493	7007
85°	2485	5701	5555



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	495.7	3.3
10°-20°	1416.5	9.5
20°-30°	2129.4	14.3
30°-40°	2536.4	17.0
40°-50°	2595.9	17.4
50°-60°	2337.1	15.7
60°-70°	1835.4	12.3
70°-80°	1191.2	8.0
80°-90°	368.4	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°	4041.7	27.1
0°-40°	6578.1	44.1
0°-60°	11511.1	77.2
0°-90°	14906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5237	5237	5237	5237	5237	
5°	5213	5222	5199	5227	5232	495
15°	4986	5000	5009	5052	5061	1406
25°	4531	4569	4616	4692	4706	2087
35°	3916	3963	4058	4157	4186	2443
45°	3158	3234	3376	3504	3532	2435
55°	2353	2457	2637	2774	2803	2110
65°	1548	1667	1880	2036	2074	1541
75°	786	938	1179	1340	1378	832
85°	161	298	369	360	360	194
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5236.6	5236.6	5236.6	5236.6	5236.6
2.5°	5241.3	5241.3	5217.6	5241.3	5246.0
5°	5212.9	5222.4	5198.7	5227.1	5231.8
7.5°	5184.5	5184.5	5170.3	5198.7	5203.4
10°	5132.4	5137.1	5132.4	5165.6	5170.3
12.5°	5066.1	5075.6	5080.3	5113.5	5118.2
15°	4985.6	4999.8	5009.3	5051.9	5061.4
17.5°	4895.7	4909.9	4933.6	4980.9	4990.4
20°	4786.8	4805.7	4834.1	4895.7	4909.9
22.5°	4668.4	4687.4	4734.7	4791.5	4815.2
25°	4531.1	4569.0	4616.3	4692.1	4706.3
27.5°	4393.8	4426.9	4488.5	4569.0	4587.9
30°	4232.8	4284.9	4360.7	4441.1	4460.1
32.5°	4076.6	4128.7	4218.6	4303.8	4327.5
35°	3915.6	3962.9	4057.6	4157.1	4185.5
37.5°	3730.9	3792.5	3896.7	3996.1	4024.5
40°	3536.8	3612.6	3730.9	3835.1	3868.2
42.5°	3352.2	3432.7	3551.0	3664.7	3702.5
45°	3158.0	3233.8	3375.8	3503.7	3532.1
47.5°	2959.2	3044.4	3195.9	3323.8	3371.1
50°	2760.3	2850.3	3011.3	3143.8	3172.2
52.5°	2561.5	2656.2	2826.6	2968.7	2982.9
55°	2353.1	2457.3	2637.2	2774.5	2802.9
57.5°	2163.8	2253.7	2447.8	2589.9	2623.0
60°	1955.4	2054.9	2263.2	2395.8	2438.4
62.5°	1756.6	1860.7	2078.5	2211.1	2249.0
65°	1548.2	1666.6	1879.7	2035.9	2073.8
67.5°	1368.3	1482.0	1709.2	1860.7	1898.6
70°	1160.0	1287.8	1529.3	1685.6	1723.4
72.5°	980.1	1112.7	1354.1	1505.6	1562.5
75°	786.0	937.5	1178.9	1339.9	1377.8
77.5°	596.6	771.8	1018.0	1141.1	1141.1
80°	426.1	610.8	838.0	894.9	904.3
82.5°	279.3	459.3	620.2	615.5	615.5
85°	161.0	298.3	369.3	359.8	359.8
87.5°	61.6	123.1	132.6	132.6	127.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)