

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: P391149

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L930-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: P391149
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-L930-CD2-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9215.5 lumens
Efficiency: N/A
Efficacy: 74.7 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

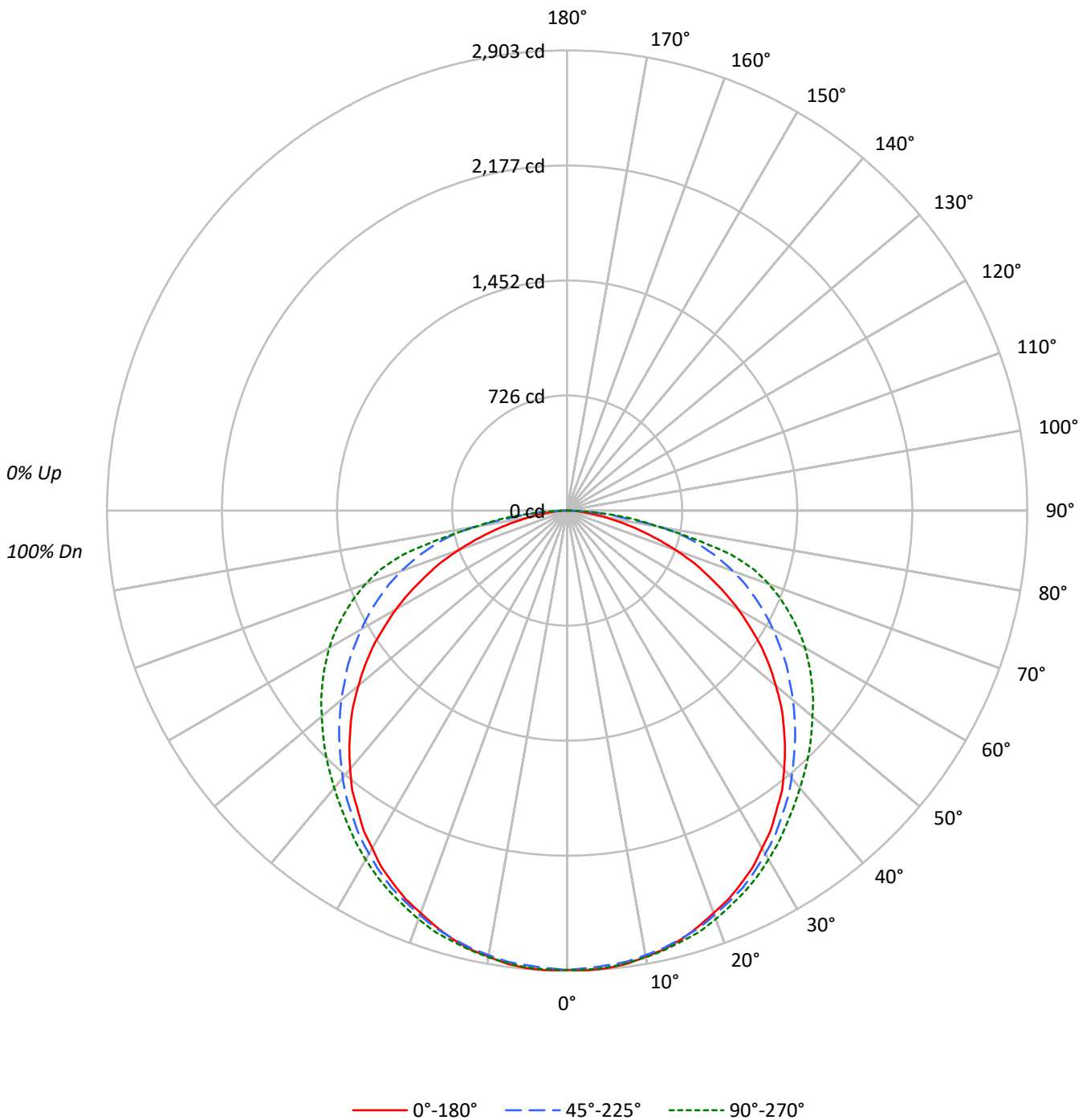
Input Watts (W): 123.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3899	3899	3899
5°	3914	3889	3908
10°	3903	3891	3909
15°	3897	3890	3916
20°	3868	3888	3927
25°	3854	3895	3936
30°	3821	3885	3949
35°	3784	3874	3964
40°	3741	3870	4014
45°	3679	3871	4105
50°	3598	3894	4229
55°	3506	3957	4418
60°	3358	4035	4662
65°	3143	4177	4948
70°	2859	4370	5323
75°	2424	4610	5560
80°	1912	4640	4498
85°	1411	3528	3952



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.9	3.0
10°-20°	791.2	8.6
20°-30°	1209.9	13.1
30°-40°	1479.0	16.0
40°-50°	1576.4	17.1
50°-60°	1507.2	16.4
60°-70°	1276.8	13.9
70°-80°	858.1	9.3
80°-90°	242.0	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°	2275.9	24.7
0°-40°	3755.0	40.7
0°-60°	6838.5	74.2
0°-90°	9215.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9215.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2898	2898	2898	2898	2898	
5°	2898	2893	2880	2893	2893	275
15°	2797	2797	2793	2816	2811	789
25°	2596	2606	2624	2647	2651	1197
35°	2304	2322	2359	2404	2414	1443
45°	1934	1966	2034	2121	2158	1491
55°	1495	1550	1687	1819	1883	1331
65°	987	1088	1312	1486	1554	980
75°	466	635	887	1038	1070	499
85°	91	187	228	247	256	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2898.0	2898.0	2898.0	2898.0	2898.0
2.5°	2902.6	2902.6	2888.9	2898.0	2898.0
5°	2898.0	2893.4	2879.7	2893.4	2893.4
7.5°	2884.3	2879.7	2870.6	2884.3	2879.7
10°	2856.9	2856.9	2847.7	2861.4	2861.4
12.5°	2834.0	2829.4	2824.9	2843.2	2838.6
15°	2797.4	2797.4	2792.9	2815.7	2811.2
17.5°	2751.7	2756.3	2760.9	2779.2	2783.7
20°	2701.5	2710.6	2715.2	2742.6	2742.6
22.5°	2655.7	2660.3	2669.5	2696.9	2696.9
25°	2596.3	2605.5	2623.8	2646.6	2651.2
27.5°	2536.9	2541.5	2564.3	2596.3	2600.9
30°	2459.2	2472.9	2500.3	2536.9	2541.5
32.5°	2390.6	2404.3	2436.3	2472.9	2482.1
35°	2303.8	2322.1	2358.6	2404.3	2413.5
37.5°	2226.1	2239.8	2285.5	2335.8	2349.5
40°	2130.1	2157.5	2203.2	2262.6	2285.5
42.5°	2034.1	2061.5	2116.4	2194.1	2221.5
45°	1933.5	1965.5	2034.1	2120.9	2157.5
47.5°	1833.0	1869.5	1947.2	2047.8	2088.9
50°	1718.7	1764.4	1860.4	1974.7	2020.4
52.5°	1609.0	1663.8	1769.0	1897.0	1956.4
55°	1494.7	1549.6	1686.7	1819.3	1883.3
57.5°	1366.7	1439.9	1590.7	1741.5	1810.1
60°	1247.9	1316.4	1499.3	1663.8	1732.4
62.5°	1119.9	1211.3	1407.9	1581.6	1650.1
65°	987.3	1087.9	1311.9	1485.6	1554.1
67.5°	868.5	978.2	1215.9	1389.6	1458.1
70°	726.8	863.9	1110.8	1284.4	1353.0
72.5°	594.2	745.1	1001.0	1170.2	1234.2
75°	466.2	635.4	886.8	1037.6	1069.6
77.5°	347.4	525.7	767.9	831.9	809.1
80°	246.8	420.5	598.8	566.8	580.5
82.5°	160.0	320.0	370.3	420.5	434.2
85°	91.4	187.4	228.5	246.8	256.0
87.5°	41.1	68.6	91.4	91.4	86.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)