

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: P389999

Luminaire Tested: **24CZ2-95VHE-S-UNV-L930-CD1-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: P389999
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: 24CZ2-95VHE-S-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8254.1 lumens
Efficiency: N/A
Efficacy: 125.8 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

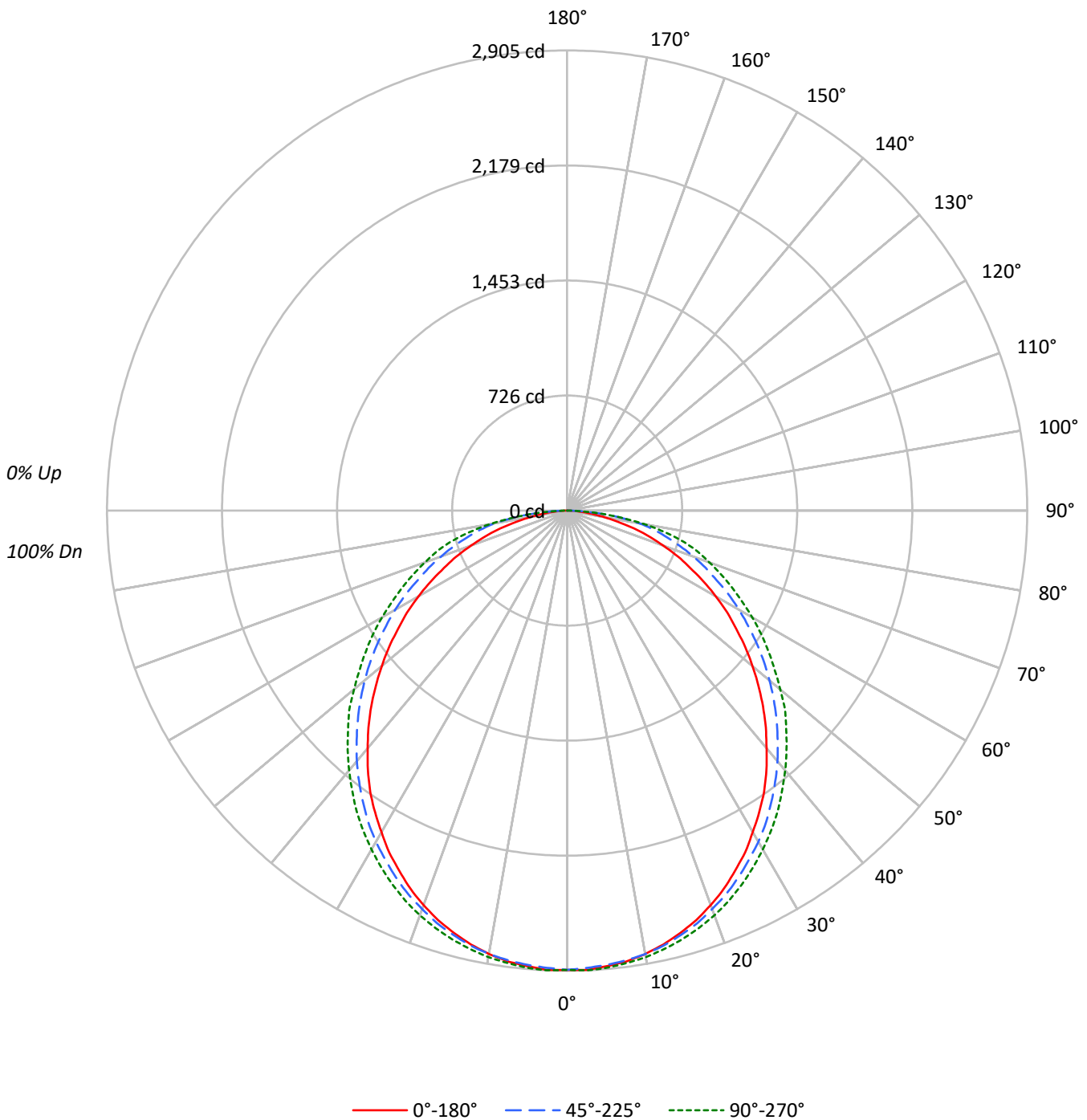
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3902	3902	3902
5°	3899	3888	3913
10°	3883	3883	3912
15°	3846	3864	3904
20°	3795	3833	3893
25°	3725	3795	3869
30°	3642	3752	3837
35°	3561	3691	3807
40°	3440	3629	3762
45°	3327	3557	3722
50°	3199	3490	3677
55°	3057	3426	3641
60°	2914	3372	3633
65°	2729	3314	3656
70°	2527	3331	3754
75°	2262	3394	3966
80°	1829	3596	3880
85°	1376	3157	3077



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.5	3.3
10°-20°	784.4	9.5
20°-30°	1179.1	14.3
30°-40°	1404.5	17.0
40°-50°	1437.5	17.4
50°-60°	1294.1	15.7
60°-70°	1016.3	12.3
70°-80°	659.6	8.0
80°-90°	204.0	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°	2238.0	27.1
0°-40°	3642.6	44.1
0°-60°	6374.2	77.2
0°-90°	8254.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8254.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2900	2900	2900	2900	2900	
5°	2887	2892	2879	2894	2897	274
15°	2761	2769	2774	2798	2803	778
25°	2509	2530	2556	2598	2606	1156
35°	2168	2194	2247	2302	2318	1353
45°	1749	1791	1869	1940	1956	1348
55°	1303	1361	1460	1536	1552	1168
65°	857	923	1041	1127	1148	853
75°	435	519	653	742	763	461
85°	89	165	204	199	199	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2899.7	2899.7	2899.7	2899.7	2899.7
2.5°	2902.3	2902.3	2889.2	2902.3	2905.0
5°	2886.6	2891.9	2878.7	2894.5	2897.1
7.5°	2870.9	2870.9	2863.0	2878.7	2881.4
10°	2842.0	2844.7	2842.0	2860.4	2863.0
12.5°	2805.3	2810.6	2813.2	2831.6	2834.2
15°	2760.8	2768.6	2773.9	2797.5	2802.7
17.5°	2710.9	2718.8	2731.9	2758.1	2763.4
20°	2650.6	2661.1	2676.9	2710.9	2718.8
22.5°	2585.1	2595.6	2621.8	2653.3	2666.4
25°	2509.1	2530.0	2556.3	2598.2	2606.1
27.5°	2433.0	2451.4	2485.5	2530.0	2540.5
30°	2343.9	2372.7	2414.7	2459.3	2469.7
32.5°	2257.4	2286.2	2336.0	2383.2	2396.3
35°	2168.2	2194.5	2246.9	2301.9	2317.7
37.5°	2066.0	2100.1	2157.7	2212.8	2228.5
40°	1958.5	2000.4	2066.0	2123.7	2142.0
42.5°	1856.2	1900.8	1966.4	2029.3	2050.3
45°	1748.7	1790.7	1869.3	1940.1	1955.9
47.5°	1638.6	1685.8	1769.7	1840.5	1866.7
50°	1528.5	1578.3	1667.5	1740.9	1756.6
52.5°	1418.4	1470.8	1565.2	1643.9	1651.7
55°	1303.0	1360.7	1460.3	1536.4	1552.1
57.5°	1198.2	1248.0	1355.5	1434.1	1452.5
60°	1082.8	1137.9	1253.2	1326.6	1350.2
62.5°	972.7	1030.4	1151.0	1224.4	1245.4
65°	857.3	922.9	1040.9	1127.4	1148.4
67.5°	757.7	820.6	946.5	1030.4	1051.3
70°	642.3	713.1	846.8	933.4	954.3
72.5°	542.7	616.1	749.8	833.7	865.2
75°	435.2	519.1	652.8	742.0	762.9
77.5°	330.3	427.4	563.7	631.9	631.9
80°	236.0	338.2	464.1	495.5	500.8
82.5°	154.7	254.3	343.5	340.8	340.8
85°	89.1	165.2	204.5	199.3	199.3
87.5°	34.1	68.2	73.4	73.4	70.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)