

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: P389517

Luminaire Tested: **24CZ2-100VHE-S-UNV-L930-CD1-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: P389517
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: 24CZ2-100VHE-S-UNV-L930-CD1-SDWPD1-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: 8620.1 lumens
Efficiency: N/A
Efficacy: 123.9 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

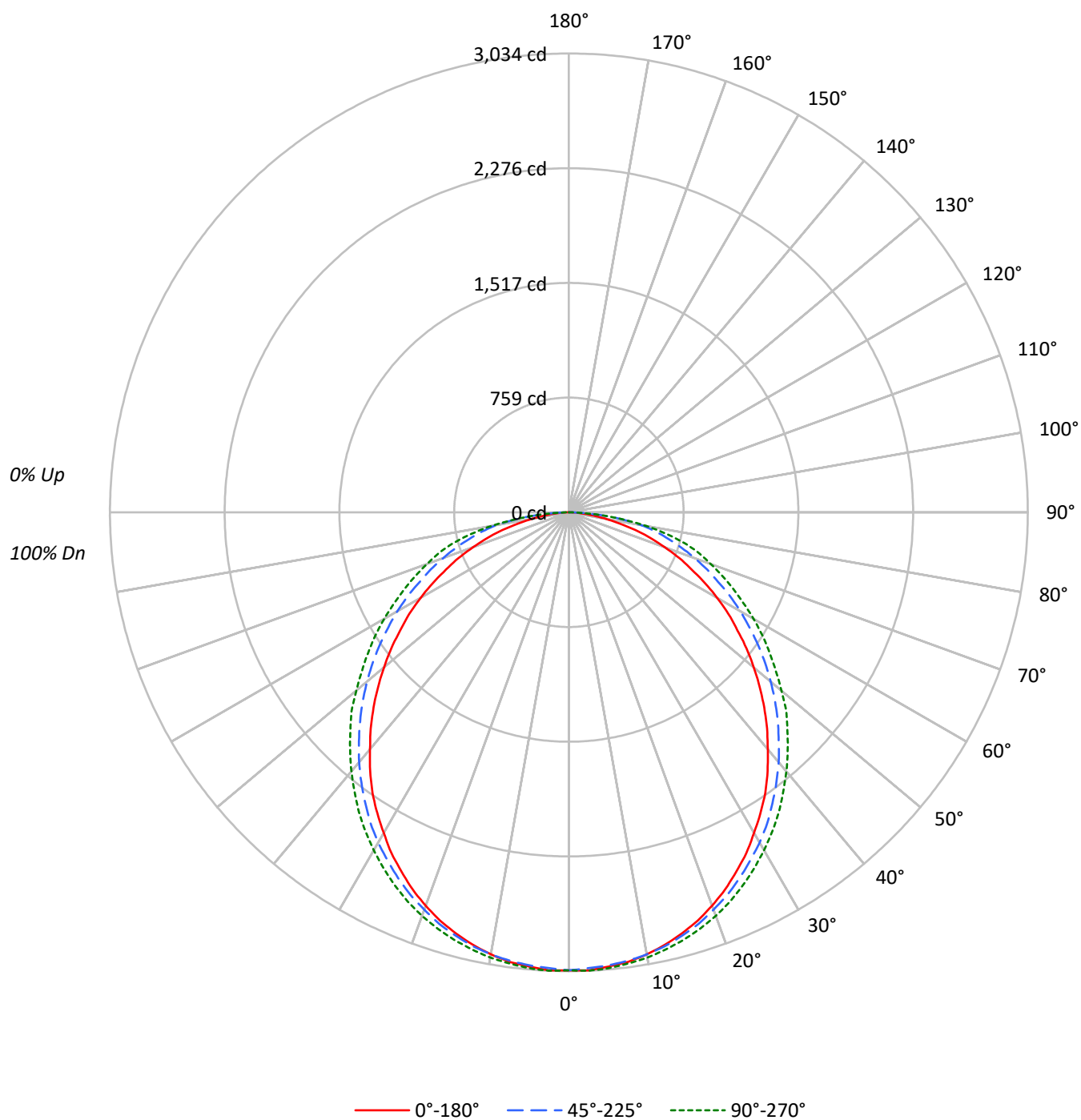
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	99	95	106	101	97	93		97	93	90		93	90	88		89	87	85
2	98	90	83	77	96	88	81	76		84	79	74		81	76	72		78	74	71
3	89	79	70	64	87	77	69	63		74	67	62		71	66	61		69	64	60
4	82	70	61	54	80	68	60	54		66	59	53		63	57	52		61	56	51
5	75	62	53	46	73	61	53	46		59	51	46		57	50	45		55	49	45
6	70	56	47	40	68	55	47	40		53	46	40		52	45	40		50	44	39
7	64	51	42	36	63	50	42	36		48	41	35		47	40	35		46	39	35
8	60	46	38	32	58	46	37	32		44	37	32		43	36	31		42	36	31
9	56	43	34	29	55	42	34	29		41	34	28		40	33	28		39	33	28
10	53	39	31	26	51	39	31	26		38	31	26		37	30	26		36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4075	4075	4075
5°	4072	4061	4086
10°	4055	4055	4085
15°	4016	4035	4077
20°	3964	4003	4066
25°	3890	3963	4040
30°	3803	3918	4007
35°	3719	3854	3976
40°	3592	3790	3929
45°	3475	3715	3887
50°	3341	3645	3840
55°	3192	3578	3802
60°	3043	3522	3795
65°	2850	3461	3818
70°	2639	3479	3921
75°	2363	3544	4142
80°	1909	3755	4052
85°	1437	3298	3213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.7	3.3
10°-20°	819.2	9.5
20°-30°	1231.4	14.3
30°-40°	1466.8	17.0
40°-50°	1501.2	17.4
50°-60°	1351.5	15.7
60°-70°	1061.4	12.3
70°-80°	688.9	8.0
80°-90°	213.0	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°	2337.3	27.1
0°-40°	3804.1	44.1
0°-60°	6656.8	77.2
0°-90°	8620.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8620.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3028	3028	3028	3028	3028	
5°	3015	3020	3006	3023	3026	286
15°	2883	2891	2897	2922	2927	813
25°	2620	2642	2670	2713	2722	1207
35°	2264	2292	2346	2404	2420	1413
45°	1826	1870	1952	2026	2043	1408
55°	1361	1421	1525	1604	1621	1220
65°	895	964	1087	1177	1199	891
75°	454	542	682	775	797	481
85°	93	172	214	208	208	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3028.3	3028.3	3028.3	3028.3	3028.3
2.5°	3031.0	3031.0	3017.3	3031.0	3033.8
5°	3014.6	3020.1	3006.4	3022.8	3025.6
7.5°	2998.2	2998.2	2990.0	3006.4	3009.1
10°	2968.1	2970.8	2968.1	2987.2	2990.0
12.5°	2929.7	2935.2	2937.9	2957.1	2959.8
15°	2883.2	2891.4	2896.9	2921.5	2927.0
17.5°	2831.2	2839.4	2853.1	2880.4	2885.9
20°	2768.2	2779.1	2795.6	2831.2	2839.4
22.5°	2699.7	2710.7	2738.1	2770.9	2784.6
25°	2620.3	2642.2	2669.6	2713.4	2721.6
27.5°	2540.9	2560.1	2595.7	2642.2	2653.2
30°	2447.8	2477.9	2521.8	2568.3	2579.3
32.5°	2357.5	2387.6	2439.6	2488.9	2502.6
35°	2264.4	2291.8	2346.5	2404.0	2420.4
37.5°	2157.6	2193.2	2253.4	2310.9	2327.4
40°	2045.3	2089.1	2157.6	2217.8	2237.0
42.5°	1938.5	1985.1	2053.5	2119.3	2141.2
45°	1826.3	1870.1	1952.2	2026.2	2042.6
47.5°	1711.3	1760.6	1848.2	1922.1	1949.5
50°	1596.3	1648.3	1741.4	1818.1	1834.5
52.5°	1481.3	1536.1	1634.6	1716.8	1725.0
55°	1360.8	1421.1	1525.1	1604.5	1620.9
57.5°	1251.3	1303.3	1415.6	1497.7	1516.9
60°	1130.8	1188.3	1308.8	1385.5	1410.1
62.5°	1015.8	1076.1	1202.0	1278.7	1300.6
65°	895.3	963.8	1087.0	1177.4	1199.3
67.5°	791.3	857.0	988.4	1076.1	1098.0
70°	670.8	744.8	884.4	974.8	996.7
72.5°	566.8	643.4	783.1	870.7	903.6
75°	454.5	542.1	681.8	774.9	796.8
77.5°	345.0	446.3	588.7	659.9	659.9
80°	246.4	353.2	484.6	517.5	523.0
82.5°	161.5	265.6	358.7	355.9	355.9
85°	93.1	172.5	213.6	208.1	208.1
87.5°	35.6	71.2	76.7	76.7	73.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)