

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: P389518

Luminaire Tested: **24CZ2-100VHE-S-UNV-L930-CD1-SWPD1-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: P389518
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-SWPD1-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: 8725.3 lumens
Efficiency: N/A
Efficacy: 125.4 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

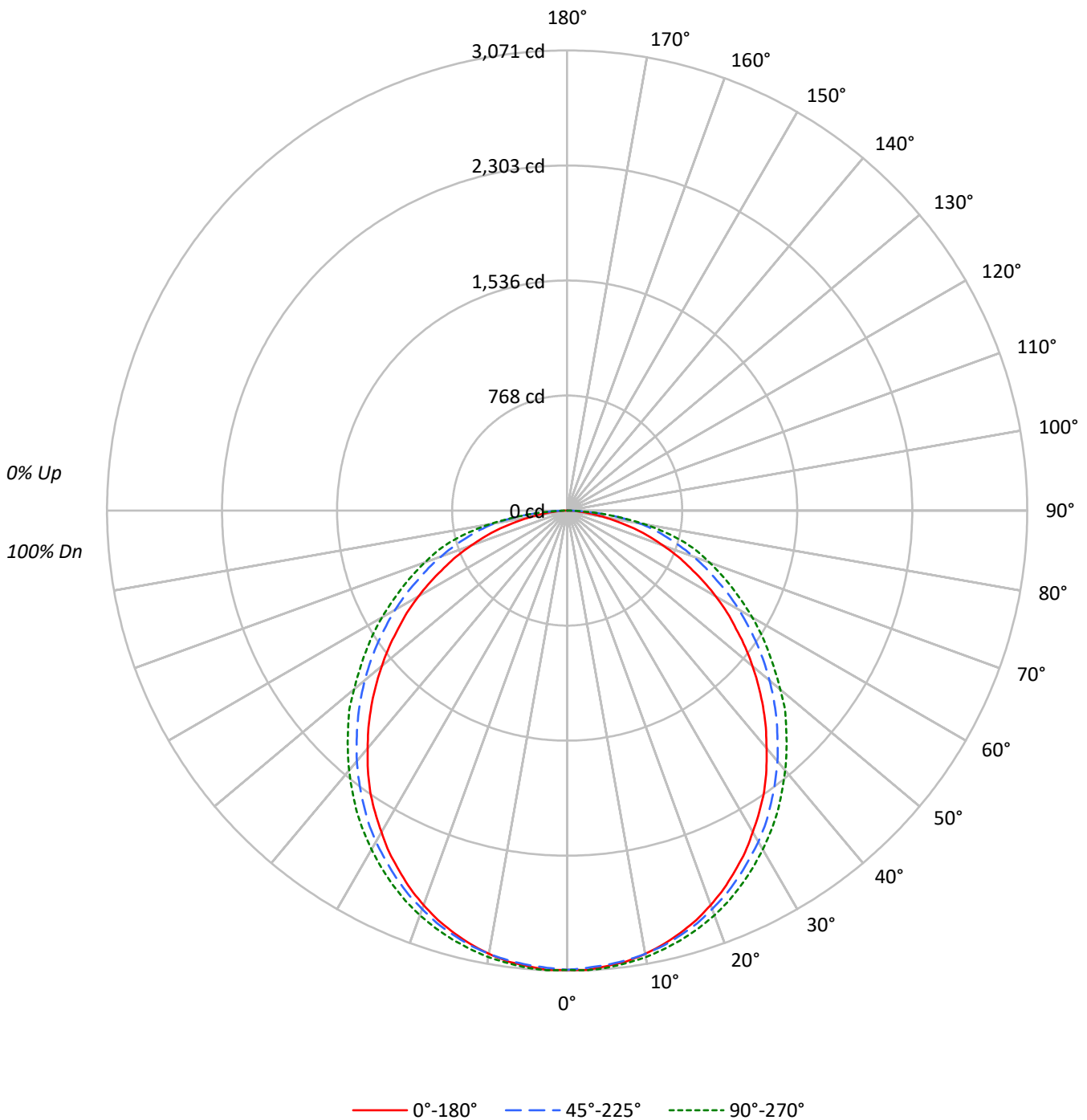
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	4124	4124	4124
5°	4121	4110	4136
10°	4105	4105	4135
15°	4065	4084	4127
20°	4012	4052	4115
25°	3938	4012	4090
30°	3849	3966	4056
35°	3765	3901	4024
40°	3636	3836	3977
45°	3518	3760	3934
50°	3382	3690	3887
55°	3231	3621	3849
60°	3080	3565	3841
65°	2885	3503	3865
70°	2671	3522	3969
75°	2392	3588	4193
80°	1932	3801	4102
85°	1454	3338	3251



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.2	3.3
10°-20°	829.2	9.5
20°-30°	1246.4	14.3
30°-40°	1484.7	17.0
40°-50°	1519.5	17.4
50°-60°	1368.0	15.7
60°-70°	1074.3	12.3
70°-80°	697.3	8.0
80°-90°	215.6	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°	2365.8	27.1
0°-40°	3850.5	44.1
0°-60°	6738.1	77.2
0°-90°	8725.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8725.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3065	3065	3065	3065	3065	
5°	3051	3057	3043	3060	3062	290
15°	2918	2927	2932	2957	2963	823
25°	2652	2674	2702	2746	2755	1222
35°	2292	2320	2375	2433	2450	1430
45°	1849	1893	1976	2051	2068	1425
55°	1377	1438	1544	1624	1641	1235
65°	906	976	1100	1192	1214	902
75°	460	549	690	784	806	487
85°	94	175	216	211	211	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3065.3	3065.3	3065.3	3065.3	3065.3
2.5°	3068.0	3068.0	3054.2	3068.0	3070.8
5°	3051.4	3056.9	3043.1	3059.7	3062.5
7.5°	3034.8	3034.8	3026.5	3043.1	3045.9
10°	3004.3	3007.1	3004.3	3023.7	3026.5
12.5°	2965.5	2971.0	2973.8	2993.2	2996.0
15°	2918.4	2926.7	2932.2	2957.2	2962.7
17.5°	2865.7	2874.0	2887.9	2915.6	2921.1
20°	2802.0	2813.1	2829.7	2865.7	2874.0
22.5°	2732.7	2743.8	2771.5	2804.7	2818.6
25°	2652.3	2674.5	2702.2	2746.5	2754.8
27.5°	2571.9	2591.3	2627.4	2674.5	2685.6
30°	2477.7	2508.2	2552.5	2599.6	2610.7
32.5°	2386.2	2416.7	2469.4	2519.3	2533.1
35°	2292.0	2319.7	2375.2	2433.4	2450.0
37.5°	2183.9	2220.0	2280.9	2339.1	2355.8
40°	2070.3	2114.6	2183.9	2244.9	2264.3
42.5°	1962.2	2009.3	2078.6	2145.1	2167.3
45°	1848.6	1892.9	1976.1	2050.9	2067.5
47.5°	1732.2	1782.1	1870.7	1945.6	1973.3
50°	1615.8	1668.4	1762.7	1840.3	1856.9
52.5°	1499.4	1554.8	1654.6	1737.7	1746.0
55°	1377.4	1438.4	1543.7	1624.1	1640.7
57.5°	1266.6	1319.2	1432.9	1516.0	1535.4
60°	1144.6	1202.8	1324.8	1402.4	1427.3
62.5°	1028.2	1089.2	1216.7	1294.3	1316.5
65°	906.3	975.6	1100.3	1191.7	1213.9
67.5°	801.0	867.5	1000.5	1089.2	1111.4
70°	679.0	753.8	895.2	986.6	1008.8
72.5°	573.7	651.3	792.6	881.3	914.6
75°	460.1	548.8	690.1	784.3	806.5
77.5°	349.2	451.8	595.9	667.9	667.9
80°	249.4	357.5	490.6	523.8	529.4
82.5°	163.5	268.8	363.1	360.3	360.3
85°	94.2	174.6	216.2	210.6	210.6
87.5°	36.0	72.1	77.6	77.6	74.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)