

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: P389523

Luminaire Tested: **24CZ2-100VHE-S-UNV-L940-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: P389523
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-L940-CD1-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: 8924.7 lumens
Efficiency: N/A
Efficacy: 128.2 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

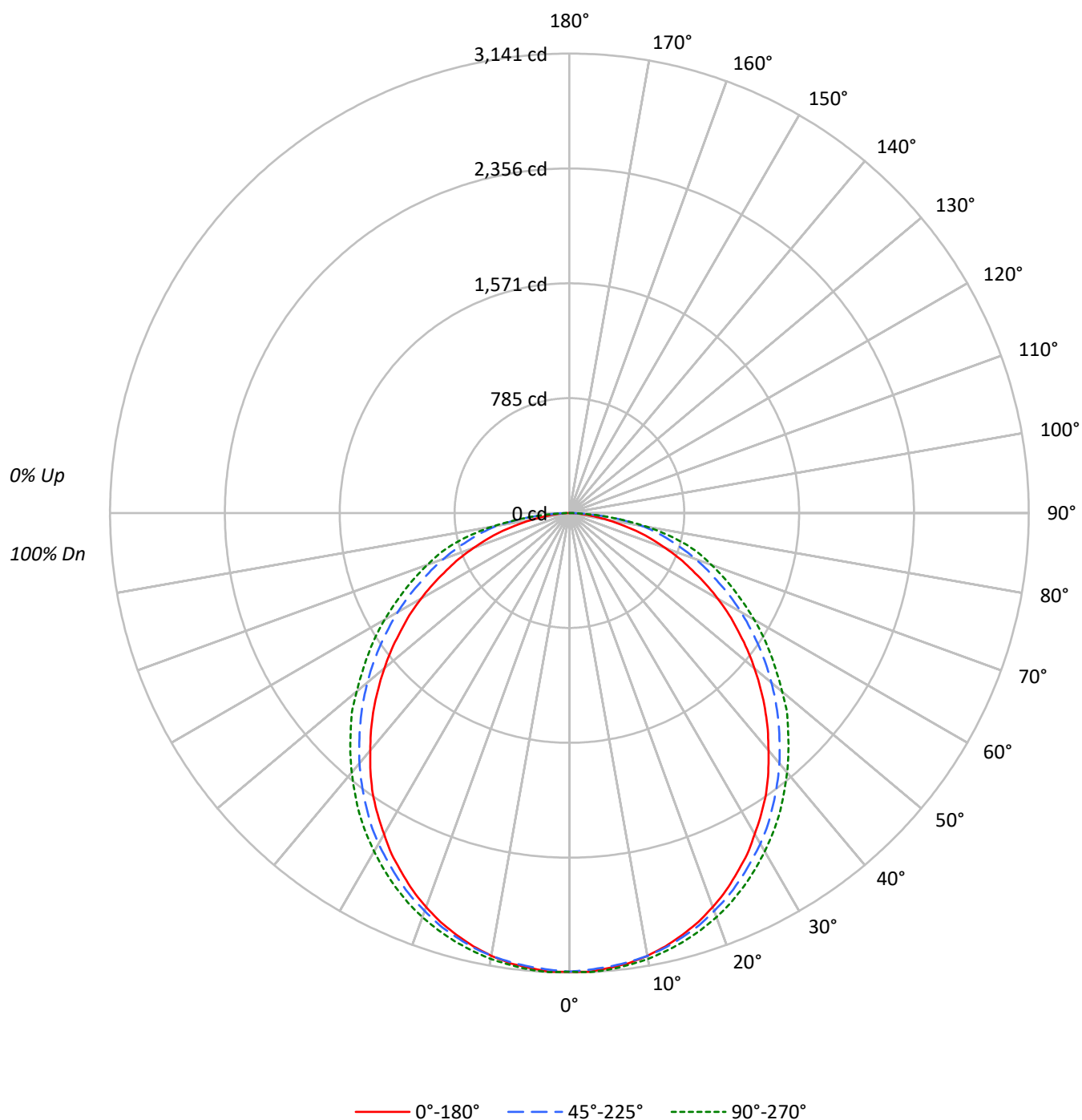
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			0
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			100
1	108	103	99	95	106	101	97	93		97	93	90			93	90	88			83
2	98	90	83	77	96	88	81	76		84	79	74			81	76	72			69
3	89	79	70	64	87	77	69	63		74	67	62			71	66	61			58
4	82	70	61	54	80	68	60	54		66	59	53			63	57	52			49
5	75	62	53	46	73	61	53	46		59	51	46			57	50	45			42
6	70	56	47	40	68	55	47	40		53	46	40			52	45	40			37
7	64	51	42	36	63	50	42	36		48	41	35			47	40	35			33
8	60	46	38	32	58	46	37	32		44	37	32			43	36	31			29
9	56	43	34	29	55	42	34	29		41	34	28			40	33	28			26
10	53	39	31	26	51	39	31	26		38	31	26			37	30	26			24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4219	4219	4219
5°	4215	4204	4231
10°	4198	4198	4229
15°	4158	4178	4221
20°	4104	4144	4209
25°	4028	4103	4183
30°	3937	4056	4149
35°	3851	3990	4116
40°	3719	3923	4068
45°	3598	3846	4024
50°	3459	3774	3976
55°	3305	3704	3937
60°	3151	3646	3929
65°	2951	3583	3953
70°	2732	3602	4059
75°	2446	3670	4288
80°	1977	3888	4195
85°	1488	3413	3325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.8	3.3
10°-20°	848.1	9.5
20°-30°	1274.9	14.3
30°-40°	1518.6	17.0
40°-50°	1554.2	17.4
50°-60°	1399.3	15.7
60°-70°	1098.9	12.3
70°-80°	713.2	8.0
80°-90°	220.6	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°	2419.9	27.1
0°-40°	3938.5	44.1
0°-60°	6892.0	77.2
0°-90°	8924.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8924.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3135	3135	3135	3135	3135	
5°	3121	3127	3113	3130	3132	297
15°	2985	2994	2999	3025	3030	842
25°	2713	2736	2764	2809	2818	1250
35°	2344	2373	2429	2489	2506	1463
45°	1891	1936	2021	2098	2115	1458
55°	1409	1471	1579	1661	1678	1263
65°	927	998	1125	1219	1242	923
75°	471	561	706	802	825	498
85°	96	179	221	215	215	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3135.3	3135.3	3135.3	3135.3	3135.3
2.5°	3138.1	3138.1	3124.0	3138.1	3141.0
5°	3121.1	3126.8	3112.6	3129.6	3132.5
7.5°	3104.1	3104.1	3095.6	3112.6	3115.5
10°	3072.9	3075.8	3072.9	3092.8	3095.6
12.5°	3033.3	3038.9	3041.8	3061.6	3064.4
15°	2985.1	2993.6	2999.2	3024.7	3030.4
17.5°	2931.2	2939.7	2953.9	2982.2	2987.9
20°	2866.0	2877.3	2894.3	2931.2	2939.7
22.5°	2795.1	2806.5	2834.8	2868.8	2883.0
25°	2712.9	2735.6	2763.9	2809.3	2817.8
27.5°	2630.7	2650.6	2687.4	2735.6	2746.9
30°	2534.3	2565.5	2610.9	2659.1	2670.4
32.5°	2440.8	2472.0	2525.8	2576.8	2591.0
35°	2344.4	2372.7	2429.4	2489.0	2506.0
37.5°	2233.8	2270.7	2333.1	2392.6	2409.6
40°	2117.6	2163.0	2233.8	2296.2	2316.0
42.5°	2007.0	2055.2	2126.1	2194.1	2216.8
45°	1890.8	1936.2	2021.2	2097.8	2114.8
47.5°	1771.8	1822.8	1913.5	1990.0	2018.4
50°	1652.7	1706.6	1802.9	1882.3	1899.3
52.5°	1533.6	1590.3	1692.4	1777.4	1785.9
55°	1408.9	1471.3	1579.0	1661.2	1678.2
57.5°	1295.5	1349.4	1465.6	1550.6	1570.5
60°	1170.8	1230.3	1355.0	1434.4	1459.9
62.5°	1051.7	1114.1	1244.5	1323.9	1346.5
65°	927.0	997.9	1125.4	1219.0	1241.6
67.5°	819.3	887.3	1023.4	1114.1	1136.8
70°	694.5	771.1	915.6	1009.2	1031.9
72.5°	586.8	666.2	810.8	901.5	935.5
75°	470.6	561.3	705.9	802.3	824.9
77.5°	357.2	462.1	609.5	683.2	683.2
80°	255.1	365.7	501.8	535.8	541.4
82.5°	167.3	275.0	371.4	368.5	368.5
85°	96.4	178.6	221.1	215.4	215.4
87.5°	36.9	73.7	79.4	79.4	76.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)