

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: P389524

Luminaire Tested: **24CZ2-100VHE-S-UNV-L940-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: P389524
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-SWPD1-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: 9033.6 lumens
Efficiency: N/A
Efficacy: 129.8 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

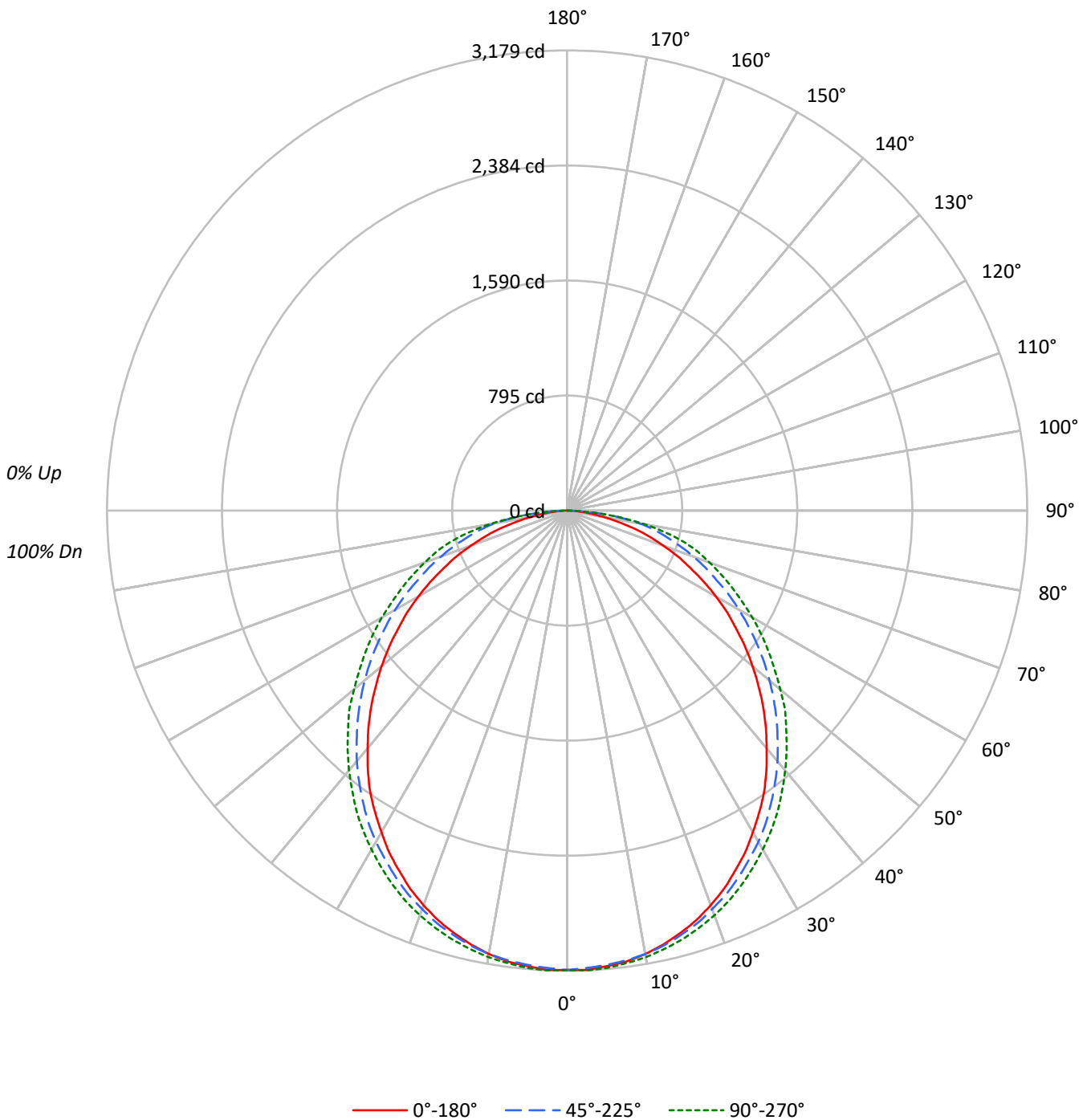
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4270	4270	4270
5°	4267	4255	4282
10°	4250	4250	4281
15°	4209	4229	4273
20°	4154	4195	4261
25°	4077	4153	4234
30°	3985	4106	4199
35°	3898	4039	4166
40°	3765	3971	4118
45°	3642	3893	4073
50°	3502	3820	4024
55°	3345	3749	3985
60°	3189	3691	3976
65°	2987	3627	4001
70°	2766	3646	4109
75°	2476	3714	4341
80°	2001	3935	4247
85°	1507	3455	3367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.4	3.3
10°-20°	858.5	9.5
20°-30°	1290.5	14.3
30°-40°	1537.2	17.0
40°-50°	1573.2	17.4
50°-60°	1416.4	15.7
60°-70°	1112.3	12.3
70°-80°	721.9	8.0
80°-90°	223.3	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°	2449.4	27.1
0°-40°	3986.6	44.1
0°-60°	6976.1	77.2
0°-90°	9033.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9033.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3174	3174	3174	3174	3174	
5°	3159	3165	3151	3168	3171	300
15°	3022	3030	3036	3062	3067	852
25°	2746	2769	2798	2844	2852	1265
35°	2373	2402	2459	2519	2537	1480
45°	1914	1960	2046	2123	2141	1476
55°	1426	1489	1598	1682	1699	1278
65°	938	1010	1139	1234	1257	934
75°	476	568	714	812	835	504
85°	98	181	224	218	218	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3173.6	3173.6	3173.6	3173.6	3173.6
2.5°	3176.4	3176.4	3162.1	3176.4	3179.3
5°	3159.2	3165.0	3150.6	3167.8	3170.7
7.5°	3142.0	3142.0	3133.4	3150.6	3153.5
10°	3110.4	3113.3	3110.4	3130.5	3133.4
12.5°	3070.3	3076.0	3078.9	3099.0	3101.8
15°	3021.5	3030.1	3035.8	3061.7	3067.4
17.5°	2967.0	2975.6	2989.9	3018.6	3024.4
20°	2901.0	2912.4	2929.7	2967.0	2975.6
22.5°	2829.2	2840.7	2869.4	2903.8	2918.2
25°	2746.0	2769.0	2797.7	2843.6	2852.2
27.5°	2662.8	2682.9	2720.2	2769.0	2780.5
30°	2565.2	2596.8	2642.7	2691.5	2703.0
32.5°	2470.6	2502.1	2556.6	2608.3	2622.6
35°	2373.0	2401.7	2459.1	2519.3	2536.6
37.5°	2261.1	2298.4	2361.5	2421.8	2439.0
40°	2143.4	2189.4	2261.1	2324.2	2344.3
42.5°	2031.5	2080.3	2152.1	2220.9	2243.9
45°	1913.9	1959.8	2045.9	2123.4	2140.6
47.5°	1793.4	1845.0	1936.8	2014.3	2043.0
50°	1672.9	1727.4	1824.9	1905.3	1922.5
52.5°	1552.3	1609.7	1713.0	1799.1	1807.7
55°	1426.1	1489.2	1598.3	1681.5	1698.7
57.5°	1311.3	1365.8	1483.5	1569.6	1589.7
60°	1185.1	1245.3	1371.6	1451.9	1477.7
62.5°	1064.5	1127.7	1259.7	1340.0	1363.0
65°	938.3	1010.0	1139.2	1233.8	1256.8
67.5°	829.3	898.1	1035.9	1127.7	1150.6
70°	703.0	780.5	926.8	1021.5	1044.5
72.5°	594.0	674.3	820.7	912.5	946.9
75°	476.3	568.1	714.5	812.0	835.0
77.5°	361.5	467.7	616.9	691.5	691.5
80°	258.2	370.2	507.9	542.3	548.1
82.5°	169.3	278.3	375.9	373.0	373.0
85°	97.6	180.8	223.8	218.1	218.1
87.5°	37.3	74.6	80.3	80.3	77.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)