

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: P390891

Luminaire Tested: **24CZ2-100VHE-HRP-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: P390891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-100VHE-HRP-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7209.7 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

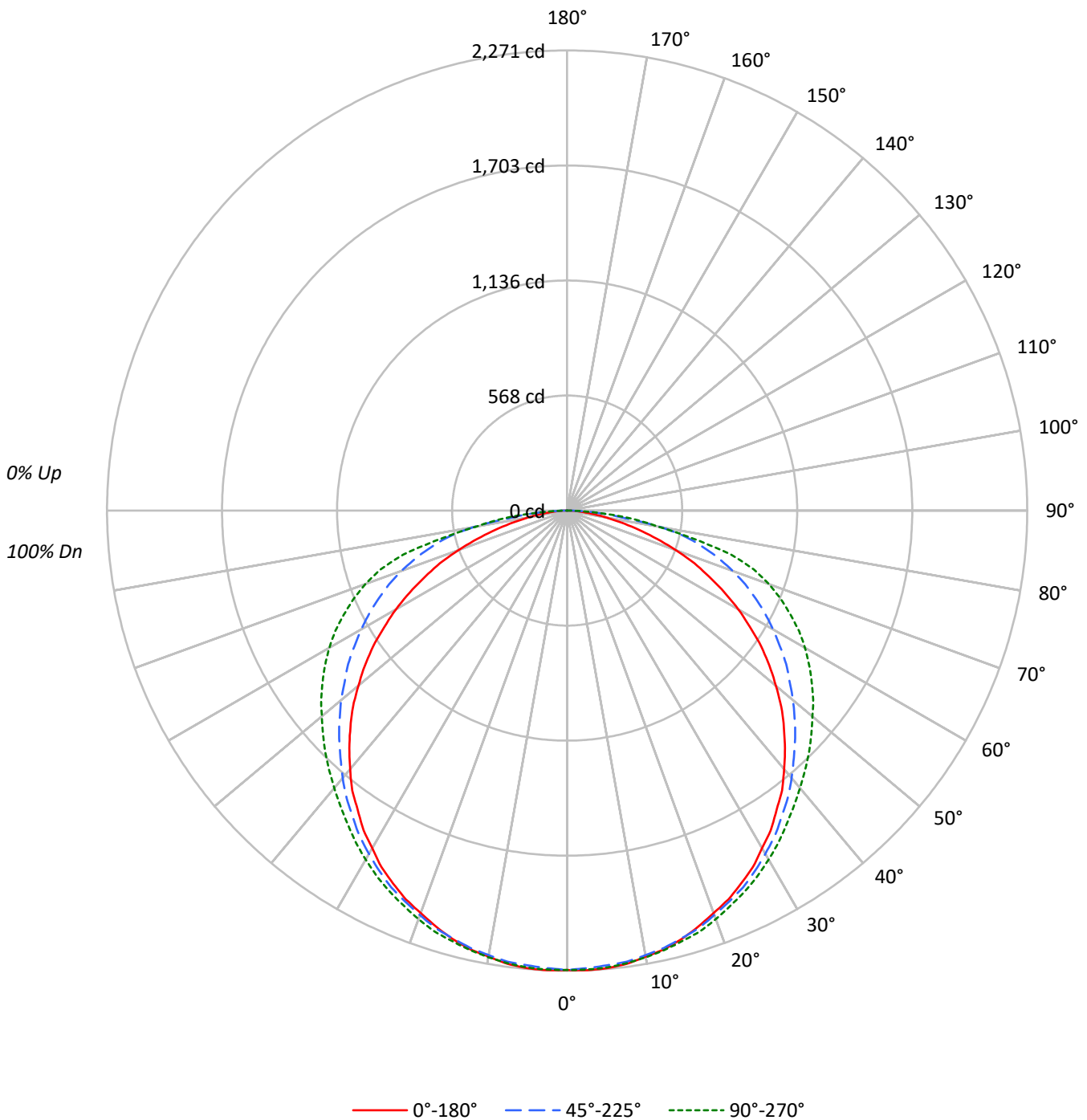
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3050	3050	3050
5°	3062	3043	3057
10°	3054	3044	3058
15°	3049	3044	3064
20°	3026	3042	3072
25°	3015	3047	3079
30°	2989	3039	3089
35°	2961	3031	3101
40°	2927	3028	3140
45°	2878	3028	3212
50°	2815	3047	3309
55°	2743	3096	3456
60°	2627	3157	3647
65°	2459	3267	3871
70°	2237	3419	4164
75°	1896	3607	4350
80°	1496	3630	3519
85°	1104	2760	3092



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.1	3.0
10°-20°	619.0	8.6
20°-30°	946.5	13.1
30°-40°	1157.1	16.0
40°-50°	1233.3	17.1
50°-60°	1179.2	16.4
60°-70°	998.9	13.9
70°-80°	671.4	9.3
80°-90°	189.4	2.6
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°	1780.6	24.7
0°-40°	2937.7	40.7
0°-60°	5350.1	74.2
0°-90°	7209.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7209.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2267	2267	2267	2267	2267	
5°	2267	2264	2253	2264	2264	215
15°	2189	2189	2185	2203	2199	617
25°	2031	2038	2053	2071	2074	936
35°	1802	1817	1845	1881	1888	1129
45°	1513	1538	1591	1659	1688	1167
55°	1169	1212	1320	1423	1473	1042
65°	772	851	1026	1162	1216	767
75°	365	497	694	812	837	391
85°	72	147	179	193	200	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2267.2	2267.2	2267.2	2267.2	2267.2
2.5°	2270.8	2270.8	2260.1	2267.2	2267.2
5°	2267.2	2263.7	2252.9	2263.7	2263.7
7.5°	2256.5	2252.9	2245.8	2256.5	2252.9
10°	2235.1	2235.1	2227.9	2238.6	2238.6
12.5°	2217.2	2213.6	2210.0	2224.3	2220.8
15°	2188.6	2188.6	2185.0	2202.9	2199.3
17.5°	2152.8	2156.4	2160.0	2174.3	2177.8
20°	2113.5	2120.6	2124.2	2145.7	2145.7
22.5°	2077.7	2081.3	2088.4	2109.9	2109.9
25°	2031.2	2038.4	2052.7	2070.6	2074.1
27.5°	1984.7	1988.3	2006.2	2031.2	2034.8
30°	1923.9	1934.7	1956.1	1984.7	1988.3
32.5°	1870.3	1881.0	1906.1	1934.7	1941.8
35°	1802.4	1816.7	1845.3	1881.0	1888.2
37.5°	1741.6	1752.3	1788.0	1827.4	1838.1
40°	1666.5	1687.9	1723.7	1770.2	1788.0
42.5°	1591.4	1612.8	1655.7	1716.5	1738.0
45°	1512.7	1537.7	1591.4	1659.3	1687.9
47.5°	1434.0	1462.6	1523.4	1602.1	1634.3
50°	1344.6	1380.4	1455.5	1544.9	1580.6
52.5°	1258.8	1301.7	1383.9	1484.1	1530.6
55°	1169.4	1212.3	1319.6	1423.3	1473.4
57.5°	1069.3	1126.5	1244.5	1362.5	1416.1
60°	976.3	1029.9	1173.0	1301.7	1355.3
62.5°	876.1	947.7	1101.4	1237.3	1291.0
65°	772.4	851.1	1026.3	1162.2	1215.9
67.5°	679.5	765.3	951.2	1087.1	1140.8
70°	568.6	675.9	869.0	1004.9	1058.5
72.5°	464.9	582.9	783.2	915.5	965.5
75°	364.8	497.1	693.8	811.8	836.8
77.5°	271.8	411.3	600.8	650.8	633.0
80°	193.1	329.0	468.5	443.4	454.2
82.5°	125.2	250.3	289.7	329.0	339.7
85°	71.5	146.6	178.8	193.1	200.3
87.5°	32.2	53.6	71.5	71.5	67.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)