

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: P390909

Luminaire Tested: **24CZ2-100VHE-RDP-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: P390909
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-RDP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5517.6 lumens
Efficiency: N/A
Efficacy: 79.3 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

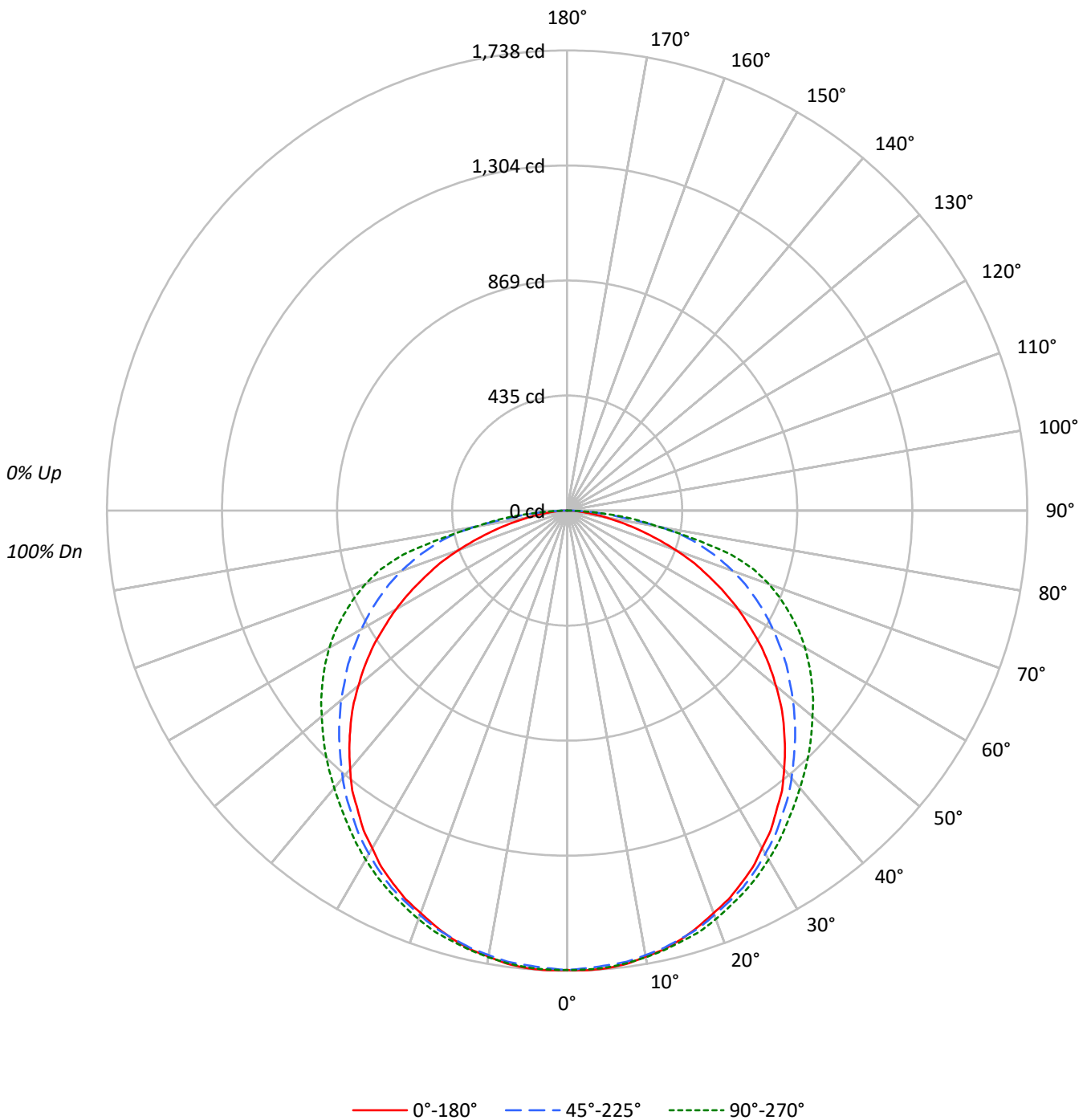
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2335	2335	2335
5°	2343	2329	2340
10°	2337	2329	2341
15°	2333	2329	2344
20°	2316	2328	2351
25°	2308	2332	2356
30°	2288	2326	2364
35°	2266	2320	2373
40°	2240	2317	2403
45°	2203	2317	2458
50°	2154	2332	2532
55°	2099	2369	2645
60°	2010	2416	2791
65°	1882	2501	2962
70°	1712	2616	3187
75°	1451	2760	3329
80°	1145	2778	2693
85°	844	2112	2367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.6	3.0
10°-20°	473.7	8.6
20°-30°	724.4	13.1
30°-40°	885.5	16.0
40°-50°	943.8	17.1
50°-60°	902.4	16.4
60°-70°	764.5	13.9
70°-80°	513.8	9.3
80°-90°	144.9	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°	1362.7	24.7
0°-40°	2248.2	40.7
0°-60°	4094.4	74.2
0°-90°	5517.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5517.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1735	1735	1735	1735	1735	
5°	1735	1732	1724	1732	1732	165
15°	1675	1675	1672	1686	1683	472
25°	1554	1560	1571	1585	1587	716
35°	1379	1390	1412	1440	1445	864
45°	1158	1177	1218	1270	1292	893
55°	895	928	1010	1089	1128	797
65°	591	651	786	890	930	587
75°	279	380	531	621	640	299
85°	55	112	137	148	153	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1735.1	1735.1	1735.1	1735.1	1735.1
2.5°	1737.9	1737.9	1729.7	1735.1	1735.1
5°	1735.1	1732.4	1724.2	1732.4	1732.4
7.5°	1726.9	1724.2	1718.7	1726.9	1724.2
10°	1710.5	1710.5	1705.0	1713.2	1713.2
12.5°	1696.8	1694.1	1691.3	1702.3	1699.5
15°	1674.9	1674.9	1672.2	1685.9	1683.1
17.5°	1647.6	1650.3	1653.0	1664.0	1666.7
20°	1617.4	1622.9	1625.7	1642.1	1642.1
22.5°	1590.1	1592.8	1598.3	1614.7	1614.7
25°	1554.5	1560.0	1570.9	1584.6	1587.3
27.5°	1518.9	1521.7	1535.3	1554.5	1557.2
30°	1472.4	1480.6	1497.0	1518.9	1521.7
32.5°	1431.3	1439.6	1458.7	1480.6	1486.1
35°	1379.3	1390.3	1412.2	1439.6	1445.0
37.5°	1332.8	1341.0	1368.4	1398.5	1406.7
40°	1275.3	1291.8	1319.1	1354.7	1368.4
42.5°	1217.9	1234.3	1267.1	1313.7	1330.1
45°	1157.7	1176.8	1217.9	1269.9	1291.8
47.5°	1097.5	1119.3	1165.9	1226.1	1250.7
50°	1029.0	1056.4	1113.9	1182.3	1209.7
52.5°	963.4	996.2	1059.1	1135.8	1171.3
55°	894.9	927.8	1009.9	1089.2	1127.6
57.5°	818.3	862.1	952.4	1042.7	1083.8
60°	747.1	788.2	897.7	996.2	1037.2
62.5°	670.5	725.3	842.9	946.9	988.0
65°	591.1	651.4	785.5	889.5	930.5
67.5°	520.0	585.7	728.0	832.0	873.0
70°	435.2	517.3	665.0	769.0	810.1
72.5°	355.8	446.1	599.4	700.6	738.9
75°	279.2	380.4	530.9	621.3	640.4
77.5°	208.0	314.7	459.8	498.1	484.4
80°	147.8	251.8	358.5	339.4	347.6
82.5°	95.8	191.6	221.7	251.8	260.0
85°	54.7	112.2	136.8	147.8	153.3
87.5°	24.6	41.1	54.7	54.7	52.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)