

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: P391832

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L950-CD1-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: P391832
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: 24CZ2-90VHE-RDP-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5520.7 lumens
Efficiency: N/A
Efficacy: 89.3 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

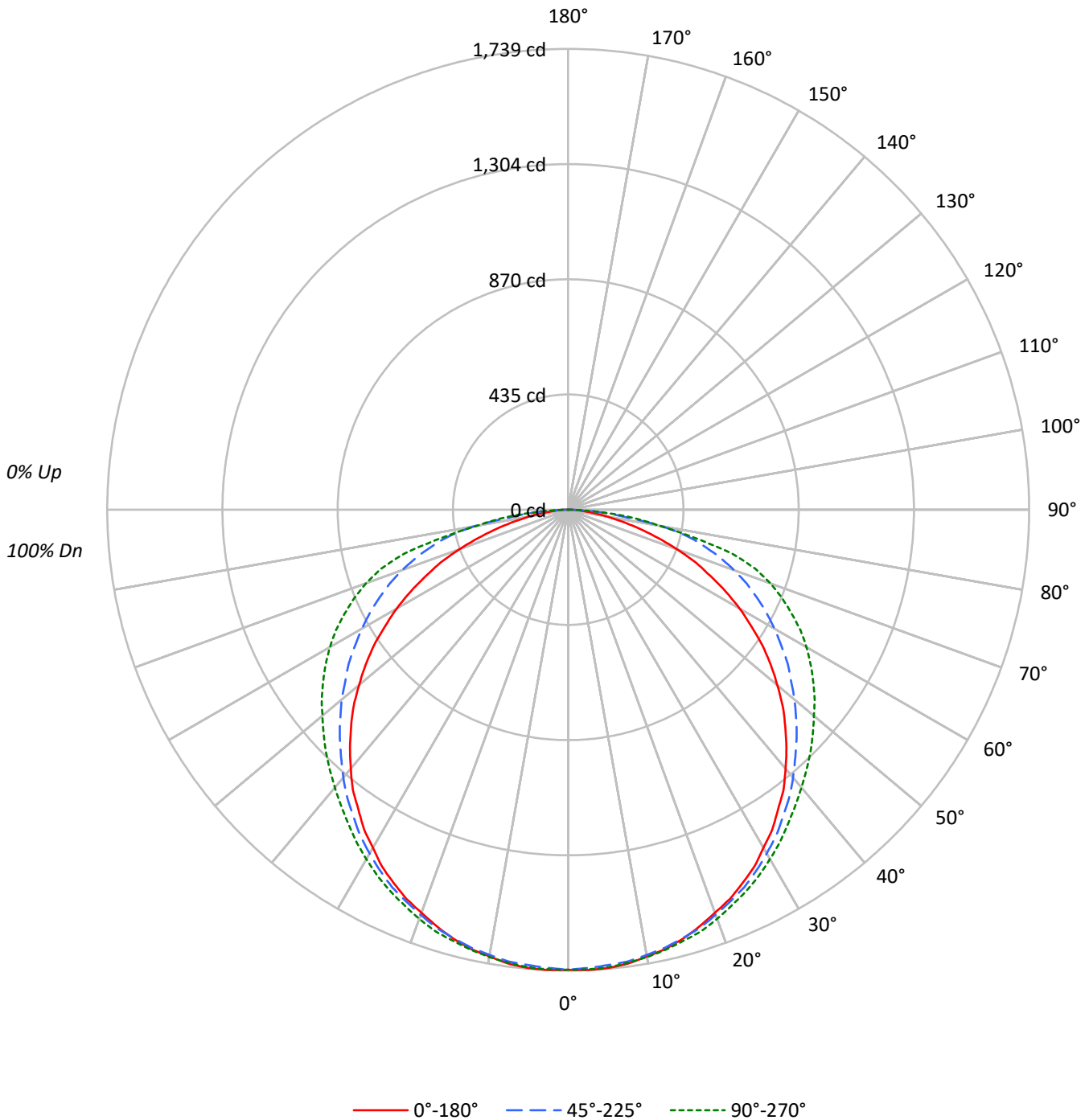
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2336	2336	2336
5°	2345	2330	2341
10°	2338	2331	2342
15°	2334	2331	2346
20°	2317	2329	2353
25°	2309	2333	2358
30°	2289	2327	2365
35°	2267	2321	2375
40°	2241	2318	2405
45°	2204	2319	2459
50°	2155	2333	2533
55°	2100	2370	2647
60°	2012	2417	2793
65°	1883	2502	2964
70°	1713	2618	3188
75°	1452	2761	3331
80°	1146	2779	2695
85°	846	2113	2367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.7	3.0
10°-20°	474.0	8.6
20°-30°	724.8	13.1
30°-40°	886.1	16.0
40°-50°	944.3	17.1
50°-60°	902.9	16.4
60°-70°	764.9	13.9
70°-80°	514.1	9.3
80°-90°	145.0	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°	1363.4	24.7
0°-40°	2249.5	40.7
0°-60°	4096.8	74.2
0°-90°	5520.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5520.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1736	1733	1725	1733	1733	165
15°	1676	1676	1673	1687	1684	473
25°	1555	1561	1572	1586	1588	717
35°	1380	1391	1413	1440	1446	865
45°	1158	1178	1219	1271	1292	893
55°	895	928	1010	1090	1128	798
65°	592	652	786	890	931	587
75°	279	381	531	622	641	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°	1736.1	1736.1	1736.1	1736.1	1736.1
2.5°	1738.8	1738.8	1730.6	1736.1	1736.1
5°	1736.1	1733.4	1725.1	1733.4	1733.4
7.5°	1727.9	1725.1	1719.7	1727.9	1725.1
10°	1711.5	1711.5	1706.0	1714.2	1714.2
12.5°	1697.8	1695.0	1692.3	1703.2	1700.5
15°	1675.9	1675.9	1673.1	1686.8	1684.1
17.5°	1648.5	1651.2	1654.0	1664.9	1667.6
20°	1618.4	1623.8	1626.6	1643.0	1643.0
22.5°	1591.0	1593.7	1599.2	1615.6	1615.6
25°	1555.4	1560.8	1571.8	1585.5	1588.2
27.5°	1519.8	1522.5	1536.2	1555.4	1558.1
30°	1473.2	1481.4	1497.9	1519.8	1522.5
32.5°	1432.1	1440.4	1459.5	1481.4	1486.9
35°	1380.1	1391.1	1413.0	1440.4	1445.8
37.5°	1333.6	1341.8	1369.2	1399.3	1407.5
40°	1276.1	1292.5	1319.9	1355.5	1369.2
42.5°	1218.6	1235.0	1267.8	1314.4	1330.8
45°	1158.3	1177.5	1218.6	1270.6	1292.5
47.5°	1098.1	1120.0	1166.5	1226.8	1251.4
50°	1029.6	1057.0	1114.5	1183.0	1210.3
52.5°	963.9	996.8	1059.7	1136.4	1172.0
55°	895.4	928.3	1010.4	1089.9	1128.2
57.5°	818.8	862.6	952.9	1043.3	1084.4
60°	747.6	788.6	898.2	996.8	1037.8
62.5°	670.9	725.7	843.4	947.5	988.5
65°	591.5	651.7	785.9	890.0	931.0
67.5°	520.3	586.0	728.4	832.5	873.5
70°	435.4	517.5	665.4	769.5	810.5
72.5°	356.0	446.3	599.7	701.0	739.3
75°	279.3	380.6	531.2	621.6	640.8
77.5°	208.1	314.9	460.0	498.4	484.7
80°	147.9	251.9	358.7	339.6	347.8
82.5°	95.8	191.7	221.8	251.9	260.1
85°	54.8	112.3	136.9	147.9	153.3
87.5°	24.6	41.1	54.8	54.8	52.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)