

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: P391631

Luminaire Tested: **24CZ2-70VHE-RDP-UNV-L930-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: P391631
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: 24CZ2-70VHE-RDP-UNV-L930-CD1-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: 3917.1 lumens
Efficiency: N/A
Efficacy: 85.7 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

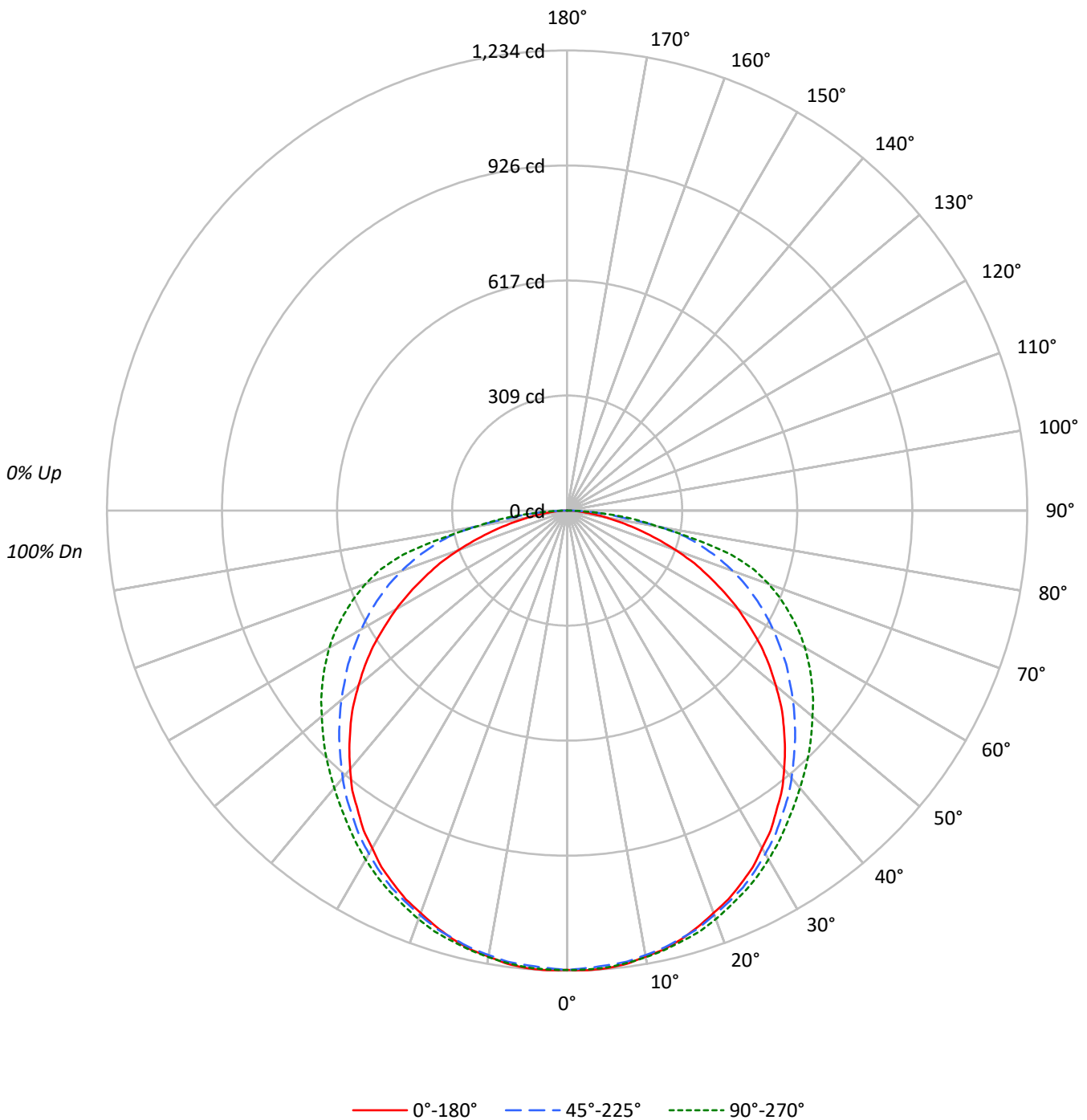
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391631

CATALOG NUMBER: 24CZ2-70VHE-RDP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391631

CATALOG NUMBER: 24CZ2-70VHE-RDP-UNV-L930-CD1-U

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°	1657	1657	1657
5°	1664	1653	1661
10°	1659	1654	1662
15°	1656	1654	1664
20°	1644	1652	1669
25°	1638	1656	1673
30°	1624	1651	1678
35°	1608	1647	1685
40°	1590	1645	1706
45°	1564	1645	1745
50°	1529	1655	1798
55°	1490	1682	1878
60°	1427	1715	1982
65°	1336	1775	2103
70°	1215	1857	2262
75°	1030	1959	2363
80°	813	1972	1912
85°	601	1499	1680



TEST NUMBER: P391631

CATALOG NUMBER: 24CZ2-70VHE-RDP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	3.0
10°-20°	336.3	8.6
20°-30°	514.3	13.1
30°-40°	628.7	16.0
40°-50°	670.0	17.1
50°-60°	640.6	16.4
60°-70°	542.7	13.9
70°-80°	364.7	9.3
80°-90°	102.9	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°	967.4	24.7
0°-40°	1596.1	40.7
0°-60°	2906.8	74.2
0°-90°	3917.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3917.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1232	1232	1232	1232	1232	
5°	1232	1230	1224	1230	1230	117
15°	1189	1189	1187	1197	1195	335
25°	1104	1108	1115	1125	1127	509
35°	979	987	1003	1022	1026	613
45°	822	836	865	902	917	634
55°	635	659	717	773	800	566
65°	420	462	558	632	661	417
75°	198	270	377	441	455	212
85°	39	80	97	105	109	48
90°	0	0	0	0	0	



TEST NUMBER: P391631

CATALOG NUMBER: 24CZ2-70VHE-RDP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1231.8	1231.8	1231.8	1231.8	1231.8
2.5°	1233.8	1233.8	1227.9	1231.8	1231.8
5°	1231.8	1229.9	1224.0	1229.9	1229.9
7.5°	1226.0	1224.0	1220.2	1226.0	1224.0
10°	1214.3	1214.3	1210.4	1216.3	1216.3
12.5°	1204.6	1202.7	1200.7	1208.5	1206.6
15°	1189.1	1189.1	1187.1	1196.8	1194.9
17.5°	1169.6	1171.6	1173.5	1181.3	1183.2
20°	1148.3	1152.2	1154.1	1165.8	1165.8
22.5°	1128.8	1130.8	1134.7	1146.3	1146.3
25°	1103.6	1107.5	1115.2	1125.0	1126.9
27.5°	1078.3	1080.3	1090.0	1103.6	1105.5
30°	1045.3	1051.1	1062.8	1078.3	1080.3
32.5°	1016.2	1022.0	1035.6	1051.1	1055.0
35°	979.2	987.0	1002.6	1022.0	1025.9
37.5°	946.2	952.0	971.5	992.8	998.7
40°	905.4	917.1	936.5	961.7	971.5
42.5°	864.6	876.3	899.6	932.6	944.3
45°	821.9	835.5	864.6	901.5	917.1
47.5°	779.1	794.7	827.7	870.4	887.9
50°	730.5	750.0	790.8	839.3	858.8
52.5°	683.9	707.2	751.9	806.3	831.6
55°	635.3	658.7	716.9	773.3	800.5
57.5°	580.9	612.0	676.1	740.3	769.4
60°	530.4	559.6	637.3	707.2	736.4
62.5°	476.0	514.9	598.4	672.3	701.4
65°	419.7	462.4	557.6	631.5	660.6
67.5°	369.2	415.8	516.8	590.6	619.8
70°	308.9	367.2	472.1	546.0	575.1
72.5°	252.6	316.7	425.5	497.4	524.6
75°	198.2	270.1	376.9	441.0	454.6
77.5°	147.7	223.4	326.4	353.6	343.9
80°	104.9	178.7	254.5	240.9	246.8
82.5°	68.0	136.0	157.4	178.7	184.6
85°	38.9	79.7	97.1	104.9	108.8
87.5°	17.5	29.1	38.9	38.9	36.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)