

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: P274840

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

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: P274840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-RDP-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3991.0 lumens
Efficiency: N/A
Efficacy: 78.3 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

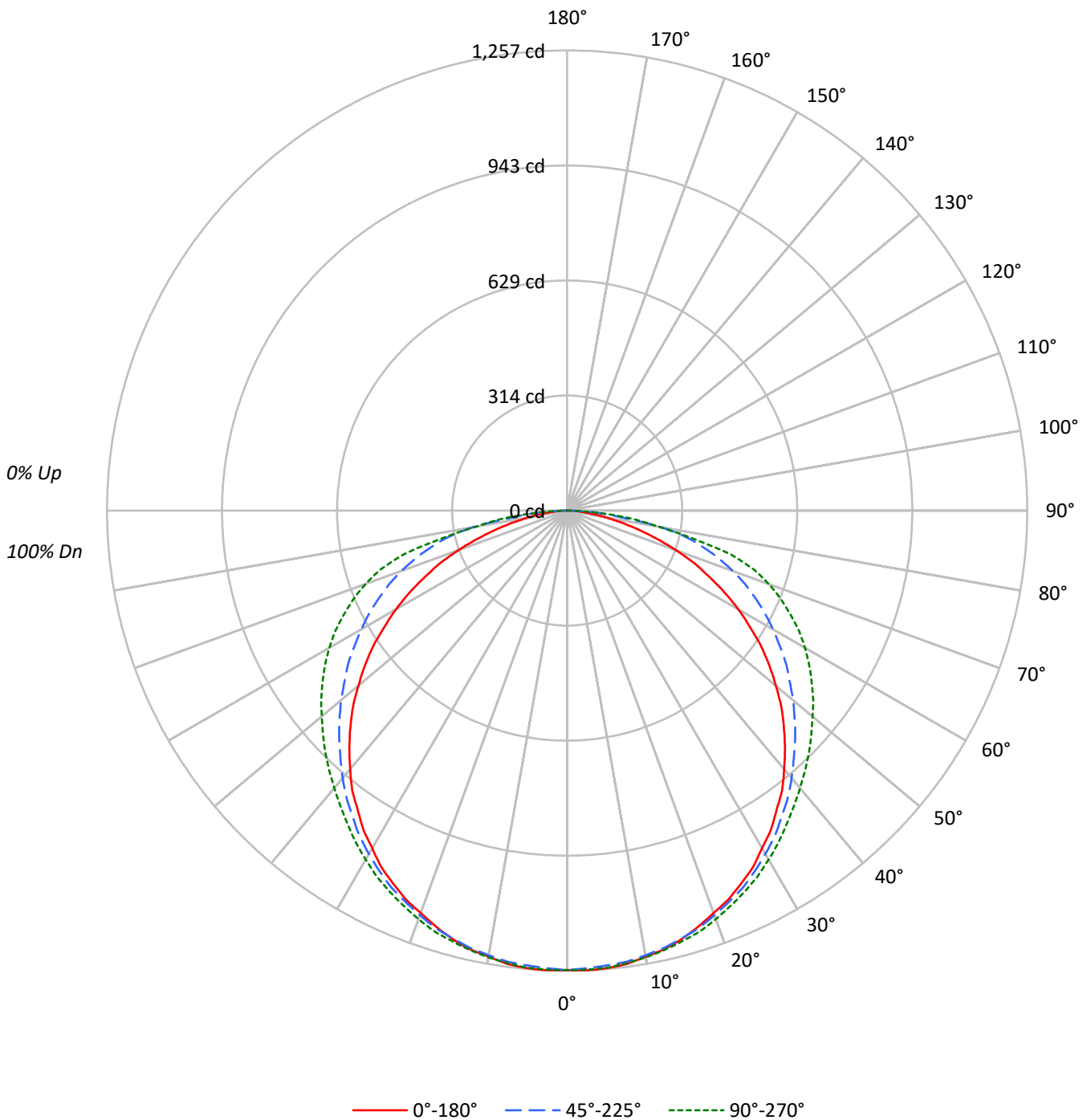
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P274840

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P274840

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L935-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°	1689	1689	1689
5°	1695	1684	1692
10°	1690	1685	1693
15°	1688	1685	1696
20°	1675	1684	1701
25°	1669	1687	1705
30°	1655	1682	1710
35°	1639	1678	1717
40°	1620	1676	1738
45°	1593	1676	1778
50°	1558	1686	1832
55°	1518	1714	1913
60°	1454	1747	2019
65°	1361	1809	2143
70°	1238	1892	2305
75°	1050	1996	2408
80°	828	2009	1948
85°	611	1528	1712



TEST NUMBER: P274840

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	3.0
10°-20°	342.6	8.6
20°-30°	524.0	13.1
30°-40°	640.5	16.0
40°-50°	682.7	17.1
50°-60°	652.7	16.4
60°-70°	552.9	13.9
70°-80°	371.6	9.3
80°-90°	104.8	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°	985.7	24.7
0°-40°	1626.2	40.7
0°-60°	2961.6	74.2
0°-90°	3991.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3991.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1255	1255	1255	1255	1255	
5°	1255	1253	1247	1253	1253	119
15°	1212	1212	1210	1219	1217	342
25°	1124	1128	1136	1146	1148	518
35°	998	1006	1022	1041	1045	625
45°	837	851	881	918	934	646
55°	647	671	730	788	816	577
65°	428	471	568	643	673	425
75°	202	275	384	449	463	216
85°	40	81	99	107	111	49
90°	0	0	0	0	0	



TEST NUMBER: P274840

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.1	1255.1	1255.1	1255.1	1255.1
2.5°	1257.0	1257.0	1251.1	1255.1	1255.1
5°	1255.1	1253.1	1247.1	1253.1	1253.1
7.5°	1249.1	1247.1	1243.2	1249.1	1247.1
10°	1237.2	1237.2	1233.3	1239.2	1239.2
12.5°	1227.3	1225.4	1223.4	1231.3	1229.3
15°	1211.5	1211.5	1209.5	1219.4	1217.4
17.5°	1191.7	1193.7	1195.7	1203.6	1205.6
20°	1169.9	1173.9	1175.9	1187.7	1187.7
22.5°	1150.1	1152.1	1156.1	1168.0	1168.0
25°	1124.4	1128.4	1136.3	1146.2	1148.2
27.5°	1098.7	1100.6	1110.5	1124.4	1126.4
30°	1065.0	1071.0	1082.8	1098.7	1100.6
32.5°	1035.3	1041.3	1055.1	1071.0	1074.9
35°	997.7	1005.6	1021.5	1041.3	1045.2
37.5°	964.1	970.0	989.8	1011.6	1017.5
40°	922.5	934.4	954.2	979.9	989.8
42.5°	880.9	892.8	916.5	950.2	962.1
45°	837.4	851.2	880.9	918.5	934.4
47.5°	793.8	809.6	843.3	886.9	904.7
50°	744.3	764.1	805.7	855.2	875.0
52.5°	696.8	720.6	766.1	821.5	847.3
55°	647.3	671.1	730.5	787.9	815.6
57.5°	591.9	623.6	688.9	754.2	783.9
60°	540.4	570.1	649.3	720.6	750.3
62.5°	485.0	524.6	609.7	684.9	714.6
65°	427.6	471.1	568.1	643.4	673.1
67.5°	376.1	423.6	526.6	601.8	631.5
70°	314.8	374.1	481.0	556.3	586.0
72.5°	257.3	322.7	433.5	506.8	534.5
75°	201.9	275.2	384.0	449.4	463.2
77.5°	150.4	227.7	332.6	360.3	350.4
80°	106.9	182.1	259.3	245.5	251.4
82.5°	69.3	138.6	160.3	182.1	188.1
85°	39.6	81.2	99.0	106.9	110.9
87.5°	17.8	29.7	39.6	39.6	37.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)