

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: P274839

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L930-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: P274839
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-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI
Light Source: (392) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3894.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

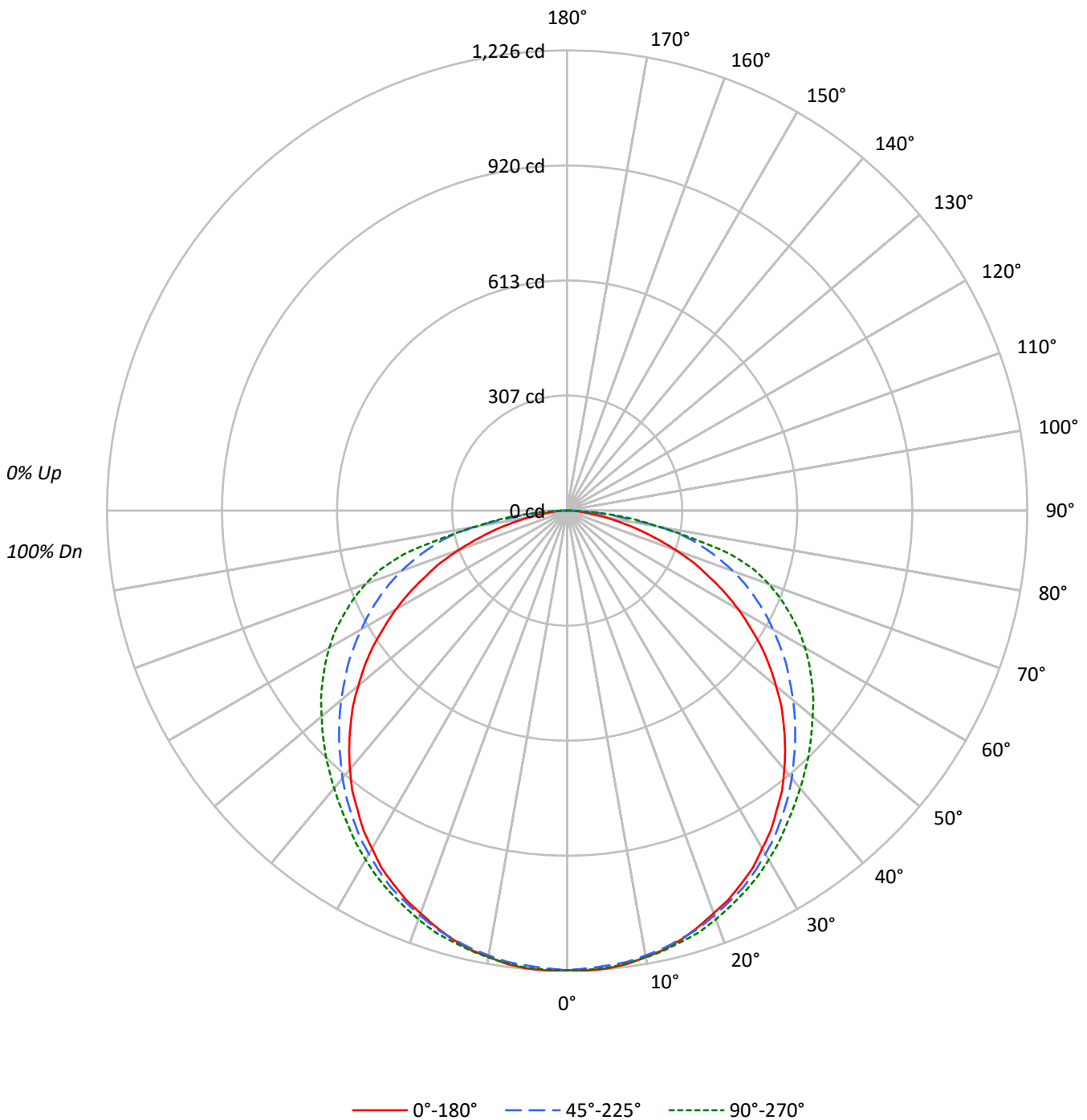
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P274839

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

Luminous Intensity Polar Plot





TEST NUMBER: P274839

CATALOG NUMBER: 24CZ2-70HE-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°	1648	1648	1648
5°	1654	1643	1651
10°	1649	1644	1652
15°	1647	1644	1655
20°	1634	1643	1659
25°	1629	1646	1663
30°	1614	1641	1668
35°	1599	1637	1675
40°	1581	1635	1696
45°	1555	1635	1735
50°	1520	1645	1787
55°	1482	1672	1867
60°	1419	1705	1970
65°	1328	1765	2091
70°	1208	1846	2249
75°	1024	1948	2350
80°	808	1960	1901
85°	596	1491	1670



TEST NUMBER: P274839

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	3.0
10°-20°	334.3	8.6
20°-30°	511.2	13.1
30°-40°	625.0	16.0
40°-50°	666.1	17.1
50°-60°	636.9	16.4
60°-70°	539.5	13.9
70°-80°	362.6	9.3
80°-90°	102.3	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°	961.7	24.7
0°-40°	1586.7	40.7
0°-60°	2889.6	74.2
0°-90°	3894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1225	1223	1217	1223	1223	116
15°	1182	1182	1180	1190	1188	333
25°	1097	1101	1109	1118	1120	506
35°	974	981	997	1016	1020	610
45°	817	830	860	896	912	630
55°	632	655	713	769	796	563
65°	417	460	554	628	657	414
75°	197	268	375	438	452	211
85°	39	79	97	104	108	48
90°	0	0	0	0	0	



TEST NUMBER: P274839

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1224.6	1224.6	1224.6	1224.6	1224.6
2.5°	1226.5	1226.5	1220.7	1224.6	1224.6
5°	1224.6	1222.6	1216.8	1222.6	1222.6
7.5°	1218.8	1216.8	1213.0	1218.8	1216.8
10°	1207.2	1207.2	1203.3	1209.1	1209.1
12.5°	1197.5	1195.6	1193.6	1201.4	1199.4
15°	1182.1	1182.1	1180.1	1189.8	1187.9
17.5°	1162.7	1164.7	1166.6	1174.3	1176.3
20°	1141.5	1145.4	1147.3	1158.9	1158.9
22.5°	1122.2	1124.1	1128.0	1139.6	1139.6
25°	1097.1	1100.9	1108.7	1118.3	1120.3
27.5°	1072.0	1073.9	1083.6	1097.1	1099.0
30°	1039.1	1044.9	1056.5	1072.0	1073.9
32.5°	1010.2	1016.0	1029.5	1044.9	1048.8
35°	973.5	981.2	996.6	1016.0	1019.8
37.5°	940.6	946.4	965.7	987.0	992.8
40°	900.1	911.7	931.0	956.1	965.7
42.5°	859.5	871.1	894.3	927.1	938.7
45°	817.0	830.5	859.5	896.2	911.7
47.5°	774.5	790.0	822.8	865.3	882.7
50°	726.2	745.5	786.1	834.4	853.7
52.5°	679.9	703.1	747.5	801.6	826.7
55°	631.6	654.8	712.7	768.7	795.8
57.5°	577.5	608.4	672.2	735.9	764.9
60°	527.3	556.3	633.5	703.1	732.0
62.5°	473.2	511.8	594.9	668.3	697.3
65°	417.2	459.7	554.3	627.7	656.7
67.5°	367.0	413.3	513.8	587.2	616.1
70°	307.1	365.0	469.3	542.7	571.7
72.5°	251.1	314.8	423.0	494.5	521.5
75°	197.0	268.5	374.7	438.4	452.0
77.5°	146.8	222.1	324.5	351.5	341.9
80°	104.3	177.7	253.0	239.5	245.3
82.5°	67.6	135.2	156.4	177.7	183.5
85°	38.6	79.2	96.6	104.3	108.2
87.5°	17.4	29.0	38.6	38.6	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)