

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: P271927

Luminaire Tested: **14CZ2-60HE-UNV-L940-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: P271927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-UNV-L940-CD1-U
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (196) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5143.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

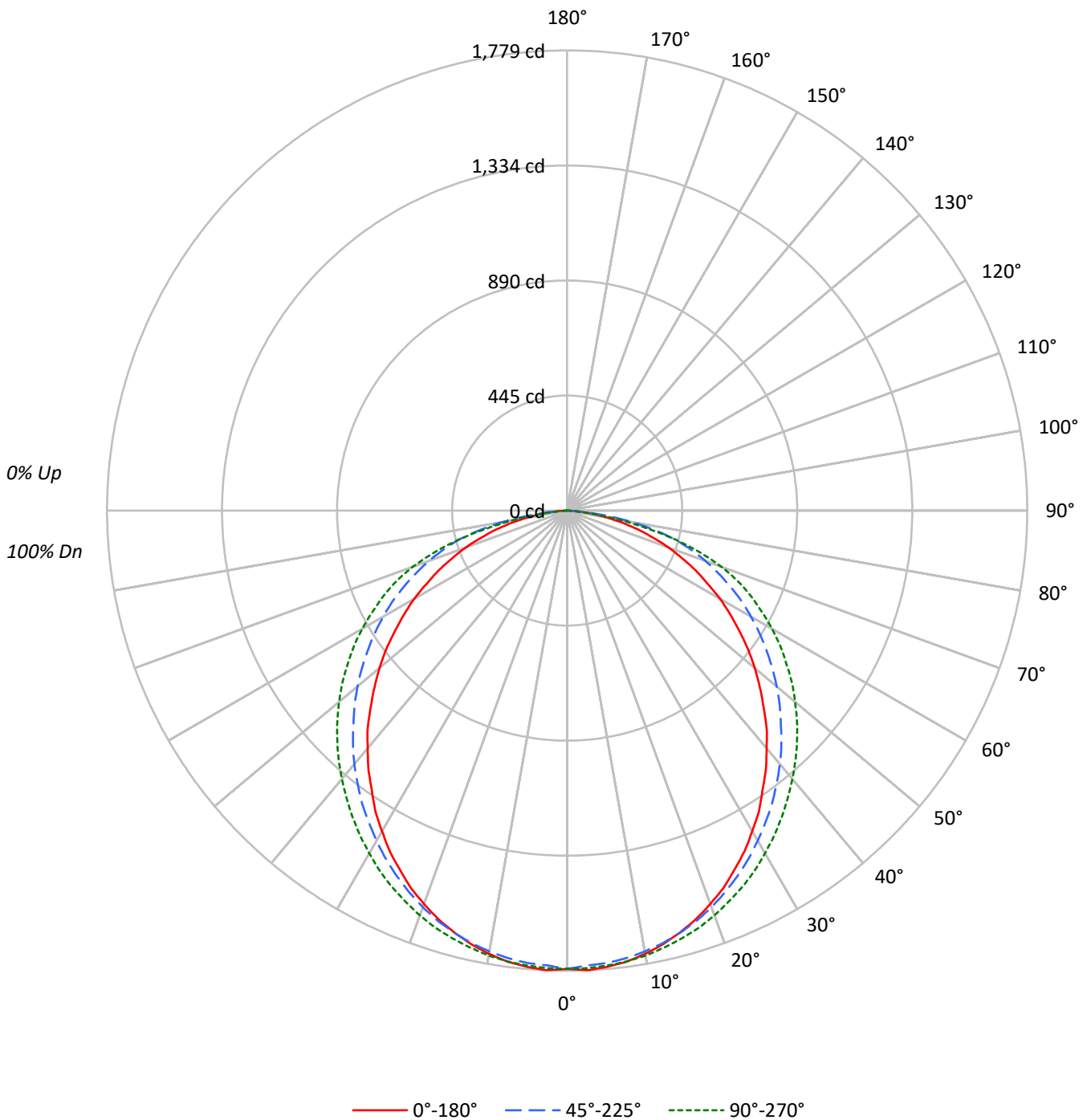
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4768	4768	4768
5°	4783	4743	4770
10°	4754	4729	4773
15°	4703	4706	4770
20°	4634	4673	4768
25°	4546	4627	4763
30°	4447	4579	4754
35°	4329	4540	4751
40°	4214	4496	4758
45°	4085	4447	4783
50°	3965	4426	4815
55°	3815	4412	4858
60°	3679	4419	4925
65°	3491	4432	5002
70°	3275	4467	4998
75°	2968	4507	4519
80°	2435	3891	3217
85°	1806	1840	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	3.3
10°-20°	478.9	9.3
20°-30°	721.5	14.0
30°-40°	865.8	16.8
40°-50°	902.4	17.5
50°-60°	835.4	16.2
60°-70°	675.0	13.1
70°-80°	411.5	8.0
80°-90°	85.0	1.7
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°	1368.0	26.6
0°-40°	2233.8	43.4
0°-60°	3971.5	77.2
0°-90°	5143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1772	1772	1772	1772	1772	
5°	1771	1766	1756	1768	1766	168
15°	1688	1689	1689	1712	1712	476
25°	1531	1540	1558	1598	1604	706
35°	1318	1338	1382	1432	1446	825
45°	1073	1106	1169	1234	1257	830
55°	813	856	940	1014	1036	728
65°	548	602	696	766	786	542
75°	286	349	434	440	435	300
85°	58	87	60	33	24	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1771.8	1771.8	1771.8	1771.8	1771.8
2.5°	1778.7	1772.9	1760.3	1772.9	1770.6
5°	1770.6	1766.0	1755.7	1768.3	1766.0
7.5°	1759.2	1754.6	1745.4	1760.3	1758.0
10°	1739.7	1737.4	1730.5	1747.7	1746.6
12.5°	1716.7	1715.6	1712.1	1731.6	1730.5
15°	1688.1	1689.2	1689.2	1712.1	1712.1
17.5°	1656.0	1658.2	1662.8	1688.1	1691.5
20°	1618.1	1622.7	1631.9	1660.5	1665.1
22.5°	1579.1	1582.6	1596.3	1630.7	1635.3
25°	1531.0	1540.1	1558.5	1597.5	1604.3
27.5°	1485.1	1493.1	1518.3	1558.5	1569.9
30°	1431.2	1443.8	1473.6	1517.2	1529.8
32.5°	1379.6	1393.3	1427.7	1478.2	1489.7
35°	1317.7	1338.3	1381.9	1432.3	1446.1
37.5°	1261.5	1281.0	1330.3	1385.3	1401.4
40°	1199.5	1223.6	1279.8	1338.3	1354.4
42.5°	1142.2	1165.1	1225.9	1285.5	1307.3
45°	1073.4	1105.5	1168.6	1233.9	1256.9
47.5°	1010.3	1042.4	1114.7	1184.6	1205.3
50°	947.2	981.6	1057.3	1129.6	1150.2
52.5°	881.9	918.6	1000.0	1072.2	1096.3
55°	813.1	855.5	940.4	1013.8	1035.5
57.5°	747.7	791.3	881.9	956.4	978.2
60°	683.5	728.2	821.1	892.2	915.1
62.5°	612.4	665.1	761.5	831.4	848.6
65°	548.2	602.1	696.1	766.1	785.5
67.5°	480.5	539.0	633.0	697.2	715.6
70°	416.3	477.1	567.7	627.3	635.3
72.5°	347.5	409.4	501.1	539.0	539.0
75°	285.5	348.6	433.5	440.4	434.6
77.5°	217.9	287.8	342.9	329.1	315.4
80°	157.1	225.9	251.1	225.9	207.6
82.5°	105.5	164.0	151.4	120.4	106.7
85°	58.5	87.2	59.6	33.3	24.1
87.5°	21.8	19.5	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)