

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: P271925

Luminaire Tested: **14CZ2-60HE-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: P271925
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-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4967.9 lumens
Efficiency: N/A
Efficacy: 102.9 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

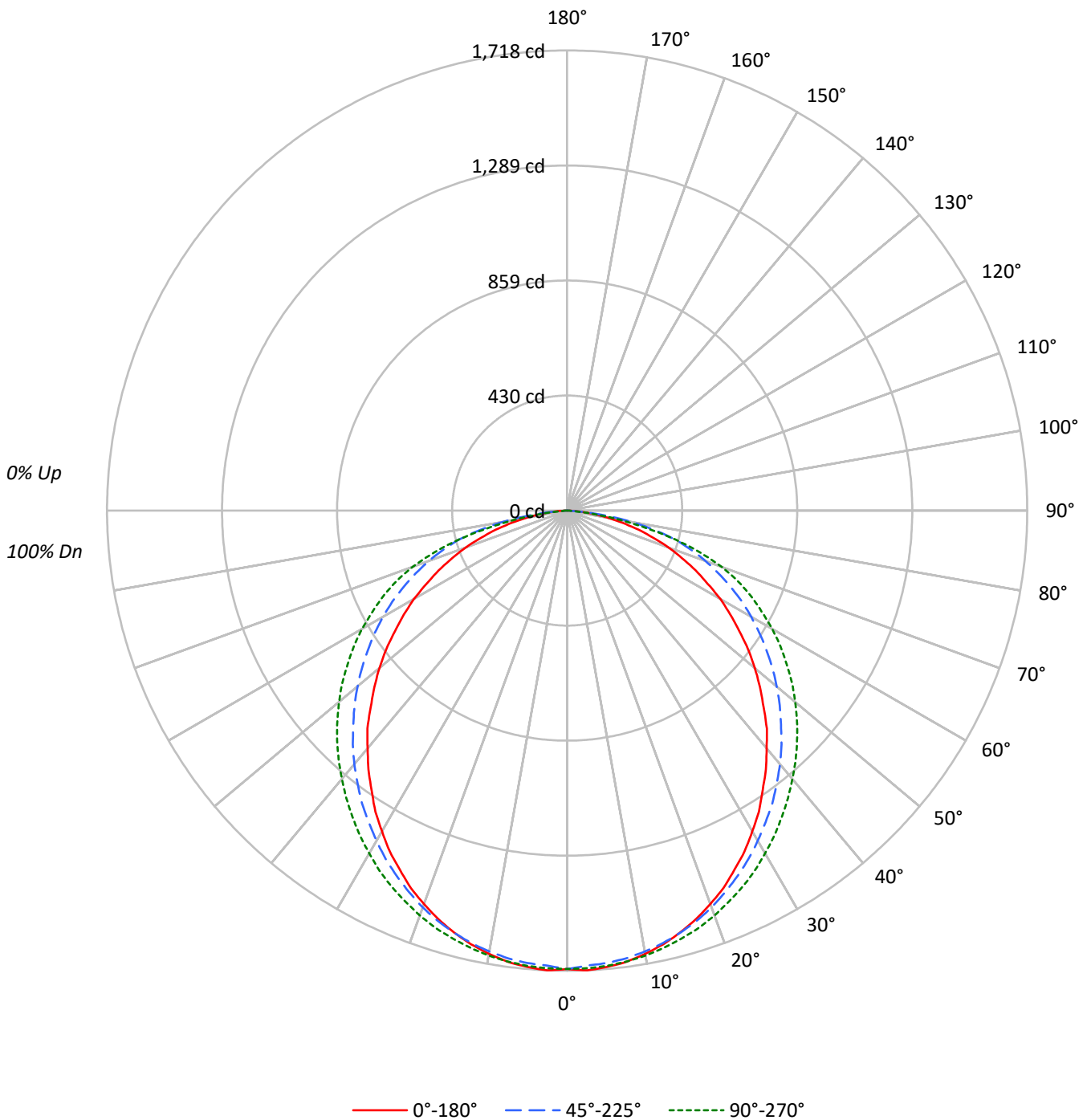
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4606	4606	4606
5°	4620	4581	4608
10°	4592	4568	4610
15°	4543	4546	4608
20°	4476	4514	4606
25°	4391	4470	4601
30°	4296	4423	4592
35°	4181	4385	4589
40°	4070	4343	4595
45°	3946	4296	4620
50°	3831	4276	4652
55°	3685	4261	4693
60°	3553	4268	4758
65°	3372	4281	4832
70°	3164	4314	4829
75°	2868	4353	4365
80°	2352	3760	3107
85°	1744	1778	719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.9	3.3
10°-20°	462.6	9.3
20°-30°	696.9	14.0
30°-40°	836.3	16.8
40°-50°	871.6	17.5
50°-60°	806.9	16.2
60°-70°	652.0	13.1
70°-80°	397.5	8.0
80°-90°	82.1	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°	1321.5	26.6
0°-40°	2157.7	43.4
0°-60°	3836.3	77.2
0°-90°	4967.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4967.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1712	1712	1712	1712	1712	
5°	1710	1706	1696	1708	1706	162
15°	1631	1632	1632	1654	1654	460
25°	1479	1488	1505	1543	1550	682
35°	1273	1293	1335	1384	1397	797
45°	1037	1068	1129	1192	1214	801
55°	785	826	908	979	1000	704
65°	530	582	672	740	759	524
75°	276	337	419	425	420	290
85°	56	84	58	32	23	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1711.5	1711.5	1711.5	1711.5	1711.5
2.5°	1718.1	1712.6	1700.4	1712.6	1710.3
5°	1710.3	1705.9	1695.9	1708.1	1705.9
7.5°	1699.3	1694.8	1686.0	1700.4	1698.2
10°	1680.4	1678.2	1671.6	1688.2	1687.1
12.5°	1658.3	1657.2	1653.9	1672.7	1671.6
15°	1630.6	1631.7	1631.7	1653.9	1653.9
17.5°	1599.6	1601.8	1606.2	1630.6	1633.9
20°	1563.0	1567.5	1576.3	1604.0	1608.4
22.5°	1525.4	1528.7	1542.0	1575.2	1579.6
25°	1478.8	1487.7	1505.4	1543.1	1549.7
27.5°	1434.5	1442.3	1466.6	1505.4	1516.5
30°	1382.5	1394.6	1423.4	1465.5	1477.7
32.5°	1332.6	1345.9	1379.1	1427.9	1439.0
35°	1272.8	1292.7	1334.8	1383.6	1396.9
37.5°	1218.5	1237.3	1285.0	1338.1	1353.7
40°	1158.7	1182.0	1236.2	1292.7	1308.2
42.5°	1103.3	1125.5	1184.2	1241.8	1262.8
45°	1036.8	1067.9	1128.8	1191.9	1214.1
47.5°	975.9	1006.9	1076.7	1144.3	1164.2
50°	915.0	948.2	1021.3	1091.1	1111.1
52.5°	851.9	887.3	965.9	1035.7	1059.0
55°	785.4	826.4	908.3	979.2	1000.3
57.5°	722.2	764.3	851.9	923.9	944.9
60°	660.2	703.4	793.1	861.8	884.0
62.5°	591.5	642.5	735.5	803.1	819.7
65°	529.5	581.6	672.4	740.0	758.8
67.5°	464.1	520.6	611.5	673.5	691.2
70°	402.1	460.8	548.3	605.9	613.7
72.5°	335.6	395.5	484.1	520.6	520.6
75°	275.8	336.8	418.7	425.4	419.8
77.5°	210.5	278.0	331.2	317.9	304.6
80°	151.8	218.2	242.6	218.2	200.5
82.5°	101.9	158.4	146.2	116.3	103.0
85°	56.5	84.2	57.6	32.1	23.3
87.5°	21.0	18.8	5.5	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)