

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: P271962

Luminaire Tested: **14CZ2-60HE-S-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: P271962
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-S-UNV-L935-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

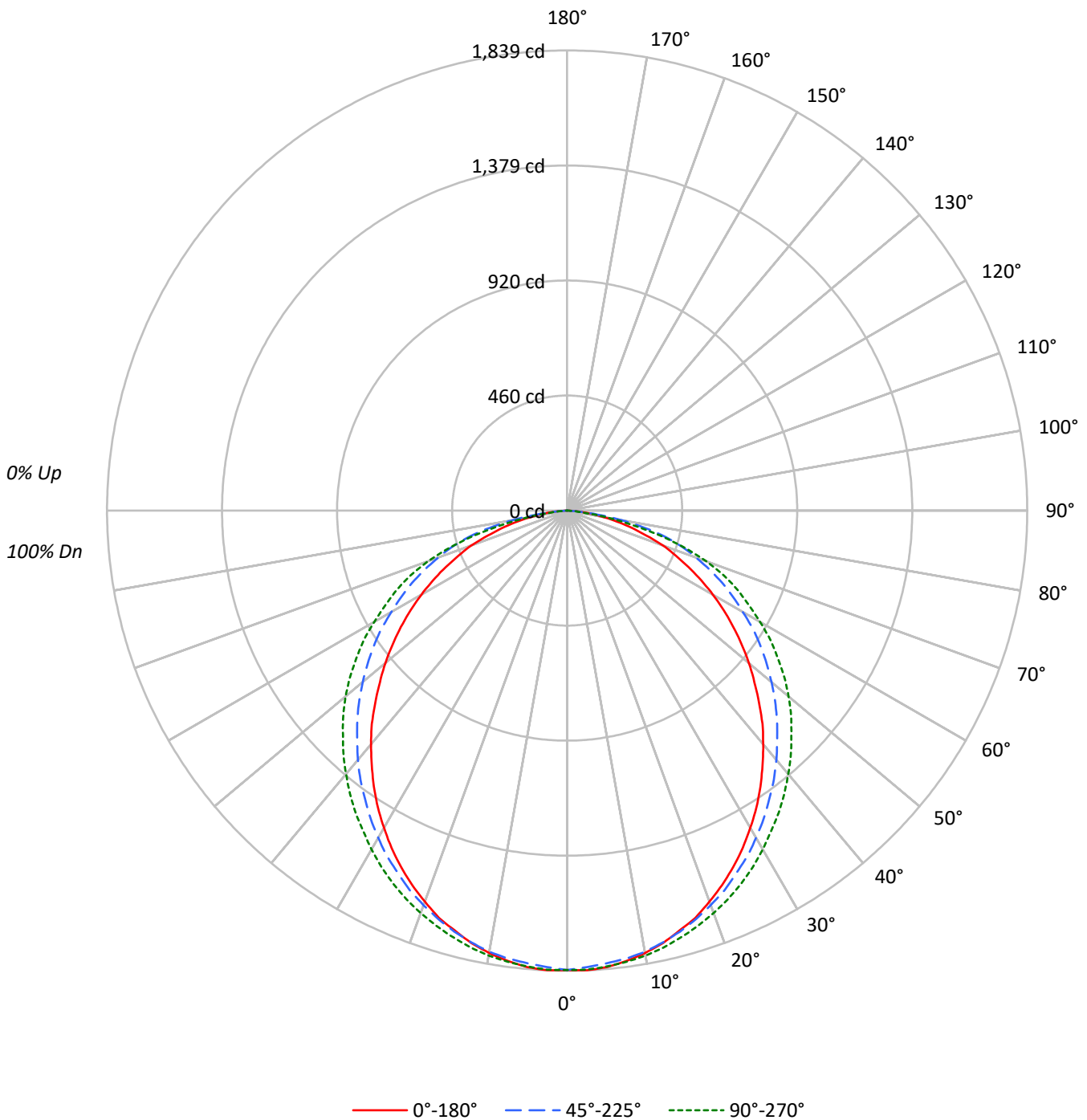
Lumens per Lamp: N/A
Luminaire Lumens: 5144.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4941	4941	4941
5°	4947	4905	4940
10°	4906	4892	4934
15°	4839	4853	4917
20°	4762	4806	4901
25°	4665	4748	4884
30°	4549	4692	4858
35°	4424	4625	4843
40°	4282	4569	4829
45°	4125	4513	4824
50°	3972	4463	4837
55°	3805	4427	4822
60°	3624	4365	4790
65°	3410	4352	4791
70°	3211	4314	4655
75°	2784	4216	3978
80°	2253	3398	2648
85°	1497	1183	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.4	3.4
10°-20°	493.4	9.6
20°-30°	740.2	14.4
30°-40°	882.9	17.2
40°-50°	912.8	17.7
50°-60°	833.4	16.2
60°-70°	655.8	12.7
70°-80°	381.8	7.4
80°-90°	70.3	1.4
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°	1407.0	27.4
0°-40°	2289.9	44.5
0°-60°	4036.1	78.5
0°-90°	5144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5144.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1836	1836	1836	1836	1836	
5°	1831	1826	1816	1831	1829	174
15°	1737	1739	1742	1765	1765	490
25°	1571	1579	1599	1637	1645	723
35°	1347	1364	1408	1461	1474	842
45°	1084	1120	1186	1252	1268	837
55°	811	854	944	1012	1028	725
65°	536	592	684	737	752	532
75°	268	332	406	398	383	285
85°	48	69	38	31	26	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1836.3	1836.3	1836.3	1836.3	1836.3
2.5°	1838.9	1833.8	1826.1	1838.9	1836.3
5°	1831.2	1826.1	1815.9	1831.2	1828.7
7.5°	1815.9	1810.8	1805.7	1821.0	1818.5
10°	1795.5	1793.0	1790.4	1808.3	1805.7
12.5°	1770.0	1770.0	1767.5	1787.9	1787.9
15°	1736.9	1739.4	1742.0	1764.9	1764.9
17.5°	1706.2	1703.7	1711.4	1736.9	1739.4
20°	1662.9	1668.0	1678.2	1708.8	1711.4
22.5°	1619.5	1624.6	1642.5	1673.1	1680.7
25°	1571.1	1578.7	1599.1	1637.4	1645.0
27.5°	1520.1	1530.3	1558.3	1599.1	1606.8
30°	1464.0	1479.3	1509.9	1555.8	1563.4
32.5°	1407.8	1423.2	1461.4	1507.3	1517.5
35°	1346.6	1364.5	1407.8	1461.4	1474.2
37.5°	1282.9	1305.8	1356.8	1410.4	1425.7
40°	1219.1	1244.6	1300.7	1356.8	1374.7
42.5°	1155.4	1180.9	1242.1	1305.8	1323.7
45°	1083.9	1119.6	1186.0	1252.3	1267.6
47.5°	1015.1	1053.3	1127.3	1193.6	1214.0
50°	948.8	987.0	1066.1	1134.9	1155.4
52.5°	879.9	920.7	1004.9	1076.3	1094.1
55°	811.0	854.4	943.7	1012.5	1027.8
57.5°	742.2	788.1	879.9	946.2	964.1
60°	673.3	721.8	811.0	877.4	890.1
62.5°	604.5	655.5	747.3	805.9	818.7
65°	535.6	591.7	683.5	737.1	752.4
67.5°	469.3	525.4	614.7	665.7	678.4
70°	408.1	459.1	548.3	586.6	591.7
72.5°	331.6	395.3	482.0	502.4	489.7
75°	267.8	331.6	405.5	397.9	382.6
77.5°	204.0	267.8	316.3	290.8	270.3
80°	145.4	209.1	219.3	181.1	170.9
82.5°	94.4	145.4	122.4	94.4	76.5
85°	48.5	68.9	38.3	30.6	25.5
87.5°	15.3	10.2	5.1	5.1	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)