

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: P272163

Luminaire Tested: **24CZ2-50-S-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: P272163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

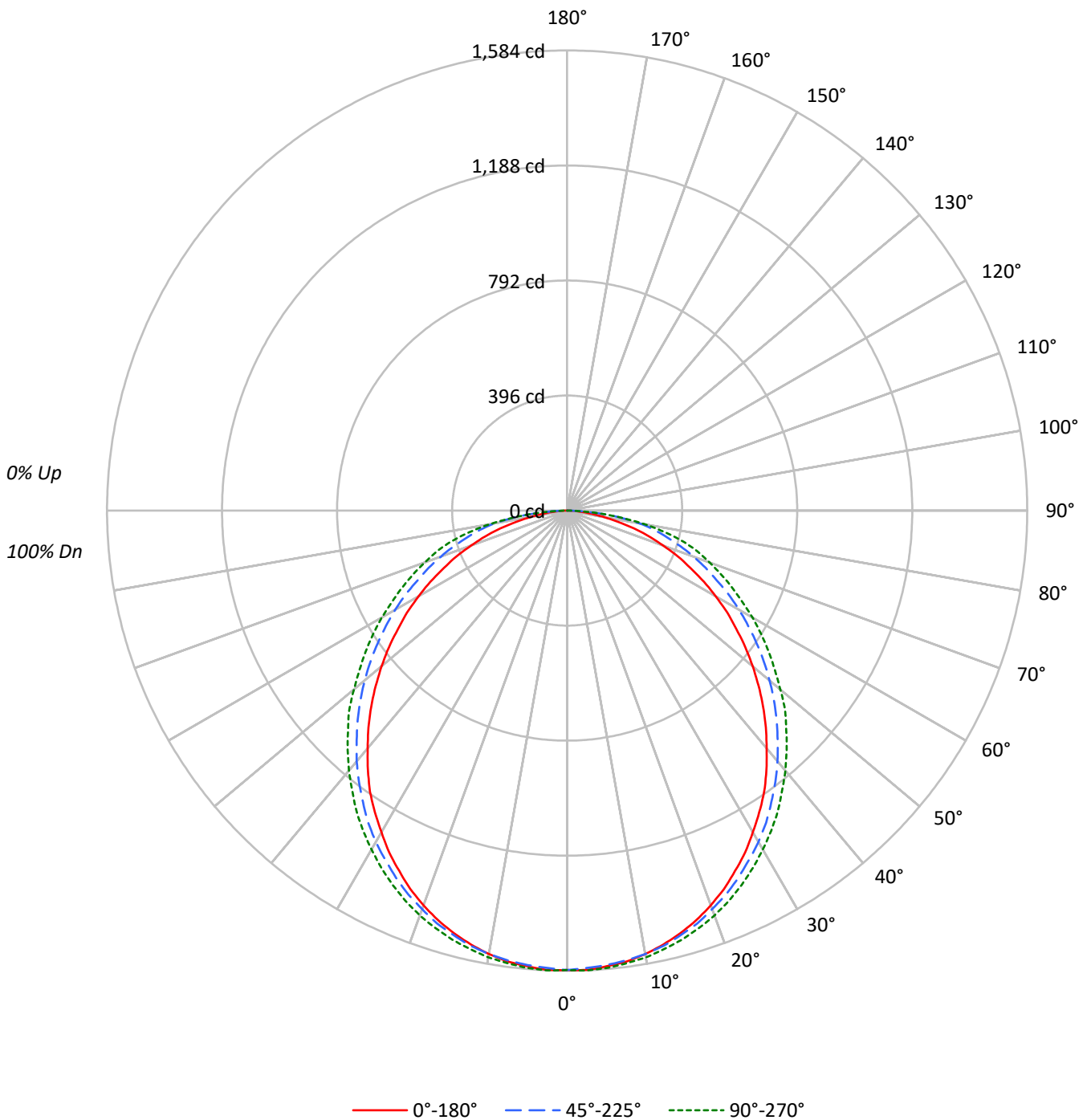
Lumens per Lamp: N/A
Luminaire Lumens: 4502.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	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	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2128	2128	2128
5°	2126	2121	2134
10°	2118	2118	2134
15°	2098	2107	2129
20°	2070	2090	2123
25°	2032	2070	2110
30°	1986	2046	2093
35°	1942	2013	2076
40°	1876	1979	2052
45°	1815	1940	2030
50°	1745	1904	2006
55°	1667	1868	1986
60°	1589	1839	1982
65°	1489	1807	1994
70°	1378	1817	2048
75°	1234	1851	2163
80°	997	1961	2116
85°	750	1721	1678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.7	3.3
10°-20°	427.8	9.5
20°-30°	643.1	14.3
30°-40°	766.1	17.0
40°-50°	784.0	17.4
50°-60°	705.9	15.7
60°-70°	554.3	12.3
70°-80°	359.8	8.0
80°-90°	111.3	2.5
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°	1220.7	27.1
0°-40°	1986.7	44.1
0°-60°	3476.6	77.2
0°-90°	4502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4502.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1582	1582	1582	1582	1582	
5°	1574	1577	1570	1579	1580	150
15°	1506	1510	1513	1526	1529	425
25°	1368	1380	1394	1417	1421	630
35°	1183	1197	1226	1256	1264	738
45°	954	977	1020	1058	1067	735
55°	711	742	796	838	847	637
65°	468	503	568	615	626	465
75°	237	283	356	405	416	251
85°	49	90	112	109	109	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1581.6	1581.6	1581.6	1581.6	1581.6
2.5°	1583.0	1583.0	1575.9	1583.0	1584.4
5°	1574.4	1577.3	1570.1	1578.7	1580.2
7.5°	1565.9	1565.9	1561.6	1570.1	1571.6
10°	1550.1	1551.6	1550.1	1560.1	1561.6
12.5°	1530.1	1533.0	1534.4	1544.4	1545.8
15°	1505.8	1510.1	1512.9	1525.8	1528.7
17.5°	1478.6	1482.9	1490.1	1504.4	1507.2
20°	1445.7	1451.5	1460.0	1478.6	1482.9
22.5°	1410.0	1415.7	1430.0	1447.2	1454.3
25°	1368.5	1380.0	1394.3	1417.1	1421.4
27.5°	1327.0	1337.1	1355.6	1380.0	1385.7
30°	1278.4	1294.2	1317.0	1341.3	1347.1
32.5°	1231.2	1247.0	1274.1	1299.9	1307.0
35°	1182.6	1196.9	1225.5	1255.5	1264.1
37.5°	1126.8	1145.4	1176.9	1206.9	1215.5
40°	1068.2	1091.1	1126.8	1158.3	1168.3
42.5°	1012.4	1036.8	1072.5	1106.8	1118.3
45°	953.8	976.7	1019.6	1058.2	1066.8
47.5°	893.8	919.5	965.3	1003.9	1018.2
50°	833.7	860.9	909.5	949.5	958.1
52.5°	773.6	802.2	853.7	896.6	900.9
55°	710.7	742.2	796.5	838.0	846.6
57.5°	653.5	680.7	739.3	782.2	792.2
60°	590.6	620.6	683.5	723.6	736.5
62.5°	530.5	562.0	627.8	667.8	679.3
65°	467.6	503.4	567.7	614.9	626.3
67.5°	413.3	447.6	516.2	562.0	573.4
70°	350.4	389.0	461.9	509.1	520.5
72.5°	296.0	336.1	409.0	454.7	471.9
75°	237.4	283.1	356.1	404.7	416.1
77.5°	180.2	233.1	307.5	344.6	344.6
80°	128.7	184.5	253.1	270.3	273.1
82.5°	84.4	138.7	187.3	185.9	185.9
85°	48.6	90.1	111.5	108.7	108.7
87.5°	18.6	37.2	40.0	40.0	38.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)