

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: P272179

Luminaire Tested: **24CZ2-60-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: P272179
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: 24CZ2-60-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

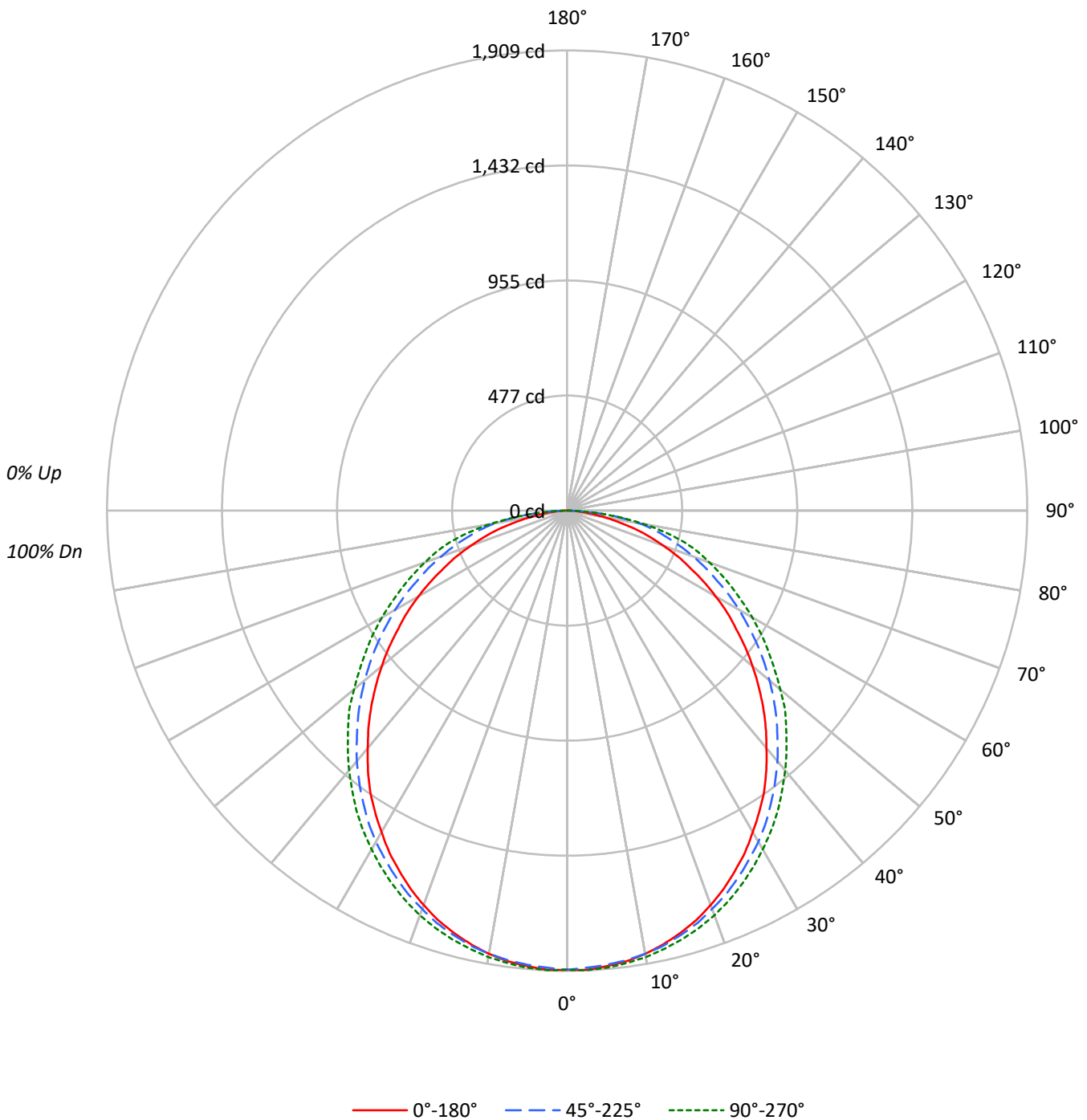
Lumens per Lamp: N/A
Luminaire Lumens: 5423.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.6
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



TEST NUMBER: P272179
CATALOG NUMBER: 24CZ2-60-S-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272179

CATALOG NUMBER: 24CZ2-60-S-UNV-L940-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	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°	2563	2563	2563
5°	2561	2555	2571
10°	2551	2551	2570
15°	2527	2539	2565
20°	2494	2518	2558
25°	2447	2493	2542
30°	2393	2465	2521
35°	2340	2425	2501
40°	2260	2384	2472
45°	2186	2337	2445
50°	2102	2293	2416
55°	2008	2251	2392
60°	1914	2216	2387
65°	1793	2177	2402
70°	1660	2189	2467
75°	1486	2230	2606
80°	1201	2362	2549
85°	905	2075	2021



TEST NUMBER: P272179

CATALOG NUMBER: 24CZ2-60-S-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.4	3.3
10°-20°	515.4	9.5
20°-30°	774.7	14.3
30°-40°	922.8	17.0
40°-50°	944.4	17.4
50°-60°	850.3	15.7
60°-70°	667.7	12.3
70°-80°	433.4	8.0
80°-90°	134.0	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°	1470.4	27.1
0°-40°	2393.2	44.1
0°-60°	4187.9	77.2
0°-90°	5423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5423.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1905	1905	1905	1905	1905	
5°	1896	1900	1891	1902	1903	180
15°	1814	1819	1822	1838	1841	511
25°	1648	1662	1680	1707	1712	759
35°	1424	1442	1476	1512	1523	889
45°	1149	1176	1228	1275	1285	886
55°	856	894	960	1009	1020	767
65°	563	606	684	741	754	561
75°	286	341	429	488	501	303
85°	59	108	134	131	131	71
90°	0	0	0	0	0	



TEST NUMBER: P272179

CATALOG NUMBER: 24CZ2-60-S-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1905.1	1905.1	1905.1	1905.1	1905.1
2.5°	1906.9	1906.9	1898.2	1906.9	1908.6
5°	1896.5	1900.0	1891.4	1901.7	1903.4
7.5°	1886.2	1886.2	1881.0	1891.4	1893.1
10°	1867.2	1869.0	1867.2	1879.3	1881.0
12.5°	1843.1	1846.6	1848.3	1860.3	1862.1
15°	1813.8	1819.0	1822.5	1838.0	1841.4
17.5°	1781.1	1786.3	1794.9	1812.1	1815.6
20°	1741.5	1748.4	1758.7	1781.1	1786.3
22.5°	1698.4	1705.3	1722.5	1743.2	1751.8
25°	1648.5	1662.3	1679.5	1707.0	1712.2
27.5°	1598.5	1610.6	1633.0	1662.3	1669.1
30°	1540.0	1558.9	1586.5	1615.7	1622.6
32.5°	1483.1	1502.1	1534.8	1565.8	1574.4
35°	1424.5	1441.8	1476.2	1512.4	1522.7
37.5°	1357.4	1379.8	1417.7	1453.8	1464.2
40°	1286.7	1314.3	1357.4	1395.3	1407.3
42.5°	1219.6	1248.8	1291.9	1333.3	1347.0
45°	1148.9	1176.5	1228.2	1274.7	1285.0
47.5°	1076.6	1107.6	1162.7	1209.2	1226.5
50°	1004.2	1037.0	1095.5	1143.8	1154.1
52.5°	931.9	966.3	1028.4	1080.0	1085.2
55°	856.1	894.0	959.5	1009.4	1019.7
57.5°	787.2	819.9	890.6	942.2	954.3
60°	711.4	747.6	823.4	871.6	887.1
62.5°	639.1	677.0	756.2	804.4	818.2
65°	563.3	606.3	683.9	740.7	754.5
67.5°	497.8	539.2	621.8	677.0	690.7
70°	422.0	468.5	556.4	613.2	627.0
72.5°	356.6	404.8	492.6	547.8	568.4
75°	285.9	341.1	428.9	487.5	501.3
77.5°	217.0	280.8	370.3	415.1	415.1
80°	155.0	222.2	304.9	325.6	329.0
82.5°	101.6	167.1	225.7	223.9	223.9
85°	58.6	108.5	134.4	130.9	130.9
87.5°	22.4	44.8	48.2	48.2	46.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)