

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: P184171

Luminaire Tested: **24FR-50-HP-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184171
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27148)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-50-HP-UNV-L840-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

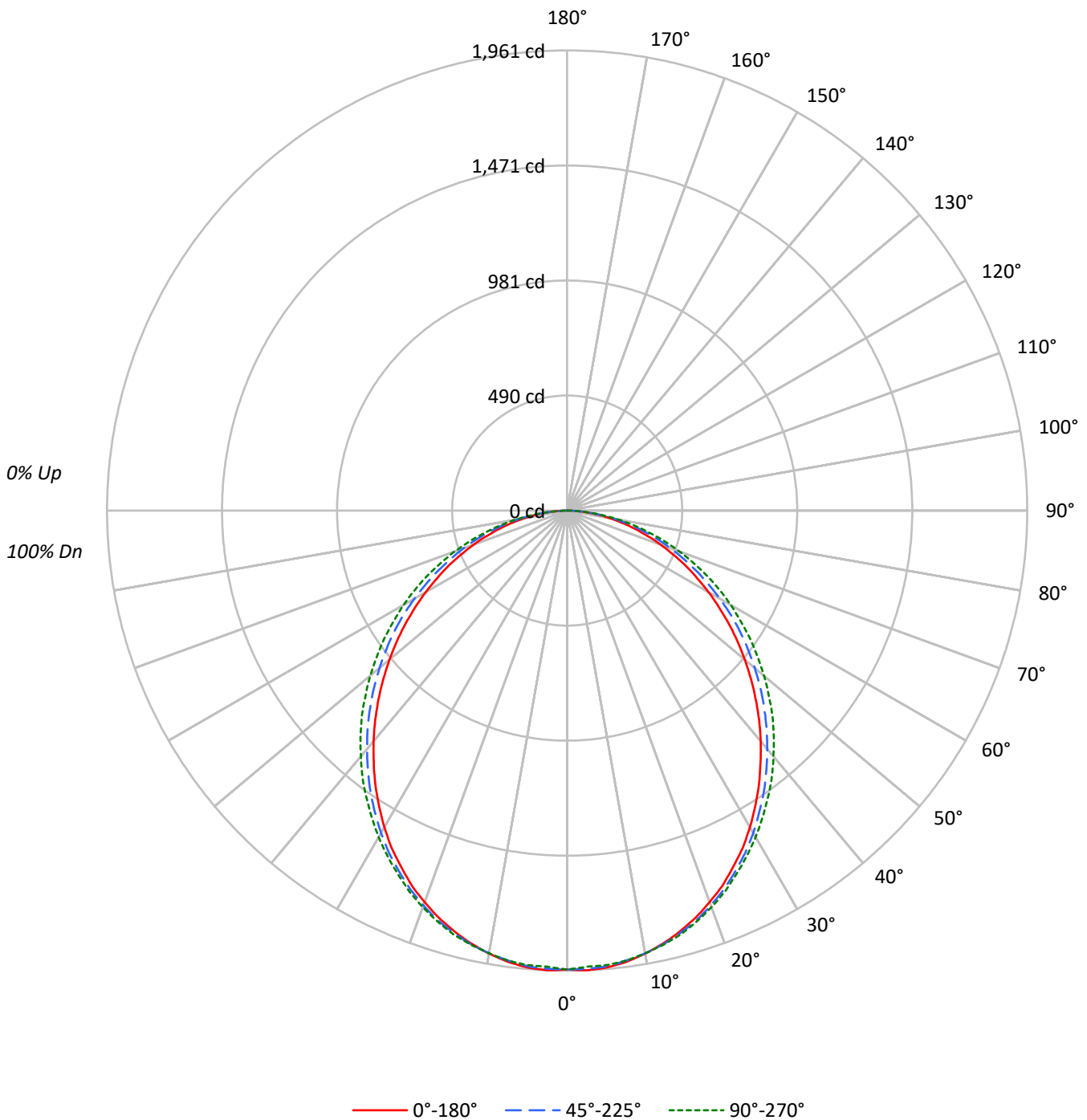
Lumens per Lamp: N/A
Luminaire Lumens: 5171.6 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.2
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: P184171
CATALOG NUMBER: 24FR-50-HP-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P184171

CATALOG NUMBER: 24FR-50-HP-UNV-L840-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	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2632	2632	2632
5°	2640	2633	2626
10°	2619	2617	2617
15°	2586	2595	2605
20°	2542	2564	2576
25°	2486	2518	2536
30°	2421	2465	2497
35°	2340	2401	2451
40°	2254	2331	2402
45°	2163	2259	2355
50°	2068	2185	2294
55°	1974	2112	2235
60°	1874	2024	2169
65°	1777	1933	2094
70°	1665	1844	2003
75°	1543	1744	1884
80°	1411	1620	1725
85°	1275	1380	1380



TEST NUMBER: P184171

CATALOG NUMBER: 24FR-50-HP-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.7	3.6
10°-20°	524.7	10.1
20°-30°	778.9	15.1
30°-40°	911.5	17.6
40°-50°	914.9	17.7
50°-60°	801.3	15.5
60°-70°	601.5	11.6
70°-80°	353.4	6.8
80°-90°	100.8	1.9
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°	1488.2	28.8
0°-40°	2399.7	46.4
0°-60°	4115.9	79.6
0°-90°	5171.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5171.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1956	1956	1956	1956	1956	
5°	1954	1941	1949	1946	1944	185
15°	1856	1850	1863	1868	1870	523
25°	1674	1674	1696	1701	1708	771
35°	1425	1430	1462	1480	1492	890
45°	1136	1150	1187	1219	1238	877
55°	841	857	900	932	953	752
65°	558	573	607	639	658	552
75°	297	314	336	352	362	315
85°	83	88	89	89	89	93
90°	0	0	0	0	0	



TEST NUMBER: P184171

CATALOG NUMBER: 24FR-50-HP-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1955.9	1955.9	1955.9	1955.9	1955.9
2.5°	1961.0	1949.2	1954.3	1952.6	1945.8
5°	1954.3	1940.8	1949.2	1945.8	1944.1
7.5°	1939.1	1925.6	1934.0	1934.0	1934.0
10°	1917.2	1907.0	1915.5	1915.5	1915.5
12.5°	1890.2	1881.7	1893.5	1895.2	1895.2
15°	1856.5	1849.7	1863.2	1868.3	1869.9
17.5°	1819.4	1814.3	1831.2	1836.2	1836.2
20°	1775.5	1772.1	1790.7	1795.8	1799.1
22.5°	1730.0	1724.9	1746.9	1750.2	1757.0
25°	1674.3	1674.3	1696.3	1701.3	1708.1
27.5°	1620.4	1618.7	1644.0	1652.4	1659.2
30°	1558.0	1558.0	1586.7	1598.5	1606.9
32.5°	1492.2	1497.3	1524.3	1539.5	1549.6
35°	1424.8	1429.9	1461.9	1480.4	1492.2
37.5°	1354.0	1362.4	1394.4	1418.1	1433.2
40°	1283.2	1295.0	1327.0	1354.0	1367.5
42.5°	1210.7	1220.8	1257.9	1288.2	1303.4
45°	1136.5	1150.0	1187.1	1219.1	1237.6
47.5°	1062.3	1079.1	1116.2	1151.6	1165.1
50°	988.1	1003.3	1043.7	1079.1	1096.0
52.5°	913.9	929.1	971.2	1004.9	1021.8
55°	841.4	856.6	900.4	932.4	952.7
57.5°	767.2	784.1	826.2	859.9	875.1
60°	696.4	711.6	752.0	785.7	806.0
62.5°	625.6	642.4	677.8	713.2	731.8
65°	558.1	573.3	607.0	639.1	657.6
67.5°	489.0	507.5	536.2	568.2	581.7
70°	423.2	443.5	468.8	495.7	509.2
72.5°	359.2	377.7	401.3	423.2	435.0
75°	296.8	313.6	335.5	352.4	362.5
77.5°	237.7	256.3	271.5	286.6	291.7
80°	182.1	197.3	209.1	219.2	222.6
82.5°	131.5	141.6	146.7	155.1	156.8
85°	82.6	87.7	89.4	89.4	89.4
87.5°	35.4	37.1	33.7	27.0	25.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)