

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: P184169

Luminaire Tested: **24FR-50-HP-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184169
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-L830-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 3000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

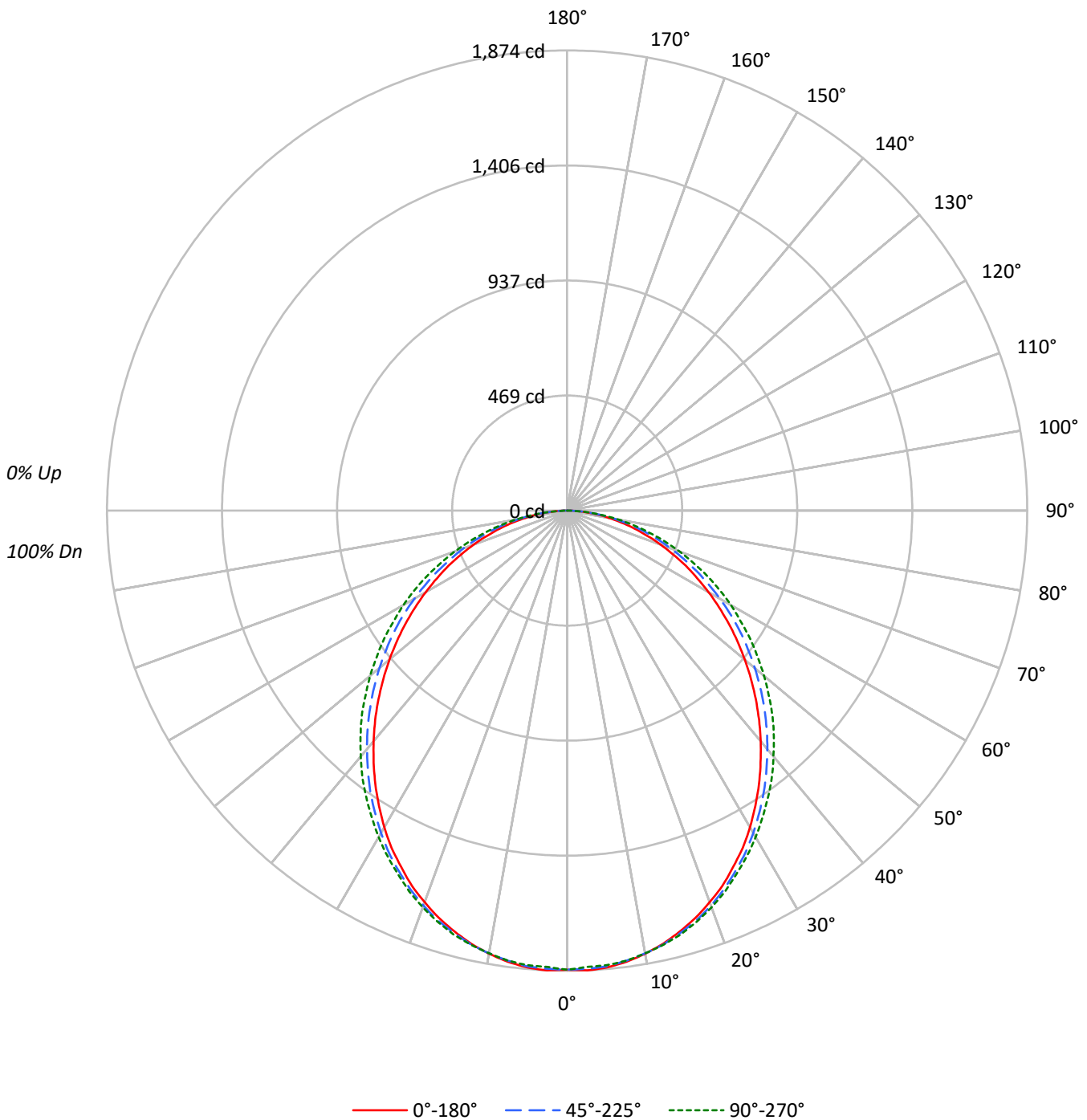
Lumens per Lamp: N/A
Luminaire Lumens: 4943.2 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.22 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



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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	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					100			
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84					84			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70					70			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59					59			
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51					51			
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44					44			
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39					39			
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28					28			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2516	2516	2516
5°	2523	2516	2510
10°	2504	2501	2501
15°	2472	2481	2490
20°	2430	2451	2462
25°	2376	2407	2424
30°	2314	2356	2386
35°	2237	2295	2343
40°	2154	2228	2296
45°	2067	2159	2251
50°	1977	2088	2193
55°	1886	2019	2136
60°	1791	1934	2073
65°	1699	1847	2001
70°	1591	1762	1915
75°	1475	1667	1801
80°	1349	1548	1648
85°	1220	1318	1318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.6	3.6
10°-20°	501.5	10.1
20°-30°	744.5	15.1
30°-40°	871.2	17.6
40°-50°	874.5	17.7
50°-60°	765.9	15.5
60°-70°	574.9	11.6
70°-80°	337.8	6.8
80°-90°	96.3	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°	1422.5	28.8
0°-40°	2293.7	46.4
0°-60°	3934.1	79.6
0°-90°	4943.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4943.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1870	1870	1870	1870	1870	
5°	1868	1855	1863	1860	1858	177
15°	1774	1768	1781	1786	1787	500
25°	1600	1600	1621	1626	1633	737
35°	1362	1367	1397	1415	1426	851
45°	1086	1099	1135	1165	1183	838
55°	804	819	861	891	911	719
65°	534	548	580	611	629	528
75°	284	300	321	337	346	302
85°	79	84	85	85	85	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1869.6	1869.6	1869.6	1869.6	1869.6
2.5°	1874.4	1863.1	1867.9	1866.3	1859.9
5°	1867.9	1855.0	1863.1	1859.9	1858.3
7.5°	1853.4	1840.5	1848.6	1848.6	1848.6
10°	1832.5	1822.8	1830.9	1830.9	1830.9
12.5°	1806.7	1798.6	1809.9	1811.5	1811.5
15°	1774.5	1768.0	1780.9	1785.7	1787.4
17.5°	1739.0	1734.2	1750.3	1755.1	1755.1
20°	1697.1	1693.9	1711.6	1716.4	1719.7
22.5°	1653.6	1648.8	1669.7	1672.9	1679.4
25°	1600.4	1600.4	1621.4	1626.2	1632.6
27.5°	1548.8	1547.2	1571.4	1579.5	1585.9
30°	1489.2	1489.2	1516.6	1527.9	1535.9
32.5°	1426.3	1431.2	1457.0	1471.5	1481.1
35°	1361.9	1366.7	1397.3	1415.1	1426.3
37.5°	1294.2	1302.2	1332.9	1355.4	1369.9
40°	1226.5	1237.8	1268.4	1294.2	1307.1
42.5°	1157.2	1166.9	1202.3	1231.3	1245.8
45°	1086.3	1099.2	1134.6	1165.2	1183.0
47.5°	1015.4	1031.5	1066.9	1100.8	1113.7
50°	944.4	959.0	997.6	1031.5	1047.6
52.5°	873.5	888.0	928.3	960.6	976.7
55°	804.2	818.7	860.6	891.3	910.6
57.5°	733.3	749.4	789.7	822.0	836.5
60°	665.6	680.1	718.8	751.0	770.4
62.5°	597.9	614.1	647.9	681.7	699.5
65°	533.5	548.0	580.2	610.8	628.6
67.5°	467.4	485.1	512.5	543.1	556.0
70°	404.5	423.9	448.0	473.8	486.7
72.5°	343.3	361.0	383.6	404.5	415.8
75°	283.7	299.8	320.7	336.8	346.5
77.5°	227.2	245.0	259.5	274.0	278.8
80°	174.1	188.6	199.8	209.5	212.7
82.5°	125.7	135.4	140.2	148.3	149.9
85°	79.0	83.8	85.4	85.4	85.4
87.5°	33.8	35.5	32.2	25.8	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)