

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: P184172

Luminaire Tested: **24FR-50-HP-UNV-L850-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184172
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-L850-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 5000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5644.6 lumens
Efficiency: N/A
Efficacy: 140.4 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

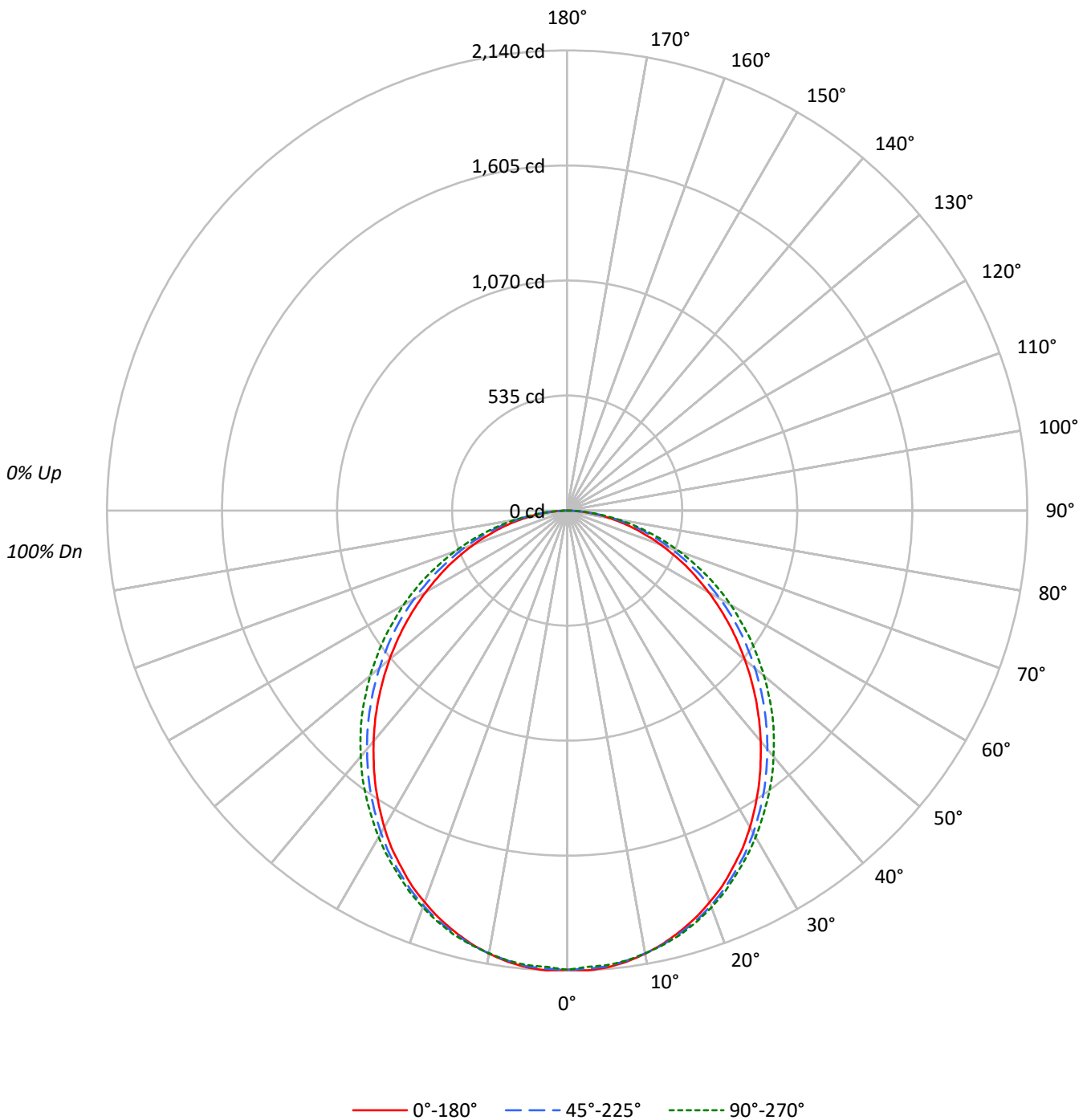
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2872	2872	2872
5°	2881	2873	2866
10°	2859	2856	2856
15°	2823	2833	2843
20°	2775	2799	2812
25°	2713	2749	2768
30°	2642	2691	2725
35°	2554	2621	2675
40°	2460	2544	2622
45°	2360	2465	2571
50°	2258	2385	2504
55°	2154	2305	2439
60°	2045	2209	2367
65°	1940	2109	2285
70°	1817	2013	2186
75°	1684	1904	2057
80°	1540	1768	1882
85°	1392	1505	1505



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.6	3.6
10°-20°	572.7	10.1
20°-30°	850.1	15.1
30°-40°	994.8	17.6
40°-50°	998.5	17.7
50°-60°	874.6	15.5
60°-70°	656.5	11.6
70°-80°	385.8	6.8
80°-90°	110.0	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°	1624.4	28.8
0°-40°	2619.2	46.4
0°-60°	4492.4	79.6
0°-90°	5644.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5644.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2135	2135	2135	2135	2135	
5°	2133	2118	2128	2124	2122	202
15°	2026	2019	2034	2039	2041	571
25°	1828	1828	1851	1857	1864	842
35°	1555	1561	1596	1616	1629	972
45°	1240	1255	1296	1331	1351	957
55°	918	935	983	1018	1040	821
65°	609	626	662	698	718	603
75°	324	342	366	385	396	344
85°	90	96	98	98	98	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2134.9	2134.9	2134.9	2134.9	2134.9
2.5°	2140.4	2127.5	2133.0	2131.2	2123.8
5°	2133.0	2118.3	2127.5	2123.8	2122.0
7.5°	2116.5	2101.7	2110.9	2110.9	2110.9
10°	2092.5	2081.5	2090.7	2090.7	2090.7
12.5°	2063.1	2053.9	2066.8	2068.6	2068.6
15°	2026.3	2018.9	2033.6	2039.2	2041.0
17.5°	1985.8	1980.3	1998.7	2004.2	2004.2
20°	1937.9	1934.3	1954.5	1960.0	1963.7
22.5°	1888.3	1882.7	1906.7	1910.3	1917.7
25°	1827.5	1827.5	1851.4	1857.0	1864.3
27.5°	1768.6	1766.8	1794.4	1803.6	1811.0
30°	1700.5	1700.5	1731.8	1744.7	1753.9
32.5°	1628.8	1634.3	1663.7	1680.3	1691.3
35°	1555.1	1560.7	1595.6	1615.9	1628.8
37.5°	1477.8	1487.0	1522.0	1547.8	1564.3
40°	1400.5	1413.4	1448.4	1477.8	1492.6
42.5°	1321.4	1332.5	1372.9	1406.1	1422.6
45°	1240.4	1255.2	1295.6	1330.6	1350.9
47.5°	1159.5	1177.9	1218.3	1257.0	1271.7
50°	1078.5	1095.0	1139.2	1177.9	1196.3
52.5°	997.5	1014.1	1060.1	1096.9	1115.3
55°	918.4	934.9	982.8	1017.7	1039.8
57.5°	837.4	855.8	901.8	938.6	955.2
60°	760.1	776.7	820.8	857.6	879.7
62.5°	682.8	701.2	739.8	778.5	798.7
65°	609.2	625.7	662.5	697.5	717.8
67.5°	533.7	554.0	585.2	620.2	634.9
70°	461.9	484.0	511.6	541.1	555.8
72.5°	392.0	412.3	438.0	461.9	474.8
75°	323.9	342.3	366.2	384.6	395.7
77.5°	259.5	279.7	296.3	312.9	318.4
80°	198.8	215.3	228.2	239.3	242.9
82.5°	143.6	154.6	160.1	169.3	171.2
85°	90.2	95.7	97.5	97.5	97.5
87.5°	38.6	40.5	36.8	29.4	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)