

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: P184168

Luminaire Tested: **24FR-50-HP-UNV-L827-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184168
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-L827-CD1-U
Description: METALUX 2X4 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 2700K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4835.5 lumens
Efficiency: N/A
Efficacy: 120.3 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

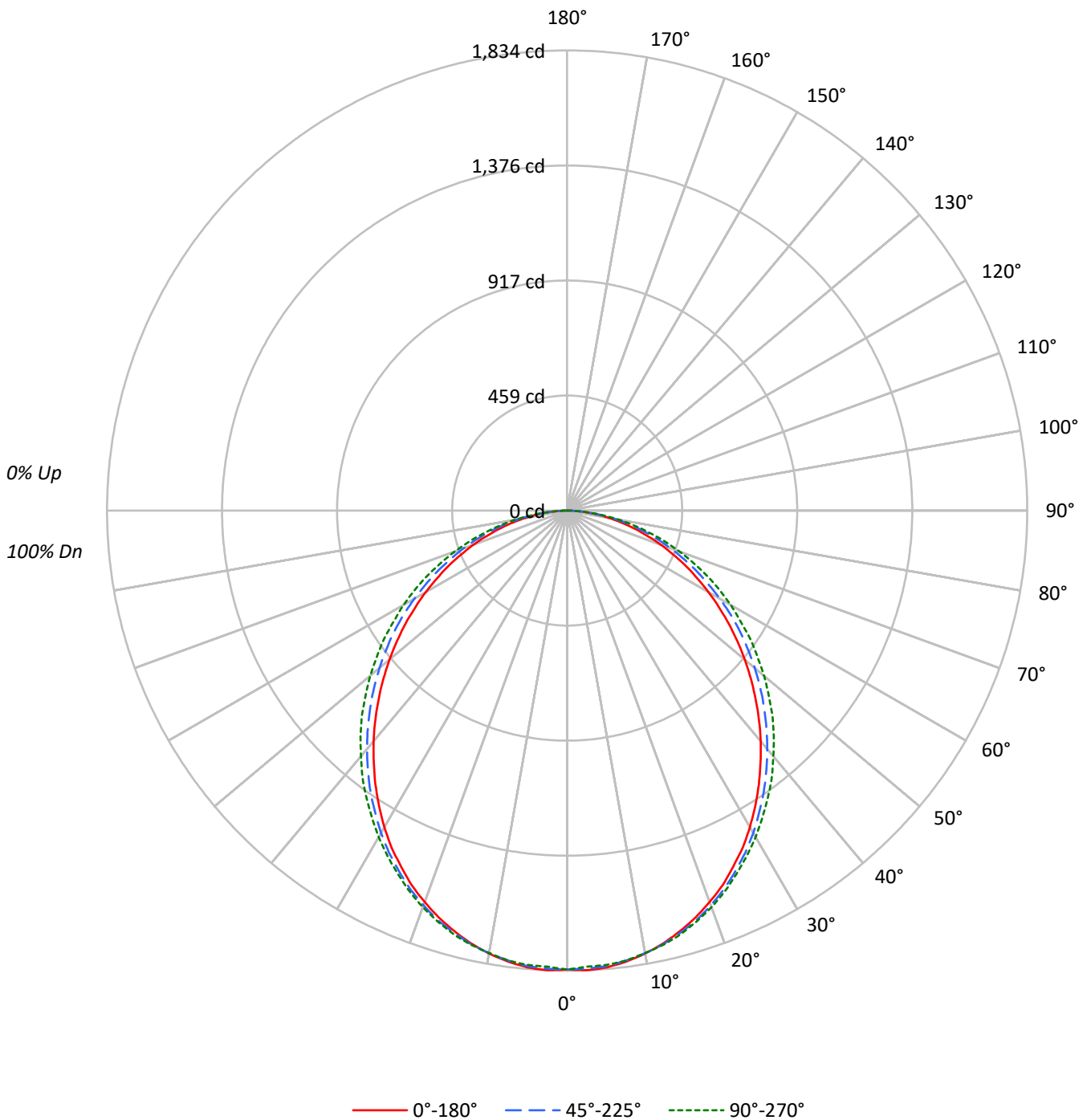
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2461	2461	2461
5°	2468	2462	2455
10°	2449	2447	2447
15°	2418	2427	2435
20°	2377	2397	2409
25°	2324	2355	2371
30°	2263	2305	2334
35°	2188	2245	2292
40°	2107	2179	2246
45°	2022	2112	2202
50°	1934	2043	2145
55°	1845	1975	2090
60°	1752	1892	2028
65°	1661	1807	1958
70°	1557	1724	1873
75°	1443	1631	1762
80°	1320	1515	1612
85°	1193	1291	1291



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.7	3.6
10°-20°	490.6	10.1
20°-30°	728.3	15.1
30°-40°	852.2	17.6
40°-50°	855.4	17.7
50°-60°	749.2	15.5
60°-70°	562.4	11.6
70°-80°	330.5	6.8
80°-90°	94.2	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°	1391.5	28.8
0°-40°	2243.8	46.4
0°-60°	3848.4	79.6
0°-90°	4835.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4835.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1829	1829	1829	1829	1829	
5°	1827	1815	1822	1819	1818	173
15°	1736	1730	1742	1747	1748	489
25°	1566	1566	1586	1591	1597	721
35°	1332	1337	1367	1384	1395	833
45°	1063	1075	1110	1140	1157	820
55°	787	801	842	872	891	703
65°	522	536	568	598	615	516
75°	278	293	314	330	339	295
85°	77	82	84	84	84	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1828.8	1828.8	1828.8	1828.8	1828.8
2.5°	1833.6	1822.5	1827.3	1825.7	1819.4
5°	1827.3	1814.6	1822.5	1819.4	1817.8
7.5°	1813.1	1800.5	1808.3	1808.3	1808.3
10°	1792.6	1783.1	1791.0	1791.0	1791.0
12.5°	1767.3	1759.5	1770.5	1772.1	1772.1
15°	1735.8	1729.5	1742.1	1746.8	1748.4
17.5°	1701.1	1696.4	1712.2	1716.9	1716.9
20°	1660.1	1657.0	1674.3	1679.1	1682.2
22.5°	1617.6	1612.8	1633.3	1636.5	1642.8
25°	1565.5	1565.5	1586.0	1590.8	1597.1
27.5°	1515.1	1513.5	1537.2	1545.0	1551.4
30°	1456.8	1456.8	1483.6	1494.6	1502.5
32.5°	1395.3	1400.0	1425.2	1439.4	1448.9
35°	1332.2	1336.9	1366.9	1384.2	1395.3
37.5°	1266.0	1273.9	1303.8	1325.9	1340.1
40°	1199.8	1210.8	1240.8	1266.0	1278.6
42.5°	1132.0	1141.4	1176.1	1204.5	1218.7
45°	1062.6	1075.2	1109.9	1139.9	1157.2
47.5°	993.2	1009.0	1043.7	1076.8	1089.4
50°	923.9	938.1	975.9	1009.0	1024.8
52.5°	854.5	868.7	908.1	939.6	955.4
55°	786.7	800.9	841.9	871.8	890.8
57.5°	717.3	733.1	772.5	804.1	818.2
60°	651.1	665.3	703.2	734.7	753.6
62.5°	584.9	600.7	633.8	666.9	684.2
65°	521.8	536.0	567.6	597.5	614.9
67.5°	457.2	474.6	501.4	531.3	543.9
70°	395.7	414.6	438.3	463.5	476.1
72.5°	335.8	353.2	375.2	395.7	406.8
75°	277.5	293.2	313.7	329.5	339.0
77.5°	222.3	239.6	253.8	268.0	272.7
80°	170.3	184.5	195.5	205.0	208.1
82.5°	123.0	132.4	137.2	145.0	146.6
85°	77.3	82.0	83.6	83.6	83.6
87.5°	33.1	34.7	31.5	25.2	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)