

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: P182395

Luminaire Tested: **24FR-69-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P182395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26767)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24FR-69-UNV-L830-CD1-U
Description: METALUX 2X4 FR TROFFER LED FIXTURE

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

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6701.0 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

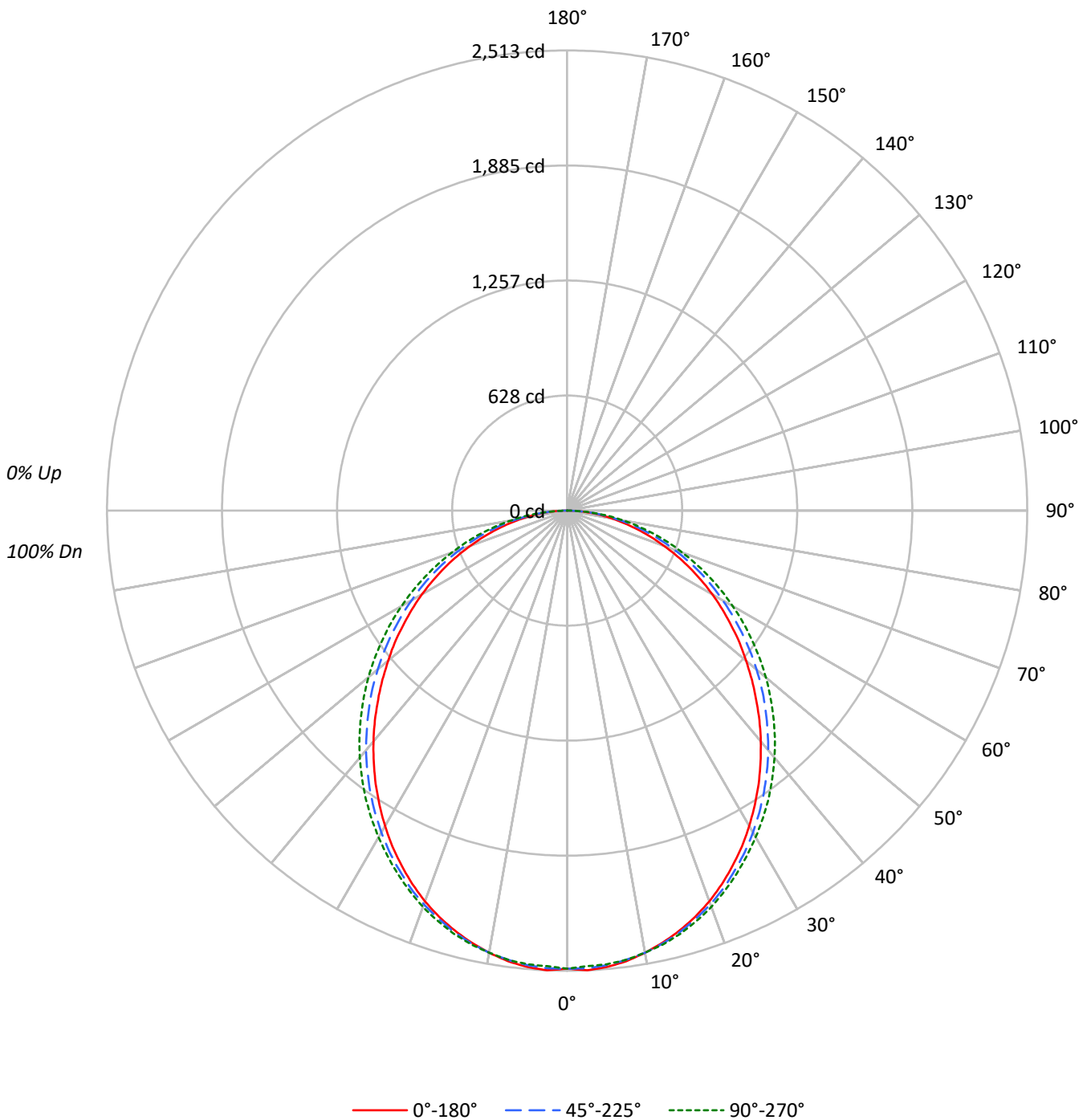
Input Watts (W): 68.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P182395

CATALOG NUMBER: 24FR-69-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P182395

CATALOG NUMBER: 24FR-69-UNV-L830-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	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
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°	3366	3366	3366
5°	3379	3365	3359
10°	3349	3349	3349
15°	3307	3318	3332
20°	3252	3277	3298
25°	3175	3218	3249
30°	3090	3153	3200
35°	2994	3079	3150
40°	2890	3001	3094
45°	2779	2914	3030
50°	2669	2827	2965
55°	2567	2734	2889
60°	2464	2641	2810
65°	2350	2550	2730
70°	2213	2447	2631
75°	2078	2338	2539
80°	1923	2198	2423
85°	1717	2041	2214



TEST NUMBER: P182395

CATALOG NUMBER: 24FR-69-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.3	3.5
10°-20°	670.6	10.0
20°-30°	995.7	14.9
30°-40°	1168.4	17.4
40°-50°	1178.8	17.6
50°-60°	1041.4	15.5
60°-70°	791.2	11.8
70°-80°	473.4	7.1
80°-90°	145.1	2.2
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°	1902.6	28.4
0°-40°	3071.1	45.8
0°-60°	5291.3	79.0
0°-90°	6701.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6701.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2502	2502	2502	2502	2502	
5°	2502	2482	2492	2489	2487	237
15°	2374	2363	2382	2389	2392	669
25°	2139	2136	2168	2179	2189	985
35°	1823	1829	1874	1900	1918	1139
45°	1460	1476	1531	1576	1592	1127
55°	1094	1112	1165	1215	1231	980
65°	738	756	801	841	858	731
75°	400	419	450	476	488	424
85°	111	121	132	140	143	125
90°	0	0	0	0	0	



TEST NUMBER: P182395

CATALOG NUMBER: 24FR-69-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2501.5	2501.5	2501.5	2501.5	2501.5
2.5°	2512.8	2493.4	2501.5	2498.2	2490.2
5°	2501.5	2482.1	2491.8	2488.6	2487.0
7.5°	2482.1	2464.4	2474.1	2474.1	2474.1
10°	2451.5	2437.0	2451.5	2451.5	2451.5
12.5°	2416.0	2403.2	2420.9	2422.5	2425.7
15°	2374.1	2362.9	2382.2	2388.6	2391.9
17.5°	2325.8	2316.1	2337.1	2346.7	2350.0
20°	2271.0	2261.3	2288.7	2295.2	2303.2
22.5°	2208.1	2203.3	2232.3	2238.8	2248.4
25°	2138.8	2135.6	2167.8	2179.1	2188.8
27.5°	2067.9	2066.3	2101.8	2116.3	2125.9
30°	1988.9	1990.5	2029.2	2047.0	2059.8
32.5°	1906.7	1911.6	1953.5	1974.4	1990.5
35°	1822.9	1829.4	1874.5	1900.3	1918.0
37.5°	1734.3	1743.9	1792.3	1822.9	1840.6
40°	1645.6	1656.9	1708.5	1740.7	1761.7
42.5°	1553.7	1568.3	1619.8	1661.7	1679.5
45°	1460.3	1476.4	1531.2	1576.3	1592.4
47.5°	1368.4	1389.3	1442.5	1487.7	1505.4
50°	1274.9	1294.3	1350.7	1397.4	1416.7
52.5°	1187.9	1205.6	1258.8	1307.1	1324.9
55°	1094.4	1112.1	1165.3	1215.3	1231.4
57.5°	1005.7	1021.9	1073.4	1123.4	1139.5
60°	915.5	931.6	981.6	1026.7	1044.4
62.5°	826.8	843.0	892.9	934.8	950.9
65°	738.2	755.9	801.1	841.3	857.5
67.5°	651.2	668.9	710.8	749.5	762.4
70°	562.5	581.8	622.1	657.6	668.9
72.5°	480.3	499.6	535.1	565.7	580.2
75°	399.7	419.1	449.7	475.5	488.4
77.5°	322.4	341.7	365.9	386.8	398.1
80°	248.2	265.9	283.7	304.6	312.7
82.5°	177.3	191.8	206.3	222.4	228.9
85°	111.2	120.9	132.2	140.2	143.4
87.5°	48.4	54.8	56.4	58.0	56.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)