

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: P184179

Luminaire Tested: **24FR-72-HP-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184179
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-72-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: 7055.4 lumens
Efficiency: N/A
Efficacy: 111.5 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

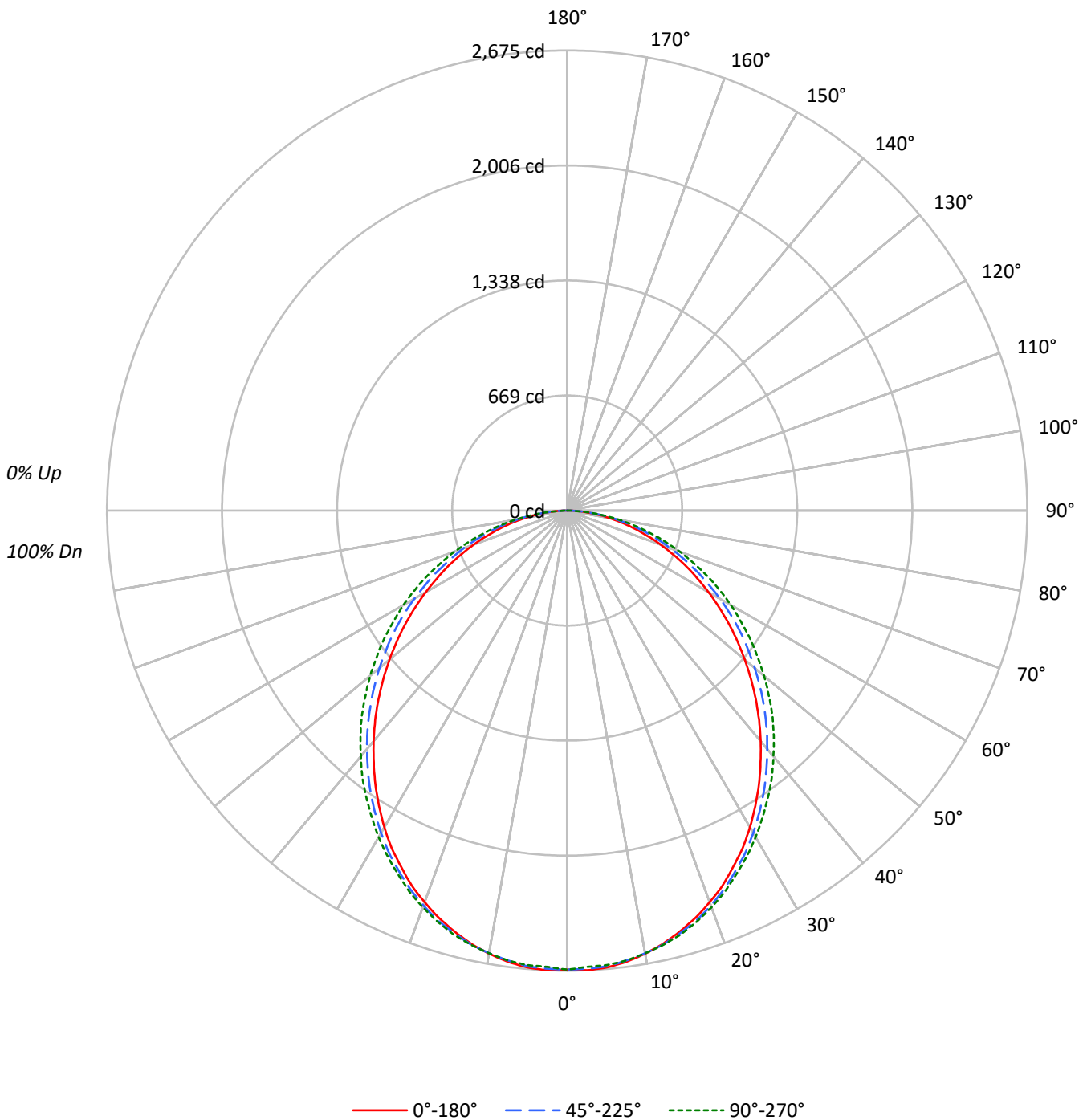
Input Watts (W): 63.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P184179

CATALOG NUMBER: 24FR-72-HP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P184179

CATALOG NUMBER: 24FR-72-HP-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	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°	3590	3590	3590
5°	3601	3592	3582
10°	3573	3570	3570
15°	3528	3541	3554
20°	3468	3498	3514
25°	3391	3436	3460
30°	3302	3363	3406
35°	3193	3276	3344
40°	3075	3180	3277
45°	2950	3082	3213
50°	2822	2981	3130
55°	2693	2882	3049
60°	2557	2761	2959
65°	2424	2636	2856
70°	2271	2516	2733
75°	2105	2380	2571
80°	1925	2210	2352
85°	1740	1882	1882



TEST NUMBER: P184179

CATALOG NUMBER: 24FR-72-HP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.0	3.6
10°-20°	715.8	10.1
20°-30°	1062.6	15.1
30°-40°	1243.5	17.6
40°-50°	1248.1	17.7
50°-60°	1093.2	15.5
60°-70°	820.6	11.6
70°-80°	482.2	6.8
80°-90°	137.5	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°	2030.4	28.8
0°-40°	3273.8	46.4
0°-60°	5615.2	79.6
0°-90°	7055.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7055.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2668	2668	2668	2668	2668	
5°	2666	2648	2659	2655	2652	253
15°	2533	2524	2542	2549	2551	714
25°	2284	2284	2314	2321	2330	1052
35°	1944	1951	1994	2020	2036	1215
45°	1550	1569	1620	1663	1688	1196
55°	1148	1169	1228	1272	1300	1026
65°	761	782	828	872	897	753
75°	405	428	458	481	495	430
85°	113	120	122	122	122	126
90°	0	0	0	0	0	



TEST NUMBER: P184179

CATALOG NUMBER: 24FR-72-HP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2668.4	2668.4	2668.4	2668.4	2668.4
2.5°	2675.3	2659.2	2666.1	2663.8	2654.6
5°	2666.1	2647.7	2659.2	2654.6	2652.3
7.5°	2645.4	2627.0	2638.5	2638.5	2638.5
10°	2615.5	2601.7	2613.2	2613.2	2613.2
12.5°	2578.7	2567.2	2583.3	2585.6	2585.6
15°	2532.7	2523.5	2541.9	2548.8	2551.1
17.5°	2482.1	2475.2	2498.2	2505.1	2505.1
20°	2422.3	2417.7	2443.0	2449.9	2454.5
22.5°	2360.2	2353.3	2383.2	2387.8	2397.0
25°	2284.3	2284.3	2314.2	2321.1	2330.3
27.5°	2210.7	2208.4	2242.9	2254.4	2263.6
30°	2125.5	2125.5	2164.6	2180.8	2192.3
32.5°	2035.8	2042.7	2079.5	2100.2	2114.0
35°	1943.8	1950.7	1994.4	2019.7	2035.8
37.5°	1847.2	1858.7	1902.4	1934.6	1955.3
40°	1750.6	1766.7	1810.4	1847.2	1865.6
42.5°	1651.7	1665.5	1716.1	1757.5	1778.2
45°	1550.5	1568.9	1619.5	1663.2	1688.5
47.5°	1449.2	1472.2	1522.8	1571.2	1589.6
50°	1348.0	1368.7	1423.9	1472.2	1495.2
52.5°	1246.8	1267.5	1325.0	1371.0	1394.0
55°	1147.9	1168.6	1228.4	1272.1	1299.7
57.5°	1046.7	1069.7	1127.2	1173.2	1193.9
60°	950.1	970.8	1026.0	1072.0	1099.6
62.5°	853.4	876.4	924.7	973.1	998.4
65°	761.4	782.1	828.1	871.8	897.1
67.5°	667.1	692.4	731.5	775.2	793.6
70°	577.4	605.0	639.5	676.3	694.7
72.5°	490.0	515.3	547.5	577.4	593.5
75°	404.9	427.9	457.8	480.8	494.6
77.5°	324.4	349.7	370.4	391.1	398.0
80°	248.4	269.1	285.2	299.0	303.6
82.5°	179.4	193.2	200.1	211.6	213.9
85°	112.7	119.6	121.9	121.9	121.9
87.5°	48.3	50.6	46.0	36.8	34.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)