

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: P182391

Luminaire Tested: **24FR-65-UNV-L835-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P182391  
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-65-UNV-L835-CD1-U  
Description: METALUX 2X4 FR TROFFER LED FIXTURE  
  
Light Source: EATON LED 3500K  
Ballast/Driver: OSRAM ELECTRONIC DRIVER

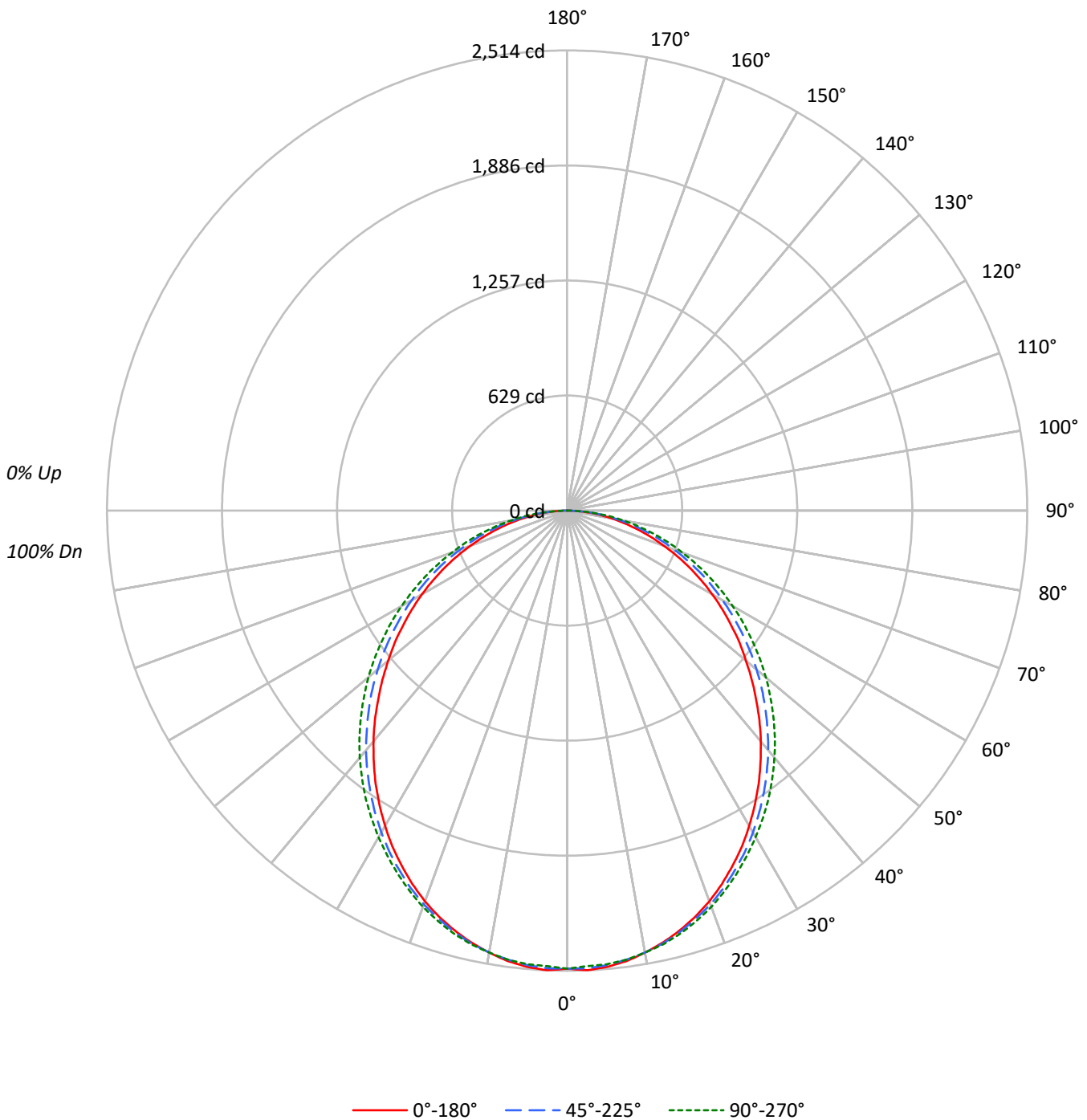
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6703.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 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): 65.2  
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	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°	3367	3367	3367
5°	3380	3366	3360
10°	3350	3350	3350
15°	3308	3319	3333
20°	3253	3278	3299
25°	3176	3219	3250
30°	3091	3154	3201
35°	2995	3080	3151
40°	2891	3002	3095
45°	2779	2914	3031
50°	2669	2828	2966
55°	2568	2734	2890
60°	2464	2642	2811
65°	2351	2551	2731
70°	2214	2448	2632
75°	2078	2338	2540
80°	1924	2199	2424
85°	1717	2041	2215



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.4	3.5
10°-20°	670.8	10.0
20°-30°	996.0	14.9
30°-40°	1168.8	17.4
40°-50°	1179.2	17.6
50°-60°	1041.7	15.5
60°-70°	791.4	11.8
70°-80°	473.6	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°	1903.2	28.4
0°-40°	3072.0	45.8
0°-60°	5292.9	79.0
0°-90°	6703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6703.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2502	2502	2502	2502	2502	
5°	2502	2483	2492	2489	2488	237
15°	2375	2364	2383	2389	2393	669
25°	2140	2136	2168	2180	2189	985
35°	1824	1830	1875	1901	1919	1140
45°	1461	1477	1532	1577	1593	1128
55°	1095	1112	1166	1216	1232	980
65°	738	756	801	842	858	731
75°	400	419	450	476	488	424
85°	111	121	132	140	144	125
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2502.2	2502.2	2502.2	2502.2	2502.2
2.5°	2513.5	2494.2	2502.2	2499.0	2490.9
5°	2502.2	2482.9	2492.5	2489.3	2487.7
7.5°	2482.9	2465.1	2474.8	2474.8	2474.8
10°	2452.2	2437.7	2452.2	2452.2	2452.2
12.5°	2416.8	2403.9	2421.6	2423.2	2426.4
15°	2374.8	2363.6	2382.9	2389.4	2392.6
17.5°	2326.5	2316.8	2337.8	2347.4	2350.7
20°	2271.7	2262.0	2289.4	2295.8	2303.9
22.5°	2208.8	2204.0	2233.0	2239.4	2249.1
25°	2139.5	2136.2	2168.5	2179.8	2189.4
27.5°	2068.5	2066.9	2102.4	2116.9	2126.6
30°	1989.5	1991.1	2029.8	2047.6	2060.5
32.5°	1907.3	1912.1	1954.1	1975.0	1991.1
35°	1823.5	1829.9	1875.1	1900.8	1918.6
37.5°	1734.8	1744.5	1792.8	1823.5	1841.2
40°	1646.1	1657.4	1709.0	1741.2	1762.2
42.5°	1554.2	1568.7	1620.3	1662.2	1680.0
45°	1460.7	1476.8	1531.6	1576.8	1592.9
47.5°	1368.8	1389.8	1443.0	1488.1	1505.8
50°	1275.3	1294.6	1351.1	1397.8	1417.2
52.5°	1188.2	1206.0	1259.2	1307.5	1325.3
55°	1094.7	1112.5	1165.7	1215.6	1231.8
57.5°	1006.0	1022.2	1073.8	1123.7	1139.9
60°	915.8	931.9	981.9	1027.0	1044.7
62.5°	827.1	843.2	893.2	935.1	951.2
65°	738.4	756.1	801.3	841.6	857.7
67.5°	651.4	669.1	711.0	749.7	762.6
70°	562.7	582.0	622.3	657.8	669.1
72.5°	480.5	499.8	535.3	565.9	580.4
75°	399.8	419.2	449.8	475.6	488.5
77.5°	322.5	341.8	366.0	386.9	398.2
80°	248.3	266.0	283.8	304.7	312.8
82.5°	177.3	191.9	206.4	222.5	228.9
85°	111.2	120.9	132.2	140.3	143.5
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)