

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: P473827

Luminaire Tested: **24CZ2-70HE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473827  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-70HE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

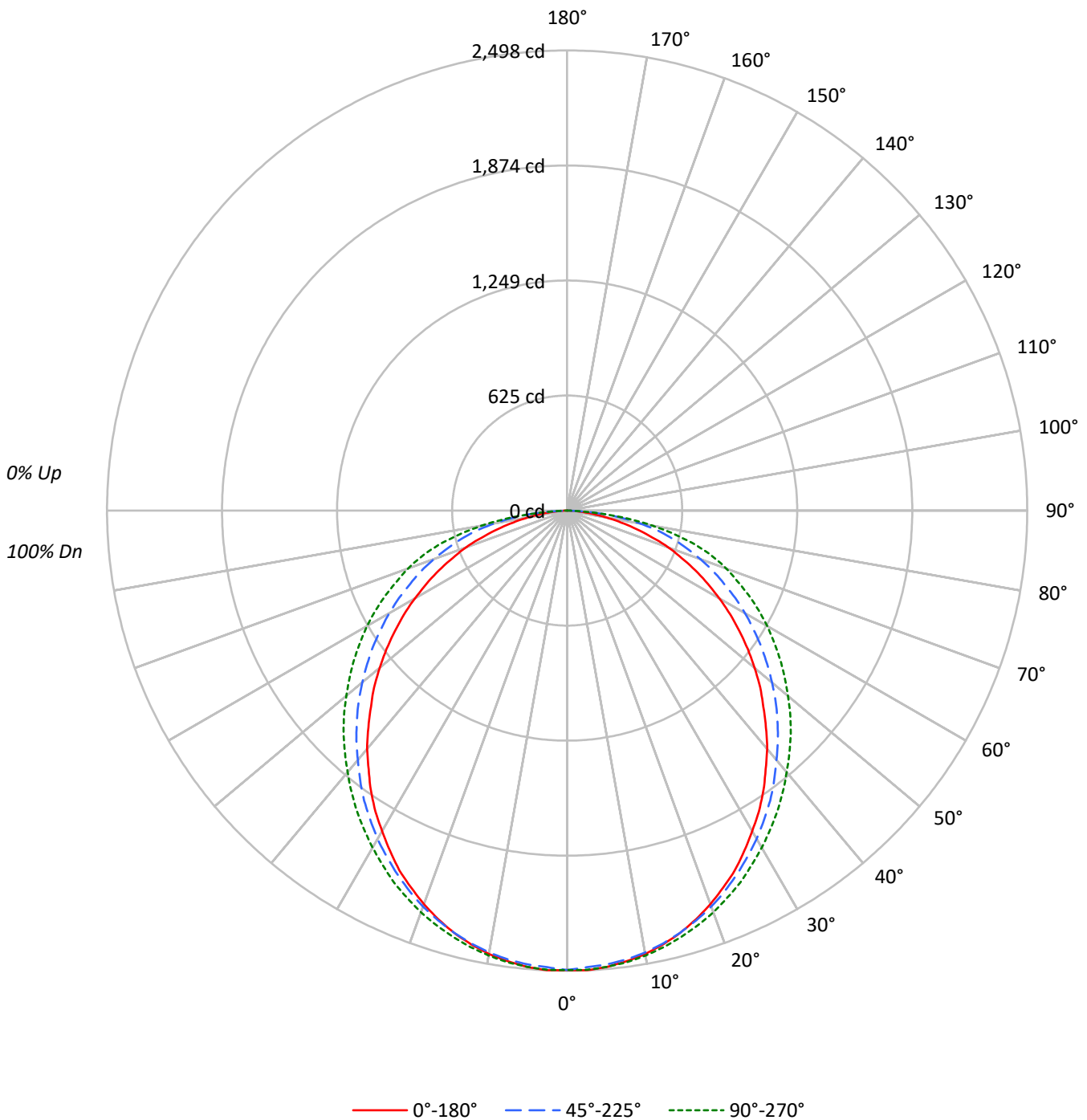
Lumens per Lamp: N/A  
Luminaire Lumens: 7217.9 lumens  
Efficiency: N/A  
Efficacy: 146.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 49.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3356	3356	3356
5°	3358	3340	3358
10°	3339	3328	3350
15°	3305	3304	3336
20°	3256	3276	3323
25°	3199	3236	3306
30°	3121	3198	3283
35°	3051	3156	3269
40°	2968	3105	3257
45°	2867	3073	3266
50°	2780	3039	3276
55°	2678	3017	3312
60°	2567	3003	3373
65°	2446	2992	3460
70°	2303	3023	3619
75°	2025	3085	3764
80°	1690	3108	3632
85°	1206	2665	2700



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	235.8	3.3
10°-20°	671.6	9.3
20°-30°	1007.5	14.0
30°-40°	1202.9	16.7
40°-50°	1246.0	17.3
50°-60°	1147.0	15.9
60°-70°	925.3	12.8
70°-80°	604.6	8.4
80°-90°	177.3	2.5
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°	1914.9	26.5
0°-40°	3117.8	43.2
0°-60°	5510.8	76.3
0°-90°	7217.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7217.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2494	2494	2494	2494	2494	
5°	2486	2484	2473	2487	2486	236
15°	2373	2373	2372	2395	2395	669
25°	2155	2160	2179	2219	2227	991
35°	1858	1874	1922	1974	1990	1160
45°	1507	1544	1615	1687	1716	1165
55°	1142	1191	1286	1381	1412	1022
65°	768	821	940	1047	1087	760
75°	390	463	594	696	724	416
85°	78	135	173	183	175	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2494.2	2494.2	2494.2	2494.2	2494.2
2.5°	2497.7	2494.2	2481.4	2496.6	2495.4
5°	2486.1	2483.7	2473.2	2487.2	2486.1
7.5°	2467.4	2466.2	2458.1	2473.2	2473.2
10°	2444.1	2441.8	2435.9	2453.4	2452.3
12.5°	2411.4	2410.3	2406.8	2427.8	2426.6
15°	2373.0	2373.0	2371.8	2395.1	2395.1
17.5°	2326.3	2327.5	2332.1	2359.0	2360.1
20°	2273.8	2278.5	2287.8	2318.2	2320.5
22.5°	2214.4	2223.7	2236.5	2270.3	2273.8
25°	2154.9	2159.6	2179.4	2219.0	2227.2
27.5°	2082.6	2094.3	2119.9	2160.7	2168.9
30°	2009.1	2025.5	2058.1	2100.1	2112.9
32.5°	1936.8	1950.8	1989.3	2037.1	2052.3
35°	1857.6	1873.9	1921.7	1974.2	1990.5
37.5°	1770.1	1795.8	1845.9	1906.5	1924.0
40°	1689.6	1713.0	1767.8	1835.4	1854.1
42.5°	1597.5	1626.7	1693.1	1761.9	1785.3
45°	1506.6	1543.9	1615.0	1687.3	1716.5
47.5°	1421.4	1451.8	1535.7	1617.3	1643.0
50°	1328.2	1363.1	1451.8	1538.1	1564.9
52.5°	1236.0	1278.0	1367.8	1458.8	1487.9
55°	1141.6	1190.6	1286.2	1380.6	1412.1
57.5°	1050.6	1099.6	1198.7	1299.0	1331.7
60°	953.8	1006.3	1115.9	1212.7	1253.5
62.5°	860.6	913.0	1028.5	1133.4	1171.9
65°	768.4	820.9	939.9	1047.1	1086.8
67.5°	672.8	730.0	857.1	960.8	999.3
70°	585.4	640.2	768.4	879.2	920.0
72.5°	485.1	550.4	681.0	790.6	829.1
75°	389.5	462.9	593.5	696.1	724.1
77.5°	300.8	374.3	504.9	581.9	599.4
80°	218.1	292.7	401.1	454.8	468.8
82.5°	141.1	218.1	290.4	326.5	331.2
85°	78.1	135.3	172.6	183.1	174.9
87.5°	28.0	51.3	50.1	40.8	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)