

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: P474127

Luminaire Tested: **24CZ2-70HE-S-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474127
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-S-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

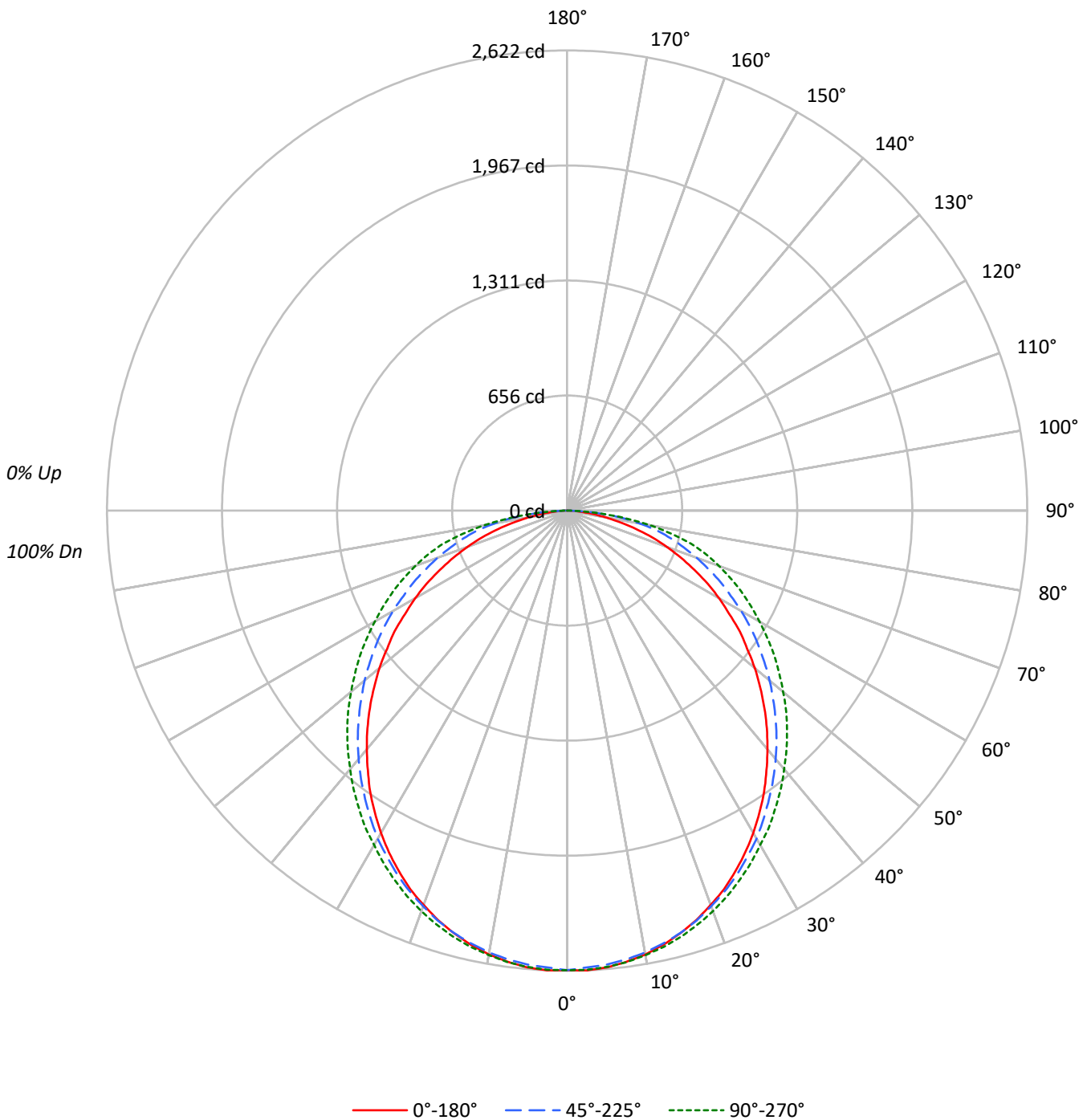
Lumens per Lamp: N/A
Luminaire Lumens: 7502.3 lumens
Efficiency: N/A
Efficacy: 152.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3523	3523	3523
5°	3529	3507	3525
10°	3509	3493	3514
15°	3472	3471	3500
20°	3425	3435	3478
25°	3368	3397	3450
30°	3297	3354	3418
35°	3214	3295	3398
40°	3119	3247	3379
45°	3025	3196	3372
50°	2923	3152	3364
55°	2818	3113	3382
60°	2689	3084	3406
65°	2546	3072	3488
70°	2375	3088	3612
75°	2114	3177	3805
80°	1728	3247	3715
85°	1218	2834	2891



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.6	3.3
10°-20°	705.1	9.4
20°-30°	1056.9	14.1
30°-40°	1258.8	16.8
40°-50°	1298.0	17.3
50°-60°	1184.4	15.8
60°-70°	947.1	12.6
70°-80°	618.6	8.2
80°-90°	185.7	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°	2009.6	26.8
0°-40°	3268.5	43.6
0°-60°	5750.8	76.7
0°-90°	7502.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7502.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2612	2608	2596	2612	2610	248
15°	2493	2494	2492	2513	2513	703
25°	2269	2272	2288	2322	2324	1044
35°	1957	1970	2006	2057	2069	1222
45°	1590	1618	1680	1750	1772	1226
55°	1202	1236	1327	1415	1442	1070
65°	800	854	965	1060	1096	793
75°	407	474	611	710	732	432
85°	79	142	184	187	187	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2618.6	2618.6	2618.6	2618.6	2618.6
2.5°	2622.3	2618.6	2605.1	2621.1	2618.6
5°	2612.5	2607.5	2596.5	2612.5	2610.0
7.5°	2592.8	2590.3	2579.2	2597.7	2595.2
10°	2568.1	2565.6	2557.0	2575.5	2571.8
12.5°	2533.6	2532.4	2526.2	2548.4	2545.9
15°	2492.9	2494.2	2491.7	2512.7	2512.7
17.5°	2446.1	2444.9	2449.8	2475.7	2473.2
20°	2391.9	2393.1	2399.3	2428.9	2428.9
22.5°	2335.2	2334.0	2347.5	2377.1	2379.6
25°	2268.7	2272.4	2288.4	2321.7	2324.1
27.5°	2197.2	2203.4	2223.1	2261.3	2265.0
30°	2122.0	2129.4	2159.0	2194.7	2199.7
32.5°	2039.5	2055.5	2082.6	2128.2	2140.5
35°	1956.9	1970.4	2006.2	2056.7	2069.0
37.5°	1865.7	1887.9	1928.6	1984.0	2000.0
40°	1775.7	1797.9	1848.5	1906.4	1923.6
42.5°	1684.6	1708.0	1765.9	1831.2	1849.7
45°	1589.7	1618.0	1679.6	1749.9	1772.0
47.5°	1492.3	1525.6	1592.1	1668.5	1693.2
50°	1396.2	1429.5	1505.9	1584.7	1606.9
52.5°	1292.7	1334.6	1415.9	1500.9	1523.1
55°	1201.5	1236.0	1327.2	1414.7	1441.8
57.5°	1094.3	1141.1	1238.5	1327.2	1353.1
60°	999.4	1042.5	1146.0	1236.0	1265.6
62.5°	903.3	947.6	1051.2	1153.4	1180.5
65°	799.8	854.0	964.9	1059.8	1095.5
67.5°	701.2	757.9	871.2	972.3	1009.3
70°	603.8	661.7	785.0	888.5	918.1
72.5°	507.7	568.1	696.2	797.3	831.8
75°	406.7	474.4	611.2	709.8	732.0
77.5°	311.8	386.9	525.0	591.5	607.5
80°	223.0	305.6	419.0	467.0	479.4
82.5°	146.6	226.7	313.0	338.9	335.2
85°	78.9	141.7	183.6	187.3	187.3
87.5°	30.8	56.7	57.9	44.4	41.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)