

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: P474038

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474038
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7133.9 lumens
Efficiency: N/A
Efficacy: 149.2 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

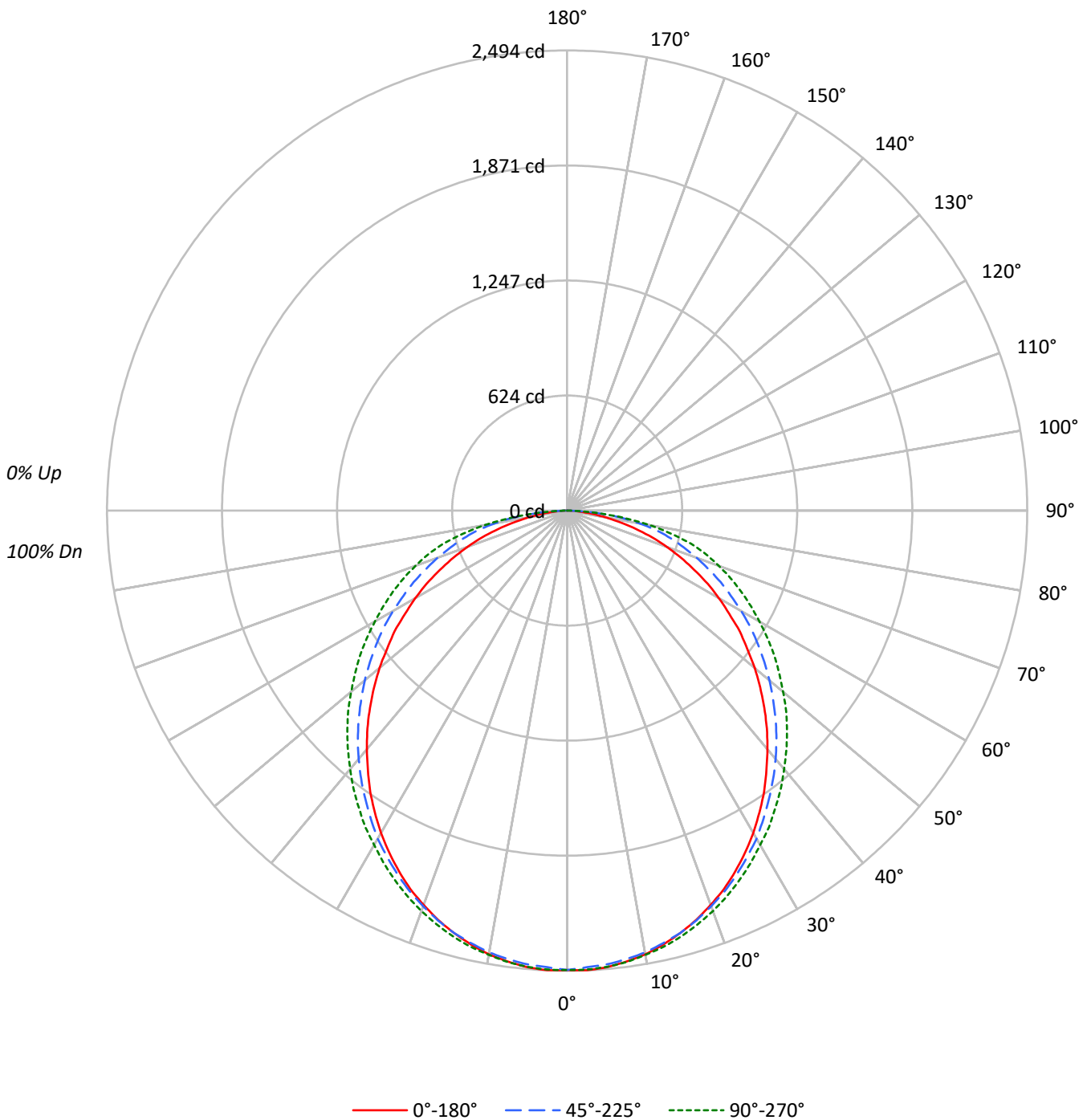
Input Watts (W): 47.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3350	3350	3350
5°	3355	3335	3352
10°	3336	3322	3341
15°	3302	3300	3328
20°	3257	3267	3307
25°	3203	3230	3281
30°	3135	3190	3250
35°	3056	3133	3232
40°	2966	3087	3213
45°	2876	3039	3206
50°	2779	2997	3198
55°	2680	2960	3216
60°	2557	2933	3238
65°	2421	2921	3316
70°	2259	2936	3434
75°	2010	3021	3618
80°	1643	3087	3532
85°	1158	2695	2749



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.4	3.3
10°-20°	670.5	9.4
20°-30°	1005.0	14.1
30°-40°	1197.0	16.8
40°-50°	1234.2	17.3
50°-60°	1126.2	15.8
60°-70°	900.6	12.6
70°-80°	588.3	8.2
80°-90°	176.6	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°	1910.9	26.8
0°-40°	3108.0	43.6
0°-60°	5468.5	76.7
0°-90°	7133.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7133.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2490	2490	2490	2490	2490	
5°	2484	2480	2469	2484	2482	236
15°	2370	2372	2369	2389	2389	668
25°	2157	2161	2176	2208	2210	993
35°	1861	1874	1908	1956	1967	1162
45°	1512	1539	1597	1664	1685	1166
55°	1142	1175	1262	1345	1371	1018
65°	760	812	918	1008	1042	754
75°	387	451	581	675	696	411
85°	75	135	175	178	178	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2490.1	2490.1	2490.1	2490.1	2490.1
2.5°	2493.6	2490.1	2477.2	2492.4	2490.1
5°	2484.2	2479.5	2469.0	2484.2	2481.9
7.5°	2465.5	2463.1	2452.6	2470.1	2467.8
10°	2442.0	2439.7	2431.5	2449.0	2445.5
12.5°	2409.2	2408.0	2402.2	2423.3	2420.9
15°	2370.5	2371.7	2369.4	2389.3	2389.3
17.5°	2326.0	2324.8	2329.5	2354.1	2351.8
20°	2274.5	2275.6	2281.5	2309.6	2309.6
22.5°	2220.5	2219.4	2232.3	2260.4	2262.7
25°	2157.3	2160.8	2176.0	2207.7	2210.0
27.5°	2089.3	2095.2	2113.9	2150.2	2153.8
30°	2017.8	2024.9	2053.0	2087.0	2091.7
32.5°	1939.3	1954.6	1980.3	2023.7	2035.4
35°	1860.8	1873.7	1907.7	1955.7	1967.4
37.5°	1774.1	1795.2	1833.9	1886.6	1901.8
40°	1688.6	1709.6	1757.7	1812.8	1829.2
42.5°	1601.8	1624.1	1679.2	1741.3	1758.9
45°	1511.6	1538.6	1597.2	1663.9	1685.0
47.5°	1419.0	1450.7	1514.0	1586.6	1610.0
50°	1327.6	1359.3	1431.9	1506.9	1528.0
52.5°	1229.2	1269.1	1346.4	1427.2	1448.3
55°	1142.5	1175.3	1262.0	1345.2	1371.0
57.5°	1040.6	1085.1	1177.7	1262.0	1286.6
60°	950.3	991.3	1089.8	1175.3	1203.4
62.5°	858.9	901.1	999.5	1096.8	1122.6
65°	760.5	812.1	917.5	1007.7	1041.7
67.5°	666.8	720.7	828.5	924.5	959.7
70°	574.2	629.3	746.4	844.9	873.0
72.5°	482.8	540.2	662.1	758.2	791.0
75°	386.7	451.1	581.2	675.0	696.0
77.5°	296.5	367.9	499.2	562.5	577.7
80°	212.1	290.6	398.4	444.1	455.8
82.5°	139.4	215.6	297.6	322.2	318.7
85°	75.0	134.8	174.6	178.1	178.1
87.5°	29.3	53.9	55.1	42.2	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)