

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: P474810

Luminaire Tested: **22CZ2-70VHE-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474810
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

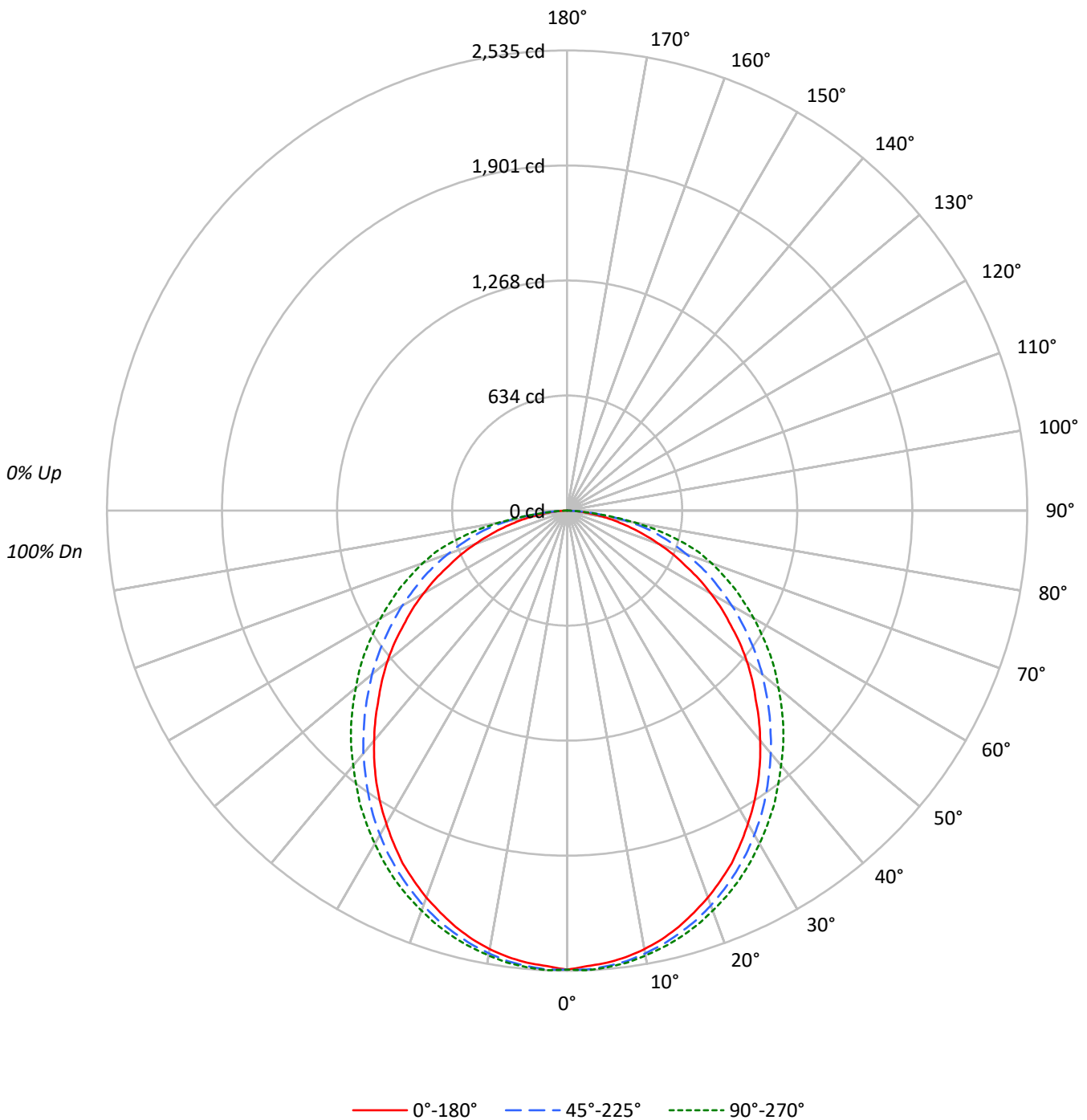
Lumens per Lamp: N/A
Luminaire Lumens: 6972.7 lumens
Efficiency: N/A
Efficacy: 141.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63		72	66	61		69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	58	53		62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46		57	51	46		56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	36		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6805	6805	6805
5°	6755	6807	6823
10°	6704	6769	6801
15°	6613	6708	6769
20°	6494	6629	6718
25°	6366	6528	6664
30°	6191	6410	6584
35°	6017	6274	6521
40°	5813	6134	6439
45°	5591	5995	6410
50°	5410	5873	6360
55°	5157	5745	6374
60°	4925	5647	6392
65°	4579	5573	6493
70°	4232	5496	6655
75°	3785	5470	6696
80°	3174	5184	5845
85°	2458	3548	3322



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.9	3.4
10°-20°	678.2	9.7
20°-30°	1011.2	14.5
30°-40°	1193.7	17.1
40°-50°	1216.6	17.4
50°-60°	1097.2	15.7
60°-70°	862.4	12.4
70°-80°	539.9	7.7
80°-90°	134.6	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°	1928.3	27.7
0°-40°	3122.0	44.8
0°-60°	5435.8	78.0
0°-90°	6972.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6972.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2529	2529	2529	2529	2529	
5°	2501	2507	2520	2526	2526	237
15°	2374	2384	2408	2426	2430	669
25°	2144	2160	2199	2232	2244	986
35°	1832	1855	1910	1963	1985	1145
45°	1469	1502	1575	1652	1684	1137
55°	1099	1133	1224	1319	1359	987
65°	719	763	875	973	1020	717
75°	364	418	526	620	644	387
85°	80	102	115	115	108	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2528.7	2528.7	2528.7	2528.7	2528.7
2.5°	2512.5	2518.4	2530.1	2534.6	2534.6
5°	2500.7	2506.6	2519.8	2525.7	2525.7
7.5°	2481.5	2487.4	2503.6	2511.0	2512.5
10°	2453.5	2460.9	2477.1	2488.9	2488.9
12.5°	2418.2	2425.5	2446.1	2460.9	2462.4
15°	2373.9	2384.3	2407.8	2425.5	2429.9
17.5°	2322.4	2338.6	2365.1	2387.2	2391.6
20°	2267.8	2284.1	2315.0	2340.1	2345.9
22.5°	2207.4	2222.2	2259.0	2289.9	2297.3
25°	2144.1	2160.3	2198.6	2232.5	2244.3
27.5°	2068.9	2088.1	2133.7	2172.1	2183.9
30°	1992.3	2015.9	2063.0	2105.8	2119.0
32.5°	1914.2	1936.3	1989.3	2035.0	2052.7
35°	1831.7	1855.2	1909.8	1962.8	1984.9
37.5°	1744.7	1768.3	1827.2	1887.7	1908.3
40°	1654.8	1682.8	1746.2	1811.0	1833.1
42.5°	1563.5	1592.9	1659.3	1731.5	1760.9
45°	1469.2	1501.6	1575.3	1651.9	1684.3
47.5°	1383.7	1410.2	1486.8	1570.8	1601.8
50°	1292.3	1317.4	1402.9	1486.8	1519.3
52.5°	1199.5	1223.1	1314.4	1402.9	1442.6
55°	1099.3	1133.2	1224.5	1318.9	1358.6
57.5°	1010.9	1041.8	1136.1	1231.9	1270.2
60°	915.1	947.5	1049.2	1146.4	1187.7
62.5°	819.3	854.7	957.8	1062.5	1100.8
65°	719.1	763.3	875.3	972.6	1019.7
67.5°	633.6	676.4	786.9	888.6	929.8
70°	537.9	588.0	698.5	801.6	845.8
72.5°	448.0	498.1	611.5	714.7	758.9
75°	364.0	418.5	526.1	620.4	644.0
77.5°	282.9	334.5	442.1	496.6	521.6
80°	204.8	254.9	334.5	371.3	377.2
82.5°	138.5	181.3	226.9	237.2	231.4
85°	79.6	101.7	114.9	114.9	107.6
87.5°	32.4	32.4	28.0	17.7	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)