

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: P475050

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475050  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-110VHE-RDP-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7383.6 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

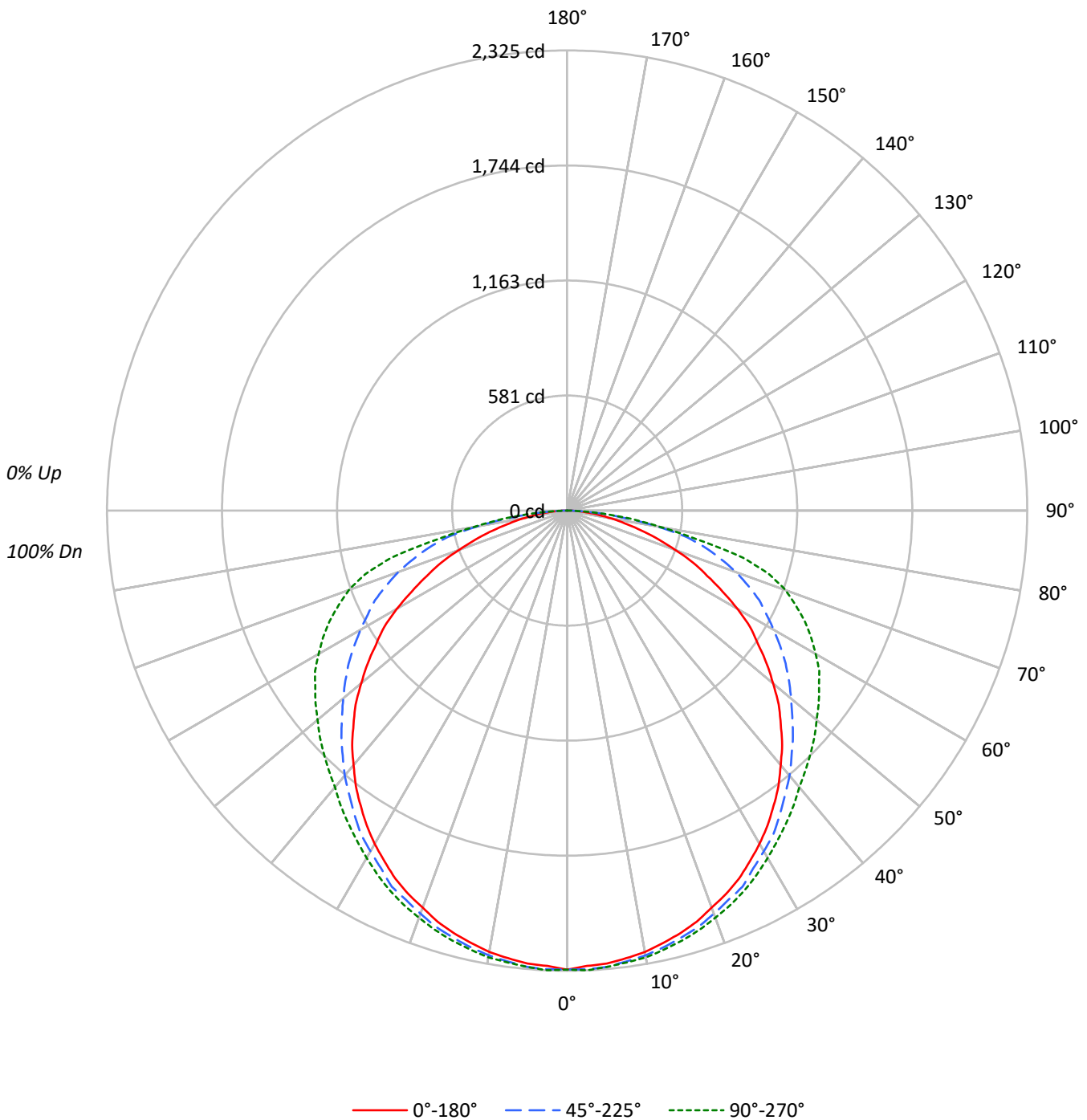
Input Watts (W): 84.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	6241	6241	6241
5°	6206	6250	6250
10°	6188	6234	6263
15°	6159	6219	6264
20°	6113	6206	6269
25°	6096	6226	6290
30°	6042	6177	6296
35°	5977	6156	6335
40°	5896	6143	6410
45°	5809	6139	6614
50°	5685	6184	6889
55°	5530	6320	7287
60°	5351	6489	7805
65°	4980	6815	8441
70°	4574	7139	9232
75°	4012	7508	9546
80°	3454	7152	7494
85°	3017	5199	5700



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.4	3.0
10°-20°	629.9	8.5
20°-30°	961.1	13.0
30°-40°	1173.4	15.9
40°-50°	1254.7	17.0
50°-60°	1211.0	16.4
60°-70°	1042.5	14.1
70°-80°	705.4	9.6
80°-90°	186.2	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°	1810.4	24.5
0°-40°	2983.8	40.4
0°-60°	5449.5	73.8
0°-90°	7383.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7383.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2319	2319	2319	2319	2319	
5°	2298	2303	2314	2314	2314	218
15°	2211	2216	2232	2243	2248	624
25°	2053	2064	2097	2108	2118	945
35°	1819	1836	1874	1912	1928	1139
45°	1526	1553	1613	1695	1738	1178
55°	1179	1216	1347	1483	1553	1056
65°	782	858	1070	1238	1326	778
75°	386	511	722	869	918	414
85°	98	136	168	174	185	110
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2319.2	2319.2	2319.2	2319.2	2319.2
2.5°	2303.0	2308.4	2319.2	2319.2	2324.6
5°	2297.6	2303.0	2313.8	2313.8	2313.8
7.5°	2281.4	2286.8	2297.6	2303.0	2303.0
10°	2264.7	2270.6	2281.4	2286.8	2292.2
12.5°	2237.7	2243.1	2259.3	2270.6	2270.6
15°	2210.7	2216.1	2232.3	2243.1	2248.5
17.5°	2177.8	2189.1	2205.3	2216.1	2221.5
20°	2134.6	2145.4	2167.0	2183.7	2189.1
22.5°	2096.8	2107.6	2129.2	2145.4	2156.2
25°	2053.1	2063.9	2096.8	2107.6	2118.4
27.5°	1998.6	2009.9	2036.9	2058.5	2074.7
30°	1944.6	1955.4	1987.8	2015.3	2026.1
32.5°	1884.7	1900.9	1939.2	1960.8	1977.0
35°	1819.4	1835.6	1873.9	1911.7	1928.4
37.5°	1754.6	1770.8	1808.6	1857.7	1879.3
40°	1678.5	1700.1	1748.7	1814.0	1824.8
42.5°	1607.8	1634.8	1678.5	1754.6	1781.6
45°	1526.3	1553.3	1613.2	1694.7	1737.9
47.5°	1450.2	1477.2	1542.5	1640.2	1694.7
50°	1357.9	1395.7	1477.2	1591.6	1645.6
52.5°	1271.0	1303.4	1412.5	1537.1	1602.4
55°	1178.8	1216.5	1347.1	1482.6	1553.3
57.5°	1097.3	1129.6	1276.4	1428.6	1510.1
60°	994.2	1037.3	1205.7	1368.7	1450.2
62.5°	885.1	950.5	1135.0	1303.4	1390.3
65°	782.1	858.2	1070.3	1238.1	1325.6
67.5°	689.8	771.3	988.8	1168.0	1249.5
70°	581.3	684.4	907.3	1081.1	1173.4
72.5°	483.6	597.5	815.0	988.8	1070.3
75°	385.9	510.6	722.1	869.0	918.1
77.5°	298.5	418.3	619.1	662.8	668.2
80°	222.9	331.4	461.5	466.9	483.6
82.5°	152.2	233.7	298.5	326.0	331.4
85°	97.7	136.0	168.4	173.8	184.6
87.5°	43.7	49.1	59.9	54.5	54.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)