

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: P475021

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475021
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-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7125.2 lumens
Efficiency: N/A
Efficacy: 84.7 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

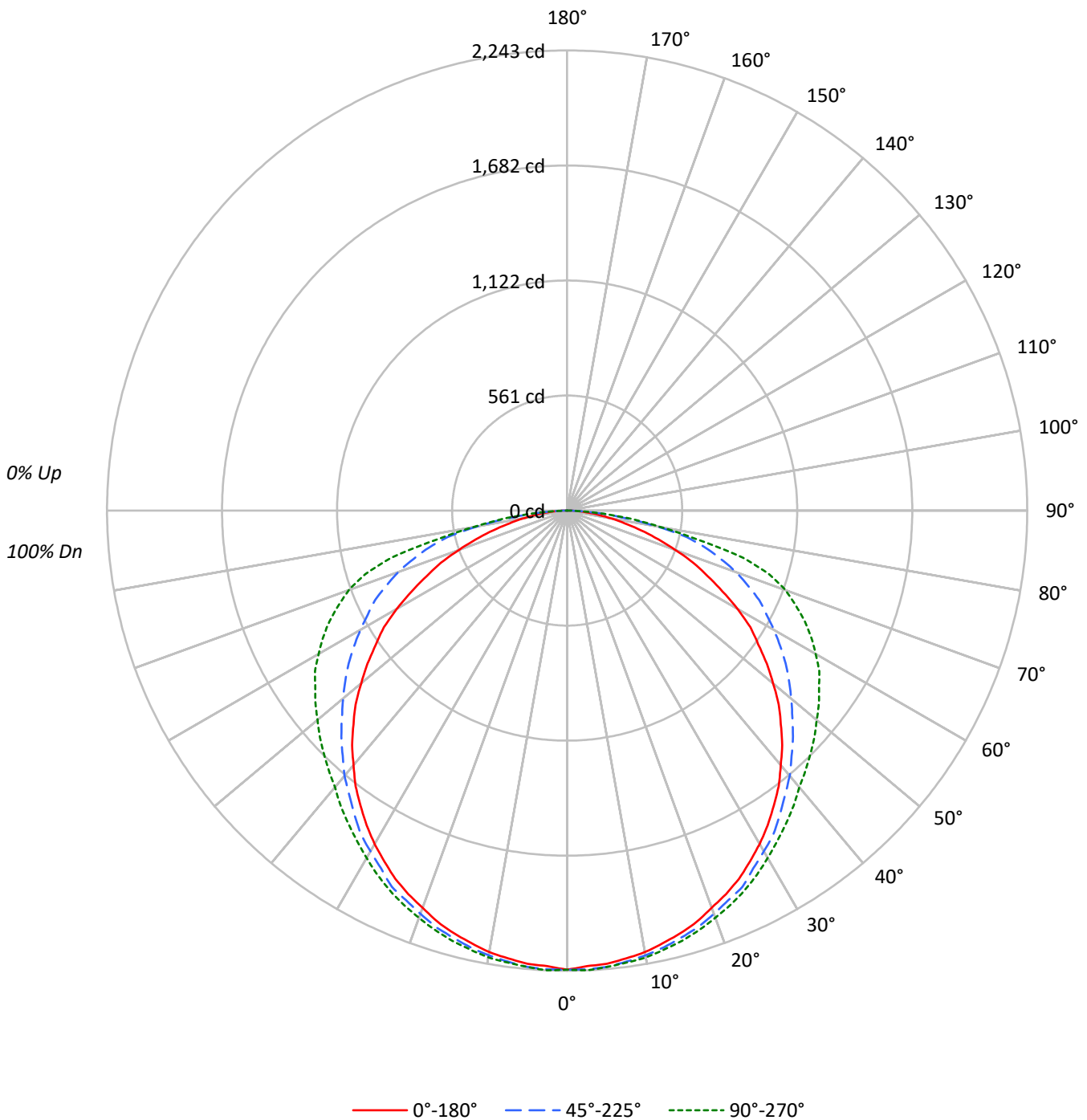
Input Watts (W): 84.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6022	6022	6022
5°	5989	6031	6031
10°	5972	6016	6044
15°	5943	6001	6045
20°	5899	5988	6050
25°	5883	6008	6070
30°	5831	5960	6075
35°	5768	5940	6113
40°	5690	5928	6186
45°	5605	5925	6382
50°	5486	5968	6648
55°	5337	6099	7033
60°	5163	6262	7532
65°	4805	6576	8145
70°	4413	6888	8909
75°	3872	7246	9211
80°	3333	6901	7232
85°	2912	5017	5499



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.7	3.0
10°-20°	607.9	8.5
20°-30°	927.4	13.0
30°-40°	1132.4	15.9
40°-50°	1210.8	17.0
50°-60°	1168.7	16.4
60°-70°	1006.0	14.1
70°-80°	680.7	9.6
80°-90°	179.7	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°	1747.0	24.5
0°-40°	2879.4	40.4
0°-60°	5258.8	73.8
0°-90°	7125.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7125.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2238	2238	2238	2238	2238	
5°	2217	2222	2233	2233	2233	211
15°	2133	2138	2154	2165	2170	602
25°	1981	1992	2023	2034	2044	912
35°	1756	1771	1808	1845	1861	1099
45°	1473	1499	1557	1635	1677	1137
55°	1138	1174	1300	1431	1499	1019
65°	755	828	1033	1195	1279	751
75°	372	493	697	838	886	399
85°	94	131	162	168	178	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2238.0	2238.0	2238.0	2238.0	2238.0
2.5°	2222.4	2227.6	2238.0	2238.0	2243.2
5°	2217.2	2222.4	2232.8	2232.8	2232.8
7.5°	2201.6	2206.8	2217.2	2222.4	2222.4
10°	2185.4	2191.1	2201.6	2206.8	2212.0
12.5°	2159.4	2164.6	2180.2	2191.1	2191.1
15°	2133.3	2138.5	2154.2	2164.6	2169.8
17.5°	2101.6	2112.5	2128.1	2138.5	2143.7
20°	2059.9	2070.3	2091.1	2107.3	2112.5
22.5°	2023.4	2033.8	2054.7	2070.3	2080.7
25°	1981.2	1991.7	2023.4	2033.8	2044.3
27.5°	1928.6	1939.6	1965.6	1986.5	2002.1
30°	1876.6	1887.0	1918.2	1944.8	1955.2
32.5°	1818.7	1834.4	1871.3	1892.2	1907.8
35°	1755.7	1771.3	1808.3	1844.8	1860.9
37.5°	1693.2	1708.8	1745.3	1792.7	1813.5
40°	1619.8	1640.6	1687.5	1750.5	1760.9
42.5°	1551.6	1577.6	1619.8	1693.2	1719.3
45°	1472.9	1499.0	1556.8	1635.4	1677.1
47.5°	1399.5	1425.5	1488.5	1582.8	1635.4
50°	1310.4	1346.9	1425.5	1535.9	1588.0
52.5°	1226.6	1257.8	1363.0	1483.3	1546.4
55°	1137.5	1174.0	1300.0	1430.7	1499.0
57.5°	1058.9	1090.1	1231.8	1378.6	1457.3
60°	959.4	1001.0	1163.5	1320.8	1399.5
62.5°	854.2	917.2	1095.3	1257.8	1341.7
65°	754.7	828.1	1032.8	1194.8	1279.2
67.5°	665.6	744.3	954.2	1127.1	1205.7
70°	560.9	660.4	875.5	1043.2	1132.3
72.5°	466.7	576.6	786.5	954.2	1032.8
75°	372.4	492.7	696.9	838.5	885.9
77.5°	288.0	403.6	597.4	639.6	644.8
80°	215.1	319.8	445.3	450.5	466.7
82.5°	146.9	225.5	288.0	314.6	319.8
85°	94.3	131.2	162.5	167.7	178.1
87.5°	42.2	47.4	57.8	52.6	52.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)