

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: P475192

Luminaire Tested: **22CZ2-95VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475192  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-95VHE-HRP-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP  
INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7843.2 lumens  
Efficiency: N/A  
Efficacy: 110.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

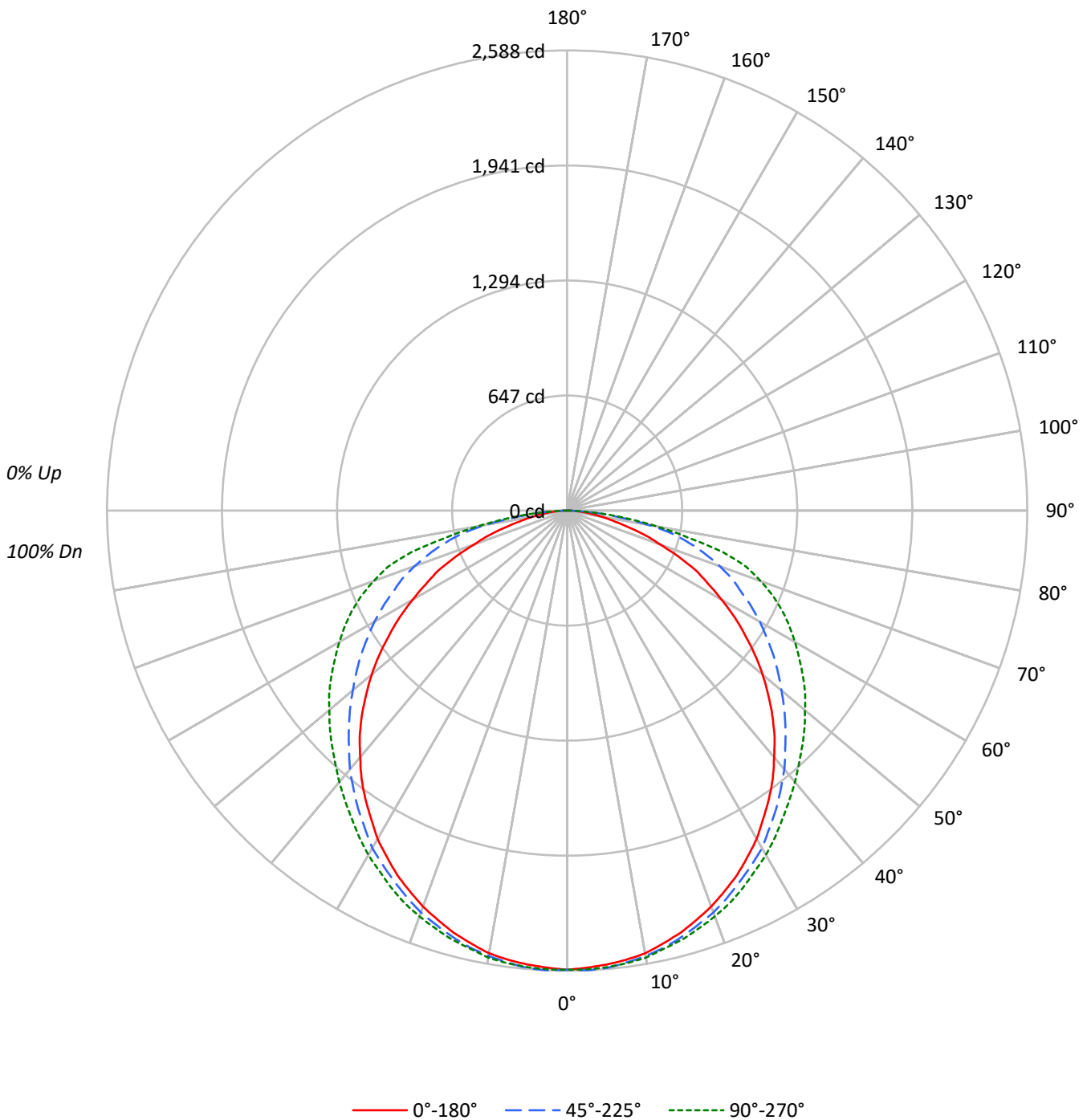
Input Watts (W): 71.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	6949	6949	6949
5°	6923	6976	6963
10°	6909	6949	6977
15°	6850	6919	6961
20°	6787	6886	6956
25°	6714	6831	6949
30°	6626	6811	6949
35°	6501	6729	6940
40°	6361	6674	7004
45°	6214	6610	7117
50°	6007	6587	7311
55°	5733	6640	7591
60°	5405	6737	7962
65°	5103	6868	8507
70°	4360	7163	9109
75°	3654	7462	9466
80°	2994	7206	7897
85°	2590	5345	5802



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.8	3.1
10°-20°	700.2	8.9
20°-30°	1061.1	13.5
30°-40°	1281.3	16.3
40°-50°	1346.4	17.2
50°-60°	1266.8	16.2
60°-70°	1056.2	13.5
70°-80°	699.9	8.9
80°-90°	186.5	2.4
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°	2006.1	25.6
0°-40°	3287.4	41.9
0°-60°	5900.5	75.2
0°-90°	7843.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7843.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2582	2582	2582	2582	2582	
5°	2563	2568	2582	2582	2578	244
15°	2459	2469	2484	2494	2499	693
25°	2261	2276	2301	2330	2340	1041
35°	1979	1999	2048	2093	2113	1237
45°	1633	1657	1737	1826	1870	1258
55°	1222	1277	1415	1558	1618	1093
65°	802	871	1079	1256	1336	780
75°	351	490	718	866	910	381
85°	84	128	173	188	188	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2582.5	2582.5	2582.5	2582.5	2582.5
2.5°	2572.9	2577.7	2587.8	2587.8	2582.5
5°	2562.8	2567.6	2582.5	2582.5	2577.7
7.5°	2548.0	2553.2	2562.8	2572.9	2567.6
10°	2528.3	2533.1	2543.2	2553.2	2553.2
12.5°	2493.8	2498.6	2518.2	2523.5	2523.5
15°	2458.8	2468.9	2483.7	2493.8	2498.6
17.5°	2414.7	2424.3	2443.9	2464.1	2464.1
20°	2370.1	2379.7	2404.6	2424.3	2429.1
22.5°	2315.5	2330.3	2355.3	2379.7	2389.8
25°	2261.3	2276.2	2300.6	2330.3	2340.4
27.5°	2196.6	2211.4	2246.4	2280.9	2285.7
30°	2132.3	2147.2	2191.8	2221.5	2236.4
32.5°	2053.2	2072.9	2117.5	2162.1	2176.9
35°	1978.9	1999.1	2048.4	2093.0	2112.7
37.5°	1899.8	1919.5	1974.1	2028.8	2053.2
40°	1810.7	1835.6	1899.8	1959.3	1993.8
42.5°	1726.8	1751.7	1815.9	1895.0	1929.6
45°	1632.8	1657.3	1736.8	1825.5	1870.1
47.5°	1533.6	1563.3	1657.3	1766.6	1810.7
50°	1434.8	1469.3	1573.4	1697.0	1746.4
52.5°	1330.8	1375.4	1494.3	1628.0	1687.0
55°	1222.0	1276.6	1415.2	1558.5	1617.9
57.5°	1117.9	1167.8	1330.8	1484.2	1548.4
60°	1004.3	1068.6	1251.7	1409.9	1479.4
62.5°	895.5	965.0	1167.8	1336.1	1409.9
65°	801.5	870.6	1078.6	1256.5	1336.1
67.5°	677.9	771.8	1004.3	1172.6	1251.7
70°	554.2	682.7	910.4	1083.4	1157.7
72.5°	460.2	583.9	816.4	989.5	1059.0
75°	351.4	489.9	717.7	865.8	910.4
77.5°	262.2	405.6	613.6	687.9	692.7
80°	193.2	311.6	465.0	489.9	509.6
82.5°	133.8	217.6	302.0	331.3	341.3
85°	83.9	128.5	173.1	187.9	187.9
87.5°	44.6	49.4	59.4	59.4	59.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)