

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: P474188

Luminaire Tested: **24CZ2-70VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474188  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-70VHE-RDP-UNV-L830-CD1-U  
Description: 2'X4' 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: 4522.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

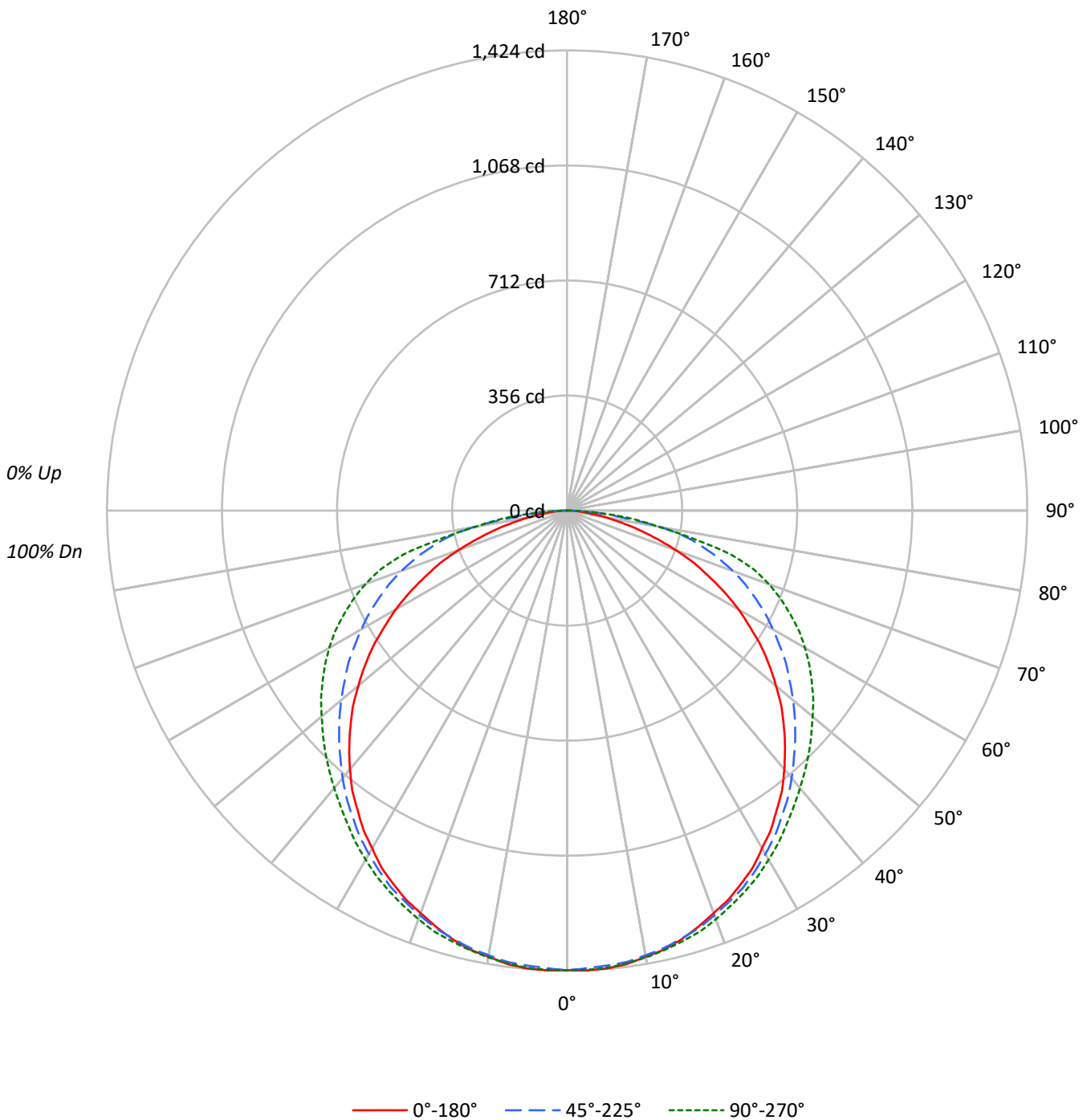
Input Watts (W): 47.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1913	1913	1913
5°	1921	1909	1918
10°	1915	1909	1918
15°	1912	1909	1922
20°	1898	1908	1927
25°	1891	1911	1931
30°	1875	1906	1938
35°	1857	1901	1945
40°	1836	1899	1970
45°	1805	1899	2014
50°	1765	1911	2075
55°	1720	1941	2168
60°	1648	1979	2288
65°	1543	2049	2428
70°	1403	2144	2611
75°	1189	2262	2729
80°	939	2276	2207
85°	693	1732	1941



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.9	3.0
10°-20°	388.2	8.6
20°-30°	593.7	13.1
30°-40°	725.7	16.0
40°-50°	773.5	17.1
50°-60°	739.6	16.4
60°-70°	626.5	13.9
70°-80°	421.1	9.3
80°-90°	118.8	2.6
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°	1116.8	24.7
0°-40°	1842.5	40.7
0°-60°	3355.6	74.2
0°-90°	4522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4522.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1422	1422	1422	1422	1422	
5°	1422	1420	1413	1420	1420	135
15°	1373	1373	1370	1382	1380	387
25°	1274	1278	1288	1299	1301	587
35°	1130	1139	1157	1180	1184	708
45°	949	964	998	1041	1059	732
55°	733	760	828	893	924	653
65°	484	534	644	729	763	481
75°	229	312	435	509	525	245
85°	45	92	112	121	126	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1422.1	1422.1	1422.1	1422.1	1422.1
2.5°	1424.4	1424.4	1417.6	1422.1	1422.1
5°	1422.1	1419.9	1413.1	1419.9	1419.9
7.5°	1415.4	1413.1	1408.7	1415.4	1413.1
10°	1401.9	1401.9	1397.4	1404.2	1404.2
12.5°	1390.7	1388.5	1386.2	1395.2	1392.9
15°	1372.7	1372.7	1370.5	1381.7	1379.5
17.5°	1350.3	1352.6	1354.8	1363.8	1366.0
20°	1325.6	1330.1	1332.4	1345.8	1345.8
22.5°	1303.2	1305.4	1309.9	1323.4	1323.4
25°	1274.0	1278.5	1287.5	1298.7	1300.9
27.5°	1244.8	1247.1	1258.3	1274.0	1276.3
30°	1206.7	1213.4	1226.9	1244.8	1247.1
32.5°	1173.0	1179.8	1195.5	1213.4	1217.9
35°	1130.4	1139.4	1157.3	1179.8	1184.2
37.5°	1092.2	1099.0	1121.4	1146.1	1152.8
40°	1045.3	1058.6	1081.0	1110.2	1121.4
42.5°	998.2	1011.7	1038.6	1076.5	1090.0
45°	948.8	964.5	998.2	1040.8	1058.6
47.5°	899.5	917.4	955.6	1004.9	1025.1
50°	843.4	865.8	912.9	969.0	991.5
52.5°	789.5	816.4	868.0	930.9	960.0
55°	733.4	760.3	827.6	892.7	924.1
57.5°	670.6	706.5	780.5	854.6	888.2
60°	612.4	645.9	735.6	816.4	850.1
62.5°	549.6	594.5	690.8	776.0	809.7
65°	484.5	533.9	643.6	728.9	762.6
67.5°	426.2	480.0	596.7	681.8	715.4
70°	356.6	423.9	545.1	630.2	663.8
72.5°	291.5	365.6	491.2	574.3	605.7
75°	228.7	311.7	435.1	509.2	524.9
77.5°	170.6	257.9	376.8	408.2	397.0
80°	121.2	206.5	293.8	278.1	284.8
82.5°	78.5	157.1	181.8	206.5	213.0
85°	44.9	92.0	112.2	121.2	125.7
87.5°	20.2	33.7	44.9	44.9	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)