

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: P474887

Luminaire Tested: **22CZ2-44HE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474887  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-S-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4495.5 lumens  
Efficiency: N/A  
Efficacy: 137.1 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

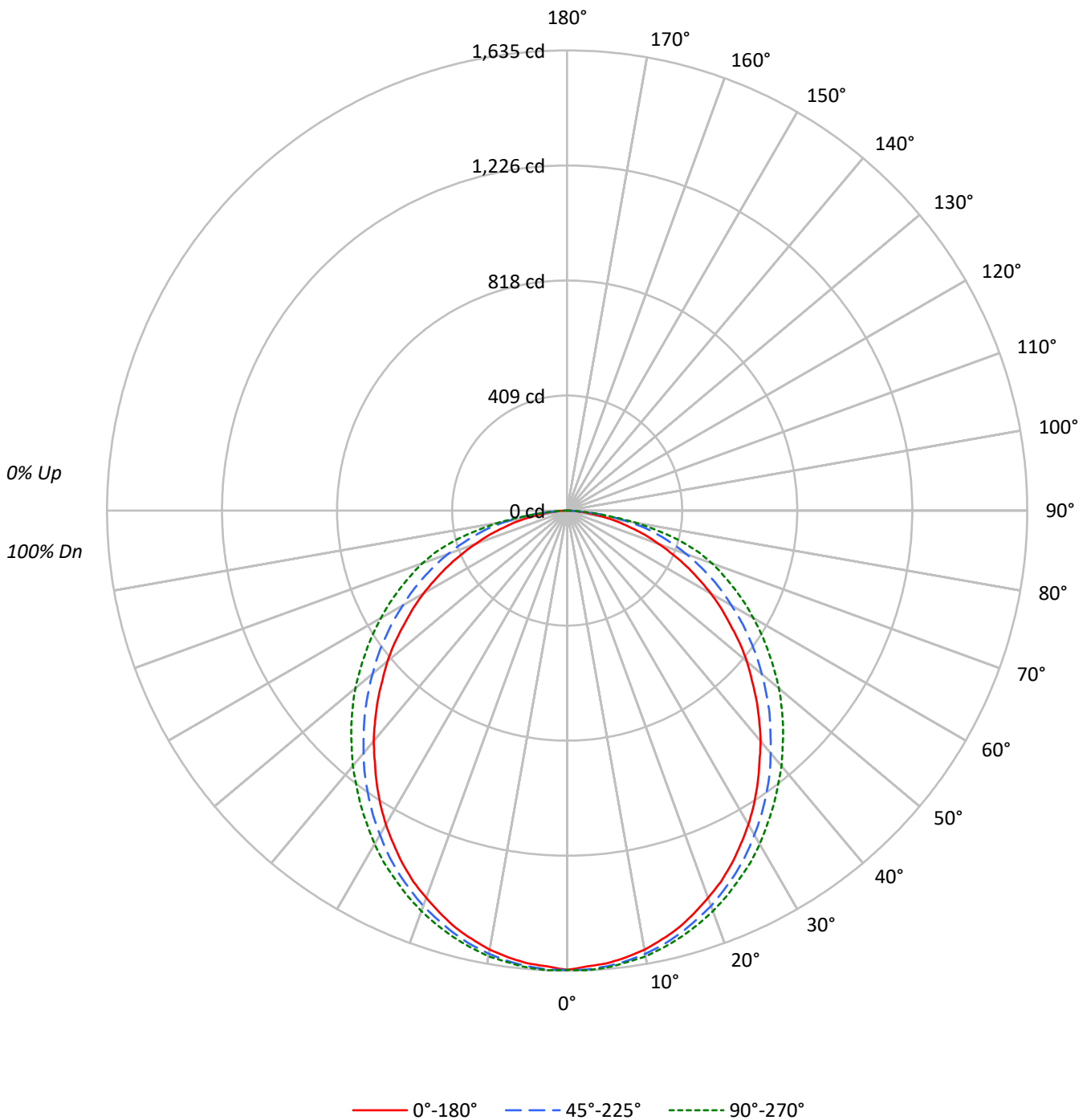
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P474887

CATALOG NUMBER: 22CZ2-44HE-S-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P474887

CATALOG NUMBER: 22CZ2-44HE-S-UNV-L830-CD1-U

**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	88	86	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	4391	4391	4391
5°	4361	4391	4402
10°	4328	4370	4394
15°	4274	4331	4367
20°	4193	4281	4337
25°	4109	4215	4293
30°	4002	4134	4253
35°	3878	4049	4199
40°	3757	3952	4162
45°	3618	3867	4128
50°	3489	3780	4113
55°	3323	3705	4093
60°	3174	3630	4110
65°	2979	3588	4170
70°	2722	3544	4305
75°	2443	3517	4310
80°	2056	3321	3828
85°	1544	2251	2084



TEST NUMBER: P474887

CATALOG NUMBER: 22CZ2-44HE-S-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.1	3.4
10°-20°	437.7	9.7
20°-30°	652.6	14.5
30°-40°	770.1	17.1
40°-50°	784.6	17.5
50°-60°	707.6	15.7
60°-70°	555.7	12.4
70°-80°	347.4	7.7
80°-90°	85.6	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°	1244.5	27.7
0°-40°	2014.6	44.8
0°-60°	3506.8	78.0
0°-90°	4495.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4495.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1614	1618	1625	1629	1630	153
15°	1534	1539	1555	1566	1568	432
25°	1384	1392	1420	1440	1446	637
35°	1180	1197	1233	1266	1278	738
45°	951	967	1016	1065	1085	734
55°	708	731	790	851	872	635
65°	468	493	564	627	655	462
75°	235	268	338	396	414	251
85°	50	64	73	72	68	61
90°	0	0	0	0	0	



TEST NUMBER: P474887

CATALOG NUMBER: 22CZ2-44HE-S-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1631.9	1631.9	1631.9	1631.9	1631.9
2.5°	1621.0	1624.3	1631.9	1635.1	1635.1
5°	1614.5	1617.7	1625.4	1628.6	1629.7
7.5°	1601.4	1605.8	1614.5	1618.8	1618.8
10°	1584.0	1589.5	1599.2	1605.8	1608.0
12.5°	1560.1	1566.6	1579.7	1587.3	1589.5
15°	1534.0	1539.4	1554.6	1565.5	1567.7
17.5°	1500.2	1508.9	1525.3	1539.4	1542.7
20°	1464.3	1474.1	1494.8	1511.1	1514.4
22.5°	1427.4	1435.0	1457.8	1477.4	1481.8
25°	1383.8	1391.5	1419.7	1440.4	1445.8
27.5°	1336.0	1349.0	1377.3	1401.2	1409.9
30°	1288.1	1301.2	1330.5	1358.8	1368.6
32.5°	1235.9	1250.0	1283.7	1313.1	1322.9
35°	1180.4	1196.7	1232.6	1266.3	1278.3
37.5°	1122.7	1141.2	1181.5	1217.4	1230.4
40°	1069.4	1082.5	1124.9	1166.3	1184.7
42.5°	1009.6	1027.0	1069.4	1116.2	1133.6
45°	950.8	967.2	1016.1	1065.1	1084.7
47.5°	889.9	910.6	959.5	1013.9	1033.5
50°	833.3	850.8	903.0	960.6	982.4
52.5°	772.4	790.9	847.5	907.3	926.9
55°	708.2	731.1	789.8	850.8	872.5
57.5°	649.5	671.2	733.3	796.4	819.2
60°	589.7	611.4	674.5	738.7	763.7
62.5°	526.6	551.6	620.1	682.1	710.4
65°	467.8	492.8	563.5	626.6	654.9
67.5°	405.8	435.2	505.9	572.2	600.5
70°	346.0	380.8	450.4	515.7	547.2
72.5°	292.7	320.9	393.8	462.4	488.5
75°	235.0	267.6	338.3	396.0	414.5
77.5°	186.0	214.3	281.8	319.8	331.8
80°	132.7	164.3	214.3	237.2	247.0
82.5°	88.1	114.2	145.8	150.1	148.0
85°	50.0	64.2	72.9	71.8	67.5
87.5°	19.6	21.8	16.3	9.8	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)