

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: P475341

Luminaire Tested: **14CZ2-20-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475341
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

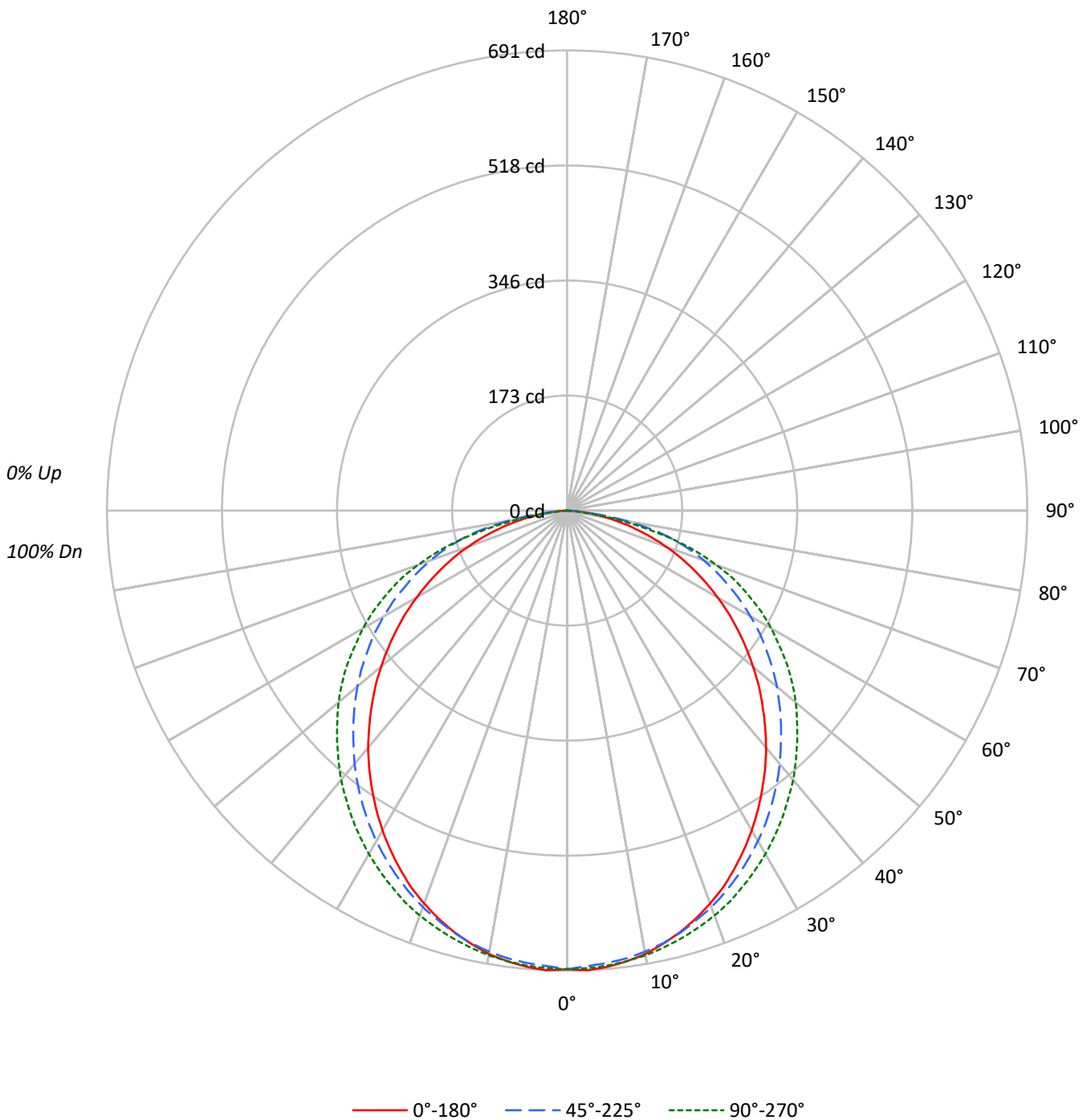
Lumens per Lamp: N/A
Luminaire Lumens: 1984.9 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
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: P475341
CATALOG NUMBER: 14CZ2-20-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475341

CATALOG NUMBER: 14CZ2-20-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	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1853	1853	1853
5°	1858	1842	1853
10°	1847	1838	1853
15°	1826	1828	1852
20°	1798	1815	1853
25°	1763	1798	1851
30°	1723	1780	1850
35°	1678	1762	1850
40°	1633	1745	1855
45°	1579	1729	1859
50°	1526	1721	1876
55°	1468	1713	1892
60°	1403	1711	1906
65°	1331	1706	1910
70°	1240	1716	1873
75°	1099	1694	1680
80°	922	1416	1144
85°	645	556	133



TEST NUMBER: P475341

CATALOG NUMBER: 14CZ2-20-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.3
10°-20°	185.9	9.4
20°-30°	280.2	14.1
30°-40°	336.3	16.9
40°-50°	350.1	17.6
50°-60°	323.5	16.3
60°-70°	259.1	13.1
70°-80°	155.0	7.8
80°-90°	29.6	1.5
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°	531.3	26.8
0°-40°	867.6	43.7
0°-60°	1541.2	77.6
0°-90°	1984.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1984.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	689	689	689	689	689	
5°	688	686	682	687	686	65
15°	655	655	656	665	665	185
25°	594	597	606	621	623	273
35°	511	518	536	558	563	320
45°	415	427	454	481	488	320
55°	313	330	365	393	403	280
65°	209	231	268	294	300	207
75°	106	132	163	165	162	113
85°	21	31	18	7	4	27
90°	0	0	0	0	0	



TEST NUMBER: P475341

CATALOG NUMBER: 14CZ2-20-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.6	688.6	688.6	688.6	688.6
2.5°	690.9	688.9	684.6	688.9	687.9
5°	687.9	686.3	682.0	686.9	685.9
7.5°	682.9	681.6	678.3	683.6	682.6
10°	676.0	675.0	672.6	678.6	678.0
12.5°	666.3	666.7	665.3	672.6	672.0
15°	655.4	655.4	656.3	664.7	664.7
17.5°	642.4	643.0	645.0	656.0	656.3
20°	627.8	629.4	633.7	645.0	647.0
22.5°	612.1	614.1	620.1	633.4	636.4
25°	593.8	597.2	605.5	620.8	623.4
27.5°	574.6	579.5	589.8	606.5	609.8
30°	554.6	559.9	572.9	590.8	595.5
32.5°	533.0	540.0	555.6	574.6	579.9
35°	510.7	518.4	536.3	557.6	563.2
37.5°	488.4	496.7	517.0	540.0	545.6
40°	464.8	474.5	496.7	520.4	528.0
42.5°	439.9	450.5	475.1	501.1	508.4
45°	415.0	427.3	454.2	481.1	488.4
47.5°	390.7	403.3	432.6	460.5	468.2
50°	364.4	379.0	411.0	438.6	448.2
52.5°	338.8	355.1	388.7	416.6	426.3
55°	312.9	329.8	365.1	393.3	403.3
57.5°	287.6	305.6	342.8	370.7	377.7
60°	260.7	280.3	317.9	346.1	354.1
62.5°	235.4	255.7	293.6	320.9	328.5
65°	209.1	230.8	268.0	294.3	299.9
67.5°	184.5	206.1	243.7	266.3	272.0
70°	157.6	181.5	218.1	237.4	238.1
72.5°	132.0	156.3	191.9	204.2	202.5
75°	105.7	132.3	162.9	165.3	161.6
77.5°	82.1	108.7	129.7	122.4	115.0
80°	59.5	85.5	91.4	80.1	73.8
82.5°	39.2	59.8	55.2	39.6	33.9
85°	20.9	30.6	18.0	7.3	4.3
87.5°	8.0	5.3	2.0	1.7	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)