

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: P475450

Luminaire Tested: **14CZ2-25-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475450  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-25-HRP-UNV-L830-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

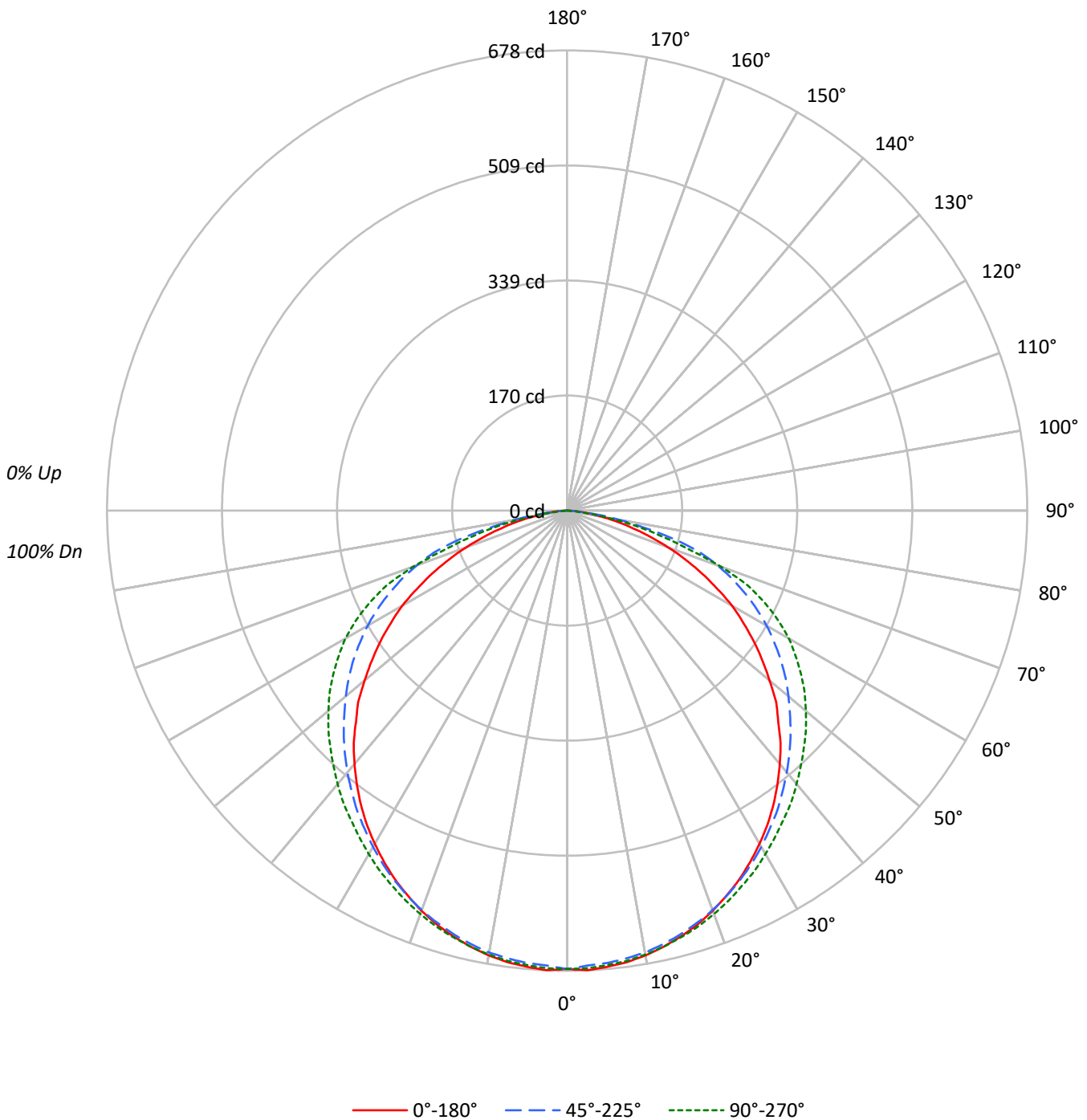
Lumens per Lamp: N/A  
Luminaire Lumens: 2018.1 lumens  
Efficiency: N/A  
Efficacy: 106.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 19  
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: P475450  
CATALOG NUMBER: 14CZ2-25-HRP-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475450

CATALOG NUMBER: 14CZ2-25-HRP-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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	1817	1817	1817
5°	1823	1808	1816
10°	1818	1806	1815
15°	1809	1800	1812
20°	1797	1793	1811
25°	1781	1785	1811
30°	1762	1777	1816
35°	1740	1773	1826
40°	1712	1769	1847
45°	1674	1772	1878
50°	1630	1782	1922
55°	1576	1804	1973
60°	1512	1828	2032
65°	1396	1845	2043
70°	1245	1853	1892
75°	1043	1717	1470
80°	792	1207	965
85°	559	423	136



TEST NUMBER: P475450

CATALOG NUMBER: 14CZ2-25-HRP-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.9	3.2
10°-20°	183.2	9.1
20°-30°	278.5	13.8
30°-40°	339.0	16.8
40°-50°	360.2	17.8
50°-60°	340.7	16.9
60°-70°	276.0	13.7
70°-80°	151.3	7.5
80°-90°	25.3	1.3
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°	525.6	26.0
0°-40°	864.6	42.8
0°-60°	1565.4	77.6
0°-90°	2018.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2018.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	675	674	669	674	672	64
15°	649	648	646	651	650	183
25°	600	600	601	609	610	276
35°	530	532	540	553	556	331
45°	440	447	466	487	494	340
55°	336	351	384	412	421	300
65°	219	244	290	315	321	217
75°	100	138	165	146	141	107
85°	18	24	14	7	4	23
90°	0	0	0	0	0	



TEST NUMBER: P475450

CATALOG NUMBER: 14CZ2-25-HRP-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	675.4	675.4	675.4	675.4	675.4
2.5°	677.9	675.4	671.1	675.4	674.8
5°	674.8	673.6	669.2	673.6	672.3
7.5°	671.1	669.8	665.5	670.5	669.2
10°	665.5	664.2	661.1	665.5	664.2
12.5°	658.0	657.4	654.3	659.2	658.0
15°	649.3	648.0	646.2	651.1	650.5
17.5°	639.3	638.1	636.8	643.0	642.4
20°	627.5	626.8	626.2	633.1	632.4
22.5°	613.8	613.8	614.4	621.9	621.9
25°	600.0	600.0	601.3	609.4	610.0
27.5°	583.8	585.1	587.6	596.3	598.2
30°	567.0	568.3	572.0	582.0	584.5
32.5°	549.0	550.8	555.8	567.6	570.1
35°	529.6	531.5	539.6	552.7	555.8
37.5°	509.1	512.2	521.5	536.5	542.1
40°	487.3	492.2	503.5	519.7	525.9
42.5°	465.5	469.8	484.8	503.5	509.7
45°	439.9	446.8	465.5	486.6	493.5
47.5°	417.5	423.7	445.5	469.2	477.3
50°	389.4	398.8	425.6	451.7	459.2
52.5°	362.6	375.1	405.6	432.4	441.2
55°	335.9	350.8	384.5	412.5	420.6
57.5°	307.8	324.0	362.0	390.7	399.4
60°	281.0	298.5	339.6	368.9	377.6
62.5°	249.2	271.0	315.3	343.3	350.8
65°	219.3	244.3	289.7	315.3	320.9
67.5°	188.8	218.1	263.6	286.0	287.9
70°	158.3	191.3	235.5	249.2	240.5
72.5°	128.4	165.1	205.6	194.4	184.4
75°	100.3	138.3	165.1	145.8	141.4
77.5°	74.1	113.4	115.3	105.9	102.8
80°	51.1	87.9	77.9	67.3	62.3
82.5°	33.0	54.2	43.0	31.8	28.7
85°	18.1	23.7	13.7	6.9	4.4
87.5°	6.9	4.4	1.9	1.9	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)