

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: P475487

Luminaire Tested: **14CZ2-29-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475487  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-29-SQR-UNV-L830-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

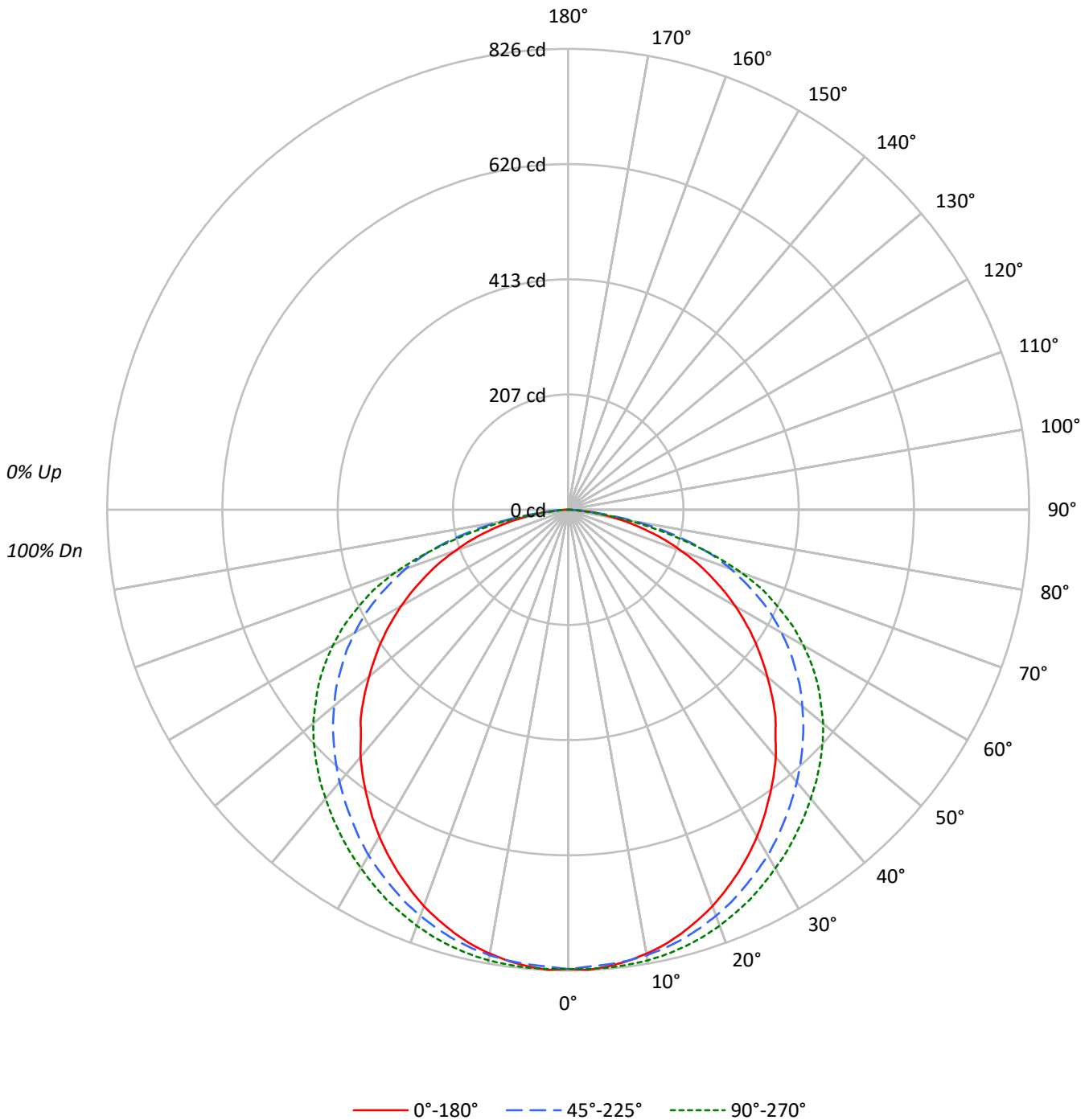
Lumens per Lamp: N/A  
Luminaire Lumens: 2585.0 lumens  
Efficiency: N/A  
Efficacy: 120.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.4  
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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74		81	76	72		77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61		70	65	60		68	63	59	57
4	81	69	60	53	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	38		50	43	38		49	43	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24		36	29	24		35	29	24	22

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

	0°	45°	90°
0°	2215	2215	2215
5°	2220	2210	2226
10°	2208	2216	2242
15°	2190	2218	2257
20°	2166	2218	2272
25°	2135	2217	2289
30°	2102	2223	2307
35°	2064	2225	2335
40°	2033	2238	2374
45°	2000	2261	2430
50°	1950	2292	2496
55°	1911	2332	2562
60°	1862	2377	2620
65°	1789	2416	2649
70°	1694	2435	2601
75°	1548	2353	2246
80°	1300	1923	1674
85°	948	969	630



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	3.0
10°-20°	225.3	8.7
20°-30°	344.5	13.3
30°-40°	422.9	16.4
40°-50°	454.8	17.6
50°-60°	436.6	16.9
60°-70°	361.6	14.0
70°-80°	216.7	8.4
80°-90°	44.4	1.7
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°	648.0	25.1
0°-40°	1070.9	41.4
0°-60°	1962.2	75.9
0°-90°	2585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2585.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	822	820	818	825	824	78
15°	786	790	796	809	810	222
25°	719	731	747	766	771	331
35°	628	650	677	704	711	394
45°	526	553	594	627	639	404
55°	407	446	497	534	546	364
65°	281	327	380	410	416	279
75°	149	194	226	221	216	157
85°	31	44	31	21	20	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	823.3	823.3	823.3	823.3	823.3
2.5°	825.5	823.3	819.7	825.5	824.0
5°	821.8	820.4	818.2	824.8	824.0
7.5°	816.0	816.0	815.3	823.3	822.6
10°	808.0	809.4	810.9	820.4	820.4
12.5°	798.5	799.9	804.3	815.3	816.0
15°	786.1	789.7	796.3	808.7	810.2
17.5°	771.5	777.3	786.1	800.7	802.9
20°	756.2	762.7	774.4	790.5	793.4
22.5°	737.9	747.4	762.0	778.8	782.4
25°	718.9	730.6	746.7	766.4	770.8
27.5°	698.5	712.4	731.3	751.8	756.9
30°	676.6	692.7	715.3	737.2	742.3
32.5°	653.2	672.2	697.0	721.1	727.7
35°	628.4	649.6	677.3	703.6	710.9
37.5°	604.3	627.0	657.6	686.1	694.1
40°	578.8	602.9	637.2	667.1	675.9
42.5°	549.6	578.8	616.0	648.1	658.4
45°	525.5	553.2	594.1	627.0	638.6
47.5°	495.6	527.7	571.5	606.5	618.2
50°	465.7	502.2	547.4	583.9	596.3
52.5°	436.5	473.7	524.1	559.8	570.8
55°	407.3	446.0	497.0	533.5	546.0
57.5°	376.6	419.0	470.8	507.3	517.5
60°	346.0	388.3	441.6	476.6	486.8
62.5°	313.8	359.1	412.4	444.5	454.7
65°	281.0	327.0	379.5	409.5	416.0
67.5°	250.3	297.1	344.5	372.2	378.8
70°	215.3	264.9	309.5	329.9	330.6
72.5°	183.2	229.2	271.5	277.4	275.9
75°	148.9	194.1	226.3	221.2	216.0
77.5°	115.3	161.3	178.1	163.5	159.8
80°	83.9	125.5	124.1	110.2	108.0
82.5°	57.7	86.9	71.5	58.4	54.0
85°	30.7	44.5	31.4	21.2	20.4
87.5°	11.7	10.9	6.6	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)