

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: P475284

Luminaire Tested: **22CZ2-24-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475284  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24-SQR-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

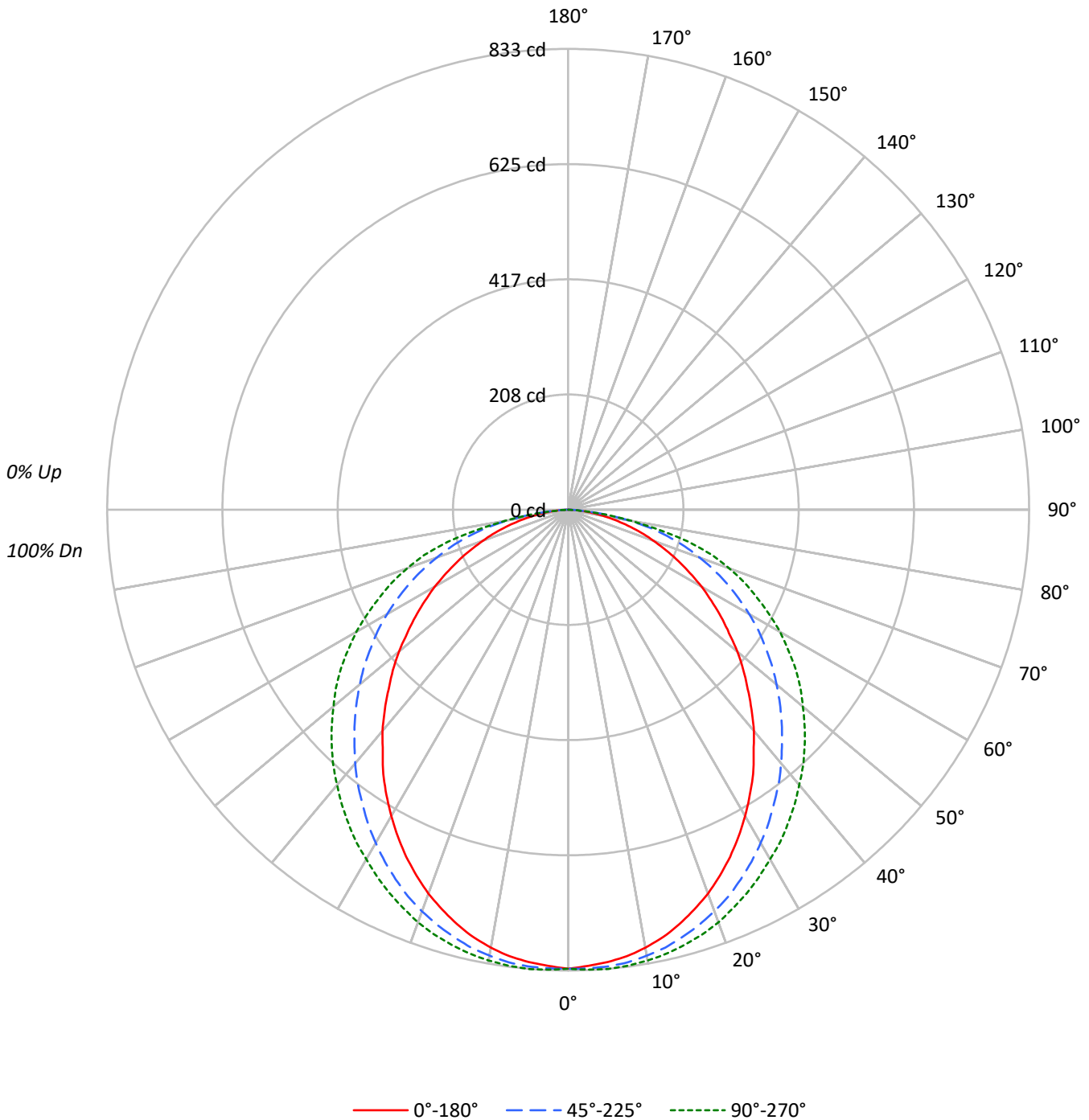
Lumens per Lamp: N/A  
Luminaire Lumens: 2375.7 lumens  
Efficiency: N/A  
Efficacy: 128.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.5  
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	109	104	99	95	106	101	97	94	97	94	91		93	91	88		90	87	85	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	43
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

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

	0°	45°	90°
0°	2233	2233	2233
5°	2217	2239	2251
10°	2197	2237	2261
15°	2161	2227	2268
20°	2115	2212	2273
25°	2056	2189	2270
30°	1986	2162	2267
35°	1915	2130	2274
40°	1834	2103	2282
45°	1746	2077	2300
50°	1671	2058	2318
55°	1582	2042	2354
60°	1499	2033	2379
65°	1400	2017	2398
70°	1286	1987	2430
75°	1161	1934	2345
80°	996	1712	1765
85°	803	1010	803



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.7	3.3
10°-20°	224.9	9.5
20°-30°	337.9	14.2
30°-40°	402.9	17.0
40°-50°	416.6	17.5
50°-60°	383.0	16.1
60°-70°	304.9	12.8
70°-80°	186.3	7.8
80°-90°	40.5	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°	641.5	27.0
0°-40°	1044.4	44.0
0°-60°	1844.0	77.6
0°-90°	2375.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2375.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	821	823	829	832	833	78
15°	776	785	799	811	814	218
25°	692	709	737	758	764	318
35°	583	608	648	682	692	364
45°	459	492	546	590	604	355
55°	337	374	435	485	502	302
65°	220	257	317	361	377	218
75°	112	144	186	219	226	119
85°	26	32	33	28	26	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	829.8	829.8	829.8	829.8	829.8
2.5°	825.3	826.5	829.8	832.2	832.2
5°	820.9	823.1	828.7	832.2	833.3
7.5°	814.1	817.5	825.3	829.8	831.1
10°	804.0	808.5	818.6	825.3	827.6
12.5°	791.5	798.3	810.7	819.7	822.0
15°	775.8	784.8	799.4	810.7	814.1
17.5°	757.7	768.9	787.0	800.6	805.1
20°	738.5	749.9	772.4	788.2	793.8
22.5°	716.0	730.6	756.6	774.7	779.2
25°	692.3	709.2	737.4	757.7	764.5
27.5°	666.4	686.7	717.2	742.0	747.6
30°	639.3	660.8	695.7	722.8	729.5
32.5°	611.1	635.9	673.1	703.6	712.7
35°	582.9	607.7	648.3	682.2	692.3
37.5°	550.2	579.6	624.7	659.7	672.0
40°	522.0	550.2	598.8	637.1	649.5
42.5°	490.5	520.9	571.7	613.4	628.1
45°	458.9	491.6	545.7	589.8	604.4
47.5°	429.6	462.3	518.7	565.0	579.6
50°	399.1	432.9	491.6	539.0	553.6
52.5°	366.4	403.6	464.5	511.9	528.9
55°	337.1	374.3	435.2	484.9	501.8
57.5°	306.7	345.0	408.2	455.5	471.4
60°	278.5	315.7	377.8	424.0	442.1
62.5°	248.0	286.3	347.2	392.4	409.4
65°	219.8	257.1	316.8	360.8	376.6
67.5°	191.6	229.0	285.2	327.0	345.0
70°	163.4	200.8	252.5	293.2	308.9
72.5°	138.7	171.4	221.0	258.3	272.9
75°	111.7	144.4	186.0	218.7	225.5
77.5°	86.8	116.2	151.1	165.7	168.1
80°	64.3	86.8	110.5	113.9	113.9
82.5°	42.8	59.8	68.7	69.9	68.7
85°	26.0	31.6	32.7	28.2	26.0
87.5°	9.0	9.0	5.6	3.4	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)