

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: P474820

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474820
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

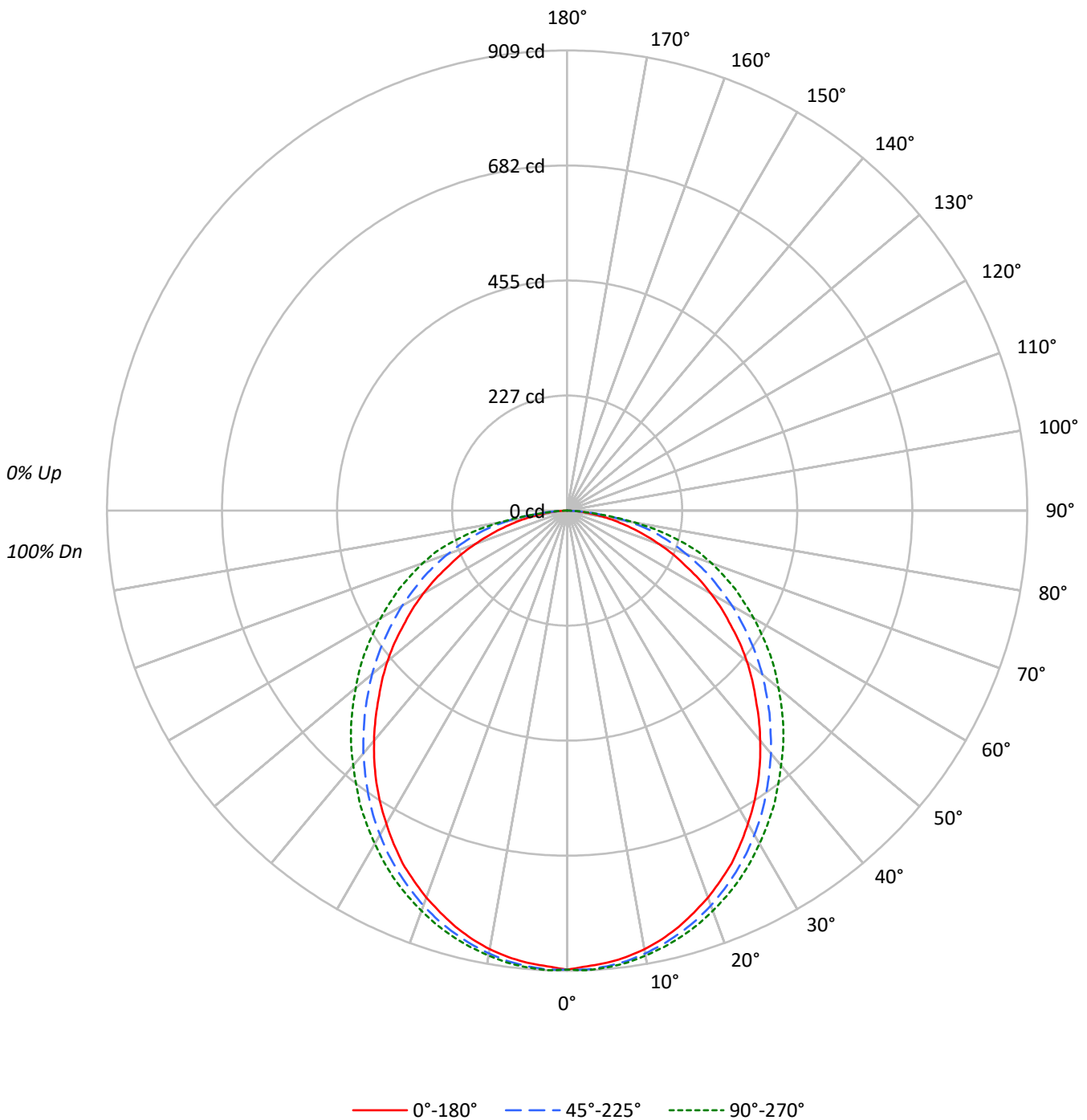
Lumens per Lamp: N/A
Luminaire Lumens: 2500.5 lumens
Efficiency: N/A
Efficacy: 135.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2440	2440	2440
5°	2422	2441	2447
10°	2404	2427	2439
15°	2372	2406	2428
20°	2329	2377	2409
25°	2283	2341	2390
30°	2220	2299	2361
35°	2158	2250	2338
40°	2085	2200	2309
45°	2005	2150	2299
50°	1940	2106	2281
55°	1849	2060	2286
60°	1766	2025	2292
65°	1642	1999	2329
70°	1518	1971	2386
75°	1357	1962	2401
80°	1139	1860	2097
85°	880	1272	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	3.4
10°-20°	243.2	9.7
20°-30°	362.6	14.5
30°-40°	428.1	17.1
40°-50°	436.3	17.4
50°-60°	393.5	15.7
60°-70°	309.3	12.4
70°-80°	193.6	7.7
80°-90°	48.3	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°	691.5	27.7
0°-40°	1119.6	44.8
0°-60°	1949.4	78.0
0°-90°	2500.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2500.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	897	899	904	906	906	85
15°	851	855	864	870	871	240
25°	769	775	788	801	805	353
35°	657	665	685	704	712	410
45°	527	538	565	592	604	408
55°	394	406	439	473	487	354
65°	258	274	314	349	366	257
75°	130	150	189	222	231	139
85°	28	36	41	41	39	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	906.8	906.8	906.8	906.8	906.8
2.5°	901.0	903.1	907.3	908.9	908.9
5°	896.8	898.9	903.6	905.8	905.8
7.5°	889.9	892.0	897.8	900.5	901.0
10°	879.9	882.5	888.3	892.6	892.6
12.5°	867.2	869.8	877.2	882.5	883.0
15°	851.3	855.0	863.5	869.8	871.4
17.5°	832.8	838.7	848.2	856.1	857.7
20°	813.3	819.1	830.2	839.2	841.3
22.5°	791.6	796.9	810.1	821.2	823.9
25°	768.9	774.7	788.4	800.6	804.8
27.5°	741.9	748.8	765.2	778.9	783.2
30°	714.5	722.9	739.8	755.2	759.9
32.5°	686.5	694.4	713.4	729.8	736.1
35°	656.9	665.3	684.9	703.9	711.8
37.5°	625.7	634.1	655.3	676.9	684.3
40°	593.4	603.5	626.2	649.5	657.4
42.5°	560.7	571.3	595.0	620.9	631.5
45°	526.9	538.5	564.9	592.4	604.0
47.5°	496.2	505.7	533.2	563.3	574.4
50°	463.5	472.4	503.1	533.2	544.8
52.5°	430.2	438.6	471.4	503.1	517.4
55°	394.2	406.4	439.1	473.0	487.2
57.5°	362.5	373.6	407.4	441.8	455.5
60°	328.2	339.8	376.3	411.1	425.9
62.5°	293.8	306.5	343.5	381.0	394.8
65°	257.9	273.7	313.9	348.8	365.7
67.5°	227.2	242.6	282.2	318.7	333.5
70°	192.9	210.9	250.5	287.5	303.3
72.5°	160.6	178.6	219.3	256.3	272.2
75°	130.5	150.1	188.7	222.5	230.9
77.5°	101.5	120.0	158.5	178.1	187.1
80°	73.5	91.4	120.0	133.2	135.3
82.5°	49.7	65.0	81.4	85.1	83.0
85°	28.5	36.5	41.2	41.2	38.6
87.5°	11.6	11.6	10.0	6.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)