

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: P474825

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474825
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2520.9 lumens
Efficiency: N/A
Efficacy: 139.3 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

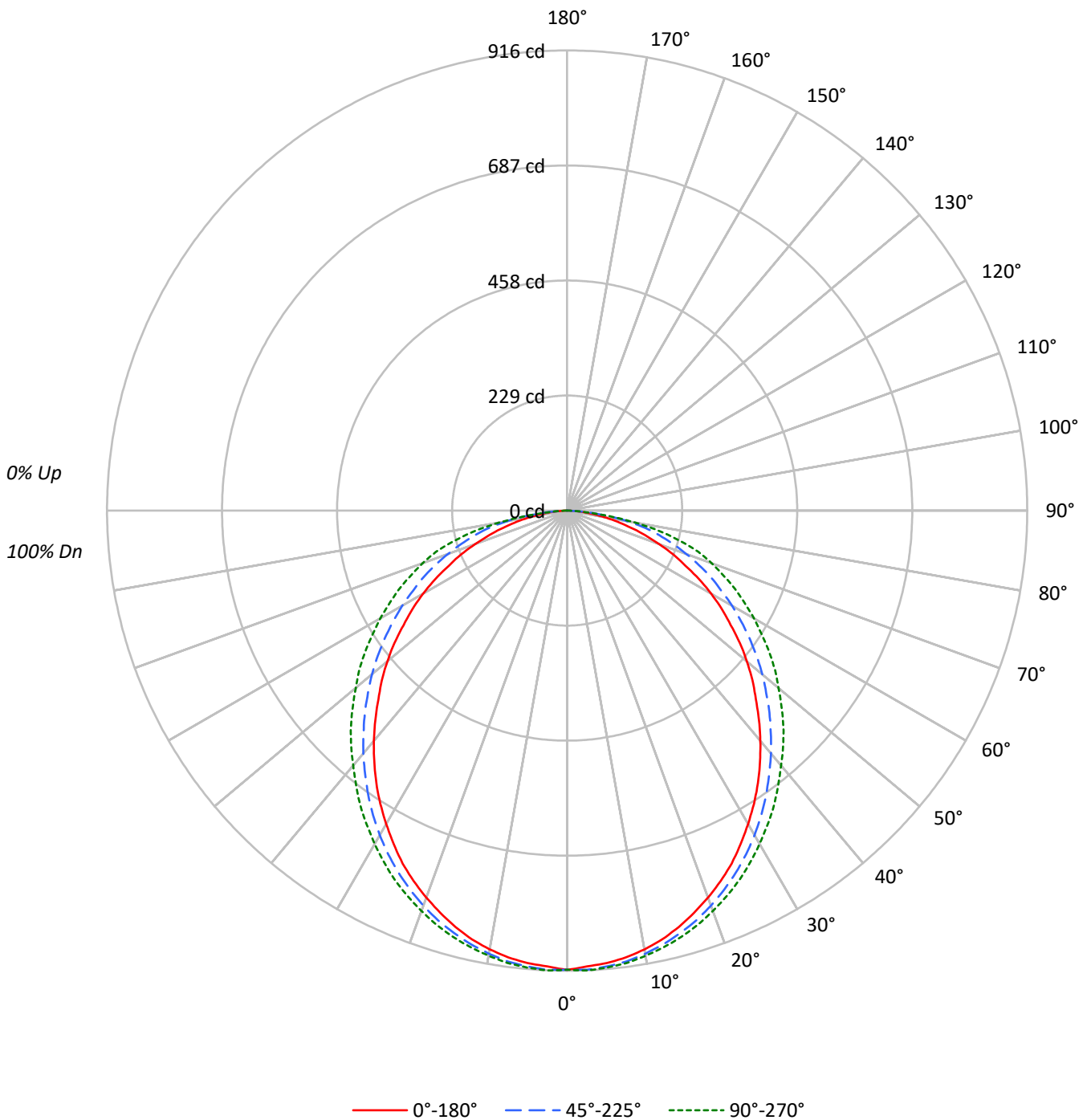
Input Watts (W): 18.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2460	2460	2460
5°	2442	2461	2467
10°	2424	2447	2459
15°	2391	2425	2447
20°	2348	2397	2429
25°	2302	2360	2409
30°	2238	2318	2380
35°	2175	2268	2357
40°	2102	2218	2328
45°	2022	2167	2317
50°	1956	2123	2300
55°	1864	2077	2305
60°	1780	2041	2311
65°	1656	2015	2348
70°	1530	1987	2406
75°	1368	1978	2420
80°	1148	1874	2114
85°	889	1284	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	3.4
10°-20°	245.2	9.7
20°-30°	365.6	14.5
30°-40°	431.6	17.1
40°-50°	439.9	17.4
50°-60°	396.7	15.7
60°-70°	311.8	12.4
70°-80°	195.2	7.7
80°-90°	48.7	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°	697.2	27.7
0°-40°	1128.7	44.8
0°-60°	1965.3	78.0
0°-90°	2520.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	904	906	911	913	913	86
15°	858	862	870	877	878	242
25°	775	781	795	807	811	356
35°	662	671	690	710	718	414
45°	531	543	570	597	609	411
55°	397	410	443	477	491	357
65°	260	276	316	352	369	259
75°	132	151	190	224	233	140
85°	29	37	42	42	39	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	914.2	914.2	914.2	914.2	914.2
2.5°	908.4	910.5	914.7	916.3	916.3
5°	904.1	906.2	911.0	913.1	913.1
7.5°	897.2	899.3	905.2	907.8	908.4
10°	887.0	889.7	895.6	899.8	899.8
12.5°	874.3	876.9	884.4	889.7	890.2
15°	858.3	862.0	870.5	876.9	878.5
17.5°	839.6	845.5	855.1	863.1	864.7
20°	819.9	825.8	837.0	846.0	848.1
22.5°	798.1	803.4	816.7	827.9	830.6
25°	775.2	781.0	794.9	807.1	811.4
27.5°	748.0	754.9	771.4	785.3	789.5
30°	720.3	728.8	745.9	761.3	766.1
32.5°	692.1	700.0	719.2	735.7	742.1
35°	662.2	670.7	690.5	709.6	717.6
37.5°	630.8	639.3	660.6	682.5	689.9
40°	598.3	608.4	631.3	654.8	662.7
42.5°	565.3	575.9	599.9	626.0	636.6
45°	531.2	542.9	569.5	597.2	608.9
47.5°	500.3	509.8	537.6	567.9	579.1
50°	467.2	476.3	507.2	537.6	549.3
52.5°	433.7	442.2	475.2	507.2	521.6
55°	397.4	409.7	442.7	476.8	491.2
57.5°	365.5	376.7	410.8	445.4	459.2
60°	330.8	342.6	379.3	414.5	429.4
62.5°	296.2	309.0	346.3	384.1	398.0
65°	260.0	276.0	316.5	351.6	368.7
67.5°	229.1	244.5	284.5	321.3	336.2
70°	194.5	212.6	252.5	289.8	305.8
72.5°	162.0	180.1	221.1	258.4	274.4
75°	131.6	151.3	190.2	224.3	232.8
77.5°	102.3	120.9	159.8	179.5	188.6
80°	74.1	92.2	120.9	134.3	136.4
82.5°	50.1	65.5	82.0	85.8	83.6
85°	28.8	36.8	41.6	41.6	38.9
87.5°	11.7	11.7	10.1	6.4	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)