

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: P474947

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474947
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2513.3 lumens
Efficiency: N/A
Efficacy: 152.3 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

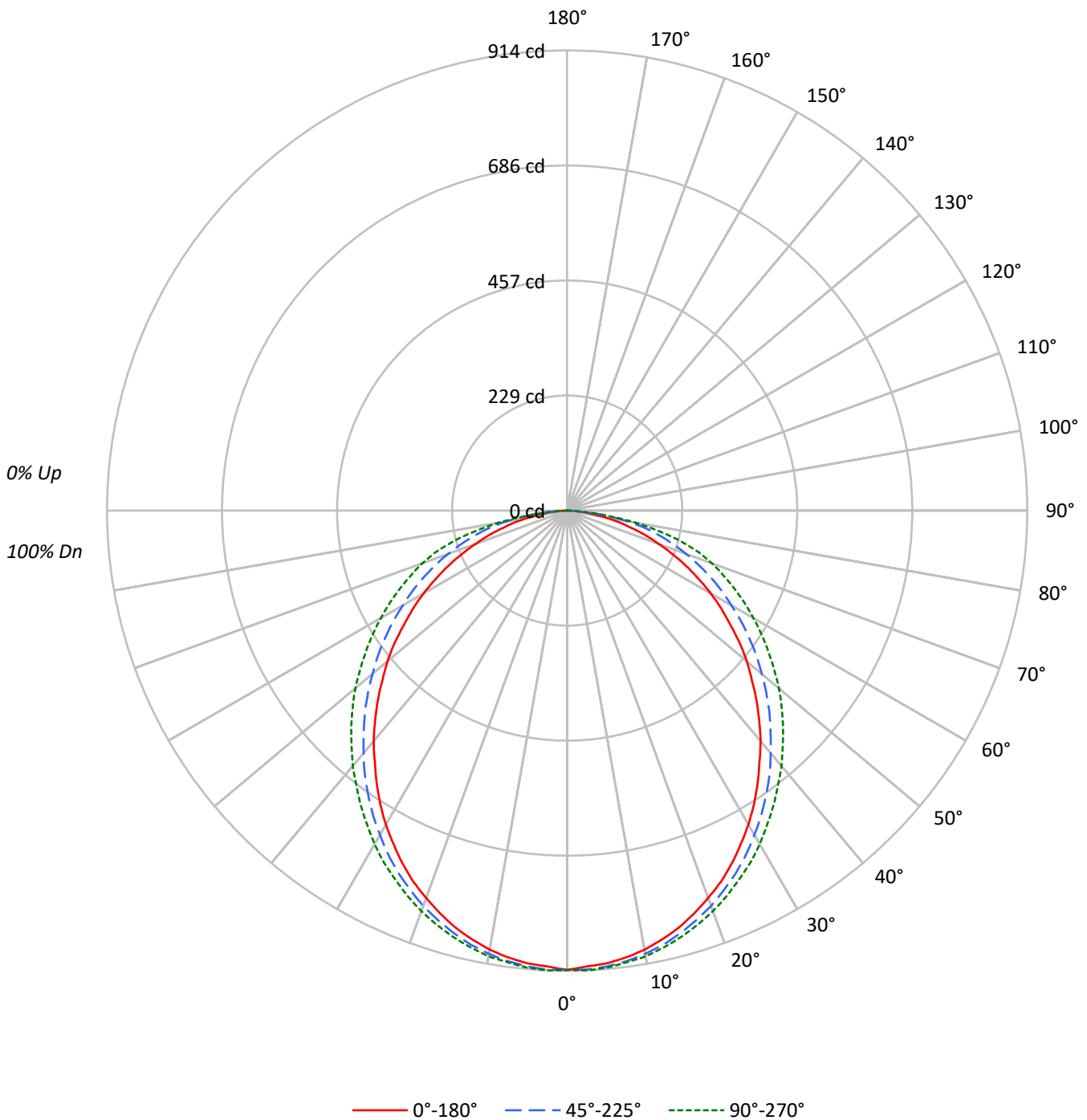
Input Watts (W): 16.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2455	2455	2455
5°	2438	2455	2461
10°	2420	2443	2457
15°	2389	2422	2442
20°	2344	2393	2425
25°	2297	2357	2400
30°	2238	2312	2378
35°	2168	2264	2348
40°	2100	2209	2327
45°	2023	2162	2308
50°	1950	2113	2299
55°	1858	2072	2289
60°	1774	2030	2298
65°	1665	2006	2332
70°	1522	1981	2407
75°	1366	1967	2409
80°	1150	1857	2140
85°	865	1260	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	3.4
10°-20°	244.7	9.7
20°-30°	364.9	14.5
30°-40°	430.5	17.1
40°-50°	438.7	17.5
50°-60°	395.6	15.7
60°-70°	310.7	12.4
70°-80°	194.2	7.7
80°-90°	47.9	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°	695.8	27.7
0°-40°	1126.3	44.8
0°-60°	1960.6	78.0
0°-90°	2513.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2513.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	903	904	909	910	911	86
15°	858	861	869	875	876	241
25°	774	778	794	805	808	356
35°	660	669	689	708	715	413
45°	532	541	568	596	606	410
55°	396	409	442	476	488	355
65°	262	276	315	350	366	258
75°	131	150	189	221	232	140
85°	28	36	41	40	38	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	912.4	912.4	912.4	912.4	912.4
2.5°	906.3	908.1	912.4	914.2	914.2
5°	902.6	904.4	908.7	910.5	911.1
7.5°	895.3	897.8	902.6	905.1	905.1
10°	885.6	888.6	894.1	897.8	899.0
12.5°	872.2	875.9	883.2	887.4	888.6
15°	857.6	860.7	869.2	875.2	876.5
17.5°	838.8	843.6	852.7	860.7	862.5
20°	818.7	824.2	835.7	844.8	846.7
22.5°	798.0	802.3	815.0	826.0	828.4
25°	773.7	777.9	793.7	805.3	808.3
27.5°	746.9	754.2	770.0	783.4	788.3
30°	720.1	727.4	743.9	759.7	765.2
32.5°	691.0	698.9	717.7	734.1	739.6
35°	659.9	669.1	689.1	708.0	714.7
37.5°	627.7	638.0	660.5	680.6	687.9
40°	597.9	605.2	628.9	652.0	662.4
42.5°	564.4	574.2	597.9	624.0	633.8
45°	531.6	540.7	568.1	595.5	606.4
47.5°	497.5	509.1	536.5	566.9	577.8
50°	465.9	475.6	504.8	537.1	549.2
52.5°	431.8	442.2	473.8	507.3	518.2
55°	396.0	408.7	441.6	475.6	487.8
57.5°	363.1	375.3	409.9	445.2	458.0
60°	329.7	341.8	377.1	413.0	427.0
62.5°	294.4	308.4	346.7	381.4	397.2
65°	261.5	275.5	315.1	350.3	366.2
67.5°	226.9	243.3	282.8	319.9	335.7
70°	193.4	212.9	251.8	288.3	305.9
72.5°	163.6	179.4	220.2	258.5	273.1
75°	131.4	149.6	189.2	221.4	231.7
77.5°	104.0	119.8	157.5	178.8	185.5
80°	74.2	91.8	119.8	132.6	138.1
82.5°	49.3	63.9	81.5	83.9	82.7
85°	28.0	35.9	40.8	40.1	37.7
87.5°	10.9	12.2	9.1	5.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)