

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: P474941

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474941
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

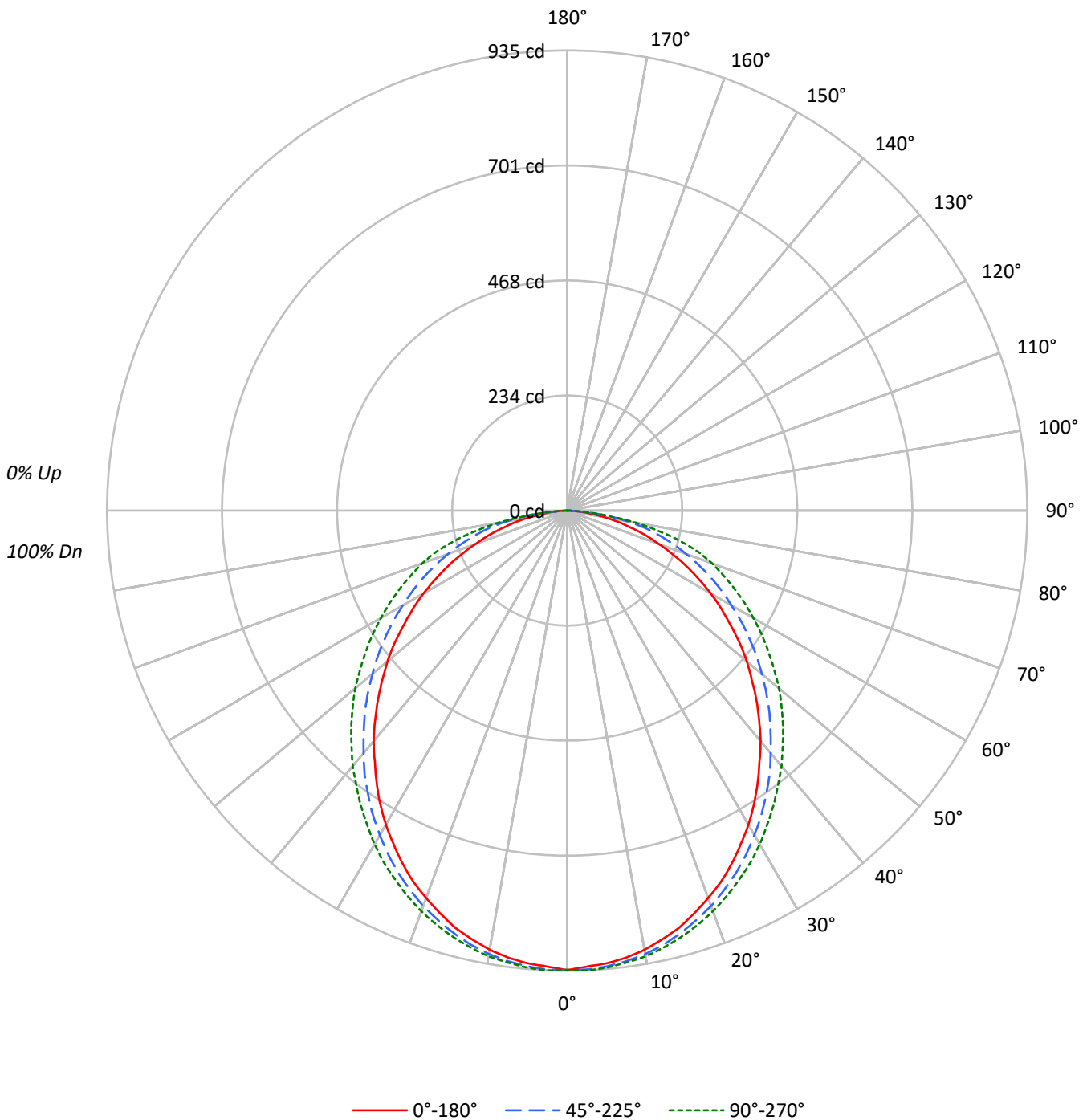
Lumens per Lamp: N/A
Luminaire Lumens: 2571.6 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	2512	2512	2512
5°	2495	2511	2518
10°	2476	2500	2513
15°	2445	2478	2498
20°	2399	2449	2481
25°	2350	2411	2456
30°	2289	2365	2433
35°	2218	2316	2402
40°	2149	2261	2381
45°	2070	2212	2361
50°	1996	2162	2353
55°	1901	2120	2342
60°	1815	2076	2351
65°	1704	2053	2385
70°	1557	2027	2463
75°	1397	2012	2465
80°	1176	1900	2190
85°	883	1288	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	3.4
10°-20°	250.4	9.7
20°-30°	373.3	14.5
30°-40°	440.5	17.1
40°-50°	448.8	17.5
50°-60°	404.8	15.7
60°-70°	317.9	12.4
70°-80°	198.7	7.7
80°-90°	49.0	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°	711.9	27.7
0°-40°	1152.4	44.8
0°-60°	2006.0	78.0
0°-90°	2571.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2571.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	924	925	930	932	932	88
15°	878	881	889	896	897	247
25°	792	796	812	824	827	364
35°	675	685	705	724	731	422
45°	544	553	581	609	620	420
55°	405	418	452	487	499	363
65°	268	282	322	358	375	264
75°	134	153	194	226	237	144
85°	29	37	42	41	39	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.5	933.5	933.5	933.5	933.5
2.5°	927.3	929.1	933.5	935.3	935.3
5°	923.5	925.4	929.7	931.6	932.2
7.5°	916.1	918.5	923.5	926.0	926.0
10°	906.1	909.2	914.8	918.5	919.8
12.5°	892.4	896.1	903.6	908.0	909.2
15°	877.5	880.6	889.3	895.5	896.8
17.5°	858.2	863.2	872.5	880.6	882.4
20°	837.6	843.2	855.1	864.4	866.3
22.5°	816.5	820.8	833.9	845.1	847.6
25°	791.6	795.9	812.1	824.0	827.1
27.5°	764.2	771.7	787.9	801.5	806.5
30°	736.8	744.3	761.1	777.3	782.9
32.5°	707.0	715.0	734.3	751.1	756.7
35°	675.2	684.6	705.1	724.4	731.2
37.5°	642.2	652.8	675.8	696.4	703.8
40°	611.7	619.2	643.5	667.1	677.7
42.5°	577.5	587.5	611.7	638.5	648.5
45°	543.9	553.2	581.2	609.3	620.5
47.5°	509.1	520.9	548.9	580.0	591.2
50°	476.7	486.7	516.5	549.5	562.0
52.5°	441.8	452.4	484.8	519.0	530.2
55°	405.1	418.2	451.8	486.7	499.1
57.5°	371.5	384.0	419.4	455.5	468.6
60°	337.3	349.7	385.8	422.6	436.9
62.5°	301.2	315.5	354.7	390.2	406.4
65°	267.6	281.9	322.4	358.5	374.6
67.5°	232.1	248.9	289.4	327.3	343.5
70°	197.9	217.8	257.6	295.0	313.0
72.5°	167.4	183.6	225.3	264.5	279.4
75°	134.4	153.1	193.5	226.5	237.1
77.5°	106.4	122.6	161.2	183.0	189.8
80°	75.9	94.0	122.6	135.7	141.3
82.5°	50.4	65.3	83.4	85.9	84.6
85°	28.6	36.7	41.7	41.1	38.6
87.5°	11.2	12.4	9.3	5.6	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)