

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: P474499

Luminaire Tested: **24CZ2-125VHE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474499
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-125VHE-HRP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10271.0 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

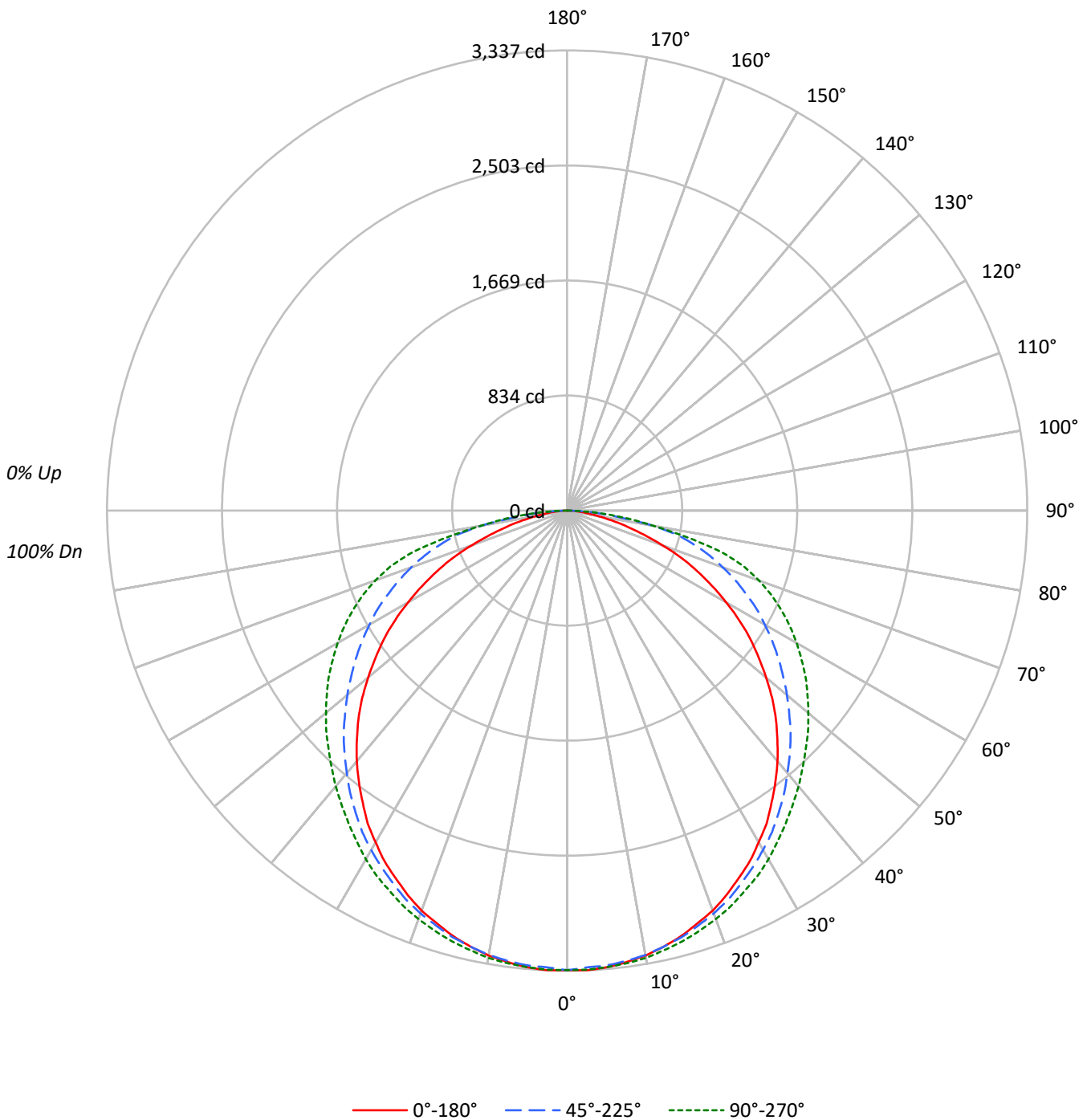
Input Watts (W): 87.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4484	4484	4484
5°	4489	4472	4489
10°	4476	4471	4500
15°	4450	4462	4504
20°	4421	4451	4513
25°	4366	4430	4519
30°	4316	4416	4536
35°	4245	4393	4541
40°	4169	4366	4584
45°	4074	4361	4656
50°	3943	4357	4780
55°	3803	4387	4953
60°	3587	4455	5172
65°	3313	4559	5463
70°	2892	4719	5819
75°	2347	4963	6013
80°	1733	4866	4866
85°	1329	3583	4046



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	315.7	3.1
10°-20°	906.5	8.8
20°-30°	1380.1	13.4
30°-40°	1675.7	16.3
40°-50°	1770.4	17.2
50°-60°	1670.6	16.3
60°-70°	1389.0	13.5
70°-80°	913.8	8.9
80°-90°	249.1	2.4
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°	2602.3	25.3
0°-40°	4278.0	41.7
0°-60°	7719.0	75.2
0°-90°	10271.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3332	3332	3332	3332	3332	
5°	3324	3324	3311	3324	3324	316
15°	3195	3199	3204	3234	3234	901
25°	2941	2958	2984	3036	3044	1357
35°	2584	2614	2674	2743	2765	1618
45°	2141	2184	2292	2403	2447	1649
55°	1621	1690	1870	2047	2111	1444
65°	1041	1161	1432	1643	1716	1029
75°	452	658	955	1131	1157	486
85°	86	189	232	258	262	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3332.4	3332.4	3332.4	3332.4	3332.4
2.5°	3336.8	3332.4	3315.2	3332.4	3332.4
5°	3324.0	3324.0	3310.8	3324.0	3324.0
7.5°	3302.4	3302.4	3293.6	3310.8	3310.8
10°	3276.4	3276.4	3272.4	3293.6	3293.6
12.5°	3238.0	3241.9	3238.0	3263.6	3263.6
15°	3194.7	3199.1	3203.5	3233.5	3233.5
17.5°	3139.1	3147.5	3156.3	3190.3	3194.7
20°	3087.5	3091.4	3108.7	3147.5	3151.9
22.5°	3018.6	3031.4	3053.0	3091.4	3104.7
25°	2941.0	2958.2	2984.2	3035.8	3044.2
27.5°	2868.1	2880.9	2915.4	2971.4	2988.6
30°	2777.7	2799.3	2842.1	2898.1	2919.8
32.5°	2691.6	2713.2	2764.9	2824.9	2842.1
35°	2584.4	2614.4	2674.4	2743.2	2764.9
37.5°	2481.1	2511.1	2584.4	2661.6	2687.6
40°	2373.4	2407.8	2485.5	2575.5	2610.0
42.5°	2257.3	2304.6	2390.6	2489.5	2528.3
45°	2141.3	2184.5	2291.8	2403.4	2446.7
47.5°	2016.8	2068.5	2184.5	2317.8	2369.4
50°	1883.6	1948.0	2081.3	2227.3	2283.4
52.5°	1750.3	1823.1	1973.6	2136.9	2197.3
55°	1621.0	1689.8	1870.3	2046.8	2111.3
57.5°	1479.3	1565.4	1763.1	1952.0	2016.8
60°	1332.8	1427.7	1655.4	1853.1	1921.9
62.5°	1186.7	1294.4	1552.1	1750.3	1823.1
65°	1040.6	1161.1	1432.1	1642.6	1715.8
67.5°	898.5	1031.8	1320.0	1530.9	1603.8
70°	735.2	902.9	1199.5	1406.0	1479.3
72.5°	584.7	778.5	1083.4	1277.2	1341.6
75°	451.5	658.0	954.6	1130.7	1156.7
77.5°	331.0	537.5	821.3	881.3	885.7
80°	223.7	429.8	628.0	619.2	628.0
82.5°	146.1	322.6	395.4	443.1	447.1
85°	86.1	189.3	232.1	258.2	262.1
87.5°	42.8	64.4	81.6	86.1	94.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)