

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: P474258

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474258
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-RDP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11441.1 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

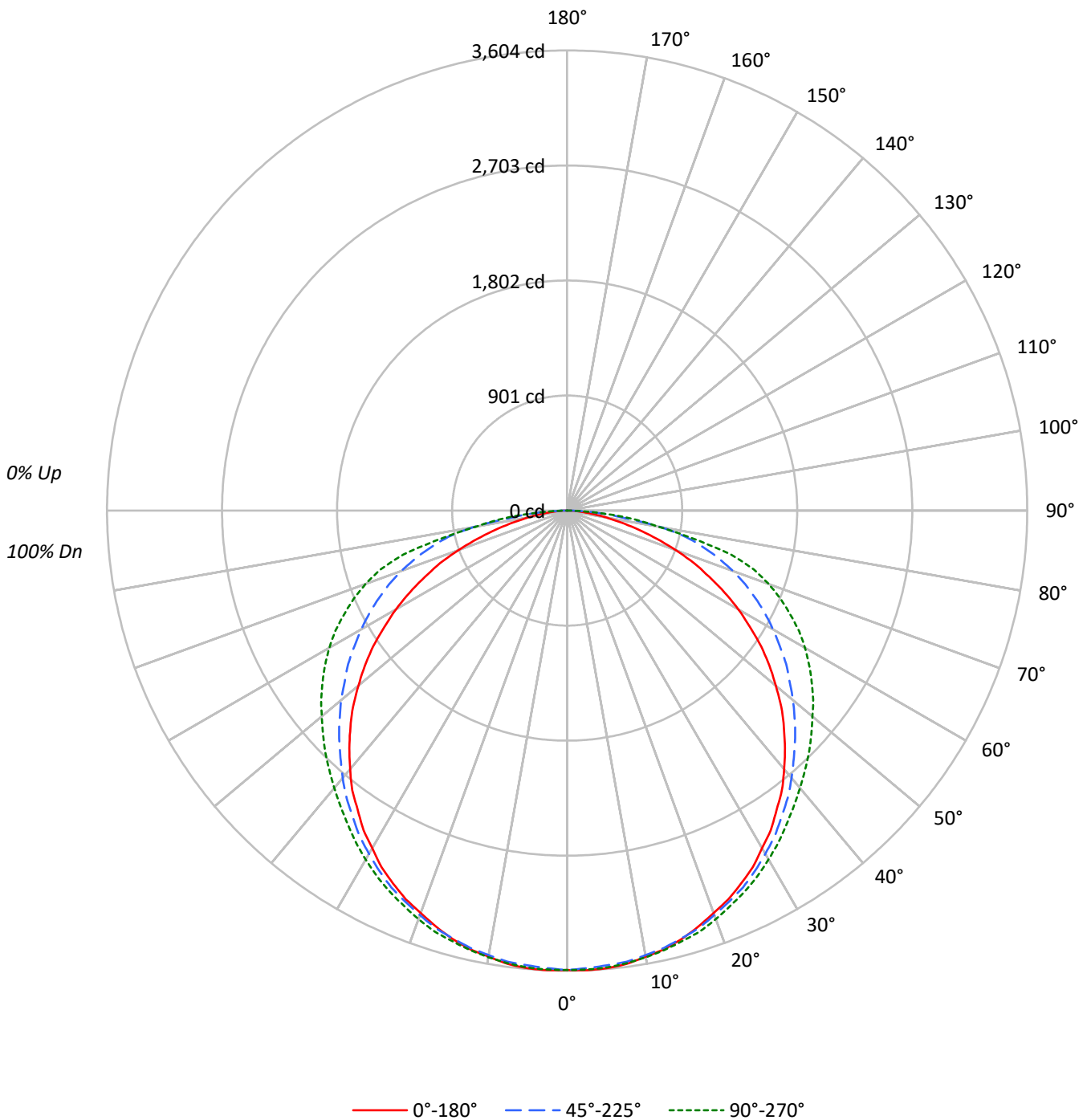
Input Watts (W): 126.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4841	4841	4841
5°	4860	4829	4852
10°	4846	4830	4854
15°	4838	4830	4862
20°	4802	4827	4875
25°	4785	4836	4887
30°	4743	4823	4902
35°	4697	4810	4921
40°	4645	4804	4983
45°	4568	4806	5096
50°	4466	4835	5251
55°	4353	4912	5485
60°	4170	5008	5788
65°	3903	5184	6142
70°	3549	5426	6607
75°	3008	5723	6904
80°	2376	5759	5583
85°	1754	4383	4909



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.3	3.0
10°-20°	982.3	8.6
20°-30°	1502.0	13.1
30°-40°	1836.1	16.0
40°-50°	1957.1	17.1
50°-60°	1871.2	16.4
60°-70°	1585.1	13.9
70°-80°	1065.3	9.3
80°-90°	300.6	2.6
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°	2825.6	24.7
0°-40°	4661.8	40.7
0°-60°	8490.0	74.2
0°-90°	11441.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11441.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3598	3598	3598	3598	3598	
5°	3598	3592	3575	3592	3592	342
15°	3473	3473	3468	3496	3490	979
25°	3223	3235	3257	3286	3292	1486
35°	2860	2883	2928	2985	2996	1792
45°	2401	2440	2526	2633	2678	1852
55°	1856	1924	2094	2259	2338	1653
65°	1226	1351	1628	1844	1929	1217
75°	579	789	1101	1288	1328	620
85°	114	233	284	307	318	141
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3598.1	3598.1	3598.1	3598.1	3598.1
2.5°	3603.7	3603.7	3586.7	3598.1	3598.1
5°	3598.1	3592.4	3575.4	3592.4	3592.4
7.5°	3581.0	3575.4	3564.0	3581.0	3575.4
10°	3547.0	3547.0	3535.6	3552.6	3552.6
12.5°	3518.6	3512.9	3507.2	3529.9	3524.3
15°	3473.2	3473.2	3467.5	3495.9	3490.2
17.5°	3416.4	3422.1	3427.7	3450.4	3456.1
20°	3353.9	3365.3	3371.0	3405.0	3405.0
22.5°	3297.1	3302.8	3314.2	3348.2	3348.2
25°	3223.3	3234.7	3257.4	3285.8	3291.5
27.5°	3149.5	3155.2	3183.6	3223.3	3229.0
30°	3053.0	3070.0	3104.1	3149.5	3155.2
32.5°	2967.8	2984.9	3024.6	3070.0	3081.4
35°	2859.9	2882.7	2928.1	2984.9	2996.2
37.5°	2763.4	2780.5	2837.2	2899.7	2916.7
40°	2644.8	2678.3	2735.0	2808.8	2837.2
42.5°	2525.5	2559.6	2627.7	2723.7	2757.7
45°	2400.6	2440.4	2525.5	2633.4	2678.3
47.5°	2275.7	2321.1	2417.6	2542.6	2593.7
50°	2133.7	2190.5	2309.8	2451.7	2508.5
52.5°	1997.5	2065.6	2196.2	2355.2	2429.0
55°	1855.5	1923.7	2094.0	2258.7	2338.1
57.5°	1696.5	1787.4	1974.8	2162.1	2247.3
60°	1549.5	1634.1	1861.2	2065.6	2150.8
62.5°	1390.5	1504.1	1747.7	1963.4	2048.6
65°	1225.9	1350.8	1628.4	1844.2	1929.3
67.5°	1078.2	1214.5	1509.7	1724.9	1810.1
70°	902.2	1072.6	1379.2	1594.3	1679.5
72.5°	737.6	924.9	1242.9	1453.0	1532.5
75°	578.6	788.7	1100.9	1288.3	1328.1
77.5°	431.5	652.4	953.3	1032.8	1004.4
80°	306.6	522.4	743.2	703.5	720.5
82.5°	198.7	397.5	459.9	522.4	538.8
85°	113.6	232.8	283.9	306.6	318.0
87.5°	51.1	85.2	113.6	113.6	107.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)