

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: P474008

Luminaire Tested: **24CZ2-170VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474008
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16808.1 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

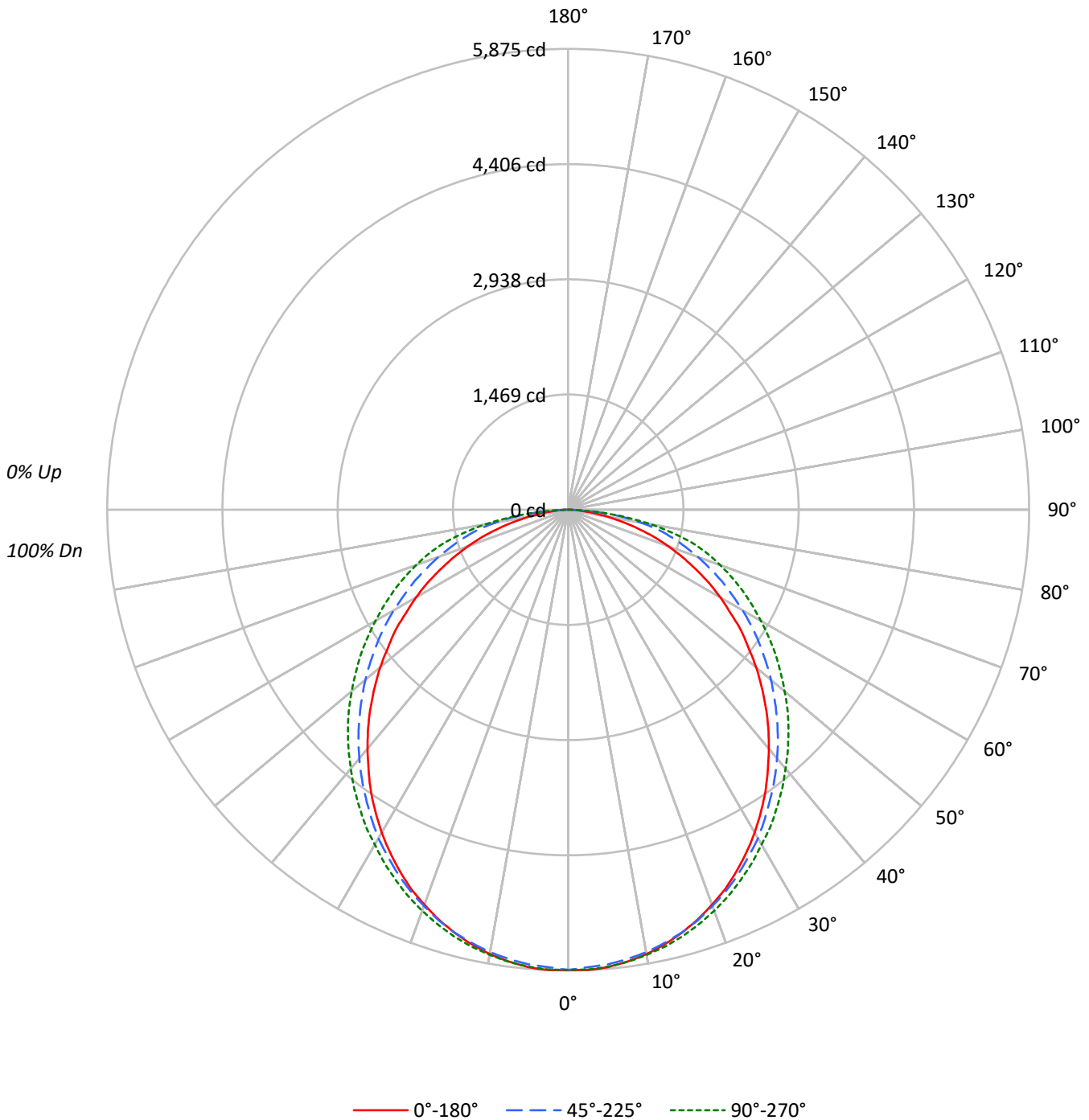
Input Watts (W): 126.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7894	7894	7894
5°	7905	7857	7898
10°	7861	7827	7872
15°	7780	7776	7841
20°	7673	7697	7791
25°	7546	7611	7730
30°	7386	7515	7656
35°	7201	7383	7614
40°	6988	7274	7569
45°	6777	7160	7554
50°	6548	7062	7536
55°	6314	6975	7577
60°	6025	6909	7630
65°	5705	6882	7814
70°	5322	6918	8091
75°	4736	7119	8525
80°	3872	7273	8322
85°	2728	6351	6478



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	554.6	3.3
10°-20°	1579.7	9.4
20°-30°	2368.0	14.1
30°-40°	2820.3	16.8
40°-50°	2908.0	17.3
50°-60°	2653.5	15.8
60°-70°	2121.9	12.6
70°-80°	1386.0	8.2
80°-90°	416.1	2.5
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°	4502.3	26.8
0°-40°	7322.6	43.6
0°-60°	12884.1	76.7
0°-90°	16808.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16808.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5867	5867	5867	5867	5867	
5°	5853	5842	5817	5853	5847	555
15°	5585	5588	5582	5629	5629	1574
25°	5083	5091	5127	5201	5207	2340
35°	4384	4415	4495	4608	4635	2739
45°	3562	3625	3763	3920	3970	2746
55°	2692	2769	2973	3169	3230	2397
65°	1792	1913	2162	2374	2454	1777
75°	911	1063	1369	1590	1640	968
85°	177	318	411	420	420	224
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5866.8	5866.8	5866.8	5866.8	5866.8
2.5°	5875.0	5866.8	5836.4	5872.3	5866.8
5°	5853.0	5841.9	5817.1	5853.0	5847.4
7.5°	5808.8	5803.3	5778.4	5819.8	5814.3
10°	5753.6	5748.0	5728.7	5770.1	5761.8
12.5°	5676.3	5673.5	5659.7	5709.4	5703.9
15°	5585.2	5587.9	5582.4	5629.3	5629.3
17.5°	5480.2	5477.5	5488.5	5546.5	5541.0
20°	5358.8	5361.5	5375.3	5441.6	5441.6
22.5°	5231.8	5229.0	5259.4	5325.6	5331.2
25°	5082.7	5091.0	5126.9	5201.4	5206.9
27.5°	4922.6	4936.4	4980.5	5066.1	5074.4
30°	4754.1	4770.7	4837.0	4917.0	4928.1
32.5°	4569.2	4605.1	4665.8	4767.9	4795.6
35°	4384.2	4414.6	4494.6	4607.8	4635.4
37.5°	4179.9	4229.6	4320.7	4444.9	4480.8
40°	3978.3	4028.0	4141.2	4271.0	4309.6
42.5°	3774.0	3826.5	3956.3	4102.6	4144.0
45°	3561.5	3625.0	3763.0	3920.4	3970.1
47.5°	3343.4	3417.9	3567.0	3738.2	3793.4
50°	3128.0	3202.6	3373.7	3550.4	3600.1
52.5°	2896.1	2990.0	3172.2	3362.7	3412.4
55°	2691.8	2769.1	2973.4	3169.4	3230.2
57.5°	2451.6	2556.5	2774.6	2973.4	3031.4
60°	2239.0	2335.7	2567.6	2769.1	2835.4
62.5°	2023.7	2123.1	2355.0	2584.1	2644.9
65°	1791.8	1913.3	2161.7	2374.3	2454.4
67.5°	1570.9	1697.9	1951.9	2178.3	2261.1
70°	1352.8	1482.6	1758.6	1990.6	2056.8
72.5°	1137.5	1272.7	1559.9	1786.3	1863.6
75°	911.1	1062.9	1369.4	1590.2	1639.9
77.5°	698.5	866.9	1176.1	1325.2	1361.1
80°	499.7	684.7	938.7	1046.4	1074.0
82.5°	328.5	508.0	701.2	759.2	750.9
85°	176.7	317.5	411.4	419.6	419.6
87.5°	69.0	127.0	129.8	99.4	93.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)