

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: P474308

Luminaire Tested: **24CZ2-170VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474308
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11658.4 lumens
Efficiency: N/A
Efficacy: 92.1 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

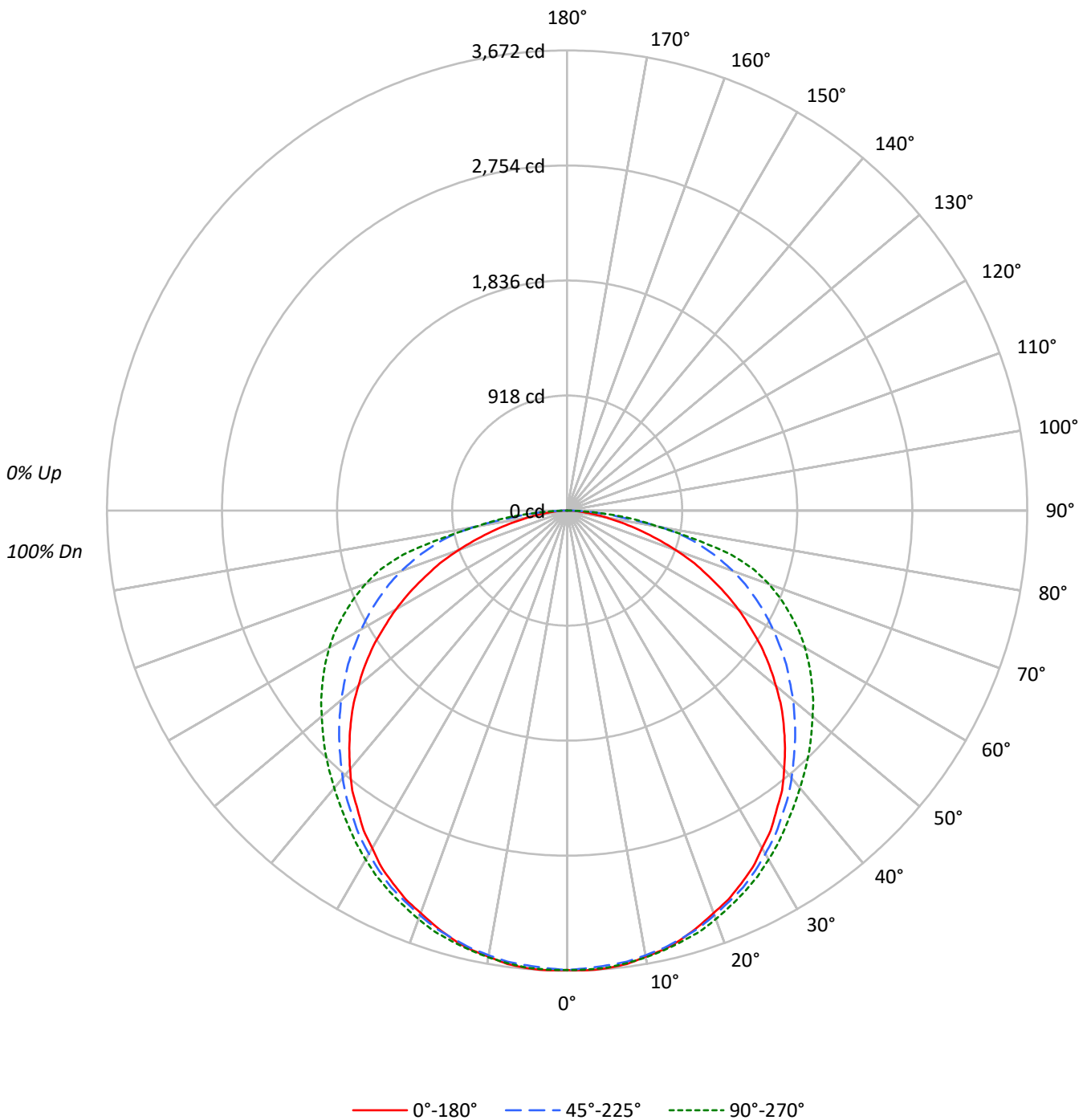
Input Watts (W): 126.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4933	4933	4933
5°	4952	4921	4944
10°	4938	4922	4946
15°	4930	4922	4954
20°	4893	4918	4968
25°	4876	4928	4979
30°	4833	4914	4995
35°	4787	4901	5015
40°	4734	4895	5078
45°	4655	4897	5193
50°	4551	4927	5350
55°	4435	5005	5589
60°	4249	5104	5898
65°	3977	5283	6259
70°	3617	5529	6733
75°	3065	5832	7035
80°	2421	5869	5689
85°	1786	4466	5002



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.8	3.0
10°-20°	1000.9	8.6
20°-30°	1530.6	13.1
30°-40°	1871.0	16.0
40°-50°	1994.3	17.1
50°-60°	1906.7	16.4
60°-70°	1615.2	13.9
70°-80°	1085.6	9.3
80°-90°	306.3	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°	2879.3	24.7
0°-40°	4750.3	40.7
0°-60°	8651.3	74.2
0°-90°	11658.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11658.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3666	3666	3666	3666	3666	
5°	3666	3661	3643	3661	3661	348
15°	3539	3539	3533	3562	3556	998
25°	3285	3296	3319	3348	3354	1514
35°	2914	2937	2984	3042	3053	1826
45°	2446	2487	2574	2683	2729	1887
55°	1891	1960	2134	2302	2383	1684
65°	1249	1376	1659	1879	1966	1240
75°	590	804	1122	1313	1353	632
85°	116	237	289	312	324	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3666.4	3666.4	3666.4	3666.4	3666.4
2.5°	3672.2	3672.2	3654.9	3666.4	3666.4
5°	3666.4	3660.6	3643.3	3660.6	3660.6
7.5°	3649.1	3643.3	3631.7	3649.1	3643.3
10°	3614.4	3614.4	3602.8	3620.1	3620.1
12.5°	3585.4	3579.6	3573.9	3597.0	3591.2
15°	3539.1	3539.1	3533.4	3562.3	3556.5
17.5°	3481.3	3487.1	3492.9	3516.0	3521.8
20°	3417.6	3429.2	3435.0	3469.7	3469.7
22.5°	3359.8	3365.6	3377.1	3411.9	3411.9
25°	3284.6	3296.1	3319.3	3348.2	3354.0
27.5°	3209.4	3215.1	3244.1	3284.6	3290.4
30°	3111.0	3128.4	3163.1	3209.4	3215.1
32.5°	3024.2	3041.6	3082.1	3128.4	3139.9
35°	2914.3	2937.4	2983.7	3041.6	3053.1
37.5°	2815.9	2833.3	2891.1	2954.8	2972.1
40°	2695.0	2729.1	2787.0	2862.2	2891.1
42.5°	2573.5	2608.2	2677.6	2775.4	2810.1
45°	2446.2	2486.7	2573.5	2683.4	2729.1
47.5°	2318.9	2365.2	2463.6	2590.9	2642.9
50°	2174.3	2232.1	2353.6	2498.3	2556.1
52.5°	2035.4	2104.9	2237.9	2399.9	2475.1
55°	1890.8	1960.2	2133.8	2301.6	2382.6
57.5°	1728.8	1821.4	2012.3	2203.2	2290.0
60°	1578.9	1665.1	1896.6	2104.9	2191.6
62.5°	1416.9	1532.6	1780.9	2000.7	2087.5
65°	1249.1	1376.4	1659.4	1879.2	1966.0
67.5°	1098.7	1237.6	1538.4	1757.7	1844.5
70°	919.4	1092.9	1405.4	1624.6	1711.4
72.5°	751.6	942.5	1266.5	1480.6	1561.6
75°	589.6	803.6	1121.9	1312.8	1353.3
77.5°	439.7	664.8	971.4	1052.4	1023.5
80°	312.4	532.3	757.4	716.9	734.2
82.5°	202.5	405.0	468.6	532.3	549.1
85°	115.7	237.2	289.3	312.4	324.0
87.5°	52.1	86.8	115.7	115.7	109.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)