

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: P473858

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473858
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

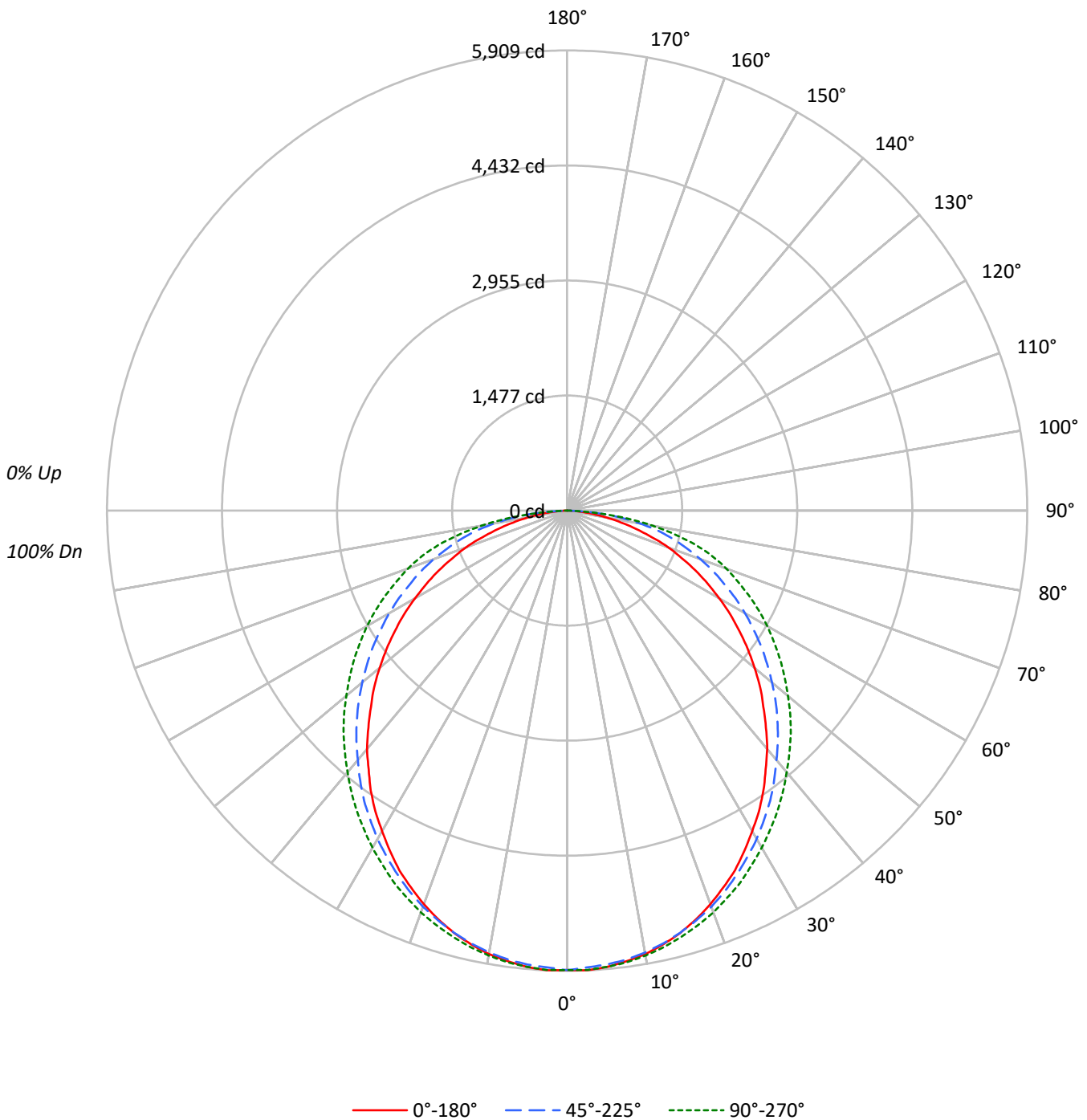
Lumens per Lamp: N/A
Luminaire Lumens: 17075.7 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61		71	65	60		68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		36	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7939	7939	7939
5°	7944	7903	7944
10°	7900	7873	7926
15°	7820	7816	7893
20°	7702	7750	7860
25°	7568	7654	7822
30°	7385	7565	7766
35°	7218	7467	7735
40°	7021	7345	7704
45°	6782	7270	7727
50°	6577	7189	7749
55°	6335	7138	7837
60°	6072	7104	7980
65°	5788	7079	8186
70°	5448	7152	8563
75°	4790	7299	8906
80°	3997	7353	8593
85°	2853	6303	6388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	557.8	3.3
10°-20°	1588.8	9.3
20°-30°	2383.6	14.0
30°-40°	2845.7	16.7
40°-50°	2947.7	17.3
50°-60°	2713.6	15.9
60°-70°	2189.0	12.8
70°-80°	1430.2	8.4
80°-90°	419.3	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°	4530.2	26.5
0°-40°	7375.9	43.2
0°-60°	13037.2	76.3
0°-90°	17075.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17075.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5901	5901	5901	5901	5901	
5°	5881	5876	5851	5884	5881	558
15°	5614	5614	5611	5666	5666	1582
25°	5098	5109	5156	5250	5269	2344
35°	4394	4433	4546	4670	4709	2745
45°	3564	3652	3821	3992	4061	2755
55°	2701	2817	3043	3266	3341	2417
65°	1818	1942	2224	2477	2571	1798
75°	921	1095	1404	1647	1713	983
85°	185	320	408	433	414	229
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5900.7	5900.7	5900.7	5900.7	5900.7
2.5°	5909.0	5900.7	5870.4	5906.3	5903.5
5°	5881.4	5875.9	5851.1	5884.2	5881.4
7.5°	5837.3	5834.5	5815.2	5851.1	5851.1
10°	5782.1	5776.6	5762.8	5804.2	5801.4
12.5°	5704.9	5702.1	5693.8	5743.5	5740.7
15°	5613.8	5613.8	5611.1	5666.3	5666.3
17.5°	5503.5	5506.3	5517.3	5580.7	5583.5
20°	5379.4	5390.4	5412.5	5484.2	5489.7
22.5°	5238.7	5260.7	5291.1	5371.1	5379.4
25°	5098.0	5109.0	5155.9	5249.7	5269.0
27.5°	4926.9	4954.5	5015.2	5111.8	5131.1
30°	4753.1	4791.8	4869.0	4968.3	4998.7
32.5°	4582.1	4615.2	4706.2	4819.3	4855.2
35°	4394.5	4433.1	4546.2	4670.4	4709.0
37.5°	4187.6	4248.3	4366.9	4510.4	4551.8
40°	3997.3	4052.4	4182.1	4342.1	4386.2
42.5°	3779.3	3848.3	4005.5	4168.3	4223.5
45°	3564.2	3652.4	3820.7	3991.8	4060.7
47.5°	3362.8	3434.5	3633.1	3826.2	3886.9
50°	3142.1	3224.9	3434.5	3638.7	3702.1
52.5°	2924.2	3023.5	3235.9	3451.1	3520.0
55°	2700.7	2816.6	3042.8	3266.2	3340.7
57.5°	2485.5	2601.4	2835.9	3073.1	3150.4
60°	2256.6	2380.7	2640.0	2869.0	2965.5
62.5°	2035.9	2160.0	2433.1	2681.4	2772.4
65°	1817.9	1942.1	2223.5	2477.3	2571.1
67.5°	1591.7	1726.9	2027.6	2273.1	2364.2
70°	1384.8	1514.5	1817.9	2080.0	2176.6
72.5°	1147.6	1302.1	1611.0	1870.4	1961.4
75°	921.4	1095.2	1404.1	1646.9	1713.1
77.5°	711.7	885.5	1194.5	1376.6	1417.9
80°	515.9	692.4	949.0	1075.9	1109.0
82.5°	333.8	515.9	686.9	772.4	783.5
85°	184.8	320.0	408.3	433.1	413.8
87.5°	66.2	121.4	118.6	96.6	77.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)