

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: P474658

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474658
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-170VHE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16223.1 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

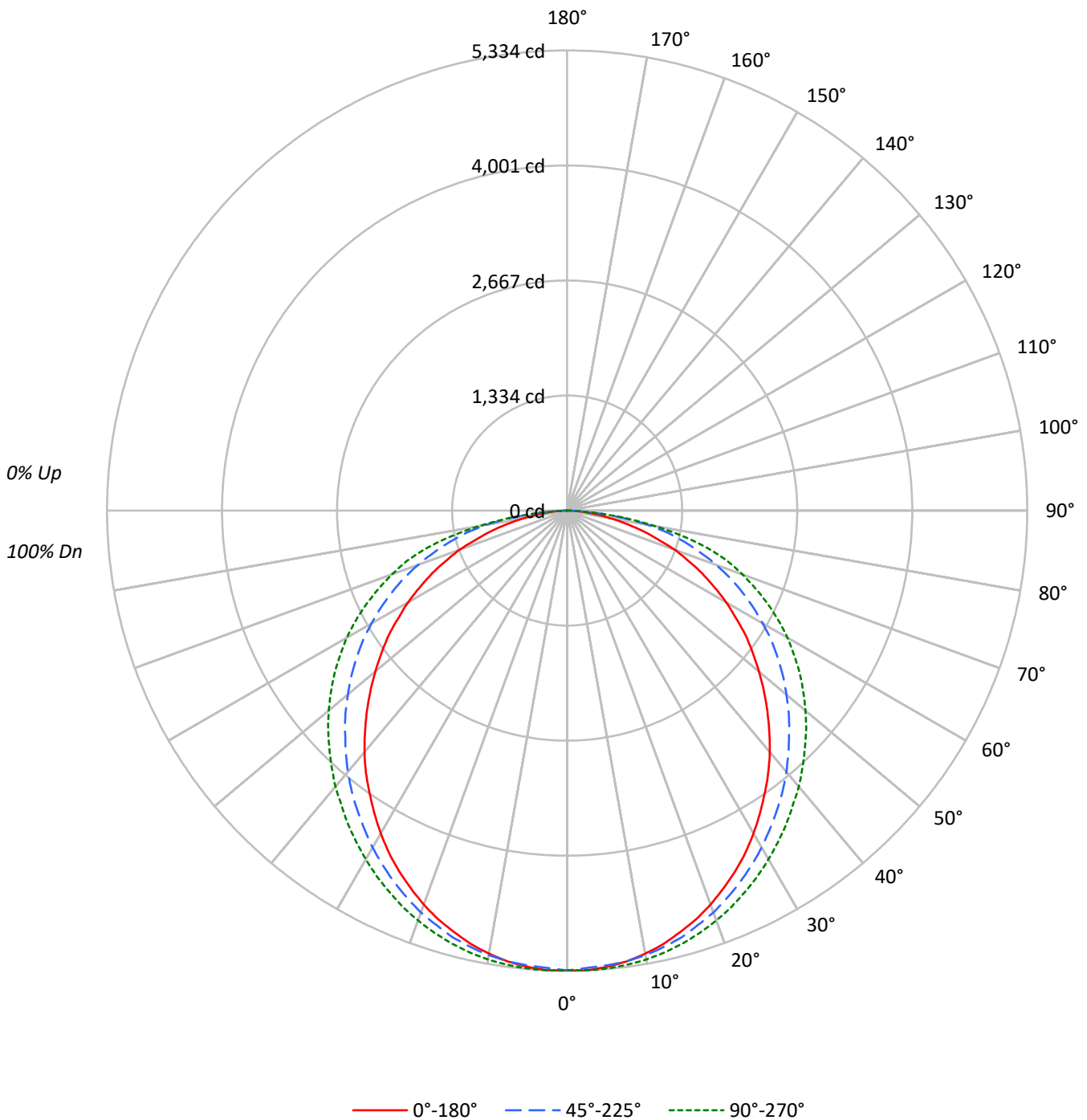
Input Watts (W): 126.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	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	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	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	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14340	14340	14340
5°	14338	14296	14394
10°	14249	14299	14440
15°	14094	14268	14463
20°	13917	14199	14480
25°	13690	14098	14483
30°	13425	14013	14504
35°	13121	13929	14559
40°	12838	13884	14677
45°	12487	13848	14835
50°	12152	13888	15104
55°	11868	13984	15443
60°	11466	14088	15874
65°	11007	14259	16355
70°	10441	14458	17007
75°	9351	14659	17570
80°	7872	14700	15946
85°	5842	11124	10482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	505.0	3.1
10°-20°	1447.2	8.9
20°-30°	2190.9	13.5
30°-40°	2650.3	16.3
40°-50°	2797.6	17.2
50°-60°	2638.1	16.3
60°-70°	2175.0	13.4
70°-80°	1426.8	8.8
80°-90°	392.3	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°	4143.1	25.5
0°-40°	6793.4	41.9
0°-60°	12229.1	75.4
0°-90°	16223.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16223.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5329	5329	5329	5329	5329	
5°	5308	5308	5292	5329	5329	504
15°	5059	5088	5121	5181	5191	1427
25°	4611	4668	4748	4847	4878	2123
35°	3994	4098	4240	4385	4432	2500
45°	3281	3429	3639	3833	3898	2532
55°	2530	2708	2981	3204	3292	2254
65°	1729	1936	2239	2478	2568	1707
75°	899	1130	1410	1633	1690	950
85°	189	327	360	350	340	235
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5328.8	5328.8	5328.8	5328.8	5328.8
2.5°	5334.0	5328.8	5305.5	5336.6	5334.0
5°	5308.0	5308.0	5292.5	5328.8	5328.8
7.5°	5271.8	5274.4	5269.2	5310.6	5310.6
10°	5214.7	5225.1	5232.9	5279.5	5284.7
12.5°	5147.4	5165.5	5181.0	5238.1	5243.3
15°	5059.2	5087.7	5121.4	5181.0	5191.4
17.5°	4968.5	5002.2	5038.5	5116.3	5129.2
20°	4859.7	4898.5	4958.2	5035.9	5056.6
22.5°	4737.8	4792.3	4854.5	4947.8	4973.7
25°	4610.8	4667.9	4748.2	4846.7	4877.8
27.5°	4473.5	4540.9	4631.6	4745.6	4779.3
30°	4320.6	4398.3	4509.8	4631.6	4667.9
32.5°	4159.9	4250.6	4375.0	4509.8	4551.2
35°	3994.0	4097.7	4240.2	4385.4	4432.0
37.5°	3830.7	3934.4	4102.9	4255.8	4299.8
40°	3654.5	3768.5	3952.5	4115.8	4178.0
42.5°	3467.9	3602.6	3797.0	3978.4	4038.1
45°	3281.2	3429.0	3638.9	3833.3	3898.1
47.5°	3092.0	3255.3	3486.0	3683.0	3758.1
50°	2902.8	3076.5	3317.5	3530.1	3607.8
52.5°	2711.0	2892.5	3154.2	3379.7	3449.7
55°	2529.6	2708.5	2980.6	3203.5	3291.6
57.5°	2319.7	2521.8	2809.5	3035.0	3120.6
60°	2130.5	2327.5	2617.7	2856.2	2949.5
62.5°	1925.7	2127.9	2433.7	2672.2	2762.9
65°	1728.7	1936.1	2239.3	2477.8	2568.5
67.5°	1516.2	1733.9	2044.9	2275.6	2363.7
70°	1327.0	1531.8	1837.6	2073.5	2161.6
72.5°	1096.3	1329.6	1622.5	1855.7	1951.6
75°	899.4	1130.0	1409.9	1632.8	1689.9
77.5°	692.0	922.7	1200.0	1345.2	1384.0
80°	508.0	725.7	948.6	1026.4	1029.0
82.5°	342.1	533.9	660.9	699.8	694.6
85°	189.2	326.6	360.3	349.9	339.5
87.5°	77.8	108.9	88.1	62.2	49.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)