

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: P474054

Luminaire Tested: **24CZ2-150VHE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474054
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15328.7 lumens
Efficiency: N/A
Efficacy: 139.7 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

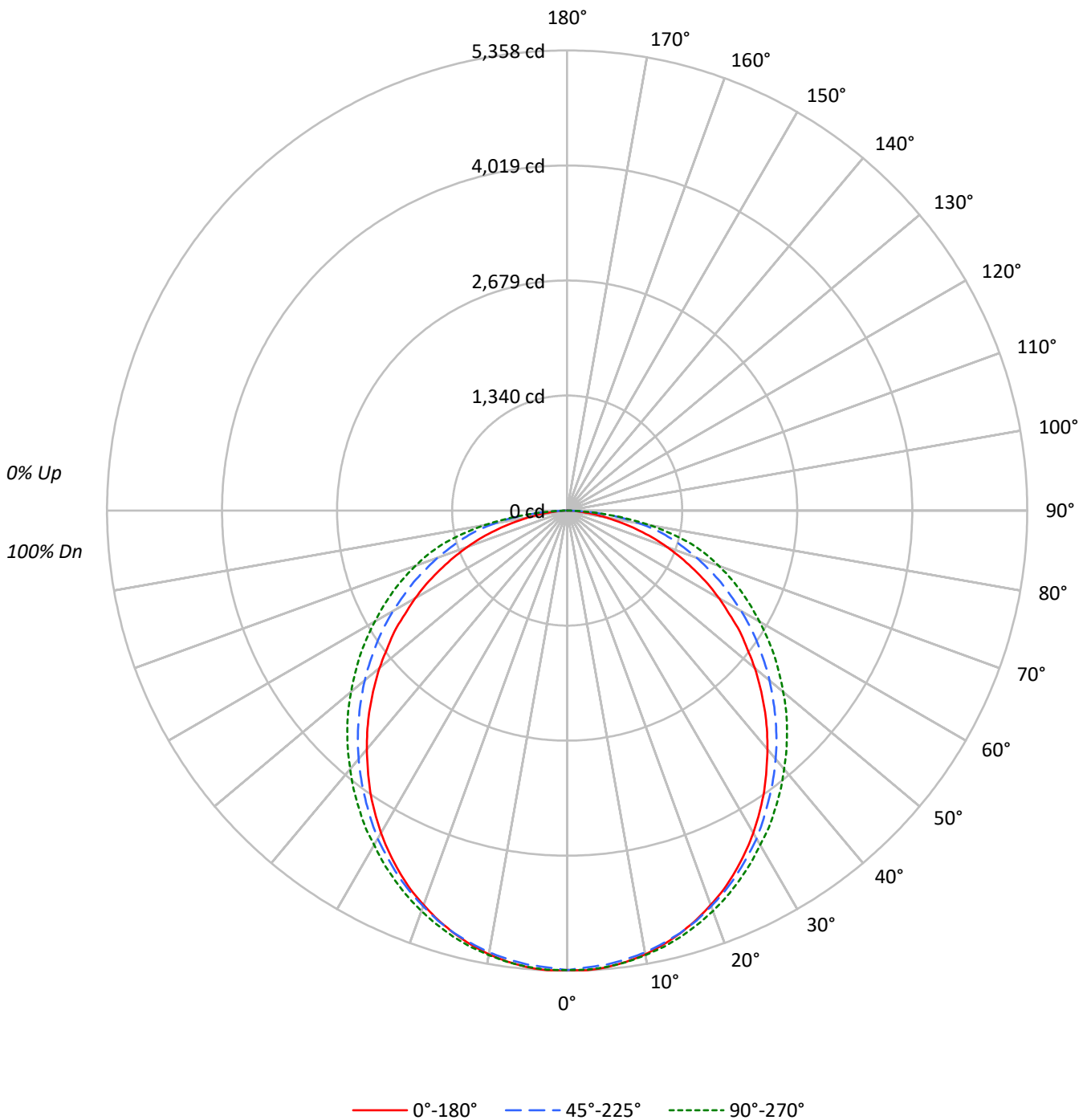
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7199	7199	7199
5°	7209	7165	7203
10°	7169	7138	7179
15°	7095	7092	7151
20°	6998	7019	7106
25°	6881	6941	7050
30°	6736	6853	6983
35°	6567	6733	6944
40°	6373	6633	6903
45°	6180	6530	6889
50°	5971	6440	6873
55°	5759	6361	6910
60°	5495	6301	6958
65°	5202	6277	7126
70°	4853	6310	7379
75°	4319	6492	7775
80°	3531	6633	7589
85°	2487	5792	5908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	505.8	3.3
10°-20°	1440.7	9.4
20°-30°	2159.5	14.1
30°-40°	2572.0	16.8
40°-50°	2652.0	17.3
50°-60°	2420.0	15.8
60°-70°	1935.1	12.6
70°-80°	1264.0	8.2
80°-90°	379.5	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°	4106.0	26.8
0°-40°	6678.1	43.6
0°-60°	11750.1	76.7
0°-90°	15328.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15328.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5350	5350	5350	5350	5350	
5°	5338	5328	5305	5338	5333	506
15°	5094	5096	5091	5134	5134	1436
25°	4635	4643	4676	4744	4749	2134
35°	3998	4026	4099	4202	4227	2498
45°	3248	3306	3432	3575	3621	2505
55°	2455	2525	2712	2890	2946	2186
65°	1634	1745	1972	2165	2238	1620
75°	831	969	1249	1450	1496	883
85°	161	290	375	383	383	204
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5350.4	5350.4	5350.4	5350.4	5350.4
2.5°	5357.9	5350.4	5322.7	5355.4	5350.4
5°	5337.8	5327.7	5305.1	5337.8	5332.8
7.5°	5297.5	5292.5	5269.8	5307.6	5302.6
10°	5247.2	5242.1	5224.5	5262.3	5254.7
12.5°	5176.7	5174.1	5161.6	5206.9	5201.8
15°	5093.6	5096.1	5091.1	5133.9	5133.9
17.5°	4997.9	4995.4	5005.4	5058.3	5053.3
20°	4887.1	4889.6	4902.2	4962.6	4962.6
22.5°	4771.3	4768.8	4796.5	4856.9	4861.9
25°	4635.3	4642.9	4675.6	4743.6	4748.6
27.5°	4489.3	4501.9	4542.2	4620.2	4627.8
30°	4335.7	4350.8	4411.2	4484.3	4494.3
32.5°	4167.0	4199.7	4255.1	4348.3	4373.5
35°	3998.3	4026.0	4099.0	4202.3	4227.4
37.5°	3812.0	3857.3	3940.4	4053.7	4086.4
40°	3628.2	3673.5	3776.7	3895.1	3930.3
42.5°	3441.9	3489.7	3608.1	3741.5	3779.3
45°	3248.0	3305.9	3431.8	3575.3	3620.6
47.5°	3049.1	3117.1	3253.0	3409.1	3459.5
50°	2852.7	2920.7	3076.8	3237.9	3283.3
52.5°	2641.2	2726.8	2893.0	3066.7	3112.0
55°	2454.9	2525.4	2711.7	2890.5	2945.9
57.5°	2235.8	2331.5	2530.4	2711.7	2764.6
60°	2042.0	2130.1	2341.6	2525.4	2585.8
62.5°	1845.6	1936.2	2147.7	2356.7	2412.1
65°	1634.1	1744.9	1971.5	2165.3	2238.4
67.5°	1432.6	1548.5	1780.1	1986.6	2062.1
70°	1233.7	1352.1	1603.9	1815.4	1875.8
72.5°	1037.3	1160.7	1422.6	1629.0	1699.5
75°	830.9	969.4	1248.8	1450.3	1495.6
77.5°	637.0	790.6	1072.6	1208.6	1241.3
80°	455.7	624.4	856.1	954.3	979.4
82.5°	299.6	463.3	639.5	692.4	684.9
85°	161.1	289.6	375.2	382.7	382.7
87.5°	62.9	115.8	118.3	90.6	85.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)