

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: P473853

Luminaire Tested: **24CZ2-145VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473853
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-145VHE-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: 14507.8 lumens
Efficiency: N/A
Efficacy: 137.8 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

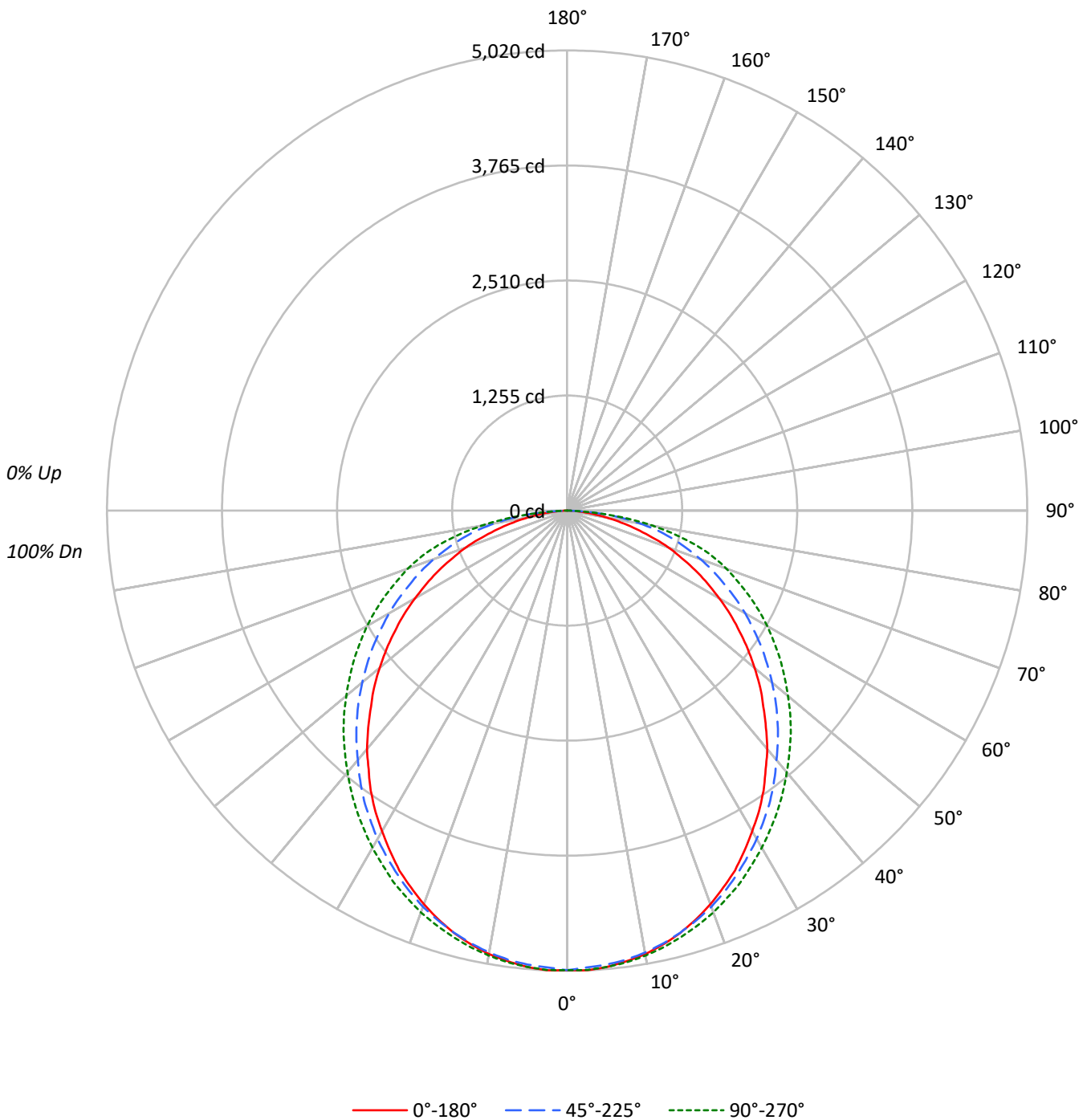
Input Watts (W): 105.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6745	6745	6745
5°	6749	6714	6749
10°	6712	6689	6734
15°	6644	6640	6706
20°	6544	6584	6678
25°	6430	6503	6646
30°	6274	6427	6598
35°	6133	6344	6571
40°	5965	6241	6545
45°	5762	6177	6565
50°	5588	6108	6584
55°	5383	6064	6658
60°	5159	6036	6780
65°	4918	6014	6954
70°	4629	6076	7275
75°	4069	6202	7567
80°	3396	6248	7301
85°	2424	5355	5428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.9	3.3
10°-20°	1349.9	9.3
20°-30°	2025.1	14.0
30°-40°	2417.8	16.7
40°-50°	2504.4	17.3
50°-60°	2305.5	15.9
60°-70°	1859.8	12.8
70°-80°	1215.2	8.4
80°-90°	356.3	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°	3848.9	26.5
0°-40°	6266.7	43.2
0°-60°	11076.6	76.3
0°-90°	14507.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14507.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5013	5013	5013	5013	5013	
5°	4997	4992	4971	4999	4997	474
15°	4770	4770	4767	4814	4814	1344
25°	4331	4341	4380	4460	4477	1992
35°	3734	3766	3862	3968	4001	2332
45°	3028	3103	3246	3392	3450	2341
55°	2295	2393	2585	2775	2838	2053
65°	1545	1650	1889	2105	2184	1527
75°	783	930	1193	1399	1456	836
85°	157	272	347	368	352	195
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5013.3	5013.3	5013.3	5013.3	5013.3
2.5°	5020.4	5013.3	4987.6	5018.0	5015.7
5°	4996.9	4992.3	4971.2	4999.3	4996.9
7.5°	4959.4	4957.1	4940.7	4971.2	4971.2
10°	4912.6	4907.9	4896.2	4931.3	4929.0
12.5°	4846.9	4844.6	4837.6	4879.8	4877.4
15°	4769.6	4769.6	4767.2	4814.1	4814.1
17.5°	4675.8	4678.2	4687.6	4741.5	4743.8
20°	4570.4	4579.7	4598.5	4659.4	4664.1
22.5°	4450.8	4469.6	4495.4	4563.3	4570.4
25°	4331.3	4340.7	4380.5	4460.2	4476.6
27.5°	4186.0	4209.4	4261.0	4343.0	4359.4
30°	4038.3	4071.1	4136.8	4221.1	4246.9
32.5°	3893.0	3921.1	3998.5	4094.6	4125.1
35°	3733.6	3766.5	3862.5	3968.0	4000.8
37.5°	3557.9	3609.4	3710.2	3832.1	3867.2
40°	3396.1	3443.0	3553.2	3689.1	3726.6
42.5°	3211.0	3269.6	3403.2	3541.5	3588.3
45°	3028.2	3103.2	3246.1	3391.5	3450.0
47.5°	2857.1	2918.0	3086.8	3250.8	3302.4
50°	2669.6	2739.9	2918.0	3091.4	3145.4
52.5°	2484.4	2568.8	2749.3	2932.1	2990.7
55°	2294.6	2393.0	2585.2	2775.0	2838.3
57.5°	2111.7	2210.2	2409.4	2611.0	2676.6
60°	1917.2	2022.7	2243.0	2437.5	2519.6
62.5°	1729.7	1835.2	2067.2	2278.2	2355.5
65°	1544.6	1650.0	1889.1	2104.7	2184.4
67.5°	1352.4	1467.2	1722.7	1931.3	2008.6
70°	1176.6	1286.7	1544.6	1767.2	1849.2
72.5°	975.0	1106.3	1368.8	1589.1	1666.4
75°	782.8	930.5	1193.0	1399.2	1455.5
77.5°	604.7	752.4	1014.9	1169.5	1204.7
80°	438.3	588.3	806.3	914.1	942.2
82.5°	283.6	438.3	583.6	656.3	665.6
85°	157.0	271.9	346.9	368.0	351.6
87.5°	56.3	103.1	100.8	82.0	65.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)