

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: P473893

Luminaire Tested: **24CZ2-95VHE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473893
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

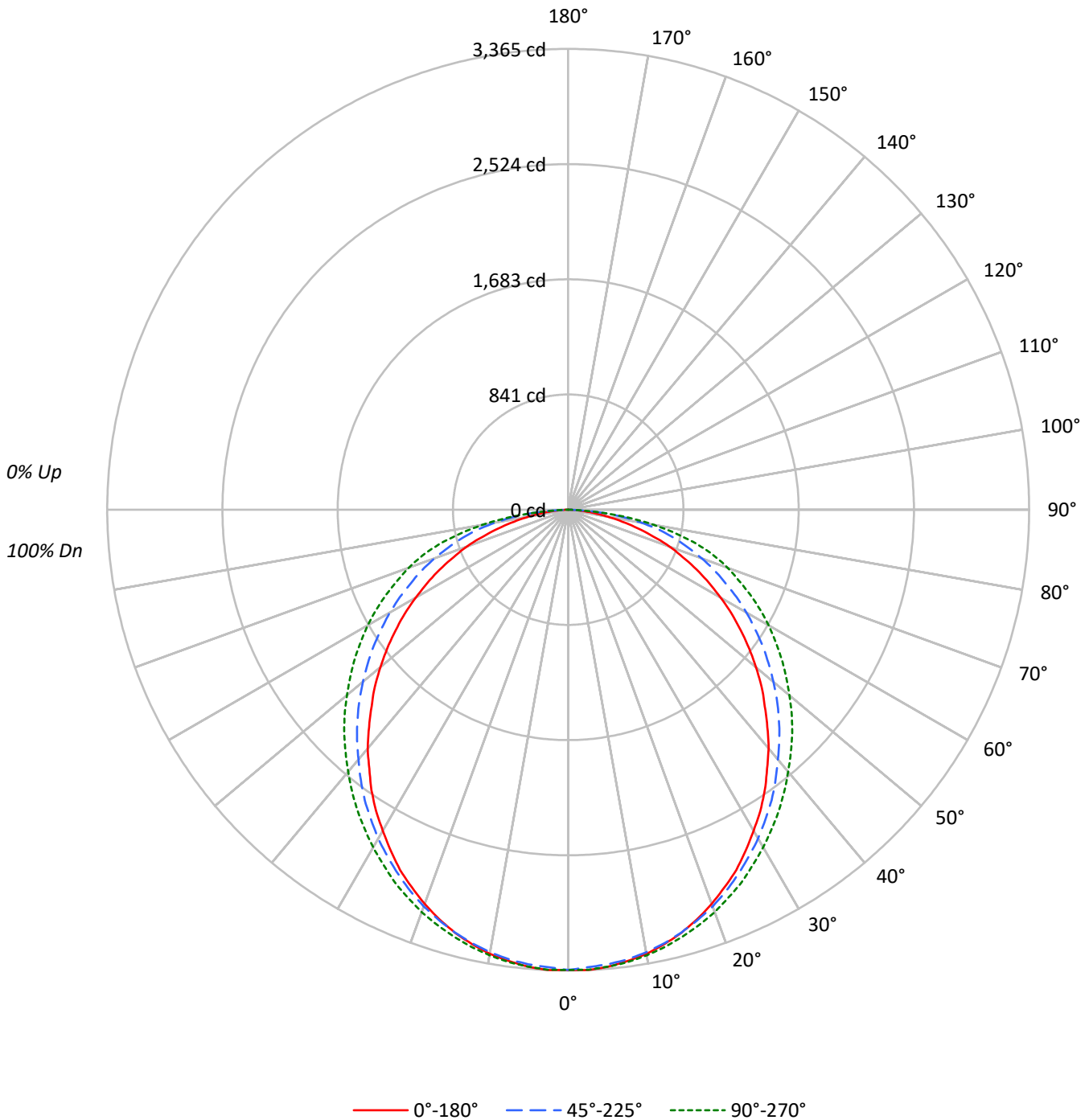
Lumens per Lamp: N/A
Luminaire Lumens: 9724.2 lumens
Efficiency: N/A
Efficacy: 143.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 67.6
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°	4521	4521	4521
5°	4524	4500	4524
10°	4499	4484	4514
15°	4453	4451	4495
20°	4386	4413	4476
25°	4310	4359	4455
30°	4205	4308	4423
35°	4111	4253	4405
40°	3998	4183	4387
45°	3862	4140	4400
50°	3745	4094	4413
55°	3608	4065	4463
60°	3458	4046	4545
65°	3296	4031	4661
70°	3102	4073	4876
75°	2728	4157	5072
80°	2276	4187	4893
85°	1626	3589	3637



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.7	3.3
10°-20°	904.8	9.3
20°-30°	1357.4	14.0
30°-40°	1620.6	16.7
40°-50°	1678.6	17.3
50°-60°	1545.3	15.9
60°-70°	1246.6	12.8
70°-80°	814.5	8.4
80°-90°	238.8	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°	2579.8	26.5
0°-40°	4200.4	43.2
0°-60°	7424.4	76.3
0°-90°	9724.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9724.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3360	3360	3360	3360	3360	
5°	3349	3346	3332	3351	3349	318
15°	3197	3197	3195	3227	3227	901
25°	2903	2909	2936	2990	3001	1335
35°	2503	2525	2589	2660	2682	1563
45°	2030	2080	2176	2273	2312	1569
55°	1538	1604	1733	1860	1902	1376
65°	1035	1106	1266	1411	1464	1024
75°	525	624	800	938	976	560
85°	105	182	232	247	236	131
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3360.3	3360.3	3360.3	3360.3	3360.3
2.5°	3365.0	3360.3	3343.0	3363.5	3361.9
5°	3349.3	3346.2	3332.0	3350.9	3349.3
7.5°	3324.2	3322.6	3311.6	3332.0	3332.0
10°	3292.8	3289.6	3281.8	3305.3	3303.8
12.5°	3248.8	3247.2	3242.5	3270.8	3269.2
15°	3196.9	3196.9	3195.4	3226.8	3226.8
17.5°	3134.1	3135.7	3141.9	3178.1	3179.6
20°	3063.4	3069.7	3082.2	3123.1	3126.2
22.5°	2983.3	2995.8	3013.1	3058.7	3063.4
25°	2903.2	2909.4	2936.1	2989.6	3000.6
27.5°	2805.8	2821.5	2856.0	2911.0	2922.0
30°	2706.8	2728.8	2772.8	2829.3	2846.6
32.5°	2609.4	2628.2	2680.1	2744.5	2764.9
35°	2502.6	2524.6	2589.0	2659.7	2681.6
37.5°	2384.7	2419.3	2486.8	2568.5	2592.1
40°	2276.3	2307.8	2381.6	2472.7	2497.8
42.5°	2152.2	2191.5	2281.1	2373.7	2405.2
45°	2029.7	2080.0	2175.8	2273.2	2312.5
47.5°	1915.0	1955.9	2069.0	2178.9	2213.5
50°	1789.3	1836.5	1955.9	2072.1	2108.2
52.5°	1665.2	1721.8	1842.8	1965.3	2004.6
55°	1538.0	1604.0	1732.8	1860.0	1902.4
57.5°	1415.4	1481.4	1615.0	1750.1	1794.1
60°	1285.1	1355.7	1503.4	1633.8	1688.8
62.5°	1159.4	1230.1	1385.6	1527.0	1578.8
65°	1035.3	1106.0	1266.2	1410.7	1464.1
67.5°	906.5	983.4	1154.7	1294.5	1346.3
70°	788.6	862.5	1035.3	1184.5	1239.5
72.5°	653.5	741.5	917.4	1065.1	1117.0
75°	524.7	623.7	799.6	937.9	975.6
77.5°	405.3	504.3	680.2	783.9	807.5
80°	293.8	394.3	540.4	612.7	631.5
82.5°	190.1	293.8	391.2	439.9	446.2
85°	105.3	182.2	232.5	246.6	235.6
87.5°	37.7	69.1	67.6	55.0	44.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)