

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: P474093

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474093  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-95VHE-S-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9918.9 lumens  
Efficiency: N/A  
Efficacy: 146.7 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

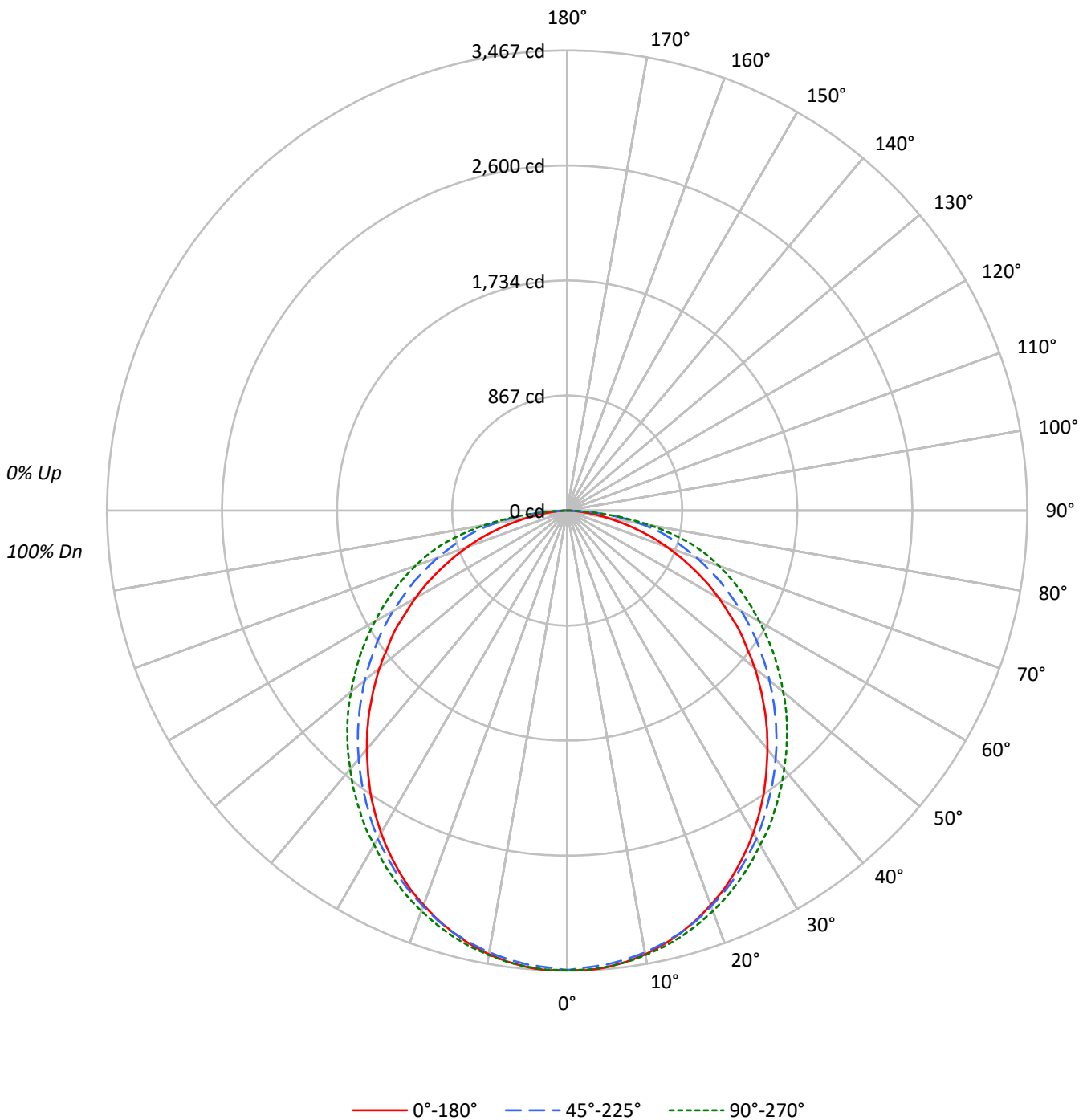
Input Watts (W): 67.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4658	4658	4658
5°	4665	4636	4661
10°	4639	4619	4646
15°	4591	4589	4627
20°	4528	4542	4598
25°	4453	4492	4562
30°	4359	4435	4518
35°	4250	4357	4493
40°	4124	4292	4467
45°	3999	4226	4458
50°	3864	4167	4447
55°	3726	4116	4472
60°	3556	4077	4503
65°	3366	4061	4611
70°	3140	4083	4775
75°	2795	4201	5031
80°	2285	4292	4911
85°	1610	3748	3822



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	327.3	3.3
10°-20°	932.2	9.4
20°-30°	1397.4	14.1
30°-40°	1664.3	16.8
40°-50°	1716.1	17.3
50°-60°	1565.9	15.8
60°-70°	1252.2	12.6
70°-80°	817.9	8.2
80°-90°	245.6	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°	2656.9	26.8
0°-40°	4321.3	43.6
0°-60°	7603.2	76.7
0°-90°	9918.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9918.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3462	3462	3462	3462	3462	
5°	3454	3448	3433	3454	3451	328
15°	3296	3298	3294	3322	3322	929
25°	2999	3004	3026	3070	3073	1381
35°	2587	2605	2652	2719	2736	1616
45°	2102	2139	2221	2314	2343	1621
55°	1588	1634	1755	1870	1906	1415
65°	1057	1129	1276	1401	1448	1048
75°	538	627	808	938	968	571
85°	104	187	243	248	248	132
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3462.1	3462.1	3462.1	3462.1	3462.1
2.5°	3467.0	3462.1	3444.2	3465.4	3462.1
5°	3454.0	3447.5	3432.8	3454.0	3450.7
7.5°	3427.9	3424.7	3410.0	3434.4	3431.2
10°	3395.3	3392.1	3380.7	3405.1	3400.2
12.5°	3349.7	3348.1	3339.9	3369.3	3366.0
15°	3295.9	3297.6	3294.3	3322.0	3322.0
17.5°	3234.0	3232.4	3238.9	3273.1	3269.9
20°	3162.4	3164.0	3172.1	3211.2	3211.2
22.5°	3087.4	3085.8	3103.7	3142.8	3146.1
25°	2999.4	3004.3	3025.5	3069.5	3072.7
27.5°	2904.9	2913.1	2939.1	2989.7	2994.5
30°	2805.5	2815.3	2854.4	2901.7	2908.2
32.5°	2696.4	2717.6	2753.4	2813.7	2830.0
35°	2587.2	2605.2	2652.4	2719.2	2735.5
37.5°	2466.7	2496.0	2549.8	2623.1	2644.3
40°	2347.7	2377.1	2443.9	2520.4	2543.2
42.5°	2227.2	2258.1	2334.7	2421.0	2445.5
45°	2101.7	2139.2	2220.7	2313.5	2342.8
47.5°	1973.0	2017.0	2105.0	2206.0	2238.6
50°	1845.9	1889.9	1990.9	2095.2	2124.5
52.5°	1709.1	1764.5	1872.0	1984.4	2013.7
55°	1588.5	1634.1	1754.7	1870.4	1906.2
57.5°	1446.8	1508.7	1637.4	1754.7	1788.9
60°	1321.3	1378.3	1515.2	1634.1	1673.2
62.5°	1194.2	1252.9	1389.7	1525.0	1560.8
65°	1057.4	1129.1	1275.7	1401.1	1448.4
67.5°	927.0	1002.0	1151.9	1285.5	1334.3
70°	798.3	874.9	1037.8	1174.7	1213.8
72.5°	671.2	751.1	920.5	1054.1	1099.7
75°	537.6	627.3	808.1	938.4	967.8
77.5°	412.2	511.6	694.1	782.0	803.2
80°	294.9	404.1	553.9	617.5	633.8
82.5°	193.9	299.8	413.8	448.0	443.2
85°	104.3	187.4	242.8	247.6	247.6
87.5°	40.7	74.9	76.6	58.7	55.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)