

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: P474961

Luminaire Tested: **22CZ2-100VHE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474961  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-100VHE-S-UNV-L840-CD1-U  
Description: 2'X2' 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: 10416.2 lumens  
Efficiency: N/A  
Efficacy: 137.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

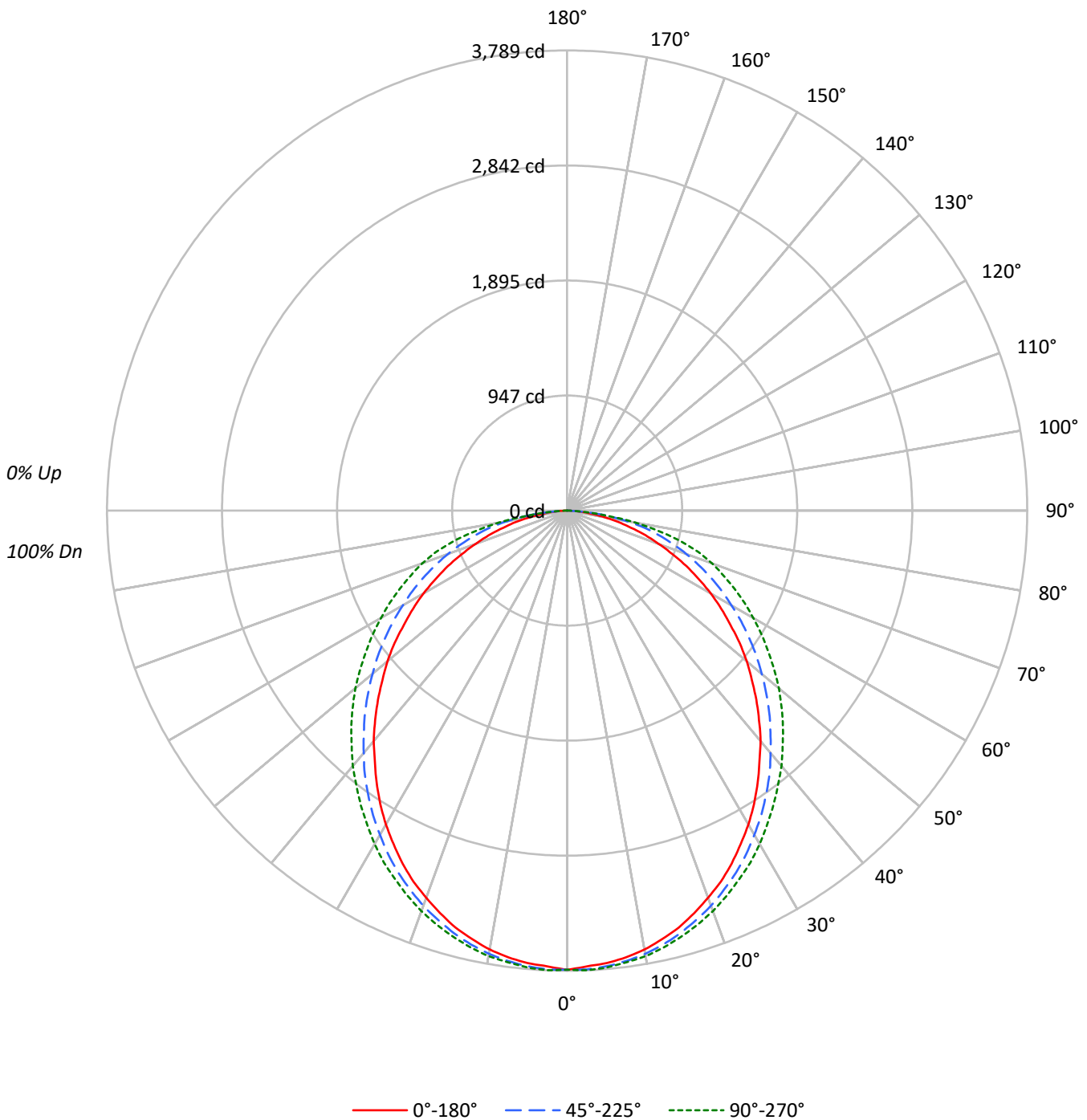
Input Watts (W): 75.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10175	10175	10175
5°	10105	10173	10200
10°	10029	10125	10180
15°	9902	10035	10120
20°	9716	9918	10048
25°	9520	9767	9947
30°	9274	9579	9853
35°	8985	9382	9730
40°	8704	9156	9643
45°	8384	8960	9564
50°	8084	8759	9529
55°	7699	8586	9484
60°	7353	8411	9523
65°	6902	8314	9663
70°	6307	8211	9976
75°	5661	8150	9985
80°	4765	7696	8867
85°	3582	5215	4826



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	357.1	3.4
10°-20°	1014.2	9.7
20°-30°	1512.2	14.5
30°-40°	1784.3	17.1
40°-50°	1817.9	17.5
50°-60°	1639.5	15.7
60°-70°	1287.6	12.4
70°-80°	805.0	7.7
80°-90°	198.4	1.9
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°	2883.5	27.7
0°-40°	4667.8	44.8
0°-60°	8125.2	78.0
0°-90°	10416.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10416.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3781	3781	3781	3781	3781	
5°	3741	3748	3766	3774	3776	355
15°	3554	3567	3602	3627	3632	1001
25°	3206	3224	3290	3337	3350	1475
35°	2735	2773	2856	2934	2962	1710
45°	2203	2241	2354	2468	2513	1700
55°	1641	1694	1830	1971	2022	1472
65°	1084	1142	1306	1452	1518	1070
75°	544	620	784	918	960	582
85°	116	149	169	166	156	141
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3781.1	3781.1	3781.1	3781.1	3781.1
2.5°	3755.9	3763.4	3781.1	3788.6	3788.6
5°	3740.8	3748.3	3766.0	3773.5	3776.0
7.5°	3710.5	3720.6	3740.8	3750.8	3750.8
10°	3670.2	3682.8	3705.5	3720.6	3725.6
12.5°	3614.7	3629.8	3660.1	3677.7	3682.8
15°	3554.2	3566.8	3602.1	3627.3	3632.4
17.5°	3476.1	3496.2	3534.1	3566.8	3574.4
20°	3392.9	3415.6	3463.5	3501.3	3508.8
22.5°	3307.2	3324.8	3377.8	3423.1	3433.2
25°	3206.4	3224.0	3289.5	3337.4	3350.0
27.5°	3095.4	3125.7	3191.2	3246.7	3266.9
30°	2984.5	3014.8	3082.8	3148.4	3171.1
32.5°	2863.5	2896.3	2974.5	3042.5	3065.2
35°	2735.0	2772.8	2856.0	2934.1	2961.8
37.5°	2601.4	2644.2	2737.5	2820.7	2850.9
40°	2477.9	2508.1	2606.4	2702.2	2745.1
42.5°	2339.2	2379.6	2477.9	2586.3	2626.6
45°	2203.1	2240.9	2354.4	2467.8	2513.2
47.5°	2062.0	2109.8	2223.3	2349.3	2394.7
50°	1930.9	1971.2	2092.2	2225.8	2276.2
52.5°	1789.7	1832.6	1963.6	2102.3	2147.7
55°	1641.0	1693.9	1830.0	1971.2	2021.6
57.5°	1504.9	1555.3	1699.0	1845.2	1898.1
60°	1366.2	1416.6	1562.8	1711.6	1769.5
62.5°	1220.0	1278.0	1436.8	1580.5	1646.0
65°	1083.9	1141.9	1305.7	1451.9	1517.5
67.5°	940.2	1008.3	1172.1	1325.9	1391.4
70°	801.6	882.3	1043.6	1194.8	1267.9
72.5°	678.1	743.6	912.5	1071.3	1131.8
75°	544.5	620.1	783.9	917.5	960.4
77.5°	431.0	496.6	652.9	741.1	768.8
80°	307.5	380.6	496.6	549.5	572.2
82.5°	204.2	264.7	337.8	347.9	342.8
85°	116.0	148.7	168.9	166.4	156.3
87.5°	45.4	50.4	37.8	22.7	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)