

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: P474912

Luminaire Tested: **22CZ2-24HE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474912  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24HE-S-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

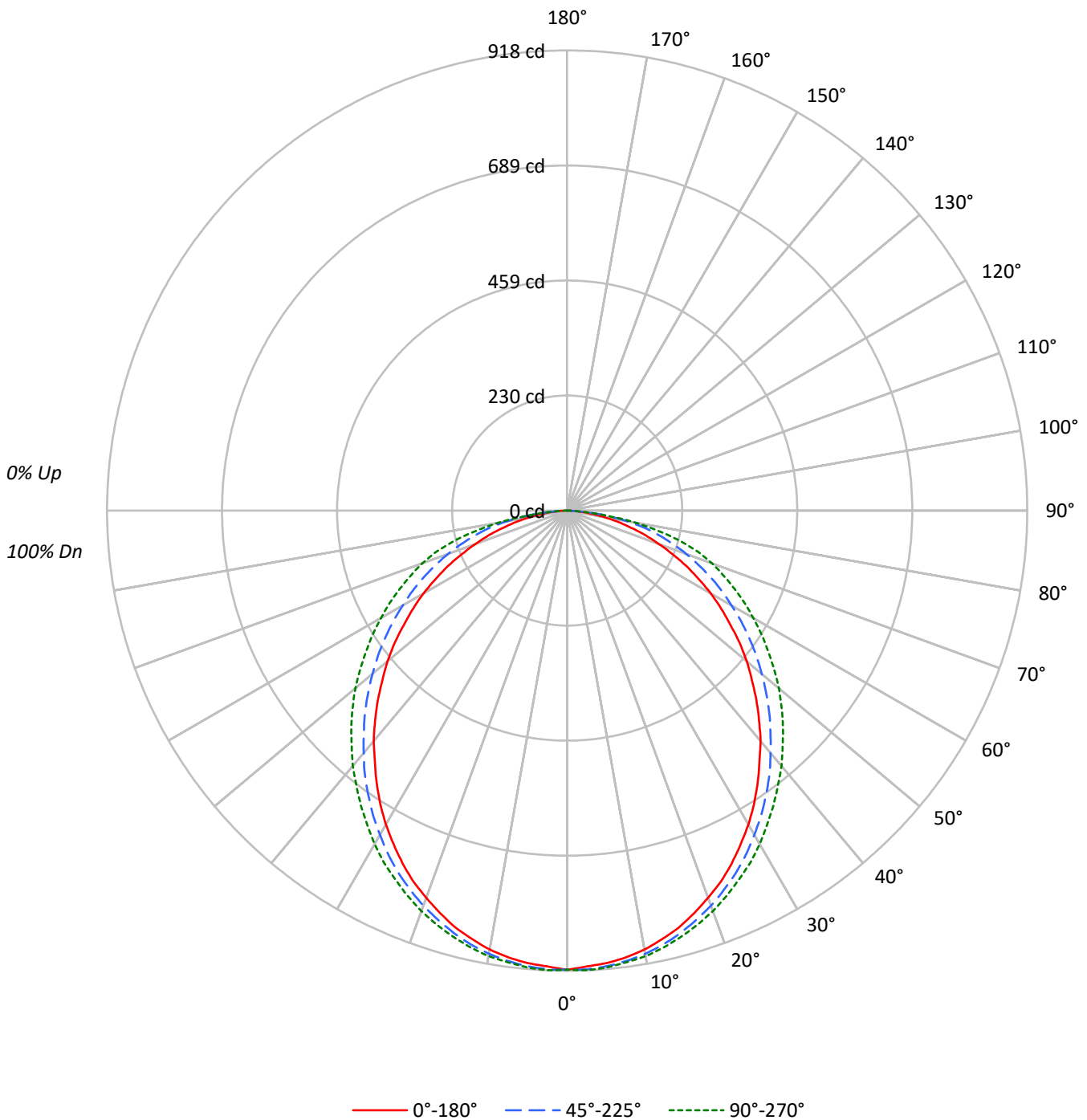
Lumens per Lamp: N/A  
Luminaire Lumens: 2523.6 lumens  
Efficiency: N/A  
Efficacy: 139.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.1  
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°	2465	2465	2465
5°	2448	2465	2471
10°	2430	2453	2466
15°	2399	2431	2452
20°	2354	2403	2434
25°	2306	2366	2410
30°	2247	2321	2387
35°	2177	2273	2357
40°	2109	2218	2336
45°	2031	2171	2317
50°	1958	2122	2309
55°	1865	2080	2298
60°	1781	2038	2307
65°	1672	2015	2341
70°	1528	1989	2417
75°	1371	1974	2419
80°	1155	1864	2148
85°	868	1263	1170



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.5	3.4
10°-20°	245.7	9.7
20°-30°	366.4	14.5
30°-40°	432.3	17.1
40°-50°	440.4	17.5
50°-60°	397.2	15.7
60°-70°	312.0	12.4
70°-80°	195.0	7.7
80°-90°	48.1	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°	698.6	27.7
0°-40°	1130.9	44.8
0°-60°	1968.6	78.0
0°-90°	2523.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2523.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	906	908	912	914	915	86
15°	861	864	873	879	880	242
25°	777	781	797	809	812	357
35°	663	672	692	711	718	414
45°	534	543	570	598	609	412
55°	398	410	443	478	490	357
65°	263	277	316	352	368	259
75°	132	150	190	222	233	141
85°	28	36	41	40	38	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	916.1	916.1	916.1	916.1	916.1
2.5°	910.0	911.8	916.1	917.9	917.9
5°	906.3	908.1	912.4	914.2	914.9
7.5°	899.0	901.4	906.3	908.7	908.7
10°	889.2	892.3	897.8	901.4	902.6
12.5°	875.8	879.4	886.8	891.0	892.3
15°	861.1	864.2	872.7	878.8	880.0
17.5°	842.2	847.1	856.2	864.2	866.0
20°	822.0	827.5	839.1	848.3	850.1
22.5°	801.3	805.5	818.4	829.4	831.8
25°	776.8	781.1	797.0	808.6	811.6
27.5°	750.0	757.3	773.2	786.6	791.5
30°	723.1	730.4	746.9	762.8	768.3
32.5°	693.8	701.7	720.6	737.1	742.6
35°	662.6	671.8	691.9	710.9	717.6
37.5°	630.3	640.6	663.2	683.4	690.7
40°	600.3	607.7	631.5	654.7	665.1
42.5°	566.7	576.5	600.3	626.6	636.4
45°	533.8	542.9	570.4	597.9	608.9
47.5°	499.6	511.2	538.7	569.2	580.2
50°	467.8	477.6	506.9	539.3	551.5
52.5°	433.6	444.0	475.7	509.3	520.3
55°	397.6	410.4	443.4	477.6	489.8
57.5°	364.6	376.8	411.6	447.0	459.9
60°	331.0	343.2	378.6	414.7	428.7
62.5°	295.6	309.6	348.1	382.9	398.8
65°	262.6	276.7	316.4	351.8	367.7
67.5°	227.8	244.3	284.0	321.2	337.1
70°	194.2	213.8	252.8	289.5	307.2
72.5°	164.3	180.2	221.1	259.6	274.2
75°	131.9	150.2	189.9	222.3	232.7
77.5°	104.4	120.3	158.2	179.6	186.3
80°	74.5	92.2	120.3	133.1	138.6
82.5°	49.5	64.1	81.8	84.3	83.1
85°	28.1	36.0	40.9	40.3	37.9
87.5°	11.0	12.2	9.2	5.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)