

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: P474917

Luminaire Tested: **22CZ2-20VHE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474917  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20VHE-S-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2076.8 lumens  
Efficiency: N/A  
Efficacy: 150.5 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

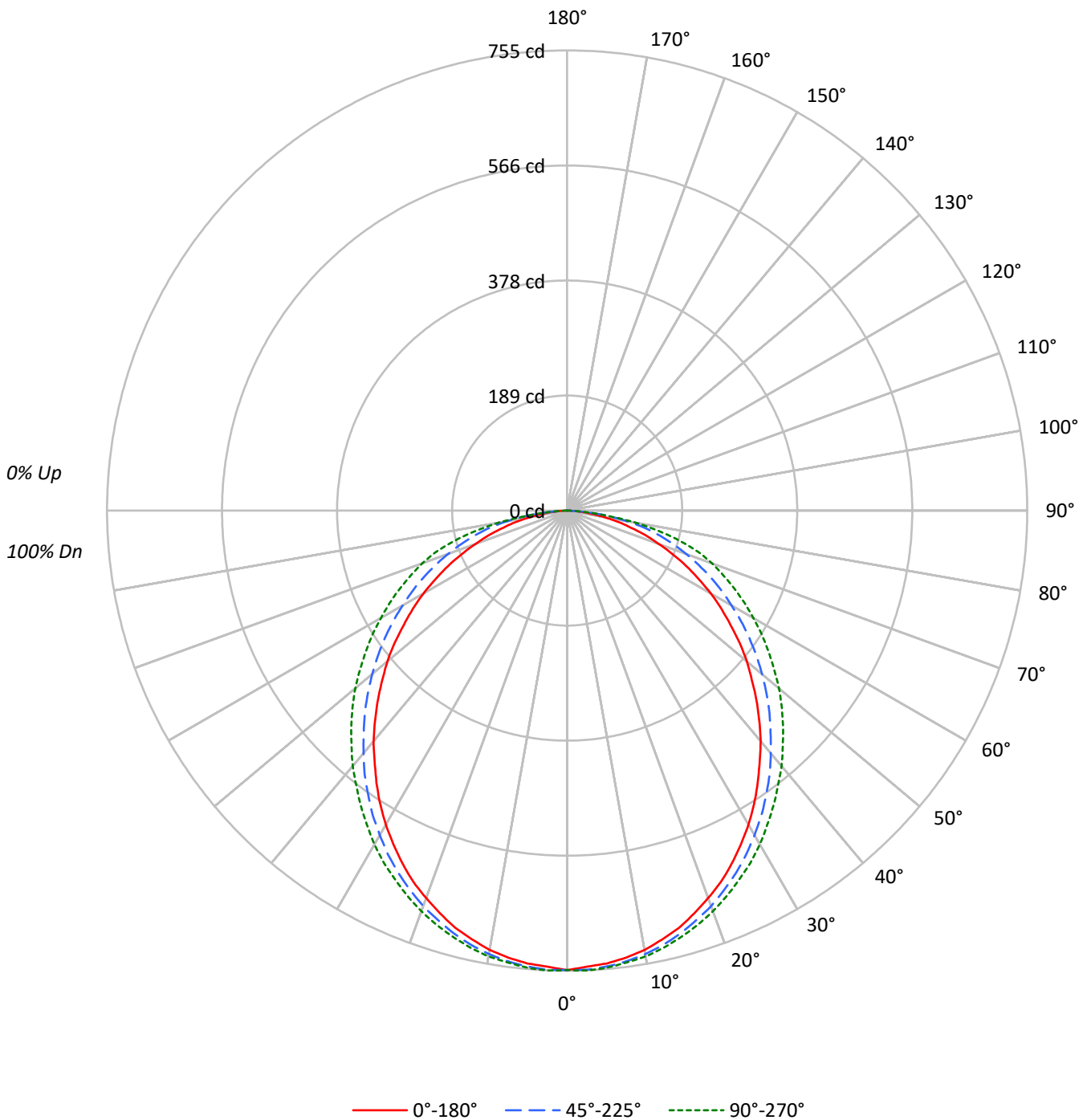
Input Watts (W): 13.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	85	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°	2029	2029	2029
5°	2015	2028	2034
10°	2000	2019	2030
15°	1974	2001	2018
20°	1937	1978	2003
25°	1898	1947	1983
30°	1849	1910	1965
35°	1791	1871	1940
40°	1736	1826	1923
45°	1672	1786	1907
50°	1612	1747	1900
55°	1535	1712	1891
60°	1466	1677	1899
65°	1376	1657	1927
70°	1257	1637	1989
75°	1129	1625	1991
80°	950	1534	1768
85°	713	1041	963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	3.4
10°-20°	202.2	9.7
20°-30°	301.5	14.5
30°-40°	355.8	17.1
40°-50°	362.5	17.5
50°-60°	326.9	15.7
60°-70°	256.7	12.4
70°-80°	160.5	7.7
80°-90°	39.6	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°	574.9	27.7
0°-40°	930.7	44.8
0°-60°	1620.1	78.0
0°-90°	2076.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2076.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	746	747	751	752	753	71
15°	709	711	718	723	724	200
25°	639	643	656	665	668	294
35°	545	553	569	585	590	341
45°	439	447	469	492	501	339
55°	327	338	365	393	403	293
65°	216	228	260	290	303	213
75°	109	124	156	183	192	116
85°	23	30	34	33	31	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	753.9	753.9	753.9	753.9	753.9
2.5°	748.9	750.4	753.9	755.4	755.4
5°	745.9	747.4	750.9	752.4	752.9
7.5°	739.8	741.8	745.9	747.9	747.9
10°	731.8	734.3	738.8	741.8	742.8
12.5°	720.7	723.7	729.8	733.3	734.3
15°	708.7	711.2	718.2	723.2	724.2
17.5°	693.1	697.1	704.6	711.2	712.7
20°	676.5	681.0	690.6	698.1	699.6
22.5°	659.4	662.9	673.5	682.5	684.5
25°	639.3	642.8	655.9	665.4	667.9
27.5°	617.2	623.2	636.3	647.3	651.4
30°	595.1	601.1	614.7	627.7	632.3
32.5°	570.9	577.5	593.1	606.6	611.2
35°	545.3	552.9	569.4	585.0	590.5
37.5°	518.7	527.2	545.8	562.4	568.4
40°	494.1	500.1	519.7	538.8	547.3
42.5°	466.4	474.4	494.1	515.7	523.7
45°	439.3	446.8	469.4	492.0	501.1
47.5°	411.1	420.7	443.3	468.4	477.5
50°	385.0	393.0	417.2	443.8	453.8
52.5°	356.8	365.4	391.5	419.2	428.2
55°	327.2	337.7	364.9	393.0	403.1
57.5°	300.0	310.1	338.7	367.9	378.5
60°	272.4	282.5	311.6	341.3	352.8
62.5°	243.3	254.8	286.5	315.1	328.2
65°	216.1	227.7	260.3	289.5	302.6
67.5°	187.5	201.0	233.7	264.4	277.4
70°	159.8	175.9	208.1	238.2	252.8
72.5°	135.2	148.3	181.9	213.6	225.7
75°	108.6	123.6	156.3	182.9	191.5
77.5°	85.9	99.0	130.2	147.8	153.3
80°	61.3	75.9	99.0	109.6	114.1
82.5°	40.7	52.8	67.3	69.4	68.4
85°	23.1	29.7	33.7	33.2	31.2
87.5°	9.0	10.1	7.5	4.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)