

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: P474919

Luminaire Tested: **22CZ2-29VHE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474919
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-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: 2982.6 lumens
Efficiency: N/A
Efficacy: 149.9 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

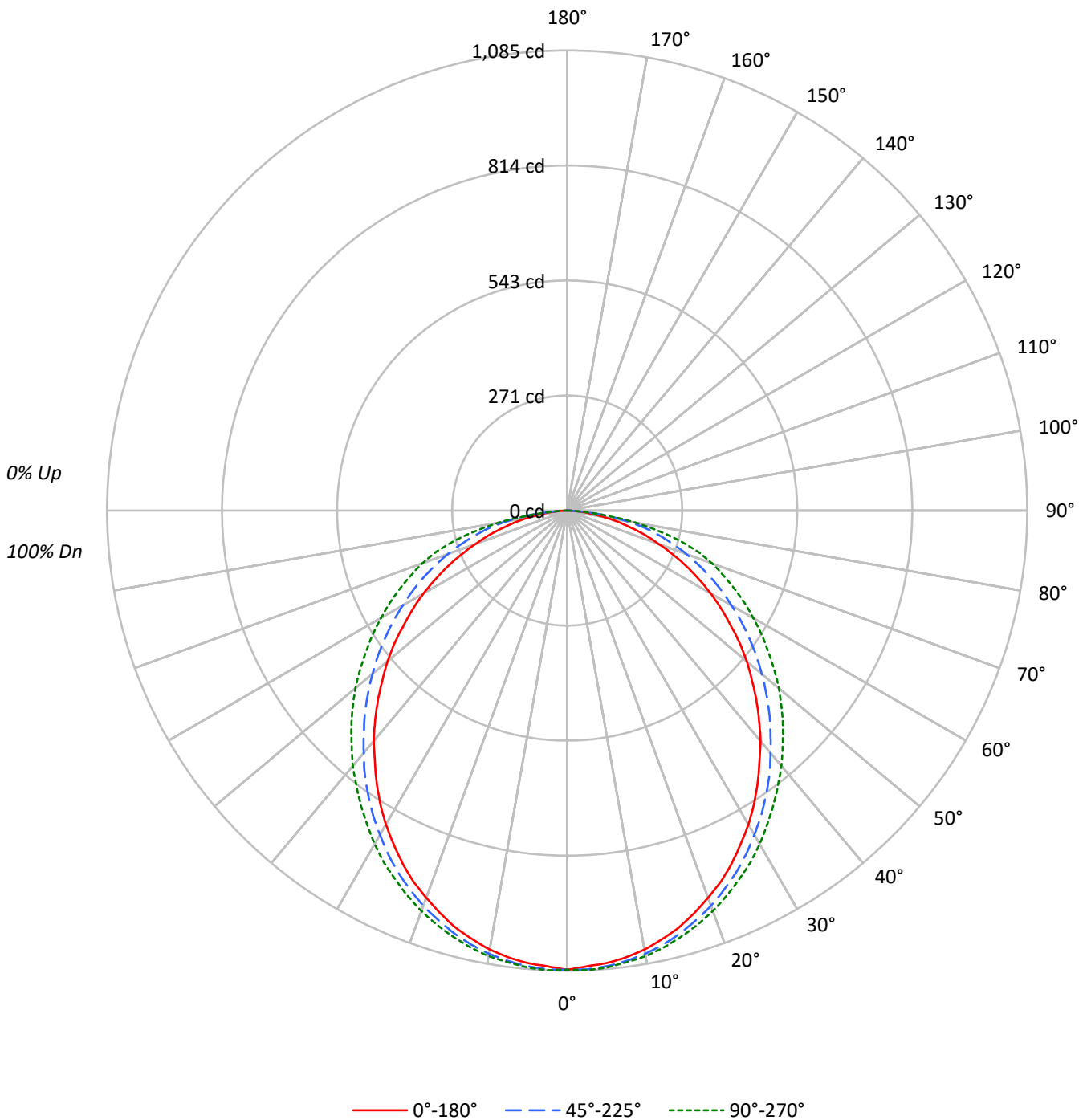
Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2914	2914	2914
5°	2894	2913	2921
10°	2872	2899	2915
15°	2835	2874	2898
20°	2782	2840	2877
25°	2726	2797	2848
30°	2655	2743	2821
35°	2573	2687	2786
40°	2492	2622	2761
45°	2401	2566	2739
50°	2315	2508	2729
55°	2205	2458	2716
60°	2105	2408	2727
65°	1976	2381	2767
70°	1806	2351	2857
75°	1621	2334	2859
80°	1365	2204	2538
85°	1025	1494	1383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	3.4
10°-20°	290.4	9.7
20°-30°	433.0	14.5
30°-40°	510.9	17.1
40°-50°	520.5	17.5
50°-60°	469.5	15.7
60°-70°	368.7	12.4
70°-80°	230.5	7.7
80°-90°	56.8	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°	825.7	27.7
0°-40°	1336.6	44.8
0°-60°	2326.6	78.0
0°-90°	2982.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2982.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1083	1083	1083	1083	1083	
5°	1071	1073	1078	1080	1081	102
15°	1018	1021	1032	1039	1040	287
25°	918	923	942	956	959	422
35°	783	794	818	840	848	490
45°	631	642	674	707	720	487
55°	470	485	524	564	579	421
65°	310	327	374	416	434	307
75°	156	178	224	263	275	167
85°	33	43	48	48	45	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.7	1082.7	1082.7	1082.7	1082.7
2.5°	1075.5	1077.6	1082.7	1084.9	1084.9
5°	1071.2	1073.3	1078.4	1080.5	1081.3
7.5°	1062.5	1065.4	1071.2	1074.0	1074.0
10°	1050.9	1054.6	1061.0	1065.4	1066.8
12.5°	1035.1	1039.4	1048.1	1053.1	1054.6
15°	1017.7	1021.3	1031.5	1038.7	1040.1
17.5°	995.4	1001.1	1012.0	1021.3	1023.5
20°	971.5	978.0	991.8	1002.6	1004.7
22.5°	947.0	952.1	967.2	980.2	983.1
25°	918.1	923.2	941.9	955.7	959.3
27.5°	886.4	895.0	913.8	929.7	935.5
30°	854.6	863.3	882.8	901.5	908.0
32.5°	820.0	829.3	851.7	871.2	877.7
35°	783.2	794.0	817.8	840.2	848.1
37.5°	744.9	757.2	783.9	807.7	816.4
40°	709.5	718.2	746.3	773.8	786.0
42.5°	669.8	681.4	709.5	740.6	752.1
45°	630.9	641.7	674.2	706.6	719.6
47.5°	590.4	604.1	636.6	672.7	685.7
50°	552.9	564.4	599.1	637.3	651.8
52.5°	512.5	524.7	562.3	602.0	615.0
55°	469.9	485.0	524.0	564.4	578.9
57.5°	430.9	445.4	486.5	528.4	543.5
60°	391.2	405.7	447.5	490.1	506.7
62.5°	349.4	366.0	411.4	452.6	471.3
65°	310.4	327.0	373.9	415.8	434.5
67.5°	269.2	288.7	335.6	379.7	398.4
70°	229.5	252.6	298.8	342.1	363.1
72.5°	194.2	212.9	261.3	306.8	324.1
75°	155.9	177.6	224.5	262.7	275.0
77.5°	123.4	142.2	186.9	212.2	220.1
80°	88.1	109.0	142.2	157.4	163.8
82.5°	58.5	75.8	96.7	99.6	98.2
85°	33.2	42.6	48.4	47.6	44.8
87.5°	13.0	14.4	10.8	6.5	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)