

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: P474890

Luminaire Tested: **22CZ2-29VHE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474890
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-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2878.2 lumens
Efficiency: N/A
Efficacy: 144.6 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

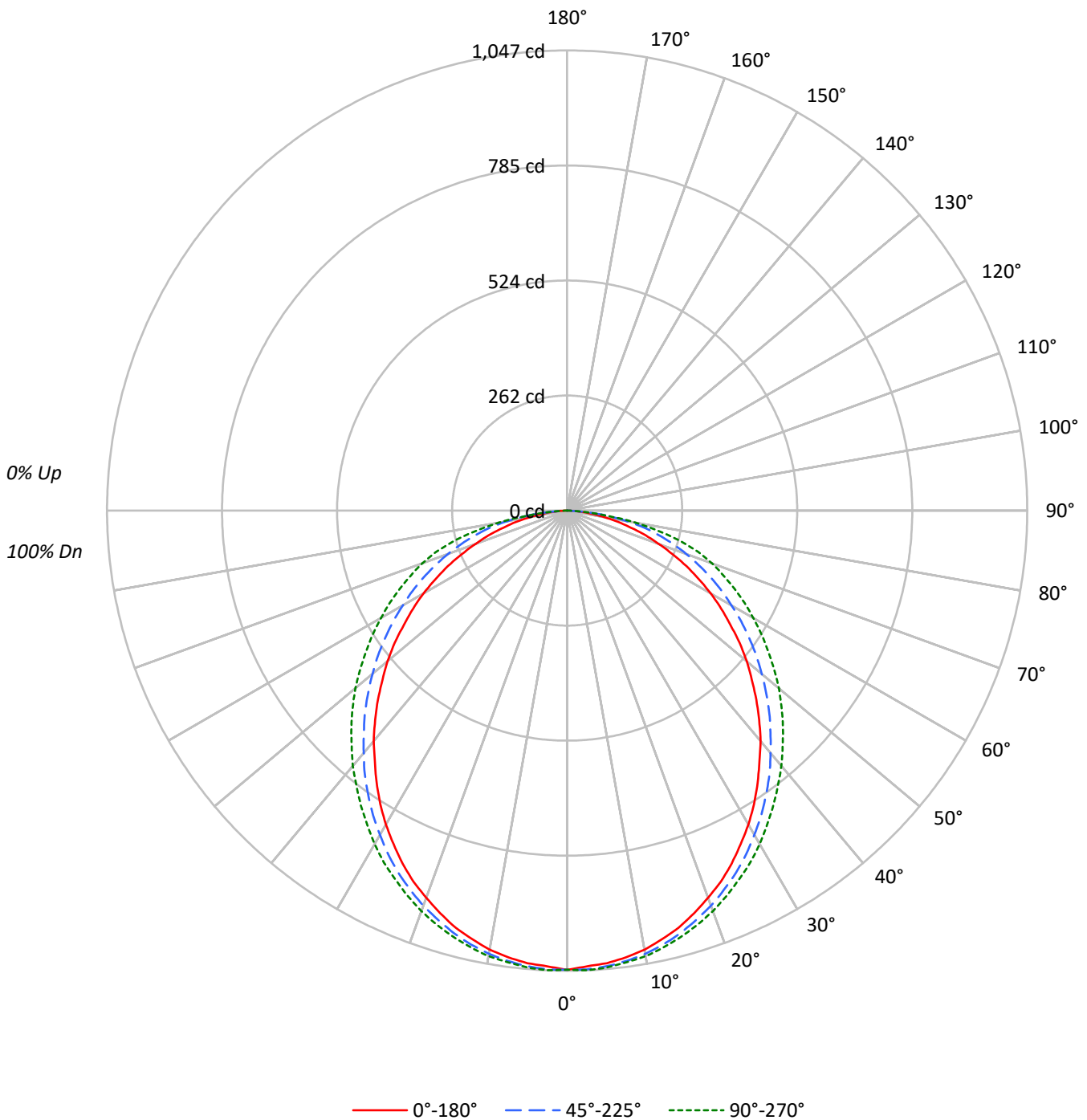
Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2812	2812	2812
5°	2792	2811	2818
10°	2771	2798	2813
15°	2736	2773	2796
20°	2685	2741	2777
25°	2631	2699	2749
30°	2563	2647	2723
35°	2483	2593	2689
40°	2405	2530	2664
45°	2317	2476	2643
50°	2233	2420	2633
55°	2127	2373	2621
60°	2032	2324	2632
65°	1907	2297	2670
70°	1743	2269	2757
75°	1565	2252	2759
80°	1317	2126	2450
85°	988	1442	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.7	3.4
10°-20°	280.3	9.7
20°-30°	417.8	14.5
30°-40°	493.0	17.1
40°-50°	502.3	17.5
50°-60°	453.0	15.7
60°-70°	355.8	12.4
70°-80°	222.4	7.7
80°-90°	54.8	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°	796.8	27.7
0°-40°	1289.8	44.8
0°-60°	2245.2	78.0
0°-90°	2878.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2878.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1034	1036	1041	1043	1043	98
15°	982	986	995	1002	1004	276
25°	886	891	909	922	926	408
35°	756	766	789	811	818	473
45°	609	619	651	682	694	470
55°	453	468	506	545	559	407
65°	300	316	361	401	419	296
75°	150	171	217	254	265	161
85°	32	41	47	46	43	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1044.8	1044.8	1044.8	1044.8	1044.8
2.5°	1037.8	1039.9	1044.8	1046.9	1046.9
5°	1033.7	1035.8	1040.6	1042.7	1043.4
7.5°	1025.3	1028.1	1033.7	1036.4	1036.4
10°	1014.2	1017.6	1023.9	1028.1	1029.5
12.5°	998.8	1003.0	1011.4	1016.2	1017.6
15°	982.1	985.6	995.4	1002.3	1003.7
17.5°	960.5	966.1	976.5	985.6	987.7
20°	937.5	943.8	957.0	967.5	969.6
22.5°	913.9	918.7	933.4	945.9	948.7
25°	886.0	890.9	909.0	922.2	925.7
27.5°	855.3	863.7	881.8	897.1	902.7
30°	824.7	833.1	851.9	870.0	876.2
32.5°	791.3	800.3	821.9	840.7	847.0
35°	755.7	766.2	789.2	810.8	818.4
37.5°	718.8	730.7	756.4	779.4	787.8
40°	684.7	693.1	720.2	746.7	758.5
42.5°	646.4	657.5	684.7	714.6	725.8
45°	608.8	619.2	650.6	681.9	694.4
47.5°	569.8	583.0	614.3	649.2	661.7
50°	533.5	544.7	578.1	615.0	629.0
52.5°	494.5	506.4	542.6	580.9	593.5
55°	453.4	468.1	505.7	544.7	558.6
57.5°	415.8	429.8	469.5	509.9	524.5
60°	377.5	391.5	431.9	472.9	489.0
62.5°	337.1	353.1	397.0	436.7	454.8
65°	299.5	315.5	360.8	401.2	419.3
67.5°	259.8	278.6	323.9	366.4	384.5
70°	221.5	243.8	288.4	330.2	350.4
72.5°	187.4	205.5	252.1	296.0	312.7
75°	150.5	171.3	216.6	253.5	265.4
77.5°	119.1	137.2	180.4	204.8	212.4
80°	85.0	105.2	137.2	151.8	158.1
82.5°	56.4	73.1	93.3	96.1	94.7
85°	32.0	41.1	46.7	46.0	43.2
87.5°	12.5	13.9	10.4	6.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)