

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: P474768

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474768
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2877.5 lumens
Efficiency: N/A
Efficacy: 137.7 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

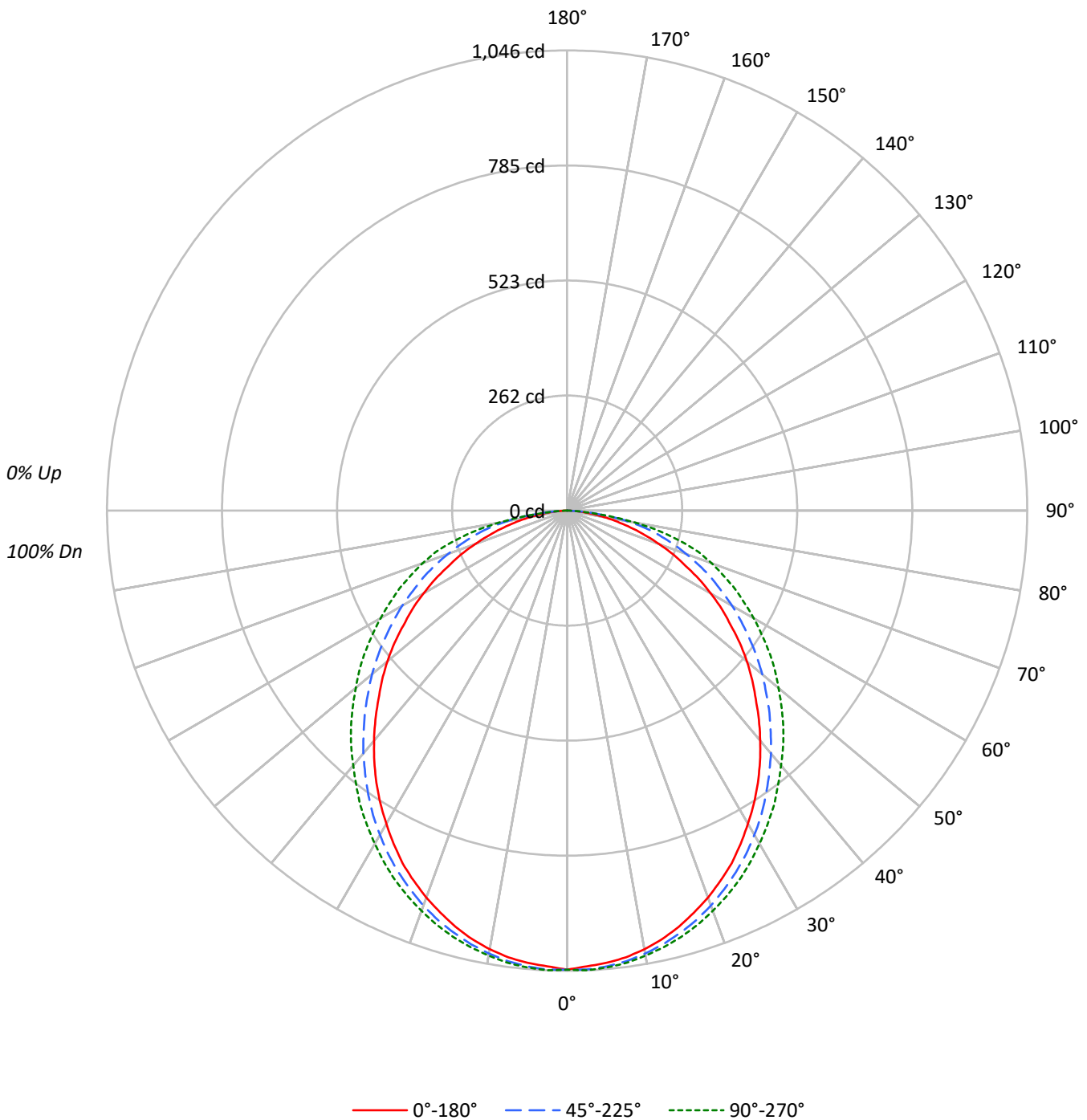
Input Watts (W): 20.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474768

CATALOG NUMBER: 22CZ2-29HE-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474768

CATALOG NUMBER: 22CZ2-29HE-UNV-L830-CD1-U

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	87	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2808	2808	2808
5°	2788	2809	2816
10°	2767	2793	2807
15°	2729	2768	2794
20°	2680	2736	2772
25°	2627	2694	2750
30°	2555	2646	2717
35°	2483	2589	2691
40°	2399	2531	2657
45°	2307	2474	2645
50°	2233	2424	2625
55°	2129	2371	2631
60°	2032	2330	2638
65°	1890	2300	2679
70°	1747	2268	2747
75°	1562	2257	2763
80°	1309	2139	2413
85°	1013	1463	1371



TEST NUMBER: P474768

CATALOG NUMBER: 22CZ2-29HE-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	3.4
10°-20°	279.9	9.7
20°-30°	417.3	14.5
30°-40°	492.6	17.1
40°-50°	502.1	17.4
50°-60°	452.8	15.7
60°-70°	355.9	12.4
70°-80°	222.8	7.7
80°-90°	55.6	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°	795.8	27.7
0°-40°	1288.4	44.8
0°-60°	2243.3	78.0
0°-90°	2877.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2877.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1032	1034	1040	1042	1042	98
15°	980	984	994	1001	1003	276
25°	885	892	907	921	926	407
35°	756	766	788	810	819	472
45°	606	620	650	682	695	469
55°	454	468	505	544	561	407
65°	297	315	361	401	421	296
75°	150	173	217	256	266	160
85°	33	42	47	47	44	40
90°	0	0	0	0	0	



TEST NUMBER: P474768

CATALOG NUMBER: 22CZ2-29HE-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1043.5	1043.5	1043.5	1043.5	1043.5
2.5°	1036.8	1039.3	1044.1	1046.0	1046.0
5°	1032.0	1034.4	1039.9	1042.3	1042.3
7.5°	1024.1	1026.5	1033.2	1036.2	1036.8
10°	1012.5	1015.6	1022.3	1027.1	1027.1
12.5°	997.9	1001.0	1009.5	1015.6	1016.2
15°	979.7	983.9	993.7	1001.0	1002.8
17.5°	958.4	965.1	976.0	985.2	987.0
20°	935.9	942.6	955.4	965.7	968.1
22.5°	911.0	917.0	932.2	945.0	948.1
25°	884.8	891.5	907.3	921.3	926.2
27.5°	853.8	861.7	880.6	896.4	901.2
30°	822.2	831.9	851.4	869.0	874.5
32.5°	789.9	799.1	821.0	839.8	847.1
35°	755.9	765.6	788.1	810.0	819.1
37.5°	720.0	729.7	754.1	779.0	787.5
40°	682.9	694.5	720.6	747.4	756.5
42.5°	645.2	657.4	684.7	714.5	726.7
45°	606.3	619.7	650.1	681.7	695.1
47.5°	571.0	582.0	613.6	648.3	661.0
50°	533.3	543.7	578.9	613.6	627.0
52.5°	495.0	504.7	542.4	578.9	595.4
55°	453.7	467.6	505.3	544.3	560.7
57.5°	417.2	429.9	468.9	508.4	524.2
60°	377.6	391.0	433.0	473.1	490.1
62.5°	338.1	352.7	395.3	438.5	454.3
65°	296.8	315.0	361.2	401.4	420.8
67.5°	261.5	279.1	324.7	366.7	383.7
70°	222.0	242.6	288.2	330.8	349.1
72.5°	184.9	205.5	252.4	294.9	313.2
75°	150.2	172.7	217.1	256.0	265.7
77.5°	116.8	138.0	182.4	204.9	215.3
80°	84.5	105.2	138.0	153.2	155.7
82.5°	57.2	74.8	93.7	97.9	95.5
85°	32.8	42.0	47.4	47.4	44.4
87.5°	13.4	13.4	11.6	7.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)