

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: P474879

Luminaire Tested: **22CZ2-32-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474879
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-32-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

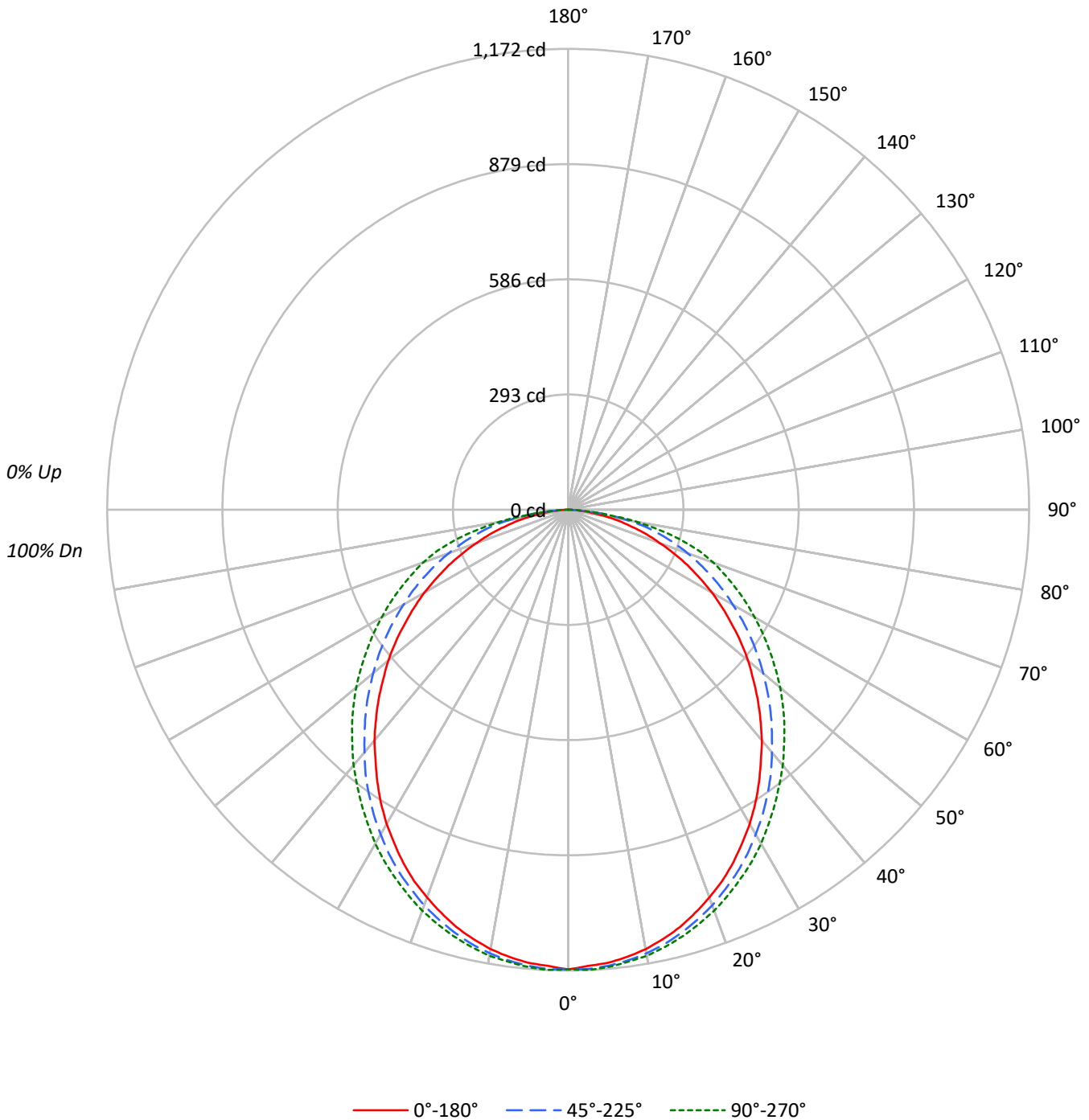
Lumens per Lamp: N/A
Luminaire Lumens: 3220.8 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83				83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69				69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58				58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50				50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43				43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38				38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3146	3146	3146
5°	3125	3146	3154
10°	3101	3131	3148
15°	3062	3103	3129
20°	3004	3067	3107
25°	2944	3020	3076
30°	2868	2962	3047
35°	2778	2901	3008
40°	2692	2831	2982
45°	2592	2770	2957
50°	2499	2708	2946
55°	2381	2655	2933
60°	2274	2601	2945
65°	2134	2571	2988
70°	1950	2539	3085
75°	1751	2520	3088
80°	1474	2379	2741
85°	1108	1612	1491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	3.4
10°-20°	313.6	9.7
20°-30°	467.6	14.5
30°-40°	551.7	17.1
40°-50°	562.1	17.5
50°-60°	506.9	15.7
60°-70°	398.1	12.4
70°-80°	248.9	7.7
80°-90°	61.3	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°	891.6	27.7
0°-40°	1443.3	44.8
0°-60°	2512.4	78.0
0°-90°	3220.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3220.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1169	1169	1169	1169	1169	
5°	1157	1159	1164	1167	1168	110
15°	1099	1103	1114	1122	1123	309
25°	991	997	1017	1032	1036	456
35°	846	857	883	907	916	529
45°	681	693	728	763	777	526
55°	507	524	566	610	625	455
65°	335	353	404	449	469	331
75°	168	192	242	284	297	180
85°	36	46	52	51	48	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1169.2	1169.2	1169.2	1169.2	1169.2
2.5°	1161.4	1163.7	1169.2	1171.5	1171.5
5°	1156.7	1159.0	1164.5	1166.8	1167.6
7.5°	1147.3	1150.4	1156.7	1159.8	1159.8
10°	1134.9	1138.8	1145.8	1150.4	1152.0
12.5°	1117.7	1122.4	1131.7	1137.2	1138.8
15°	1099.0	1102.9	1113.8	1121.6	1123.2
17.5°	1074.8	1081.1	1092.8	1102.9	1105.2
20°	1049.1	1056.1	1070.9	1082.6	1085.0
22.5°	1022.6	1028.1	1044.4	1058.5	1061.6
25°	991.4	996.9	1017.2	1032.0	1035.9
27.5°	957.1	966.5	986.8	1003.9	1010.1
30°	922.9	932.2	953.3	973.5	980.5
32.5°	885.4	895.6	919.7	940.8	947.8
35°	845.7	857.4	883.1	907.3	915.8
37.5°	804.4	817.6	846.5	872.2	881.5
40°	766.2	775.5	805.9	835.6	848.8
42.5°	723.3	735.8	766.2	799.7	812.2
45°	681.2	692.9	728.0	763.1	777.1
47.5°	637.6	652.4	687.5	726.4	740.5
50°	597.0	609.5	646.9	688.2	703.8
52.5°	553.4	566.6	607.2	650.0	664.1
55°	507.4	523.8	565.9	609.5	625.1
57.5°	465.3	480.9	525.3	570.5	586.9
60°	422.5	438.0	483.3	529.2	547.2
62.5°	377.2	395.2	444.3	488.7	509.0
65°	335.2	353.1	403.7	449.0	469.2
67.5°	290.7	311.8	362.4	410.0	430.2
70°	247.9	272.8	322.7	369.5	392.1
72.5°	209.7	229.9	282.2	331.3	350.0
75°	168.4	191.7	242.4	283.7	297.0
77.5°	133.3	153.5	201.9	229.2	237.7
80°	95.1	117.7	153.5	169.9	176.9
82.5°	63.1	81.8	104.4	107.6	106.0
85°	35.9	46.0	52.2	51.4	48.3
87.5°	14.0	15.6	11.7	7.0	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)