

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: P475233

Luminaire Tested: **22CZ2-34HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475233  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34HE-SQR-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

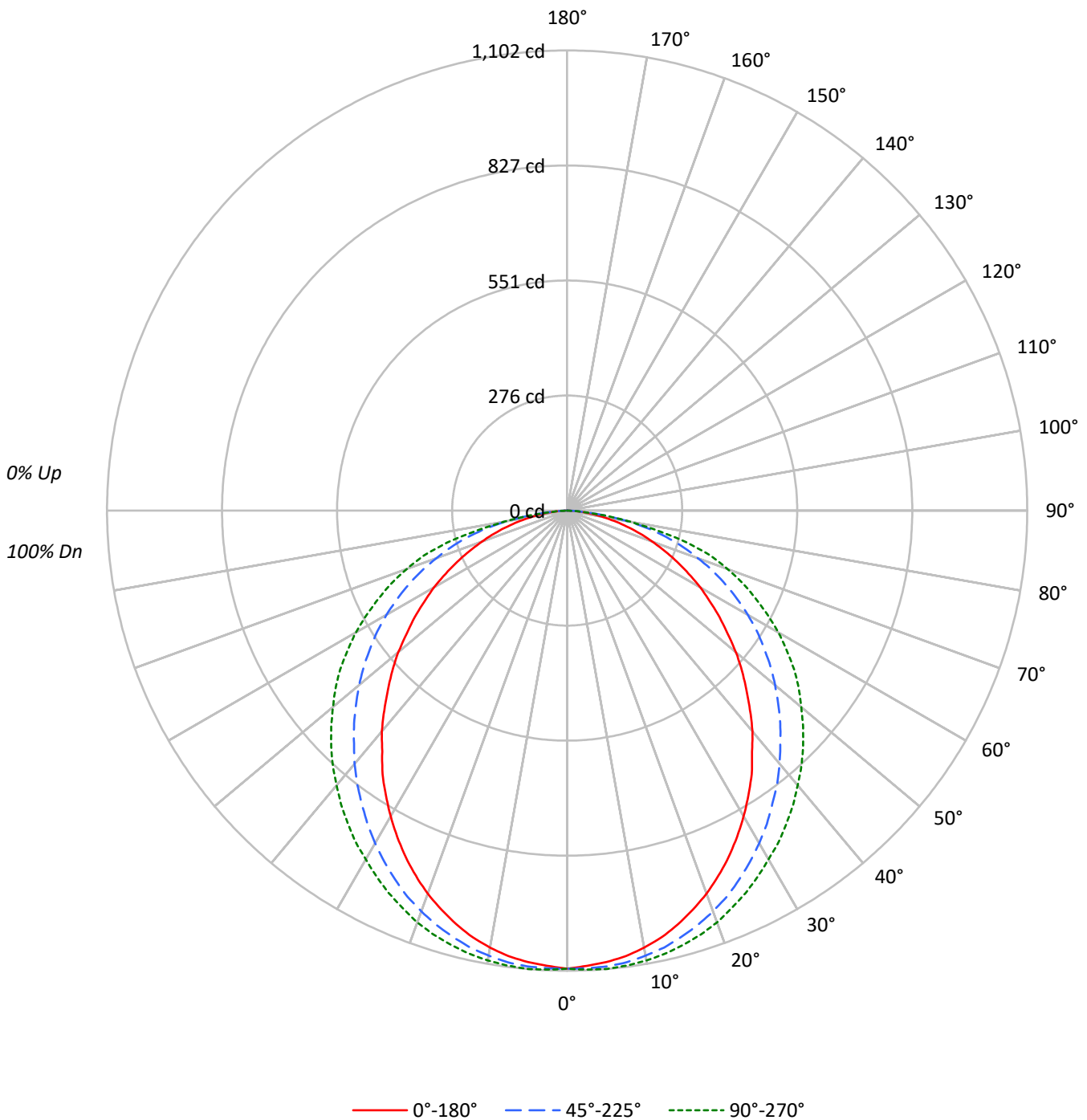
Lumens per Lamp: N/A  
Luminaire Lumens: 3140.9 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 24.3  
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	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2952	2952	2952
5°	2932	2959	2976
10°	2905	2957	2990
15°	2858	2944	2998
20°	2796	2925	3005
25°	2718	2895	3001
30°	2626	2858	2997
35°	2532	2816	3007
40°	2425	2781	3017
45°	2309	2746	3041
50°	2209	2721	3064
55°	2091	2700	3113
60°	1982	2688	3145
65°	1851	2667	3170
70°	1700	2627	3213
75°	1535	2558	3099
80°	1317	2266	2334
85°	1059	1334	1059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.0	3.3
10°-20°	297.4	9.5
20°-30°	446.7	14.2
30°-40°	532.7	17.0
40°-50°	550.8	17.5
50°-60°	506.4	16.1
60°-70°	403.1	12.8
70°-80°	246.3	7.8
80°-90°	53.5	1.7
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°	848.1	27.0
0°-40°	1380.8	44.0
0°-60°	2437.9	77.6
0°-90°	3140.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3140.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1085	1088	1096	1100	1102	103
15°	1026	1038	1057	1072	1076	289
25°	915	938	975	1002	1011	421
35°	771	804	857	902	915	481
45°	607	650	722	780	799	469
55°	446	495	575	641	664	399
65°	291	340	419	477	498	288
75°	148	191	246	289	298	157
85°	34	42	43	37	34	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1097.1	1097.1	1097.1	1097.1	1097.1
2.5°	1091.2	1092.7	1097.1	1100.3	1100.3
5°	1085.3	1088.2	1095.6	1100.3	1101.7
7.5°	1076.3	1080.8	1091.2	1097.1	1098.8
10°	1063.0	1068.9	1082.3	1091.2	1094.2
12.5°	1046.5	1055.4	1071.9	1083.8	1086.7
15°	1025.7	1037.6	1056.9	1071.9	1076.3
17.5°	1001.8	1016.6	1040.6	1058.5	1064.5
20°	976.4	991.4	1021.3	1042.0	1049.5
22.5°	946.7	966.0	1000.3	1024.2	1030.2
25°	915.3	937.6	974.9	1001.8	1010.7
27.5°	881.0	907.9	948.2	981.0	988.4
30°	845.2	873.6	919.8	955.6	964.5
32.5°	808.0	840.8	889.9	930.2	942.2
35°	770.7	803.5	857.1	902.0	915.3
37.5°	727.5	766.2	825.9	872.1	888.5
40°	690.2	727.5	791.6	842.3	858.8
42.5°	648.4	688.7	755.8	810.9	830.4
45°	606.7	649.9	721.5	779.8	799.1
47.5°	567.9	611.2	685.7	746.9	766.2
50°	527.7	572.4	649.9	712.6	731.9
52.5°	484.5	533.6	614.1	676.8	699.3
55°	445.7	494.9	575.4	641.0	663.5
57.5°	405.5	456.1	539.7	602.3	623.2
60°	368.2	417.3	499.5	560.5	584.4
62.5°	327.9	378.6	459.1	518.8	541.2
65°	290.7	340.0	418.8	477.1	497.8
67.5°	253.4	302.7	377.1	432.4	456.1
70°	216.1	265.4	333.9	387.6	408.4
72.5°	183.4	226.7	292.1	341.5	360.8
75°	147.6	190.9	246.0	289.2	298.1
77.5°	114.8	153.6	199.8	219.1	222.2
80°	85.0	114.8	146.2	150.6	150.6
82.5°	56.6	79.0	90.9	92.4	90.9
85°	34.3	41.7	43.2	37.3	34.3
87.5°	11.9	11.9	7.4	4.5	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)