

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: P475277

Luminaire Tested: **22CZ2-85VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475277  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-SQR-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8139.0 lumens  
Efficiency: N/A  
Efficacy: 129.0 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

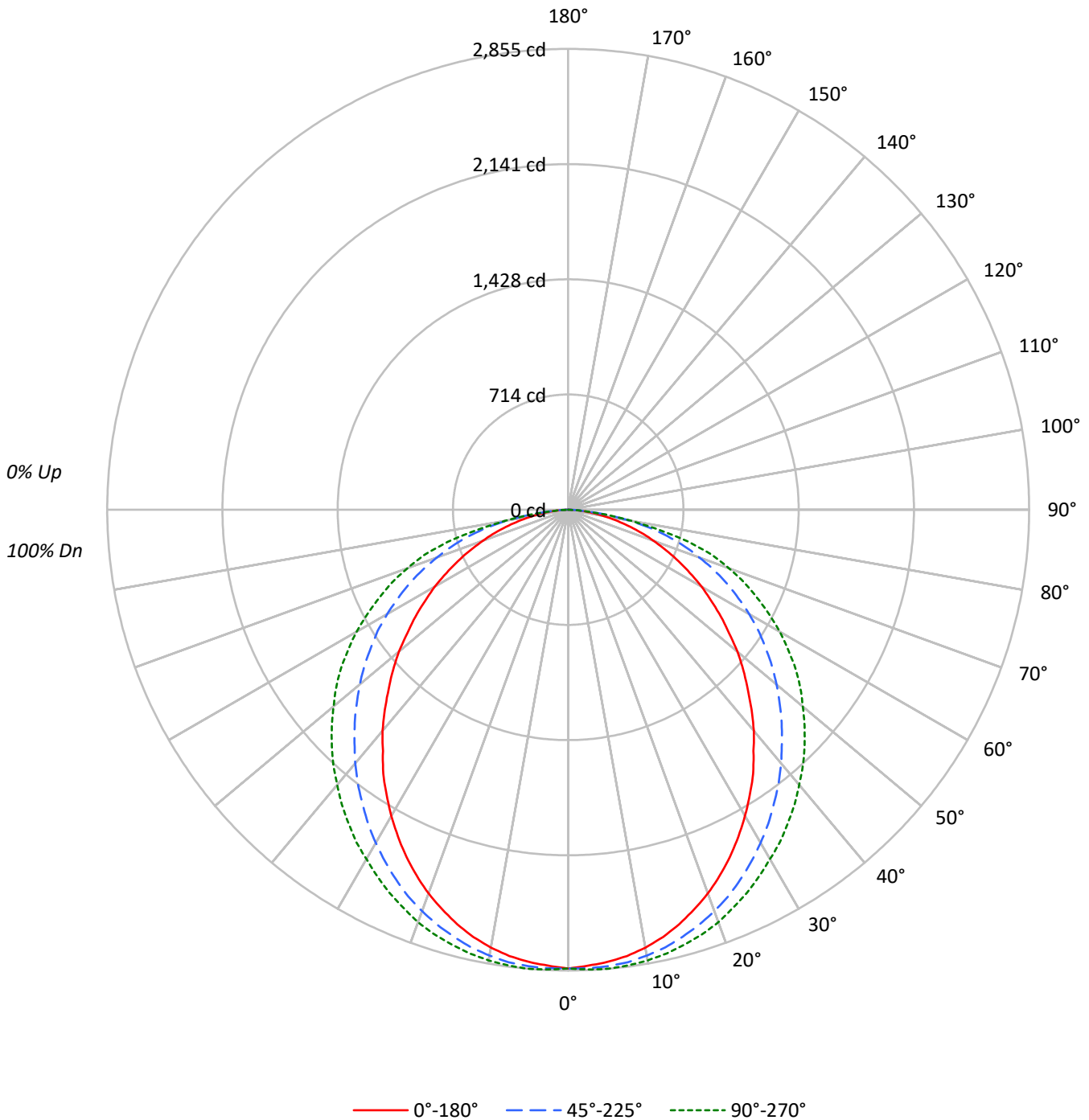
Input Watts (W): 63.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7650	7650	7650
5°	7596	7669	7712
10°	7527	7663	7747
15°	7405	7630	7770
20°	7245	7578	7787
25°	7043	7501	7776
30°	6806	7406	7766
35°	6560	7296	7792
40°	6283	7206	7817
45°	5983	7115	7880
50°	5725	7051	7940
55°	5419	6995	8066
60°	5135	6966	8151
65°	4796	6911	8214
70°	4406	6807	8327
75°	3978	6626	8031
80°	3411	5869	6048
85°	2745	3458	2745



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.5	3.3
10°-20°	770.6	9.5
20°-30°	1157.5	14.2
30°-40°	1380.4	17.0
40°-50°	1427.2	17.5
50°-60°	1312.2	16.1
60°-70°	1044.6	12.8
70°-80°	638.2	7.8
80°-90°	138.7	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°	2197.6	27.0
0°-40°	3578.1	44.0
0°-60°	6317.4	77.6
0°-90°	8139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2843	2843	2843	2843	2843	
5°	2812	2820	2839	2851	2855	267
15°	2658	2689	2739	2778	2789	748
25°	2372	2430	2526	2596	2619	1091
35°	1997	2082	2221	2337	2372	1246
45°	1572	1684	1870	2021	2071	1216
55°	1155	1282	1491	1661	1719	1033
65°	753	881	1085	1236	1290	746
75°	383	495	637	749	772	407
85°	89	108	112	97	89	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2843.0	2843.0	2843.0	2843.0	2843.0
2.5°	2827.6	2831.4	2843.0	2851.1	2851.1
5°	2812.2	2819.9	2839.1	2851.1	2854.9
7.5°	2789.1	2800.7	2827.6	2843.0	2847.2
10°	2754.5	2769.9	2804.5	2827.6	2835.3
12.5°	2711.7	2734.8	2777.6	2808.3	2816.0
15°	2657.9	2688.7	2738.7	2777.6	2789.1
17.5°	2595.9	2634.4	2696.4	2742.9	2758.3
20°	2530.1	2569.0	2646.3	2700.2	2719.4
22.5°	2453.1	2503.1	2592.1	2654.0	2669.4
25°	2371.9	2429.6	2526.2	2595.9	2619.0
27.5°	2283.0	2352.7	2457.0	2542.0	2561.3
30°	2190.3	2263.8	2383.5	2476.2	2499.3
32.5°	2093.7	2178.7	2306.1	2410.4	2441.6
35°	1997.0	2082.1	2221.0	2337.3	2371.9
37.5°	1885.1	1985.5	2140.2	2259.9	2302.2
40°	1788.5	1885.1	2051.3	2182.6	2225.3
42.5°	1680.3	1784.6	1958.6	2101.3	2151.8
45°	1572.2	1684.2	1869.7	2020.6	2070.6
47.5°	1471.7	1583.7	1776.9	1935.5	1985.5
50°	1367.4	1483.3	1684.2	1846.6	1896.6
52.5°	1255.4	1382.8	1591.4	1753.8	1812.0
55°	1155.0	1282.4	1490.9	1661.1	1719.2
57.5°	1050.7	1181.9	1398.6	1560.6	1614.9
60°	954.1	1081.4	1294.3	1452.5	1514.5
62.5°	849.8	981.0	1189.6	1344.3	1402.5
65°	753.2	881.0	1085.3	1236.2	1290.0
67.5°	656.6	784.4	977.2	1120.3	1181.9
70°	560.0	687.8	865.2	1004.5	1058.4
72.5°	475.3	587.3	757.0	884.8	934.8
75°	382.6	494.6	637.3	749.3	772.4
77.5°	297.5	398.0	517.6	567.7	575.8
80°	220.1	297.5	378.7	390.3	390.3
82.5°	146.6	204.7	235.5	239.4	235.5
85°	88.9	108.1	112.0	96.6	88.9
87.5°	30.8	30.8	19.2	11.5	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)