

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: P474612

Luminaire Tested: **24CZ2-35-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474612  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-SQR-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

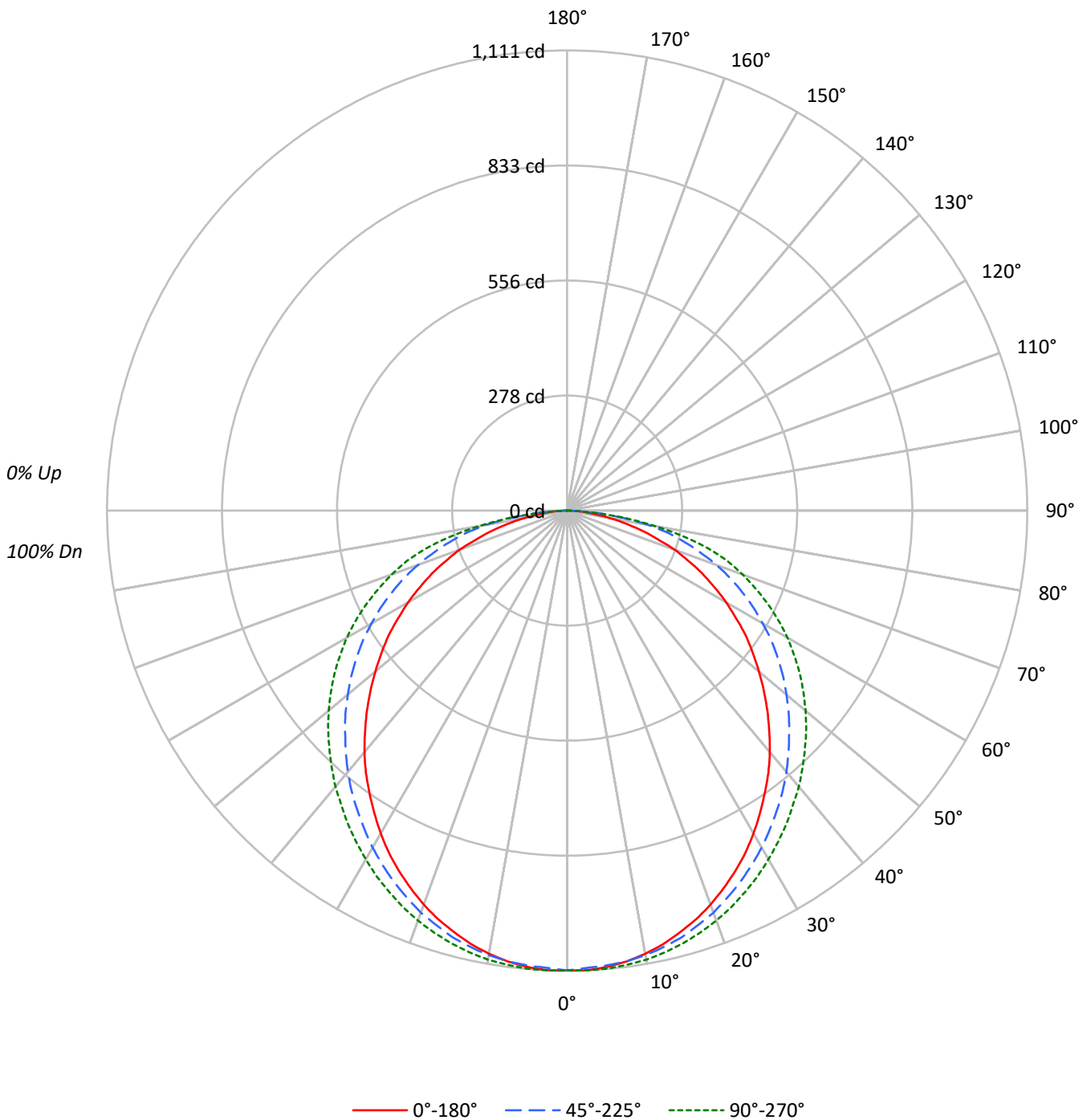
Lumens per Lamp: N/A  
Luminaire Lumens: 3379.3 lumens  
Efficiency: N/A  
Efficacy: 122.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	2987	2987	2987
5°	2987	2978	2998
10°	2968	2978	3008
15°	2936	2972	3013
20°	2899	2958	3016
25°	2852	2937	3017
30°	2797	2919	3021
35°	2733	2902	3033
40°	2674	2892	3057
45°	2601	2885	3090
50°	2532	2893	3146
55°	2472	2913	3217
60°	2389	2935	3307
65°	2293	2970	3407
70°	2175	3012	3543
75°	1947	3054	3660
80°	1640	3062	3321
85°	1216	2316	2183



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.2	3.1
10°-20°	301.5	8.9
20°-30°	456.4	13.5
30°-40°	552.1	16.3
40°-50°	582.7	17.2
50°-60°	549.5	16.3
60°-70°	453.1	13.4
70°-80°	297.2	8.8
80°-90°	81.7	2.4
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°	863.0	25.5
0°-40°	1415.1	41.9
0°-60°	2547.3	75.4
0°-90°	3379.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3379.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1106	1106	1102	1110	1110	105
15°	1054	1060	1067	1079	1081	297
25°	960	972	989	1010	1016	442
35°	832	854	883	914	923	521
45°	684	714	758	798	812	527
55°	527	564	621	667	686	469
65°	360	403	466	516	535	356
75°	187	235	294	340	352	198
85°	39	68	75	73	71	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1110.0	1110.0	1110.0	1110.0	1110.0
2.5°	1111.1	1110.0	1105.1	1111.6	1111.1
5°	1105.7	1105.7	1102.4	1110.0	1110.0
7.5°	1098.1	1098.7	1097.6	1106.2	1106.2
10°	1086.3	1088.4	1090.0	1099.7	1100.8
12.5°	1072.2	1076.0	1079.2	1091.1	1092.2
15°	1053.9	1059.8	1066.8	1079.2	1081.4
17.5°	1035.0	1042.0	1049.5	1065.7	1068.4
20°	1012.3	1020.4	1032.8	1049.0	1053.3
22.5°	986.9	998.3	1011.2	1030.6	1036.0
25°	960.5	972.3	989.1	1009.6	1016.1
27.5°	931.8	945.9	964.8	988.5	995.6
30°	900.0	916.2	939.4	964.8	972.3
32.5°	866.5	885.4	911.3	939.4	948.0
35°	832.0	853.6	883.3	913.5	923.2
37.5°	798.0	819.5	854.6	886.5	895.7
40°	761.2	785.0	823.3	857.3	870.3
42.5°	722.4	750.4	790.9	828.7	841.1
45°	683.5	714.3	758.0	798.5	812.0
47.5°	644.1	678.1	726.1	767.2	782.8
50°	604.7	640.8	691.1	735.3	751.5
52.5°	564.7	602.5	657.0	704.0	718.6
55°	526.9	564.2	620.9	667.3	685.7
57.5°	483.2	525.3	585.2	632.2	650.0
60°	443.8	484.8	545.3	595.0	614.4
62.5°	401.1	443.2	507.0	556.6	575.5
65°	360.1	403.3	466.5	516.1	535.0
67.5°	315.8	361.2	426.0	474.0	492.4
70°	276.4	319.1	382.8	431.9	450.3
72.5°	228.4	277.0	338.0	386.6	406.5
75°	187.3	235.4	293.7	340.1	352.0
77.5°	144.1	192.2	250.0	280.2	288.3
80°	105.8	151.2	197.6	213.8	214.3
82.5°	71.3	111.2	137.7	145.8	144.7
85°	39.4	68.0	75.0	72.9	70.7
87.5°	16.2	22.7	18.4	13.0	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)