

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: P558461

Luminaire Tested: **22CBRK-A-31-UNV-L835-CD1-WAA-U**

Issue Date: 7/20/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P558461  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-259-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CBRK-A-31-UNV-L835-CD1-WAA-U  
Description: 2X2 3100 LUMEN, LED TROFFER RETROFIT KIT WITH 3500K AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

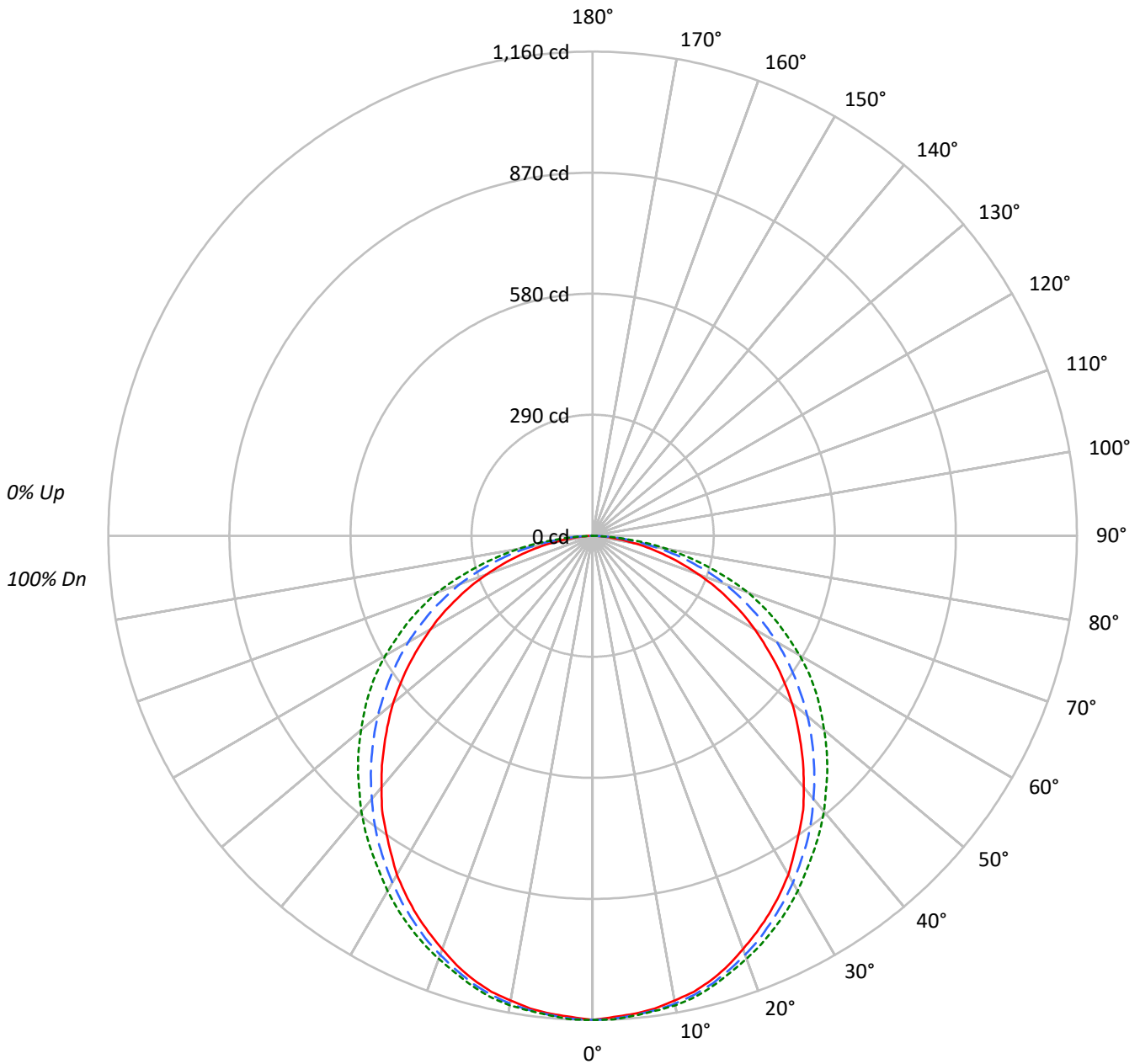
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3295.0 lumens  
Efficiency: N/A  
Efficacy: 154.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P558461

CATALOG NUMBER: 22CBRK-A-31-UNV-L835-CD1-WAA-U

### Luminous Intensity Polar Plot





TEST NUMBER: P558461

CATALOG NUMBER: 22CBRK-A-31-UNV-L835-CD1-WAA-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	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	90	88	90	87	85	83								
2	98	90	83	77	96	88	82	76	85	79	75	81	77	73	78	74	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	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	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°	3121	3121	3121
5°	3105	3113	3117
10°	3090	3110	3121
15°	3069	3093	3110
20°	3017	3059	3088
25°	2969	3021	3072
30°	2913	2980	3053
35°	2836	2941	3032
40°	2762	2890	3027
45°	2683	2849	3025
50°	2610	2811	3030
55°	2516	2775	3062
60°	2417	2745	3082
65°	2286	2702	3100
70°	2116	2653	3110
75°	1889	2523	2962
80°	1554	2275	2793
85°	988	1883	2109



TEST NUMBER: P558461

CATALOG NUMBER: 22CBRK-A-31-UNV-L835-CD1-WAA-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.5	3.3
10°-20°	312.7	9.5
20°-30°	468.8	14.2
30°-40°	559.4	17.0
40°-50°	578.4	17.6
50°-60°	530.0	16.1
60°-70°	418.4	12.7
70°-80°	251.9	7.6
80°-90°	65.8	2.0
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°	891.0	27.0
0°-40°	1450.5	44.0
0°-60°	2558.9	77.7
0°-90°	3295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3295.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1150	1150	1152	1154	1154	109
15°	1102	1103	1110	1115	1116	310
25°	1000	1004	1017	1030	1035	460
35°	863	872	895	916	923	541
45°	705	716	748	780	795	544
55°	536	551	592	635	653	479
65°	359	376	424	468	487	356
75°	182	202	243	275	285	193
85°	32	44	61	70	68	42
90°	0	0	0	0	0	



TEST NUMBER: P558461

CATALOG NUMBER: 22CBRK-A-31-UNV-L835-CD1-WAA-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1159.8	1159.8	1159.8	1159.8	1159.8
2.5°	1154.0	1155.4	1158.3	1159.8	1159.8
5°	1149.6	1149.6	1152.5	1154.0	1154.0
7.5°	1142.3	1143.8	1146.7	1148.1	1148.1
10°	1130.7	1133.6	1138.0	1142.3	1142.3
12.5°	1119.1	1120.5	1126.3	1130.7	1132.2
15°	1101.6	1103.1	1110.4	1114.7	1116.2
17.5°	1079.8	1082.7	1090.0	1097.3	1097.3
20°	1053.7	1058.0	1068.2	1075.5	1078.4
22.5°	1027.5	1033.3	1045.0	1053.7	1058.0
25°	999.9	1004.3	1017.3	1030.4	1034.8
27.5°	969.4	973.7	989.7	1005.7	1010.1
30°	937.4	943.2	959.2	975.2	982.5
32.5°	899.6	908.3	927.2	947.6	951.9
35°	863.3	872.0	895.3	915.6	922.9
37.5°	828.4	834.2	860.4	885.1	893.8
40°	786.3	796.4	822.6	850.2	861.8
42.5°	747.0	757.2	786.3	816.8	827.0
45°	704.9	716.5	748.5	780.4	795.0
47.5°	664.2	678.7	710.7	747.0	760.1
50°	623.5	636.6	671.4	709.2	723.8
52.5°	579.9	593.0	630.8	672.9	688.9
55°	536.3	550.8	591.5	635.1	652.6
57.5°	491.2	508.7	550.8	595.9	614.8
60°	449.1	463.6	510.1	555.2	572.6
62.5°	405.5	421.5	466.5	511.6	527.6
65°	359.0	376.4	424.4	468.0	486.9
67.5°	316.8	332.8	380.8	424.4	440.4
70°	268.9	289.2	337.2	377.9	395.3
72.5°	225.3	245.6	290.7	327.0	340.1
75°	181.7	202.0	242.7	274.7	284.9
77.5°	141.0	159.9	196.2	222.4	231.1
80°	100.3	119.2	146.8	171.5	180.2
82.5°	63.9	79.9	103.2	120.6	125.0
85°	32.0	43.6	61.0	69.8	68.3
87.5°	10.2	13.1	17.4	14.5	13.1
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)