

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: P558459

Luminaire Tested: **22CBRK-31HE-UNV-L840-CD1-U**

Issue Date: 7/20/2021



**Test Information**

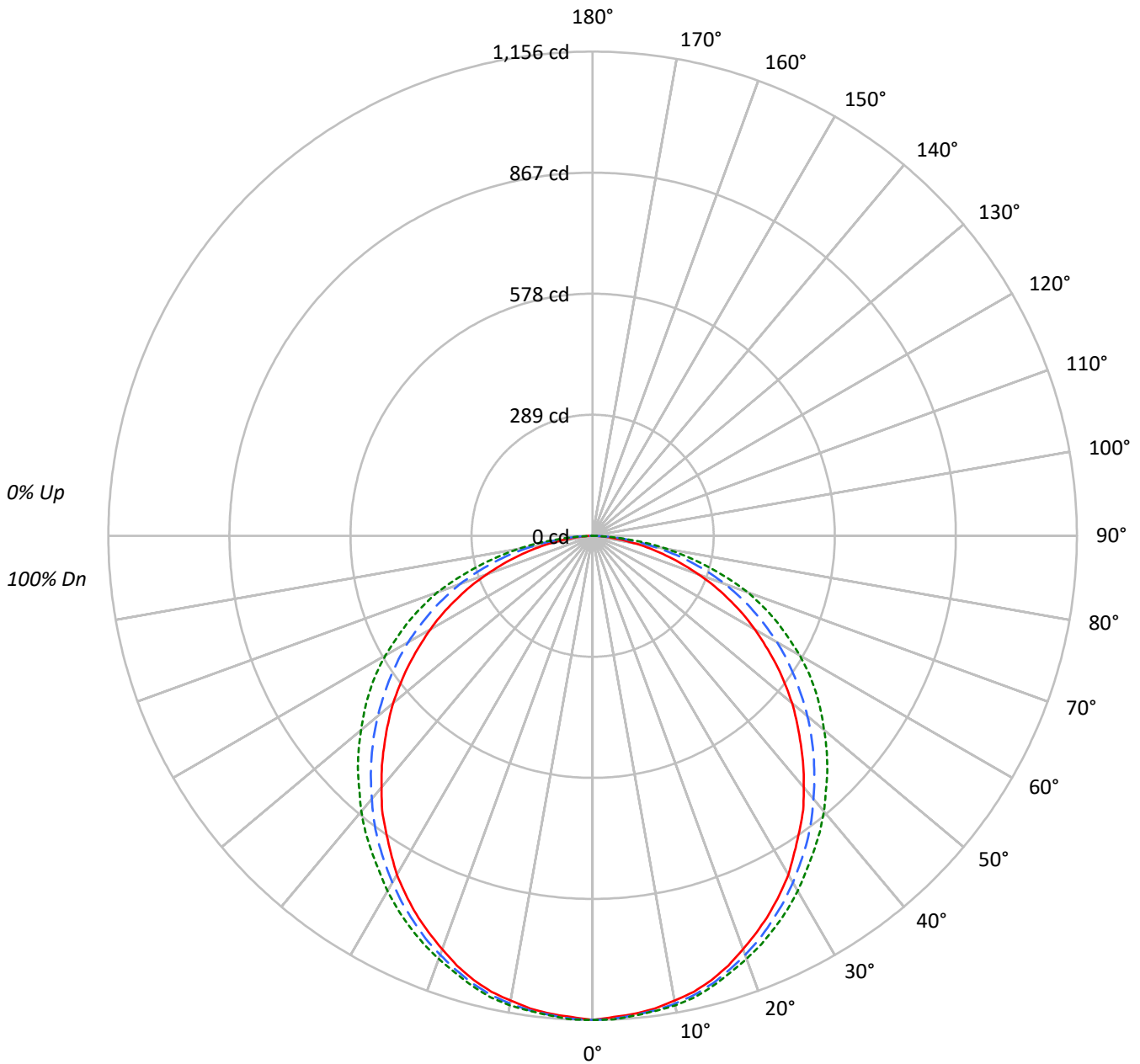
Test Method: LM-79-08  
Report Number: P558459  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-259-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CBRK-31HE-UNV-L840-CD1-U  
Description: 2X2 3100 LUMEN, HIGH EFFICACY, LED TROFFER RETROFIT KIT WITH 4000K AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3284.0 lumens  
Efficiency: N/A  
Efficacy: 161.8 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): 20.3  
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

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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								
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°	3111	3111	3111
5°	3095	3103	3107
10°	3079	3099	3111
15°	3059	3083	3099
20°	3007	3049	3078
25°	2959	3010	3062
30°	2903	2971	3043
35°	2826	2931	3022
40°	2753	2880	3018
45°	2673	2839	3015
50°	2601	2802	3020
55°	2508	2766	3051
60°	2409	2736	3071
65°	2278	2693	3089
70°	2109	2644	3100
75°	1883	2515	2952
80°	1548	2267	2783
85°	985	1877	2103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.2	3.3
10°-20°	311.7	9.5
20°-30°	467.2	14.2
30°-40°	557.6	17.0
40°-50°	576.5	17.6
50°-60°	528.2	16.1
60°-70°	417.0	12.7
70°-80°	251.0	7.6
80°-90°	65.6	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°	888.1	27.0
0°-40°	1445.6	44.0
0°-60°	2550.4	77.7
0°-90°	3284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3284.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1146	1146	1149	1150	1150	109
15°	1098	1099	1107	1111	1112	309
25°	997	1001	1014	1027	1031	459
35°	860	869	892	913	920	539
45°	702	714	746	778	792	543
55°	534	549	590	633	650	478
65°	358	375	423	466	485	355
75°	181	201	242	274	284	192
85°	32	44	61	70	68	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1155.9	1155.9	1155.9	1155.9	1155.9
2.5°	1150.1	1151.6	1154.4	1155.9	1155.9
5°	1145.8	1145.8	1148.7	1150.1	1150.1
7.5°	1138.5	1140.0	1142.9	1144.3	1144.3
10°	1126.9	1129.8	1134.2	1138.5	1138.5
12.5°	1115.3	1116.8	1122.6	1126.9	1128.4
15°	1098.0	1099.4	1106.6	1111.0	1112.4
17.5°	1076.2	1079.1	1086.4	1093.6	1093.6
20°	1050.2	1054.5	1064.6	1071.9	1074.8
22.5°	1024.1	1029.9	1041.5	1050.2	1054.5
25°	996.6	1000.9	1013.9	1027.0	1031.3
27.5°	966.1	970.5	986.4	1002.4	1006.7
30°	934.3	940.1	956.0	971.9	979.2
32.5°	896.6	905.3	924.1	944.4	948.8
35°	860.4	869.1	892.3	912.6	919.8
37.5°	825.6	831.4	857.5	882.1	890.8
40°	783.6	793.8	819.8	847.4	859.0
42.5°	744.5	754.7	783.6	814.1	824.2
45°	702.5	714.1	746.0	777.8	792.3
47.5°	662.0	676.4	708.3	744.5	757.6
50°	621.4	634.4	669.2	706.9	721.3
52.5°	577.9	591.0	628.6	670.7	686.6
55°	534.5	549.0	589.5	633.0	650.4
57.5°	489.6	507.0	549.0	593.9	612.7
60°	447.6	462.1	508.4	553.3	570.7
62.5°	404.1	420.1	465.0	509.9	525.8
65°	357.8	375.2	423.0	466.4	485.2
67.5°	315.8	331.7	379.5	423.0	438.9
70°	268.0	288.3	336.1	376.6	394.0
72.5°	224.5	244.8	289.7	325.9	338.9
75°	181.1	201.3	241.9	273.8	283.9
77.5°	140.5	159.3	195.5	221.6	230.3
80°	99.9	118.8	146.3	170.9	179.6
82.5°	63.7	79.7	102.8	120.2	124.6
85°	31.9	43.5	60.8	69.5	68.1
87.5°	10.1	13.0	17.4	14.5	13.0
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)