

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: P294865

Luminaire Tested: **22CZ2-44-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P294865  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44-HRP-UNV-L940-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (98) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

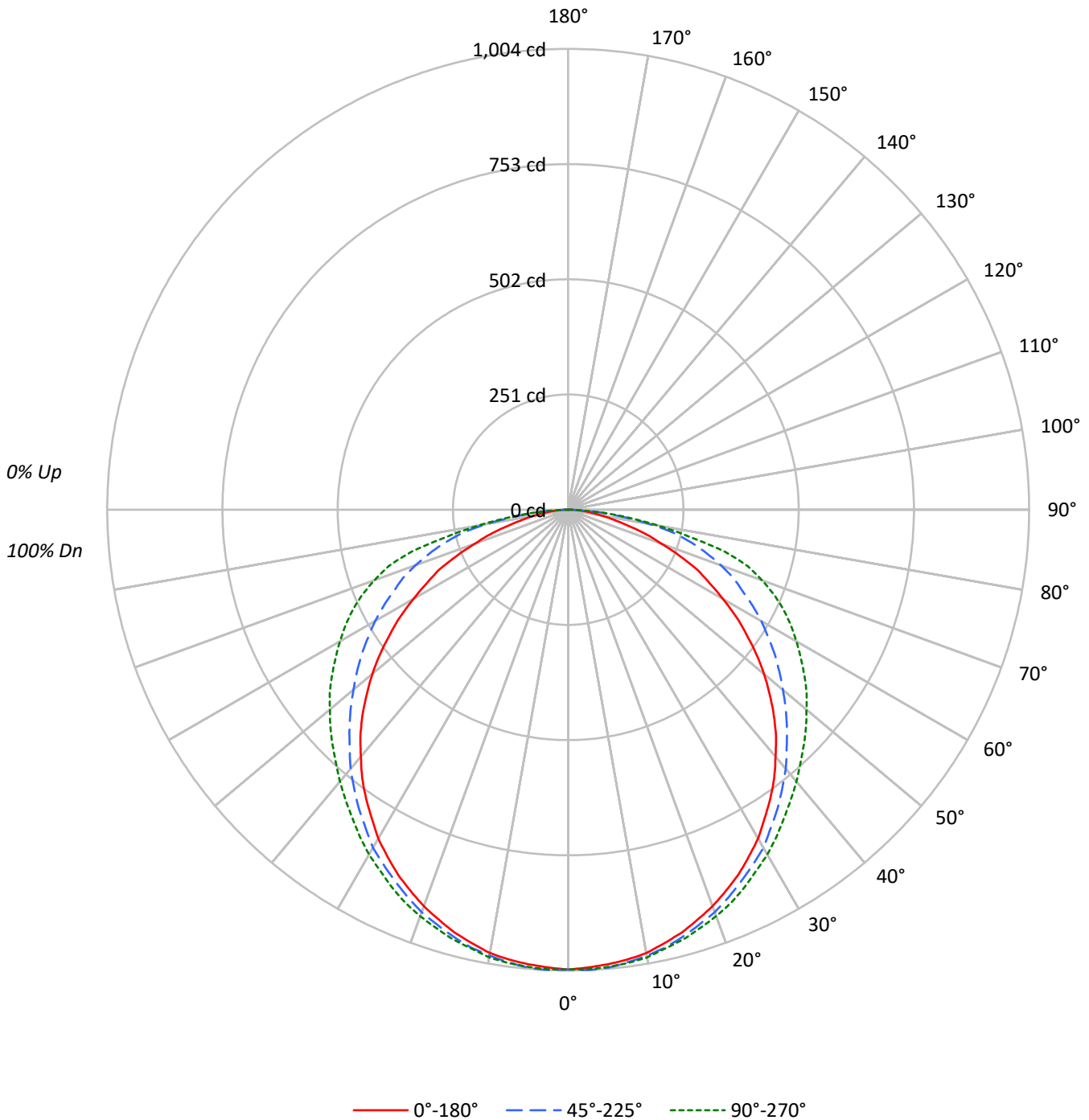
Lumens per Lamp: N/A  
Luminaire Lumens: 3042.6 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 42.7  
Input Voltage (V): NR  
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	80	75	84	78	73		80	75	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	52	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°	2696	2696	2696
5°	2686	2706	2701
10°	2680	2696	2706
15°	2657	2684	2700
20°	2633	2671	2699
25°	2604	2650	2696
30°	2570	2642	2696
35°	2522	2610	2692
40°	2468	2589	2717
45°	2410	2564	2761
50°	2330	2555	2836
55°	2224	2575	2944
60°	2097	2613	3089
65°	1980	2664	3300
70°	1692	2779	3533
75°	1417	2894	3672
80°	1161	2796	3064
85°	1007	2075	2251



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.0	3.1
10°-20°	271.6	8.9
20°-30°	411.6	13.5
30°-40°	497.1	16.3
40°-50°	522.3	17.2
50°-60°	491.4	16.2
60°-70°	409.7	13.5
70°-80°	271.5	8.9
80°-90°	72.4	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°	778.2	25.6
0°-40°	1275.3	41.9
0°-60°	2289.0	75.2
0°-90°	3042.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3042.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	994	996	1002	1002	1000	94
15°	954	958	964	967	969	269
25°	877	883	892	904	908	404
35°	768	775	795	812	820	480
45°	633	643	674	708	726	488
55°	474	495	549	605	628	424
65°	311	338	418	488	518	303
75°	136	190	278	336	353	148
85°	33	50	67	73	73	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1001.9	1001.9	1001.9	1001.9	1001.9
2.5°	998.1	1000.0	1003.8	1003.8	1001.9
5°	994.2	996.1	1001.9	1001.9	1000.0
7.5°	988.5	990.4	994.2	998.1	996.1
10°	980.8	982.7	986.5	990.4	990.4
12.5°	967.4	969.3	977.0	978.9	978.9
15°	953.9	957.8	963.5	967.4	969.3
17.5°	936.6	940.5	948.2	955.8	955.8
20°	919.4	923.2	932.8	940.5	942.4
22.5°	898.3	904.0	913.6	923.2	927.0
25°	877.1	882.9	892.5	904.0	907.9
27.5°	852.2	858.0	871.4	884.8	886.7
30°	827.2	833.0	850.3	861.8	867.5
32.5°	796.5	804.2	821.5	838.8	844.5
35°	767.7	775.4	794.6	811.9	819.6
37.5°	737.0	744.7	765.8	786.9	796.5
40°	702.5	712.1	737.0	760.1	773.5
42.5°	669.9	679.5	704.4	735.1	748.5
45°	633.4	643.0	673.7	708.2	725.5
47.5°	595.0	606.5	643.0	685.2	702.5
50°	556.6	570.0	610.4	658.3	677.5
52.5°	516.3	533.6	579.6	631.5	654.5
55°	474.1	495.2	548.9	604.6	627.6
57.5°	433.8	453.0	516.3	575.8	600.8
60°	389.6	414.6	485.6	547.0	573.9
62.5°	347.4	374.3	453.0	518.2	547.0
65°	310.9	337.8	418.4	487.5	518.2
67.5°	263.0	299.4	389.6	454.9	485.6
70°	215.0	264.9	353.2	420.3	449.1
72.5°	178.5	226.5	316.7	383.9	410.7
75°	136.3	190.0	278.3	335.9	353.2
77.5°	101.7	157.4	238.0	266.8	268.7
80°	74.9	120.9	180.4	190.0	197.7
82.5°	51.8	84.5	117.1	128.6	132.4
85°	32.6	49.9	67.2	72.9	72.9
87.5°	17.3	19.2	23.0	23.0	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)