

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: P294806

Luminaire Tested: **14CZ2-39HE-HRP-UNV-L950-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: P294806  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39HE-HRP-UNV-L950-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (196) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2727.3 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

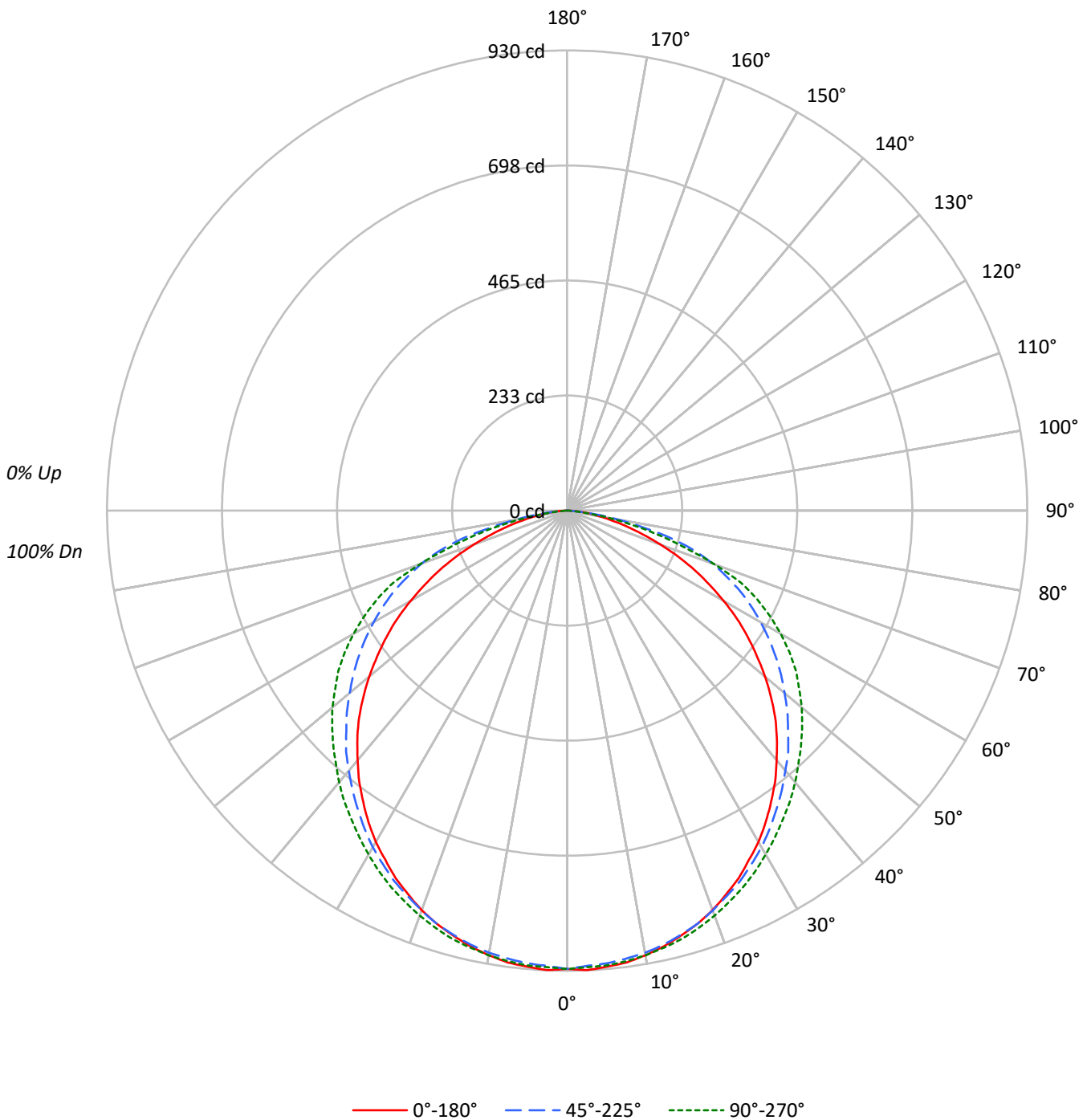
Input Watts (W): 29.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	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	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2492	2492	2492
5°	2499	2481	2493
10°	2493	2479	2493
15°	2478	2473	2497
20°	2461	2463	2495
25°	2434	2455	2495
30°	2403	2441	2494
35°	2361	2423	2499
40°	2314	2410	2518
45°	2265	2402	2546
50°	2187	2402	2592
55°	2092	2414	2647
60°	1966	2432	2682
65°	1813	2457	2697
70°	1579	2463	2483
75°	1302	2292	2007
80°	1023	1647	1342
85°	794	636	318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.7	3.2
10°-20°	251.6	9.2
20°-30°	382.1	14.0
30°-40°	463.0	17.0
40°-50°	487.9	17.9
50°-60°	455.5	16.7
60°-70°	364.0	13.3
70°-80°	200.3	7.3
80°-90°	35.4	1.3
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°	721.4	26.5
0°-40°	1184.4	43.4
0°-60°	2127.7	78.0
0°-90°	2727.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2727.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	925	923	918	924	923	88
15°	889	889	888	896	896	251
25°	820	822	827	839	840	377
35°	719	726	738	756	761	450
45°	595	606	631	660	669	458
55°	446	468	515	551	564	398
65°	285	321	386	418	424	280
75°	125	179	220	198	193	135
85°	26	33	21	13	10	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	926.2	926.2	926.2	926.2	926.2
2.5°	929.6	927.1	921.1	926.2	923.6
5°	925.3	922.8	918.5	924.5	922.8
7.5°	921.1	917.6	913.3	920.2	918.5
10°	912.5	909.9	907.3	913.3	912.5
12.5°	902.2	901.3	898.8	905.6	904.8
15°	889.3	889.3	887.6	896.2	896.2
17.5°	875.6	874.7	875.6	885.0	884.2
20°	859.3	859.3	860.2	871.3	871.3
22.5°	839.6	840.4	843.0	856.7	855.9
25°	819.9	821.6	826.7	838.7	840.4
27.5°	795.8	800.1	806.1	820.7	822.4
30°	773.5	776.1	785.6	799.3	802.7
32.5°	747.0	752.1	762.4	777.8	782.1
35°	718.7	725.5	737.5	756.4	760.7
37.5°	690.4	696.4	712.7	732.4	740.1
40°	658.6	668.9	686.1	708.4	716.9
42.5°	627.8	638.0	661.2	684.4	692.1
45°	595.2	606.3	631.2	659.5	668.9
47.5°	559.1	572.0	603.7	633.8	644.0
50°	522.3	538.6	573.7	607.2	619.2
52.5°	483.7	504.3	544.6	579.7	590.9
55°	445.9	468.2	514.6	550.6	564.3
57.5°	407.4	431.4	483.7	524.8	532.6
60°	365.3	394.5	451.9	488.0	498.3
62.5°	324.2	357.6	419.4	453.7	462.2
65°	284.7	320.7	385.9	417.6	423.6
67.5°	241.8	284.7	349.0	378.2	379.9
70°	200.7	250.4	313.0	326.7	315.6
72.5°	160.4	213.5	271.0	259.8	250.4
75°	125.2	179.2	220.4	198.1	193.0
77.5°	92.6	146.6	157.8	145.8	136.4
80°	66.0	115.8	106.3	90.9	86.6
82.5°	45.5	72.9	58.3	45.5	39.4
85°	25.7	32.6	20.6	12.9	10.3
87.5°	11.1	7.7	4.3	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)