

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: P294811

Luminaire Tested: **14CZ2-44-HRP-UNV-L930-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: P294811
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: 14CZ2-44-HRP-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

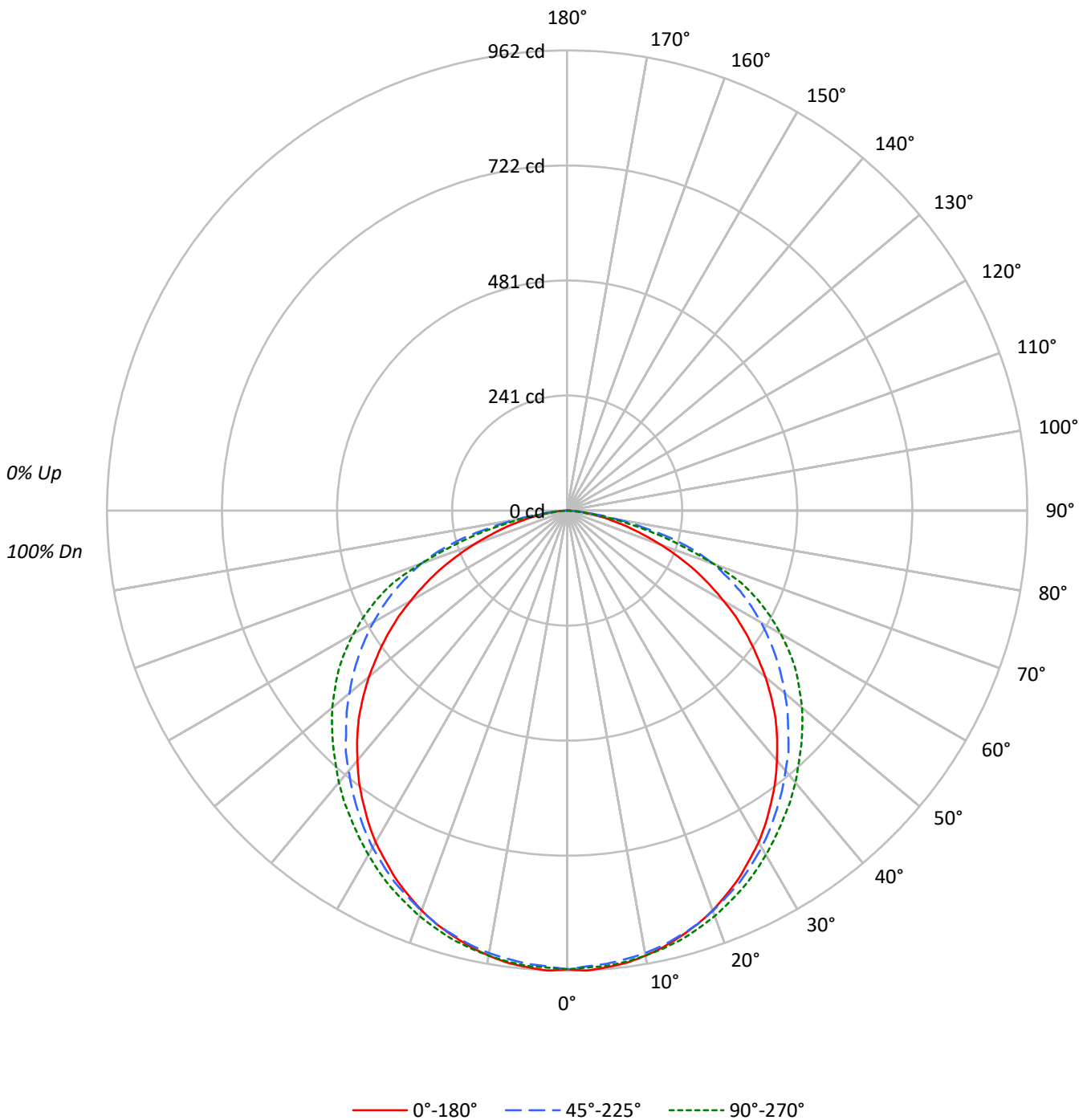
Lumens per Lamp: N/A
Luminaire Lumens: 2823.6 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.3
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°	2580	2580	2580
5°	2588	2569	2581
10°	2581	2567	2581
15°	2565	2560	2585
20°	2548	2550	2583
25°	2520	2541	2583
30°	2489	2527	2582
35°	2444	2508	2587
40°	2395	2495	2608
45°	2345	2487	2635
50°	2264	2487	2683
55°	2166	2499	2741
60°	2035	2518	2777
65°	1877	2544	2793
70°	1635	2550	2570
75°	1347	2373	2077
80°	1060	1706	1390
85°	821	658	330



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.2
10°-20°	260.5	9.2
20°-30°	395.6	14.0
30°-40°	479.3	17.0
40°-50°	505.1	17.9
50°-60°	471.5	16.7
60°-70°	376.8	13.3
70°-80°	207.4	7.3
80°-90°	36.6	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°	746.9	26.5
0°-40°	1226.2	43.4
0°-60°	2202.8	78.0
0°-90°	2823.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2823.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	958	955	951	957	955	91
15°	921	921	919	928	928	260
25°	849	851	856	868	870	391
35°	744	751	764	783	788	466
45°	616	628	654	683	692	474
55°	462	485	533	570	584	412
65°	295	332	400	432	439	290
75°	130	186	228	205	200	140
85°	27	34	21	13	11	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	958.9	958.9	958.9	958.9	958.9
2.5°	962.5	959.8	953.6	958.9	956.2
5°	958.0	955.4	950.9	957.1	955.4
7.5°	953.6	950.0	945.6	952.7	950.9
10°	944.7	942.0	939.4	945.6	944.7
12.5°	934.0	933.2	930.5	937.6	936.7
15°	920.7	920.7	918.9	927.8	927.8
17.5°	906.5	905.6	906.5	916.3	915.4
20°	889.6	889.6	890.5	902.1	902.1
22.5°	869.2	870.1	872.8	887.0	886.1
25°	848.8	850.6	855.9	868.3	870.1
27.5°	823.9	828.4	834.6	849.7	851.5
30°	800.9	803.5	813.3	827.5	831.0
32.5°	773.3	778.7	789.3	805.3	809.7
35°	744.0	751.1	763.6	783.1	787.5
37.5°	714.7	721.0	737.8	758.2	766.2
40°	681.9	692.5	710.3	733.4	742.3
42.5°	649.9	660.6	684.6	708.5	716.5
45°	616.2	627.7	653.5	682.8	692.5
47.5°	578.9	592.2	625.1	656.1	666.8
50°	540.7	557.6	594.0	628.6	641.0
52.5°	500.8	522.1	563.8	600.2	611.7
55°	461.7	484.8	532.7	570.0	584.2
57.5°	421.7	446.6	500.8	543.4	551.4
60°	378.2	408.4	467.9	505.2	515.9
62.5°	335.6	370.2	434.2	469.7	478.6
65°	294.8	332.1	399.5	432.4	438.6
67.5°	250.4	294.8	361.4	391.6	393.3
70°	207.8	259.3	324.1	338.3	326.7
72.5°	166.0	221.1	280.6	269.0	259.3
75°	129.6	185.6	228.2	205.1	199.8
77.5°	95.9	151.8	163.4	150.9	141.2
80°	68.4	119.9	110.1	94.1	89.7
82.5°	47.1	75.5	60.4	47.1	40.8
85°	26.6	33.7	21.3	13.3	10.7
87.5°	11.5	8.0	4.4	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)