

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: P294809

Luminaire Tested: **14CZ2-39-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: P294809
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: 14CZ2-39-HRP-UNV-L940-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

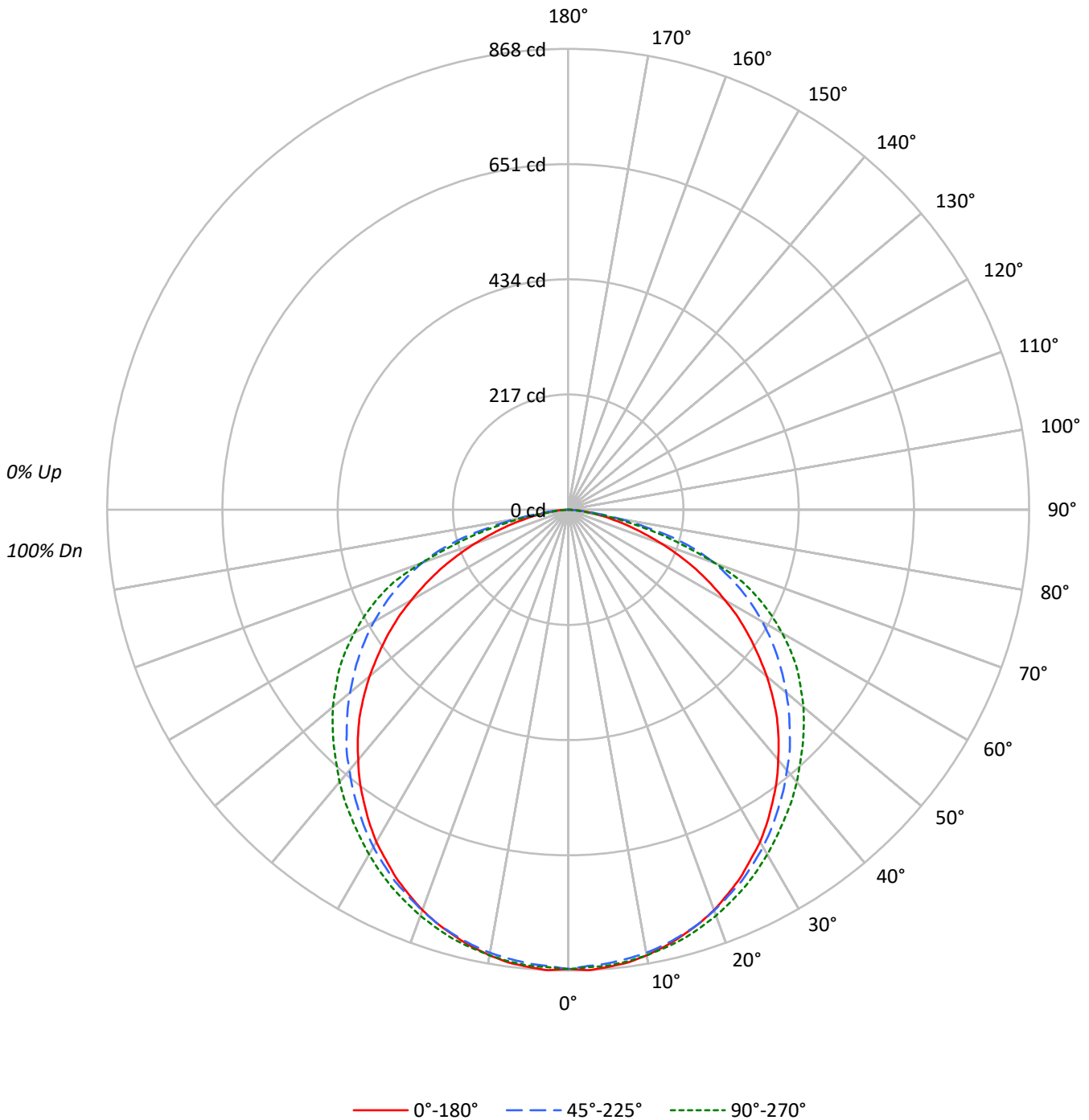
Lumens per Lamp: N/A
Luminaire Lumens: 2547.3 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 32.3
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°	2328	2328	2328
5°	2335	2317	2328
10°	2329	2316	2329
15°	2314	2310	2332
20°	2298	2301	2330
25°	2273	2292	2331
30°	2245	2280	2330
35°	2205	2263	2334
40°	2161	2251	2352
45°	2116	2243	2378
50°	2042	2244	2421
55°	1954	2255	2472
60°	1836	2272	2505
65°	1693	2295	2520
70°	1474	2301	2319
75°	1215	2141	1874
80°	956	1539	1254
85°	741	593	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	3.2
10°-20°	235.0	9.2
20°-30°	356.9	14.0
30°-40°	432.4	17.0
40°-50°	455.7	17.9
50°-60°	425.4	16.7
60°-70°	339.9	13.3
70°-80°	187.1	7.3
80°-90°	33.0	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°	673.8	26.5
0°-40°	1106.2	43.4
0°-60°	1987.2	78.0
0°-90°	2547.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2547.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	864	862	858	864	862	82
15°	831	831	829	837	837	234
25°	766	767	772	783	785	353
35°	671	678	689	706	710	420
45°	556	566	590	616	625	428
55°	416	437	481	514	527	372
65°	266	300	360	390	396	262
75°	117	167	206	185	180	126
85°	24	30	19	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	865.1	865.1	865.1	865.1	865.1
2.5°	868.3	865.9	860.3	865.1	862.7
5°	864.3	861.9	857.9	863.5	861.9
7.5°	860.3	857.1	853.0	859.5	857.9
10°	852.2	849.8	847.4	853.0	852.2
12.5°	842.6	841.8	839.4	845.8	845.0
15°	830.6	830.6	829.0	837.0	837.0
17.5°	817.8	817.0	817.8	826.6	825.8
20°	802.6	802.6	803.4	813.8	813.8
22.5°	784.2	785.0	787.4	800.2	799.4
25°	765.7	767.3	772.1	783.4	785.0
27.5°	743.3	747.3	752.9	766.5	768.1
30°	722.5	724.9	733.7	746.5	749.7
32.5°	697.7	702.5	712.1	726.5	730.5
35°	671.2	677.6	688.8	706.5	710.5
37.5°	644.8	650.4	665.6	684.0	691.2
40°	615.2	624.8	640.8	661.6	669.6
42.5°	586.3	595.9	617.6	639.2	646.4
45°	555.9	566.3	589.5	616.0	624.8
47.5°	522.2	534.3	563.9	591.9	601.5
50°	487.8	503.0	535.9	567.1	578.3
52.5°	451.8	471.0	508.6	541.5	551.9
55°	416.5	437.3	480.6	514.2	527.0
57.5°	380.5	402.9	451.8	490.2	497.4
60°	341.2	368.5	422.1	455.8	465.4
62.5°	302.8	334.0	391.7	423.7	431.7
65°	265.9	299.6	360.4	390.1	395.7
67.5°	225.9	265.9	326.0	353.2	354.8
70°	187.4	233.9	292.4	305.2	294.8
72.5°	149.8	199.4	253.1	242.7	233.9
75°	116.9	167.4	205.9	185.0	180.2
77.5°	86.5	137.0	147.4	136.2	127.4
80°	61.7	108.1	99.3	84.9	80.9
82.5°	42.5	68.1	54.5	42.5	36.8
85°	24.0	30.4	19.2	12.0	9.6
87.5°	10.4	7.2	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)