

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: P274725

Luminaire Tested: **14CZ2-48HE-RDP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

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: P274725  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-48HE-RDP-UNV-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (196) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2644.0 lumens  
Efficiency: N/A  
Efficacy: 71.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

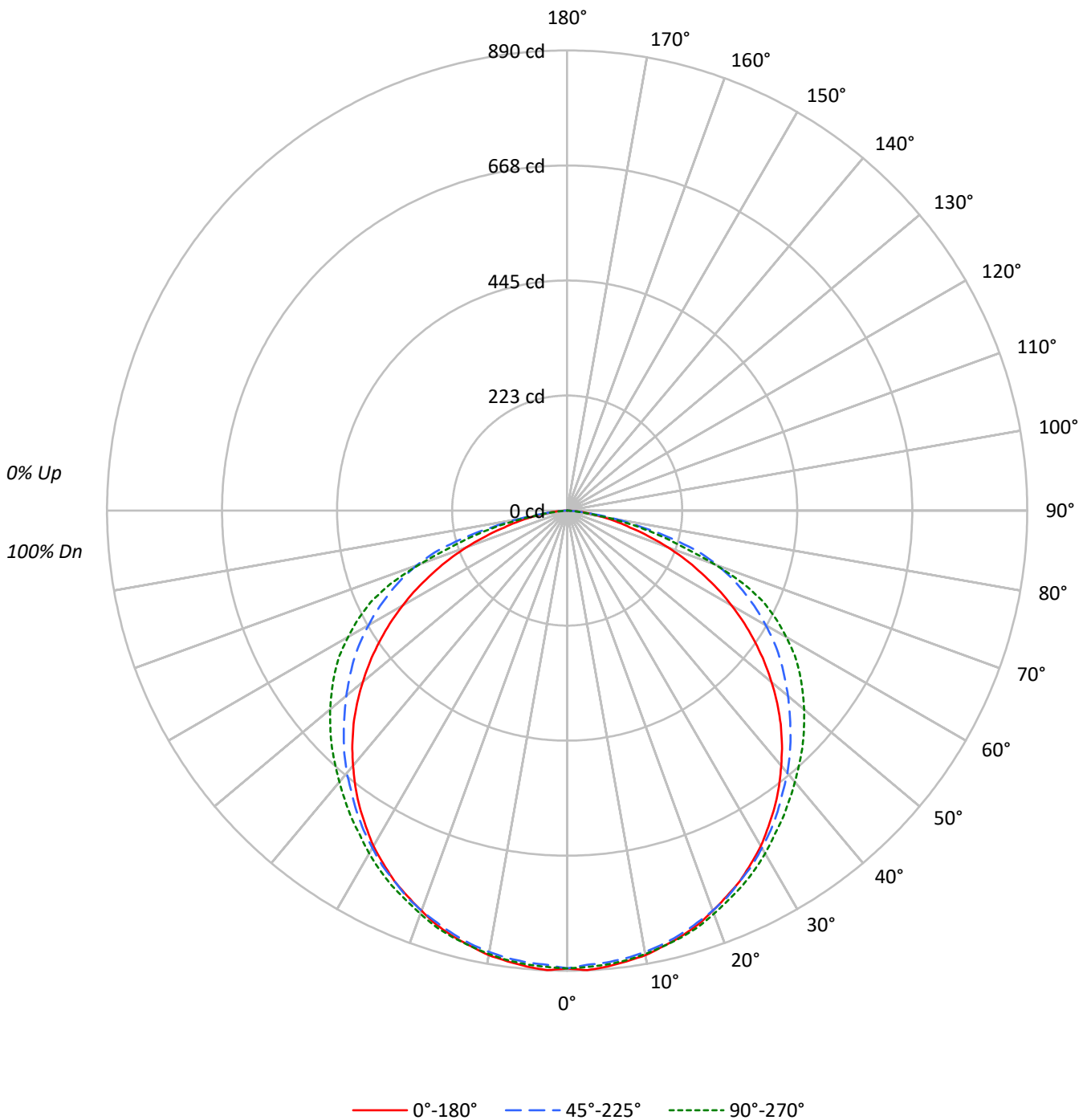
Input Watts (W): 36.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	2383	2383	2383
5°	2392	2370	2381
10°	2386	2369	2380
15°	2375	2364	2381
20°	2359	2359	2376
25°	2347	2347	2378
30°	2328	2341	2380
35°	2299	2333	2387
40°	2262	2328	2407
45°	2223	2325	2451
50°	2161	2333	2506
55°	2082	2363	2576
60°	1977	2389	2633
65°	1827	2418	2668
70°	1624	2436	2387
75°	1309	2189	1910
80°	1024	1536	1247
85°	701	445	318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.8	3.2
10°-20°	240.5	9.1
20°-30°	366.2	13.8
30°-40°	446.0	16.9
40°-50°	473.2	17.9
50°-60°	446.6	16.9
60°-70°	360.6	13.6
70°-80°	195.6	7.4
80°-90°	31.6	1.2
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°	690.5	26.1
0°-40°	1136.5	43.0
0°-60°	2056.2	77.8
0°-90°	2644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	886	884	877	884	881	84
15°	852	850	848	855	855	241
25°	791	788	791	799	801	364
35°	700	704	710	724	727	437
45°	584	592	611	634	644	450
55°	444	462	504	537	549	396
65°	287	322	380	411	419	284
75°	126	184	210	190	184	138
85°	23	25	14	12	10	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	885.5	885.5	885.5	885.5	885.5
2.5°	889.7	885.5	879.4	885.5	883.5
5°	885.5	883.5	877.3	883.5	881.4
7.5°	879.4	879.4	873.2	877.3	877.3
10°	873.2	871.1	867.0	873.2	871.1
12.5°	862.8	860.8	858.7	864.9	862.8
15°	852.5	850.5	848.4	854.6	854.6
17.5°	840.1	838.1	836.0	844.3	844.3
20°	823.6	823.6	823.6	831.9	829.8
22.5°	807.1	807.1	809.2	817.4	815.4
25°	790.6	788.5	790.6	798.8	800.9
27.5°	769.9	772.0	774.1	782.3	784.4
30°	749.3	751.4	753.4	763.8	765.8
32.5°	724.5	728.7	732.8	745.2	745.2
35°	699.8	703.9	710.1	724.5	726.6
37.5°	672.9	677.1	685.3	701.8	706.0
40°	644.0	650.2	662.6	679.1	685.3
42.5°	615.1	623.4	637.8	656.4	664.7
45°	584.2	592.4	611.0	633.7	644.0
47.5°	551.1	561.5	584.2	613.1	621.3
50°	516.1	530.5	557.3	588.3	598.6
52.5°	481.0	497.5	530.5	563.5	573.8
55°	443.8	462.4	503.7	536.7	549.1
57.5°	406.6	427.3	474.8	509.9	522.2
60°	367.4	392.2	443.8	478.9	489.2
62.5°	328.2	357.1	412.8	447.9	456.2
65°	286.9	322.0	379.8	410.8	419.0
67.5°	247.7	289.0	346.8	369.5	369.5
70°	206.4	251.8	309.6	315.8	303.4
72.5°	165.1	216.7	268.3	245.6	235.3
75°	125.9	183.7	210.5	189.9	183.7
77.5°	95.0	148.6	148.6	136.2	132.1
80°	66.1	113.5	99.1	86.7	80.5
82.5°	43.3	64.0	51.6	41.3	35.1
85°	22.7	24.8	14.4	12.4	10.3
87.5°	8.3	4.1	2.1	4.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)