

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: P271939

Luminaire Tested: **14CZ2-29-S-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: P271939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-29-S-UNV-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (84) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2485.0 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

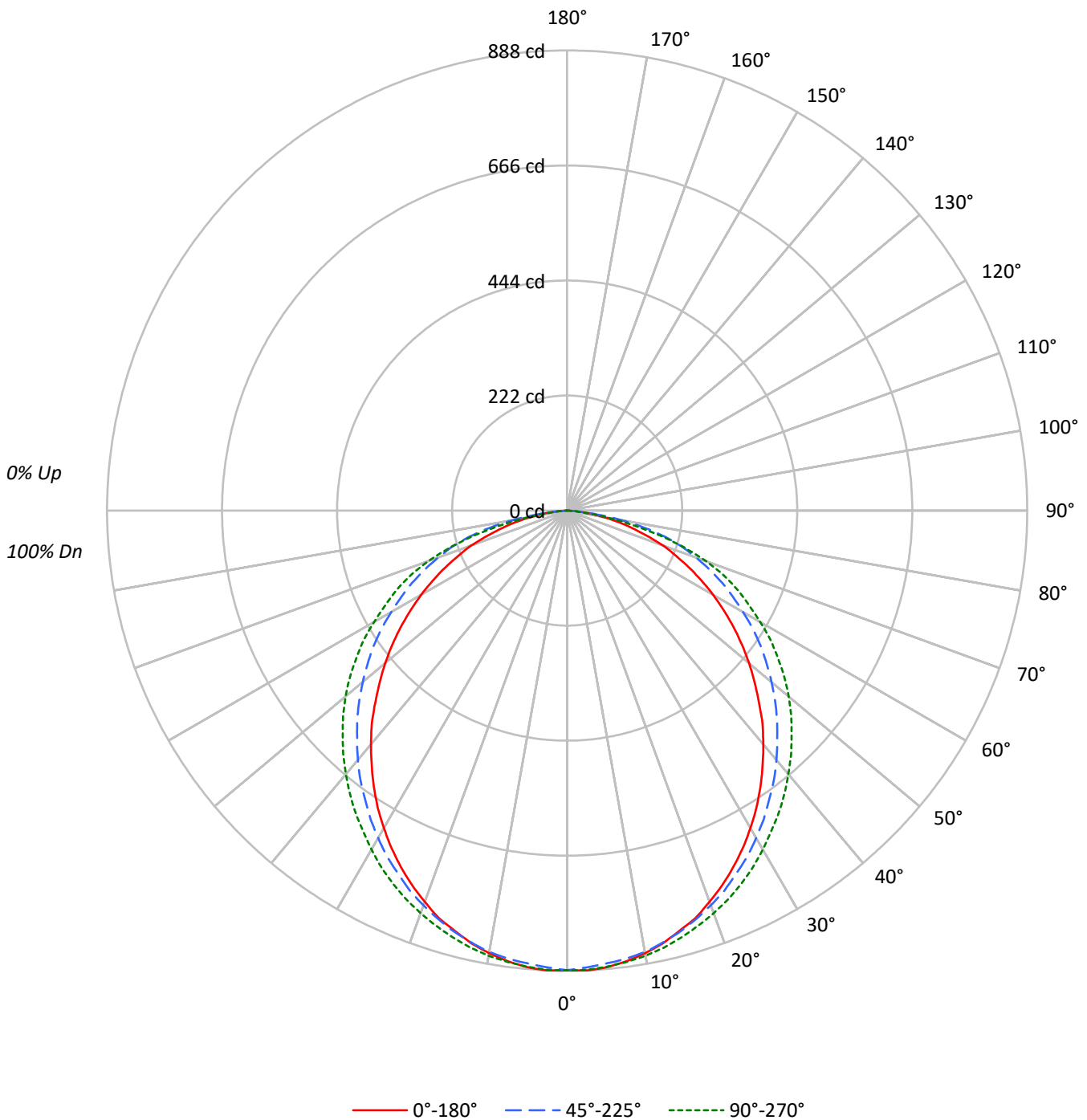
Input Watts (W): 24.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2387	2387	2387
5°	2390	2370	2386
10°	2370	2363	2384
15°	2338	2344	2375
20°	2300	2322	2367
25°	2254	2294	2360
30°	2197	2266	2347
35°	2137	2234	2339
40°	2069	2207	2333
45°	1993	2180	2330
50°	1919	2156	2336
55°	1838	2139	2329
60°	1751	2109	2314
65°	1647	2103	2315
70°	1551	2084	2249
75°	1345	2037	1921
80°	1088	1643	1278
85°	722	571	380



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.8	3.4
10°-20°	238.4	9.6
20°-30°	357.6	14.4
30°-40°	426.5	17.2
40°-50°	441.0	17.7
50°-60°	402.6	16.2
60°-70°	316.8	12.7
70°-80°	184.4	7.4
80°-90°	34.0	1.4
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°	679.7	27.4
0°-40°	1106.2	44.5
0°-60°	1949.8	78.5
0°-90°	2485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2485.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	885	882	877	885	883	84
15°	839	840	842	853	853	237
25°	759	763	772	791	795	349
35°	650	659	680	706	712	407
45°	524	541	573	605	612	404
55°	392	413	456	489	496	350
65°	259	286	330	356	364	257
75°	129	160	196	192	185	138
85°	23	33	18	15	12	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	887.1	887.1	887.1	887.1	887.1
2.5°	888.3	885.9	882.2	888.3	887.1
5°	884.6	882.2	877.2	884.6	883.4
7.5°	877.2	874.8	872.3	879.7	878.5
10°	867.4	866.2	864.9	873.6	872.3
12.5°	855.1	855.1	853.8	863.7	863.7
15°	839.1	840.3	841.5	852.6	852.6
17.5°	824.3	823.0	826.7	839.1	840.3
20°	803.3	805.8	810.7	825.5	826.7
22.5°	782.4	784.8	793.5	808.3	811.9
25°	759.0	762.7	772.5	791.0	794.7
27.5°	734.3	739.3	752.8	772.5	776.2
30°	707.2	714.6	729.4	751.6	755.3
32.5°	680.1	687.5	706.0	728.2	733.1
35°	650.5	659.2	680.1	706.0	712.1
37.5°	619.7	630.8	655.5	681.3	688.7
40°	588.9	601.3	628.4	655.5	664.1
42.5°	558.1	570.5	600.0	630.8	639.5
45°	523.6	540.9	572.9	605.0	612.3
47.5°	490.4	508.9	544.6	576.6	586.5
50°	458.3	476.8	515.0	548.3	558.1
52.5°	425.1	444.8	485.4	519.9	528.6
55°	391.8	412.7	455.9	489.1	496.5
57.5°	358.5	380.7	425.1	457.1	465.7
60°	325.3	348.7	391.8	423.8	430.0
62.5°	292.0	316.6	361.0	389.3	395.5
65°	258.7	285.8	330.2	356.1	363.5
67.5°	226.7	253.8	296.9	321.6	327.7
70°	197.1	221.8	264.9	283.4	285.8
72.5°	160.2	191.0	232.9	242.7	236.6
75°	129.4	160.2	195.9	192.2	184.8
77.5°	98.6	129.4	152.8	140.5	130.6
80°	70.2	101.0	106.0	87.5	82.5
82.5°	45.6	70.2	59.1	45.6	37.0
85°	23.4	33.3	18.5	14.8	12.3
87.5°	7.4	4.9	2.5	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)