

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: P274759

Luminaire Tested: **22CZ2-39HE-RDP-UNV-L930-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: P274759  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39HE-RDP-UNV-L930-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (196) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2170.2 lumens  
Efficiency: N/A  
Efficacy: 71.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

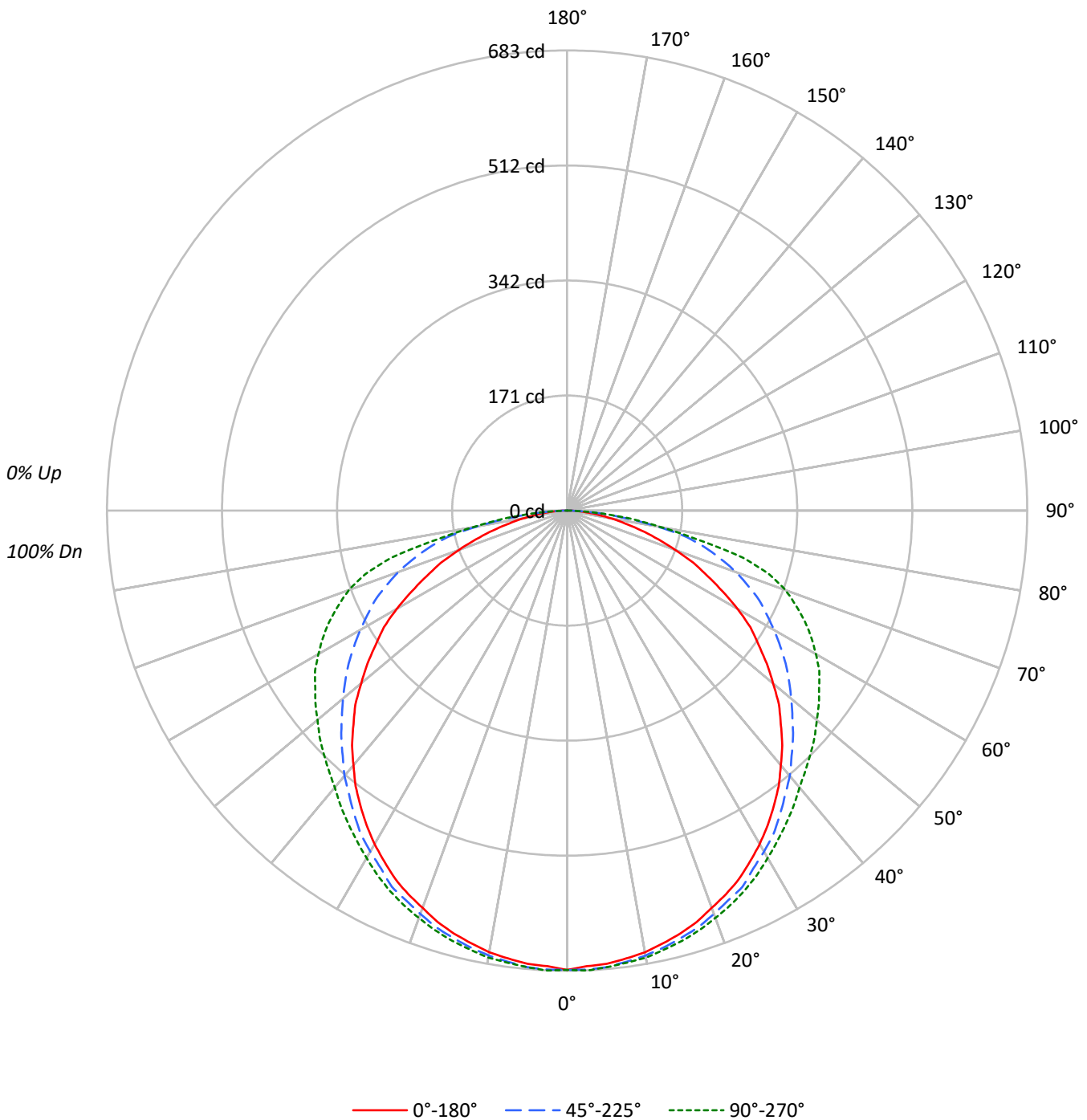
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

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

	0°	45°	90°
0°	1834	1834	1834
5°	1824	1837	1837
10°	1819	1832	1841
15°	1810	1828	1841
20°	1797	1824	1842
25°	1792	1830	1849
30°	1776	1816	1850
35°	1757	1809	1862
40°	1733	1806	1884
45°	1707	1805	1944
50°	1671	1818	2025
55°	1625	1857	2142
60°	1573	1907	2294
65°	1464	2003	2480
70°	1344	2098	2713
75°	1179	2207	2805
80°	1015	2103	2202
85°	886	1528	1677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.5	3.0
10°-20°	185.1	8.5
20°-30°	282.5	13.0
30°-40°	344.9	15.9
40°-50°	368.8	17.0
50°-60°	356.0	16.4
60°-70°	306.4	14.1
70°-80°	207.3	9.6
80°-90°	54.7	2.5
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°	532.1	24.5
0°-40°	877.0	40.4
0°-60°	1601.8	73.8
0°-90°	2170.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2170.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	675	677	680	680	680	64
15°	650	651	656	659	661	183
25°	604	607	616	619	623	278
35°	535	540	551	562	567	335
45°	449	457	474	498	511	346
55°	346	358	396	436	457	310
65°	230	252	314	364	390	229
75°	113	150	212	255	270	122
85°	29	40	50	51	54	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	681.7	681.7	681.7	681.7	681.7
2.5°	676.9	678.5	681.7	681.7	683.3
5°	675.3	676.9	680.1	680.1	680.1
7.5°	670.5	672.1	675.3	676.9	676.9
10°	665.7	667.3	670.5	672.1	673.7
12.5°	657.8	659.3	664.1	667.3	667.3
15°	649.8	651.4	656.2	659.3	660.9
17.5°	640.2	643.4	648.2	651.4	653.0
20°	627.4	630.6	637.0	641.8	643.4
22.5°	616.2	619.4	625.8	630.6	633.8
25°	603.5	606.7	616.2	619.4	622.6
27.5°	587.5	590.7	598.7	605.1	609.9
30°	571.5	574.7	584.3	592.3	595.5
32.5°	554.0	558.8	569.9	576.3	581.1
35°	534.8	539.6	550.8	562.0	566.8
37.5°	515.7	520.5	531.6	546.0	552.4
40°	493.3	499.7	514.1	533.2	536.4
42.5°	472.6	480.5	493.3	515.7	523.6
45°	448.6	456.6	474.2	498.1	510.9
47.5°	426.3	434.2	453.4	482.1	498.1
50°	399.1	410.3	434.2	467.8	483.7
52.5°	373.6	383.2	415.1	451.8	471.0
55°	346.4	357.6	395.9	435.8	456.6
57.5°	322.5	332.1	375.2	419.9	443.8
60°	292.2	304.9	354.4	402.3	426.3
62.5°	260.2	279.4	333.7	383.2	408.7
65°	229.9	252.2	314.5	364.0	389.5
67.5°	202.8	226.7	290.6	343.2	367.2
70°	170.8	201.2	266.6	317.7	344.8
72.5°	142.1	175.6	239.5	290.6	314.5
75°	113.4	150.1	212.3	255.4	269.8
77.5°	87.8	122.9	182.0	194.8	196.4
80°	65.5	97.4	135.7	137.3	142.1
82.5°	44.7	68.6	87.8	95.8	97.4
85°	28.7	39.9	49.5	51.1	54.3
87.5°	12.8	14.4	17.6	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)