

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: P274762

Luminaire Tested: **22CZ2-39HE-RDP-UNV-L950-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: P274762  
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-L950-CD1-U  
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (196) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2385.0 lumens  
Efficiency: N/A  
Efficacy: 78.7 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

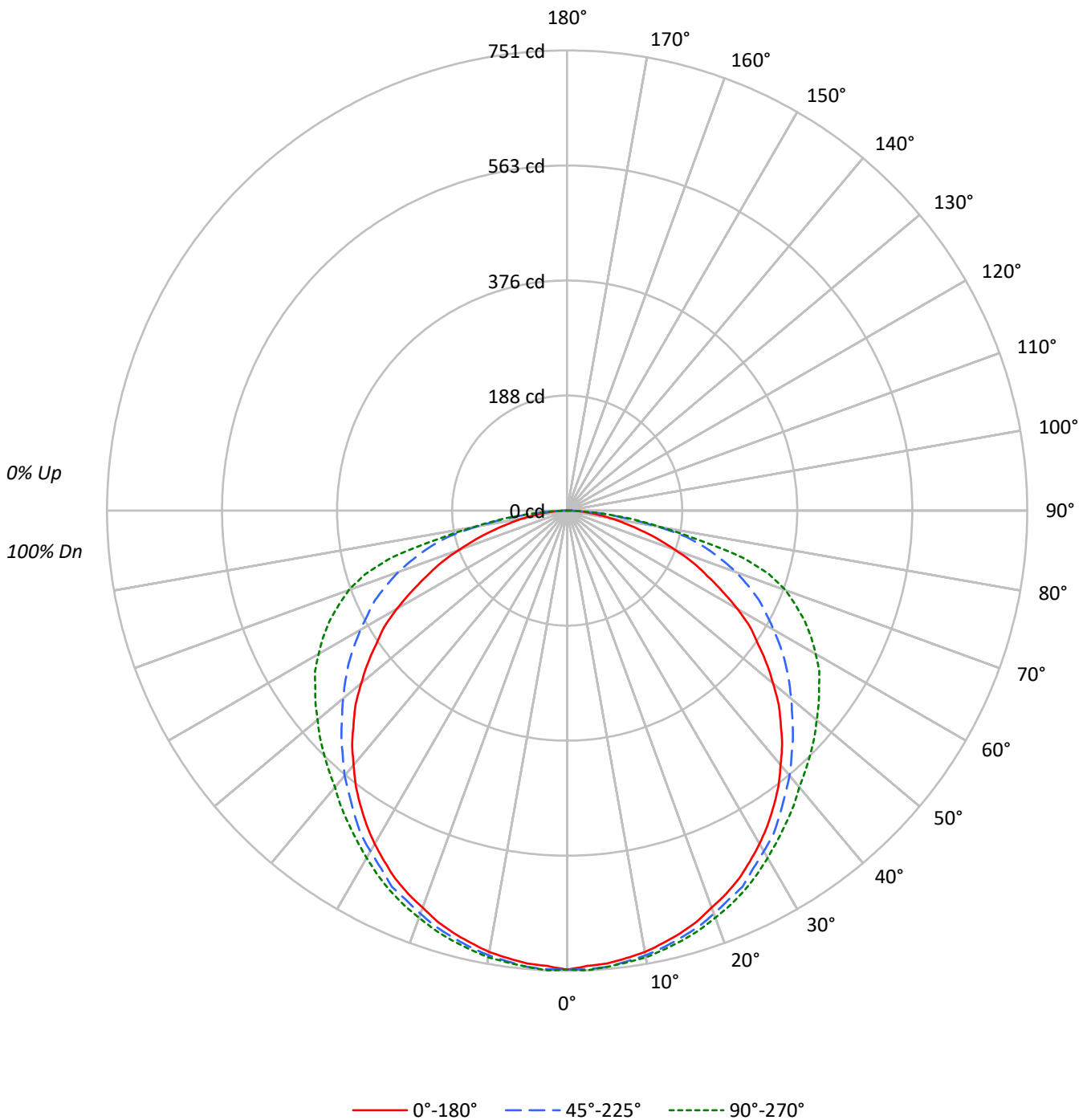
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274762

CATALOG NUMBER: 22CZ2-39HE-RDP-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P274762

CATALOG NUMBER: 22CZ2-39HE-RDP-UNV-L950-CD1-U

**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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	2016	2016	2016
5°	2005	2019	2019
10°	1999	2014	2023
15°	1989	2009	2024
20°	1975	2005	2025
25°	1969	2011	2032
30°	1952	1995	2033
35°	1931	1988	2046
40°	1904	1984	2071
45°	1876	1983	2136
50°	1836	1998	2226
55°	1786	2041	2354
60°	1728	2096	2521
65°	1608	2201	2726
70°	1477	2305	2982
75°	1295	2426	3083
80°	1114	2311	2421
85°	976	1680	1843



TEST NUMBER: P274762

CATALOG NUMBER: 22CZ2-39HE-RDP-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.9	3.0
10°-20°	203.5	8.5
20°-30°	310.4	13.0
30°-40°	379.0	15.9
40°-50°	405.3	17.0
50°-60°	391.2	16.4
60°-70°	336.7	14.1
70°-80°	227.8	9.6
80°-90°	60.1	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°	584.8	24.5
0°-40°	963.8	40.4
0°-60°	1760.3	73.8
0°-90°	2385.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2385.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	742	744	747	747	747	70
15°	714	716	721	725	726	201
25°	663	667	677	681	684	305
35°	588	593	605	618	623	368
45°	493	502	521	547	561	381
55°	381	393	435	479	502	341
65°	253	277	346	400	428	251
75°	125	165	233	281	296	134
85°	32	44	54	56	60	36
90°	0	0	0	0	0	



TEST NUMBER: P274762

CATALOG NUMBER: 22CZ2-39HE-RDP-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	749.2	749.2	749.2	749.2	749.2
2.5°	743.9	745.7	749.2	749.2	750.9
5°	742.2	743.9	747.4	747.4	747.4
7.5°	736.9	738.6	742.2	743.9	743.9
10°	731.6	733.4	736.9	738.6	740.4
12.5°	722.9	724.6	729.9	733.4	733.4
15°	714.1	715.8	721.1	724.6	726.4
17.5°	703.6	707.1	712.3	715.8	717.6
20°	689.5	693.0	700.0	705.3	707.1
22.5°	677.2	680.7	687.8	693.0	696.5
25°	663.2	666.7	677.2	680.7	684.3
27.5°	645.7	649.2	657.9	665.0	670.2
30°	628.1	631.6	642.1	650.9	654.4
32.5°	608.8	614.1	626.4	633.4	638.6
35°	587.8	593.0	605.3	617.6	622.8
37.5°	566.7	572.0	584.2	600.0	607.1
40°	542.1	549.2	564.9	586.0	589.5
42.5°	519.3	528.1	542.1	566.7	575.5
45°	493.0	501.8	521.1	547.4	561.4
47.5°	468.5	477.2	498.3	529.9	547.4
50°	438.6	450.9	477.2	514.1	531.6
52.5°	410.6	421.1	456.2	496.5	517.6
55°	380.7	393.0	435.1	479.0	501.8
57.5°	354.4	364.9	412.3	461.4	487.8
60°	321.1	335.1	389.5	442.1	468.5
62.5°	286.0	307.0	366.7	421.1	449.2
65°	252.6	277.2	345.6	400.0	428.1
67.5°	222.8	249.1	319.3	377.2	403.5
70°	187.7	221.1	293.0	349.1	379.0
72.5°	156.2	193.0	263.2	319.3	345.6
75°	124.6	164.9	233.3	280.7	296.5
77.5°	96.5	135.1	200.0	214.0	215.8
80°	71.9	107.0	149.1	150.9	156.2
82.5°	49.1	75.4	96.5	105.3	107.0
85°	31.6	43.9	54.4	56.1	59.7
87.5°	14.0	15.8	19.3	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)