

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: P272022

Luminaire Tested: **22CZ2-24-S-UNV-L935-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: P272022
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24-S-UNV-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (56) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2185.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

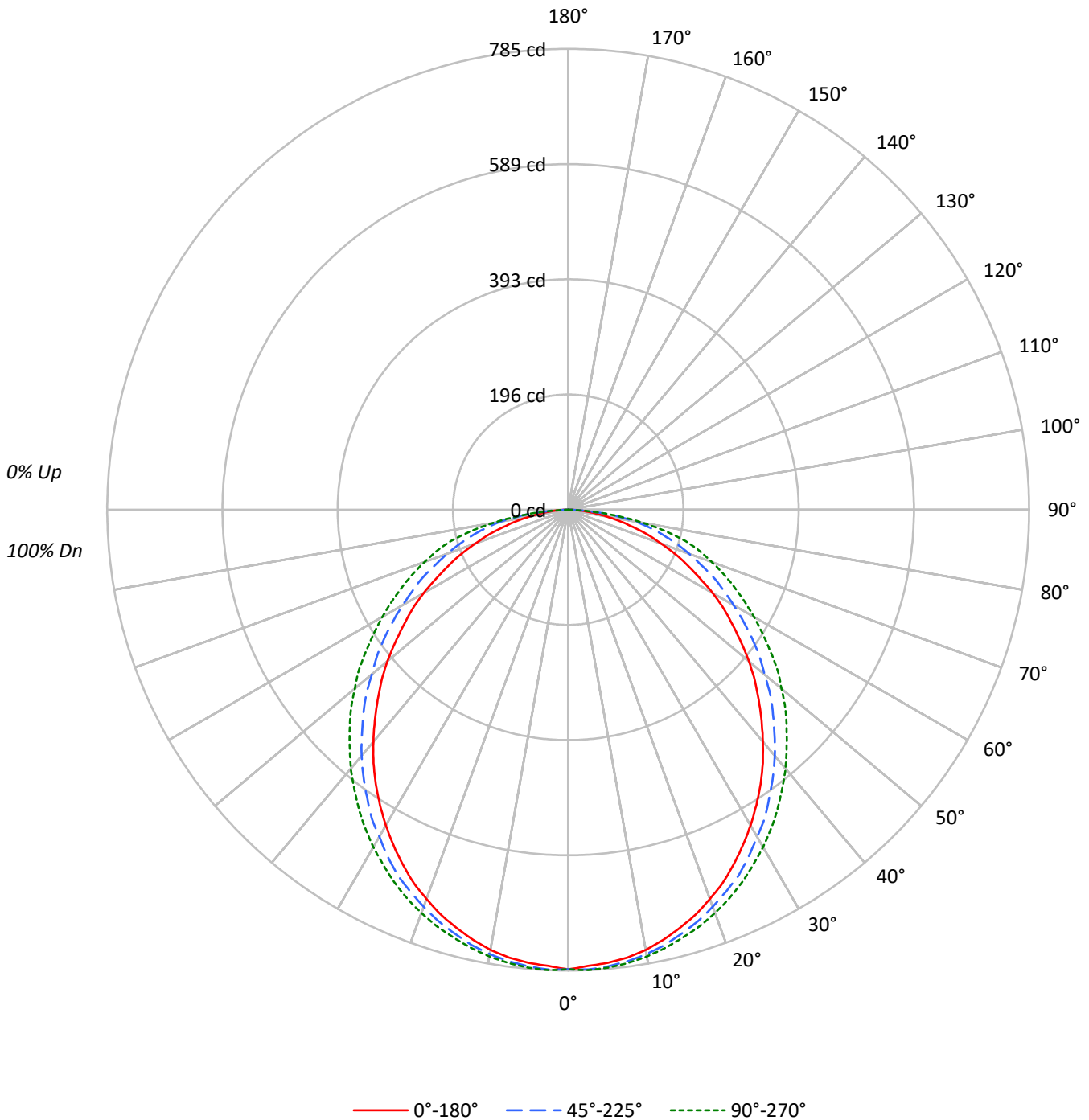
Input Watts (W): 21.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P272022

CATALOG NUMBER: 22CZ2-24-S-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272022

CATALOG NUMBER: 22CZ2-24-S-UNV-L935-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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	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	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2107	2107	2107
5°	2093	2109	2115
10°	2081	2100	2112
15°	2053	2082	2102
20°	2020	2061	2093
25°	1980	2040	2080
30°	1929	1999	2062
35°	1875	1963	2043
40°	1812	1923	2023
45°	1746	1878	2002
50°	1682	1827	1985
55°	1602	1794	1970
60°	1531	1750	1964
65°	1428	1740	1987
70°	1316	1725	2046
75°	1187	1749	2152
80°	1027	1801	2022
85°	849	1510	1510



TEST NUMBER: P272022

CATALOG NUMBER: 22CZ2-24-S-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	3.4
10°-20°	210.7	9.6
20°-30°	315.3	14.4
30°-40°	373.4	17.1
40°-50°	380.5	17.4
50°-60°	341.0	15.6
60°-70°	267.0	12.2
70°-80°	172.2	7.9
80°-90°	50.9	2.3
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°	600.0	27.5
0°-40°	973.4	44.5
0°-60°	1695.0	77.6
0°-90°	2185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	775	777	781	782	783	74
15°	737	741	747	753	754	208
25°	667	673	687	696	700	307
35°	571	578	597	616	622	357
45°	459	469	493	519	526	354
55°	342	353	382	409	420	306
65°	224	238	273	300	312	223
75°	114	132	168	197	207	122
85°	28	38	49	49	49	32
90°	0	0	0	0	0	



TEST NUMBER: P272022

CATALOG NUMBER: 22CZ2-24-S-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.0	783.0	783.0	783.0	783.0
2.5°	777.9	779.9	784.0	785.0	785.0
5°	774.8	776.8	780.9	781.9	783.0
7.5°	769.7	770.7	775.8	777.9	778.9
10°	761.5	763.6	768.7	771.7	772.8
12.5°	750.3	753.4	759.5	763.6	764.6
15°	737.1	741.2	747.3	753.4	754.4
17.5°	722.8	726.9	735.0	742.2	744.2
20°	705.5	710.6	719.7	727.9	731.0
22.5°	688.1	692.2	703.4	713.6	716.7
25°	666.7	672.9	687.1	696.3	700.4
27.5°	644.3	651.4	665.7	677.9	682.0
30°	620.9	628.0	643.3	658.6	663.7
32.5°	596.4	604.5	622.9	638.2	643.3
35°	570.9	578.0	597.4	615.8	621.9
37.5°	544.4	550.5	572.9	592.3	598.4
40°	515.9	524.0	547.5	569.9	576.0
42.5°	487.3	496.5	519.9	544.4	550.5
45°	458.8	469.0	493.4	518.9	526.0
47.5°	431.2	439.4	466.9	491.4	501.6
50°	401.7	409.8	436.3	463.9	474.1
52.5°	371.1	382.3	410.8	437.4	449.6
55°	341.5	352.7	382.3	408.8	420.0
57.5°	314.0	323.2	353.8	381.3	392.5
60°	284.4	292.6	325.2	354.8	365.0
62.5°	252.8	265.1	298.7	326.2	338.5
65°	224.3	237.5	273.2	299.7	312.0
67.5°	197.8	210.0	244.7	273.2	286.5
70°	167.2	183.5	219.2	247.7	260.0
72.5°	142.7	157.0	193.7	222.2	235.5
75°	114.2	131.5	168.2	196.8	207.0
77.5°	90.7	108.1	142.7	165.2	170.3
80°	66.3	83.6	116.2	127.4	130.5
82.5°	44.9	61.2	83.6	86.7	87.7
85°	27.5	37.7	48.9	48.9	48.9
87.5°	13.3	15.3	17.3	16.3	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)