

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: P271998

Luminaire Tested: **22CZ2-39-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: P271998
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-UNV-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (98) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

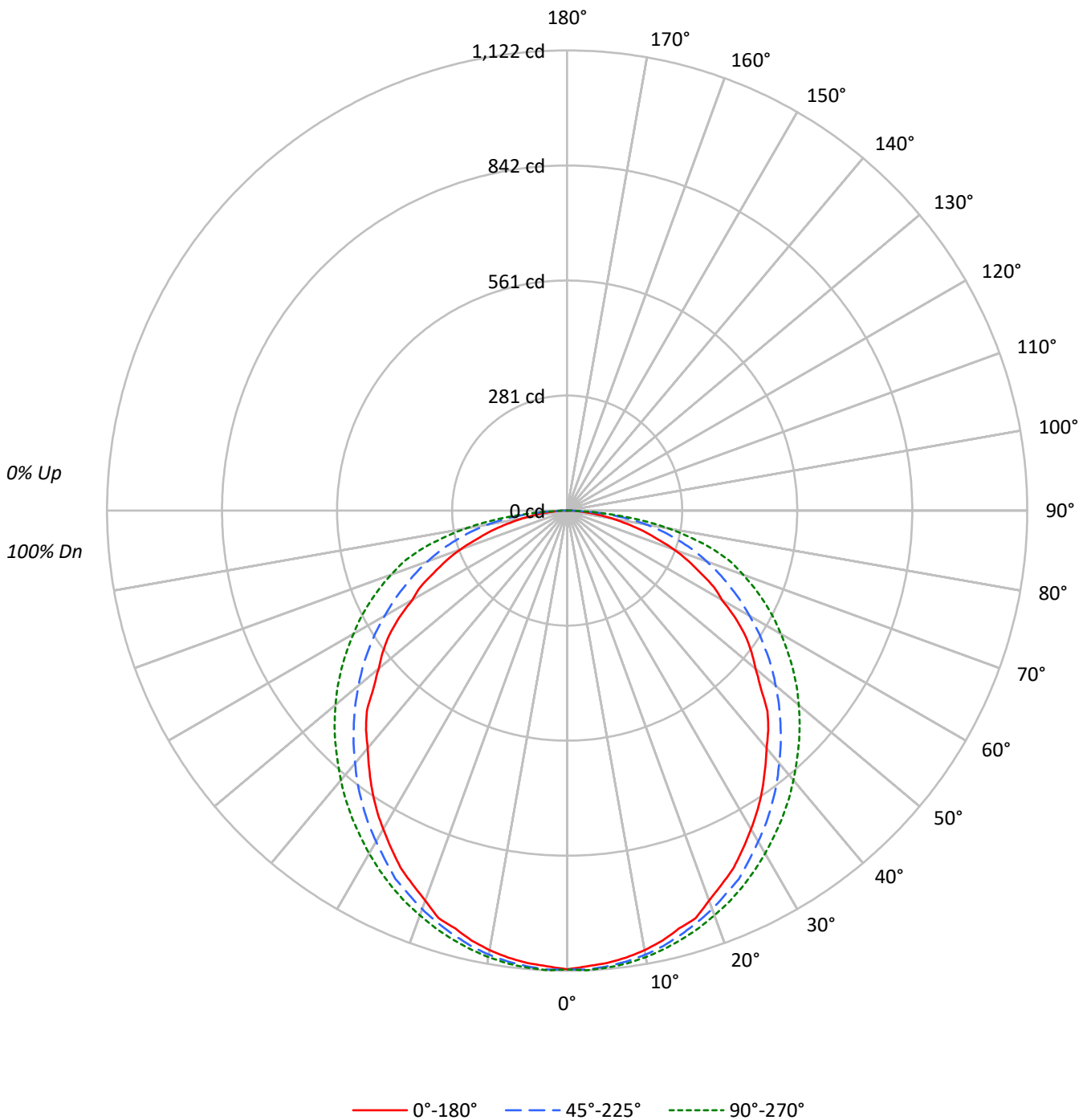
Lumens per Lamp: N/A
Luminaire Lumens: 3334.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 34.5
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: P271998
CATALOG NUMBER: 22CZ2-39-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P271998

CATALOG NUMBER: 22CZ2-39-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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3010	3010	3010
5°	2991	3013	3022
10°	2974	3004	3022
15°	2939	2983	3014
20°	2897	2961	3007
25°	2852	2942	3004
30°	2787	2896	3000
35°	2726	2862	3004
40°	2657	2825	3016
45°	2629	2799	3042
50°	2512	2779	3086
55°	2486	2770	3152
60°	2344	2765	3238
65°	2276	2784	3384
70°	2185	2850	3591
75°	1991	2936	3866
80°	1706	3042	3907
85°	1380	2905	3350



TEST NUMBER: P271998

CATALOG NUMBER: 22CZ2-39-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	3.2
10°-20°	301.9	9.1
20°-30°	454.5	13.6
30°-40°	545.4	16.4
40°-50°	570.1	17.1
50°-60°	531.3	15.9
60°-70°	435.7	13.1
70°-80°	293.6	8.8
80°-90°	95.6	2.9
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°	862.2	25.9
0°-40°	1407.7	42.2
0°-60°	2509.0	75.3
0°-90°	3334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1107	1111	1115	1117	1119	105
15°	1055	1061	1071	1080	1082	298
25°	961	967	991	1005	1012	442
35°	830	841	871	902	914	519
45°	691	696	736	780	799	528
55°	530	539	590	646	672	469
65°	357	373	437	501	531	356
75°	192	212	282	346	372	201
85°	45	64	94	110	108	53
90°	0	0	0	0	0	



TEST NUMBER: P271998

CATALOG NUMBER: 22CZ2-39-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.6	1118.6	1118.6	1118.6	1118.6
2.5°	1112.2	1115.4	1120.2	1121.8	1121.8
5°	1107.4	1110.6	1115.4	1117.0	1118.6
7.5°	1099.4	1102.6	1109.0	1112.2	1113.8
10°	1088.3	1091.5	1099.4	1104.2	1105.8
12.5°	1073.9	1077.1	1086.7	1093.1	1094.6
15°	1054.8	1061.1	1070.7	1080.3	1081.9
17.5°	1042.0	1040.4	1053.2	1064.3	1067.5
20°	1011.7	1019.7	1034.0	1046.8	1050.0
22.5°	986.1	992.5	1011.7	1026.0	1032.4
25°	960.6	967.0	990.9	1005.3	1011.7
27.5°	928.7	938.3	960.6	981.4	989.3
30°	896.8	906.4	931.9	955.8	965.4
32.5°	864.9	876.0	903.2	928.7	939.9
35°	829.8	840.9	871.3	901.6	914.3
37.5°	793.1	807.4	839.3	872.8	887.2
40°	756.4	770.7	804.2	842.5	858.5
42.5°	726.0	732.4	770.7	812.2	828.2
45°	690.9	695.7	735.6	780.3	799.4
47.5°	639.9	657.4	700.5	750.0	769.1
50°	600.0	619.1	663.8	716.5	737.2
52.5°	566.5	579.2	628.7	681.4	705.3
55°	529.8	539.3	590.4	646.3	671.8
57.5°	485.1	502.6	553.7	611.2	636.7
60°	435.6	458.0	513.8	576.0	601.6
62.5°	403.7	416.5	477.1	539.3	568.1
65°	357.4	373.4	437.2	501.0	531.4
67.5°	319.1	335.1	400.5	464.3	494.7
70°	277.7	293.6	362.2	426.1	456.4
72.5°	229.8	252.1	323.9	387.8	419.7
75°	191.5	212.2	282.4	346.3	371.8
77.5°	148.4	175.5	241.0	293.6	312.8
80°	110.1	137.2	196.3	234.6	252.1
82.5°	75.0	102.1	146.8	175.5	185.1
85°	44.7	63.8	94.1	110.1	108.5
87.5°	20.7	27.1	38.3	38.3	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)