

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: P271999

Luminaire Tested: **22CZ2-39-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: P271999
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-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (98) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3368.0 lumens
Efficiency: N/A
Efficacy: 97.6 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

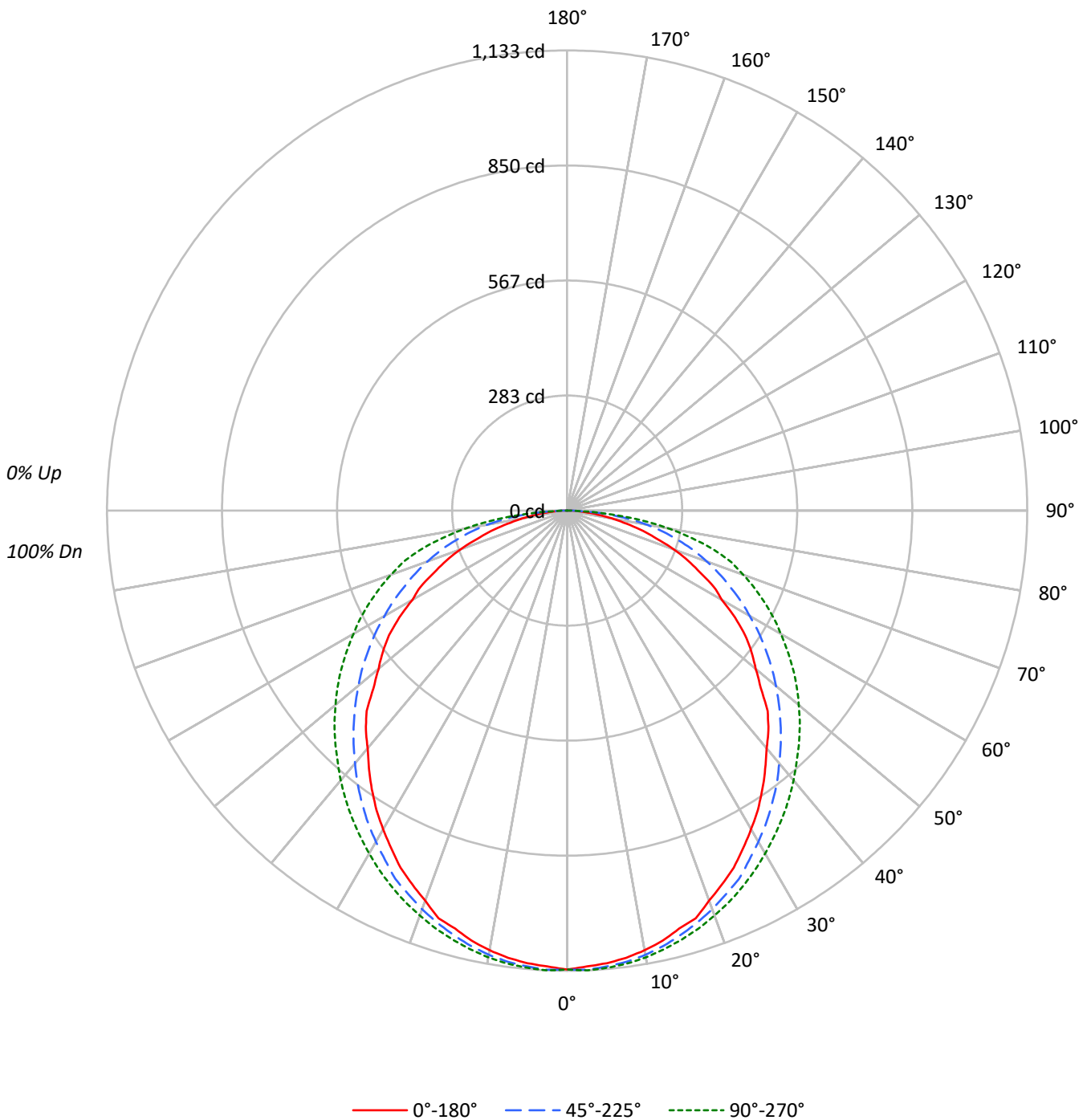
Input Watts (W): 34.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P271999

CATALOG NUMBER: 22CZ2-39-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P271999

CATALOG NUMBER: 22CZ2-39-UNV-L940-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°	3041	3041	3041
5°	3022	3044	3052
10°	3004	3035	3052
15°	2968	3013	3045
20°	2927	2991	3038
25°	2881	2972	3034
30°	2815	2925	3030
35°	2754	2891	3034
40°	2684	2854	3046
45°	2656	2828	3073
50°	2537	2807	3118
55°	2511	2798	3184
60°	2369	2794	3271
65°	2299	2812	3418
70°	2207	2879	3627
75°	2011	2966	3905
80°	1723	3073	3947
85°	1392	2936	3384



TEST NUMBER: P271999

CATALOG NUMBER: 22CZ2-39-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	3.2
10°-20°	305.0	9.1
20°-30°	459.1	13.6
30°-40°	551.0	16.4
40°-50°	575.9	17.1
50°-60°	536.7	15.9
60°-70°	440.2	13.1
70°-80°	296.6	8.8
80°-90°	96.6	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°	871.0	25.9
0°-40°	1422.0	42.2
0°-60°	2534.6	75.3
0°-90°	3368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1119	1122	1127	1128	1130	106
15°	1066	1072	1082	1091	1093	301
25°	970	977	1001	1016	1022	446
35°	838	850	880	911	924	524
45°	698	703	743	788	808	533
55°	535	545	596	653	679	474
65°	361	377	442	506	537	359
75°	193	214	285	350	376	203
85°	45	64	95	111	110	54
90°	0	0	0	0	0	



TEST NUMBER: P271999

CATALOG NUMBER: 22CZ2-39-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.0	1130.0	1130.0	1130.0	1130.0
2.5°	1123.5	1126.8	1131.6	1133.2	1133.2
5°	1118.7	1121.9	1126.8	1128.4	1130.0
7.5°	1110.6	1113.9	1120.3	1123.5	1125.2
10°	1099.4	1102.6	1110.6	1115.5	1117.1
12.5°	1084.9	1088.1	1097.8	1104.2	1105.8
15°	1065.5	1072.0	1081.6	1091.3	1092.9
17.5°	1052.6	1051.0	1063.9	1075.2	1078.4
20°	1022.0	1030.1	1044.6	1057.5	1060.7
22.5°	996.2	1002.6	1022.0	1036.5	1042.9
25°	970.4	976.9	1001.0	1015.5	1022.0
27.5°	938.2	947.8	970.4	991.4	999.4
30°	905.9	915.6	941.4	965.6	975.2
32.5°	873.7	885.0	912.4	938.2	949.5
35°	838.2	849.5	880.1	910.8	923.7
37.5°	801.2	815.7	847.9	881.7	896.3
40°	764.1	778.6	812.4	851.1	867.2
42.5°	733.4	739.9	778.6	820.5	836.6
45°	698.0	702.8	743.1	788.3	807.6
47.5°	646.4	664.1	707.7	757.6	777.0
50°	606.1	625.4	670.6	723.8	744.7
52.5°	572.3	585.1	635.1	688.3	712.5
55°	535.2	544.8	596.4	652.8	678.6
57.5°	490.0	507.8	559.4	617.4	643.2
60°	440.1	462.6	519.1	581.9	607.7
62.5°	407.8	420.7	482.0	544.8	573.9
65°	361.1	377.2	441.7	506.2	536.8
67.5°	322.4	338.5	404.6	469.1	499.7
70°	280.5	296.6	365.9	430.4	461.0
72.5°	232.1	254.7	327.2	391.7	423.9
75°	193.4	214.4	285.3	349.8	375.6
77.5°	149.9	177.3	243.4	296.6	315.9
80°	111.2	138.6	198.3	237.0	254.7
82.5°	75.8	103.2	148.3	177.3	187.0
85°	45.1	64.5	95.1	111.2	109.6
87.5°	21.0	27.4	38.7	38.7	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)