

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: P272014

Luminaire Tested: **22CZ2-20-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: P272014
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: 22CZ2-20-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: 1874.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

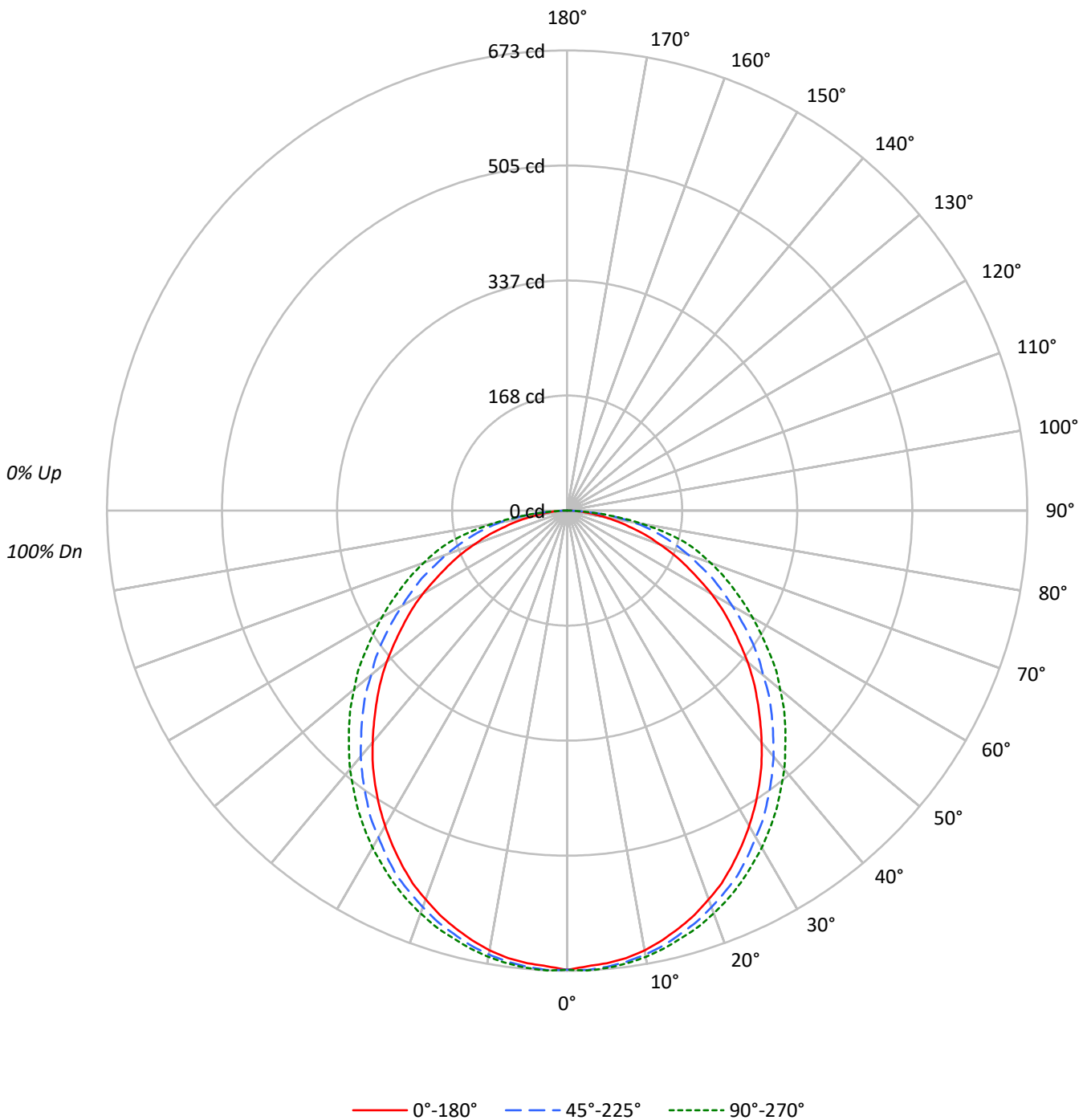
Input Watts (W): 17.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1807	1807	1807
5°	1795	1809	1814
10°	1785	1802	1811
15°	1761	1785	1802
20°	1733	1768	1795
25°	1698	1750	1784
30°	1655	1714	1769
35°	1608	1683	1752
40°	1554	1649	1735
45°	1498	1611	1717
50°	1442	1567	1702
55°	1374	1538	1690
60°	1313	1501	1685
65°	1225	1492	1704
70°	1128	1479	1755
75°	1018	1500	1845
80°	880	1545	1734
85°	729	1297	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	3.4
10°-20°	180.7	9.6
20°-30°	270.4	14.4
30°-40°	320.2	17.1
40°-50°	326.4	17.4
50°-60°	292.5	15.6
60°-70°	229.0	12.2
70°-80°	147.7	7.9
80°-90°	43.6	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°	514.6	27.5
0°-40°	834.9	44.5
0°-60°	1453.7	77.6
0°-90°	1874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	664	666	670	671	672	63
15°	632	636	641	646	647	178
25°	572	577	589	597	601	263
35°	490	496	512	528	533	306
45°	394	402	423	445	451	304
55°	293	302	328	351	360	263
65°	192	204	234	257	268	191
75°	98	113	144	169	178	105
85°	24	32	42	42	42	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	671.5	671.5	671.5	671.5	671.5
2.5°	667.1	668.9	672.4	673.3	673.3
5°	664.5	666.3	669.8	670.6	671.5
7.5°	660.1	661.0	665.4	667.1	668.0
10°	653.2	654.9	659.3	661.9	662.8
12.5°	643.5	646.2	651.4	654.9	655.8
15°	632.2	635.7	640.9	646.2	647.0
17.5°	619.9	623.4	630.4	636.5	638.3
20°	605.1	609.4	617.3	624.3	626.9
22.5°	590.2	593.7	603.3	612.1	614.7
25°	571.8	577.1	589.3	597.2	600.7
27.5°	552.6	558.7	571.0	581.5	585.0
30°	532.5	538.6	551.7	564.8	569.2
32.5°	511.5	518.5	534.2	547.4	551.7
35°	489.6	495.8	512.4	528.1	533.4
37.5°	466.9	472.2	491.4	508.0	513.3
40°	442.4	449.4	469.5	488.8	494.0
42.5°	417.9	425.8	445.9	466.9	472.2
45°	393.5	402.2	423.2	445.1	451.2
47.5°	369.9	376.9	400.5	421.4	430.2
50°	344.5	351.5	374.2	397.8	406.6
52.5°	318.3	327.9	352.4	375.1	385.6
55°	292.9	302.5	327.9	350.6	360.2
57.5°	269.3	277.2	303.4	327.0	336.6
60°	243.9	250.9	278.9	304.3	313.0
62.5°	216.8	227.3	256.2	279.8	290.3
65°	192.4	203.7	234.3	257.1	267.6
67.5°	169.6	180.1	209.8	234.3	245.7
70°	143.4	157.4	188.0	212.5	223.0
72.5°	122.4	134.7	166.1	190.6	202.0
75°	97.9	112.8	144.3	168.8	177.5
77.5°	77.8	92.7	122.4	141.6	146.0
80°	56.8	71.7	99.7	109.3	111.9
82.5°	38.5	52.5	71.7	74.3	75.2
85°	23.6	32.4	42.0	42.0	42.0
87.5°	11.4	13.1	14.9	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)