

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: P272010

Luminaire Tested: **22CZ2-20HE-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: P272010
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: 22CZ2-20HE-S-UNV-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

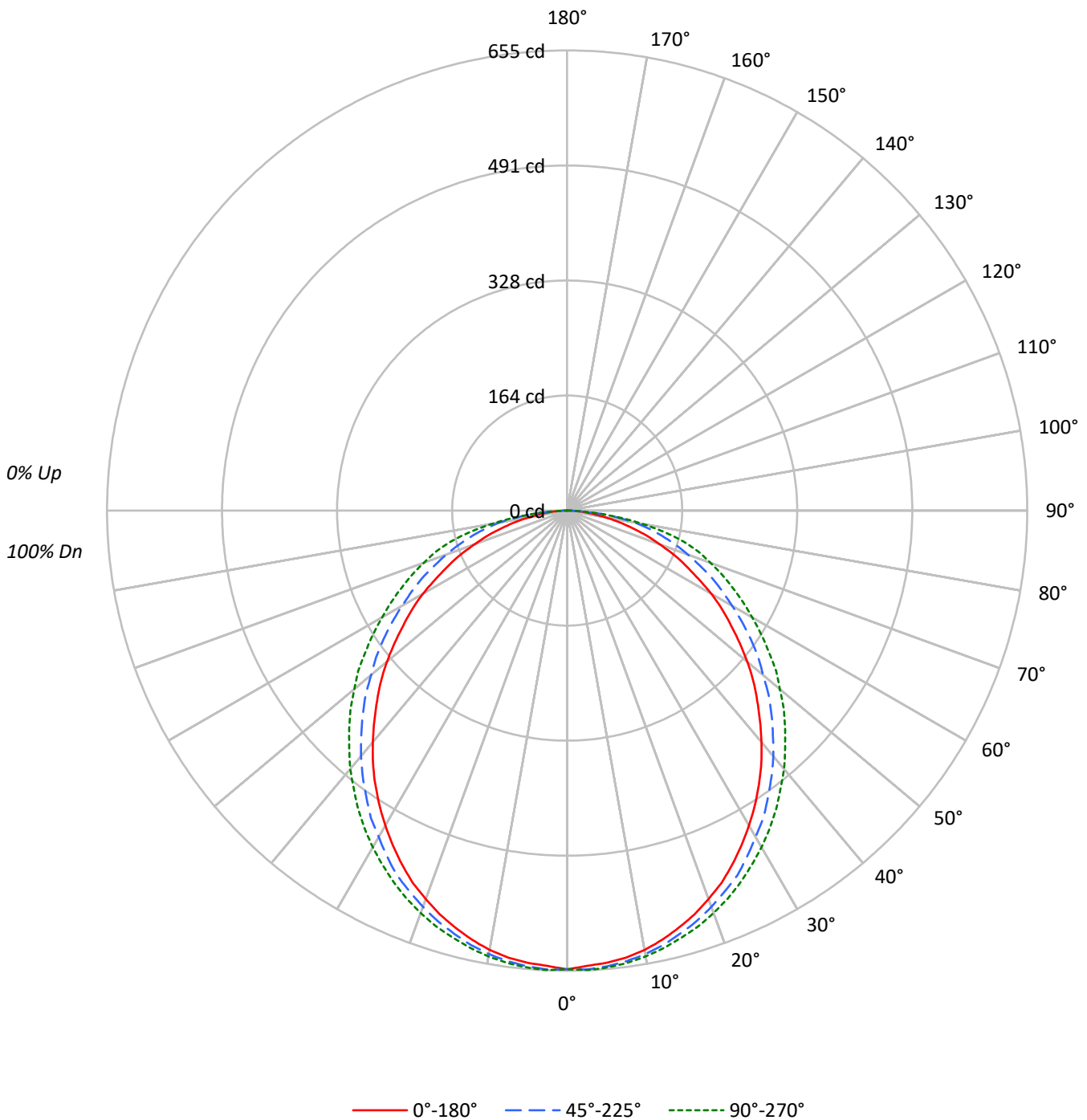
Lumens per Lamp: N/A
Luminaire Lumens: 1822.0 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16
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°	1757	1757	1757
5°	1745	1759	1764
10°	1735	1752	1761
15°	1712	1736	1753
20°	1685	1719	1745
25°	1651	1701	1734
30°	1609	1667	1720
35°	1564	1637	1704
40°	1511	1604	1687
45°	1456	1566	1670
50°	1402	1523	1655
55°	1336	1496	1643
60°	1277	1460	1638
65°	1191	1450	1656
70°	1097	1438	1706
75°	990	1459	1795
80°	857	1502	1686
85°	710	1260	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	3.4
10°-20°	175.7	9.6
20°-30°	262.9	14.4
30°-40°	311.4	17.1
40°-50°	317.3	17.4
50°-60°	284.4	15.6
60°-70°	222.6	12.2
70°-80°	143.6	7.9
80°-90°	42.4	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°	500.3	27.5
0°-40°	811.7	44.5
0°-60°	1413.4	77.6
0°-90°	1822.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1822.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	646	648	651	652	653	61
15°	615	618	623	628	629	173
25°	556	561	573	581	584	256
35°	476	482	498	514	519	298
45°	382	391	412	433	439	295
55°	285	294	319	341	350	255
65°	187	198	228	250	260	186
75°	95	110	140	164	173	102
85°	23	32	41	41	41	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	652.9	652.9	652.9	652.9	652.9
2.5°	648.6	650.3	653.7	654.6	654.6
5°	646.1	647.8	651.2	652.0	652.9
7.5°	641.8	642.7	646.9	648.6	649.5
10°	635.0	636.7	641.0	643.5	644.4
12.5°	625.7	628.2	633.3	636.7	637.6
15°	614.6	618.0	623.1	628.2	629.1
17.5°	602.7	606.1	612.9	618.9	620.6
20°	588.3	592.5	600.2	607.0	609.5
22.5°	573.8	577.2	586.6	595.1	597.6
25°	556.0	561.1	573.0	580.6	584.0
27.5°	537.3	543.2	555.1	565.3	568.7
30°	517.7	523.7	536.4	549.2	553.4
32.5°	497.3	504.1	519.4	532.2	536.4
35°	476.1	482.0	498.2	513.5	518.6
37.5°	454.0	459.1	477.8	493.9	499.0
40°	430.2	437.0	456.5	475.2	480.3
42.5°	406.3	414.0	433.6	454.0	459.1
45°	382.5	391.0	411.5	432.7	438.7
47.5°	359.6	366.4	389.3	409.7	418.3
50°	334.9	341.7	363.8	386.8	395.3
52.5°	309.4	318.8	342.6	364.7	374.9
55°	284.8	294.1	318.8	340.9	350.2
57.5°	261.8	269.5	295.0	317.9	327.3
60°	237.2	244.0	271.2	295.8	304.3
62.5°	210.8	221.0	249.1	272.0	282.2
65°	187.0	198.1	227.8	249.9	260.1
67.5°	164.9	175.1	204.0	227.8	238.9
70°	139.4	153.0	182.8	206.6	216.8
72.5°	119.0	130.9	161.5	185.3	196.4
75°	95.2	109.7	140.3	164.1	172.6
77.5°	75.7	90.1	119.0	137.7	142.0
80°	55.3	69.7	96.9	106.3	108.8
82.5°	37.4	51.0	69.7	72.3	73.1
85°	23.0	31.5	40.8	40.8	40.8
87.5°	11.1	12.8	14.5	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)