

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: P271973

Luminaire Tested: **22CZ2-24HE-UNV-L930-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: P271973
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24HE-UNV-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (112) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1993.4 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

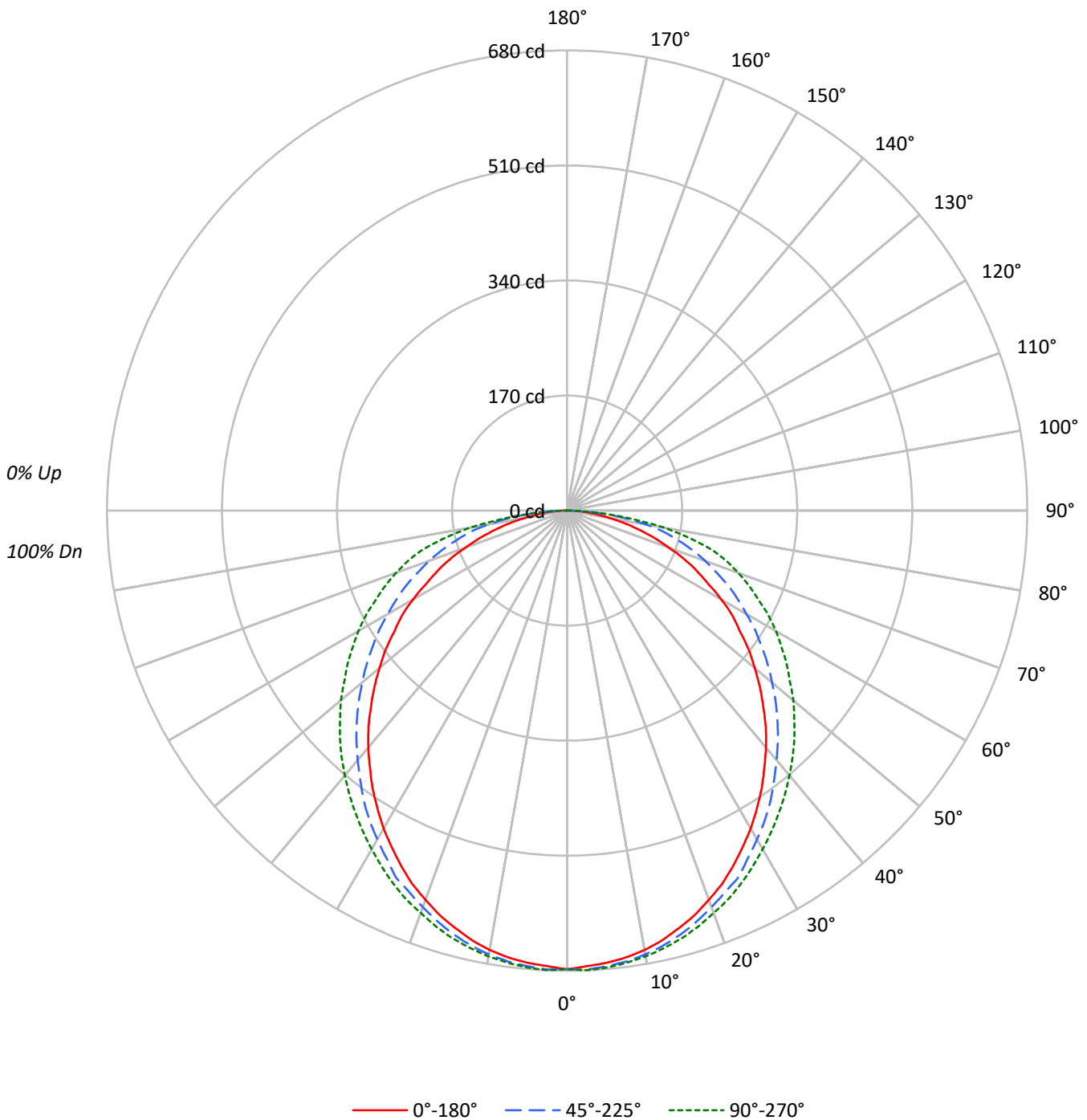
Input Watts (W): 19.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1824	1824	1824
5°	1812	1826	1831
10°	1801	1820	1828
15°	1779	1806	1823
20°	1753	1786	1812
25°	1721	1776	1806
30°	1685	1743	1795
35°	1646	1721	1792
40°	1606	1692	1795
45°	1560	1672	1807
50°	1515	1655	1827
55°	1463	1648	1859
60°	1420	1647	1917
65°	1349	1674	1986
70°	1258	1706	2115
75°	1152	1764	2284
80°	1003	1839	2250
85°	877	1636	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.2
10°-20°	182.6	9.2
20°-30°	274.1	13.7
30°-40°	327.5	16.4
40°-50°	340.6	17.1
50°-60°	315.6	15.8
60°-70°	258.9	13.0
70°-80°	175.0	8.8
80°-90°	55.0	2.8
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°	520.8	26.1
0°-40°	848.3	42.6
0°-60°	1504.5	75.5
0°-90°	1993.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1993.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	671	672	676	677	678	64
15°	639	642	648	652	654	180
25°	580	585	598	605	608	267
35°	501	508	524	540	545	313
45°	410	418	439	465	475	317
55°	312	322	351	382	396	280
65°	212	224	263	297	312	209
75°	111	130	170	204	220	118
85°	28	39	53	59	58	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	677.8	677.8	677.8	677.8	677.8
2.5°	673.9	675.8	678.8	679.8	679.8
5°	670.9	671.9	675.8	676.8	677.8
7.5°	666.0	668.0	671.9	672.9	673.9
10°	659.2	661.1	666.0	668.0	669.0
12.5°	650.3	652.3	658.2	661.1	662.1
15°	638.6	641.5	648.4	652.3	654.3
17.5°	626.8	629.7	636.6	642.5	644.4
20°	612.1	618.9	623.8	631.7	632.7
22.5°	597.4	601.3	610.1	618.0	621.9
25°	579.7	584.6	598.3	605.2	608.1
27.5°	561.1	567.9	578.7	589.5	593.4
30°	542.4	547.3	561.1	573.8	577.7
32.5°	521.8	528.7	543.4	556.2	562.0
35°	501.2	508.1	523.8	539.5	545.4
37.5°	478.7	486.5	502.2	520.9	528.7
40°	457.1	463.0	481.6	504.2	511.0
42.5°	434.5	441.4	461.0	485.5	493.4
45°	410.0	417.9	439.4	464.9	474.7
47.5°	386.5	394.3	417.9	443.4	455.1
50°	361.9	371.8	395.3	424.7	436.5
52.5°	338.4	347.2	373.7	404.1	414.9
55°	311.9	321.7	351.2	382.5	396.3
57.5°	290.3	297.2	329.6	361.9	375.7
60°	263.9	272.7	306.0	340.4	356.1
62.5°	235.4	250.1	284.5	319.8	335.5
65°	211.9	223.6	262.9	297.2	311.9
67.5°	187.3	200.1	238.4	274.6	291.3
70°	159.9	176.6	216.8	253.1	268.8
72.5°	135.4	153.0	194.2	229.5	246.2
75°	110.8	129.5	169.7	204.0	219.7
77.5°	87.3	107.9	147.1	173.6	183.4
80°	64.7	84.4	118.7	137.3	145.2
82.5°	45.1	61.8	87.3	97.1	99.1
85°	28.4	39.2	53.0	58.9	57.9
87.5°	12.8	15.7	19.6	21.6	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)