

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: P272119

Luminaire Tested: **24CZ2-70HE-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: P272119
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (392) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5995.0 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

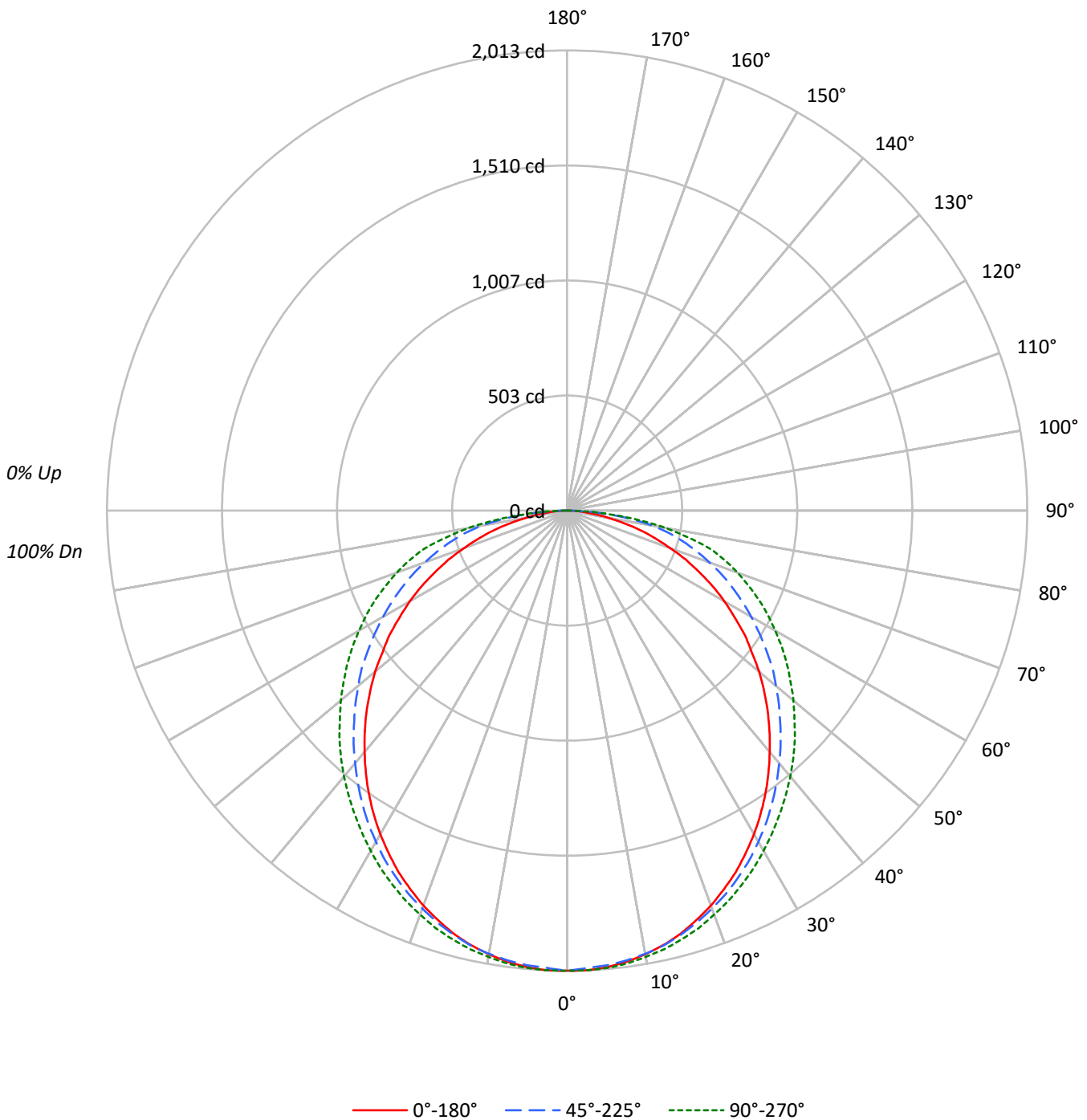
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36				36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32				32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25				25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2708	2708	2708
5°	2708	2697	2713
10°	2693	2690	2709
15°	2670	2676	2703
20°	2633	2653	2693
25°	2590	2629	2682
30°	2540	2599	2670
35°	2485	2567	2662
40°	2421	2534	2667
45°	2360	2509	2680
50°	2295	2496	2705
55°	2225	2492	2755
60°	2137	2504	2827
65°	2026	2542	2949
70°	1881	2605	3117
75°	1716	2735	3381
80°	1411	2946	3380
85°	1081	2719	2904



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	3.2
10°-20°	543.5	9.1
20°-30°	817.8	13.6
30°-40°	980.1	16.3
40°-50°	1021.4	17.0
50°-60°	950.3	15.9
60°-70°	782.6	13.1
70°-80°	533.0	8.9
80°-90°	176.0	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°	1551.7	25.9
0°-40°	2531.8	42.2
0°-60°	4503.4	75.1
0°-90°	5995.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5995.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2013	2013	2013	2013	2013	
5°	2005	2005	1997	2007	2009	190
15°	1917	1919	1921	1939	1941	540
25°	1745	1753	1771	1801	1807	803
35°	1513	1531	1563	1605	1621	946
45°	1240	1266	1318	1385	1409	957
55°	948	980	1062	1146	1174	845
65°	636	690	798	892	926	632
75°	330	404	526	620	650	348
85°	70	136	176	188	188	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2012.8	2012.8	2012.8	2012.8	2012.8
2.5°	2012.8	2012.8	2002.8	2012.8	2012.8
5°	2004.8	2004.8	1996.8	2006.8	2008.8
7.5°	1990.8	1992.8	1984.8	1996.8	1998.8
10°	1970.8	1972.8	1968.8	1980.8	1982.8
12.5°	1946.8	1948.8	1948.8	1962.8	1964.8
15°	1916.8	1918.8	1920.8	1938.8	1940.8
17.5°	1878.7	1884.7	1888.8	1910.8	1914.8
20°	1838.7	1844.7	1852.7	1876.7	1880.7
22.5°	1792.7	1800.7	1814.7	1840.7	1846.7
25°	1744.7	1752.7	1770.7	1800.7	1806.7
27.5°	1690.7	1702.7	1724.7	1756.7	1764.7
30°	1634.6	1646.7	1672.7	1706.7	1718.7
32.5°	1574.6	1590.6	1620.6	1658.7	1670.7
35°	1512.6	1530.6	1562.6	1604.6	1620.6
37.5°	1446.6	1466.6	1504.6	1550.6	1570.6
40°	1378.5	1402.6	1442.6	1496.6	1518.6
42.5°	1310.5	1332.5	1382.5	1440.6	1464.6
45°	1240.5	1266.5	1318.5	1384.6	1408.6
47.5°	1168.5	1194.5	1256.5	1326.5	1348.5
50°	1096.4	1122.4	1192.5	1266.5	1292.5
52.5°	1018.4	1052.4	1132.5	1206.5	1232.5
55°	948.4	980.4	1062.4	1146.5	1174.5
57.5°	868.3	906.4	996.4	1084.4	1114.4
60°	794.3	834.3	930.4	1020.4	1050.4
62.5°	718.3	762.3	864.3	956.4	990.4
65°	636.3	690.3	798.3	892.4	926.4
67.5°	562.2	618.2	732.3	828.3	858.3
70°	478.2	546.2	662.3	758.3	792.3
72.5°	406.2	474.2	596.2	690.3	724.3
75°	330.1	404.2	526.2	620.2	650.3
77.5°	254.1	336.1	458.2	530.2	540.2
80°	182.1	268.1	380.2	422.2	436.2
82.5°	128.1	206.1	280.1	308.1	316.1
85°	70.0	136.1	176.1	188.1	188.1
87.5°	30.0	58.0	70.0	72.0	74.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)