

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: P272118

Luminaire Tested: **24CZ2-70HE-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: P272118
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-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5934.0 lumens
Efficiency: N/A
Efficacy: 116.4 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

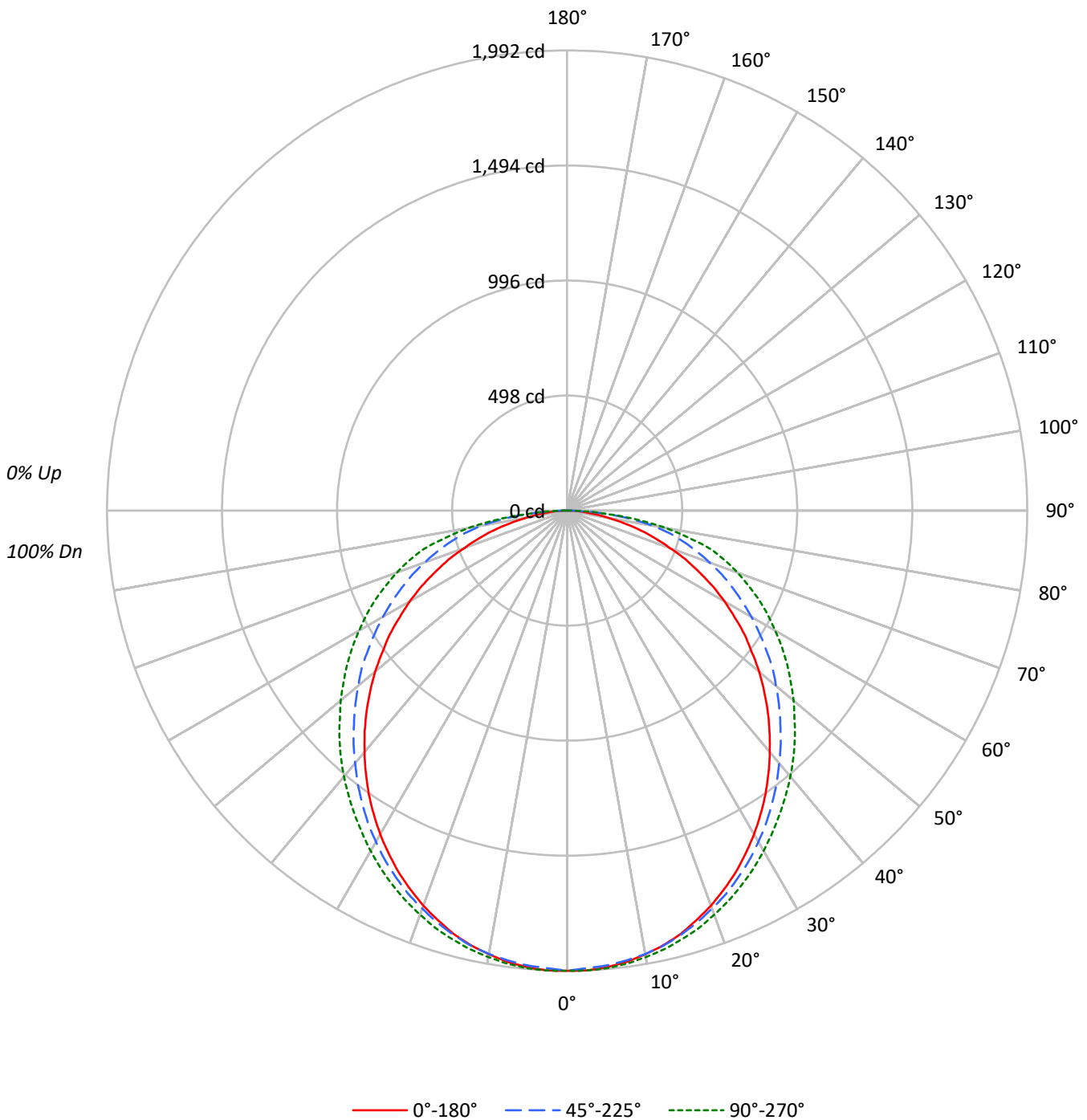
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	89	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	58	56
4	81	69	59	52	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	50	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°	2681	2681	2681
5°	2680	2670	2686
10°	2665	2663	2681
15°	2643	2648	2676
20°	2606	2626	2666
25°	2564	2602	2655
30°	2514	2572	2643
35°	2459	2541	2635
40°	2397	2508	2640
45°	2336	2483	2653
50°	2272	2471	2678
55°	2202	2467	2727
60°	2116	2478	2798
65°	2005	2516	2919
70°	1862	2579	3085
75°	1699	2708	3346
80°	1396	2916	3345
85°	1070	2691	2875



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.4	3.2
10°-20°	537.9	9.1
20°-30°	809.5	13.6
30°-40°	970.1	16.3
40°-50°	1011.0	17.0
50°-60°	940.6	15.9
60°-70°	774.7	13.1
70°-80°	527.6	8.9
80°-90°	174.2	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°	1535.9	25.9
0°-40°	2506.0	42.2
0°-60°	4457.5	75.1
0°-90°	5934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5934.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1992	1992	1992	1992	1992	
5°	1984	1984	1976	1986	1988	188
15°	1897	1899	1901	1919	1921	534
25°	1727	1735	1753	1782	1788	795
35°	1497	1515	1547	1588	1604	936
45°	1228	1254	1305	1370	1394	947
55°	939	970	1052	1135	1162	837
65°	630	683	790	883	917	625
75°	327	400	521	614	644	345
85°	69	135	174	186	186	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1992.3	1992.3	1992.3	1992.3	1992.3
2.5°	1992.3	1992.3	1982.4	1992.3	1992.3
5°	1984.4	1984.4	1976.5	1986.4	1988.4
7.5°	1970.5	1972.5	1964.6	1976.5	1978.5
10°	1950.7	1952.7	1948.8	1960.6	1962.6
12.5°	1927.0	1928.9	1928.9	1942.8	1944.8
15°	1897.3	1899.2	1901.2	1919.0	1921.0
17.5°	1859.6	1865.6	1869.5	1891.3	1895.3
20°	1820.0	1826.0	1833.9	1857.7	1861.6
22.5°	1774.5	1782.4	1796.3	1822.0	1827.9
25°	1726.9	1734.9	1752.7	1782.4	1788.3
27.5°	1673.5	1685.4	1707.1	1738.8	1746.7
30°	1618.0	1629.9	1655.6	1689.3	1701.2
32.5°	1558.6	1574.4	1604.2	1641.8	1653.7
35°	1497.2	1515.0	1546.7	1588.3	1604.2
37.5°	1431.9	1451.7	1489.3	1534.8	1554.6
40°	1364.5	1388.3	1427.9	1481.4	1503.2
42.5°	1297.2	1319.0	1368.5	1425.9	1449.7
45°	1227.9	1253.6	1305.1	1370.5	1394.2
47.5°	1156.6	1182.3	1243.7	1313.0	1334.8
50°	1085.3	1111.0	1180.3	1253.6	1279.4
52.5°	1008.0	1041.7	1120.9	1194.2	1219.9
55°	938.7	970.4	1051.6	1134.8	1162.5
57.5°	859.5	897.1	986.3	1073.4	1103.1
60°	786.2	825.8	920.9	1010.0	1039.7
62.5°	711.0	754.5	855.5	946.6	980.3
65°	629.8	683.3	790.2	883.3	916.9
67.5°	556.5	612.0	724.8	819.9	849.6
70°	473.3	540.7	655.5	750.6	784.3
72.5°	402.0	469.4	590.2	683.3	716.9
75°	326.8	400.0	520.9	613.9	643.6
77.5°	251.5	332.7	453.5	524.8	534.7
80°	180.2	265.4	376.3	417.9	431.7
82.5°	126.7	204.0	277.3	305.0	312.9
85°	69.3	134.7	174.3	186.2	186.2
87.5°	29.7	57.4	69.3	71.3	73.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)