

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: P272117

Luminaire Tested: **24CZ2-70HE-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: P272117
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-L930-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (392) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5790.0 lumens
Efficiency: N/A
Efficacy: 113.5 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

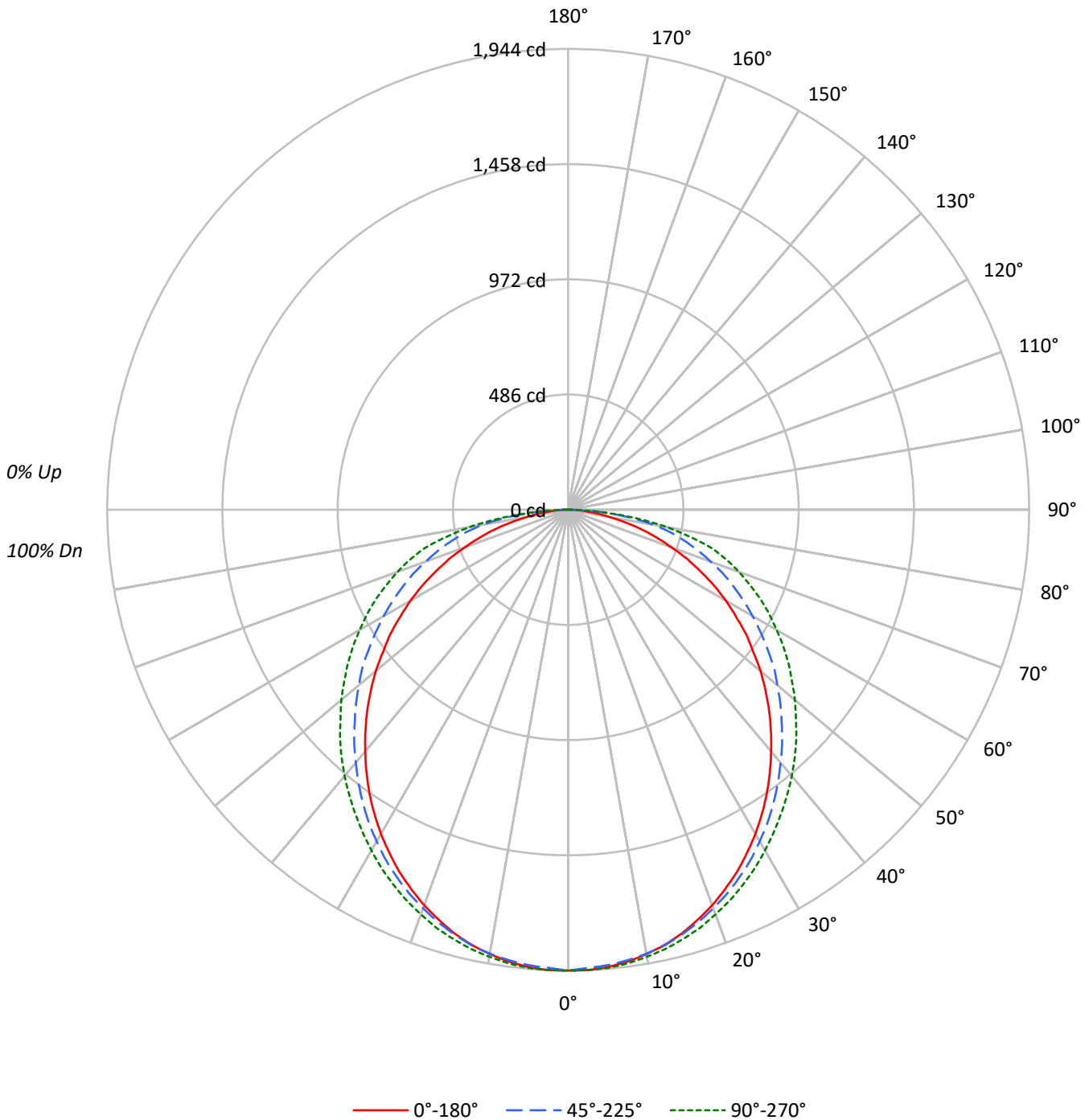
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2616	2616	2616
5°	2615	2605	2620
10°	2601	2598	2616
15°	2579	2584	2611
20°	2543	2562	2601
25°	2502	2539	2590
30°	2453	2510	2579
35°	2400	2479	2571
40°	2338	2447	2576
45°	2280	2423	2589
50°	2216	2411	2613
55°	2149	2407	2661
60°	2065	2418	2730
65°	1956	2455	2848
70°	1817	2516	3010
75°	1657	2642	3265
80°	1362	2845	3264
85°	1044	2624	2803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.9	3.2
10°-20°	524.9	9.1
20°-30°	789.9	13.6
30°-40°	946.6	16.3
40°-50°	986.4	17.0
50°-60°	917.8	15.9
60°-70°	755.9	13.1
70°-80°	514.8	8.9
80°-90°	169.9	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°	1498.6	25.9
0°-40°	2445.2	42.2
0°-60°	4349.4	75.1
0°-90°	5790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1936	1936	1928	1938	1940	184
15°	1851	1853	1855	1872	1874	522
25°	1685	1693	1710	1739	1745	776
35°	1461	1478	1509	1550	1565	913
45°	1198	1223	1273	1337	1360	924
55°	916	947	1026	1107	1134	816
65°	614	667	771	862	895	610
75°	319	390	508	599	628	336
85°	68	131	170	182	182	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1944.0	1944.0	1944.0	1944.0	1944.0
2.5°	1944.0	1944.0	1934.3	1944.0	1944.0
5°	1936.2	1936.2	1928.5	1938.2	1940.1
7.5°	1922.7	1924.6	1916.9	1928.5	1930.4
10°	1903.4	1905.3	1901.5	1913.1	1915.0
12.5°	1880.2	1882.1	1882.1	1895.7	1897.6
15°	1851.2	1853.2	1855.1	1872.5	1874.4
17.5°	1814.5	1820.3	1824.2	1845.4	1849.3
20°	1775.9	1781.7	1789.4	1812.6	1816.4
22.5°	1731.4	1739.1	1752.7	1777.8	1783.6
25°	1685.0	1692.8	1710.2	1739.1	1744.9
27.5°	1632.9	1644.5	1665.7	1696.6	1704.4
30°	1578.8	1590.3	1615.5	1648.3	1659.9
32.5°	1520.8	1536.2	1565.2	1601.9	1613.5
35°	1460.9	1478.3	1509.2	1549.8	1565.2
37.5°	1397.1	1416.4	1453.1	1497.6	1516.9
40°	1331.4	1354.6	1393.2	1445.4	1466.7
42.5°	1265.7	1287.0	1335.3	1391.3	1414.5
45°	1198.1	1223.2	1273.4	1337.2	1360.4
47.5°	1128.5	1153.6	1213.5	1281.2	1302.4
50°	1058.9	1084.1	1151.7	1223.2	1248.3
52.5°	983.6	1016.4	1093.7	1165.2	1190.3
55°	915.9	946.9	1026.1	1107.3	1134.3
57.5°	838.7	875.4	962.3	1047.3	1076.3
60°	767.2	805.8	898.6	985.5	1014.5
62.5°	693.7	736.2	834.8	923.7	956.5
65°	614.5	666.7	771.0	861.8	894.7
67.5°	543.0	597.1	707.3	800.0	829.0
70°	461.8	527.5	639.6	732.4	765.2
72.5°	392.3	458.0	575.8	666.7	699.5
75°	318.8	390.3	508.2	599.0	628.0
77.5°	245.4	324.6	442.5	512.1	521.7
80°	175.8	258.9	367.2	407.7	421.3
82.5°	123.7	199.0	270.5	297.6	305.3
85°	67.6	131.4	170.0	181.6	181.6
87.5°	29.0	56.0	67.6	69.6	71.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)