

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: P232322

Luminaire Tested: **24RDIA-50-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232322  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-078-8-R2)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RDIA-50-UNV-L840-CD1-U  
Description: METALUX 2X4 OVATION LED TROFFER  
AIR VENTED VERSION  
Light Source: (392) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5157.0 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.31 / 1.39  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

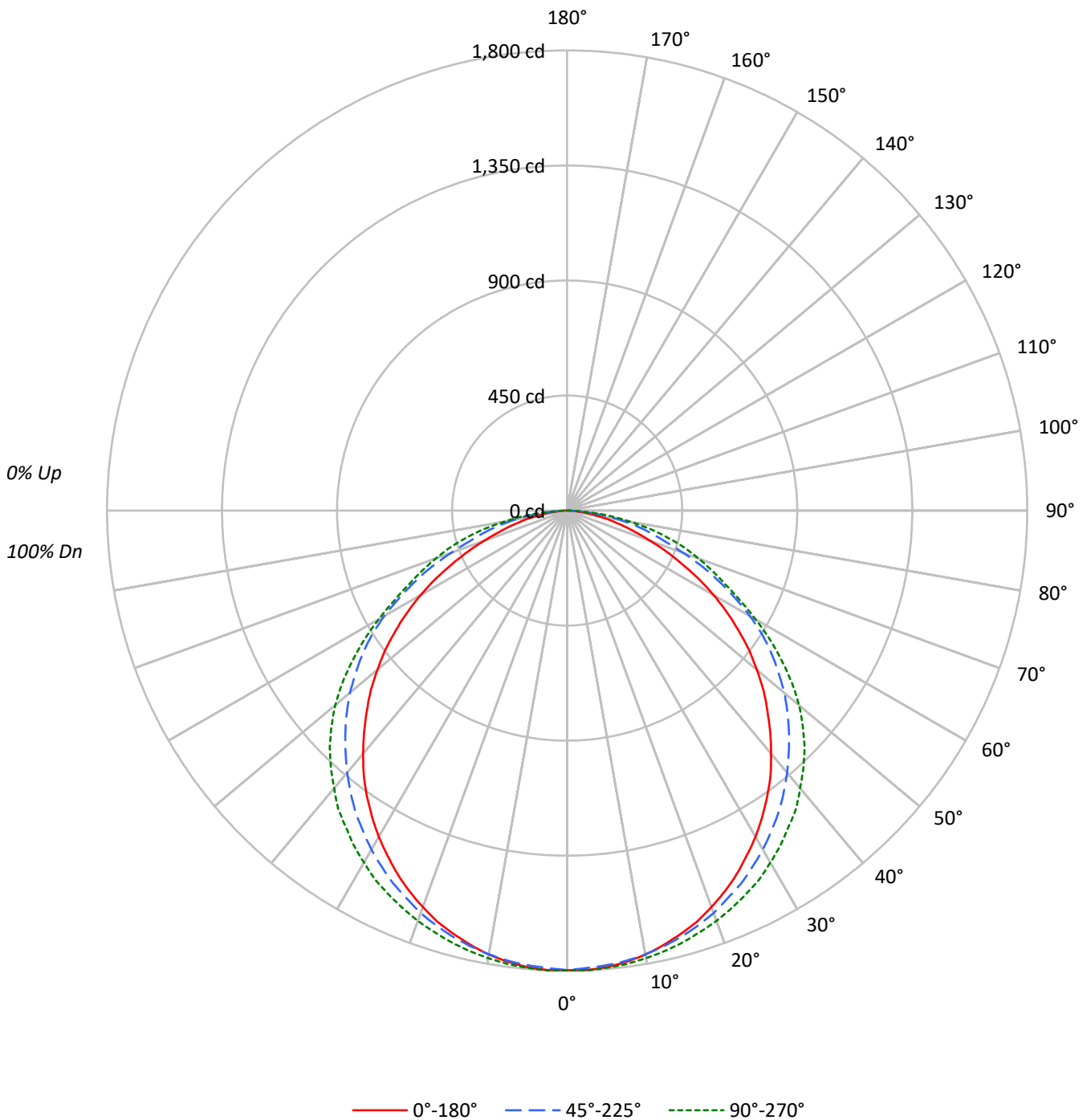
Input Watts (W): 50.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	88		90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75		82	77	74		79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63		72	67	62		70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46		58	51	46		56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	36		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	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	52	39	31	26	38	31	26		37	31	26		36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2903	2903	2903
5°	2906	2893	2910
10°	2892	2889	2914
15°	2866	2885	2923
20°	2835	2879	2935
25°	2796	2868	2949
30°	2747	2855	2964
35°	2690	2842	2976
40°	2616	2821	2989
45°	2529	2803	2999
50°	2434	2785	2976
55°	2305	2749	2887
60°	2139	2668	2750
65°	1904	2506	2607
70°	1638	2275	2579
75°	1385	2109	2534
80°	1126	1959	2311
85°	795	1519	1823



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.2	3.3
10°-20°	488.2	9.5
20°-30°	742.7	14.4
30°-40°	900.6	17.5
40°-50°	940.4	18.2
50°-60°	847.1	16.4
60°-70°	623.2	12.1
70°-80°	352.8	6.8
80°-90°	91.8	1.8
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°	1401.0	27.2
0°-40°	2301.5	44.6
0°-60°	4089.1	79.3
0°-90°	5157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5157.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1793	1789	1785	1793	1795	170
15°	1714	1717	1726	1742	1748	484
25°	1569	1580	1610	1644	1655	723
35°	1365	1388	1442	1491	1510	853
45°	1108	1149	1228	1292	1313	855
55°	819	876	976	1021	1026	732
65°	498	587	656	675	682	496
75°	222	290	338	391	406	239
85°	43	59	82	93	98	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1797.7	1797.7	1797.7	1797.7	1797.7
2.5°	1799.0	1795.2	1790.2	1796.5	1800.3
5°	1792.7	1788.9	1785.1	1792.7	1795.2
7.5°	1780.1	1777.5	1776.3	1785.1	1788.9
10°	1763.7	1761.1	1762.4	1775.0	1777.5
12.5°	1741.0	1742.2	1746.0	1759.9	1764.9
15°	1714.5	1717.0	1725.8	1742.2	1748.5
17.5°	1686.7	1688.0	1701.9	1722.0	1728.3
20°	1650.1	1657.7	1675.4	1699.3	1708.2
22.5°	1612.3	1621.1	1641.3	1672.8	1682.9
25°	1569.4	1579.5	1609.8	1643.8	1655.2
27.5°	1521.4	1536.6	1570.6	1611.0	1627.4
30°	1473.5	1489.9	1531.5	1574.4	1589.6
32.5°	1420.5	1438.2	1486.1	1535.3	1553.0
35°	1365.0	1387.7	1442.0	1491.2	1510.1
37.5°	1307.0	1331.0	1391.5	1448.3	1471.0
40°	1241.4	1271.7	1338.5	1399.1	1418.0
42.5°	1175.8	1212.4	1283.0	1347.4	1367.5
45°	1107.7	1149.3	1227.5	1291.8	1313.3
47.5°	1042.1	1083.7	1169.5	1232.6	1250.2
50°	968.9	1019.3	1108.9	1169.5	1184.6
52.5°	897.0	948.7	1042.1	1100.1	1108.9
55°	818.8	875.5	976.5	1020.6	1025.7
57.5°	741.8	804.9	905.8	941.1	942.4
60°	662.3	731.7	826.3	851.6	851.6
62.5°	582.8	662.3	740.5	765.8	763.2
65°	498.3	586.6	656.0	674.9	682.5
67.5°	420.1	514.7	572.8	594.2	613.1
70°	346.9	440.3	481.9	526.1	546.3
72.5°	280.1	368.4	401.2	464.3	479.4
75°	222.0	290.2	338.1	391.1	406.2
77.5°	171.6	215.7	276.3	321.7	330.5
80°	121.1	148.9	210.7	242.2	248.5
82.5°	80.7	102.2	146.3	169.0	176.6
85°	42.9	59.3	82.0	93.4	98.4
87.5°	16.4	24.0	27.8	30.3	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)