

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: P272164

Luminaire Tested: **24CZ2-50-S-UNV-L950-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: P272164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-S-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

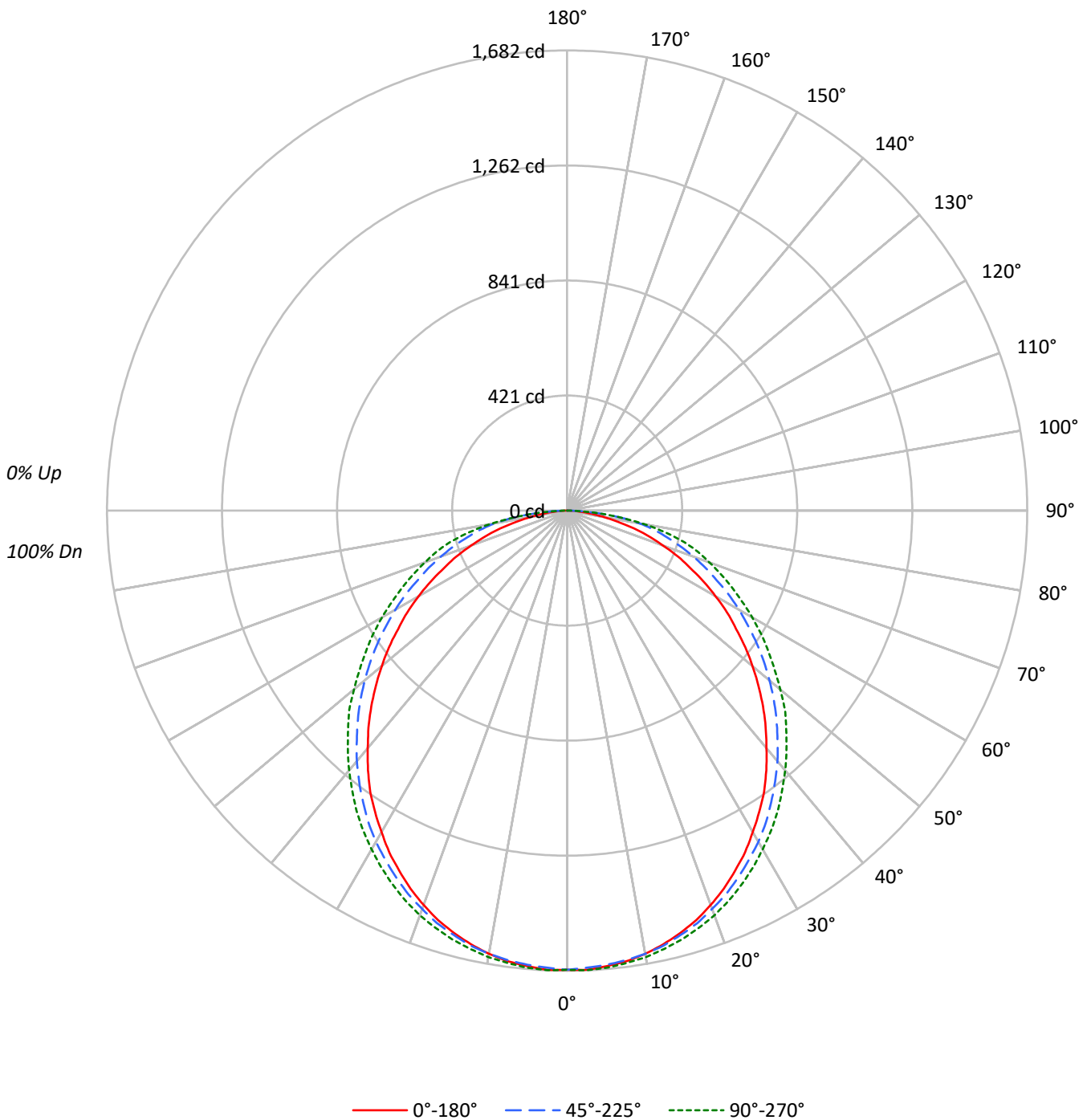
Lumens per Lamp: N/A
Luminaire Lumens: 4778.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.6
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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2258	2258	2258
5°	2257	2251	2265
10°	2248	2248	2264
15°	2226	2237	2260
20°	2197	2219	2253
25°	2156	2197	2240
30°	2108	2172	2221
35°	2062	2136	2204
40°	1991	2100	2178
45°	1926	2059	2154
50°	1852	2020	2128
55°	1769	1983	2108
60°	1687	1952	2103
65°	1580	1918	2116
70°	1463	1928	2173
75°	1310	1965	2296
80°	1058	2081	2246
85°	797	1828	1780



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.9	3.3
10°-20°	454.1	9.5
20°-30°	682.6	14.3
30°-40°	813.0	17.0
40°-50°	832.1	17.4
50°-60°	749.1	15.7
60°-70°	588.3	12.3
70°-80°	381.8	8.0
80°-90°	118.1	2.5
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°	1295.5	27.1
0°-40°	2108.6	44.1
0°-60°	3689.8	77.2
0°-90°	4778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1678	1678	1678	1678	1678	
5°	1671	1674	1666	1676	1677	159
15°	1598	1603	1606	1619	1622	451
25°	1452	1465	1480	1504	1509	669
35°	1255	1270	1301	1332	1342	783
45°	1012	1037	1082	1123	1132	780
55°	754	788	845	889	898	676
65°	496	534	602	653	665	494
75°	252	300	378	430	442	267
85°	52	96	118	115	115	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1678.5	1678.5	1678.5	1678.5	1678.5
2.5°	1680.1	1680.1	1672.5	1680.1	1681.6
5°	1671.0	1674.0	1666.4	1675.5	1677.0
7.5°	1661.8	1661.8	1657.3	1666.4	1667.9
10°	1645.2	1646.7	1645.2	1655.8	1657.3
12.5°	1623.9	1626.9	1628.5	1639.1	1640.6
15°	1598.1	1602.7	1605.7	1619.4	1622.4
17.5°	1569.3	1573.8	1581.4	1596.6	1599.6
20°	1534.4	1540.4	1549.5	1569.3	1573.8
22.5°	1496.4	1502.5	1517.7	1535.9	1543.5
25°	1452.4	1464.6	1479.7	1504.0	1508.6
27.5°	1408.4	1419.0	1438.8	1464.6	1470.6
30°	1356.8	1373.5	1397.8	1423.6	1429.6
32.5°	1306.7	1323.4	1352.2	1379.6	1387.2
35°	1255.1	1270.3	1300.6	1332.5	1341.6
37.5°	1195.9	1215.7	1249.0	1280.9	1290.0
40°	1133.7	1158.0	1195.9	1229.3	1239.9
42.5°	1074.5	1100.3	1138.3	1174.7	1186.8
45°	1012.3	1036.6	1082.1	1123.1	1132.2
47.5°	948.5	975.9	1024.4	1065.4	1080.6
50°	884.8	913.6	965.2	1007.7	1016.8
52.5°	821.1	851.4	906.0	951.6	956.1
55°	754.3	787.7	845.3	889.4	898.5
57.5°	693.6	722.4	784.6	830.2	840.8
60°	626.8	658.7	725.4	767.9	781.6
62.5°	563.1	596.4	666.3	708.8	720.9
65°	496.3	534.2	602.5	652.6	664.7
67.5°	438.6	475.0	547.9	596.4	608.6
70°	371.8	412.8	490.2	540.3	552.4
72.5°	314.2	356.7	434.1	482.6	500.8
75°	251.9	300.5	377.9	429.5	441.6
77.5°	191.2	247.4	326.3	365.8	365.8
80°	136.6	195.8	268.6	286.8	289.9
82.5°	89.5	147.2	198.8	197.3	197.3
85°	51.6	95.6	118.4	115.3	115.3
87.5°	19.7	39.5	42.5	42.5	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)