

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: P272108

Luminaire Tested: **24CZ2-60-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: P272108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

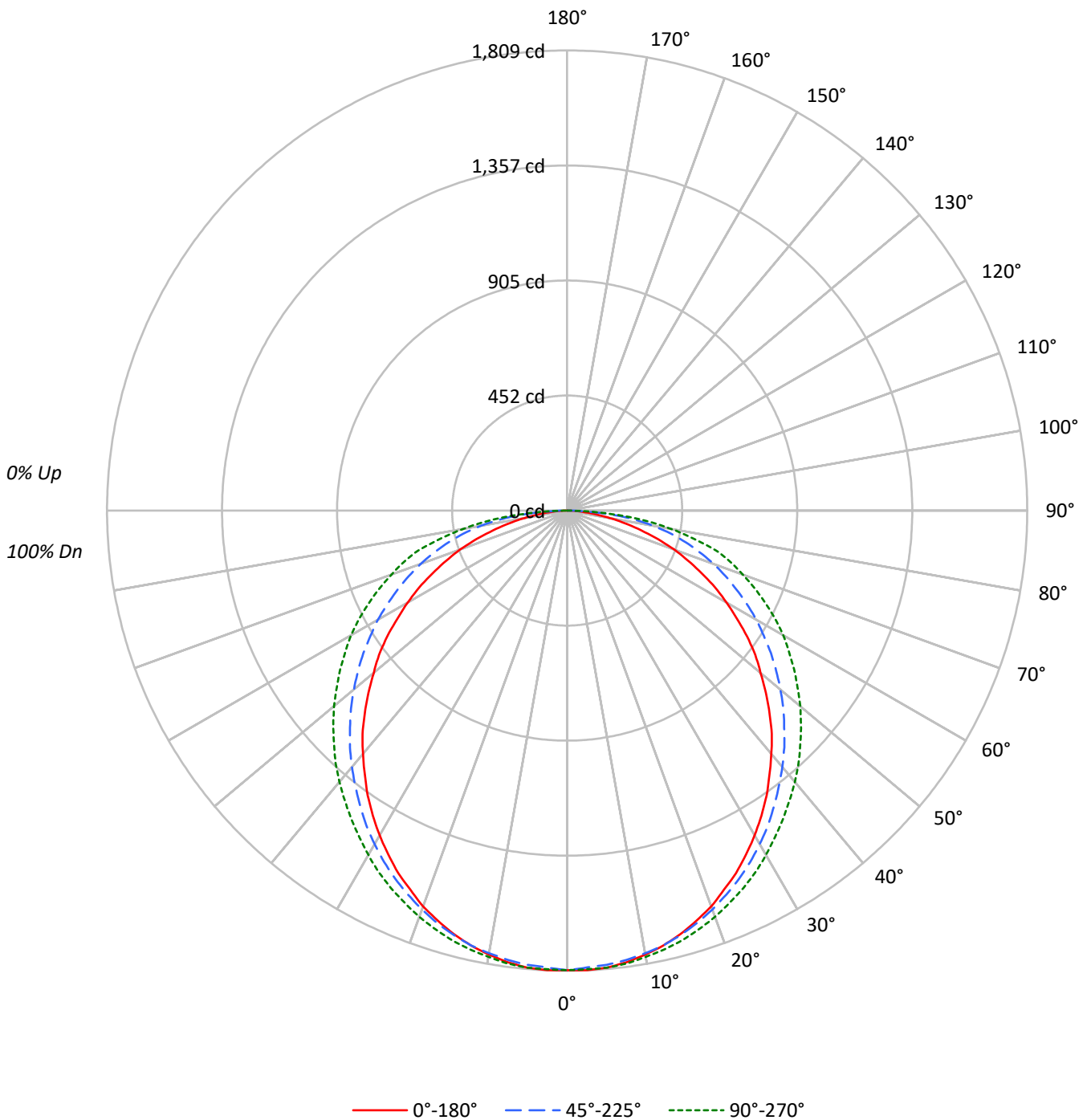
Lumens per Lamp: N/A
Luminaire Lumens: 5479.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.6
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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2431	2431	2431
5°	2436	2421	2436
10°	2422	2414	2434
15°	2400	2405	2436
20°	2371	2389	2434
25°	2334	2372	2432
30°	2291	2353	2429
35°	2245	2329	2430
40°	2194	2312	2446
45°	2141	2297	2466
50°	2078	2291	2504
55°	2026	2294	2554
60°	1947	2314	2641
65°	1858	2338	2737
70°	1759	2410	2889
75°	1569	2514	3157
80°	1338	2662	3226
85°	954	2638	3088



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	3.1
10°-20°	489.0	8.9
20°-30°	738.5	13.5
30°-40°	890.1	16.2
40°-50°	934.5	17.1
50°-60°	874.2	16.0
60°-70°	721.9	13.2
70°-80°	492.0	9.0
80°-90°	167.8	3.1
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°	1398.5	25.5
0°-40°	2288.6	41.8
0°-60°	4097.3	74.8
0°-90°	5479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5479.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1807	1807	1807	1807	1807	
5°	1803	1802	1792	1803	1803	171
15°	1723	1725	1727	1745	1749	486
25°	1572	1580	1598	1629	1638	723
35°	1367	1382	1418	1465	1480	854
45°	1125	1149	1207	1272	1296	868
55°	864	898	978	1058	1089	771
65°	584	633	734	827	860	579
75°	302	371	484	574	607	322
85°	62	122	171	193	200	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1806.9	1806.9	1806.9	1806.9	1806.9
2.5°	1808.7	1806.9	1797.8	1806.9	1805.1
5°	1803.3	1801.5	1792.4	1803.3	1803.3
7.5°	1790.6	1790.6	1781.5	1794.2	1796.0
10°	1772.4	1772.4	1766.9	1781.5	1781.5
12.5°	1750.6	1750.6	1750.6	1765.1	1766.9
15°	1723.3	1725.1	1726.9	1745.1	1748.8
17.5°	1690.6	1694.2	1699.7	1721.5	1725.1
20°	1656.0	1659.7	1668.8	1694.2	1699.7
22.5°	1612.4	1621.5	1634.2	1663.3	1668.8
25°	1572.4	1579.7	1597.9	1628.8	1637.9
27.5°	1523.3	1534.3	1557.9	1590.6	1603.3
30°	1474.3	1485.2	1514.3	1552.4	1563.3
32.5°	1421.5	1437.9	1468.8	1508.8	1521.5
35°	1367.0	1381.6	1417.9	1465.2	1479.7
37.5°	1307.0	1327.0	1367.0	1417.9	1436.1
40°	1248.9	1270.7	1316.1	1370.6	1392.5
42.5°	1190.7	1212.5	1263.4	1325.2	1347.0
45°	1125.2	1148.9	1207.0	1272.5	1296.1
47.5°	1059.8	1088.9	1152.5	1221.6	1247.0
50°	992.5	1025.3	1094.3	1167.0	1196.1
52.5°	932.5	963.5	1036.2	1114.3	1141.6
55°	863.5	898.0	978.0	1058.0	1088.9
57.5°	792.6	830.7	916.2	1003.4	1034.3
60°	723.5	765.3	859.8	947.1	981.6
62.5°	656.2	698.0	796.2	887.1	921.6
65°	583.5	632.6	734.4	827.1	859.8
67.5°	514.4	567.2	674.4	765.3	798.0
70°	447.2	498.1	612.6	701.7	734.4
72.5°	374.5	432.6	547.2	639.9	674.4
75°	301.8	370.8	483.5	574.4	607.2
77.5°	234.5	305.4	418.1	492.6	509.0
80°	172.7	245.4	343.6	396.3	416.3
82.5°	110.9	183.6	261.8	299.9	316.3
85°	61.8	121.8	170.9	192.7	200.0
87.5°	25.4	52.7	69.1	78.2	78.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)