

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: P272107

Luminaire Tested: **24CZ2-60-UNV-L940-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: P272107
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-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

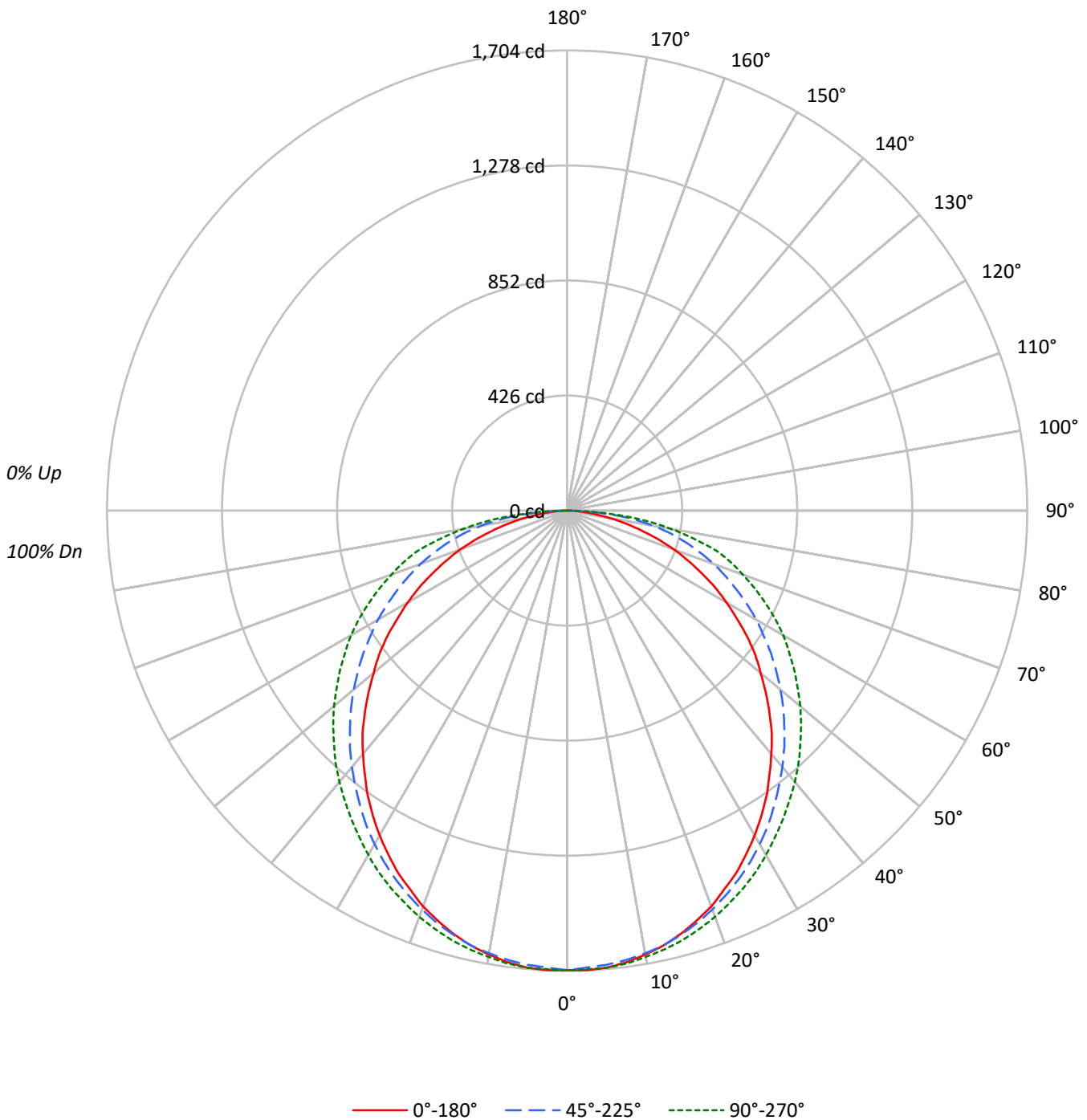
Lumens per Lamp: N/A
Luminaire Lumens: 5161.0 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2290	2290	2290
5°	2294	2280	2294
10°	2281	2274	2293
15°	2261	2266	2295
20°	2234	2251	2292
25°	2199	2234	2290
30°	2158	2216	2288
35°	2115	2194	2289
40°	2066	2177	2304
45°	2017	2163	2323
50°	1957	2158	2358
55°	1908	2161	2406
60°	1834	2179	2488
65°	1750	2202	2578
70°	1657	2270	2722
75°	1477	2368	2973
80°	1261	2507	3038
85°	898	2485	2908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.1	3.1
10°-20°	460.6	8.9
20°-30°	695.7	13.5
30°-40°	838.4	16.2
40°-50°	880.2	17.1
50°-60°	823.5	16.0
60°-70°	680.1	13.2
70°-80°	463.4	9.0
80°-90°	158.0	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°	1317.3	25.5
0°-40°	2155.8	41.8
0°-60°	3859.5	74.8
0°-90°	5161.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5161.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1702	1702	1702	1702	1702	
5°	1699	1697	1688	1699	1699	161
15°	1623	1625	1627	1644	1647	458
25°	1481	1488	1505	1534	1543	681
35°	1288	1301	1336	1380	1394	805
45°	1060	1082	1137	1199	1221	817
55°	813	846	921	997	1026	726
65°	550	596	692	779	810	545
75°	284	349	456	541	572	303
85°	58	115	161	182	188	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1702.1	1702.1	1702.1	1702.1	1702.1
2.5°	1703.8	1702.1	1693.5	1702.1	1700.3
5°	1698.6	1696.9	1688.4	1698.6	1698.6
7.5°	1686.6	1686.6	1678.1	1690.1	1691.8
10°	1669.5	1669.5	1664.4	1678.1	1678.1
12.5°	1649.0	1649.0	1649.0	1662.7	1664.4
15°	1623.3	1625.0	1626.7	1643.8	1647.3
17.5°	1592.5	1595.9	1601.0	1621.6	1625.0
20°	1559.9	1563.4	1571.9	1595.9	1601.0
22.5°	1518.8	1527.4	1539.4	1566.8	1571.9
25°	1481.2	1488.0	1505.1	1534.2	1542.8
27.5°	1434.9	1445.2	1467.5	1498.3	1510.3
30°	1388.7	1399.0	1426.4	1462.3	1472.6
32.5°	1339.0	1354.5	1383.6	1421.2	1433.2
35°	1287.7	1301.4	1335.6	1380.1	1393.8
37.5°	1231.2	1250.0	1287.7	1335.6	1352.7
40°	1176.4	1196.9	1239.7	1291.1	1311.6
42.5°	1121.6	1142.1	1190.1	1248.3	1268.8
45°	1059.9	1082.2	1137.0	1198.6	1220.9
47.5°	998.3	1025.7	1085.6	1150.7	1174.7
50°	934.9	965.8	1030.8	1099.3	1126.7
52.5°	878.4	907.5	976.0	1049.7	1075.3
55°	813.4	845.9	921.2	996.6	1025.7
57.5°	746.6	782.5	863.0	945.2	974.3
60°	681.5	720.9	809.9	892.1	924.7
62.5°	618.2	657.5	750.0	835.6	868.1
65°	549.7	595.9	691.8	779.1	809.9
67.5°	484.6	534.2	635.3	720.9	751.7
70°	421.2	469.2	577.1	661.0	691.8
72.5°	352.7	407.5	515.4	602.7	635.3
75°	284.2	349.3	455.5	541.1	571.9
77.5°	220.9	287.7	393.8	464.0	479.5
80°	162.7	231.2	323.6	373.3	392.1
82.5°	104.5	172.9	246.6	282.5	297.9
85°	58.2	114.7	161.0	181.5	188.4
87.5°	24.0	49.7	65.1	73.6	73.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)