

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: P473867

Luminaire Tested: **24CZ2-60-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473867  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

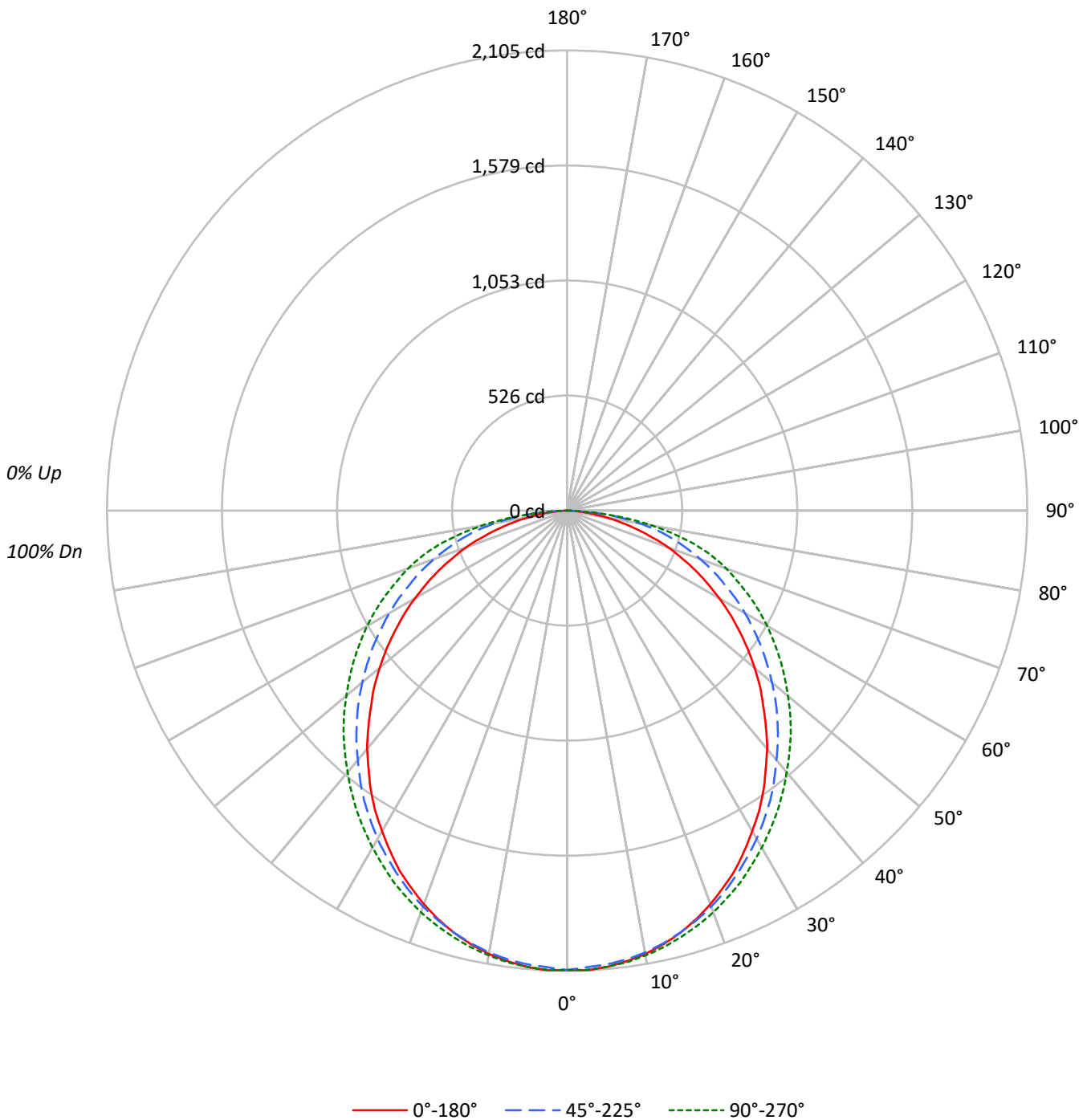
Lumens per Lamp: N/A  
Luminaire Lumens: 6082.3 lumens  
Efficiency: N/A  
Efficacy: 131.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.3  
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	2828	2828	2828
5°	2829	2815	2829
10°	2814	2804	2823
15°	2785	2784	2811
20°	2744	2760	2800
25°	2696	2726	2786
30°	2630	2694	2766
35°	2571	2660	2755
40°	2501	2617	2744
45°	2416	2590	2752
50°	2343	2561	2760
55°	2257	2542	2791
60°	2163	2531	2842
65°	2061	2521	2916
70°	1941	2547	3050
75°	1706	2600	3172
80°	1423	2619	3061
85°	1016	2245	2276



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.7	3.3
10°-20°	565.9	9.3
20°-30°	849.0	14.0
30°-40°	1013.6	16.7
40°-50°	1049.9	17.3
50°-60°	966.6	15.9
60°-70°	779.7	12.8
70°-80°	509.4	8.4
80°-90°	149.4	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°	1613.6	26.5
0°-40°	2627.3	43.2
0°-60°	4643.8	76.3
0°-90°	6082.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6082.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2095	2093	2084	2096	2095	199
15°	2000	2000	1999	2018	2018	563
25°	1816	1820	1836	1870	1877	835
35°	1565	1579	1619	1664	1677	978
45°	1270	1301	1361	1422	1446	981
55°	962	1003	1084	1163	1190	861
65°	648	692	792	882	916	640
75°	328	390	500	587	610	350
85°	66	114	145	154	147	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2101.8	2101.8	2101.8	2101.8	2101.8
2.5°	2104.8	2101.8	2091.0	2103.8	2102.8
5°	2094.9	2093.0	2084.1	2095.9	2094.9
7.5°	2079.2	2078.2	2071.4	2084.1	2084.1
10°	2059.6	2057.6	2052.7	2067.4	2066.4
12.5°	2032.1	2031.1	2028.1	2045.8	2044.8
15°	1999.6	1999.6	1998.6	2018.3	2018.3
17.5°	1960.3	1961.3	1965.2	1987.8	1988.8
20°	1916.1	1920.0	1927.9	1953.4	1955.4
22.5°	1866.0	1873.9	1884.7	1913.2	1916.1
25°	1815.9	1819.8	1836.5	1869.9	1876.8
27.5°	1755.0	1764.8	1786.4	1820.8	1827.7
30°	1693.1	1706.8	1734.3	1769.7	1780.5
32.5°	1632.1	1643.9	1676.3	1716.6	1729.4
35°	1565.3	1579.1	1619.4	1663.6	1677.3
37.5°	1491.6	1513.2	1555.5	1606.6	1621.3
40°	1423.8	1443.5	1489.7	1546.6	1562.4
42.5°	1346.2	1370.8	1426.8	1484.7	1504.4
45°	1269.5	1301.0	1360.9	1421.8	1446.4
47.5°	1197.8	1223.4	1294.1	1362.9	1384.5
50°	1119.2	1148.7	1223.4	1296.1	1318.7
52.5°	1041.6	1077.0	1152.6	1229.3	1253.8
55°	962.0	1003.3	1083.8	1163.4	1190.0
57.5°	885.3	926.6	1010.1	1094.6	1122.2
60°	803.8	848.0	940.4	1021.9	1056.3
62.5°	725.2	769.4	866.7	955.1	987.5
65°	647.5	691.8	792.0	882.4	915.8
67.5°	567.0	615.1	722.2	809.7	842.1
70°	493.3	539.5	647.5	740.9	775.3
72.5°	408.8	463.8	573.8	666.2	698.6
75°	328.2	390.1	500.2	586.6	610.2
77.5°	253.5	315.4	425.5	490.3	505.1
80°	183.7	246.6	338.0	383.2	395.0
82.5°	118.9	183.7	244.7	275.1	279.1
85°	65.8	114.0	145.4	154.3	147.4
87.5°	23.6	43.2	42.3	34.4	27.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)