

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: P473817

Luminaire Tested: **24CZ2-60-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473817  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

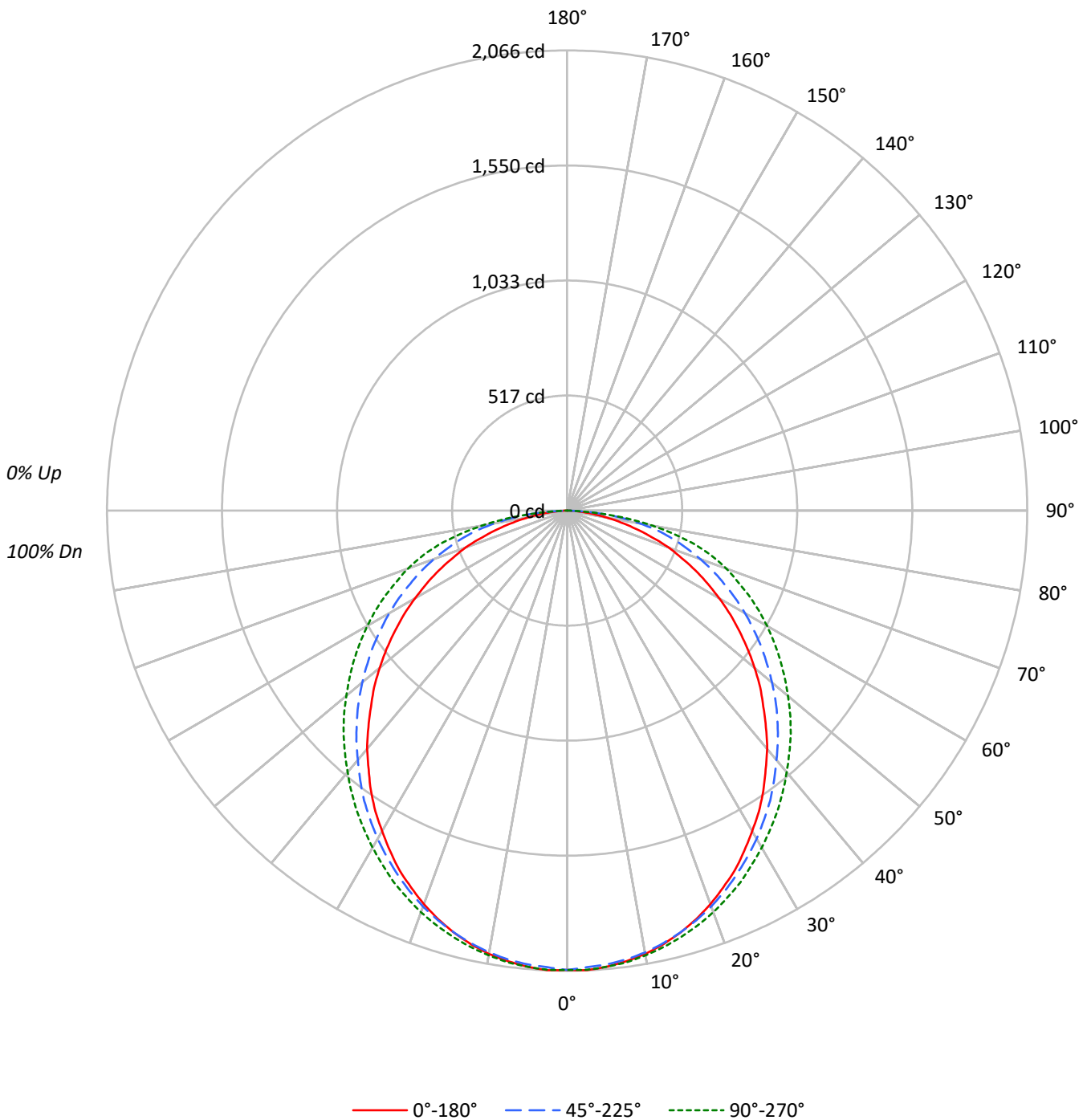
Lumens per Lamp: N/A  
Luminaire Lumens: 5968.9 lumens  
Efficiency: N/A  
Efficacy: 128.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	2775	2775	2775
5°	2777	2762	2777
10°	2761	2752	2771
15°	2733	2732	2759
20°	2692	2709	2748
25°	2646	2676	2734
30°	2581	2644	2715
35°	2523	2610	2704
40°	2454	2568	2693
45°	2371	2541	2701
50°	2299	2513	2709
55°	2214	2495	2739
60°	2123	2483	2789
65°	2023	2474	2861
70°	1904	2500	2993
75°	1674	2551	3113
80°	1397	2570	3003
85°	997	2203	2232



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.0	3.3
10°-20°	555.4	9.3
20°-30°	833.2	14.0
30°-40°	994.7	16.7
40°-50°	1030.4	17.3
50°-60°	948.5	15.9
60°-70°	765.2	12.8
70°-80°	499.9	8.4
80°-90°	146.6	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°	1583.6	26.5
0°-40°	2578.3	43.2
0°-60°	4557.2	76.3
0°-90°	5968.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5968.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2063	2063	2063	2063	2063	
5°	2056	2054	2045	2057	2056	195
15°	1962	1962	1961	1981	1981	553
25°	1782	1786	1802	1835	1842	819
35°	1536	1550	1589	1633	1646	960
45°	1246	1277	1336	1395	1419	963
55°	944	984	1064	1142	1168	845
65°	636	679	777	866	899	628
75°	322	383	491	576	599	344
85°	65	112	143	151	145	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2062.6	2062.6	2062.6	2062.6	2062.6
2.5°	2065.5	2062.6	2052.0	2064.6	2063.6
5°	2055.9	2054.0	2045.3	2056.8	2055.9
7.5°	2040.5	2039.5	2032.7	2045.3	2045.3
10°	2021.2	2019.2	2014.4	2028.9	2027.9
12.5°	1994.2	1993.2	1990.3	2007.7	2006.7
15°	1962.3	1962.3	1961.4	1980.7	1980.7
17.5°	1923.8	1924.7	1928.6	1950.8	1951.7
20°	1880.4	1884.2	1892.0	1917.0	1919.0
22.5°	1831.2	1838.9	1849.5	1877.5	1880.4
25°	1782.0	1785.9	1802.3	1835.1	1841.8
27.5°	1722.2	1731.9	1753.1	1786.8	1793.6
30°	1661.5	1675.0	1702.0	1736.7	1747.3
32.5°	1601.7	1613.3	1645.1	1684.6	1697.2
35°	1536.1	1549.6	1589.2	1632.6	1646.1
37.5°	1463.8	1485.0	1526.5	1576.6	1591.1
40°	1397.3	1416.6	1461.9	1517.8	1533.2
42.5°	1321.1	1345.2	1400.2	1457.1	1476.3
45°	1245.9	1276.7	1335.6	1395.3	1419.4
47.5°	1175.5	1200.6	1270.0	1337.5	1358.7
50°	1098.3	1127.3	1200.6	1271.9	1294.1
52.5°	1022.2	1056.9	1131.1	1206.3	1230.4
55°	944.0	984.5	1063.6	1141.7	1167.8
57.5°	868.8	909.3	991.3	1074.2	1101.2
60°	788.8	832.2	922.8	1002.9	1036.6
62.5°	711.7	755.0	850.5	937.3	969.1
65°	635.5	678.9	777.2	865.9	898.7
67.5°	556.4	603.7	708.8	794.6	826.4
70°	484.1	529.4	635.5	727.1	760.8
72.5°	401.1	455.1	563.1	653.8	685.6
75°	322.1	382.8	490.8	575.7	598.8
77.5°	248.8	309.5	417.5	481.2	495.6
80°	180.3	242.0	331.7	376.1	387.6
82.5°	116.7	180.3	240.1	270.0	273.9
85°	64.6	111.9	142.7	151.4	144.6
87.5°	23.1	42.4	41.5	33.8	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)