

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: P473862

Luminaire Tested: **24CZ2-35-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473862  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

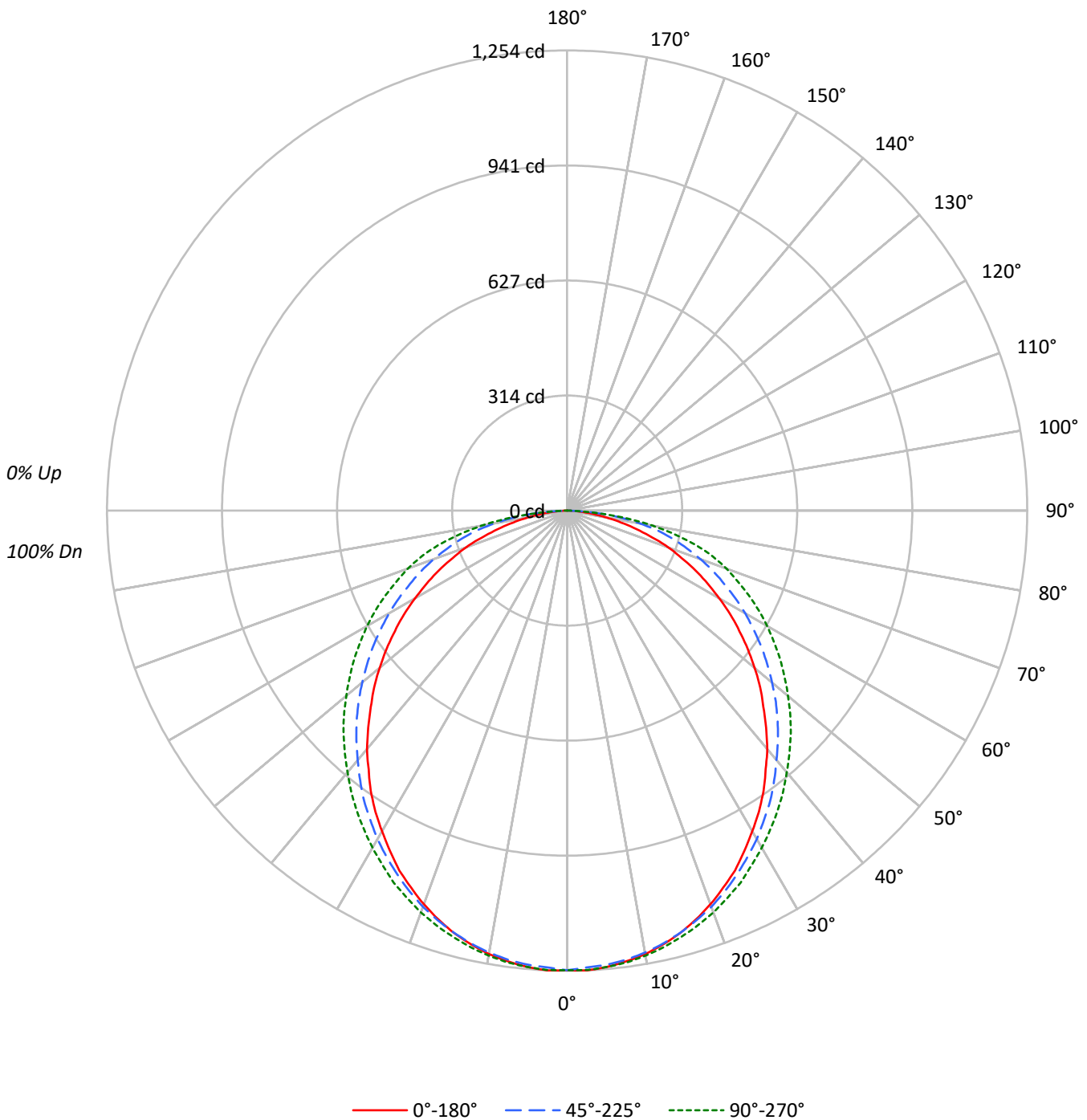
Lumens per Lamp: N/A  
Luminaire Lumens: 3624.6 lumens  
Efficiency: N/A  
Efficacy: 131.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
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°	1685	1685	1685
5°	1686	1677	1686
10°	1677	1671	1682
15°	1660	1659	1675
20°	1635	1645	1669
25°	1606	1625	1660
30°	1567	1606	1648
35°	1532	1585	1642
40°	1490	1559	1635
45°	1439	1543	1640
50°	1396	1526	1645
55°	1345	1515	1663
60°	1289	1508	1694
65°	1229	1503	1737
70°	1156	1518	1817
75°	1017	1549	1890
80°	848	1561	1824
85°	605	1338	1355



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.4	3.3
10°-20°	337.3	9.3
20°-30°	505.9	14.0
30°-40°	604.0	16.7
40°-50°	625.7	17.3
50°-60°	576.0	15.9
60°-70°	464.6	12.8
70°-80°	303.6	8.4
80°-90°	89.0	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°	961.6	26.5
0°-40°	1565.6	43.2
0°-60°	2767.3	76.3
0°-90°	3624.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3624.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1248	1247	1242	1249	1248	118
15°	1192	1192	1191	1203	1203	336
25°	1082	1084	1094	1114	1118	498
35°	933	941	965	991	1000	583
45°	756	775	811	847	862	585
55°	573	598	646	693	709	513
65°	386	412	472	526	546	382
75°	196	232	298	350	364	209
85°	39	68	87	92	88	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1252.5	1252.5	1252.5	1252.5	1252.5
2.5°	1254.3	1252.5	1246.1	1253.7	1253.1
5°	1248.4	1247.2	1242.0	1249.0	1248.4
7.5°	1239.0	1238.4	1234.3	1242.0	1242.0
10°	1227.3	1226.2	1223.2	1232.0	1231.4
12.5°	1210.9	1210.3	1208.6	1219.1	1218.5
15°	1191.6	1191.6	1191.0	1202.7	1202.7
17.5°	1168.2	1168.8	1171.1	1184.6	1185.2
20°	1141.8	1144.2	1148.9	1164.1	1165.3
22.5°	1112.0	1116.7	1123.1	1140.1	1141.8
25°	1082.1	1084.4	1094.4	1114.3	1118.4
27.5°	1045.8	1051.7	1064.5	1085.0	1089.1
30°	1008.9	1017.1	1033.5	1054.6	1061.0
32.5°	972.6	979.6	999.0	1023.0	1030.6
35°	932.8	941.0	965.0	991.3	999.5
37.5°	888.9	901.8	926.9	957.4	966.2
40°	848.5	860.2	887.7	921.7	931.0
42.5°	802.2	816.8	850.2	884.8	896.5
45°	756.5	775.3	811.0	847.3	861.9
47.5°	713.8	729.0	771.2	812.2	825.0
50°	666.9	684.5	729.0	772.3	785.8
52.5°	620.7	641.8	686.9	732.5	747.2
55°	573.3	597.9	645.9	693.3	709.1
57.5°	527.6	552.2	602.0	652.3	668.7
60°	479.0	505.3	560.4	609.0	629.5
62.5°	432.1	458.5	516.5	569.2	588.5
65°	385.9	412.2	472.0	525.8	545.7
67.5°	337.9	366.6	430.4	482.5	501.8
70°	293.9	321.5	385.9	441.5	462.0
72.5°	243.6	276.4	342.0	397.0	416.3
75°	195.6	232.5	298.0	349.6	363.6
77.5°	151.1	188.0	253.5	292.2	301.0
80°	109.5	147.0	201.4	228.4	235.4
82.5°	70.9	109.5	145.8	164.0	166.3
85°	39.2	67.9	86.7	91.9	87.8
87.5°	14.1	25.8	25.2	20.5	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)